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**Department of War
Fiscal Year (FY) 2027 Budget Estimates**

April 2026



Air Force

Justification Book Volume 1 of 1

Research, Development, Test & Evaluation, Space Force

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Fiscal Year (FY) 2027 President's Budget RDT&E Descriptive Summaries Budget Activities April 2026

INTRODUCTION AND EXPLANATION OF CONTENTS

GENERAL

- This document has been prepared to provide information on the United States Space Force (USSF) Research, Development, Test and Evaluation (RDT&E) program elements and projects in the FY27 President's Budget (PB).
 - All exhibits in this document have been assembled in accordance with DoD 7000.14R, Financial Management Regulation, Volume 2B, Chapter 5.
 - Other comments on exhibit contents in this document:
 - Exhibits R-2/2a and R-3 provide narrative information for all RDT&E program elements and projects within the USSF FY 2027 RDT&E program with the exception of classified program elements. The format and contents of this document are in accordance to the guidelines and requirements of the Congressional committees in so far as possible.
 - The “Other Program Funding Summary” portion of the R-2 includes, in addition to RDT&E funds, Procurement funds and quantities, Military Construction appropriation funds on specific development programs, Operations and Maintenance appropriation funds where they are essential to the development effort described, and where appropriate, Department of Energy (DOE) costs.

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- All exhibits contained in Volume I are unclassified. Classified exhibits are not included in the submission due to the level of security classification and necessity of special security clearances.

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Department Of War
FY 2027 President's Budget
Exhibit R-1
Total Obligation Authority
(Dollars in Thousands)

	FY 2025	FY 2026	FY 2026 PL	FY 2026	FY 2027	FY 2027	FY 2027
	Actuals	Discretionary	119-21 Spend	Total	Discretionary	Mandatory	Total
<u>Appropriation</u>		Enacted	Plan		Request	Request	
Research, Development, Test, and Evaluation, Space Force	18,461,132	14,777,160	5,536,072	20,313,232	38,373,489	2,288,397	40,661,886
Total Research, Development, Test, & Evaluation	18,461,132	14,777,160	5,536,072	20,313,232	38,373,489	2,288,397	40,661,886

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Department of the Air Force
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Exhibit R-1
Total Obligation Authority
(Dollars in Thousands)

Appropriation: 3620F Research, Development, Test, and Evaluation, Space Force

Line No	Program Element Number	Item	Act	FY 2025 Actuals	FY 2026 Discretionary Enacted	FY 2026 PL 119-21 Spend Plan	FY 2026 Total	FY 2027 Discretionary Request	FY 2027 Mandatory Request	FY 2027 Total
1	0601102SF	Defense Research Sciences	01	19,949	21,999		21,999	20,833		20,833
2	0601103SF	University Research Initiatives	01	13,604	14,330		14,330	14,426		14,426
		Basic research		33,553	36,329		36,329	35,259		35,259
3	1202212SF	Defense Laboratories R&D Projects	02	18,701						
4	1206601SF	Space Technology	02	242,170	276,981		276,981	234,190		234,190
		Applied research		260,871	276,981		276,981	234,190		234,190
5	1206310SF	Space Science and Technology Research and Development	03	440,701	495,523		495,523	313,738		313,738
6	1206616SF	Space Advanced Technology Development/Demo	03	245,989	155,341		155,341	126,427		126,427
		Advanced technology development		686,690	650,864		650,864	440,165		440,165
7	0604002SF	Space Force Weather Services Research	04	836	843		843	3,581		3,581
8	1203010SF	Space Force IT, Data Analytics, Digital Solutions	04	83,798	99,570		99,570	45,971		45,971
9	1203164SF	NAVSTAR Global Positioning System (User Equipment) (SPACE)	04	260,198	152,003		152,003			
10	1203622SF	Space Warfighting Analysis	04	123,208	124,409		124,409	128,546		128,546
11	1203710SF	EO/IR Weather Systems	04	66,967	69,777		69,777	144,434		144,434
12	1203955SF	Space Access, Mobility & Logistics (SAML)	04	23,158	29,278		29,278	9,724		9,724
13	1206410SF	Space Technology Development and Prototyping	04	1,551,293	1,226,643		1,226,643	1,246,316		1,246,316
14	1206427SF	Space Systems Prototype Transitions (SSPT)	04	112,132	106,869		106,869	87,730		87,730
15	1206438SF	Space Control Technology	04	60,027	59,148	9,010	68,158	62,031		62,031
16	1206458SF	Tech Transition (Space)	04	196,537	313,678		313,678	241,056		241,056
17	1206617SF	Operational Test & Training Infrastructure	04					265,215		265,215
18	1206730SF	Space Security and Defense Program	04	53,199	45,200		45,200	102,140		102,140
19	1206760SF	Protected Tactical Enterprise Service (PTES)	04	74,849	96,615		96,615	155,885		155,885
20	1206761SF	Protected Tactical Service (PTS)	04	390,585	428,697		428,697	449,434		449,434

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Total Obligation Authority
(Dollars in Thousands)

Appropriation: 3620F Research, Development, Test, and Evaluation, Space Force

Line No	Program Element Number	Item	Act	FY 2025 Actuals	FY 2026 Discretionary Enacted	FY 2026 PL 119-21 Spend Plan	FY 2026 Total	FY 2027 Discretionary Request	FY 2027 Mandatory Request	FY 2027 Total
21	1206855SF	Evolved Strategic SATCOM (ESS)	04	876,055	1,111,595		1,111,595			
22	1206857SF	Space Rapid Capabilities Office	04	104,661	15,582		15,582	9,950		9,950
23	1206862SF	Tactically Responsive Space	04	43,635	29,800	135,000	164,800	86,306		86,306
Advanced component development and prototypes				4,021,138	3,909,707	144,010	4,053,717	3,038,319		3,038,319
24	1203269SF	GPS III Follow-On (GPS IIIF)	05	233,109	196,152		196,152	123,793		123,793
25	1206421SF	Counterspace Systems	05	33,776	30,820		30,820	43,702		43,702
26	1206422SF	Weather System Follow-on	05	47,488	37,925		37,925	34,756		34,756
27	1206425SF	Space Situation Awareness Systems	05	444,500		528,000	528,000	1,317,841		1,317,841
28	1206431SF	Advanced EHF MILSATCOM (SPACE)	05	981	13,598		13,598	10,157		10,157
29	1206433SF	Wideband Global SATCOM (SPACE)	05		19,296		19,296			
30	1206440SF	Next-Gen OPIR -- Ground	05	500,395	348,330		348,330	761,425		761,425
31	1206442SF	Next Generation OPIR	05	190,951	189,621		189,621	209,851		209,851
32	1206443SF	Next-Gen OPIR -- GEO	05	458,727	422,173		422,173	485,703		485,703
33	1206444SF	Next-Gen OPIR -- Polar	05	769,478	436,521		436,521			
34	1206445SF	Commercial SATCOM (COMSATCOM) Integration	05	124,117	127,261		127,261	68,554		68,554
35	1206446SF	Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)	05	1,697,821	1,695,454		1,695,454	3,564,176		3,564,176
36	1206447SF	Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)	05	756,349	675,848		675,848	1,413,662		1,413,662
37	1206771SF	Commercial Services	05	44,699	168,026		168,026	23,752		23,752
38	1206853SF	National Security Space Launch Program (SPACE) - EMD	05	101,138	6,540		6,540	2,748		2,748
39	1206855SF	Evolved Strategic SATCOM (ESS)	05					1,838,718		1,838,718
System development and demonstration				5,403,529	4,367,565	528,000	4,895,565	9,898,838		9,898,838
40	0909999SF	Financing for Cancelled Account Adjustments	06	161						
41	1205502SF	Small Business Innovation Research	06	448,511						
42	1206392SF	ACQ Workforce - Space & Missile Systems	06	263,288	269,162		269,162	260,731		260,731

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FY 2027 President's Budget
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Total Obligation Authority
(Dollars in Thousands)

Appropriation: 3620F Research, Development, Test, and Evaluation, Space Force

Line No	Program Element Number	Item	Act	FY 2025 Actuals	FY 2026 Discretionary Enacted	FY 2026 PL 119-21 Spend Plan	FY 2026 Total	FY 2027 Discretionary Request	FY 2027 Mandatory Request	FY 2027 Total
43	1206398SF	Space & Missile Systems Center - MHA	06	12,867	15,356		15,356	13,717		13,717
44	1206399SF	SSC Enterprise Engineering & Integration	06		109,161		109,161	230,848		230,848
45	1206759SF	Major T&E Investment - Space	06	216,282	195,977		195,977	65,731		65,731
46	1206860SF	Rocket Systems Launch Program (SPACE)	06	34,761	65,031	60,000	125,031	19,965		19,965
47	1206864SF	Space Test Program (STP)	06	29,568	28,404		28,404	29,598		29,598
	Management support			1,005,438	683,091	60,000	743,091	620,590		620,590
49	1201212SF	Service-Wide Support (Not Otherwise Accounted For)	07		9,073		9,073	28,425		28,425
50	1203001SF	Family of Advanced BLoS Terminals (FAB-T)	07	2,582	303		303			
51	1203040SF	DCO-Space	07	101,374	97,997		97,997	481,251		481,251
52	1203109SF	Narrowband Satellite Communications	07	194,808	415,402		415,402	855,860		855,860
53	1203110SF	Satellite Control Network (SPACE)	07	78,966	92,459	18,000	110,459	92,537		92,537
54	1203154SF	Long Range Kill Chains	07	250,210		420,700	420,700	1,392,025		1,392,025
55	1203155SF	Space-Based Moving Target Indicator	07	256,000	719,384	135,000	854,384	253,355	803,000	1,056,355
56	1203156SF	Data Transport and Networking	07					164,974		164,974
57	1203165SF	NAVSTAR Global Positioning System (Space and Control Segments)	07					115,000		115,000
58	1203173SF	Space and Missile Test and Evaluation Center	07	20,433	21,862		21,862	22,487		22,487
59	1203174SF	Space Innovation, Integration and Rapid Technology Development	07	47,216	81,046		81,046	10,538		10,538
60	1203182SF	Spacelift Range System (SPACE)	07	43,933	54,300		54,300	56,781		56,781
61	1203330SF	Space Superiority ISR	07	28,227	24,411		24,411	64,290		64,290
62	1203636SF	Space Data Network	07						1,485,397	1,485,397
63	1203873SF	Ballistic Missile Defense Radars	07	11,620	5,000		5,000			
64	1203906SF	NCMC - ITW/AA System	07	23,962	33,060		33,060	25,092		25,092
65	1203909SF	Ballistic Missile Early Warning System (BMEWS)	07			73,700	73,700	128,630		128,630

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FY 2027 President's Budget
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Total Obligation Authority
(Dollars in Thousands)

Appropriation: 3620F Research, Development, Test, and Evaluation, Space Force

Line No	Program Element Number	Item	Act	FY 2025 Actuals	FY 2026 Discretionary Enacted	FY 2026 PL 119-21 Spend Plan	FY 2026 Total	FY 2027 Discretionary Request	FY 2027 Mandatory Request	FY 2027 Total
66	1203913SF	NUDET Detection System (SPACE)	07	83,426	96,836		96,836	114,004		114,004
67	1203940SF	Space Situation Awareness Operations	07	111,855	179,365	31,100	210,465	294,902		294,902
68	1206423SF	Global Positioning System III - Operational Control Segment	07	263,380	260,168		260,168	332,313		332,313
72	1206772SF	Rapid Resilient Command and Control (R2C2)	07		118,034		118,034	109,190		109,190
73	1207440SF	Automate Sat C2	07					1,524,300		1,524,300
74	1208053SF	Joint Tactical Ground System	07	6,937	6,698		6,698	92,731		92,731
999	999999999	Classified Programs	07	5,384,046	2,435,234	4,125,562	6,560,796	17,330,381		17,330,381
		Operational system development		6,908,975	4,650,632	4,804,062	9,454,694	23,489,066	2,288,397	25,777,463
75	1208248SF	Space Domain Awareness/Planning/Tasking SW	08	140,938	201,991		201,991	617,062		617,062
		Software and digital technology pilot programs		140,938	201,991		201,991	617,062		617,062
Total Research, Development, Test, and Evaluation, Space Force				18,461,132	14,777,160	5,536,072	20,313,232	38,373,489	2,288,397	40,661,886

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11	04	1203710SF	EO/IR Weather Systems.....	Volume 1 - 139
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RDTE, Space Force												Date: April 2026				
Department of the Air Force TOTAL CIVILIAN PERSONNEL COSTS OP-8B: OP-8 (PB) FY 2027 President's Budget Submission (FY 2025)																
	(\$ in Thousands)											Rates				
	a Begin Strength	b End Strength	c FTEs	d Basic Comp	e Overtime Pay	f Holiday Pay	g Other O.C.11	e + f + g h Total Variables	d + h i Comp O.C.11	i Benefits O.C.12/13	i + j k Comp & Benefits	d/c l Basic Comp	i/c m Total Comp	k/c n Comp & Benefits	h/d o % BC Variables	j/d p % BC Benefits
Direct Funded Personnel (includes OC 13)	2,283	2,280	2,165	277,350	0	0	0	0	277,350	102,778	380,128	\$128,106	\$128,106	\$175,579	0.0%	37.1%
D1. US Direct Hire (USDH)	2,283	2,280	2,165	277,350	-	-	-	-	277,350	102,778	380,128	\$128,106	\$128,106	\$175,579	0.0%	37.1%
D1a. Senior Executive Schedule	8	8	8	1,440	-	-	-	-	1,440	518	1,958	\$180,000	\$180,000	\$244,750	0.0%	36.0%
D1b. General Schedule	2,275	2,272	2,157	275,910	-	-	-	-	275,910	102,260	378,170	\$127,914	\$127,914	\$175,322	0.0%	37.1%
D1c. Special Schedule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D1d. Wage System	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D1e. Highly Qualified Experts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D2. Direct Hire Program Foreign Nationals (DHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D3. Total Direct Hire	2,283	2,280	2,165	277,350	-	-	-	-	277,350	102,778	380,128	\$128,106	\$128,106	\$175,579	0.0%	37.1%
D4. Indirect Hire Foreign Nationals (IHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal - Direct Funded (excludes OC 13)	2,283	2,280	2,165	277,350	-	-	-	-	277,350	102,778	380,128	\$128,106	\$128,106	\$175,579	0.0%	37.1%
D5. Other Object Class 13 Benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D5a. USDH - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D5b. DHFN - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D5c. Voluntary Separation Incentive Pay (VSIP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D5d. Foreign National Separation Liability Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reimbursable Funded Personnel (includes OC 13)	37	37	37	9,260	0	0	0	0	9,260	0	9,260	\$250,270	\$250,270	\$250,270	0.0%	0.0%
R1. US Direct Hire (USDH)	37	37	37	9,260	-	-	-	-	9,260	-	9,260	\$250,270	\$250,270	\$250,270	0.0%	0.0%
R1a. Senior Executive Schedule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1b. General Schedule	37	37	37	9,260	-	-	-	-	9,260	-	9,260	\$250,270	\$250,270	\$250,270	0.0%	0.0%
R1c. Special Schedule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1d. Wage System	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1e. Highly Qualified Experts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R2. Direct Hire Program Foreign Nationals (DHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R3. Total Direct Hire	37	37	37	9,260	-	-	-	-	9,260	-	9,260	\$250,270	\$250,270	\$250,270	0.0%	0.0%
R4. Indirect Hire Foreign Nationals (IHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal - Reimbursable Funded (excludes OC 13)	37	37	37	9,260	-	-	-	-	9,260	-	9,260	\$250,270	\$250,270	\$250,270	0.0%	0.0%
R5. Other Object Class 13 Benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R5a. USDH - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R5b. DHFN - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R5c. Voluntary Separation Incentive Pay (VSIP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R5d. Foreign National Separation Liability Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Personnel (includes OC 13)	2,320	2,317	2,202	286,610	0	0	0	0	286,610	102,778	389,388	\$130,159	\$130,159	\$176,834	0.0%	35.9%
T1. US Direct Hire (USDH)	2,320	2,317	2,202	286,610	-	-	-	-	286,610	102,778	389,388	\$130,159	\$130,159	\$176,834	0.0%	35.9%
T1a. Senior Executive Schedule	8	8	8	1,440	0	0	0	0	1,440	518	1,958	\$180,000	\$180,000	\$244,750	0.0%	36.0%
T1b. General Schedule	2,312	2,309	2,194	285,170	0	0	0	0	285,170	102,260	387,430	\$129,977	\$129,977	\$176,586	0.0%	35.9%
T1c. Special Schedule	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T1d. Wage System	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T1e. Highly Qualified Experts	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T2. Direct Hire Program Foreign Nationals (DHFN)	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T3. Total Direct Hire	2,320	2,317	2,202	286,610	-	-	-	-	286,610	102,778	389,388	\$130,159	\$130,159	\$176,834	0.0%	35.9%
T4. Indirect Hire Foreign Nationals (IHFN)	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
Subtotal - Total Funded (excludes OC 13)	2,320	2,317	2,202	286,610	-	-	-	-	286,610	102,778	389,388	\$130,159	\$130,159	\$176,834	0.0%	35.9%
T5. Other Object Class 13 Benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5a. USDH - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5b. DHFN - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5c. Voluntary Separation Incentive Pay (VSIP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

RDTE, Space Force												Date: April 2026				
Department of the Air Force TOTAL CIVILIAN PERSONNEL COSTS OP-8B: OP-8 (PB) FY 2027 President's Budget Submission (FY 2026)																
	(\$ in Thousands)											Rates				
	a Begin Strength	b End Strength	c FTEs	d Basic Comp	e Overtime Pay	f Holiday Pay	g Other O.C.11	e + f + g h Total Variables	d + h i Comp O.C.11	i Benefits O.C.12/13	i + j k Comp & Benefits	d/c l Basic Comp	i/c m Total Comp	k/c n Comp & Benefits	h/d o % BC Variables	j/d p % BC Benefits
Direct Funded Personnel (includes OC 13)	2,280	2,129	2,129	314,680	0	0	0	0	314,680	94,404	409,084	\$147,806	\$147,806	\$192,148	0.0%	30.0%
D1. US Direct Hire (USDH)	2,280	2,129	2,129	314,680	-	-	-	-	314,680	94,404	409,084	\$147,806	\$147,806	\$192,148	0.0%	30.0%
D1a. Senior Executive Schedule	8	8	8	1,440					1,440	518	1,958	\$180,000	\$180,000	\$244,750	0.0%	36.0%
D1b. General Schedule	2,272	2,121	2,121	313,240					313,240	93,886	407,126	\$147,685	\$147,685	\$191,950	0.0%	30.0%
D1c. Special Schedule	-								-	-	-	-	-	-	-	-
D1d. Wage System	-								-	-	-	-	-	-	-	-
D1e. Highly Qualified Experts	-								-	-	-	-	-	-	-	-
D2. Direct Hire Program Foreign Nationals (DHFN)	-								-	-	-	-	-	-	-	-
D3. Total Direct Hire	2,280	2,129	2,129	314,680	-	-	-	-	314,680	94,404	409,084	\$147,806	\$147,806	\$192,148	0.0%	30.0%
D4. Indirect Hire Foreign Nationals (IHFN)	-								-	-	-	-	-	-	-	-
Subtotal - Direct Funded (excludes OC 13)	2,280	2,129	2,129	314,680	-	-	-	-	314,680	94,404	409,084	\$147,806	\$147,806	\$192,148	0.0%	30.0%
D5. Other Object Class 13 Benefits											-					
D5a. USDH - Benefits for Former Employees											-					
D5b. DHFN - Benefits for Former Employees											-					
D5c. Voluntary Separation Incentive Pay (VSIP)											-					
D5d. Foreign National Separation Liability Accrual											-					
Reimbursable Funded Personnel (includes OC 13)	37	80	80	9,451	0	0	0	0	9,451	0	9,451	\$118,138	\$118,138	\$118,138	0.0%	0.0%
R1. US Direct Hire (USDH)	37	80	80	9,451	-	-	-	-	9,451	-	9,451	\$118,138	\$118,138	\$118,138	0.0%	0.0%
R1a. Senior Executive Schedule	-								-	-	-	-	-	-	-	-
R1b. General Schedule	37	80	80	9,451					-	9,451	9,451	\$118,138	\$118,138	\$118,138	0.0%	0.0%
R1c. Special Schedule	-								-	-	-	-	-	-	-	-
R1d. Wage System	-								-	-	-	-	-	-	-	-
R1e. Highly Qualified Experts	-								-	-	-	-	-	-	-	-
R2. Direct Hire Program Foreign Nationals (DHFN)	-								-	-	-	-	-	-	-	-
R3. Total Direct Hire	37	80	80	9,451	-	-	-	-	9,451	-	9,451	\$118,138	\$118,138	\$118,138	0.0%	0.0%
R4. Indirect Hire Foreign Nationals (IHFN)	-								-	-	-	-	-	-	-	-
Subtotal - Reimbursable Funded (excludes OC 13)	37	80	80	9,451	-	-	-	-	9,451	-	9,451	\$118,138	\$118,138	\$118,138	0.0%	0.0%
R5. Other Object Class 13 Benefits											-					
R5a. USDH - Benefits for Former Employees											-					
R5b. DHFN - Benefits for Former Employees											-					
R5c. Voluntary Separation Incentive Pay (VSIP)											-					
R5d. Foreign National Separation Liability Accrual											-					
Total Personnel (includes OC 13)	2,317	2,209	2,209	324,131	0	0	0	0	324,131	94,404	418,535	\$146,732	\$146,732	\$189,468	0.0%	29.1%
T1. US Direct Hire (USDH)	2,317	2,209	2,209	324,131	-	-	-	-	324,131	94,404	418,535	\$146,732	\$146,732	\$189,468	0.0%	29.1%
T1a. Senior Executive Schedule	8	8	8	1,440	0	0	0	0	1,440	518	1,958	\$180,000	\$180,000	\$244,750	0.0%	36.0%
T1b. General Schedule	2,309	2,201	2,201	322,691	0	0	0	0	322,691	93,886	416,577	\$146,611	\$146,611	\$189,267	0.0%	29.1%
T1c. Special Schedule	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T1d. Wage System	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T1e. Highly Qualified Experts	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T2. Direct Hire Program Foreign Nationals (DHFN)	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T3. Total Direct Hire	2,317	2,209	2,209	324,131	-	-	-	-	324,131	94,404	418,535	\$146,732	\$146,732	\$189,468	0.0%	29.1%
T4. Indirect Hire Foreign Nationals (IHFN)	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
Subtotal - Total Funded (excludes OC 13)	2,317	2,209	2,209	324,131	-	-	-	-	324,131	94,404	418,535	\$146,732	\$146,732	\$189,468	0.0%	29.1%
T5. Other Object Class 13 Benefits											-					
T5a. USDH - Benefits for Former Employees											0					
T5b. DHFN - Benefits for Former Employees											0					

RDTE, Space Force

Date: April 2026

Department of the Air Force
TOTAL CIVILIAN PERSONNEL COSTS
OP-8B: OP-8 (PB)
FY 2026 President's Budget Submission
(FY 2027)

	(\$ in Thousands)											d/c l Basic Comp	i/c m Total Comp	Rates k/c n Comp & Benefits	h/d o % BC Variables	j/d p % BC Benefits
	a Begin Strength	b End Strength	c FTEs	d Basic Comp	e Overtime Pay	f Holiday Pay	g Other O.C.11	e + f + g h Total Variables	d + h i Comp O.C.11	i Benefits O.C.12/13	i + j k Comp & Benefits					
Direct Funded Personnel (includes OC 13)	2,129	2,104	2,104	312,908	0	0	0	0	312,908	93,121	406,029	\$148,721	\$148,721	\$192,980	0.0%	29.8%
D1. US Direct Hire (USDH)	2,129	2,104	2,104	312,908	-	-	-	-	312,908	93,121	406,029	\$148,721	\$148,721	\$192,980	0.0%	29.8%
D1a. Senior Executive Schedule	8	8	8	1,440	-	-	-	-	1,440	518	1,958	\$180,000	\$180,000	\$244,750	0.0%	36.0%
D1b. General Schedule	2,121	2,096	2,096	311,468	-	-	-	-	311,468	92,603	404,071	\$148,601	\$148,601	\$192,782	0.0%	29.7%
D1c. Special Schedule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D1d. Wage System	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D1e. Highly Qualified Experts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D2. Direct Hire Program Foreign Nationals (DHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D3. Total Direct Hire	2,129	2,104	2,104	312,908	-	-	-	-	312,908	93,121	406,029	\$148,721	\$148,721	\$192,980	0.0%	29.8%
D4. Indirect Hire Foreign Nationals (IHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal - Direct Funded (excludes OC 13)</i>	<i>2,129</i>	<i>2,104</i>	<i>2,104</i>	<i>312,908</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>312,908</i>	<i>93,121</i>	<i>406,029</i>	<i>\$148,721</i>	<i>\$148,721</i>	<i>\$192,980</i>	<i>0.0%</i>	<i>29.8%</i>
D5. Other Object Class 13 Benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D5a. USDH - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D5b. DHFN - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D5c. Voluntary Separation Incentive Pay (VSIP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D5d. Foreign National Separation Liability Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Reimbursable Funded Personnel (includes OC 13)	80	80	80	9,643	0	0	0	0	9,643	0	9,643	\$120,538	\$120,538	\$120,538	0.0%	0.0%
R1. US Direct Hire (USDH)	80	80	80	9,643	-	-	-	-	9,643	-	9,643	\$120,538	\$120,538	\$120,538	0.0%	0.0%
R1a. Senior Executive Schedule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1b. General Schedule	80	80	80	9,643	-	-	-	-	9,643	-	9,643	\$120,538	\$120,538	\$120,538	0.0%	0.0%
R1c. Special Schedule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1d. Wage System	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1e. Highly Qualified Experts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R2. Direct Hire Program Foreign Nationals (DHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R3. Total Direct Hire	80	80	80	9,643	-	-	-	-	9,643	-	9,643	\$120,538	\$120,538	\$120,538	0.0%	0.0%
R4. Indirect Hire Foreign Nationals (IHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Subtotal - Reimbursable Funded (excludes OC 13)</i>	<i>80</i>	<i>80</i>	<i>80</i>	<i>9,643</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>9,643</i>	<i>-</i>	<i>9,643</i>	<i>\$120,538</i>	<i>\$120,538</i>	<i>\$120,538</i>	<i>0.0%</i>	<i>0.0%</i>
R5. Other Object Class 13 Benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R5a. USDH - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R5b. DHFN - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R5c. Voluntary Separation Incentive Pay (VSIP)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R5d. Foreign National Separation Liability Accrual	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Personnel (includes OC 13)	2,209	2,184	2,184	322,551	0	0	0	0	322,551	93,121	415,672	\$147,688	\$147,688	\$190,326	0.0%	28.9%
T1. US Direct Hire (USDH)	2,209	2,184	2,184	322,551	-	-	-	-	322,551	93,121	415,672	\$147,688	\$147,688	\$190,326	0.0%	28.9%
T1a. Senior Executive Schedule	8	8	8	1,440	0	0	0	0	1,440	518	1,958	\$180,000	\$180,000	\$244,750	0.0%	36.0%
T1b. General Schedule	2,201	2,176	2,176	321,111	0	0	0	0	321,111	92,603	413,714	\$147,569	\$147,569	\$190,126	0.0%	28.8%
T1c. Special Schedule	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T1d. Wage System	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T1e. Highly Qualified Experts	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T2. Direct Hire Program Foreign Nationals (DHFN)	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T3. Total Direct Hire	2,209	2,184	2,184	322,551	-	-	-	-	322,551	93,121	415,672	\$147,688	\$147,688	\$190,326	0.0%	28.9%
T4. Indirect Hire Foreign Nationals (IHFN)	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
<i>Subtotal - Total Funded (excludes OC 13)</i>	<i>2,209</i>	<i>2,184</i>	<i>2,184</i>	<i>322,551</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>322,551</i>	<i>93,121</i>	<i>415,672</i>	<i>\$147,688</i>	<i>\$147,688</i>	<i>\$190,326</i>	<i>0.0%</i>	<i>28.9%</i>
T5. Other Object Class 13 Benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5a. USDH - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5b. DHFN - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

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FY 2027 President's Budget Submission Guidance Addendum

Incorporation of Mandatory into Annual Budget Justification Materials

Table 1: Funding Overview

	FY 2025 (\$K)	FY 2026 (\$K)	FY 2027 (\$K)
Discretionary	18,461,132	\$14,777,160	\$38,373,489
Mandatory	\$0	\$5,536,072	\$2,288,397 ¹
Total	\$18,461,132	\$20,313,232	\$40,661,886

Table 2: Detailed Mandatory Breakout

Budget Line Item	Reconciliation Bin Title	FY 2025 (\$K)	FY 2026 (\$K)	FY 2027 (\$K)
1203110SF	INDOPACOM Capabilities	0	\$18,000	0
1203154SF	INDOPACOM Capabilities	0	\$420,700 ²	0
1203155SF	INDOPACOM Capabilities	0	\$135,000	0
1203155SF	Space Superiority	0	0	\$803,000
1203636SF	Space Superiority	0	0	\$1,485,397
1203909SF	INDOPACOM Capabilities	0	\$73,700	0
1203940SF	INDOPACOM Capabilities	0	\$31,100	0
1206425SF	INDOPACOM Capabilities	0	\$528,000	0
1206438SF	INDOPACOM Capabilities	0	\$9,010	0
99999999	INDOPACOM Capabilities	0	\$4,125,562	0
1206860SF	Missile Defense	0	\$60,000	0
1206862SF	INDOPACOM Capabilities	0	\$135,000	0
Mandatory Total		\$0	\$5,536,072	\$2,288,397

¹ FY 2027 mandatory funding levels incorporate the transition of efforts initiated in FY 2026 within the Golden Dome for America account

² Funds will be realigned to support updated mission priorities

MANDATORY FUNDING JUSTIFICATION:

The FY 2027 request for Research, Development, Test, and Evaluation, Space Force includes \$38,373,489 thousand of discretionary and \$2,288,397 thousand of mandatory for a total of \$40,661,886.

Space-based Air Moving Target Indicator Global Coverage & Low-Band Radar Development: The \$803 million funding includes \$663 million to expand the SB-AMTI high-band radar system for detection and tracking of airborne targets. This expansion allows the USSF to meet regional coverage and work towards global coverage to meet joint force needs. Additionally, \$140 million provides funds to mature designs and builds up manufacturing capability for additional vendors with additional phenomenology that augments the high-band radar system with a low-band wide area search capability. These efforts were initiated in FY 2026 within the Golden Dome for America account. Additional details available at a higher classification level.

Space Data Network Backbone: The \$1,485 million includes \$685 million to accelerate the expansion of a pLEO mesh constellation and associated ground architecture providing resilient, high-volume, low-latency communications and tactical data links for the Joint Force. Additionally, \$800 million provides dedicated funds for on-ramping additional vendors as the industry base and commercial technologies mature to meet U.S. government requirements. These efforts were initiated in FY 2026 within the Golden Dome for America account. Additional details available at a higher classification level.

The FY 2026 spend plan amount for Space Force, Research, Development, Test, and Evaluation includes \$14,777,160 thousand of discretionary and \$5,536,072 thousand of mandatory (reconciliation) for a total of \$20,313,232.

The FY 2025 spend plan amount for Space Force, Research, Development, Test, and Evaluation includes \$18,461,132 thousand of discretionary and no mandatory (reconciliation) for a total of \$18,461,132.

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ACRONYMS

GENERAL ACRONYMS

A&AS	- Advisory & Assistance Services
ABIDES	- Automated Budget Interactive Data Environment System
ACAT	- Acquisition Category
ACTD	- Advanced Concept Technology Demonstration
AGM	- Air-to-Ground Missile
AIM	- Air Intercept Missile
AIS	- Avionics Intermediate Shop
ACMI	- Aircraft Combat Maneuvering Instrumentation
AMRAAM	- Advanced Medium-Range Air-to-Air Missile
APPN	- Appropriation
ATD	- Advanced Technology Development
BA	- Budget Activity
BES	- Budget Estimate Submission
BY	- Budget Year
C3	- Command, Control, and Communication System
CFE	- Contractor Furnished Equipment
CONOPS	- Concept of Operation
CONUS	- Continental United States
CPMS	- Comprehensive Power Management System
CPT	- Cockpit Procedures Trainer
CRA	- Continuing Resolution Authority
CTS	- Countermeasures Test Set
CY	- Current Year
ECCM	- Electronic Counter Counter-Measures
ECM	- Electronic Counter Measures
ECO	- Engineering Change Orders
EOQ	- Economic Order Quantity
ECP	- Engineering Change Proposal
EPA	- Economic Price Adjustment
EW	- Electronic Warfare
EWAISP	- Electronic Warfare Avionics Integration Support Facility
FLIR	- Forward Looking Infra Red

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FOT&E	- Follow-on Test and Evaluation
FOC	- Fully Operational Capability
FLTS	- Flight Line Test Set
FPIF	- Fixed Price Incentive Firm
FPIS	- Fixed Price Incentive Fee, Successive Targets
FY	- Fiscal Year
GANS	- Global Access Navigation & Safety
GATM	- Global Air Traffic Management
GFE	- Government Furnished Equipment
GFP	- Government Furnished Property
GPS	- Global Positioning System
GSE	- Ground Support Equipment
ICS	- Interim Contractor Support
IOC	- Initial Operating Capability
IT	- Information Technology
JUON	- Joint Urgent Operational Need
MAIS	- Major Automated Information System Program
MDAP	- Major Defense Acquisition Program
METS	- Mobile Electronic Test Stations
MYP	- Multiyear Procurement
NAVWAR	- Navigation Warfare
NMC Rate	- Not Mission Capable Rate
OCO	- Overseas Contingency Operations
OOC	- Overseas Operations Costs
OT&E	- Operational Test and Evaluation
OWRM	- Other War Reserve Material
PAGEL	- Priced Aerospace Ground Equipment List
PB	- President's Budget
PBR	- Program Budget Review
PMA	- Program Management Administration
PMC	- Procurement Method Code
PNO	- Acquisition Program Number (MDAP Codes)
PR	- Purchase Request
PRCP	- Program Resource Collection Process
PTT	- Part Task Trainer
PY	- Prior Year

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R&M	- Reliability and Maintainability
RAA	- Rapid Acquisition Authority
RDT&E	- Research, Development, Test and Evaluation
RWR	- Radar Warning Receiver
ROM	- Rough Order of Magnitude
SS	- Sole Source
SOF	- Special Operation Force
TAF	- Tactical Air Force
TCAS	- Traffic Collision Alert and Avoidance System
TEWS	- Tactical Electronic Warfare System
TISS	- TEWS Intermediate Support System
TOA	- Total Obligation Authority
WCF	- Working Capital Fund
WRM	- War Reserve Material
WST	- Weapon System Trainer
UAV	- Unmanned Aerial Vehicle
XML	- Extensible Markup Language

BASE / ORGANIZATIONAL ACRONYMS

ACC	- Air Combat Command
AETC	- Air Education & Training Command
AFCAO	- Air Force Computer Acquisition Office
AFCEA	- Air Force Civil Engineering Support Agency
AFCIC	- AF Communications & Information Center
AFCSC	- Air Force Cryptologic Service Center
AFESC	- Air Force Engineering Services Center
AFGWC	- Air Force Global Weather Central
AFIT	- Air Force Institute of Technology
AFLCMC	- Air Force Life Cycle Management Center
AFMC	- Air Force Materiel Command
AFMETCAL	- Air Force Metrology and Calibration Office
AFMLO	- Air Force Medical Logistics Office
AFOSI	- Air Force Office of Special Investigation
AFOTEC	- Air Force Operational Test & Evaluation Center
AFPC	- Air Force Personnel Center

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AFPSL	- AF Primary Standards Lab
AFR	- Air Force Reserve
AFSOC	- AF Special Operations Command
AFSPC	- Air Force Space Command
AIA	- Air Intelligence Agency
ALC	- Air Logistics Center
AMC	- Air Mobility Command
ANG	- Air National Guard
ASC	- Aeronautical Systems Center
AETC	- Air Education Training Command
AU	- Air University
AWS	- Air Weather Service
CIA	- Central Intelligence Agency
DGSC	- Defense General Support Center
DLA	- Defense Logistics Center
DOE	- Department of Energy
DPSC	- Defense Personnel Support Center
DSCC	- Defense Supply Center, Columbus
DTIC	- Defense Technical Information Center
ER	- Eastern Range
ESC	- Electronic Systems Center
FAA	- Federal Aviation Agency
FBI	- Federal Bureau of Investigation
GSA	- General Services Administration
JCS	- Joint Chiefs of Staff
NATO	- North Atlantic Treaty Organization
OSW	- Office of the Secretary of War
PACAF	- Pacific Air Forces
USAF	- United States Air Force
USAFA	- United States Air Force Academy
USAFE	- United States Air Force Europe
USCENTCOM	- United States Central Command
USEUCOM	- United States European Command
USMC	- United States Marine Corps
USSTRATCOM	- United States Strategic Command
WP AFB	- Wright-Patterson AFB, OH

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CONTRACT METHOD / TYPE ACRONYMS

C	- Competitive
BA	- Basic Agreement
BOA	- Basic Ordering Agreement
BPA	- Blanket Purchasing Agreement
CS	- Cost Sharing
IDDQ	- Indefinite Delivery, Definite Quantity
IDIQ	- Indefinite Delivery, Indefinite Quantity
IDRT	- Indefinite Delivery, Requirements
Letter	- Letter
LH	- Labor-hour
MIPR	- Military Interdepartmental Purchase Request
MIPR-C	- Military Interdepartmental Purchase Request - Competitive
MIPR-OPT	- Military Interdepartmental Purchase Request - Option
MIPR-OTH	- Military Interdepartmental Purchase Request – Other
MIPR-SS	- Military Interdepartmental Purchase Request - Sole Source
OPT	- Option
OTH	- Other
PO	- Project Order
REQN	- Requisition
SS	- Sole Source
T&M	- Time and Materials
UCA	- Undefined Contract Action
WP	- Work Project

CONTRACTED BY ACRONYMS

11 WING	- 11th Support Wing, Washington, DC
ACC	- Air Combat Command, Langley AFB, VA
AEDC	- Arnold Engineering Development Center, Arnold AFB, TN
AAC	- Air Armament Center, Eglin AFB, FL
AEDC	- Arnold Engineering Development Center, Arnold AFB, TN
AETC	- Air Education and Training Command, Randolph AFB, TX
AFCIC	- Air Force Communications and Information Center, Washington, DC
AFCESA	- Air Force Civil Engineering Support Agency, Tyndall AFB, FL

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AFFTC	- Air Force Flight Test Center, Edwards AFB, CA
AFLCMC	- Air Force Life Cycle Management Center, Wright-Patterson AFB, OH
AFMC	- Air Force Materiel Command, Wright-Patterson AFB, OH
AFMETCAL	- Air Force Metrology and Calibration Office, Heath, Ohio
AFMLO	- Air Force Medical Logistics Office, Ft Detrick, MD
AIA	- Air Intelligence Agency, Kelly AFB, TX
AMC	- Air Mobility Command, Scott AFB, IL
ASC	- Aeronautical Systems Center, Wright-Patterson AFB, OH & Eglin AFB, FL
AFWA	- Air Force Weather Agency, Offutt AFB, NE
DGSC	- Defense General Support Center, Richmond, VA
DPSC	- Defense Personnel Support Center, Philadelphia, PA
ER	- Eastern Range, Patrick SFB, FL
ESC	- Electronic Systems Center, Hanscom AFB, MA
HSC	- Human Services Center, Brook AFB, TX
OC-ALC	- Oklahoma City Air Logistics Center, Tinker AFB, OK
OO-ALC	- Ogden Air Logistics Center, Hill AFB, UT
SMC	- Space & Missile Systems Center, Los Angeles AFB, CA
US STRATCOM	- US Strategic Command, Offutt AFB, NE
WACC	- Washington Area Contracting Center, Washington DC
WR	- Western Range, Vandenberg SFB, CA
WR-ALC	- Warner-Robins Air Logistics Center, Robins AFB, GA
AFSPC	- Air Force Space Command, Peterson AFB, CO
HQ ANG	- Headquarters, Air National Guard, Washington, DC
USAFE	- United States Air Force Europe, Ramstein AB, GE
USAFA	- United States Air Force Academy, Colorado Springs, CO

IDENTIFICATION CODES

Code "A"	- Line items of material which have been approved for Air Force service use.
Code "B"	- Line items of material that have not been approved for Service use
OBAN	- Operating Budget Account Number, 2-digit code for unit allocated funds

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
3620F: <i>Research, Development, Test & Evaluation, Space Force</i> / BA 1: <i>Basic Research</i>	PE 0601102SF / <i>Defense Research Sciences</i>											
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	19.949	21.999	20.833	0.000	20.833	23.218	23.528	24.229	24.721	Continuing	Continuing
610001: <i>Defense Research Sciences - Space</i>	0.000	19.949	21.999	20.833	0.000	20.833	23.218	23.528	24.229	24.721	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Air Force Office of Scientific Research (AFOSR) is researching, analyzing and developing technology through the Defense Research Sciences Project 0601102SF (Project 610001) to support Guardians across Science & Technology and Test & Evaluation. The effects of our efforts will ensure that future Science & Technology and Test & Evaluation have the necessary experimentation and analytic results for future USSF R&D activities.

Defense Research Sciences consists of research activities in academia and industry along with research performed in the Department of the Air Force (DAF), including the Air Force Research Laboratory (AFRL), Air Force Institute of Technology, and the United States Air Force Academy. This program supports basic broad-based scientific and engineering research in areas critical to the five core technical competencies of the United States Space Force: Space Security; Combat Power Projection; Space Mobility and Logistics; Information Mobility; and Space Domain Awareness, while simultaneously building capacity in academia and cultivating the Science, Technology, Engineering, and Mathematics (STEM) pipeline. All research areas are subject to long-range planning and technical review by both DAF and tri-service scientific planning groups.

In order to manage, execute, and deliver Science and Technology (S&T) capabilities, this program element may include necessary civilian pay expenses; expenses to support the operation and maintenance of facilities; as well as expenses related to travel, supplies, IT hardware, software and support, administrative contractor services, etc.

Funds in this program element may be used to investigate specified science advancements primarily targeted to challenges in the space domain and multi-domain research with space-domain application.

This program falls within the S&T and Test & Evaluation (T&E) mission area which provides the S&T initiatives, demonstrations, experiments, and studies towards developing next-generation space capabilities. The T&E mission area provides all efforts required to establish and operate the test infrastructure for USSF capabilities. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Defense Research Sciences (0601102SF); Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Innov Intg & Rapid Tech Dev (1203174SF); Space Rapid Capabilities Office (1206857SF); Space Science and Technology (1206310SF); Space Systems Prototype Transition (1206427SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); Space Test Program (1206864SF); University Research Initiatives (0601103SF); Operational Test & Training Infrastructure (1206617SF) and elements of Procurement Budget Line Item: General Information Tech - Space (GNRLIT)

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026				
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force / BA 1: Basic Research		R-1 Program Element (Number/Name) PE 0601102SF / Defense Research Sciences					
The FY 2027 request was reduced by \$0.020 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency" Cost Efficiency Initiative.							
This program is in Budget Activity 1, Basic Research because this budget activity includes scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, and life sciences related to long-term national security needs.							
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	
Previous President's Budget		21.349	22.270	24.584	0.000	24.584	
Current President's Budget		19.949	21.999	20.833	0.000	20.833	
Total Adjustments		-1.400	-0.271	-3.751	0.000	-3.751	
• Congressional General Reductions		0.000	0.000				
• Congressional Directed Reductions		0.000	0.000				
• Congressional Rescissions		0.000	0.000				
• Congressional Adds		0.000	0.000				
• Congressional Directed Transfers		0.000	0.000				
• Reprogrammings		0.000	0.000				
• SBIR/STTR Transfer		-0.546	-0.271				
• Other Adjustments		-0.854	0.000	-3.751	0.000	-3.751	
Change Summary Explanation							
The FY 2026 President's Budget submittal did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.							
Technical Changes:							
FY 2025: -\$0.854 million in Other Adjustments was due to realignment of funds to PE 0602212F, Defense Laboratories R&D Projects, to implement the Department of War (DoW) Funding Laboratory Enhancements Across Four Categories (FLEX-4) authority under 10 U.S.C Section 4123.							
C. Accomplishments/Planned Programs (\$ in Millions)					FY 2025	FY 2026	FY 2027
Title: Space-focused Basic Research					19.133	21.167	19.984
Description: Foster basic research discovery in physical and biological sciences that enhance U.S. Space Force's ability to conduct global space operations. Current basic research efforts include, but are not limited to, Space Physics, Astrodynamics, Space Biosciences, and Propulsion and Power.							
FY 2026 Plans:							

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research</i>		R-1 Program Element (Number/Name) PE 0601102SF / <i>Defense Research Sciences</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
- Seek to understand the solar terrestrial environment extending from the Sun through Earth's magnetosphere and radiation belts to the mesosphere and lower thermosphere region to improve operational space weather forecasting. - Advance the fundamental understanding of the physical processes that impact the motion and control of both natural and artificial objects moving in the gravity fields associated with the Earth/Moon/Sun system needed to enable future operations beyond geostationary earth orbits (X-GEO) operations. - Conduct research in life sciences such as synthetic biology, biologically produced components, and biological processes to understand and mitigate the impacts of harsh and remote environments on future operations and future assets. - Explore theories, principles, and practical concepts of physical and biological sciences in harsh and remote environments to identify solutions to current and future U.S. Space Force mission needs. - Conduct foundational scientific research to enable greatly enhanced maneuver and power capabilities in the space environment. - Explore novel ideas that may bridge these major efforts and enhance global space operations. FY 2027 Plans: - Continue to understand the solar terrestrial environment extending from the Sun through Earth's magnetosphere and radiation belts to the mesosphere and lower thermosphere region to improve operational space weather forecasting. - Continue to advance the fundamental understanding of the physical processes that impact the motion and control of both natural and artificial objects moving in the gravity fields associated with the Earth/Moon/Sun system needed to enable future operations beyond geostationary earth orbits (X-GEO) operations. - Continue to conduct research in life sciences such as synthetic biology, biologically produced components, and biological processes to understand and mitigate the impacts of harsh and remote environments on future operations and future assets. - Continue to explore theories, principles, and practical concepts of physical and biological sciences in harsh and remote environments to identify solutions to current and future U.S. Space Force mission needs. - Continue to conduct foundational scientific research to enable greatly enhanced maneuver and power capabilities in the space environment. - Continue to explore novel ideas that may bridge these major efforts and enhance global space operations. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased compared to FY 2026 by \$1.183 million due to decreased emphasis on Space-focused basic research. This reduction reflects programmatic adjustments to the DAF Science and Technology portfolio for strategic realignment to optimize core research areas and improve resource efficiency. This will result in approximately 5 fewer grants awarded in Space-focused basic research.				
Title: Leveraging International S&T for DAF Advantage		0.816	0.832	0.849
Description: Foster international basic research discovery by supporting direct interchanges with a broad range of key international researchers and communities. Identify and leverage international scientific advances when appropriate.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force								Date: April 2026			
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force</i> / BA 1: <i>Basic Research</i>					R-1 Program Element (Number/Name) PE 0601102SF / <i>Defense Research Sciences</i>						
C. Accomplishments/Planned Programs (\$ in Millions)								FY 2025	FY 2026	FY 2027	
FY 2026 Plans: - Leverage international expertise to identify and maintain awareness of foreign scientific developments. - Explore foreign investments and influence premier scientific leaders on specific topics of interest to the Department of the Air Force. - Pursue access to and enable transition of fundamental scientific discoveries relevant to the U.S. Space Force. - Support international engagements by scientists and high-level DoW fundamental science delegations, providing primary interface to coordinate international science and technology participation among DoW organizations.											
FY 2027 Plans: - Continue to leverage international expertise to identify and maintain awareness of foreign scientific developments. - Continue to explore foreign investments and influence premier scientific leaders on specific topics of interest to the Department of the Air Force. - Continue to pursue access to and enable transition of fundamental scientific discoveries relevant to the U.S. Space Force. - Continue to support international engagements by scientists and high-level DoW fundamental science delegations, providing primary interface to coordinate international science and technology participation among DoW organizations.											
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased compared to FY 2026 by \$0.017 million due to minor programmatic adjustments to the DAF Science and Technology portfolio.											
Accomplishments/Planned Programs Subtotals								19.949	21.999	20.833	
D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u> <u>Base</u>	<u>FY 2027</u> <u>OOB</u>	<u>FY 2027</u> <u>Total</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>FY 2030</u>	<u>FY 2031</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• RDTE 01 0601102F: <i>Defense Research Sciences</i>	324.773	307.645	296.535	-	296.535	305.818	345.890	356.458	363.767	Continuing	Continuing
Remarks The Air Force Research Laboratory (AFRL) conducts basic research efforts for both the Air Force and Space Force.											
E. Acquisition Strategy Not Applicable											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research</i>					PE 0601103SF / <i>University Research Initiatives</i>							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	13.604	14.330	14.426	0.000	14.426	15.368	15.364	15.790	16.028	Continuing	Continuing
610002: <i>University Research Initiatives - Space</i>	0.000	13.604	14.330	14.426	0.000	14.426	15.368	15.364	15.790	16.028	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Air Force Office of Scientific Research (AFOSR) is researching, analyzing, and developing technology through the University Research Initiatives PE 0601103SF (Project 610002) to support Guardians across Science & Technology and Test & Evaluation. The effects of our efforts will ensure that future Science & Technology and Test & Evaluation have the necessary experimentation and analytic results for future USSF R&D activities.

This program supports defense-related basic research in a wide range of scientific and engineering disciplines relevant to maintaining U.S. military technology superiority. Research topics include, but are not limited to, revolutionary and high priority technologies critical to the five core technical competencies of the United States Space Force: Space Security; Combat Power Projection; Space Mobility and Logistics; Information Mobility; and Space Domain Awareness. The program also enhances and promotes the education of U.S. scientists and engineers in disciplines critical to maintaining, advancing, and enabling future U.S. defense technologies. This program assists universities in establishing superior instrumentation capabilities needed to improve the quality of defense-related research and education. A fundamental component of this program is the recognition that future technologies and technology exploitations require highly coordinated and concerted multi- and interdisciplinary efforts.

In order to manage, execute, and deliver Science and Technology (S&T) capabilities, this program element may include: necessary civilian pay expenses; expenses to support the operation and maintenance of facilities; as well as expenses related to travel, supplies, IT hardware, software and support, administrative contractor services, etc.

Funds in this program element may be used to investigate specified science advancements primarily targeted to challenges in the space domain and multi-domain research with space-domain application.

This program falls within the S&T and Test & Evaluation (T&E) mission area which provides the S&T initiatives, demonstrations, experiments, and studies towards developing next-generation space capabilities. The T&E mission area provides all efforts required to establish and operate the test infrastructure for USSF capabilities. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Defense Research Sciences (0601102SF); Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Innov Intg & Rapid Tech Dev (1203174SF); Space Rapid Capabilities Office (1206857SF); Space Science and Technology (1206310SF); Space Systems Prototype Transition (1206427SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); Space Test Program (1206864SF); University Research Initiatives (0601103SF); Operational Test & Training Infrastructure (1206617SF) and elements of Procurement Budget Line Item: General Information Tech - Space (GNRLIT).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research		R-1 Program Element (Number/Name) PE 0601103SF I University Research Initiatives				
This program is in Budget Activity 1, Basic Research because this budget activity includes scientific study and experimentation directed toward increasing fundamental knowledge and understanding in those fields of the physical, engineering, environmental, and life sciences related to long-term national security needs.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		14.731	14.569	16.742	0.000	16.742
Current President's Budget		13.604	14.330	14.426	0.000	14.426
Total Adjustments		-1.127	-0.239	-2.316	0.000	-2.316
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-0.538	-0.239			
• Other Adjustments		-0.589	0.000	-2.316	0.000	-2.316
Change Summary Explanation						
The FY 2026 President's Budget submittal did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
Technical Changes:						
FY 2025: -\$0.589 million in Other Adjustments was due to realignment of funds to PE 0602212F, Defense Laboratories R&D Projects, to implement the Department of War (DoW) Funding Laboratory Enhancements Across Four Categories (FLEX-4) authority under 10 U.S.C Section 4123.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Multidisciplinary University Research Initiative				10.889	11.347	11.013
Description: Promote fundamental, multi- and interdisciplinary science and engineering research projects involving multiple principal investigators.						
FY 2026 Plans:						
- Fund competitive research grants at U.S. universities that focus on significantly expanding the basic knowledge of Department of the Air Force-relevant science and technology areas critical to the U.S. Space Force core technical competencies.						
- Focus on complex research efforts not normally achievable in smaller funded, single investigator awards.						
FY 2027 Plans:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force								Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research				R-1 Program Element (Number/Name) PE 0601103SF I University Research Initiatives							
C. Accomplishments/Planned Programs (\$ in Millions)								FY 2025	FY 2026	FY 2027	
- Continue to fund competitive research grants at U.S. universities that focus on significantly expanding the basic knowledge of Department of the Air Force-relevant science and technology areas critical to the U.S. Space Force core technical competencies. - Continue to focus on complex research efforts not normally achievable in smaller funded, single investigator awards. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased compared to FY 2026 by \$0.334 million due to minor programmatic adjustments to the DAF Science and Technology portfolio.											
Title: Research Instrumentation Description: Enhance scientific and engineering research through advanced education infrastructure and instrumentation at U.S. universities. FY 2026 Plans: - Award grants on a competitive basis under the Defense University Research Instrumentation Program (DURIP) to U.S. universities to acquire state-of-the-art, high technology instrumentation and infrastructure to enhance U.S. Space Force research and educational capabilities. FY 2027 Plans: - Continue to award grants on a competitive basis under the Defense University Research Instrumentation Program (DURIP) to U.S. universities to acquire state-of-the-art, high technology instrumentation and infrastructure to enhance U.S. Space Force research and educational capabilities. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased compared to FY 2026 by \$0.430 million due to minor programmatic adjustments to the DAF Science and Technology portfolio.								2.715	2.983	3.413	
Accomplishments/Planned Programs Subtotals								13.604	14.330	14.426	
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• RDTE 01 0601103F: University Research Initiatives	128.783	99.908	91.394	-	91.394	94.281	107.705	110.996	113.275	Continuing	Continuing
Remarks The Air Force Research Laboratory (AFRL) conducts basic research efforts for both the Air Force and Space Force.											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research		R-1 Program Element (Number/Name) PE 0601103SF I University Research Initiatives
E. Acquisition Strategy Not Applicable		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 2: Applied Research					R-1 Program Element (Number/Name) PE 1202212SF I Defense Laboratories R&D Projects							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	18.701	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
622030: Defense Lab R&D Projects	0.000	18.701	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Implementation of 10 U.S.C. Section 4123 (amendment to 10 U.S.C. Section 2363), also known as the Department of War (DoW) Funding Laboratory Enhancements Across Four Categories (FLEX-4) authority, to fund: 1) innovative basic and applied research conducted at the defense laboratory and supports military missions; 2) development programs supporting the transition of technologies developed by the defense laboratory into operational use; 3) workforce development activities improving the capacity of the defense laboratory to recruit and retain personnel with necessary scientific and engineering expertise that support military missions; and 4) the repair or minor military construction of the laboratory infrastructure and equipment.

The United States Space Force (USSF) is dependent on technological advances in response to emerging threats and to maintain a competitive advantage. The USSF has a comprehensive and deliberative planning process to identify and fund research that is expected to have the greatest benefit to the USSF and the warfighter. This program is executed by the Air Force Research Laboratory (AFRL). AFRL is focused on high-impact, multi-domain science & technology (S&T) solutions that drive innovation now while laying the groundwork for the Air and Space Force to win the future fight. AFRL effectively synchronizes the Department of the Air Force (DAF) S&T enterprise and workforce to align towards the most consequential DAF priorities and accelerate the delivery of game-changing S&T.

10 U.S.C. Section 4123 provides the Commander of the AFRL, in consultation with the DAF Science and Technology Executive, a degree of flexibility to rapidly exploit scientific breakthroughs or respond to emerging threats, to include developing a skilled workforce and necessary infrastructure. This flexibility increases the rate of innovation and accelerates the development and fielding of needed military capabilities to address current and future problems.

DAF internally realigns 10 U.S.C. Section 4123 funds to this USSF program element in the year of execution after receipt of the appropriation. This allows increased transparency to Congress on 10 U.S.C. Section 4123 funding and additional execution flexibility for 10 U.S.C. Section 4123 activities to cross all technology areas. This is a parallel effort to United States Air Force (USAF) PE 0602212F.

This program is in Budget Activity 2, Applied Research because this budget activity includes studies, investigations, and non-system specific technology efforts directed toward general military needs with a view toward developing and evaluating the feasibility and practicality of proposed solutions and determining their parameters.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 2: Applied Research		R-1 Program Element (Number/Name) PE 1202212SF I Defense Laboratories R&D Projects			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	18.701	0.000	0.000	0.000	0.000
Total Adjustments	18.701	0.000	0.000	0.000	0.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	18.701	0.000	0.000	0.000	0.000
Change Summary Explanation					
Increase in FY 2025 in Other Adjustments is due to realignment of funds to PE 1202212SF to implement the Department of War (DoW) Funding Laboratory Enhancements Across Four Categories (FLEX-4) authority under 10 U.S.C. Section 4123.					
C. Accomplishments/Planned Programs (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Title: Defense Laboratories R&D Projects - Air Force Research Laboratory	18.701	0.000	0.000	0.000	0.000
Description: Implementation of 10 U.S.C. Section 4123 (amendment to 10 U.S.C. Section 2363), also known as Department of War (DoW) Funding Laboratory Enhancements Across Four Categories (FLEX-4) authority, to fund: 1) innovative basic and applied research conducted at the defense laboratory and supports military missions; 2) development programs supporting the transition of technologies developed by the defense laboratory into operational use; 3) workforce development activities improving the capacity of the defense laboratory to recruit and retain personnel with necessary scientific and engineering expertise that support military missions; and 4) the repair or minor military construction of the laboratory infrastructure and equipment.					
FY 2026 Plans: TBD					
FY 2027 Base Plans: TBD					
FY 2027 OOC Plans:					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force							Date: April 2026				
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 2: Applied Research				R-1 Program Element (Number/Name) PE 1202212SF I Defense Laboratories R&D Projects							
C. Accomplishments/Planned Programs (\$ in Millions)							FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Not Applicable											
FY 2026 to FY 2027 Increase/Decrease Statement: Not Applicable											
Accomplishments/Planned Programs Subtotals							18.701	0.000	0.000	0.000	0.000
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• RDTE 02 0602212F: Defense Laboratories R&D Projects (10 U.S.C	97.809	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
Remarks											
E. Acquisition Strategy											
Not Applicable											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 2: Applied Research</i>					R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	242.170	276.981	234.190	0.000	234.190	239.599	241.767	247.726	252.764	Continuing	Continuing
620200: <i>Enterprise Transformational Appld Research</i>	0.000	8.668	6.919	3.943	0.000	3.943	4.141	3.464	3.822	3.894	Continuing	Continuing
621010: <i>Space Survivability & Surveillance</i>	0.000	33.947	36.739	29.395	0.000	29.395	30.872	30.889	31.703	32.344	Continuing	Continuing
624846: <i>Spacecraft Payload Technologies</i>	0.000	47.360	43.450	40.168	0.000	40.168	41.620	41.810	42.931	43.806	Continuing	Continuing
624847: <i>Rocket Propulsion Technology</i>	0.000	26.174	29.588	24.999	0.000	24.999	26.004	25.860	26.694	27.247	Continuing	Continuing
624866: <i>Lasers & Imaging Technology</i>	0.000	28.569	36.586	40.567	0.000	40.567	39.628	40.433	41.278	42.054	Continuing	Continuing
625018: <i>Spacecraft Protection Technology</i>	0.000	49.447	45.207	49.132	0.000	49.132	50.222	51.239	52.237	53.373	Continuing	Continuing
628809: <i>Spacecraft Vehicle Technologies</i>	0.000	48.005	78.492	45.986	0.000	45.986	47.112	48.072	49.061	50.046	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Air Force Research Laboratory (AFRL) is researching, analyzing and developing Space Technology (Projects 620200, 621010, 624846, 624847, 624866, 625018, and 625809) to support Guardians across Science & Technology and Test & Evaluation. The effects of our efforts will ensure that future Science & Technology and Test & Evaluation have the necessary experimentation and analytic results for future USSF R&D activities.

This program focuses on seven major areas. First, the enterprise transformational applied research develops multidisciplinary applied research efforts to accelerate the technology pipeline of transformational capabilities. Second, the Space Survivability and Surveillance area develops technologies to understand space weather and the geophysics environment for mitigation and exploitation of these effects to Department of Air Force (DAF) systems. Third, the spacecraft payload technologies area improves satellite payload operations by developing advanced materials/components, networking, analysis tools, and subsystem capabilities. Fourth, the rocket propulsion technology area develops rocket propulsion and associated technologies for space access, space maneuver, and strategic systems enabling dynamic space operations. Fifth, the lasers & imaging technology area conducts research supporting ground-based optical space situational awareness and ground-to-space laser-enabled communication. Sixth, the spacecraft protection area develops technologies for protecting United States space assets in potential hostile settings. The last major area, spacecraft vehicles technologies, focuses on spacecraft platform and control technologies; technology and algorithm development and transition for performing rendezvous & proximity operations and docking to enable dynamic space operations and in-orbit refueling activities; operator effectiveness, and human-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force / BA 2: Applied Research	R-1 Program Element (Number/Name) PE 1206601SF / Space Technology	
machine interactions. This program also secures National Unique Testing Assets, providing unmatched capabilities that underpin technological leadership and ensure the safety and security of our nation. This program includes funding for the requisite DAF Science & Engineering (S&E) and mission enabling civilian workforce with the necessary technical competencies to develop, manage, and deliver science & technology capabilities. The execution of Space Force S&T depends on AFRL support funded through DAF (Air and Space Force) RDT&E program elements: 1206616SF, 0601102F, 0602020F, 0602102F, 0602202F, 0602203F, 0602204F, 0602298F, 0602336F, 0602602F, 0602605F, 0602788F, and 0603680F. In FY 2027, 89.624 million is budgeted in this program for 484 direct Full-Time Equivalent (FTE) civilians. The Air Force Research Laboratory (AFRL) utilizes 10 USC 4091, "Authorities for certain positions at science and technology reinvention laboratories" to manage the workforce strength, structure, positions, and compensation. In order to manage, execute, and deliver science and technology capabilities, this program element may include: expenses to support the operation and maintenance of facilities; as well as expenses related to travel, supplies, IT hardware, software and support, administrative contractor services, etc. This program falls within the Science and Technology (S&T) and Test & Evaluation (T&E) mission area which provides the S&T initiatives, demonstrations, experiments, and studies towards developing next-generation space capabilities. The T&E mission area provides all efforts required to establish and operate the test infrastructure for USSF capabilities. Space Force investment program interdependencies include: RDT&E Budget Line Items: Defense Research Sciences (0601102SF); Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Innov Intg & Rapid Tech Dev (1203174SF); Space Rapid Capabilities Office (1206857SF); Space Science and Technology (1206310SF); Space Systems Prototype Transition (1206427SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); Space Test Program (1206864SF); University Research Initiatives (0601103SF); Operational Test & Training Infrastructure (1206617SF) and elements of Procurement Budget Line Item: General Information Tech - Space (GNRLIT). The FY 2027 request was reduced by 0.471 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency" Cost Efficiency Initiative. This program is in Budget Activity 2, Applied Research because this budget activity includes studies, investigations, and non-system specific technology efforts directed toward general military needs with a view toward developing and evaluating the feasibility and practicality of proposed solutions and determining their parameters.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 2: Applied Research		PE 1206601SF I Space Technology			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	255.964	245.497	0.000	0.000	0.000
Current President's Budget	242.170	276.981	234.190	0.000	234.190
Total Adjustments	-13.794	31.484	234.190	0.000	234.190
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-10.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	43.500			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-4.395	-2.016			
• Other Adjustments	-9.399	0.000	234.190	0.000	234.190
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 624846: Spacecraft Payload Technologies					
Congressional Add: Program increase - space modeling, simulation, and analysis hub					
Congressional Add Subtotals for Project: 624846					
Project: 624847: Rocket Propulsion Technology					
Congressional Add: Program increase - Super-hypersonic propulsion for attritable systems					
Congressional Add Subtotals for Project: 624847					
Project: 625018: Spacecraft Protection Technology					
Congressional Add: Program increase - Lunar surface space domain awareness					
Congressional Add: Program increase - Optical interferometer					
Congressional Add: Program increase - Space threat attribution and recovery					
Congressional Add Subtotals for Project: 625018					
Project: 628809: Spacecraft Vehicle Technologies					
Congressional Add: Program increase - Space qualified solar cell manufacturing					
Congressional Add: Large area space based solar power arrays					
Congressional Add: Solar array development					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 2: Applied Research</i>		R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2025	FY 2026
Congressional Add: <i>Shielding polymer for electronics</i>		-	2.500
Congressional Add: <i>Automated space qualified solar cell manufacturing</i>		-	3.500
Congressional Add: <i>Connecting space and UAS technology</i>		-	4.000
Congressional Add: <i>Docking Technologies for unstable objects</i>		-	10.000
Congressional Add: <i>SDA commercial satellite integration</i>		-	4.000
Congressional Add Subtotals for Project: 628809		3.931	33.500
Congressional Add Totals for all Projects		20.637	43.500
<u>Change Summary Explanation</u> The FY 2026 President's Budget submittal did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner. Technical Changes: FY 2025: -\$9.399 million in Other Adjustments was due to realignment of funds to PE 0602212F, Defense Laboratories R&D Projects, to implement the Department of War (DoW) Funding Laboratory Enhancements Across Four Categories (FLEX-4) authority under 10 U.S.C Section 4123.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 2					R-1 Program Element (Number/Name) PE 1206601SF / Space Technology				Project (Number/Name) 620200 / Enterprise Transformational Appld Research			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
620200: Enterprise Transformational Appld Research	0.000	8.668	6.919	3.943	0.000	3.943	4.141	3.464	3.822	3.894	Continuing	Continuing
A. Mission Description and Budget Item Justification												
This project develops multidisciplinary applied research efforts to accelerate the technology pipeline of transformational capabilities by reducing risk and maturing technologies so they can transition in support of larger advanced technology development capability investments. These activities are selected to enable solutions to the Department of the Air Force (DAF) highest priorities. The Explore effort engages traditional & non-traditional industry, government laboratories, and academia through 12-24 month feasibility studies and demonstrations. The Seedlings for Disruptive Capabilities Program (SDCP) facilitates Air Force Research Laboratory (AFRL) cross-disciplinary applied research to provide leap-ahead, high risk technology development. Applied research efforts span a broad spectrum of activities, and established processes to allow agility and flexibility to meet higher demand signals. AFRL will plan and manage these funds at the enterprise level to achieve a high level of collaboration executed across all the applicable Technology Directorates and will apply the research toward disruptive capabilities. Building off the technology competencies and ecosystems of the Technology Directorates brings together the needed expertise and components to develop the transformational capabilities.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: Explore									4.889	3.459	1.971	
Description: Explore engages traditional & non-traditional industry, government labs and academia through competitive opportunity calls to incubate transformational Science and Technology (S&T). Its strategy-informed construct works to uncover game-changing and leap-ahead technologies that address DAF future force priorities. Explore's three-step process identifies, invests in, and matures these technologies through 12-24 month feasibility studies and proof-of-concept activities. The technology areas are identified through concept decomposition, technical horizon scanning, and broad competitive calls to the nation's best and brightest innovators in industry, academia, government, non-profits, and other non-traditional partners. Promising technologies are accelerated through aggressive, short-duration, applied research and development efforts. These efforts assess operational viability and demonstrate feasibility of transformational warfighter capabilities, including their associated business and use cases. To do this, a variety of approaches are used including modeling and simulation, military utility experimentation, exercise participation, technical analysis, technology/concept maturation, risk reduction activities, and subject matter expertise input. Explore informs future areas of research and aids in identifying emerging technologies which could enable larger advanced technology development capability investments.												
FY 2026 Plans: Stop:												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 620200 / <i>Enterprise Transformational Appld Research</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
- Efforts which support technology development to enable key space capabilities for DAF priority missions. Continue: - Investments in commercial technologies to enable the transport of material cargo between space and ground in the 5-Ton class (this 50X increase over state-of-the-art is needed to provide significant DoW military utility and enable the use of a wide range of commercial medium-class launch vehicles). FY 2027 Plans: Complete: -Investments in commercial technologies to enable the transport of material cargo between space and ground in the 5-Ton class (this 50X increase over state-of-the-art is needed to provide significant DoW military utility and enable the use of a wide range of commercial medium-class launch vehicles). Commence: - Space efforts which support the highest priorities of the Department of the Air Force (DAF), including efforts identified through Integrated Product Teams, increasing targeted risk reduction and technology acceleration within the transformational portfolio. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased compared to FY 2026 by \$1.488 million, a 45% decrease, due to decreased emphasis on feasibility assessments and proof of concept demonstrations. This reduction reflects programmatic adjustments to the DAF Science and Technology portfolio for strategic realignment to optimize core research areas and improve resource efficiency.				
Title: Seedlings for Disruptive Capabilities Description: Integrates cross-enterprise multi-directorate space transformational applied research efforts to accelerate the pipeline of technology-enabled capability candidates pursuing the Department of the Air Force priorities. Seedlings for Disruptive Capabilities solicit applied research to provide leap-ahead, high risk technology development. Significantly advances scientific progress of innovative concepts underpinning transformational operational capabilities to future forces, enhance organic Air Force Research Laboratory's (AFRL) research capabilities in an enterprise-level, cross-Directorate environment, and fortify external research partnerships to leverage key emerging technology developments in academia, industry, and/or government laboratories. AFRL will plan and manage these research activities at the enterprise level with decentralized execution to achieve the intent of the strategy. FY 2026 Plans: Continue:		3.779	3.460	1.972

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 620200 / <i>Enterprise Transformational Appld Research</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
- Disruptive seedlings program focused on space efforts that may include communications, cost-effective satellites, small-cubed satellites, or navigation. <i>FY 2027 Plans:</i> Continue: - Disruptive seedlings program focused on space efforts that may include communications, cost-effective satellites, small-cubed satellites, or navigation. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 decreased compared to FY 2026 by \$1.488 million, a 43% decrease, due to decreased emphasis on disruptive, high-risk technology development. This reduction reflects programmatic adjustments to the DAF Science and Technology portfolio for strategic realignment to optimize core research areas and improve resource efficiency.			
Accomplishments/Planned Programs Subtotals		8.668	6.919
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 2					R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>				Project (Number/Name) 621010 / <i>Space Survivability & Surveillance</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
621010: <i>Space Survivability & Surveillance</i>	0.000	33.947	36.739	29.395	0.000	29.395	30.872	30.889	31.703	32.344	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project develops technologies to ensure spacecraft survivability and to enhance surveillance of the space operating environment. Technology development to enhance the ability of space assets to operate effectively despite the challenges of the space environment. This includes developing radiation-hardened electronics and technologies to understand and mitigate impacts of the space environment. The focus is on characterizing and forecasting the battlespace environment for more realistic space system design, modeling, and simulation, as well as the battlespace environment's effect on space systems' performance. This includes technologies to specify and forecast the space environment for planning operations, ensure uninterrupted system performance, optimize space-based surveillance operations, and provide capability to mitigate or exploit the space environment for both offensive and defensive operations.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Space Environment Research	22.946	24.141	17.592
Description: Develop techniques, forecasting tools, sensors, and technologies for specifying, monitoring, predicting, and controlling space environmental conditions hazardous to Department of War (DoW) operational space and radar systems.			
FY 2026 Plans: Continue: -Executing joint roadmap with the Military Application of the Space Environment (MASE) program at Space Systems Command. -Developing Over the Horizon Radar propagation specification work and move into more stressing environments, i.e. Equatorial and High Latitude. -Collaboration with the United Kingdom, Australia, and Canada, to execute relevant field experiments and develop specification models with utility for operational systems. -Supporting and developing technologies aligned to Space Warfighting Analysis Center and Space Systems Command Capability Collaboration Team tech needs as well as those supporting the Department of the Air Force priorities, e.g. situational awareness and communication in contested environments; edge sensing and sensemaking; and space environment Common Operating Pictures. -Collaboration with Canada on high-latitude ionospheric specification and field experiments. -Pursuing field experiments and demonstrations related to ionospheric modification. -Invention and development of space based environmental monitoring sensors. -Supporting Space Systems Command to optimize the utility of their operational space environment sensor and capabilities in support of Department of War mission.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 2		R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>		Project (Number/Name) 621010 / <i>Space Survivability & Surveillance</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
-Foundational work and support for national roadmaps related to Space Environment capabilities, i.e. National Space Weather Strategy and Action Plan, Combat Forces Command, North Atlantic Treaty Organization, National Aeronautics and Space Administration, Air Combat Command, Air Force Weather, Department of Commerce, etc. -Work in support of predictive space environment capabilities that protect and enable Department of War and National missions. -Trilateral collaboration with United States, Great Britain and Australia to understand the utility of ionospheric specification for Radio Frequency applications and the impacts of naturally and artificially produced ionospheric modifications. -Stand up of a Cislunar and Radiation Belt Remediation research team to support Cislunar activities, pursue additional outcomes from the previous mission, and continue to develop options for future flight experiments. Complete: -Roadmap for support of the Homeland Defense Arctic Over the Horizon Radar program out of the Air Force Life Cycle Management Center. -Sounder Receiver (SoRcer) Enabled Ionospheric Modeling (SEIM) Joint Capability Technology Demonstration. FY 2027 Plans: Continue: -Executing joint roadmap with the Military Application of the Space Environment (MASE) program at Space Systems Command. -Collaborating with Canada to advance ionospheric specification in support of indications and warning and coordinate registration for Over the Horizon Radar. -Executing joint field experiments and studies under the Disturbed Ionospheres Trilateral Partnership Agreement (PA) between the United States, Great Britain and Australia. -Exploitation of Space Experiment data in support of e.g. Radiation Belt Remediation technology development. -End to end simulations of High Altitude Nuclear Explosion (HANE) events in support of Radiation Belt Remediation technology development. -Analyzing data from field experiments. -Supporting and developing technologies aligned to Space Warfighting Analysis Center and Space Systems Command Capability Collaboration Team tech needs as well as those supporting the Department of the Air Force priorities, e.g. situational awareness and communication in contested environments; edge sensing and sensemaking; and space environment Common Operating Pictures. -Foundational work and support for national roadmaps related to Space Environment capabilities, i.e. National Space Weather Strategy and Action Plan, Combat Forces Command, North Atlantic Treaty Organization, National Aeronautics and Space Administration, Air Combat Command, Air Force Weather, Department of Commerce, etc. -Invention and development of space based environmental monitoring sensors to include Very Low Earth Orbit (VLEO) composition and density.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 621010 / <i>Space Survivability & Surveillance</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Complete: -Transition of Sounder Receiver (SoRcer) Enabled Ionospheric Modeling (SEIM) software components to Military Application of the Space Environment (MASE). Commence: -Assessment of indications and warning (I&W) for chemical releases in space and near-space environments. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased by \$6.549 million compared to FY 2026 due to decreased in-house research supporting Space Environment.				
Title: Strategic Radiation Hardened Electronics Description: Design, develop, produce and qualify Strategic Radiation Hardened (SRH) Non-Volatile Memory (NVM) that does not exist today and is suitable to support DoW strategic missiles, missile defense, and space system needs and to address a more diverse & advanced nuclear threat. FY 2026 Plans: Continue: -Development of Strategic Radiation Hardened (SRH) Non-Volatile Memory (NVM) to address the electrical and radiation performance requirements gap identified in Strategic Radiation Hardened Electronics Council's (SRHEC) Program Needs Report #4. -Technology development to ensure durability of a domestic source of readout integrated circuits (ROIC) and focal plane array (FPA) technologies. -Technology development to enable maturation of large format, high- dynamic range FPAs. -Feasibility assessment to port radiation hardened ROIC technology from current State-of-the-Art to a more advanced processing node. -Fabrication of sub-scale test articles and evaluation of test chips to reduce program risk and ensure the full-scale prototype is on track to meet radiation and performance requirements. Complete: -SRH NVM Critical Design Review (CDR) and begin hardware prototyping. -Reporting of alternative science and technology approach and development of a risk feasibility report. FY 2027 Plans: Continue: -Development of Strategic Radiation Hardened (SRH) Non-Volatile Memory (NVM) to address the electrical and radiation performance requirements gap identified in Strategic Radiation Hardened Electronics Council's (SRHEC) Program Needs Report #4.		11.001	12.598	11.803

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 621010 / <i>Space Survivability & Surveillance</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
-Technology development to ensure durability of a domestic source of Readout Integrated Circuits (ROIC) and Focal Plane Array (FPA) technologies. -Technology development to enable maturation of large format, high- dynamic range FPAs. -Feasibility assessment to port radiation hardened ROIC technology from current State-of-the-Art to a more advanced processing node. Complete: -Fabrication of sub-scale test articles and evaluation of test chips to reduce program risk and ensure the full-scale prototype is on track to meet radiation and performance requirements. Commence: - Qualified Manufactures List (QML) flight qualification testing of prototype SRH NVM - Design, prototype and manufacturing of radiation-hardened high-performance SRH NVM architecture and fabrication of a high-density variant. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 decreased compared to FY 2026 by \$0.795 million due to program maturation and flow of deliverables.			
Accomplishments/Planned Programs Subtotals		33.947	36.739
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 2					R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>				Project (Number/Name) 624846 / <i>Spacecraft Payload Technologies</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
624846: <i>Spacecraft Payload Technologies</i>	0.000	47.360	43.450	40.168	0.000	40.168	41.620	41.810	42.931	43.806	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project develops advanced technologies that enhance spacecraft payload operations by improving materials/component, networking, analysis tools, and subsystem capabilities. This project focuses on identifying and developing technologies that enable new, or enhance existing, communication, positioning, navigation, and timing satellite capabilities, as well as developing technologies and models that support space based surveillance and space asset protection.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Missile Warning and Tactical Sensing	14.240	14.144	16.400
Description: Developing resilient and persistent technologies that aid in the accuracy and expediency of information gathering and dissemination. Focused on rad-hard sensing materials and the evolution of advanced Moving Target Indication (MTI) capability providing warfighters with reliable information to Find, Fix & Track targets in Anti-Access/Area Denial (A2/AD) environments.			
FY 2026 Plans: Continue research and development of: -Space-based sensors for resilient target custody by target tracking space architectures. -Data analytics and data mobility solutions for edge processing, information networking, and human-machine learning in support of tactical sensing and targeting. -Trusted Artificial Intelligence (AI) and Machine Learning (ML) Models, through AI Assurance, for autonomous classification and identification of moving targets in support of multi- domain battlefield operations. -Sensing system networking optimized for space-based autonomous tasking and Moving Target Indication (MTI) from multi-tiered hybrid space architectures. -Development of next generation infrared detector materials that have the potential of offering higher performance. -Novel sensing concepts for space-based Moving Target Engagement (MTE) at scale in time sensitive, highly contested environments. -Focal Plane Arrays research, development, and construction using novel detector material and obtain statistically significant performance characterization data product to compare with incumbent technologies. -Testing of noise properties of smaller mixed signal nodes, vital to transistor densities required for Launch Detection Missile Warning (MW), Intelligence Surveillance and Reconnaissance (ISR), and alike space-based mission sets. -Effort to transition Event Based Sensors (EBS) to program offices based on results from FY 2025 characterization & testing. -Design and laboratory testing of concepts for space-based sensing payloads.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 2		R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>		Project (Number/Name) 624846 / <i>Spacecraft Payload Technologies</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
-Development of dedicated space-based sensors and sensemaking data analytics for trusted, real-time, multi-domain Moving Target Indicator (MTI) by networked automated Long-Range Kill Webs (LRKW). Complete: -Build and characterization of high dynamic range low read-noise. Focal Plane Arrays (FPA) specialized Air Force/Space Force demo program with results to be leveraged on Space Systems Command (SSC) EPOCH-2 & Space Development Agency (SDA) Tranche-1 activities. FY 2027 Plans: Continue: -Space-based sensors for resilient target custody by target tracking space architectures. -Data analytics and data mobility solutions for edge processing, information networking, and human-machine learning in support of tactical sensing and targeting. -Trusted Artificial Intelligence (AI) and Machine Learning (ML) Models, through AI Assurance, for autonomous classification and identification of moving targets in support of multi- domain battlefield operations. -Development of next generation infrared detector materials that have the potential of offering higher performance. -Novel sensing concepts for space-based Moving Target Engagement (MTE) at scale in time sensitive, highly contested environments. -Focal Plane Array (FPA) research, development, and construction using novel detector material and obtain statistically significant performance characterization data product to compare with incumbent technologies. -Testing of noise properties of smaller mixed signal nodes, vital to transistor densities required for Launch Detection Missile Warning (MW), Intelligence Surveillance and Reconnaissance (ISR), and alike space-based mission sets. -Effort to transition Event Based Sensors (EBS) to program offices based on results from FY 2026 characterization & testing. -Design and laboratory testing of concepts for space-based sensing payloads. -Development of dedicated space-based sensors and sensemaking data analytics for trusted, real-time, multi-domain Moving Target Indication (MTI) by networked automated Long-Range Kill Webs (LRKW). Complete: -Sensing system networking optimized for space-based autonomous tasking and MTI from multi-tiered hybrid space architectures. Commence: -Study of military utility for Infrared Event Based Sensors (IR EBS) based on results of FY26 IR EBS research. -Integrate Trusted AI into Moving Target Indication (MTI) work flows. -Characterization of multiple dynamic range sensing solutions architectures for air and space missions. FY 2026 to FY 2027 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / Space Technology	Project (Number/Name) 624846 / Spacecraft Payload Technologies		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
FY 2027 increased compared to FY 2026 by \$2.256 million due to increased in-house research support to Missile Warning and Tactical Sensing, adequately aligning manpower to priority DAF S&T efforts.				
Title: Space Communication/ Positioning, Navigation & Timing Technologies		26.241	21.806	23.768
Description: Identify and develop technologies that enable, or enhance the ability of the United States Space Force to provide agile, robust, and resilient Satellite Navigation and Satellite Communication capabilities for the Joint Force and within the Space Service Volume (SSV). Support field demonstrations and on-orbit experiments to characterize the operational feasibility and technical viability of communication, and position, navigation, and timing signals between the multi-layer, multi-function architectures in contested environments and exercise potential concept of operations.				
FY 2026 Plans: Continue: -Developing low probability of intercept and low probably of detection (LPI/LPD), high bandwidth, multi-domain communications for contested and denied environments to include Positioning, Navigation, & Timing (PNT) dissemination with GPS and other systems. -Advancing Laser Communications Laboratory for laser comms & interoperability supporting research and development of Artificial Intelligence/Machine Learning (AI/ML) enhancements to PNT architecture to enhance joint warfighting capabilities. -Supporting field demonstrations and on-orbit experiments to examine the interaction of communication, position, navigation, and timing signals between the multi-layer, multi-function architectures in contested environments and exercise potential Concept of Operations. -Developing enabling technologies and demonstration units to enhance the transition path for advanced clocks and time dissemination. -Developing of ensemble algorithms, as well as Photonic Integrated Circuits (PICs) for Space Communication, Positioning, Navigation, & Timing (SCPNT). -Utilizing the fielding of quantum-based technologies and testing in relevant environments. -Collaborating with international partners in the development of quantum-based technologies to leverage allied funding and capabilities. -Exploration of through-atmosphere radio frequency communication above V/W band.				
FY 2027 Plans: Continue: -Support field demonstrations and on-orbit experiments to characterize the interaction of communication, and position, navigation, and timing signals between the multi-layer, multi-function architectures in contested environments and exercise potential concept of operations. -Build on efforts to leverage Artificial Intelligence/Machine Learning (AI/ML) to further enable the ability of the United States Space Force to provide Position, Navigation, and Timing Situational Awareness (PNT-SA) to the warfighter.				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 624846 / <i>Spacecraft Payload Technologies</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
-Continue to conduct experimentation with networking and interoperability of laser comm to enable support to mission partners. -Explore spectrum diversity capabilities for communications and PNT, continuing to look at radio frequency communication above V/W band. -Address outstanding S&T questions associated with operational viability of V/W band comms. Complete: -Space qualification of the advanced clock for Low Earth Orbit (LEO); transition to acquisition orgs and other commercial partners. -Development and initial characterization of Laser Comm ground station at Kirtland Air Force Base (KAFB) as a part of the Laser Communications Laboratory. -Efforts on ensemble algorithms, as well as Photonic Integrated Circuits (PICs) for Space Communication, Positioning, Navigation, & Timing (SCPNT). Commence: -Develop and support cross-agency collaborations on Space Communications and Position, Navigation, Timing. -Characterization, testing, and research to enable PNT-comms convergence; also, continue to evaluate new concepts for this convergence and do associated analysis to validate concepts and characterize feasibility. -Explore novel approaches to networking for space data transport and the tactical comms edge -Coordination with industry/commercial partners to develop pathways to space qualification of precision clocks for MEO, GEO applications -Build on existing analysis to support methods for providing PNT for the SSV; work to design space flight experiment to characterize solution space. -Evaluate the operational feasibility and technical viability of next efforts to provide agile, robust, and resilient Satellite Navigation capabilities for the Joint Force and within the SSV. -Evaluation of and associated research on methods, techniques, technologies for enabling precision time keeping, time synchronization, and time dissemination to/from space and within the SSV for DoW applications. -Capture enterprise needs and explore technology solutions that enable modern approaches to trust, security, encryption, and key dissemination for future military Satellite Communication and Position, Navigation, Timing. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased compared to FY 2026 by \$1.962 million due to increased in-house research support to Space Communications/Positioning, Navigation, & Timing Technologies, adequately aligning manpower to priority DAF S&T efforts. Resources were realigned from Project 621010, Space Survivability & Surveillance, Space Environment Research effort.			
Accomplishments/Planned Programs Subtotals		40.481	35.950
		40.168	

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026												
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 624846 / <i>Spacecraft Payload Technologies</i>												
		<table border="1"><tr><th>FY 2025</th><th>FY 2026</th></tr><tr><td colspan="2">Congressional Add: Program increase - space modeling, simulation, and analysis hub</td></tr><tr><td colspan="2">FY 2025 Accomplishments: Conduct Congressionally directed efforts.</td></tr><tr><td colspan="2">FY 2026 Plans: Conduct Congressionally directed efforts.</td></tr><tr><td colspan="2">Congressional Adds Subtotals</td></tr><tr><td>6.879</td><td>7.500</td></tr></table>	FY 2025	FY 2026	Congressional Add: Program increase - space modeling, simulation, and analysis hub		FY 2025 Accomplishments: Conduct Congressionally directed efforts.		FY 2026 Plans: Conduct Congressionally directed efforts.		Congressional Adds Subtotals		6.879	7.500
FY 2025	FY 2026													
Congressional Add: Program increase - space modeling, simulation, and analysis hub														
FY 2025 Accomplishments: Conduct Congressionally directed efforts.														
FY 2026 Plans: Conduct Congressionally directed efforts.														
Congressional Adds Subtotals														
6.879	7.500													
C. Other Program Funding Summary (\$ in Millions) N/A														
Remarks														
D. Acquisition Strategy N/A														

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 2					R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>				Project (Number/Name) 624847 / <i>Rocket Propulsion Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
624847: <i>Rocket Propulsion Technology</i>	0.000	26.174	29.588	24.999	0.000	24.999	26.004	25.860	26.694	27.247	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project develops and demonstrates rocket and alternate concepts space and strategic propulsion technologies for space access and space maneuver. Analytical and experimental areas of emphasis are propellants, propellant management, combustion, rocket material applications, and innovative space access and in space propulsion concepts. Technologies of interest will improve reliability, performance, survivability, affordability, and environmental compatibility of these systems. Develop technologies to reduce the weight and cost of components using new materials and improved designs and manufacturing techniques. All efforts in this project contribute to the sustainment and growth of the space, and rocket propulsion industry, providing space access and in space propulsion technology for the entire Department of War (DoW). Technologies under this project enable capabilities of interest to DoW, National Aeronautics and Space Administration (NASA) and growing Space community. Tasks include proof of concept tests of critical components; advanced component development; and ground-based tests. This project develops next generation of physics-based modeling, simulation, and analysis (MS&A) tools for rapid and agile space access and in-space propulsion design, analysis, and production, as well as the digital engineering concepts to manage the entire process of design, test, and validation of space access and in-space systems. This project also secures National Unique Testing Assets, providing unmatched capabilities that underpin technological leadership and ensure the safety and security of our nation. All thrusts are reviewed by a DoW level steering committee yearly for relevance to DoW missions, and the associated support costs.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Rocket Engine Technology Development	11.452	14.175	14.434
Description: Develop and demonstrate advanced combustion technology for significantly improved performance, while preserving chamber lifetime and reliability for Space Power and Resilience. This effort includes design testing of materials and systems and supports investigation into environments/processes to improve efficiency, effectiveness, suitability, and interoperability of space technologies. Commercial investments are leveraged to develop this technology.			
FY 2026 Plans: Continue: - Employment of new fuel and material operating limitations, manufacturing processes, and launch goals including remote launch site analyses and launch pad material measurements - Develop, demonstrate, and evaluate advanced material solutions for high temperature components in rocket propulsion including final facility qualification of multiscale rocket engine test stand - Development and payoff determination of rotating detonation rocket engine technologies including testing that inform a heavyweight rocket engine			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 2		R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>		Project (Number/Name) 624847 / <i>Rocket Propulsion Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Technologies and material studies supporting rapid launch capabilities including demonstration of mobile modular payload processing operations FY 2027 Plans: Continue: -Employment of new fuel and material operating limitations, manufacturing processes, and launch goals including remote launch site analyses and launch pad material measurements. Activities include development of austere launch concepts of operation including validation of fuel/material launch pad interactions factors and scale-up of engine ground testing. -Development and payoff determination of rotating detonation rocket engine technologies including testing that inform a heavyweight rocket engine. Activities include scale up of hardware to flight-weight and progress from ground testing to demonstration. -Technology and material studies supporting rapid launch capabilities including demonstration of mobile modular payload processing operations. Activities include validation of payload processing facility design and verification of developed payload processing concept of operations for rapid launch use cases. Complete: - Development, demonstration, and evaluation of advanced material solutions for high temperature components in rocket propulsion including final facility qualification of multiscale rocket engine test stand. Activities include final activation, calibration, and tuning of new rocket engine test stand. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased compared to FY 2026 by \$0.259 million due to increased component and rocket propellant cost.					
Title: Applied Space Access Technologies Description: Develop technologies for improved performance, while increasing life and reliability needs for engine uses in expendable and reusable launch vehicles. This effort also develops propulsion technologies that improve readiness, mobility, and responsive capabilities of space access methods and systems. FY 2026 Plans: Continue: - Sub-scale risk mitigation and technology maturation activities to incorporate into next generation engine concepts. Contested space environments require effective maneuvering enabled by rapid maturation of new rocket engine technologies to support and defend our space assets. Activities include combustion modeling studies and digital twin of rocket engine combustion environments.			5.241	1.826	1.822

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 2		R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>		Project (Number/Name) 624847 / <i>Rocket Propulsion Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Technologies and processes supporting modeling and analysis for rapid launch capabilities. Contested space environments require effective maneuvering enabled by greater launch flexibility to reconstitute our space fleet and/or respond faster to combatants in the space theater. Activities include military utility analyses and design inputs for wargaming scenarios. Complete: -Modular component integration and interaction research activities. Contested space environments require effective maneuvering enabled by next generation engine concepts and rocket engine capabilities. Activities include additive manufacturing rocket engine component demonstrations. FY 2027 Plans: Continue: -Sub-scale risk mitigation and technology maturation activities to incorporate into next generation engine concepts. Contested space environments require effective maneuvering enabled by rapid maturation of new rocket engine technologies to support and defend our space assets. Activities include optimizing combustion model technologies for integration into digital twins of rocket engine combustion environments. -Development of technologies and processes supporting modeling and analysis for rapid launch capabilities. Contested space environments require effective maneuvering enabled by greater launch flexibility to reconstitute our space fleet and/or respond faster to combatants in the space theater. Activities include validation of wargaming scenarios and technologies for near peer scenarios. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased compared to FY 2026 by \$0.004M million due to minor programmatic adjustments to the DAF Science and Technology portfolio.					
Title: On-Orbit Propulsion Technology Development Description: Develop electric, chemical, and advanced propulsion technologies for dynamic space operations, station-keeping, repositioning, and orbit transfer for satellites and satellite constellations for Space Power and Resilience. This effort develops technologies for flexible, responsive in-space maneuver in all orbit regimes. Develop technologies critical to expanding Space Force's capacity to maneuver and project power throughout space. FY 2026 Plans: Continue: - Advanced chemical propellants development focusing on molecular propellants for electric propulsion including thermal management demonstrations and catalyst life cycle studies			9.481	11.087	8.743

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 2		R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>		Project (Number/Name) 624847 / <i>Rocket Propulsion Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Support the maturation of advanced diagnostics for both chemical and electric propulsion thruster plumes including validation of erosion models and finalizing plume chemical composition - Expand the validation and verification programs (both experimental and flight) including validation of monopropellant analysis toolset - Transition and support of thruster/plume modeling framework to spacecraft industry to propulsion community including qualification of plasma codes and integrating upgrades into user manuals - Expanding exploration of advanced integrated electric propulsion and chemical thruster concepts, including thrust measurement technologies including facility upgrades for high power thrusters and thruster scaling models for chemical thrusters FY 2027 Plans: Continue: -Advanced chemical propellants development focusing on molecular propellants for electric propulsion including thermal management demonstrations and catalyst life cycle studies. Activities include integration of thermal management systems and catalyst into electric propulsion systems. -Support the maturation of advanced diagnostics for both chemical and electric propulsion thruster plumes including validation of erosion models and finalizing plume chemical composition. Activities include verification and validation of models using flight data and integration into prototype software and modeling tools -To expand the validation and verification programs (both experimental and flight) including validation of monopropellant analysis toolset. Activities include testing monopropellant analysis tools with engine and thruster propulsion system models for use in on-orbit propulsion management systems. -Expanding exploration of advanced integrated electric propulsion and chemical thruster concepts, including thrust measurement technologies including facility upgrades for high power thrusters and thruster scaling models for chemical thrusters. Activities include facility acceptance testing of high-power thrusters and trials supporting the development of electric and chemical thrust models. Complete: -Transition and support of thruster/plume modeling framework to spacecraft industry and propulsion community including qualification of plasma codes and integrating upgrades into user manuals. Activities include verification and validation of developed codes for use in industry spacecraft propulsion systems to enable greater maneuverability. FY 2026 to FY 2027 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 624847 / <i>Rocket Propulsion Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
FY 2027 decreased compared to FY 2026 by \$2.344 million due to completion of digital tools for modeling rocket propulsion systems which are being transitioned for use in demonstrations and higher TRL applications.			
Accomplishments/Planned Programs Subtotals		26.174	24.999
		FY 2025	FY 2026
Congressional Add: Program increase - Super-hypersonic propulsion for attritable systems		-	2.500
FY 2026 Plans: Conduct Congressionally directed efforts.			
Congressional Adds Subtotals		-	2.500
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 2					R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>				Project (Number/Name) 624866 / <i>Lasers & Imaging Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
624866: <i>Lasers & Imaging Technology</i>	0.000	28.569	36.586	40.567	0.000	40.567	39.628	40.433	41.278	42.054	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project conducts research advancing ground-based optical space domain awareness, techniques to counter laser threats to space craft, and laser applications towards ground-to-space quantum communication.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Electro-Optic Space Domain Awareness and Satellite Security Description: Develop advanced, long-range, electro-optical technologies that enable ground-based optical Space Domain Awareness (SDA) and quantum-based optical communications. Develop and use technologies to quantitatively assess the vulnerability of blue satellite systems and components to lasers and other-directed energy sources. Operate the Starfire Optical Range (SOR) to conduct research meeting internal and customer requirements. FY 2026 Plans: Continue: - Mature component technologies for 24/7 optical and infrared imaging of near-earth and geosynchronous objects enabling characterization on tactical timelines -- transition to Combat Forces Command technique for tracking dim satellites in very-close proximity to large high-value geosynchronous space assets using ground-based 1-meter-class telescopes. - Analysis for USSPACECOM's Laser Clearing House of the potential vulnerability of satellites to laser and other directed energy illumination arising from tests conducted by Department of War (DoW) components to include conduct of periodic meetings hosted jointly with DoW components and foreign allies to assess susceptibilities of recently launched satellites. - Development of laser-enabled options for ranging to geosynchronous satellites from apertures smaller than 3-meters and development of laser-enabled options for characterizing near-geosynchronous satellites -- demonstrate beta-level control software to rapidly select range-bin. - Research into maintaining custody of space craft in three-body-gravitational pseudo-orbits from ground-based measurements, such as in cislunar space and Earth-Sun equilibrium zones -- demonstrate the utility of the Dark Saber unit-one sensor. - Building-up the ground-terminal for the quantum-optical network experiment jointly conducted with the Canadian Space Agency's quantum satellite -- launch scheduled in 2026. - Initiate transition of real-time imaging of satellites that are in Earth's shadow to Combat Forces Command, including joint experimentation to develop a concept of operations for Combat Forces Command missions. - Maintain the Starfire Optical Range (SOR) facilities and experimental equipment in a mission-ready state for both research and development and for use by Combat Forces Command -- begin installation of fast-failover generators to produce electrical power resilience at top of Mount Fugate.	28.569	36.586	40.567

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 2		R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>		Project (Number/Name) 624866 / <i>Lasers & Imaging Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Prototype version of software tools that accurately predict in less than 8-hour runtime potential hazards to spacecraft from Department of War laser tests -- conduct verification and validation tests of performance to demonstrate. Complete: - Development of artificial intelligence to estimate the position and orientation of uncooperative space objects, especially demonstrate the accuracy of tool using observations from 4-meter class, 1-meter class, and 1/2-meter class telescopes. - Tech development of space surveillance using laser-enabled, real-time imaging of satellites that are in Earth's shadow. Transition this capability to Combat Forces Command (CFC)/DEL2/Det2. FY 2027 Plans: Continue: - Mature component technologies for 24/7 optical and infrared imaging of near-earth and geosynchronous resident space objects enabling tactically-responsive change detection and characterization to include the detection and tracking of small objects in very-close proximity to high-value geosynchronous assets using ground-based 1-meter-class telescopes. - Analysis for USSPACECOM's Laser Clearing House of the potential vulnerability of satellites to laser and other directed energy illumination arising from Department of War (DoW) components testing to include conducting periodic meetings hosted jointly by DoW and foreign allies to assess the susceptibilities of newly launched satellites. - Development of laser-enabled options for ranging to geosynchronous satellites from sub-3-meter telescopes to include timely characterization of near-geosynchronous satellites -- demonstrate and integrate refined processing algorithms to improve sensitivity. - Development into maintaining custody of spacecraft in complex three-body-gravitational pseudo-orbits from ground-based measurements, such as in cislunar space and Earth-Sun equilibrium zones -- prototype stray-light mitigation improving sensitivity. - Develop a concept of operations for Combat Forces Command missions for real-time imaging of satellites that are in Earth's shadow, to include the integration of components enabling the detection and tracking of satellites in the absence of visible light. - Maintain the Starfire Optical Range (SOR) facilities and experimental equipment in a mission-ready state for both research and development and for use by Combat Forces Command to include enhancing the capability and flexibility of electrical power resilience systems for critical feeders at SOR. - Mature software tools that accurately predict potential hazards to spacecraft from Department of War laser tests -- develop CONOPs for laser class categorization. Complete: - Build-up for the ground-terminal for the quantum-optical network experiment jointly conducted with the Canadian Space Agency's quantum satellite -- launch scheduled in 2026. Commence:					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 624866 / <i>Lasers & Imaging Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
- Testing of ground-terminal quantum-optical network experiment with the Canadian Space Agency's quantum satellite -- focus on demonstrating two-way quantum optical communications. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 increased compared to FY 2026 by \$3.981 million due to costs associated with research to mature highly sensitivity change detection component technologies to expand the mission capability of the Starfire Optical Range experimental equipment.			
Accomplishments/Planned Programs Subtotals		28.569	36.586
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 2					R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>				Project (Number/Name) 625018 / <i>Spacecraft Protection Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
625018: <i>Spacecraft Protection Technology</i>	0.000	49.447	45.207	49.132	0.000	49.132	50.222	51.239	52.237	53.373	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project develops the technologies to perform faster, well-informed decision making for space operations, enhanced mission assurance of critical space services, and integrate space with joint operational picture for protecting United States space assets, in potentially hostile environments, to assure continued space system operation. The project provides transitionable technology and knowledge to enable speed-of-light protection, many-on-many engagement and defense, and new orbit regimes despite growing threat impunity. This project also encompasses efforts to expand the University Consortium for Space Research to address research needs unique to the United States Space Force.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Space Control Description: Provide timely, well-informed decisions enabled by space situational awareness in the cislunar environment, analytic tools powered by modern techniques and practices, trusted autonomy in both ground and on-orbit systems, and an underlying resilience to cyber and electronic warfare threats. FY 2026 Plans: Continue: -Developing sophisticated techniques to detect, identify, track, characterize, and catalog satellites using multi-phenomenology sensing with particular focus on space situational awareness in the cislunar environment. -Science & Technology feeding flight experiments that will demonstrate utility of cislunar situational awareness for establishing and transferring custody, tracking, and deterring threats from deep space. -Studies to inform upgrades to operational tools used in space situational awareness. -Development of on-orbit threat warning sensing and assessment with emphasis on spectrum awareness and inherent, on-board satellite sensors. -Research on cyber vulnerability and cyber hardening methods of space assets with laboratory testbeds, developing standards and techniques. -Demonstration of cyber hardening techniques aboard on-orbit experiments through established pipeline of flight experiments. -Developing on-board autonomous satellite technologies, emphasizing operational resilience for tactical action, awareness across operator ground and space interfaces, enabling tactical awareness for distributed system elements, and many-to-many engagements plans for next generation flight experiments. -Developing on-board autonomous satellite techniques, enabling Dynamic Space Operations by using resilient in-space maneuver, refueling & rendezvous proximity operations for space control and defensive CONOPs.	23.200	23.226	25.145

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 625018 / <i>Spacecraft Protection Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
-Experimentation and exercises with Department of War ground architectures, operations centers, commercial and international partners. -On-orbit experimentation with cyber resilience, reactive protection, and autonomous sensing capabilities -Exploration of spacecraft Electronic Support Measures (ESM) Research & Development. -Studies, assessments, and engineering trades to support spectrum resilience via radio frequency sensing to support multi-satellite, multidomain spectrum dominance. Complete: -Integration and testing of multiple cyber resilience, reactive protection, and autonomous sensing capabilities into on-orbit demonstrations. FY 2027 Plans: Continue: -Developing sophisticated techniques to detect, identify, track, characterize, and catalog satellites using multi-phenomenology sensing with particular focus on space situational awareness for novel and challenging orbits. -Science & Technology feeding flight experiments that will demonstrate utility of cislunar situational awareness for establishing and transferring custody, tracking, and deterring threats from deep space. -Studies to inform upgrades to operational tools used in space situational awareness. -Development of on-orbit threat warning sensing and assessment using on-board satellite sensors. -Research on cyber vulnerability and cyber hardening methods of space assets with laboratory testbeds, developing standards and techniques. -Demonstration of cyber hardening techniques aboard on-orbit experiments through established pipeline of flight experiments. -Developing on-board autonomous satellite technologies, emphasizing operational resilience and tactical action, awareness across operator ground and space interfaces, enabling tactical awareness for distributed system elements, and many-to-many engagements plans for next generation flight experiments. -Developing on-board autonomous satellite techniques, enabling Dynamic Space Operations by using resilient in-space maneuver, refueling & rendezvous proximity operations for space control and defensive CONOPs. -Experimentation and exercises with Department of War ground architectures, operations centers, commercial and international partners. -On-orbit experimentation with cyber resilience, reactive protection, and autonomous defense capabilities. -Exploration of spacecraft Electronic Support Measures (ESM) Research & Development. -Exploration of space Electronic Warfare (EW) research & development for all space warfighting orbital domains. -Studies, assessments, and engineering trades to support spectrum resilience via radio frequency sensing to support multi-satellite, multidomain spectrum dominance. FY 2026 to FY 2027 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 625018 / <i>Spacecraft Protection Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
FY 2027 increased compared to FY 2026 by \$1.919 million due to transitions to Combat Forces Command (CFC) and increased exercises with DoW, commercial, and international partners.			
Title: University Consortium for Space Research		16.420	21.981
Description: The University Consortium (UC) for Space Technology Development project is a United States Space Force (USSF) led partnership. This project establishes and supports five Space Strategic Technology Institutes (SSTIs) which consist of networks of partnered universities to accelerate the identification, maturation, and transition of applied research and technologies to address emerging and future national security space enterprise capability needs. Teams of universities propose developmental technologies evaluated by multi-disciplinary government review teams for specific technical efforts under SSTIs.			
FY 2026 Plans: Continue: - University led technical efforts under SSTI 2 for In-Space Operations to include inspection technology, multi-arm manipulator, deployable mesh, developing prototype of highly adaptive robotic grasping technologies as well as CubeSat-based flight, berthing, recharging and refueling technologies. - University led technical efforts under SSTI 3 for Advanced Space Power and Propulsion. - University led technical efforts under SSTI 4 for Advanced Remote Sensing.			
Complete: - SSTI 1 for Beyond Geostationary Earth Orbit (xGEO) operations and Space Domain awareness, transitioning technologies			
Commence: - SSTI 5 Cyber Mission Assurance and Data Trust and recomplete for the second iteration award of SSTI 1 Beyond Geostationary Earth Orbit (xGEO) Operations and Space Domain Awareness.			
FY 2027 Plans: Continue: -University led technical efforts under SSTI 2 for In-Space Operations to include inspection technology, multi-arm manipulator, deployable mesh, developing prototype of highly adaptive robotic grasping technologies as well as CubeSat-based flight, berthing, recharging, and refueling technologies. -University led technical efforts under SSTI 3 for Advanced Space Power and Propulsion. -University led technical efforts under SSTI 4 for Advanced Remote Sensing. -University led technical efforts under SSTI 5 for Cyber Mission Assurance and Data Trust. -Recomplete University led technical efforts under SSTI 1 for xGEO and Space Domain Awareness.			
Commence:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 625018 / <i>Spacecraft Protection Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
-International collaboration designed to bolster domestic SSTI capability delivery through shared resources and expertise.			
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased compared to FY 2026 by \$2.006 million due to an increase in international collaboration in support of domestic SSTI capability.			
Accomplishments/Planned Programs Subtotals		39.620	45.207
		FY 2025	FY 2026
Congressional Add: Program increase - Lunar surface space domain awareness		2.948	-
FY 2025 Accomplishments: Conduct Congressionally direct efforts.			
Congressional Add: Program increase - Optical interferometer		3.931	-
FY 2025 Accomplishments: Conduct Congressional directed efforts.			
Congressional Add: Program increase - Space threat attribution and recovery		2.948	-
FY 2025 Accomplishments: Conduct Congressionally directed efforts.			
Congressional Adds Subtotals		9.827	-
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 2					R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>				Project (Number/Name) 628809 / <i>Spacecraft Vehicle Technologies</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
628809: <i>Spacecraft Vehicle Technologies</i>	0.000	48.005	78.492	45.986	0.000	45.986	47.112	48.072	49.061	50.046	Continuing	Continuing

A. Mission Description and Budget Item Justification

This project is a pervasive portfolio pursuing a broad range of emerging technologies targeted for application and insertion in the future national space architecture. The project focuses on spacecraft components including: structures; power; thermal management; electronics; guidance, navigation and control, and robotics/ logistics modules for rendezvous and proximity operations and docking activities. Leap-ahead capability is provided utilizing in-house expertise and laboratories, and by leveraging the creativity and innovation of the Nation's industry, universities, and national laboratories to conduct applied research. The project maintains core competencies in astrodynamics, controls, electronics, materials, power, structures, and thermal, and provides foundational technologies supporting all space mission areas.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Spacecraft Component Technologies	44.074	44.992	45.986
Description: Develop technology and research initiatives executed through continuous cycles of development, maturation, and assessment of component technologies. Develop revolutionary and enabling technologies including: lighter weight, lower cost, high-performance structures and thermal systems for space platforms; compact, high-efficiency solar power cells and arrays, and innovative power-generation concepts; radiation-hardened electronic devices; microelectro-mechanical system devices; advanced electronics packaging; guidance, navigation, and controls hardware and software; refueling and logistics module upgrade; on-orbit assembly; and high degree of freedom robotics. Due to the pervasive nature of the project, many of the developed components support DoW missions in the terrestrial domain in addition to their primary space mission. FY 2026 Plans: Continue: - Developing high-power resilient satellite technology, including deployable solar arrays and radiators scalable to all missions. - Efforts for landmark 40% efficiency solar cells and develop alternative power generation and storage sources. - Research enabling high degrees of freedom robotics for spacecraft operations including on-orbit refueling, spacecraft upgrade, assembly, and manufacturing. - Leadership role in the Office of the Under Secretary of War for Research and Engineering (OUSW(R&E)) Trusted and Assured Microelectronics program executing the research, development and transition of radiation hardened electronic components to support National Security Space and Strategic systems. - Adapting bench-marking capabilities on new electronics using the latest spacecraft algorithms and transitioning bench-marking capabilities and results to the acquisition community to enable data-informed payload architecture design decisions. - Development of strategic radiation hardened microprocessor.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 2		R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>		Project (Number/Name) 628809 / <i>Spacecraft Vehicle Technologies</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Research and development on reliable application of high- performance commercial-based processing in future space systems to enable revolutionary on-orbit edge processing, autonomy, data fusion, and machine learning. - Hyper-Converged edge computing for space systems. - Research into deployable space structure's reliability. Complete: - Development of functional materials, metrology, power and thermal management for space-based sensing missions in contested environments. - Research into heterogeneous on-orbit processing capabilities in support of future on- orbit servicing objectives. - Transition of algorithms enabling scalable autonomy and multi-agent behavior for autonomous rendezvous, proximity operations, and docking (RPOD), and space logistics applications in support of Dynamic Space Operations. FY 2027 Plans: Continue: -Developing high-power resilient satellite technology, including deployable solar arrays and radiators scalable to all missions. -Efforts for landmark 40% efficiency solar cells and develop alternative power generation and storage sources. -Research enabling high degrees of freedom robotics for spacecraft operations including on-orbit refueling, spacecraft upgrade, assembly, and manufacturing. -Leadership role in the Office of the Under Secretary of War for Research and Engineering (OUSW(R&E)) Trusted and Assured Microelectronics program executing the research, development and transition of radiation hardened electronic components to support National Security Space and Strategic systems. -Adapting bench-marking capabilities on new electronics using the latest spacecraft algorithms and transitioning bench-marking capabilities and results to the acquisition community to enable data-informed payload architecture design decisions. -Development of strategic radiation hardened microprocessor. -Research and development on reliable application of high-performance commercial-based processing in future space systems to enable revolutionary on-orbit edge processing, autonomy, data fusion, and machine learning. -Effort on Hyper-Converged edge framework combining storage, computing, and networking into a single system for space systems. -Research into deployable space structure reliability. Commence: -Efforts to evaluate and develop space-based edge processing hardware for use with Artificial Intelligence/Machine Learning (AI/ ML) applications. -On-orbit demonstration of state-of-the-art processor technology and of integrated logistics technologies to enhance enterprise space resilience.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 2		R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>		Project (Number/Name) 628809 / <i>Spacecraft Vehicle Technologies</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
-Development of computer vision algorithms to enable space-based battle damage assessment. -Development of algorithms for formation management of multiple low Earth orbit small satellites, based on study of mission designs. -Technology transition of Microgravity Sediment Trap. -Transition of Variable Emissivity Materials to operational use via business development, manufacturability enhancements, and modeling parameter effects on performance. -Development of high gain rollable composite space antenna.					
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased compared to FY 2026 by \$0.994 million due to programmatic adjustments to the DAF Science and Technology portfolio. This increase reflects a strategic realignment to optimize core research areas and improve resource efficiency.					
Accomplishments/Planned Programs Subtotals			44.074	44.992	45.986
			FY 2025	FY 2026	
Congressional Add: Program increase - Space qualified solar cell manufacturing			3.931	-	
FY 2025 Accomplishments: Conduct Congressional directed efforts.					
Congressional Add: Large area space based solar power arrays			-	7.000	
FY 2026 Plans: Conduct Congressional directed efforts.					
Congressional Add: Solar array development			-	2.500	
FY 2026 Plans: Conduct Congressional directed efforts.					
Congressional Add: Shielding polymer for electronics			-	2.500	
FY 2026 Plans: Conduct Congressional directed efforts.					
Congressional Add: Automated space qualified solar cell manufacturing			-	3.500	
FY 2026 Plans: Conduct Congressional directed efforts.					
Congressional Add: Connecting space and UAS technology			-	4.000	
FY 2026 Plans: Conduct Congressional directed efforts.					
Congressional Add: Docking Technologies for unstable objects			-	10.000	
FY 2026 Plans: Conduct Congressional directed efforts.					
Congressional Add: SDA commercial satellite integration			-	4.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 2	R-1 Program Element (Number/Name) PE 1206601SF / <i>Space Technology</i>	Project (Number/Name) 628809 / <i>Spacecraft Vehicle Technologies</i>
	FY 2025	FY 2026
FY 2026 Plans: Conduct Congressional directed efforts.		
Congressional Adds Subtotals	3.931	33.500

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 1206310SF I Space Science and Technology Research and Development							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	440.701	495.523	313.738	0.000	313.738	269.710	363.577	321.509	329.949	Continuing	Continuing
634869: Space Science and Technology Research and Development	0.000	440.701	495.523	313.738	0.000	313.738	269.710	363.577	321.509	329.949	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Development Agency (SDA) is developing and demonstrating the Proliferated Warfighter Space Architecture (PWSA) Transport Layer (Project 634869) for Guardians across the Combat Support, Satellite Communications, Operations, and Warfighting mission areas. As a result, the Service will improve readiness and operational reach of existing force structure and continue to advance all near term effects.

SDA is rapidly developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites and an expedited acquisition model utilizing rapid spiral development. SDA is advancing a proliferated space architecture to address a wide range of Department of War (DoW) space needs aligned with the United States Space Force Space Warfighting Framework, including low-latency tactical communication, beyond line of sight targeting, and advanced missile tracking. In coordination with Combatant Commands and other DoW Space stakeholders, SDA will demonstrate and field persistent, resilient capabilities needed to be responsive to emerging multi-domain threats against the U.S. national interest.

SDA is responsible for the overall programmatic development and execution of a Proliferated Warfighter Space Architecture (PWSA). In coordination with other DoW Space stakeholders, SDA will drive the development of space capabilities, which align with the United States Space Force Space Warfighting Framework and reduce overlap and inefficiency. SDA will expand the DoW's capacity in leveraging the space environment while fostering growth in the U.S. space industrial base through enhanced government-commercial relationships and international collaborations with key allies and partners.

Within the PWSA framework, SDA is responsible for orchestrating and architecting the PWSA and ensuring capability delivery to the warfighter in a responsive manner, delivering tactical communications, resilient sensing, and battle management. As part of the PWSA, SDA is building and fielding the Transport Layer using a proliferated constellation of satellites to provide tactical data to the warfighter. This Transport Layer will provide space-based connectivity for Joint All-Domain Command and Control (JADC2).

The establishment of a proliferated data Transport Layer is essential to enabling a new and responsive space architecture. SDA will integrate additional constellations with this Transport Layer to provide multiple warfighting capabilities, such as advanced missile warning, 24/7/365 custody of time critical targets, and alternative position, navigation and timing (APNT) capabilities in navigation warfare (NAVWAR) resilient environments.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force / BA 3: Advanced Technology Development (ATD)	R-1 Program Element (Number/Name) PE 1206310SF / Space Science and Technology Research and Development	
This program element funds the research and development activity to deliver Transport Layer capabilities to U.S. joint warfighting forces in two-year tranches, which began in FY 2022, including performing trade studies, technical analyses, or modeling and simulation; identifying and maturing enabling technologies; defining and conducting risk reduction experiments and demonstrations, prototyping hardware or software systems; and exploring novel concepts for future warfighting capabilities. The total cost of the Transport Layer Tranche (TLT1) Middle Tier of Acquisition effort is \$3,087.300 million, including RDT&E and procurement of prototype units. The TLT1 program is fully funded across the Future Years Defense Program. The total cost of the Transport Layer Tranche (TLT2) Middle Tier of Acquisition effort is \$5,987.700 million, including RDT&E and procurement of prototype units. The TLT2 program is fully funded across the Future Years Defense Program. This program falls within the Science and Technology (S&T) and Test & Evaluation (T&E) mission area which provides the S&T initiatives, demonstrations, experiments, and studies towards developing next-generation space capabilities. The T&E mission area provides all efforts required to establish and operate the test infrastructure for USSF capabilities. Space Force investment program interdependencies include: RDT&E Budget Line Items: Defense Research Sciences (0601102SF); Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Innov Intg & Rapid Tech Dev (1203174SF); Space Rapid Capabilities Office (1206857SF); Space Science and Technology (1206310SF); Space Systems Prototype Transition (1206427SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); Space Test Program (1206864SF); University Research Initiatives (0601103SF); Operational Test & Training Infrastructure (1206617SF) and elements of Procurement Budget Line Item: General Information Tech - Space (GNRLIT) This program element may include necessary civilian pay expenses and contractor support required to manage, execute, and deliver the PWSA capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 1201198SF. This program is in Budget Activity 3, Advanced Technology Development because this budget activity includes development of subsystems and components and efforts to integrate subsystems and components into system prototypes for field experiments and/or tests in a simulated environment.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 3: Advanced Technology Development (ATD)		PE 1206310SF I Space Science and Technology Research and Development			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	488.916	459.989	0.000	0.000	0.000
Current President's Budget	440.701	495.523	313.738	0.000	313.738
Total Adjustments	-48.215	35.534	313.738	0.000	313.738
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	42.500			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-32.394	0.000			
• SBIR/STTR Transfer	-15.821	-6.966			
• Other Adjustments	0.000	0.000	313.738	0.000	313.738
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 634869: Space Science and Technology Research and Development					
Congressional Add: Defense of Low-Earth Orbit Satellites					
Congressional Add: Defense-in-Depth as Mission Assurance Spacecraft Multi-Level Security					
Congressional Add: L-Band Phased Array Demonstration					
Congressional Add: PWSA Integrated Targeting Solution					
Congressional Add: Real Aperture Radar Technologies					
Congressional Add: Situational Awareness Solutions					
Congressional Add: Transport Layer Software Architecture					
Congressional Add: VHF Payload Satellite Demonstration					
Congressional Add Subtotals for Project: 634869					
Congressional Add Totals for all Projects					
Change Summary Explanation					
The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.					
FY 2025 decreases between the Previous President's Budget and Current President's Budget by 32.394 million due to adjustments for other United States Space Force priorities and by 15.821 million for Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program allocation.					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 3: Advanced Technology Development (ATD)		R-1 Program Element (Number/Name) PE 1206310SF I Space Science and Technology Research and Development		
FY 2026 increases between the Previous President's Budget and Current President's Budget by 25.534 million due to 42.500 million of Congressional adds (Defense of Low Earth Orbit Satellites, L-Band Phased Array Demonstration, Real Aperture Radar Technologies, Situational Awareness Solutions, Transport Layer Software Architecture) and a 6.966 million reduction for Section 8151 SBIR reduction.				
FY 2027 decreases from FY 2026 by 181.785 million due to adjustments for other United States Space Force priorities. The FY 2027 funds will continue to support risk reduction activities, demonstrations, and experiments for the PWSA.				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Space Development Agency R&E		379.182	453.023	313.738
Description: Research and development activities to support development, demonstration, and fielding of a resilient military sensing and data transport capability via a proliferated space architecture in Low Earth Orbit (LEO). The funds support the development of an increasingly broad set of technologies (including alternative navigation solutions, advanced missile tracking, intelligence signal fusion algorithms, integrated battle management algorithms, advanced optical communications, and next generation tactical data links) that are critical to delivering a robust initial warfighting capability in the Proliferated Warfighter Space Architecture (PWSA).				
FY 2026 Plans:				
Tranche 0				
- Continue to conduct post-Capstone demonstrations and experimentations with warfighters.				
- Begin end-of-life operations on select satellites.				
Tranche 1				
- Resolve anomalous behavior in system interoperability and compatibility, including optical communications, space-to-ground radio frequency (RF), Link 16, and Networking.				
- Continue mission engineering support activities including Concept of Operations (CONOPS) and Concept of Employment (CONEMP) development, user segment integration, developmental and operational test planning, and characterization and modeling of system performance targeting advanced use case capabilities.				
- Augment User Guides and Interface Control Documents (ICDs) and conduct integration and test activities to onboard additional Transport mission partners.				
Tranche 2				
- Support risk reduction of Transport Layer Tranche 2 (TLT2) satellites, ground systems, and integration.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 3: Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 1206310SF / <i>Space Science and Technology Research and Development</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
- Continue interoperability and compatibility testing for key T2 interfaces including optical communications, space-to-ground radio frequency (RF), Link 16, tactical satellite communications (TACSATCOM), Integrated Broadcast Service - Low Earth Orbit (IBS-L), and Networking and Encryption. - Continue mission engineering support activities including Concept of Operations (CONOPS) and Concept of Employment (CONEMP) development, user segment integration, developmental and operational test planning, and characterization and modeling of system performance. - Continue development of user Interface Control Documents (ICDs). - Fund mission unique hardware and integration of the T2 space vehicles on the National Security Space Launch (NSSL) Launch vehicles. Tranche 3 - Expand Ground Entry Point (GEP) global footprint in preparation for launch of Tranche 3 (T3) space vehicles. - Continue development of the PWSA Ground Segment in support of T3. - Initiate PWSA ground segment evolution, enhancing PWSA framework capabilities for future Tranches. Risk Reduction Activities - Continue to conduct analysis, pursue tech maturation initiatives, and apply lessons learned to inform on-going and future development and delivery activities for data transport at the tactical edge. Tranche x Demonstration and Experimentation System (TxDES) - Demonstrate and advance the PWSA architecture and its components to fill existing and future gaps to support warfighting capabilities in Missile Warning, Missile Tracking and Missile Defense. The program provides rapid 2-year sprints supporting vendor development, technology maturation and risk reduction in both government-dedicated and commercial connected capabilities. Projects may include: • Proliferated Warfighter Space Architecture (PWSA) integration with proliferated Low Earth Orbit Space Data Network (SDN) • Development of new sensor technology for Tranche 3+ • Acceleration of PWSA integration into Current Missions (Battle Management Command, Control, and Communications (BMC3) across the kill chain) • Development of enhanced tipping and queuing sensors for Combat ID • Deorbit as a Service for proliferated constellation maintenance • PNT over communication channels, PNT SA payload upgrades and light weight PNT signal demonstrations to support user integration prior to operations Advanced Fire Control (AFC)				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 3: Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 1206310SF / <i>Space Science and Technology Research and Development</i>		
C. Accomplishments/Planned Programs (\$ in Millions) - Perform integration testing between Fire-control On Orbit-support-to-the-war (FOO) Fighter and the Demonstration Operations Center (DOC). - Continue Advanced Fire Control Ground Infrastructure (AFCGI) effort to provide a common, enduring ground infrastructure and resources to minimize cost and complexity for fire-control-related space vehicle demonstration and experimentation programs (beginning with FOO Fighter). - Continue execution of other advanced fire control efforts including Warlock and Goliath. - Complete network design for Operational AFC. Other activities in this line may include, but are not limited to program office support, studies, technical analysis, experimentation, etc. FY 2027 Plans: Tranche 0 - Conduct residual experimentation in support of PWSA risk reduction. - Conduct end-of-life fleet operations. Tranche 1 - Resolve anomalous behavior in system interoperability and compatibility, including optical communications, space-to-ground radio frequency (RF), Link 16, and Networking. - Continue mission engineering support activities including Concept of Operations (CONOPS) and Concept of Employment (CONEMP) development, user segment integration, developmental and operational test planning, and characterization and modeling of system performance targeting advanced use case capabilities. - Augment User Guides and Interface Control Documents (ICDs) and conduct integration and test activities to onboard additional Transport mission partners. Tranche 2 - Continue supporting risk reduction of Transport Layer Tranche 2 (TLT2) satellites, ground systems, and integration. - Continue mission engineering support activities including Concept of Operations (CONOPS) and Concept of Employment (CONEMP) development, user segment integration, developmental and operational test planning, and characterization and modeling of system performance. - Continue development of user Interface Control Documents (ICDs). - Fund mission unique hardware and integration of the T2 space vehicles on the National Security Space Launch (NSSL) Launch vehicles.		FY 2025	FY 2026	FY 2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 3: Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 1206310SF / <i>Space Science and Technology Research and Development</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
- Complete payload and space vehicle manufacturing, assembly, integration and test activities. - Continue to support ground activities to ensure integration with PWSA Operations Centers. - Continue space vehicle FlatSat development and operations testing. - Complete Transport payload ground calibration and space vehicle environmental test campaigns. - Transition to nominal operations and conduct space vehicle command and control, and enterprise management, and sustainment for all TLT2 satellites. - Conduct system level verification and Developmental Testing. - Begin software updates and testing on-orbit defect discoveries made during on-orbit functional and performance testing. - Begin early Operational Testing of TLT2 capabilities. Tranche 3 - Continue Ground Entry Point (GEP) global footprint expansion in support of Tranche 3 (T3) launches. - Continue development of the PWSA Ground Segment and capability delivery in support of T3. - Continue PWSA ground segment evolution, enhancing PWSA framework capabilities for future Tranches. Risk Reduction Activities - Continue to conduct analysis, pursue tech maturation initiatives, and apply lessons learned to inform on-going and future development and delivery activities for data transport at the tactical edge. Tranche x Demonstration and Experimentation System (TxDES) - Demonstrate and advance the PWSA architecture and its components to fill existing and future gaps to support warfighting capabilities in Missile Warning, Missile Tracking and Missile Defense. The program provides rapid 2-year sprints supporting vendor development, technology maturation and risk reduction in both government-dedicated and commercial connected capabilities. Projects may include: • PWSA integration with pLEO Space Data Network (SDN) • Development of new sensor technology for Tranche 3+ • Acceleration of PWSA integration into Current Missions (BMC3 across the kill chain) • Development of enhanced tipping and queuing sensors for Combat ID • Deorbit as a Service for proliferated constellation maintenance • PNT over communication channels, PNT SA payload upgrades and light weight PNT signal demonstrations to support user integration prior to operations Advanced Fire Control (AFC)				

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C. Accomplishments/Planned Programs (\$ in Millions) - Perform integration testing between Fire-control On Orbit-support-to-the-war (FOO) Fighter and the Demonstration Operations Center (DOC).Continue Advanced Fire Control Ground Infrastructure (AFCGI) effort to provide a common, enduring ground infrastructure and resources to minimize cost and complexity for fire-control-related space vehicle demonstration and experimentation programs (beginning with FOO Fighter). - Continue execution of other advanced fire control efforts including Warlock and Goliath. Other activities in this line may include, but are not limited to program office support, studies, technical analysis, experimentation, etc. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreases from FY 2026 due to adjustments for other United States Space Force priorities.		FY 2025	FY 2026	FY 2027
Accomplishments/Planned Programs Subtotals		379.182	453.023	313.738
		FY 2025	FY 2026	
Congressional Add: Defense of Low-Earth Orbit Satellites FY 2025 Accomplishments: Conducted acquisition and began progress of effort to provide the following capabilities: Rapidly prototype, evaluate, and iterate on a product that provides human operators with an enhanced human-machine interface (HMI) designed and integrated to facilitate real-time monitoring and alert operators to emerging threats to low Earth orbit satellite systems. Refine ML models and integrate capabilities into operational systems providing actionable information for comprehensive triage and response management by space operators. Execute field tests at various ranges that can create the expected threat environments. FY 2026 Plans: Rapidly prototype, evaluate, and iterate on a product that provides human operators with an enhanced human-machine interface (HMI) designed and integrated to facilitate real-time monitoring and alert operators to emerging threats to low Earth orbit satellite systems. The initial focus was on the development and testing of threat induced anomaly detection in bus and mission payload systems by using machine learning (ML) models created to monitor satellite telemetry data. This continuing effort refines these ML models and integrates these capabilities into operational systems providing actionable information for comprehensive triage and response management by space operators.		10.856	7.500	
Congressional Add: Defense-in-Depth as Mission Assurance Spacecraft Multi-Level Security FY 2025 Accomplishments: Conducted acquisition and began progress of effort to provide the following capabilities: Refine ground station network architectures and designs, including NEBULA, BMC, and space vehicle architectures. Develop tailored grading criteria on the latest NSA accreditation requirements. Collect		19.300	-	

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 3: Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 1206310SF / <i>Space Science and Technology Research and Development</i>	
		FY 2025	FY 2026
and evaluate MLS solutions against established criteria. Engage SDA POCs to gather further insights into future Tranche MLS missions and operational needs. Perform market research on MLS technologies to inform ongoing strategic decisions. Propose MLS frameworks, based on the research, to secure sensitive mission data. Ensure secure data sharing between SDA, vendors, and testing facilities. Support SDA in designing and testing MLS solutions for real-time space-based sensor fusion across classification levels.			
Congressional Add: L-Band Phased Array Demonstration FY 2026 Plans: Support efforts to conduct final qualification, integration, launch, and demonstration of the communications payload. Complete the Element-1 Pre-Ship Review. Complete On-Orbit Demonstration to validate the Element-1 (a 600 kg satellite) and its payloads, including the Vireo multi-beam Ka-band active electronically steered antenna (AESA), multi-beam L-band AESA for Link 16, and Reconfigurable Processing Unit (RPU), which serves as the satellite's software-defined radio. Complete a total of 4 capability demonstrations over a one-year on-orbit test campaign. Deliver a S-band AESA Payload prototype.		-	5.000
Congressional Add: PWSA Integrated Targeting Solution FY 2025 Accomplishments: Conducted acquisition and began progress of effort to provide the following capabilities: Provide analysis of the functionality of the current targeting functions within the CCMD and Services to determine the best candidate for integration into the SDA's OC. Assist SDA in developing the architecture of how data from SDA's PWSA can be synchronized with the cadence of combat operations. Provide modeling and simulation analysis to determine what additional functionality would be added to the OCs. Fully integrate, synchronize, and operationalize targeting functionality within the OCs over multiple Tranches.		5.790	-
Congressional Add: Real Aperture Radar Technologies FY 2026 Plans: Support deployment of a radar satellite constellation using proven real aperture radar technology, enabling detection and tracking from boost to termination phases. Support advanced manufacturing and space systems engineering.		-	10.000
Congressional Add: Situational Awareness Solutions FY 2026 Plans: Support the deployment of advanced, commercially developed situational awareness solutions in VLEO for intelligence and missile tracking		-	5.000
Congressional Add: Transport Layer Software Architecture FY 2025 Accomplishments: Conducted acquisition and began progress of effort to provide the following capabilities: Expand and augment data management concepts supporting ongoing ground and space vehicle		3.860	15.000

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Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 3: Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 1206310SF / <i>Space Science and Technology Research and Development</i>	
integration efforts to enhance the full spectrum of mission use cases within the Proliferated Warfighter Space Architecture (PWSA) on the SDA BMC3 ground and space architecture. FY 2026 Plans: Continues effort to establish a test-bed initiative to identify threats to space-based low earth orbit Internet of Things assets. Build on prior years' work developing telemetry and datasets to train the artificial intelligence/machine learning model, and will include phases focused on anomaly detection, anomaly mitigation, and trust restoration.		FY 2025	FY 2026
Congressional Add: VHF Payload Satellite Demonstration FY 2025 Accomplishments: Conducted acquisition and began progress of effort to provide the following capabilities: Build and launch a six-satellite constellation to demonstrate novel narrowband VHF/UHF payload for continuous communication from low Earth orbit. Demonstrate system capabilities including max data rates under various conditions (line of sight, non-line of sight, foliage, underground, underwater). Demonstrate seamless handover between satellites for uninterrupted coverage.		21.713	-
Congressional Adds Subtotals		61.519	42.500
D. Other Program Funding Summary (\$ in Millions) N/A Remarks			
E. Acquisition Strategy Partners for these activities include DoW research centers, small businesses, non-traditional defense contractors, large defense contractors, commercial space providers, Federally Funded Research and Development Centers, University Affiliated Research Centers, Missile Defense Agency (MDA), Space Systems Command (SSC), Space Operations Command (SpOC), Space Training and Readiness Command (STARCOM), and Defense Advanced Research Projects Agency (DARPA). SDA is also a potential transition partner for technology developers seeking to conduct on-orbit experimentation and prototyping. SDA's Tranche 1 Transport Layer and Tranche 2 Transport Layer space systems are being acquired via Firm Fixed Price contracts conducted in accordance with Other Transaction Authority (OT) for prototyping processes.			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 3: Advanced Technology Development (ATD)					R-1 Program Element (Number/Name) PE 1206616SF I Space Advanced Technology Development/Demo							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	245.989	155.341	126.427	0.000	126.427	109.679	109.816	112.349	114.597	Continuing	Continuing
630321: Space Warfighter Technologist Capabilities	0.000	0.000	35.436	20.323	0.000	20.323	21.423	21.357	22.020	22.459	Continuing	Continuing
633834: Integrated Space Technology Demonstrations	0.000	206.510	46.018	47.425	0.000	47.425	48.027	47.757	48.943	49.920	Continuing	Continuing
634868: Maui Space Surveillance System	0.000	19.491	49.314	41.129	0.000	41.129	21.815	21.776	22.088	22.534	Continuing	Continuing
634922: Space & Missile Rocket Propulsion	0.000	15.329	19.667	17.550	0.000	17.550	18.414	18.926	19.298	19.684	Continuing	Continuing
63682J: Spacecraft Vehicles	0.000	4.659	4.906	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.565

A. Mission Description and Budget Item Justification

The Air Force Research Laboratory (AFRL) is developing and demonstrating Space Advanced Technology Development/Demo (Projects 630321, 633834, 634868, 634922, and 63682J) to support Guardians across Science & Technology and Test & Evaluation. The effects of our efforts will ensure that we have improved readiness across the force for Science & Technology and Test & Evaluation.

This program focuses on five major areas. First, the Space Warfighter Technologist Capabilities area, practices to accelerate moving emerging technologies into the hands of the warfighter. Second, the Integrated Space Technology Demonstrations area is a series of advanced technology demonstrations designed to address mission needs by applying emerging technologies from the Air Force Research Laboratory (AFRL), other United States government laboratories, and industry. This area also includes multi-domain enabling technologies such as modeling and simulation, agile software development, advanced materials and process, and manufacturing and processes to reduce transition risk. Third, the Maui Space Surveillance System area focuses on ground-based optical space situational awareness technology development and demonstration at the Maui Space Surveillance System in Hawaii, as well as the operation and upgrade of the facility. Fourth, the Space & Missile Rocket Propulsion area develops and demonstrates advanced and innovative low-cost high performance space access and satellite propulsion technologies and components. The last major area, Spacecraft Vehicles, focuses on developing technologies for next-generation space communications terminals and equipment.

This program includes funding for the requisite DAF Science & Engineering (S&E) and mission enabling civilian workforce with the necessary technical competencies to develop, manage, and deliver science & technology capabilities. The execution of Space Force S&T depends on AFRL support funded through DAF (Air and Space Force) RDT&E program elements: 1206601SF, 1206616SF, 0601102F, 0602020F, 0602102F, 0602202F, 0602203F, 0602204F, 0602298F, 0602336F, 0602602F, 0602605F, 0602788F, and 0603680F. In FY 2027, 4.509 million is budgeted in this program for 23 direct Full-Time Equivalent (FTE) civilians. The Air Force Research Laboratory (AFRL) utilizes 10 USC 4091, "Authorities for certain positions at science and technology reinvention laboratories" to manage the workforce strength, structure, positions, and compensation.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force / BA 3: Advanced Technology Development (ATD)		PE 1206616SF / Space Advanced Technology Development/Demo				
In order to manage, execute, and deliver science and technology capabilities, this program element may include: expenses to support the operation and maintenance of facilities; as well as expenses related to travel, supplies, IT hardware, software and support, administrative contractor services, etc.						
This program falls within the Science and Technology (S&T) and Test & Evaluation (T&E) mission area which provides the S&T initiatives, demonstrations, experiments, and studies towards developing next-generation space capabilities. The T&E mission area provides all efforts required to establish and operate the test infrastructure for USSF capabilities. Space Force investment program interdependencies include: RDT&E Budget Line Items: Defense Research Sciences (0601102SF); Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Innov Intg & Rapid Tech Dev (1203174SF); Space Rapid Capabilities Office (1206857SF); Space Science and Technology (1206310SF); Space Systems Prototype Transition (1206427SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); Space Test Program (1206864SF); University Research Initiatives (0601103SF); Operational Test & Training Infrastructure (1206617SF) and elements of Procurement Budget Line Item: General Information Tech - Space (GNRLIT).						
The FY 2027 request was reduced by 0.442 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency" Cost Efficiency Initiative.						
This program is in Budget Activity 3, Advanced Technology Development because this budget activity includes development of subsystems and components and efforts to integrate subsystems and components into system prototypes for field experiments and/or tests in a simulated environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		261.474	128.588	0.000	0.000	0.000
Current President's Budget		245.989	155.341	126.427	0.000	126.427
Total Adjustments		-15.485	26.753	126.427	0.000	126.427
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	26.000			
• Congressional Directed Transfers		0.000	2.591			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-7.626	-1.838			
• Other Adjustments		-7.859	0.000	126.427	0.000	126.427
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 633834: Integrated Space Technology Demonstrations						
Congressional Add: Program increase - Nuclear propulsion technologies for cislunar flight						
Congressional Add: Program increase - Nuclear electric propulsion						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 3: Advanced Technology Development (ATD)</i>		R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2025	FY 2026
Congressional Add: <i>Program increase - Long Duration Operations</i>		-	5.000
Congressional Add Subtotals for Project: 633834		63.104	5.000
Project: 634868: <i>Maui Space Surveillance System</i>			
Congressional Add: <i>LADAR for early threat detection</i>		-	18.000
Congressional Add Subtotals for Project: 634868		-	18.000
Project: 634922: <i>Space & Missile Rocket Propulsion</i>			
Congressional Add: <i>Program increase - Modular Multi-Mode Propulsion System</i>		-	3.000
Congressional Add Subtotals for Project: 634922		-	3.000
Congressional Add Totals for all Projects		63.104	26.000
<u>Change Summary Explanation</u>			
The FY 2026 President's Budget submittal did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.			
Strategic Changes:			
FY 2027: completion of the Navigation Technology Satellite 3 (NTS-3) and Rocket Cargo Vanguard efforts, as well as the completion of the thermal control system installation at the Maui Surveillance site.			
FY 2027: increased emphasis on completion of the new dome for the 1.6m telescope at Maui			
Technical Changes:			
FY 2025: funding decreased by \$7.859 million in Other Adjustments due to realignment of funds to PE 0602212F, Defense Laboratories R&D Projects, to implement the Department of War (DoW) Funding Laboratory Enhancements Across Four Categories (FLEX-4) authority under 10 U.S.C. Section 4123.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 3					R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technol ogy Development/Demo</i>				Project (Number/Name) 630321 / <i>Space Warfighter Technologist Capabilities</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
630321: <i>Space Warfighter Technologist Capabilities</i>	0.000	0.000	35.436	20.323	0.000	20.323	21.423	21.357	22.020	22.459	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Project is a concentrated effort to improve Air Force Research Laboratory (AFRL) business practices to accelerate moving emerging technologies into the hands of the warfighter. Vanguard efforts draw the operational, acquisitions, and technology communities together into coherent teams to solve the hard Science & Technology (S&T) problems based on Department of the Air Force (DAF) strategic priorities which do not have readily available emerging technology solutions. Teams follow a disciplined process tailorable to accelerate efforts as deemed necessary by the department. This process (known as WARTECH, for WARfighter / TECHnologist) leverages discrete progress gates to deliver S&T efforts organized as Vanguard Pathfinders, Vanguard Prospects, and Vanguards. This construct organizes these multi-disciplinary, capability-focused investments based on characteristics such as effort maturity, established military utility, technical viability and transitionability. Each have built-in off-ramps to promote transition. The process is overseen by an Executive Committee.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Rocket Cargo	0.000	8.624	2.352
Description: In FY 2026, the Rocket Cargo effort and associated funding transferred within this Program Element from Project 633834, Integrated Space Technology Demonstrations to Project 630321, Space Warfighter Technologist Capabilities, to provide increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities. The Vanguard, Rocket Cargo, is a Science and Technology (S&T) effort to leverage the multi-billion dollars of commercial investments in large reusable launch vehicles to extend the commercial rocket capabilities and create a novel Department of War (DoW) solution for global reach. DAF S&T efforts and resources are focused on the specific areas that are unique to military transport applications. The S&T objective is to determine the viability, performance, military utility, and business case of the commercial rocket capability. Potential investigation activities will include detailed mission and cost analyses, investigation of the harsh rocket plume interactions with landing surfaces, evaluation of rocket landing capabilities at austere sites, and human factors at landing sites. Investments will also determine the ability to airdrop cargo after reentry, will assess in-flight communications to the rocket, will test cargo environments and novel cargo "loadmaster" designs for rapid load/unload, and will evaluate rocket detectability and vulnerability. FY 2026 Plans: Continue:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 3		R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>		Project (Number/Name) 630321 / <i>Space Warfighter Technologist Capabilities</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Tasks for flight readiness and delivery site Concept of Operations (CONOPS) for a demonstration launch of technologies to transport 30 to 100 tons of cargo to an austere site. - Airdrop S&T on the payload mid-air system deployment capabilities from an airdropped container or capsule system. - Quantitative S&T assessment of the rocket detectability and vulnerability, anchored with rocket flight data, to determine implications for military missions; incorporate these details into detailed mission analysis and the capability return on investment. Complete: - Multi-disciplinary S&T to expand commercial rocket capabilities for DoW global cargo delivery on tactical timelines. - Investigations of rocket landing viability over a broader range of unprepared sites and non-standard landing surfaces relevant to rocket delivery directly to the point of need, including landing pad material surface degradation and human factors at the landing site. - Leveraging of commercial rocket flights to determine rocket cargo environments and performance, specifically to include cargo reentry environments that are unique to rocket delivery of 30 to 100 tons cargo. - Experiments of in-flight communications to the rocket during all phases of flight, including hypersonic reentry. - Development of mission planning and launch operations for tactical cargo delivery timelines. FY 2027 Plans: Complete: - Airdrop S&T on the payload mid-air system deployment capabilities from an airdropped container or capsule system. - Quantitative S&T assessment of the rocket detectability and vulnerability, anchored with rocket flight data, to determine implications for military missions; incorporate these details into detailed mission analysis and the capability return on investment. FY 2026 to FY 2027 Increase/Decrease Statement: FY2027 funding decreased compared to \$6.272 million due to completion of multiple tasks. FY2027 efforts will complete the remaining tasks.					
Title: Navigation Technology Satellite 3 (NTS-3) Description: In FY 2026, the Navigation Technology Satellite 3 (NTS-3) effort and associated funding transferred within this Program Element from Project 633834, Integrated Space Technology Demonstrations to Project 630321, Space Warfighter Technologist Capabilities, to provide increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities. The Vanguard, Navigation Technology Satellite 3, develops and demonstrates advanced space-based navigation system technologies to provide resilient navigation support in contested environments. The demonstration includes a space-based test vehicle, ground-based enterprise command and control, and agile software defined receivers for the user.			0.000	4.530	0.843

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 3		R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>		Project (Number/Name) 630321 / <i>Space Warfighter Technologist Capabilities</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
<i>FY 2026 Plans:</i> Continue: - Transition of the system for residual use. - Experimental data analysis and composition of final report. Complete: - On-orbit experimentation, including multiple simulated operational test events through both receivers in the field and on-orbit transmitted signals. - Experimentation of defined mission objectives. <i>FY 2027 Plans:</i> Complete: - Transition of the system for residual use. - Experimental data analysis and composition of final report. Commence and complete: - Follow-on experimentation needed to validate and finalize planned experiments. - Additional experimentation and testing for Modular Open SatNav Architecture. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 funding decreased compared to FY 2026 by \$3.687 million due to completing the majority of final tasks for on-orbit experimentation and operations in FY 2026. Funding in FY 2027 is to finalize and complete any remaining S&T tasks before transitioning to mission partners for residual ops, training, and additional R&D as an augmentation to an operational system.					
<i>Title:</i> Payload Delivery System <i>Description:</i> In FY 2026, the Payload Delivery Systems effort and funding transferred within this Program Element from Project 633834, Integrated Space Technology Demonstrations, sub effort under the Transformational Technology Development effort to Project 630321, Space Warfighter Technologist Capabilities, to provide increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities. The Vanguard Prospect Payload Delivery System is a Spacedrop Demonstration which expands upon the Rocket Cargo Vanguard, which leveraged the multi-billion-dollar commercial investments in large reusable launch vehicles to extend the commercial rocket capabilities and create a novel DoW solution for global reach. While Rocket Cargo S&T explored downmass and cargo delivery via rocket re-entry, this effort will investigate cargo downmass and delivery via capsule spacedrop and re-entry. The re-entry capsule approach has potential for increased cargo mass per launch and a broad diversity of launch solutions from			0.000	20.865	16.471

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / Space Advanced Technology Development/Demo	Project (Number/Name) 630321 / Space Warfighter Technologist Capabilities		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
medium-lift to super-heavy lift launch vehicles. The capsule S&T is inherently multi-disciplinary and multi-domain across air and space. Note: This effort is dual funded (USAF and USSF) starting in FY 2026. The scope shown here includes all the scope (both USAF and USSF) as both funding lines contribute to that scope. The funding shown here is only the USSF funding. The USAF funding can be found in USAF PE 0603032F, Future AF Integrated Technology Demos. FY 2026 Plans: Complete: - Design and development of a multi-ton prototype capsule for demonstration of spacedrop, re-entry, and cargo deployment concepts for air/land/sea. - Modeling and simulation of the capsule re-entry aerodynamics, stability, heating, and technologies for rapid hypersonic deceleration. Commence: - Studies of capsule payload environments and survivability, from spacedrop to payload delivery. - Analyses of re-entry communications and plasma black-out. FY 2027 Plans: Complete: - Studies of capsule payload flight environments in the air and space domain, from capsule spacedrop to payload delivery. - Analyses of re-entry communications and plasma black-out. Commence: - Testing to inform a quantitative S&T assessment of a multi-ton prototype capsule reentry aerodynamics, re-entry communications during hypersonic flight, and rapid atmospheric deceleration. - Testing to assess detectability, survivability, and ground operations for tactical payload delivery. - Analyses of capsule compatibility and integration with multiple vendor launch systems and multiple launch sites. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding decreased compared to FY 2027 by \$4.394 million due to completion of high-cost design and development activities, including assessments of capsule spacedrop, reentry aerodynamics and heating, and stability.				
Title: Transformational Technology Development		0.000	1.417	0.657

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>	Project (Number/Name) 630321 / <i>Space Warfighter Technologist Capabilities</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Description: In FY 2026, the Transformational Technology Development effort and associated funding transferred within this Program Element from Project 633834, Integrated Space Technology Demonstrations to Project 630321, Space Warfighter Technologist Capabilities, to provide increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities. This effort will continue transformational technology development. The Department of the Air Force (DAF) needs to provide game-changing leap-ahead capabilities to meet future force designs. This effort identifies transformational science and technology investment opportunities through the WARfighter- TECHnologist (WARTECH) process. The WARTECH process enables the DAF enterprise to collaboratively translate future force design priorities and requirements into targeted USSF science and technology investments. WARTECH accelerates capability development and responds to emerging technology opportunities by supporting integrated concept exploration. These investments support activities such as mission thread analyses to demonstrate military utility and software and hardware feasibility assessments. Select efforts will evolve into either a Vanguard Pathfinder to allow for further assessment and maturation or be designated a Vanguard Prospect or Vanguard indicating enterprise-level priority. FY 2026 Plans: Continue: - Efforts to de-risk the maturation of resilient space architectures, components, and systems. - Continue efforts to increase space-systems autonomy and improve processing and exploitation of space-based data sources. - Spaceflight experiment demonstrating multi-agent satellite operation, on-orbit refueling, and advanced rendezvous, proximity operations, and docking capability-Initiate development of next-generation Space Domain Awareness technologies to augment operators and improve timeliness and throughput. - Development of space data layer technologies and processing techniques to maximize use of new and existing on-orbit assets. FY 2027 Plans: Continue: - Spaceflight experiment on multi-agent autonomy and on-orbit refueling capabilities to demonstrate dynamic space operations capabilities and advanced on-board autonomy. - Development of next-generation Space Domain Awareness technologies to augment operators and improve timeliness and throughput. - Development of space data layer technologies and processing techniques to maximize use of new and existing on-orbit assets. Commence:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>	Project (Number/Name) 630321 / <i>Space Warfighter Technologist Capabilities</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
- Activities for an innovative and game-changing weapon concept for countering an emerging and highly critical threat by near peer adversaries. - Activities advancing mission payload capabilities designed for rapid fielding in highly contested environments. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 decreased compared to FY 2026 by \$0.760 million due to minor programmatic adjustments to the DAF Science and Technology portfolio			
Accomplishments/Planned Programs Subtotals		0.000	35.436
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 3					R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>				Project (Number/Name) 633834 / <i>Integrated Space Technology Demonstrations</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
633834: <i>Integrated Space Technology Demonstrations</i>	0.000	206.510	46.018	47.425	0.000	47.425	48.027	47.757	48.943	49.920	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY2027, funding was transferred within PE 1206616SF, Space Advanced Technology Development/Demo, from Project 63682J, Spacecraft Vehicles to Project 633834, Integrated Space Technology Demonstrations, to align resources in a single Project allowing for streamlined plans to address priority gaps across USSF mission areas.

A. Mission Description and Budget Item Justification

This project is a series of advanced technology demonstrations designed to address mission needs by applying emerging technologies from the Air Force Research Laboratory, other United States government laboratories, and industry. These technologies are integrated into system-level demonstrations that are used to test, evaluate, and validate the technologies in a relevant environment. This project includes the development and demonstration of programs addressing Department of the Air Force (DAF) capability gaps.

B. Accomplishments/Planned Programs (\$ in Millions)

Title: Integrated Satellite Demonstrations	FY 2025	FY 2026	FY 2027
Description: Mature space technology and deliver capabilities that deter war, support the joint all-domain fight, and if called upon, dominate conflicts in and from space. Advance technologies to enhance timeliness, performance, capacity, agility, and resilience of US and allied space capabilities for transition to Program Executive Offices and Portfolio Acquisition Executives, and to anchor future force designs. Perform end-to-end space system technology development and experimentation from ground segment development to satellite assembly, integration, and test to support multiple Department of the Air Force mission areas. Leverage first-of-a-kind space system expertise and capabilities to directly support programs across the national security space enterprise, reduce technical risk, and increase return on investment for emerging operational systems. FY 2026 Plans: Continue: - Efforts to demonstrate technologies for future proliferated systems through small satellite experiments. - Design, build, and test of small satellite missions with a focus on capabilities in autonomy, cyber resiliency, and integration of commercial, allied, and government space networks command and control (C2) of a hybrid space architecture. - Engagement with university partners to design, build, test, and operate satellites in support of risk reduction experiments for United States Space Force (USSF) missions and to build an experienced workforce for USSF and defense industrial base employment.	30.374	18.083	21.422

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Commence: -Early design, ground experiments, and long-lead equipment purchases for several new flight experiment concepts including demonstrations supporting next generation position, navigation, and timing technology, space-to-terrestrial sensing technology, and dynamic space operations and rendezvous and proximity operations. Complete: -Assembly, Integration and Test of the Space Solar Demonstration. FY 2027 Plans: Continue: - Demonstrate technologies for future proliferated systems through small satellite experiments with a mission focus of designing, building, and testing aimed at increasing the resiliency of space assets, technologies, and missions to emerging threats. - Integrate commercial, allied, and government space networks command and control (C2) of a hybrid space architecture. - Maintain and develop capabilities to support satellite operations at any classification level for a diverse range of space vehicle designs and operation at a variety of orbital regimes. - Satellite operations for 11 planned on-orbit missions including a multi-satellite constellation furthering USSF capability in dynamic space operations. - Develop infrastructure to enable standardization of control interfaces for satellite operations, and to enable cutting-edge Research & Development for defense applications and support of mission partners. - Engage with university partners to design, build, test, and operate satellites to support risk reduction experiments for United States Space Force (USSF) missions and to build an experienced workforce for USSF and defense industrial base employment. - Mission concepting to mature concepts and incorporate systems engineering to ideate on next missions to include, early design, ground experiments, and long-lead equipment purchases for several new flight experiment concepts including demonstrations supporting next generation position, navigation, and timing technology, space-to-terrestrial sensing technology, dynamic space operations, and rendezvous and proximity and docking operations. Commence: - Assembly, Integration and Test (AI&T) for experiments to evaluate capability defending US assets against Electromagnetic Spectrum Operations (EMSO) from adversaries - Expand efforts focused on operating in Very Low Earth Orbit (VLEO) to include satellite operations and specialized component technologies.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>	Project (Number/Name) 633834 / <i>Integrated Space Technology Demonstrations</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
- Increased satellite operations and mission engineering support in preparation for future nuclear propulsion space flight experiments in novel orbits. FY 2026 to FY 2027 Increase/Decrease Statement: FY2027 increased compared to FY2026 by \$3.339 million due to Assembly, Integration and Test (AI&T) activities for currently planned small satellite missions and to expand efforts focused on Very Low Earth Orbit (VLEO) and operations infrastructure for nuclear propulsion space flight beyond Geosynchronous Equatorial Orbit (GEO).			
Title: Transformational Technology Development Description: In FY 2026, the Transformational Technology Development effort and associated funding will transfer within this Program Element to Project 630321, Space Warfighter Technologist Capabilities, to provide increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities. This effort initiates new and continue existing transformational technology development. The Department of the Air Force (DAF) needs to provide game-changing leap-ahead capabilities to meet future force designs. This effort identifies transformational science and technology investment opportunities through the WARfighter- TECHnologist (WARTECH) process. The WARTECH process enables the DAF enterprise to collaboratively translate future force design priorities and requirements into targeted USSF science and technology investments. WARTECH accelerates capability development and responds to emerging technology opportunities by supporting integrated concept exploration. These investments support activities such as mission thread analyses to demonstrate military utility and software and hardware feasibility assessments. Select efforts will evolve into either a Vanguard Pathfinder to allow for further assessment and maturation or be designated a Vanguard Prospect or Vanguard indicating enterprise-level priority. FY 2026 Plans: In FY 2026, work and associated funding with the Payload Delivery System activity was separated from the Transformational Technology Development effort and transferred within this Program Element to the Payload Delivery System effort under Project 630321, Space Warfighter Technologist Capabilities. The remaining non-Payload Delivery system work under this effort and associated funding transferred to Project 630321, Space Warfighter Technologist Capabilities under the Transformational Technology effort. These transfers provide Congress increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities. FY 2027 Plans: Not Applicable FY 2026 to FY 2027 Increase/Decrease Statement:		23.053	0.000
			0.000

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Not Applicable					
Title: Rocket Cargo Description: In the FY 2024 appropriation and FY 2025 enactment, the USSF S&T Vanguard efforts and associated activities, including Rocket Cargo and Navigation Technology Satellite 3 (NTS-3), were Congressionally directed transferred from RDT&E, AF, PE 603020F, Future AF Integrated Technology Demos to PE 1206616SF, Space Advanced Technology Development/Demo, Project 633834, Integrated Space Technology Demonstrations. In FY 2026, the Rocket Cargo effort and associated funding transferred within this Program Element to Project 630321, Space Warfighter Technologist Capabilities, to provide increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities. The Vanguard, Rocket Cargo, is a Science and Technology (S&T) effort to leverage the multi-billion dollars of commercial investments in large reusable launch vehicles to extend the commercial rocket capabilities and create a novel DoW solution for global reach. DAF S&T efforts and resources are focused on the specific areas that are unique to military transport applications. The S&T objective is to determine the viability, performance, military utility, and business case of the commercial rocket capability. Potential investigation activities will include detailed mission and cost analyses, investigation of the harsh rocket plume interactions with landing surfaces, evaluation of rocket landing capabilities at austere sites, and human factors at landing sites. Investments will also determine the ability to airdrop cargo after reentry, will assess in-flight communications to the rocket, will test cargo environments and novel cargo "loadmaster" designs for rapid load/unload, and will evaluate rocket detectability and vulnerability. FY 2026 Plans: In FY 2026, the Rocket Cargo effort and associated plans & funding transferred within this Program Element to Project 630321, Space Warfighter Technologist Capabilities, to provide increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities. FY 2027 Plans: Not Applicable FY 2026 to FY 2027 Increase/Decrease Statement: Not Applicable			44.710	0.000	0.000
Title: Navigation Technology Satellite 3 (NTS-3)			7.176	0.000	0.000

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Description: In the FY 2024 appropriation and FY 2025 enactment, the USSF S&T Vanguard efforts and associated activities, including Rocket Cargo and NTS-3, were Congressionally directed transferred from RDT&E, AF, PE 603020F, Future AF Integrated Technology Demos to PE 1206616SF, Space Advanced Technology Development/Demo, Project 633834, Integrated Space Technology Demonstrations. In FY 2026, the Navigation Technology Satellite (NTS-3) effort and associated funding will transfer within this Program Element to Project 630321, Space Warfighter Technologist Capabilities, to provide increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities. FY 2026 Plans: In FY 2026, the Navigation Technology Satellite (NTS-3) effort and associated plans & funding transferred within this Program Element to Project 630321, Space Warfighter Technologist Capabilities, to provide increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities. FY 2027 Plans: Not Applicable FY 2026 to FY 2027 Increase/Decrease Statement: Not Applicable			
Title: Modeling and Simulation Tools for Space Applications Description: Provide modeling, simulation, and analysis for technology evolution in space-based terrestrial surveillance systems, precision navigation and timing, space domain awareness, satellite communications, space environment monitoring, and space control payloads. FY 2026 Plans: Continue: - Mission-level military utility analyses of technology and associated architectures and employment concepts across multi-domain mission areas. - Refining guidelines and checkpoints for concept maturation evaluations in context of emerging space technologies. -Sensitivity analysis for a kill chain relying on space-based sensors to determine the key capability gaps in technology requirements for an air and sea based long range kill web FY 2027 Plans: Continue:		4.761	3.406
			2.679

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Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / Space Advanced Technology Development/Demo	Project (Number/Name) 633834 / Integrated Space Technology Demonstrations		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
- Mission-level military utility analyses of technology and associated architectures across multi-domain mission areas and development of high-fidelity models/test environments which incorporate essential aspects of the space-domain. - Refining guidelines and checkpoints for concept maturation evaluations in context of emerging space technologies. -Sensitivity analysis for a kill chain relying on space-based sensors to determine the key capability gaps in technology requirements for an air and sea based long range kill web FY 2026 to FY 2027 Increase/Decrease Statement: FY2027 decreased compared to FY2026 by \$0.727 million due to programmatic adjustments to the DAF Science and Technology portfolio. This decrease reflects a strategic realignment to optimize core research areas and improve resource efficiency.				
Title: Agile Space Operations Technology Description: Develop, provide, and leverage agile software development platforms and pipelines that support capability gap identification and rapid software application prototyping, operational evaluation, operator/Guardian effectiveness, and certification in support of USSF operators in collaboration with commercial partners. FY 2026 Plans: Continue: -Focus on tactical level exploratory application development and transition of emerging software technologies to space operators. -Refining an agile software development environment in collaboration with United States Space Force (USSF)/S6 (Deputy Chief of Space Operations for Cyber and Data) to perform agile software development and delivery through user focused collaboration and commercial partnerships. -Work with USSF Field Commands to develop and field a variety of software applications to the USSF Space Delta Units and improve Guardian performance. FY 2027 Plans: Continue: -Focus on exploratory application development and transition of emerging software technologies to space operators. -Refining an agile software development environment in collaboration with United States Space Force (USSF)/S6 (Deputy Chief of Space Operations for Cyber and Data) to perform agile software development and delivery through user focused collaboration and commercial partnerships. -Work with USSF Field Commands to develop and field a variety of software applications to the USSF Space Delta Units and improve Guardian performance. FY 2026 to FY 2027 Increase/Decrease Statement:		1.097	2.245	2.226

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
FY2027 decreased compared to FY2026 by \$0.019 million due to programmatic adjustments to the DAF Science and Technology portfolio. This decrease reflects a strategic realignment to optimize core research areas and improve resource efficiency.			
Title: Cislunar Space Situational Awareness Description: Develops and delivers technologies that increase space situational awareness (SSA) capabilities in cislunar space, up to and beyond 10X Geosynchronous Orbit, capable of detecting, tracking and maintaining custody of objects that are challenging to observe using traditional Space Surveillance Network (SSN) transiting in the Earth-Moon corridor. FY 2026 Plans: Continue: - Procurement of remaining payload and spacecraft materials required to complete Assembly, Integration and Test (AI&T). - AI&T of the satellite system. - Development of cislunar data analysis software and cloud-based ground system improving on existing system architectures and leveraging commercial networks for command and control of space vehicle. - Engagement with cislunar space community to coordinate test events, collect available data, and drive a whole of government approach to cislunar situational awareness. Complete: - Remaining open design work for a cislunar space-based space situational awareness sensor and satellite system. FY 2027 Plans: Continue: -Engagement with cislunar space community to coordinate test events, collect available data, and drive a whole of government approach to cislunar situational awareness. -AI&T of the satellite system. Complete: -Delivery of the Satellite Bus for system integration and test. -Cislunar data analysis software and cloud-based ground system improving on existing system architectures and leveraging commercial networks for command and control of space vehicle. Commence: - Satellite operations support in preparation for first of a kind cislunar space situational awareness mission. FY 2026 to FY 2027 Increase/Decrease Statement:		27.303	12.789
			13.532

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
FY2027 increased compared to FY2026 by \$0.743 million due to increased system integration and test activities.			
FY 2027 funding was realigned from project 63682J to support requirements as described above.			
Title: Modular Open SatNav Architecture		-	0.000
Description: NOTE: This effort is a continuation of work previously accomplished under the Integrated Satellite Demonstrations effort within this Program Element and Project. In late FY 2025 this effort was prioritized by the Department of the Air Force to strategically align to DoW priorities. For full transparency a separate thrust was created to expand and more adequately describe the plans and accomplishments for this effort. Develops a Satellite Navigation security architecture standard that is based on zero-trust and the User Equipment simplicity, rapid security certification, and cost effectiveness by reducing the barriers to industry/commercial entry into the user equipment vendor market. Matures and demonstrates new Satellite Navigation (SatNav) capabilities that can be rapidly in space fielded by leveraging a variety of hosting opportunities, including as secondary/tertiary payloads, massless or reprogrammed payloads on US Government, Allied and/or commercial satellites. FY 2026 Plans: In FY 2026, \$2.536 million of funding and associated plans were aligned under the Integrated Satellite Demonstrations effort within this Program Element and Project as a subset of the broader "early design, ground experiments, and long-lead equipment purchases for several new flight experiment concepts including demonstrations supporting next generation position, navigation, and timing technology" task. FY 2027 plans reflect a continuation of this effort with added detail due to its prioritization within the overarching Project. FY 2027 Plans: Continue: - Mature secure software nodes for user equipment. - Validate integration of interfaces for Lightweight SatNav implementation with potential LEO demo satellites. - Engagement with US Government, Allied and Commercial communities to coordinate test events, collect available data, and drive a whole of government approach to secure Satellite Navigation. Complete: - Mature authenticated operations mode in user equipment. - Testing of accuracy, time-to-first-fix & anti-jam with on-orbit test assets. FY 2026 to FY 2027 Increase/Decrease Statement:			3.387

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
FY2027 increased compared to FY2026 by \$3.387 million due to this effort being broken out separately from the Integrated Satellite Demonstrations effort within this Program Element and Project to prioritize high conviction and maximum impact S&T.					
In FY2026, \$2.536 million was spent on MOSTA within Integrated Satellite Demonstrations therefore, the relevant increase between FY2026 and FY2027 is \$0.851 million. This is due to terrestrial and on-orbit integration and characterization, and algorithm implementation.					
Title: Manufacturing for Space Systems			2.194	1.470	1.154
Description: Develop and transition technologies to reduce cost and improve acquisition timelines through manufacturing innovations of advanced technologies for Department of the Air Force space and multi-domain applications.					
FY 2026 Plans: Continue: -Developing technologies to improve efficiency gains to radiation shielding and thermal control through adapting manufacturing processes for new materials technology. -Investigate yield improvements and cost reduction on space-based sensors. -Improve yield and cost reduction on efforts for in-space maneuverability.					
Commence: - Investigate methods to reduce manufacturing lead time for in-space maneuverability.					
Complete: -Manufacturing demonstrations of low-cost and high-throughput oscillating heat pipes for thermal management using semiconductor processes. -Development and manufacturing scale up of alternative bonding approaches for infrared focal plane array components that increase yield and reduce cost of infrared focal plane arrays.					
FY 2027 Plans: Complete: - Investigate methods to reduce manufacturing lead time for in-space maneuverability - Investigate yield improvements and cost reduction on space-based sensors.					
Continue:					

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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Install and optimize a production line to manufacture multifunctional layer formulations and ultimately produce multilayer radiation shields to supply cost & performance optimized multilayer polymeric shields for future flight demonstration opportunities and DoW missions. Commence: - Establish a new manufacturing process that increases production capacity by 10x of multi-layer insulation material for passive thermal control of spacecraft. FY 2026 to FY 2027 Increase/Decrease Statement: FY2027 decreased compared to FY2026 by \$0.316 million due to the completion of investigations into in-space maneuverability and cost reduction and yield improvements in space-based sensors.					
Title: Advanced Materials for Spacecraft Resilience Description: Develop advanced materials and technologies for spacecraft structures, mission-systems, and payloads to ensure survivability and mission effectiveness from electro-magnetic spectrum threats and hazards. These technologies are applicable to spacecraft at all orbital regimes and supports numerous programs of record (PoRs) spanning multiple government agencies. They are synchronized with related air-domain efforts executed in 3600: Research, Development, Test & Evaluation, Air Force; Program 0603112F/Advanced Materials for Weapon Systems, Project 632100/Laser Hardened Materials. FY 2026 Plans: Continue: -Development of resilient materials for spacecraft structures. -Investigate environmental compatibility of materials at low earth orbit and other orbital regimes. FY 2027 Plans: Continue: -Development of resilient materials for spacecraft structures. Evaluate materials in simulated space environments to down select for further development. -Investigate environmental compatibility of materials at low earth orbit and other orbital regimes in representative and realistic environments. FY 2026 to FY 2027 Increase/Decrease Statement: Not Applicable			2.738	3.025	3.025
Accomplishments/Planned Programs Subtotals			143.406	41.018	47.425

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	FY 2025	FY 2026
Congressional Add: Program increase - Nuclear propulsion technologies for cislunar flight FY 2025 Accomplishments: Conduct Congressionally directed efforts.	14.562	-
Congressional Add: Program increase - Nuclear electric propulsion FY 2025 Accomplishments: Conduct Congressionally directed efforts.	48.542	-
Congressional Add: Program increase - Long Duration Operations FY 2026 Plans: Conduct Congressionally directed efforts.	-	5.000
Congressional Adds Subtotals	63.104	5.000

C. Other Program Funding Summary (\$ in Millions)
 N/A

Remarks

D. Acquisition Strategy
 N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 3					R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>				Project (Number/Name) 634868 / <i>Maui Space Surveillance System</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
634868: <i>Maui Space Surveillance System</i>	0.000	19.491	49.314	41.129	0.000	41.129	21.815	21.776	22.088	22.534	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This program funds ground-based optical space situational awareness technology development and demonstration at the Maui Space Surveillance System (MSSS) in Hawaii, as well as the operation and upgrade of the experimental equipment and facilities. Efforts in this program have been coordinated through the Department of War Science and Technology Executive Committee process to harmonize efforts and eliminate duplication.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: Operate and Upgrade Maui Space Surveillance System									19.491	31.314	41.129	
Description: Operate and upgrade the Maui Space Surveillance System (MSSS) to support development, demonstration, and integration of ground-based optical space domain awareness technologies for use in R&D, as well as for missions conducted by the Combat Forces Command DELTA 2/15 Space Surveillance Squadron (CFC/DEL2/15SPSS).												
FY 2026 Plans:												
Continue:												
- Modernizing the Maui Space Surveillance System (MSSS) research and development (R&D) facilities and experimental equipment to remain in mission-ready state to mature space surveillance technology into combat-relevant capability that contributes to Combat Forces Command (CFC)'s operational mission (continue establishment of the Defense Research & Engineering Network).												
- Collecting observations of satellites as requested by mission partners (conduct the Kaimana Campaign for the National Space Test & Training Complex).												
- Operating the regional wide-area-search of the geosynchronous belt in the Pacific Area of Responsibility (AOR) (establish the wide-area search sensor as a data-contributing node in the Space Surveillance Network).												
- Hosting missions in the Pacific AOR for Department of War components and other government agencies (assist Space Systems Command in evaluation of space surveillance using a passive radio-frequency sensor).												
- Assisting the Air Force Civil Engineering Center in meeting research & development requirements during construction of the new Air Force Maui Optical and Supercomputing installation funded under military construction authority.												
- Overseeing the environmental impact study for the Small Telescope Advanced Research Site.												
Complete:												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>	Project (Number/Name) 634868 / <i>Maui Space Surveillance System</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
- Installation of the new dome for the 1.6m telescope that will protect the sensor from weather, and resume this sensor's unique ability to develop technology for daytime imaging of space objects as well as surveillance of extremely dim objects. - Installation of the thermal control system that ensures precise & stable temperature control of electro-optic cameras attached to the 3.6-meter telescope facility. Commence: - Installation of the new dome for the 1.2m twin-telescope that will protect the sensor from weather. - Reconstruction of the thermal-imaging space surveillance sensor. FY 2027 Plans: Continue: - Modernizing the Maui Space Surveillance System (MSSS) research and development (R&D) facilities and experimental equipment to remain in mission-ready state to mature space surveillance technology into combat-relevant capability that contributes to Combat Forces Command (CFC)'s operational mission (focus on effective communication technology for MSSS). - Sustaining and modernizing experimental equipment and networks to support collecting observations of satellites as requested by mission partners. - Operating the regional wide-area-search of the geosynchronous belt in the Pacific Area of Responsibility (AOR) as a certified sensor node contributing to the Space Surveillance Network. - Hosting missions in the Pacific AOR for Department of War components and other government agencies (assist Space Systems Command in evaluation of space surveillance using a multi-aperture optical sensor). - Assisting the Air Force Civil Engineering Center in meeting R&D requirements during construction of the new Air Force Maui Optical and Supercomputing installation funded under military construction authority. - Installation of the new dome for the 1.2m twin-telescope that will protect the sensor from weather. - Operating the 1.6m telescope for technology development for daytime imaging of space objects as well as surveillance of extremely dim objects Complete: - Installation of the thermal control system to include testing and checkout that ensures precise & stable temperature control of electro-optic cameras attached to the 3.6-meter telescope facility. - Oversight of the environmental impact study for the Small Telescope Advanced Research Site. Commence: - Integration of the thermal-imaging space surveillance sensor. FY 2026 to FY 2027 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>	Project (Number/Name) 634868 / <i>Maui Space Surveillance System</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
FY 2027 increased compared to FY 2026 by \$9.815 million for completion of the new dome for the 1.6m telescope.			
Accomplishments/Planned Programs Subtotals		19.491	41.129
		FY 2025	FY 2026
Congressional Add: LADAR for early threat detection		-	18.000
FY 2026 Plans: Conduct Congressionally directed efforts			
Congressional Adds Subtotals		-	18.000
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 3					R-1 Program Element (Number/Name) PE 1206616SF / Space Advanced Technology Development/Demo				Project (Number/Name) 634922 / Space & Missile Rocket Propulsion			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
634922: Space & Missile Rocket Propulsion	0.000	15.329	19.667	17.550	0.000	17.550	18.414	18.926	19.298	19.684	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project develops and demonstrates advanced liquid rocket engine technologies, components, engines, and integrated systems for launch vehicles. Characteristics such as environmental acceptability, affordability, reliability, responsiveness, reduced weight, and reduced operation and launch costs are emphasized. The objective is to reduce costs, simplify manufacturability, increase performance and life/reusability, as well as payload lift capability. Additionally, this project investigates and demonstrates technologies that will improve responsiveness and resiliency of space access systems and launch infrastructure. This project also develops and demonstrates solar electric, electric, chemical, and advanced propulsion technologies, for station-keeping, repositioning, and orbit transfer for satellites and satellite constellations. This effort develops technologies for flexible, responsive in-space maneuver in all orbit regimes. These technologies are critical to expanding Space Force's capability to deliver capabilities resiliently and responsively in, to, and through space. This project further develops and demonstrates the next generation of physics-based modeling, simulation, and analysis (MS&A) tools for rapid and agile space access and in-space propulsion design, analysis, and production, as well as the digital engineering concepts to manage the entire process of design, test, and validation of space access and in-space systems. This project secures National Unique Testing Assets, providing unmatched capabilities that underpin technological leadership and ensure the safety and security of our nation. All efforts in this project contribute to the sustainment and growth of the space and rocket propulsion industry, providing space access and in-space propulsion technology for the entire Department of War (DoW). Technologies under this project enable capabilities of interest to DoW, National Aeronautics and Space Administration (NASA), and growing Space community. The efforts in this project are reviewed by a DoW level steering committee annually for relevance to DoW missions, and the associated support costs.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Space Access Propulsion Technologies	2.703	0.000	0.000
Description: Develop and demonstrate liquid rocket propulsion technology for current and future space launch vehicles. Demonstrate technologies and concepts of operation supporting rapid launch capability.			
FY 2026 Plans: Effort ended in FY 2025.			
FY 2027 Plans: Not applicable			
FY 2026 to FY 2027 Increase/Decrease Statement: Not applicable			
Title: Propulsion Integration and Demonstration	12.626	16.667	17.550

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>	Project (Number/Name) 634922 / <i>Space & Missile Rocket Propulsion</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Description: Develop and demonstrate liquid rocket propulsion technology for current and future space launch vehicles. Demonstrate technologies and concepts of operation supporting space mobility. Develop and demonstrate solar electric, electric, and monopropellant on-orbit propulsion technologies for existing and future satellites, upper stages, orbit transfer vehicles, and satellite maneuvering for Space Power and Resilience. This work is critical to achieve space maneuverability in contested space environments. FY 2026 Plans: Continue: - Develop, demonstrate and transition experimental, modeling and simulation, and theoretical efforts for advanced thruster development with emphasis flight logistics and thruster lifetimes for rapid and agile design of spacecraft propulsion options. - Analysis and development of multimode propulsion opportunities by combining high efficiency and high thrust capabilities on a common propellant. - thrust scale-up effort for advanced non-toxic propellant for electric propulsion and monopropellant thrusters in a multimode propulsion capability with validation of thermal modes of flight weight thrusters and cheater integration operations. - Flight-weight design and development of multi-mode propulsion flight system combining capabilities of chemical and electric propulsion thrusters utilizing a single common propellant by delivery of flight chemical propulsion hardware for on-orbit demonstration. - Design and development of high-power electric propulsion thrusters by validation of flight weight cathode for enhanced maneuver capability. - Development of modular propulsion architectures via integration and transition of new propulsion technology with greater flexibility of on-orbit logistics options for USSF spacecraft. Commence: - Evaluation of launch capability with commercial partners and demonstration opportunities in manufacturing processes of engines, vehicle and related systems in active prototype and development supporting military utility. - Coordination of technology transition opportunities to manage technology insertion and evaluate capabilities through maturation of prototype flight hardware design using Public Private Partnerships to maximize government infrastructure to benefit vehicle and engine development. FY 2027 Plans: Continue:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>	Project (Number/Name) 634922 / <i>Space & Missile Rocket Propulsion</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
-Develop, demonstrate and transition experimental, modeling, simulation, and theoretical efforts for advanced thruster development with emphasis on flight logistics and thruster lifetimes for rapid and agile design of spacecraft propulsion options. Activities include development of models for total on-orbit asset lifetime based on propulsion system data. -Analysis and development of multimode propulsion opportunities by combining high efficiency and high thrust capabilities on a common propellant. Activities include analysis and development on in-space thrusters utilizing common propellant. -Flight-weight design and development of multi-mode propulsion flight system combining capabilities of chemical and electric propulsion thrusters utilizing a single common propellant by delivery of flight chemical propulsion hardware for on-orbit demonstration. Activities include development, testing, and demonstration of flight-weight chemical propulsion hardware. -Design and development of high-power electric propulsion thrusters by validation of flight weight cathode for enhanced maneuver capability. Activities include development and testing of flight weight cathode for integration into full multi-mode propulsion system. -Development of modular propulsion architectures via integration and transition of new propulsion technology with greater flexibility of on-orbit logistics options for USSF spacecraft. Activities include integrated testing of modular propulsion elements across multi-user system architectures. -Evaluation of launch capability with commercial partners and demonstration opportunities in manufacturing processes of engines, vehicle and related systems in active prototype and development supporting military utility. Activities include active prototyping and testing of commercially manufactured thrusters, components, and engines for use in military missions. Complete: -Thrust scale-up effort for advanced non-toxic propellant for electric propulsion and monopropellant thrusters in a multimode propulsion capability. Activities include verification and validation of thermal modes of flight weight thrusters and cheater integration operations. -Coordination of technology transition opportunities to manage technology insertion and evaluate capabilities through maturation of prototype flight hardware design using Public Private Partnerships to maximize government infrastructure to benefit vehicle and engine development. Activities include: scale-up to flight weight and testing of prototype hardware in partnership with industry for incorporation into modular flight weight systems. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i>			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>	Project (Number/Name) 634922 / <i>Space & Missile Rocket Propulsion</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
FY 2027 increased compared to FY 2026 by \$0.883 million due to increased cost of components, chemical propellants, and engine manufacturing associated with ground and flight testing capabilities.			
Accomplishments/Planned Programs Subtotals		15.329	17.550
	FY 2025	FY 2026	
Congressional Add: Program increase - Modular Multi-Mode Propulsion System	-	3.000	
FY 2026 Plans: Conduct Congressionally directed efforts.			
Congressional Adds Subtotals	-	3.000	
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 3					R-1 Program Element (Number/Name) PE 1206616SF / Space Advanced Technology Development/Demo				Project (Number/Name) 63682J / Spacecraft Vehicles			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
63682J: Spacecraft Vehicles	0.000	4.659	4.906	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	9.565
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
In FY 2027, the W/V-band experiment that was funded out of this Project completed, funding was realigned from Project 63682J, Spacecraft Vehicles, to Project 633834 Integrated Space Technology Demonstrations. Project 633834 Integrated Space Technology Demonstrations develops and demonstrates technologies critical to addressing priority documented military capability gaps across the United States Space Force (USSF), it was determined a separate Project was not necessary for a single stated mission area. Efforts are separated within the Integrated Space Technology Demonstrations Project to specify major experiments addressing top ranked DAF/USSF technology needs.												
A. Mission Description and Budget Item Justification												
This project develops and demonstrates technologies critical to addressing documented military satellite communications capability gaps and top-ranked United States Space Force (USSF) and/or Space Systems Command (SSC) technology needs.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: Space Communication Technologies									4.659	4.906	0.000	
Description: Develop technologies for next-generation space communications terminals and equipment, along with methods/techniques to enable future space system operational command and control concepts.												
FY 2026 Plans:												
Continue:												
-On-orbit W/V-band beacon experiment, including mission support, transmission of test signals, operation of ground receiver terminals, collection, analysis, and archiving of data, monitoring of environmental conditions, analysis of environmental impacts on W/V propagation, and updating/development/refining of models.												
-Operation of outdoor bi-directional terrestrial communications link, as well as collection, analysis, and archiving of data, monitoring of environmental conditions, and analysis of environmental impacts on W/V propagation.												
-Collaboration with commercial and allied partners to obtain and analyze W/V band data and identify test and experimentation events of mutual benefit to United States Space Force (USSF).												
-Studies and analysis for joint all-domain utilization various spectral bands to support assured command and control in highly contested areas.												
FY 2027 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 3	R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>	Project (Number/Name) 63682J / <i>Spacecraft Vehicles</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Evaluation of commercial technologies in W/V band determined industry partners have adopted W/V band technologies and there exist commercial options for W/V band links to/from Low Earth Orbit (LEO), reducing the burden on Department of the Air Force to "path find" in these bands. There are ongoing Science and Technology applied research efforts for W/V band communications that are being addressed within the existing resources in PE 1206601SF, Space Technology, Project 624846, Spacecraft Payload Technologies under the Space Communication/Positioning, Navigation and Timing Technologies Effort. FY2027 plans for funding previously budgeted for this effort are realigned under Project 633834, Integrated Space Technology Demonstrations, within the Cislunar Space Situational Awareness Effort. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY2027 decreased compared to FY2026 by \$4.906 million due to the W/V band experiment completing. The FY2027 funds were realigned within this Program Element 1206616SF/ Space Advanced Technology Development/Demo to Project 633834/ Integrated Space Technology Demonstrations to address priority technology needs within the Department of the Air Force (DAF). Specific FY2027 plans are outlined under the Cislunar Space Situational Awareness Effort.			
Accomplishments/Planned Programs Subtotals		4.659	4.906
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 0604002SF I Space Force Weather Services Research							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.836	0.843	3.581	0.000	3.581	3.613	3.725	3.644	3.763	Continuing	Continuing
645353: SF Weather Services Research	0.000	0.836	0.843	3.581	0.000	3.581	3.613	3.725	3.644	3.763	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The program office is executing the Space Weather Analysis and Forecast System (SWAFS) (Project 643353) for Guardians across the Weather mission area. As a result, the USSF will improve readiness and operational reach of existing the force structure.

This budget activity funds the development necessary to evaluate integrated technologies and models for future operationalization into segments of the Space Force Weather Services (SFWS) in support of three lines of effort. To improve readiness for a more lethal force, SFWS provides timely, accurate, resilient and relevant environmental information, to include space and terrestrial weather, for global battlespace situational awareness for Air Force (AF), Army, Special Operations Forces (SOF), Space Force (USSF), combatant commands, the Intelligence Community (IC), and other government agencies. SFWS capabilities at home station and deployed provide critical environmental information in support of decision makers to gain the asymmetric advantage during the full spectrum of air and space combat operations. SFWS development enhances the lethality, effectiveness, and survivability of AF & SF weapon systems and precision munitions by modernizing capability and seeking the military advantage to accurately predict friendly and foe environmental impacts to optimize mission execution and planning, targeting, weaponeering, battle damage assessment, and space systems operations. To strengthen alliances and partnerships, SFWS development efforts integrate Department of War (DoW), government agency, commercial, and international partner environmental data with SFWS information system equipment for processing, storing, exploiting, and disseminating all-domain weather information for analysis, forecasting, mission integration, and greater interoperability. To ensure greater performance and affordability for the AF and SF, SFWS systems are being modernized through improvements to architecture and system efficiency, cybersecurity, joint all-domain command and control (JADC2) and sensing grid integration, migration to cloud computing, and expanding agile software development practices.

SFWS aligns activities under four capability areas: Weather Data Collection, Weather Data Analysis and Dissemination, Weather Forecasting, and Product Tailoring/ Warfighter Applications (PTWA). This alignment ensures an integrated and systems-oriented approach to program management decisions. A portion of the Weather Forecasting capability is addressed by RDT&E, BA 04, PE 0604002S, Project 645353 - Space Force Weather Services Research.

Weather Forecasting provides global and regional advanced scientific numerical weather prediction capabilities for automated, high-resolution forecast products for mission planning and execution. Space weather modeling assists in characterizing and forecasting the near-earth environment to the sun and enables space weather anomaly and space weather impact assessments. Weather Forecasting includes activities for Numerical Weather Modeling (NWM) and Space Weather Analysis and Forecast System (SWAFS). SWAFS is a software suite of 47 models and applications to ingest, process, and store space environmental data, run space environmental models to specify and forecast the near-earth environment, and run space effects characterization applications.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 0604002SF / Space Force Weather Services Research				
This program element may include necessary civilian pay expenses required to manage, execute, and deliver SFWS for weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
SWAFS falls within the Weather mission area which provides mission-critical environmental intelligence to support global military operations and delivers essential meteorological and oceanographic data to joint forces across all domains and detects space-based environmental threats to protect vital U.S. and allied space assets. Space Force investment program interdependencies include:						
RDT&E Budget Line Items: EO/IR Weather Systems (1203710SF); Space Force Weather Services Research (0604002SF); Weather Satellite Follow-on (1206422SF); elements of Space Situation Awareness Operations (1203940SF); elements of Space Control Technology (1206438SF); and elements of Procurement Budget Line Item: Space Mods (SPCMOD)						
This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		0.867	0.857	0.000	0.000	0.000
Current President's Budget		0.836	0.843	3.581	0.000	3.581
Total Adjustments		-0.031	-0.014	3.581	0.000	3.581
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	-0.014			
• Other Adjustments		-0.031	0.000	3.581	0.000	3.581
Change Summary Explanation						
Strategic Changes:						
FY 2027 - 2030: The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner.						
Technical Changes:						
FY 2026: -0.031M FY 2025 Actuals Layin.						
FY 2026: +0.014M FY2026 SBIR/STTR.						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 0604002SF / <i>Space Force Weather Services Research</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Space Weather Analysis and Forecast System (SWAFS) Radio Frequency Ionospheric Scintillation Application (RISA version 2) software upgrade Description: Funding will be provided to Peraton to manage SWAFS prototyping efforts to include SWAFS RISA version 2, a model identified in an Air Force Research Laboratory (AFRL) Analysis of Alternatives (AoA) to upgrade software allowing use of model algorithms that utilize sensor packages on the Constellation Observing System to monitor Meteorology, Ionosphere, and Climate (COSMIC II) to understand space environment conditions affecting satellites and communications. Johns Hopkins University/Applied Physics Lab (JHU/APL) will perform model upgrades to Ionospheric Data Assimilation - Four Dimensional (IDA4D) to ensure compatibility with a Gov Cloud environment within the SWAFS Space Domain Awareness Environmental Toolkit - for Defense (SET4D) baseline. FY 2026 Plans: Peraton to continue development of upgrade to the Space Weather High Frequency Communication Propagation Model, in conjunction with the AFRL (Air Force Research Lab) development of the Scintillation Nowcast Forecast Model Update, that identifies space environment impacts to DoW and Intelligence Community communications to and through space, and additional Electromagnetic spectrum interference hazard assessment tools (EMI-HAS). Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Begin modeling effort addressing the space weather impacts on Hi-Latitude communications, to include forecasting. Johns Hopkins University/Advanced Physics Laboratory is converting ionospheric model from Fortran to Python computer code. Boston College is improving ionospheric and solar indices models. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increased due to new modeling efforts.		0.836	0.843	3.581
Accomplishments/Planned Programs Subtotals		0.836	0.843	3.581
D. Other Program Funding Summary (\$ in Millions) N/A Remarks				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force</i> / BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 0604002SF / <i>Space Force Weather Services Research</i>
E. Acquisition Strategy SWAFS will use individual Federal Acquisition Regulation (FAR) based and rapid acquisition contracting methods, as well as leverage AFRL for validation work (Technology Readiness Level (TRL) 6 and below) to develop AoA, design solutions, and prototype code.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026					
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 0604002SF / Space Force Weather Services Research						Project (Number/Name) 645353 / SF Weather Services Research					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract		
SWAFS Scintillation Nowcast Forecast Model Update AoA	Various	Various : Various	-	0.836	Jan 2025	0.843	Jan 2026	3.581	Jan 2027	-		3.581	Continuing	Continuing	-		
Subtotal			-	0.836		0.843		3.581		-		3.581	Continuing	Continuing	N/A		
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract		
Project Cost Totals			-	0.836		0.843		3.581		-		3.581	Continuing	Continuing	N/A		
Remarks																	

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026									
Appropriation/Budget Activity 3620F / 4										R-1 Program Element (Number/Name) PE 0604002SF / Space Force Weather Services Research									
										Project (Number/Name) 645353 / SF Weather Services Research									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Space Weather Model Upgrade Development																												
JHU/Ovation prime and IDA4D Modernization																												
Develop RISA 2.0																												
High Frequency Communication Tool/ EMI-HAS enhancements																												
Hi-Latitude communications specifications and forecasts																												
Improved solar wind forecasting for satellite health and drag specifications																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 0604002SF / Space Force Weather Services Research	Project (Number/Name) 645353 / SF Weather Services Research	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space Weather Model Upgrade Development				
JHU/Ovation prime and IDA4D Modernization	1	2025	4	2025
Develop RISA 2.0	1	2025	4	2026
High Frequency Communication Tool/ EMI-HAS enhancements	1	2025	4	2026
Hi-Latitude communications specifications and forecasts	1	2027	4	2030
Improved solar wind forecasting for satellite health and drag specifications	1	2028	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>					R-1 Program Element (Number/Name) PE 1203010SF / <i>Space Force IT, Data Analytics, Digital Solutions</i>							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	83.798	99.570	45.971	0.000	45.971	47.007	43.784	44.531	45.358	Continuing	Continuing
645620: <i>Digital Engineering</i>	0.000	41.399	44.146	45.971	0.000	45.971	47.007	43.784	44.531	45.358	Continuing	Continuing
646017: <i>SSC Developmental IT Infrastructure</i>	0.000	42.399	20.721	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
646602: <i>Integrated Operations Networking</i>	0.000	0.000	34.703	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

In FY 2027, PE 1203010SF, Project 646602 efforts were transferred to PE 1203156SF, Project 673945; and Project 646017 efforts were transferred to PE 1207804SF and the Operation and Maintenance, Space Force appropriation, for efficient execution and proper alignment under the new Portfolio Acquisition Executive (PAE) structure.

Space Systems Command's Space Force Portfolio Acquisition Executive for Infrastructure is developing the Digital Engineering Ecosystem (Project 645620) for Guardians across the Service Operational Function of Enterprise Networks. As a result, the Service will streamline capabilities development through institutional processes and advance technology associated with Golden Dome, ultimately providing a more resilient digital infrastructure to the USSF.

Program Element 1203010SF, Space Force Information Technology (IT), Data Analytics, Digital Solutions, creates the foundation for the USSF's digital transformation, which will streamline acquisition, cybersecurity, life cycle management, and operations. This entails a distinct project, unified in their goal to fully exploit modern information technology:

Project 645620, Digital Engineering, develops a computing environment to support the digital engineering needs of program offices across Space Systems Command (SSC), the product of which would serve programs throughout their life cycles. It also develops and prototypes Artificial Intelligence (AI) capabilities to be utilized to meet emerging needs.

This program falls within the Multi-Mission mission area which provides the systems and efforts that evenly contribute to multiple mission areas across the space enterprise. Program interdependencies include: AFSCN Operations (1203130SF); Defensive Cyber Operations - Space (1203040SF); Enterprise Ground Services (1206770SF); Information Systems Security Program (1203140SF); Rapid Resilient Command and Control (1206772SF); Satellite Control Network (1203110SF); Space and Missile Test and Evaluation (1203173SF); and Space Defense Interface Network (1203904SF).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Space Force IT, Data Analytics, Digital Solutions capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 1203010SF / <i>Space Force IT, Data Analytics, Digital Solutions</i>

This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	86.247	88.606	0.000	0.000	0.000
Current President's Budget	83.798	99.570	45.971	0.000	45.971
Total Adjustments	-2.449	10.964	45.971	0.000	45.971
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	12.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-2.449	-1.036			
• Other Adjustments	0.000	0.000	45.971	0.000	45.971

Change Summary Explanation

FY 2025: -2.449M for SBIR/STTR.

FY2026: +10.0M for congressional add and -1.036M for SBIR/STTR.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1203010SF / <i>Space Force IT, Data Analytics, Digital Solutions</i>				Project (Number/Name) 645620 / <i>Digital Engineering</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
645620: <i>Digital Engineering</i>	0.000	41.399	44.146	45.971	0.000	45.971	47.007	43.784	44.531	45.358	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project 645620, Digital Engineering (DE), is delivering the Digital Engineering Ecosystem (DEE). DEE is a cloud-based, remotely accessible, Multi-Level-Security (MLS) suite of applications, environments, and infrastructure that is easily scalable and provides the means to develop capabilities, store, access, architect, analyze, and visualize data and models throughout the acquisition life cycle, from requirements planning, development, and production, through sustainment.

Digital Engineering (DE) is one of four United States Space Force's (USSF) Focus areas in the Service's digital transformation and is a key enabler. The Space Force was born as a digitally driven organization to meet the need to respond faster to global threats and to act as a force multiplier for the lean Service. The "USSF Vision for a Digital Service," May 2021, signed by the Chief of Space Operations, states that "A key aim of [Digital Engineering] is to manage the complexity of contemporary weapon system acquisition as well as accelerate and modernize the entire capability development lifecycle—from conception to deployment to operations and sustainment."

In support of this vision, this project also funds science, technology, and research study efforts supporting critical operational challenges and collaborating on fundamental advances in Artificial Intelligence (AI). These efforts include creating new algorithms, technologies, analysis tools, and solutions, and informs Department of War decision making on future force structures and capabilities. In one line of effort, this project funds a variety of graduate and post-graduate studies, projects and algorithms to operationalize AI by addressing senior leader sponsored, real-world challenges in Space Domain Awareness (SDA), Command & Control (C2), Advanced Space Training and other missions using the Department of the Air Force-Massachusetts Institute of Technology (MIT) AI Accelerator. This line of effort has and will continue to transition AI algorithms and tools to USSF operational units. In another line of effort, this project improves how space forces are represented and modeled in Joint and other Services' wargaming and analysis to inform their force structure decisions and operational concepts.

The USSF Digital Engineering Ecosystem (DEE) stakeholders are from across the capability development lifecycle. Users include engineers, program managers, force designers, requirements professionals, finance professionals, contracting professionals, logisticians, acquisition leaders and decision makers, mission partners, industry connections, and all other participants in the Capability Development Lifecycle. The Department of War's (DoW) Defense Acquisition University definition of DEE is, "The interconnected infrastructure, environment, and methodology (process, methods, and tools) used to store, access, analyze, and visualize data and models to address the needs of stakeholders." The current funding profile will demonstrate a robust capability for approximately 2000 users with the goal to scale up to accommodate users across the USSF. This includes cloud-hosted and on-premises solution architectures with integrated applications tailored to users for access on users' desks through the web as well as demonstration of secure thin client and other user devices for user access. The modernized capability buildout is for all security classification domains from Controlled Unclassified Information (CUI) to Secret, Top Secret (TS), Sensitive Compartmented Information (SCI) and Special Access Program (SAP). For the SAP deployment, the program also provides initial capability for necessary secure lab space to conduct capability development using the toolsets.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions	Project (Number/Name) 645620 / Digital Engineering		
DEE provides a unified enterprise environment for USSF program offices, operations squadrons, other government stakeholders, and hardware and software vendors, enabling responsive, threat-informed product development, testing, deployment, training, mission planning, and on-orbit anomaly resolution. Key capabilities include: (1) Connecting multiple Digital Threads—a framework to link all the digital information about a space system, from initial design to operations, into a single, accessible system—integrating organizations such as members of the intel community, Space Warfighting Analysis Center (SWAC), and USSF Field Commands to leverage threat models for smarter force design, requirements development, solution design, acquisition, and operations planning; (2) Connecting Classified Systems—facilitating seamless multi-domain engineering activities across multiple classification levels (e.g., CUI to TS, SCI, SAP); (3) Eliminating Redundant Systems—standardizing tools to enhance integration and collaboration; (4) Achieving Cost Efficiencies— reducing costs through enterprise-level capabilities and economies of scale; (5) Enhancing Data-Driven Decisions—providing real-time accurate, relevant information for informed leadership decisions; and (6) Supporting Space Force's Digital Transformation —providing the applications and environment to advance the Chief of Space Operations' (CSO) vision of the Space Force as a "Digital Service," as outlined in the May 2021, U.S. Space Force Vision for a Digital Service. DEE supports DE by connecting acquisition, test, training, and operational data, models, and activities at the speed of relevance through the delivery of a hybrid cloud MLS modeling and data ecosystem. DEE establishes Authoritative Sources of Truth (ASOTs) and Single Sources of Truth (SSOTs) by incorporating data management and integration across multiple trusted sources. DEE is designed to connect engineers, program managers, force designers, requirements managers, logisticians, developmental and operational testers, training instructors and schoolhouses, operational commanders, senior decision makers, mission partners, industry and academia, and all other participants in the Capability Development Lifecycle. The DEE is designed to develop, operate, and support integrated information technology (IT), system security, software development, and data/network modernization to accelerate and modernize the USSF capability development lifecycle. It equips users with tools to enhance collaboration, user experience, and integration with mission partners and industry. DEE helps to assess technical risks posed by adversary threats by analyzing system and enterprise-level risks and incorporates agile software practices to scale platforms and infrastructure based on digital thread mission needs. The DEE provides deliberate data exposure and "normalizes" the data to make it meaningful and useful for any business or mission use cases. The DEE effort includes multiple DEE prototype solutions previously known as the Digital Engineering Integrated Cloud-based Environment (DEICE) Tech Stack. These prototypes currently serve as the interim Digital Services Ecosystem (DSE) for USSF Capability Development as a cloud-based, remotely accessible, interconnected MLS infrastructure, and provides the technical methodology used to store, access, analyze, and visualize evolving systems' data and models throughout their acquisition lifecycles. This project will continue to operate DEICE prototypes with the goal of including or retiring the prototype solutions into the DEE enterprise architecture based on their achieved capabilities. This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Digital Engineering Integration		34.673	37.332	38.145

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions		Project (Number/Name) 645620 / Digital Engineering	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Description: USSF DEE integrates across multiple security environments and authoritative sources of truth. This effort integrates space models over varying maturity levels to function within the DEE to enable test components the ability to evaluate high-fidelity modeling & simulations of real-world space assets capabilities and limitations to inform Tactics, Techniques, and Procedures (TTPs) that need to be developed by readiness components. FY 2026 Plans: Supporting an enterprise DEE architecture. Begin down-selection and transition of discrete MVP efforts to an enterprise DEE architecture. Mature MVP capabilities at multiple classification levels. Integrating with USAF Joint Simulation Environment (JSE). Continue integration and leverage Operational Test, Training & Integration (OTTI) capabilities to support readiness generation across space and Joint enterprise. Leverage existing contract vehicles to enable DE and Integration for prototype infrastructure that allow for assessments and capability solutions. Continue to prototype, develop, test and establish the Secure Facility, networks and systems, tools, and DEE hosted on Hybrid cloud platform for cloud-computing and database storage. Developing Special Access Program (SAP) capabilities and integrating critical security elements. Continue executing contracts and funding for existing facilities, networks, accreditation, DEE, digital tools, MBSE, and modeling and analysis. Continue Special Access Program (SAP) DEE development and sustainment to support Cyber operations, POM support planning, Kill Chain analysis, digital source selection, enterprise integration, intelligence, and penetration testing. Continuing critical security elements across all facilities, networks, DEE, systems, and tools. Security involves physical security, information technology, and information assurance. Delivering System Resiliency. Continue rapid response to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Supporting an enterprise DEE architecture. Continue to prototype, develop, test and establish the Secure Facility, networks and systems, tools, and applications hosted on hybrid cloud platform for cloud-computing and database storage.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203010SF / <i>Space Force IT, Data Analytics, Digital Solutions</i>	Project (Number/Name) 645620 / <i>Digital Engineering</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Integrating with USAF Joint Simulation Environment (JSE). Continue integration and leverage Operational Test, Training & Integration (OTTI) capabilities to support readiness generation across space and Joint enterprise.			
Developing Special Access Program (SAP) capabilities and integrating critical security elements. Continue executing contracts and funding for existing capabilities, networks, accreditation, DEE, digital tools, MBSE, and modeling and analysis. Continue Special Access Program (SAP) DEE development and support for Cyber operations, POM support planning, Kill Chain analysis, digital source selection, enterprise integration, intelligence, and penetration testing.			
Continuing critical security elements across all domains to include facility, networks, DEE, systems, and tools. Security involves physical security, information technology, and information assurance.			
Delivering System Resiliency. Continue rapid response to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.			
FY 2026 to FY 2027 Increase/Decrease Statement: Increase of \$0.813 million is to support further maturation of an enterprise DEE architecture.			
Title: Science, Technology, and Research Studies		6.726	6.814
Description: Funds research and studies on critical Science and Technology (S&T) and international efforts addressing Space Force's current and emerging challenges in the space domain. S&T efforts are essential to deter competitors and prevent technological strategic surprise. Incentivizes US and allies to create opportunities for cooperative deterrence and advances space capability modeling.			7.826
FY 2026 Plans: Continue partnership with MIT AI Accelerator to fund six graduate scholars and one support contractor at MIT to advance AI integration into high-priority functions like SDA, C2, advanced training, TTPs, etc. Investigate additional technical studies and research based on findings from Space Futures workshops, Center for Naval Analysis reports, MIT LL research, and other sources to provide additional insights into resilient and assured space capabilities.			
Fund new studies related to emerging technologies. Support interagency science and technology (S&T) partnerships focused on key space technology categories of overlapping interest among the partner organizations. These efforts support continual development of space-based capabilities among the partner organizations. This includes technology assessments as well as research coordination across multiple agencies operating in the space domain.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203010SF / <i>Space Force IT, Data Ana lytics, Digital Solutions</i>	Project (Number/Name) 645620 / <i>Digital Engineering</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Continue advancing space capability modeling in the BEAM for integration into Office of the Secretary of War (OSW), Joint, and Service wargaming and analysis. Continue development of the USSF Space Enterprise Architecture Modeling to assess the ability of current and planned Space architectures to meet COCOM Joint Mission threads against current and future threats. <i>FY 2027 Plans:</i> Continue partnership with MIT AI Accelerator to fund six graduate scholars and one support contractor at MIT to advance AI integration into high-priority functions like SDA, C2, advanced training, TTPs, etc. Investigate additional technical studies and research based on findings from Space Futures workshops, Center for Naval Analysis reports, MIT LL research, and other sources to provide additional insights into resilient and assured space capabilities. Fund new studies related to emerging technologies. Support interagency science and technology (S&T) partnerships focused on key space technology categories of overlapping interest among the partner organizations. These efforts support continual development of space-based capabilities among the partner organizations. This includes technology assessments as well as research coordination across multiple agencies operating in the space domain. Continue advancing space capability modeling in the BEAM for integration into Office of the Secretary of War (OSW), Joint, and Service wargaming and analysis. Continue development of the USSF Space Enterprise Architecture Modeling to assess the ability of current and planned Space architectures to meet COCOM Joint Mission threads against current and future threats. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY27 increase of \$1.012 million is to support studies related to emerging technologies.			
Accomplishments/Planned Programs Subtotals		41.399	44.146
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
In accordance with the Mar 6, 2025 Secretary of Defense (SECDEF) Memo with the subject, "Directing Modern Software Acquisition to Maximize Lethality," The Program Executive Officer (PEO) for Operational Test and Training Infrastructure (OTTI) will adopt the Software Acquisition Pathway to rapidly deliver scaled digital capabilities and evolve the DEE system faster than adversaries can adapt to the battlefield. Additionally, the DEE program office will apply authorities provided under title 10 U.S.C. 167.4022 and maximize use of Commercial Solutions Openings (CSOs), and Other Transactions Authority (OTA), and other contract approaches for acquiring DEE capabilities.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203010SF / <i>Space Force IT, Data Analytics, Digital Solutions</i>				Project (Number/Name) 645620 / <i>Digital Engineering</i>					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Digital Engineering MLS Prototyping (Physical Environment)	Various	Various : Various	-	-		-		-		-		-	0.000	0.000	-
Digital Engineering Integration and Test (Digital Environment)	Various	Various : Various	-	13.743	Jan 2025	15.669	Nov 2025	-		-		-	0.000	29.412	-
USSF Enterprise Digital Engineering Ecosystem (DEE)	Various	Various : Various	-	-		-		31.786	Oct 2026	-		31.786	Continuing	Continuing	-
Science, Technology, and Research Studies	Various	Various : Various	-	6.726	Jan 2025	6.814	Jan 2026	7.826	Jan 2027	-		7.826	Continuing	Continuing	-
SAP & Physical Environment MLS	C/CPFF	SAIC : Los Angeles, CA	-	6.615	Jan 2025	6.094	Jan 2026	-		-		-	0.000	12.709	-
SAP & Digital Environment MLS	Various	Various : Various	-	8.211	Jan 2025	2.000	Jan 2026	-		-		-	0.000	10.211	-
SAP Security	C/CPFF	ManTech; VA : VA	-	0.798	Jan 2025	-		-		-		-	0.000	0.798	-
SAP & Digital Tools Integration MLS	C/FFP	Various : Various	-	2.040	Jan 2025	0.600	Jan 2026	-		-		-	0.000	2.640	-
Artificial Intelligence Infrastructure	Various	Various : Various	-	-		11.699	Apr 2026	-		-		-	0.000	11.699	-
Space Warfighting Architecture Navigator (SWAN) Development	Various	Various : Various	-	-		-		4.640	Jan 2027	-		4.640	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified : TBD	-	-		1.107	Mar 2026	1.541	Mar 2027	-		1.541	Continuing	Continuing	-
Subtotal			-	38.133		43.983		45.793		-		45.793	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : Various	-	1.657	Jan 2025	-		-		-		-	Continuing	Continuing	-
FFRDC	Various	Various : Various	-	1.609	Oct 2024	-		-		-		-	0.000	1.609	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions						Project (Number/Name) 645620 / Digital Engineering			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Support	Various	Various : El Segundo, CA	-	-		0.163	Oct 2025	0.178	Oct 2026	-		0.178	Continuing	Continuing	-
Subtotal			-	3.266		0.163		0.178		-		0.178	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	41.399		44.146		45.971		-		45.971	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																Date: April 2026			
Appropriation/Budget Activity								R-1 Program Element (Number/Name)								Project (Number/Name)			
3620F / 4								PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions								645620 / Digital Engineering			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Digital Engineering																												
Collateral DEE Prototyping (IL-5 DEE MVP, IL-6 DEE MVP, TS/SCI DEE MVP)																												
SAP DEE Digital & Physical MLS MVP																												
Enterprise DEE Architecture																												
DEE Security Accreditation																												
Science, Technology, and Research Studies																												
Science, Technology, and Research Studies																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions	Project (Number/Name) 645620 / Digital Engineering	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Digital Engineering				
Collateral DEE Prototyping (IL-5 DEE MVP, IL-6 DEE MVP, TS/SCI DEE MVP)	1	2025	4	2026
SAP DEE Digital & Physical MLS MVP	1	2025	4	2026
Enterprise DEE Architecture	1	2027	4	2031
DEE Security Accreditation	2	2025	4	2031
Science, Technology, and Research Studies				
Science, Technology, and Research Studies	1	2025	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions				Project (Number/Name) 646017 / SSC Developmental IT Infrastructure			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
646017: SSC Developmental IT Infrastructure	0.000	42.399	20.721	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Project 646017, Space Systems Command (SSC) Developmental Information Technology Infrastructure (DITI) provides support to enterprise cybersecurity integration, cyber capability development, and vulnerability management across SSC program offices. The project provides program offices support through Authorizing Official (AO) and Risk Management Framework (RMF) cyber assessment team, Zero Trust (ZT), cryptography program alignment, data and information availability, Program Protection, supply chain risk management capabilities, Artificial Intelligence (AI) and secure software management.

DITI develops and implements cybersecurity tools, processes and policies through multiple efforts. Key efforts include: Authorization to Operate (ATO), development of ZT strategies and architectures for legacy and future space systems; building a central repository to track cryptography requirements and associated risks; and synthesizing cybersecurity regulations and directives to improve standardization across mission sets.

Project's efforts focus on developmental cybersecurity and support generation and alignment of cybersecurity policy and guidance, cyber resiliency capability development, vulnerability management, data accessibility with automation, and program protection. DITI helps assess technical risks that operational users experience in SSC program offices or encounter by understanding the System and Enterprise-level risks posed by threats based on deployment and gathered feedback across SSC. Cybersecurity regulation and directives are synthesized, deconstructed, and applied to best determine implementation and standardization across various functions and mission sets. Capability development efforts include implementation of DoW cybersecurity policies and guidance such as DoW's Cyber Strategy, ZT Strategy, and capabilities. This includes efforts for enabling ZT capabilities in Space Systems and implementation of SSC ZT Guidance and Policy via pilot programs for both legacy and future ground and space systems in accordance with Executive Order 14028, "Improving the Nation's Cybersecurity," which requires federal agencies to establish plans to drive adoption of ZT Architecture. The projects pursued for ZT keeps pace with increasing cyber threats to modernize existing infrastructure into SSC programs for mitigation against existing and future vulnerabilities. DITI Developmental Cybersecurity effort will deploy and enhance SSC Supply Chain Risk Management (SCRM) capabilities through development of SCRM AI/ML tools that will illuminate and monitor the space defense industrial base and provide real-time risk analysis to SSC Program Executive Offices (PEOs).

Program Protection effort develops databases, tools, and processes to organize information, reduce program-level redundancies to clarify and update user guides, policy, and contract language to mitigate foreign threats and commercial risks to SSC programs. The effort also develops agile information access and authentication capabilities for the space operations environment to ensure information availability to combat against degradation and disruption.

The project includes the function of the Command Data and AI Officer (CDAO) which produces and defines architectures for Data and AI. This provides context and governance for human machine teaming, and support for operations in the information environment, which is a key consideration in acquisition planning. The CDAO

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions	Project (Number/Name) 646017 / SSC Developmental IT Infrastructure
explores pilots to use AI applications providing decision aids, automation, and computer decision support to make effective decisions in a complicated environment and reduce cognitive load.		
DITI will test AI/Human Machine Teaming pilots and approaches to augment Defensive Cyber Operators (DCO) capability and increase resilience of USSF systems against cyber threats. The Supply Chain Risk Management effort uses a commercial platform that brings public and private data sources with commercial artificial intelligence/machine learning (AI/ML) tools. This platform provides supply chain vendor vulnerabilities that could jeopardize mission capability. The Software and IT effort will deliver authorized cloud-based environments and expand digital mobility programs, providing more flexible, modernized, and capable IT mechanisms for the workforce to enable and propel mission success. A software management system will be created to foster superior software development and drive adoption of the industry standard Development-Security-Operations (DevSecOps) approach, accelerating program schedules and reducing security risk to space assets.		
The Cryptography Modernization effort centralizes and streamlines cryptographic processes for SSC program offices by establishing enterprise-level policy, guidance, and strategies to meet future program requirements. This includes building a central repository to track all cryptographic requirements, identify gaps and risks, develop mitigation plans, and monitor status, as mandated by Department of the Air Force Manual (DAFMAN) 17-1302.		
The DITI Security Control Assessor (SCA) provides recommendation(s) to the Approving Official on residual risk rating and authorization decisions in line with National Institute of Standards and Technology (NIST) compliance and Department of Defense Instruction (DoDI) 8510.01 (RMF).		
The project serves as the authoritative source for enterprise tools and applications (ETAs), with effective and centrally managed licensing systems, a streamlined procurement process, fully migrated and accredited cloud-based environments. DITI provides strategic guidance for software matters, policies to foster superior software development, and drive adoption for Agile and Development-Security-Operations (DevSecOps) methodologies to revolutionize acquisition practices. A robust network infrastructure, tailored for the USSF, will demonstrate fast and reliable communication, support enterprise AI capabilities, and scale digital mobility architecture guided by Information Technology Infrastructure Library (ITIL) v4 methodologies and a centralized funding model. The Developmental Cybersecurity effort furnishes internal management of requirements, funding, contract actions, and PM support/training.		
This project manages a program for prospective students across multiple educational partners for a two- year guided opportunity leading them to critical cybersecurity careers that include network infrastructure, the military sector, and throughout the federal government.		
B. Accomplishments/Planned Programs (\$ in Millions)		
Title: USSF Integrated Operations Network (ION)		
Description: The ION will provide a secure, reliable, multi-classification transport layer to support space missions. ION will be a dynamic cloud-based software-defined mission network that integrates Space Force capabilities providing high bandwidth and low latency for essential capabilities including support to Artificial Intelligence (AI) and the Unified Data Library (UDL). The USSF Digital Engineering Ecosystem will be integrated into ION. Space Force discovered mission network infrastructure contained significant technology debt and is initiating ION to better prepare for Great Power Competition.		
	FY 2025	FY 2026
	21.275	0.000
		FY 2027
		0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203010SF / <i>Space Force IT, Data Analytics, Digital Solutions</i>	Project (Number/Name) 646017 / <i>SSC Developmental IT Infrastructure</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
FY 2026 Plans: N/A			
FY 2027 Plans: N/A			
Title: SSC Developmental IT Infrastructure Description: Space Systems Command (SSC) Developmental Information Technology (IT) Infrastructure, is a USSF initiative that aims to drive effective, resilient, innovative, and cyber-secure solutions and IT across Space Systems Command, to meet warfighter and business needs. FY 2026 Plans: Continue to evolve information accessibility and authentication capabilities on AI decision aids and automation to make effective decisions in an evolving complicated environment and reduce cognitive load to increase resiliency in the space warfighter ecosystem through pilots and emerging applications. Information Dominance will explore existing authentication capabilities across various systems and security levels to provide access to necessary data and enable better decision support for disaggregation and unification in the Space Force. Cryptography will continue to build and maintain its central repository to track all crypto requirements to identify gaps, program risks, mitigation plans, and status tracking for all stakeholders. Cryptography will take a phased approach to develop the central repository to populate and collect all crypto systems within SSC for more available and shared protocols. The key management model, resource mappings, and guidance will improve and streamline SSC programs and other organizations requirements collection and reporting through the Department of Air Force (DAF) Crypto and other higher headquarters. The Software and IT effort will continue to deliver and identify authorized cloud-based environments and expand digital mobility programs, providing more flexible, modernized, and capable IT mechanisms for the workforce to enable and propel mission success. A software management system will continue to be researched to foster superior software development and drive adoption for DevSecOps, accelerating program schedules and reducing security risk to space assets. The risk and configuration software management system will be enhanced, and AI enterprise capability will continue to be expanded. The Graphics Processing Unit (GPU) infrastructure will be deployed and continued to be enhanced to support more use-cases across the enterprise to standardize and accelerate adoption of generative AI and large language models. Continue to furnish internal management of program requirements, funding, contract actions, and PM support/training in relations to Software and IT.		21.124	20.721
			0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203010SF / <i>Space Force IT, Data Analytics, Digital Solutions</i>	Project (Number/Name) 646017 / <i>SSC Developmental IT Infrastructure</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: N/A FY 2026 to FY 2027 Increase/Decrease Statement: Decreased due to transition of SSC Developmental IT Infrastructure Project 646017 Program Element 1207804SF (Acquisition and Management Support (Space)) in the 3410, Operation and Maintenance, Space Force appropriation.			
Accomplishments/Planned Programs Subtotals		42.399	20.721
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy DITI will utilize the most practical vehicle(s) and methods available within Federal Acquisition Regulation (FAR) and non-FAR contracts, agreements and solicitation methods. DITI will utilize various pre-existing SSC SBIR and Indefinite Delivery - Indefinite Quantity (IDIQ) vehicles to continue development of various enterprise solutions. For SCRM, a decentralized SBIR Phase III Blanket Purchase Agreement/IDIQ will exist to allow for increase vendor illumination and onboard more program offices. Utilization of existing mission partner contracts (such as partnerships with Department of Energy, Air Force Research Labs, NIST, other SSC and DAF program offices) will be used to leverage cost savings or technological efficiencies. For ZT and SCRM, Program Protection, information availability, and cryptography competitive acquisitions and/or multi-award contracts are possible to onboard various capabilities available from industry to streamline deployment to SSC program offices. DITI will also utilize multiple phases of SBIRs to integrate and develop emerging cybersecurity technologies.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions				Project (Number/Name) 646017 / SSC Developmental IT Infrastructure					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
USSF Integrated Operations Network	C/TBD	Various : TBD	-	21.275	Jan 2025	-		-		-		-	Continuing	Continuing	-
SSC Developmental IT Infrastructure	Various	Various : TBD	-	7.785	Jan 2025	2.935	Jan 2026	-		-		-	Continuing	Continuing	-
Technical Mission Analysis	Various	Various : TBD	-	2.817	Jan 2025	4.467	Jan 2026	0.000	Nov 2026	-		0.000	Continuing	Continuing	-
SBIR/STTR	Various	TBD : TBD	-	0.000	May 2025	0.522	Jan 2026	0.000	Jan 2027	-		0.000	Continuing	Continuing	-
Subtotal			-	31.877		7.924		0.000		-		0.000	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : TBD	-	8.724	Jan 2025	10.577	Jan 2026	0.000	Nov 2026	-		0.000	Continuing	Continuing	-
FFRDC	Various	Aerospace, PNNL, MITRE : El Segundo, CA	-	1.461	Oct 2024	1.847	Oct 2025	0.000	Oct 2026	-		0.000	Continuing	Continuing	-
Other Support	TBD	Not specified. : TBD	-	0.337	Oct 2024	0.373	Oct 2025	-		-		-	Continuing	Continuing	-
Subtotal			-	10.522		12.797		0.000		-		0.000	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	42.399		20.721		0.000		-		0.000	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1203010SF / <i>Space Force IT, Data Analytics, Digital Solutions</i>			Project (Number/Name) 646017 / <i>SSC Developmental IT Infrastructure</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SSC Developmental IT Infrastructure																												
Cryptography Management Plan Development																												
Cryptography Management Plan Implementation and Reporting																												
SCRM Capability Scaled Deployment																												
SCRM SBIR Phase III Contract Effort																												
SCRM SBIR Phase III Contract Award																												
SCRM SBIR Phase III Program Onboarding																												
SCRM SBIR Phase III Program Tailoring and Feedback Implementation																												
SCRM SBIR Phase III Vendor Illumination and Continuous Monitoring																												
Digital Mobility Pilot																												
Enterprise AI Infrastructure																												
GPU Command MVP																												
Zero Trust Infrastructure Integration Execution																												
Zero Trust Operational Proof of Concept																												
Zero Trust Network and Hardware Operational Test and Deployment																												
Centralized Software Management Platform																												
USSF ION																												
Initiate ION development (pathfinder)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions	Project (Number/Name) 646017 / SSC Developmental IT Infrastructure	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SSC Developmental IT Infrastructure				
Cryptography Management Plan Development	2	2025	4	2025
Cryptography Management Plan Implementation and Reporting	1	2026	4	2026
SCRM Capability Scaled Deployment	1	2025	4	2025
SCRM SBIR Phase III Contract Effort	1	2025	3	2025
SCRM SBIR Phase III Contract Award	3	2025	3	2025
SCRM SBIR Phase III Program Onboarding	3	2025	3	2026
SCRM SBIR Phase III Program Tailoring and Feedback Implementation	4	2026	4	2026
SCRM SBIR Phase III Vendor Illumination and Continuous Monitoring	3	2025	4	2026
Digital Mobility Pilot	1	2026	4	2026
Enterprise AI Infrastructure	1	2026	4	2026
GPU Command MVP	1	2026	4	2026
Zero Trust Infrastructure Integration Execution	1	2025	4	2026
Zero Trust Operational Proof of Concept	1	2025	4	2026
Zero Trust Network and Hardware Operational Test and Deployment	1	2025	4	2026
Centralized Software Management Platform	1	2026	4	2026
USSF ION				
Initiate ION development (pathfinder)	2	2025	4	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions				Project (Number/Name) 646602 / Integrated Operations Networking			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
646602: Integrated Operations Networking	0.000	0.000	34.703	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
In FY 2027, PE 1203010SF, Project 646602 efforts were transferred to PE 1203156SF, Project 673945 for efficient execution and proper alignment under the new Portfolio Acquisition Executive (PAE) structure.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: USSF Integrated Operations Networking (ION)									-	34.703	0.000	
Description: ION will provide a secure, reliable, multi-classification transport layer to support space missions. ION will be a dynamic cloud-based software-defined mission network that integrates Space Force capabilities providing high bandwidth and low latency for essential capabilities including support to Artificial Intelligence (AI) and the Unified Data Library (UDL). The USSF Digital Engineering Ecosystem will be integrated into ION. Space Force discovered mission network infrastructure contained significant technology debt and is initiating ION to better prepare for new threat environment. ION will deploy a SAP, CAP and IC-capable UDL (UDL-Black) within an accredited government cloud that will enable mission partners to access timely, high resolution data at all classification levels. The expansion of cloud infrastructure and resilient movement of data are solutions to gaps in USSPACECOM Offensive Counter Space, Defensive Counter-Space and Integrated Fires Capabilities.												
FY 2026 Plans: FY 2026 efforts will continue to scale and accelerate classified cloud infrastructure expansion in anticipation of projected threat timelines and expand on the pathfinder implementation to connect disparate, classified space capabilities with an integrated, resilient data transport network. Expands integration of a secure, reliable, and multi-classification transport layer to include Command and Control (C2) nodes and incorporates connectivity to the National Space Test and Training Complex (NSTTC) into the existing classified kill web. Improve classified communications resiliency, integrate development activities, and expand advanced training and testing opportunities using test & training data sources to improve Space Force's ability to protect and defend high-priority space missions. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.												
FY 2027 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203010SF / <i>Space Force IT, Data Analytics, Digital Solutions</i>	Project (Number/Name) 646602 / <i>Integrated Operations Networking</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
N/A			
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased due to Integrated Operations Networking (ION) Project 646602 transition to PE 1203156SF, Project 673945.			
Accomplishments/Planned Programs Subtotals		-	34.703
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
ION will leverage a series of existing contracts to modernize classified network infrastructure and onboard industry partners to develop, deploy, and maintain ION elements. In parallel, ION will define the acquisition strategy for FY27-FY28 supporting emerging mission requirements and utilize the most practical vehicle(s) and methods available within Federal Acquisition Regulation (FAR) and non-FAR contracts, agreements and solicitation methods.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions				Project (Number/Name) 646602 / Integrated Operations Networking					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SE&I	TBD	Not specified: TBD : TBD	-	-		2.060	Nov 2025	0.000	Nov 2026	-		0.000	Continuing	Continuing	-
Technical Mission Analysis	RO	El Segundo, CA : TBD	-	-		1.996	Nov 2025	0.000	Nov 2026	-		0.000	Continuing	Continuing	-
CGR/SBIR	TBD	Not specified: TBD : TBD	-	-		0.874	Mar 2026	0.000	Mar 2027	-		0.000	Continuing	Continuing	-
ION Development (data transport, data access, & data integration)	Various	Various: TBD : TBD	-	-		24.198	Jan 2026	0.000	Jan 2027	-		0.000	Continuing	Continuing	-
Subtotal			-	-		29.128		0.000		-		0.000	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	Various	Various: TBD : TBD	-	-		2.384	Nov 2026	0.000	Nov 2026	-		0.000	Continuing	Continuing	-
A&AS	Various	Various: TBD : TBD	-	-		3.141	Nov 2026	0.000	Nov 2026	-		0.000	Continuing	Continuing	-
Other	TBD	Not specified: TBD : TBD	-	-		0.050	Oct 2027	0.000	Oct 2027	-		0.000	Continuing	Continuing	-
Subtotal			-	-		5.575		0.000		-		0.000	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		34.703		0.000		-		0.000	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions			Project (Number/Name) 646602 / Integrated Operations Networking

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
USSF ION																												
ION Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions	Project (Number/Name) 646602 / Integrated Operations Networking

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
USSF ION				
ION Development	1	2026	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 1203164SF I NAVSTAR Global Positioning System (User Equipment) (SPACE)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	1,481.582	260.198	152.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,893.783
643833: MILITARY GLOBAL POSITIONING SYSTEM USER EQUIP	1,481.582	260.198	152.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,893.783
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Program MDAP/MAIS Code: 447

Note
The MGUE program will transfer to the Air Force during the FY27 President's Budget Request.

A. Mission Description and Budget Item Justification

The Global Positioning System (GPS) is a space-based radio Positioning, Navigation, and Timing (PNT) distribution system. GPS User Equipment (UE) consists of standardized receivers, antennas, antenna electronics, and other related equipment, grouped together in sets to derive navigation and time information transmitted from GPS satellites. These receiver sets are used by the Department of War (DoW). Research, Development, Test and Evaluation (RDT&E) funds UE development, integration, test, and analysis for new PNT receiver capabilities in Navigation Warfare (NAVWAR) across all military platforms using GPS services.

The Military Global Positioning System User Equipment (MGUE) Increment (Inc) 1 program is responsible for the development of standard modernized receiver form factors for the lead platforms. The MGUE Inc 1 Capability Development Document (CDD) was approved by the Joint Requirements Oversight Council (JROC) on 24 July 2014. MGUE Inc 1 is initiating a new family of modernized GPS receivers that will deliver significantly improved capability to counter current and emerging PNT threats and enable military operations in a NAVWAR environment where current legacy receiver performance would be compromised. MGUE Inc 1 received a Milestone A decision in April 2012. The program received direction in February 2014, from the Under Secretary of Defense for Acquisition, Technology, and Logistics (USD(AT&L)) to execute a new acquisition strategy, accelerating the program to provide test units faster to facilitate military end users. The MGUE program received a Milestone B decision in January 2017.

The MGUE Inc 2 effort will continue to expand Military-Code (M-Code) receiver technology into additional applications (precision guided munitions) and develop a Joint Modernized Handheld (JMHH) device and Aviation/Maritime receiver to meet Service requirements and address obsolescence. This effort leverages the MGUE Inc 1 technology to the maximum extent while addressing the production of M-Code integrated circuits far into the future. The MGUE Inc 2 is being executed in four parts: 1) Risk Reduction Activities, 2) Miniature Serial Interface (MSI) Receiver Card Middle Tier Acquisition (MTA) rapid prototyping followed by 3) Software Acquisition Pathway (SWP) and 4) Joint Modernized GPS HH Receiver Middle Tier Acquisition (MTA) rapid prototyping effort. The JROC approved the MGUE Inc 2 CDD on 6 April 2018. The Air Force Service Acquisition Executive approved the MGUE Inc 2 Acquisition Strategy to include designation of two MTA Rapid Prototype efforts: 1) MSI Receiver Cards to include Next-Generation (Next Gen) Application Specific Integrated Circuit (ASIC) and 2) Joint, Modernized Handheld Receiver. The SAE has approved the

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1203164SF I NAVSTAR Global Positioning System (User Equipment) (SPACE)				
transition to a SWP following completion of MSI MTA in 2025 to finish MSI development. Additionally, the MGUE Inc 2 program received direction for the study of an MGUE Inc 2 Aviation/Maritime receiver program and development of an acquisition strategy based on ASIC obsolescence for Inc 1.						
The MGUE Inc 2 MSI RP program is not fully funded across the Future Years Defense Program.						
The total cost of the Military GPS User Equipment Increment 2 Joint Modernized Hand Held Middle Tier of Acquisition effort is 107.6 million, including RDT&E and procurement of prototype units. The MGUE Inc 2 JMHH RP program is fully funded across the Future Years Defense Program.						
This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		282.325	175.304	0.000	0.000	0.000
Current President's Budget		260.198	152.003	0.000	0.000	0.000
Total Adjustments		-22.127	-23.301	0.000	0.000	0.000
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-21.200			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		-13.367	0.000			
• SBIR/STTR Transfer		-8.760	-2.101			
• Other Adjustments		0.000	0.000	0.000	0.000	0.000
Change Summary Explanation						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
FY 2026: -\$21.200M Congressional Mark						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1203164SF I NAVSTAR Global Positioning System (User Equipment) (SPACE)		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Military Global Positioning System (GPS) User Equipment (MGUE) Increment (Inc) 1 Product Development Description: The MGUE Inc 1 program develops standard modernized receiver form factors for lead platforms in accordance with the MGUE Inc 1 CDD. FY 2026 Plans: N/A FY 2027 Plans: N/A FY 2026 to FY 2027 Increase/Decrease Statement: N/A		16.308	0.000	0.000
Title: MGUE Inc 1 System/Platform Integration and Performance Certification Description: Integration of MGUE Inc 1 receiver form factors into lead platforms in support of developmental and operational (or field) test events. Conduct technical and operational modernization impact analysis for MGUE lead platform integration. FY 2026 Plans: N/A FY 2027 Plans: N/A		26.306	0.000	0.000
Title: Advanced Technology Description: Advanced Technology/Pre-Tech includes efforts to mature technology for future GPS receivers identified in the MGUE CDDs. These efforts aim to find innovative solutions to increase resiliency in GPS performance and improve on size, weight, power, and cost (SWAP/C) of military receivers. FY 2026 Plans: Continue MoPD development to reduce non-recurring engineering costs associated with adding new capabilities to the military Global Positioning System (GPS) receivers, such as open multi-Global Navigation Satellite System (GNSS) signals, advanced signal processing, machine-learning anti-spoof algorithms, and anti-jam signal processing techniques. Investigate new crypto key architectures and techniques for use in military/civil GPS receivers. Investigate incorporating Micro-Electro-Mechanical Systems (MEMS) into GPS receiver architectures for improved accuracy and resiliency. Partner with allies on new Project Arrangements under the GPS Navigation Warfare (NAVWAR) Research, Development, Test, and Evaluation (RDT&E) Memorandum of		14.658	3.203	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1203164SF / NAVSTAR <i>Global Positioning System (User Equipment) (SPACE)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Understanding (MOU) to develop resilient and assured Positioning, Navigation and Timing (PNT) technologies to reduce Pulse Per Second (PPS) receiver development cost. FY 2027 Plans: MGUE Inc 2 program transfers from United States Space Force (USSF) to United States Air Force (USAF) in FY 2027. FY 2026 to FY 2027 Increase/Decrease Statement: Decrease due to transfer MGUE Inc 2 program transfer to USAF.				
Title: Information Assurance, Security/Compatibility Certification, and Test/Evaluation Description: Develop, implement, and maintain Global Positioning System (GPS) security programs. Develop policy, strategy and resource requirements for GPS User Equipment, security certification and compatibility certification. Security certification, compatibility certification, and security approval ensures future military GPS receivers protect Critical Program Information (CPI) and continue working in all environments and concepts of operations called for by U.S. Strategic Command (USSTRATCOM). FY 2026 Plans: Conduct initial and delta security certification activities for all GPS receivers. Conduct security evaluations/tests for Selective Availability Anti-Spoofing Module (SAASM) and other legacy GPS receiver equipment. Review, approve, and authorize SAASM, M-Code receivers, and certified legacy receiver certified platforms and integrated applications for all of DoW. Provide technical support to develop, validate and process engineering changes. Provide Mobile Crypto Initialization Capability (MCIC) for SAASM receivers and develop Modernized CIC for M-code receivers. Provide Military Standard Order (MSO) certification for GPS Precise Positioning Service (PPS) receivers for integration into aviation platforms. Conduct MGUE Inc 2 hand-held ASIC early Integration & Testing (I&T). Continue to provide Military Standard Order support to portfolio of airborne GPS receiving programs. Update the Protection Profile (PP) to Process Requirement Documents (PRD) to guarantee the integrity of GPS Critical Program Information (CPI) for the benefit of the warfighter. FY 2027 Plans: MGUE Inc 2 program transfers from United States Space Force (USSF) to United States Air Force (USAF) in FY 2027. FY 2026 to FY 2027 Increase/Decrease Statement: Decrease due to transfer MGUE Inc 2 program transfer to USAF.		16.002	13.350	0.000
Title: MGUE Inc 2 Miniature Serial Interface (MSI) Receiver Card Rapid Prototyping Description: The MGUE Inc 2 program will develop M-Code receiver technology for additional applications (space receivers, precision guided munitions, and handheld receivers) to meet Service requirements. MGUE Inc 2 MSI Receiver Card Rapid prototyping builds on the Application-Specific Integrated Circuit (ASIC) post-Preliminary Design Review (PDR) progress and will develop, integrate, produce, and test M-Code capable, low size and power GPS MSI form factor to include a Next Gen ASIC.		172.832	98.770	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1203164SF I NAVSTAR Global Positioning System (User Equipment) (SPACE)		
C. Accomplishments/Planned Programs (\$ in Millions) The MSI receiver card is to meet the needs of low size, weight and power (SWaP) ground-embedded users. However, the Next Gen ASIC must meet the needs of the MSI form factor and be backwards compatible with Inc 1 performance requirements as a potential functional replacement due to Inc 1 ASIC obsolescence. FY 2026 Plans: Conclude the rapid prototyping MTA contracts and transition to the Software Pathway (SWP) for up to two development contracts for new low size/power Miniature Serial Interface (MSI) receiver card to include Next Gen Application Specific Integrated Circuit (ASIC), hardware, and software in the first iterative delivery with increase capability for the joint warfighters. Continue efforts related to the MSI development including, but not limited to, ordering of components for early integrated testing, long-lead parts planning and purchase, procurement of test equipment and articles, manufacturing prototypes, and manpower. Continue efforts to complete security certification, formal MSI Functional Qualification Test, and Functional Configuration Audit/Physical Configuration Audit activities. Complete development of the receiver form factor with next gen ASIC. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: MGUE Inc 2 program transfers from United States Space Force (USSF) to United States Air Force (USAF) in FY 2027. FY 2026 to FY 2027 Increase/Decrease Statement: Decrease due to transfer MGUE Inc 2 program transfer to USAF.		FY 2025	FY 2026	FY 2027
Title: MGUE Inc 2 Handheld (HH) Description: The MGUE Inc 2 HH effort will develop a joint common modernized HH receiver that will provide M-code, anti-spoof, and anti-jam capabilities, with significant improvements in size, weight, and power. The goal of the MGUE Inc 2 HH risk reduction activities is to reduce development risk for the MGUE Inc 2 HH receiver through feedback from the rapid prototyping process and multiple joint service demonstration events. FY 2026 Plans:		14.092	10.290	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1203164SF / NAVSTAR <i>Global Positioning System (User Equipment) (SPACE)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Perform key Miniature Serial Interface (MSI) technology integration and test activities. Continue prototype hardware, software, and critical component maturation, ultimately driving toward initial production readiness. Continue supporting vendor test activities to include field and user testing. Work off test discrepancies to ensure system functionality and requirement satisfaction. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: MGUE Inc 2 program transfers from United States Space Force (USSF) to United States Air Force (USAF) in FY 2027. FY 2026 to FY 2027 Increase/Decrease Statement: Decrease due to transfer MGUE Inc 2 program transfer to USAF.				
Title: MGUE Inc 2 Aviation/Maritime Receiver Card Description: The MGUE Inc 2 Aviation/Maritime effort will develop an Aviation/Maritime receiver card that will provide M-code, anti-spoof, and anti-jam capabilities addressing Inc 1 ASIC obsolescence. The MGUE Inc 2 Aviation/Maritime effort will consist of a risk reduction study with a follow-on Middle Tier of Acquisitions (MTA). The risk reduction study will primarily aid in establishing requirements, defining an overarching funding profile, and evaluating the competitive marketplace in support of the MTA which will deliver the receiver prototype. This prototype builds upon MGUE Inc 2 MSI Receiver Card Rapid Prototyping Major Thrust ASIC efforts to address Aviation/Maritime capabilities. FY 2026 Plans: The MGUE Inc 2 Aviation/Maritime Receiver Card effort will execute a risk reduction study exploring the application of the Military-Code (M-Code) receiver and RMP capability into Aviation/Maritime applications. Conduct competitive market analysis with a cross-section of potential contractors. Define overarching funding profile in support of MTA contract negotiations. Establish requirements and develop the program's Technical Requirement Document. Support vendor data collection activities. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction,		0.000	26.390	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force							Date: April 2026				
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)				R-1 Program Element (Number/Name) PE 1203164SF I NAVSTAR Global Positioning System (User Equipment) (SPACE)							
C. Accomplishments/Planned Programs (\$ in Millions) prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: MGUE Inc 2 program transfers from United States Space Force (USSF) to United States Air Force (USAF) in FY 2027. FY 2026 to FY 2027 Increase/Decrease Statement: Decrease due to transfer MGUE Inc 2 program transfer to USAF.							FY 2025	FY 2026	FY 2027		
Accomplishments/Planned Programs Subtotals							260.198	152.003	0.000		
D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u> <u>Base</u>	<u>FY 2027</u> <u>OOB</u>	<u>FY 2027</u> <u>Total</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>FY 2030</u>	<u>FY 2031</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• SPSF 01 GPSSPC: Global Positioning (Space)	0.835	0.883	0.000	-	0.000	0.000	0.000	0.000	-	0.000	1.718
Remarks Procurement, Space Force (PSF) funding in this PE supports legacy SAASM efforts. Similar work for the MGUE is in the planning phase.											
E. Acquisition Strategy The MGUE program has developed a comprehensive acquisition strategy to provide modernized GPS capabilities to U.S. and Allied Forces by developing a competitive market driven approach. This strategy establishes the signal compatibility and security criteria along with a process for evaluating components to enable rapid movement from development to fielding. The pillars of this effort are: (a) establishing time certain and low risk development; (b) bounding requirements to leverage mature technology to the maximum extent possible; (c) focusing on the development of form factors based on well-defined standards to support lead platform integration; and (d) implementing a proactive, collaborative MGUE platform integration activity to mitigate risk and reduce cost for DoW force structure modernization. The MGUE program awarded three sole source contracts for the Inc 1 Technology Development Phase effort in September 2012, as follow-on efforts to the competitively awarded Modernized User Equipment (MUE) contracts awarded in June 2006. The effort spans the Technology Maturation and Risk Reduction Phase through design and includes integration and test of M-Code receivers into Service-nominated lead platforms. In first quarter FY2021, the program office converted the remaining Raytheon GRAM-S/M development effort to a Firm Fixed Price contract type at the direction of the Air Force Service Acquisition Executive. The contracts of the other two vendors remain primarily a Cost Plus Incentive Fee type contract. This effort also includes the security and compatibility certification of GPS receiver cards as a part of the integration effort. The lead platforms will select from the available vendors to integrate and perform operational testing with funding from the MGUE program. This supports compliance with PL 111-383, section 913.											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 1203164SF I NAVSTAR Global Positioning System (User Equipment) (SPACE)	
On 24 Oct 2024, the SAE signed an Acquisition Decision Memorandum to approve a switch from the Air Force's B-2 platform to the Army's Gray Eagle UAV as the MGUE Inc-1 lead aviation platform. The MGUE Inc 2 program developed an Acquisition Strategy to continue MGUE development by: addressing long term producibility of MGUE ASICs, identifying a U.S. owned trusted foundry for ASIC development, delivering GPS receiver cards to meet stringent Inc 2 requirements, and developing a modernized GPS handheld receiver to meet the needs of the Services. The MGUE Inc 2 program is being executed in four parts: 1) Risk Reduction Activities, 2) Miniature Serial Interface (MSI) Receiver Card Middle Tier Acquisition (MTA) rapid prototyping, followed by 3) Software Acquisition Pathway (SWP), and 4) Joint Modernized GPS HH Receiver Middle Tier Acquisition rapid prototyping effort. The Air Force SAE approved the MGUE Inc 2 Acquisition Strategy to include designation of two MTA Rapid Prototype efforts: 1) MSI Receiver Card (includes Next-Gen ASIC) and 2) Joint, Modernized Handheld Receiver. Furthermore, the SAE has approved the transition to a SWP following completion of MSI MTA to finish MSI development. MGUE Inc 2 awarded three full and open competitive contracts in Nov 2020 for MSI. Due to a bilaterally negotiated contract modification, one vendor's Period of Performance completed in November 2023. The government is currently planning the transition of the MSI development out of MTA Rapid Prototype acquisition pathway to the Software Pathway program first quarter FY 2026. The MGUE Inc 2 Aviation/Maritime program is a competitive rapid prototype effort projected to execute in two parts: 1) risk reduction activities (FY2026) and 2) Aviation/Maritime Receiver Card Middle Tier Acquisition rapid prototyping effort (FY2028 and beyond). The Maritime and Aviation Receiver Card (MAVRC) program plans to award up to a minimum of two competitive contracts under Other Transaction Authority (OTA) in 1 Qtr FY 2028. The SAE approved the transfer of the MGUE Inc 2 program from United States Space Force (USSF) to United States Air Force (USAF). MGUE Inc 2 Program Office is working closely with the Air Force counterpart on a transition plan.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203164SF / NAVSTAR Global Positioning System (User Equipment) (SPACE)				Project (Number/Name) 643833 / MILITARY GLOBAL POSITIONING SYSTEM USER EQUIP					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MGUE Inc 1 Technology Development (1)	C/CPIF	Collins Aerospace : Cedar Rapids, IA	8.607	-		-		-		-		-	0.000	8.607	-
MGUE Inc 1 Technology Development (2)	C/CPIF	Raytheon : El Segundo, CA	151.440	6.605	Mar 2025	-		-		-		-	0.000	158.045	-
MGUE Inc 1 Technology Development (3)	C/CPIF	L3 Harris : Anaheim, CA	1.089	-		-		-		-		-	0.000	1.089	-
MGUE Inc 1 Platform Integration	Various	Various : Various	110.820	26.306	Nov 2024	-		-		-		-	0.000	137.126	-
MGUE Inc 1 Information Assurance	Various	Various : Various	2.707	-		-		-		-		-	0.000	2.707	-
MGUE Inc 1 Technical Mission Analysis	Various	Aerospace/MITRE : Various	11.365	1.398	Nov 2024	-		-		-		-	0.000	12.763	-
MGUE Inc 1 Enterprise SE&I	C/CPAF	SAIC : El Segundo, CA	6.923	-		-		-		-		-	0.000	6.923	-
MGUE Advanced Technology/Pre-Tech	Various	Various : Various	26.017	14.465	Jan 2025	2.919	Jan 2026	-		-		-	0.000	43.401	-
MGUE Inc 2 MSI Receiver Card Rapid Prototyping	Various	Various : Various	146.408	18.620	Dec 2024	31.709	Dec 2025	-		-		-	0.000	196.737	-
MGUE Security Certification	Various	Various : Various	30.034	5.389	Nov 2024	10.854	Nov 2025	-		-		-	0.000	46.277	-
MGUE Inc 2 Technology Development (1)	C/CPIF	BAE Systems : Cedar Rapids, IA	279.679	63.858	Nov 2024	4.983	Oct 2025	-		-		-	0.000	348.520	-
MGUE Inc 2 Technology Development (2)	C/CPIF	L3 Harris : Anaheim, CA	181.166	44.915	Nov 2024	28.975	Oct 2025	-		-		-	0.000	255.056	-
MGUE Inc 2 Technology Development (3)	C/CPIF	Raytheon : El Segundo, CA	191.360	-		-		-		-		-	0.000	191.360	-
MGUE Inc 2 Risk Reduction	Various	Various : Various	78.385	-		-		-		-		-	0.000	78.385	-
MGUE Inc 2 Information Assurance	Various	Various : Various	10.050	5.989	Nov 2024	0.611	Nov 2025	-		-		-	0.000	16.650	-
MGUE Inc 2 Handheld	C/FFP	Technology Adv. Group : Ashburn, VA	22.203	13.140	Nov 2024	8.578	Jan 2026	-		-		-	0.000	43.921	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 4

R-1 Program Element (Number/Name)

PE 1203164SF / NAVSTAR Global Positioning System (User Equipment) (SPACE)

Project (Number/Name)

643833 / MILITARY GLOBAL POSITIONING SYSTEM USER EQUIP

Product Development (\$ in Millions)

				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MGUE Inc 2 Aviation/ Maritime Receiver Card	TBD	TBD : TBD	0.000	-		21.063	Mar 2026	-		-		-	0.000	21.063	-
MGUE Inc 2 Technical Mission Analysis	Various	Aerospace/MITRE : El Segundo, CA	43.955	20.361	Nov 2024	9.286	Oct 2025	-		-		-	0.000	73.602	-
MGUE Inc 2 Enterprise SE&I	C/CPAF	SAIC : El Segundo, CA	15.255	2.129	Jan 2025	3.638	Jan 2026	-		-		-	0.000	21.022	-
MGUE Inc 1 and Inc 2 SBIR/STTR	Allot	TBD : TBD	0.000	0.000		2.456		-		-		-	0.000	2.456	-
Subtotal			1,317.463	223.175		125.072		-		-		-	0.000	1,665.710	N/A

Test and Evaluation (\$ in Millions)

				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MGUE Inc 1 Test and Evaluation	Various	Various : Various	2.813	0.060	Apr 2025	-		-		-		-	0.000	2.873	-
MGUE Inc 2 Test and Evaluation	Various	Various : Various	14.283	3.322	Jan 2025	1.885	Jan 2026	-		-		-	0.000	19.490	-
Subtotal			17.096	3.382		1.885		-		-		-	0.000	22.363	N/A

Management Services (\$ in Millions)

				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MGUE Inc 1 FFRDC	RO	Aerospace/MITRE : El Segundo, CA	15.090	1.816	Dec 2024	-		-		-		-	0.000	16.906	-
MGUE Inc 2 FFRDC	RO	Aerospace/MITRE : El Segundo, CA	29.590	8.926	Dec 2024	13.406	Nov 2025	-		-		-	0.000	51.922	-
MGUE Inc 1 A&AS	Various	Various : Various	54.755	6.224	Dec 2024	-		-		-		-	0.000	60.979	-
MGUE Inc 2 A&AS	Various	Various : Various	46.213	16.227	Dec 2024	11.384	Nov 2025	-		-		-	0.000	73.824	-
DCA Civ Pay	C/CPAF	Not specified. : TBD	0.000	-		-		-		-		-	0.000	0.000	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203164SF / NAVSTAR Global Positioning System (User Equipment) (SPACE)				Project (Number/Name) 643833 / MILITARY GLOBAL POSITIONING SYSTEM USER EQUIP					
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MGUE Inc 1 and Inc 2 Other Support	Various	Various : El Segundo, CA	1.375	0.448	Oct 2024	0.256	Oct 2025	-		-		-	0.000	2.079	-
Subtotal			147.023	33.641		25.046		-		-		-	0.000	205.710	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1,481.582	260.198		152.003		-		-		-	0.000	1,893.783	N/A
Remarks															
FINANCIAL PERFORMANCE: MGUE Inc 1 and Inc 2 is evaluated against traditional Research and Development (R&D) program expenditure benchmarks. Unlike many traditional R&D programs, however, the MGUE Inc 1 and Inc 2 contracts are FPIF contracts with progress payments. 10 percent of incurred costs are withheld until the end of the contract, when they are liquidated. Mandatory funding obligations and progress payment withholds will cause the program to lag traditional expenditure benchmarks, painting an inaccurate portrait of overall program execution health. MGUE Inc 1 program funding ends in FY 2025.															
MGUE Inc-2 FY27+ program cost and funding profiles are reflected in the United States Air Force (USAF) Justification Books.															
FY 2026 Plans: Complete the Global Positioning System (GPS)-Base Positioning Navigation and Timing System (GPNTS) Independent Verification & Validation (IV&V) testing and AEGIS Integration Event (AIE) for COMbat Certification of the GPNTS integrated with MGUE in a lab environment.															
FY 2027 Plans: Complete TECHEVAL and Follow-On Operational Test & Evaluation (FOT&E) test events for GPNTS integrated with MGUE on board with Arleigh-Burke Class Destroyer (DDG).															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1203164SF / NAVSTAR Global Positioning System (User Equipment) (SPACE)		Project (Number/Name) 643833 / MILITARY GLOBAL POSITIONING SYSTEM USER EQUIP	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MGUE Increment 1																												
MGUE Inc 1 Lead Platform Integration and Test																												
Advanced Technology/Pre-Tech																												
ADV/Pre-Tech MUNS-M System Enhancements & Tests																												
ADV/Pre-Tech MGNSS Receiver Design Integration																												
ADV/Pre-Tech IMAS Transition opportunities / Evaluation																												
ADV/Pre-Tech IMAS Platform Transition / Evaluation																												
MoPD follow on RFC implementation & vendor integration support																												
MoPD Vendor Integration Support																												
MGUE Increment 2																												
MGUE Inc 2 MSI Receiver Card w/Next Gen ASIC Rapid Prototyping																												
MGUE Inc 2 MSI Receiver Card w/ Next Gen ASIC Software Development																												
MGUE Inc 2 M-Code & Legacy Receive Security Certification																												
MGUE Inc 2 Modernized Handheld Receiver																												
MGUE Inc 2 Handheld Objective C Extension																												
MGUE Inc 2 Aviation/Maritime Receiver Obsolescence Study																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203164SF / NAVSTAR Global Positioning System (User Equipment) (SPACE)	Project (Number/Name) 643833 / MILITARY GLOBAL POSITIONING SYSTEM USER EQUIP	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
MGUE Increment 1				
MGUE Inc 1 Lead Platform Integration and Test	1	2025	4	2026
Advanced Technology/Pre-Tech				
ADV/Pre-Tech MUNS-M System Enhancements & Tests	4	2025	4	2026
ADV/Pre-Tech MGNSS Receiver Design Integration	2	2026	4	2026
ADV/Pre-Tech IMAS Transition opportunities / Evaluation	1	2025	2	2026
ADV/Pre-Tech IMAS Platform Transition / Evaluation	2	2025	4	2026
MoPD follow on RFC implementation & vendor integration support	4	2025	4	2026
MoPD Vendor Integration Support	1	2025	4	2026
MGUE Increment 2				
MGUE Inc 2 MSI Receiver Card w/Next Gen ASIC Rapid Prototyping	1	2025	1	2026
MGUE Inc 2 MSI Receiver Card w/ Next Gen ASIC Software Development	1	2026	4	2026
MGUE Inc 2 M-Code & Legacy Receive Security Certification	1	2025	4	2026
MGUE Inc 2 Modernized Handheld Receiver	1	2025	4	2026
MGUE Inc 2 Handheld Objective C Extension	3	2025	4	2026
MGUE Inc 2 Aviation/Maritime Receiver Obsolescence Study	2	2026	4	2026

Note

MGUE Inc 1 Complete MGUE Inc 1 Gray Eagle Operational Test Report in FY26 and DDG Operational Test in FY27
 MGUE Inc 2 Aviation Receiver card schedule pending acquisition decision memorandum approval.
 MGUE Inc-2 FY27+ program schedule and profile activities are reflected in the United States Air Force (USAF) Justification Books.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 1203622SF I Space Warfighting Analysis							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	123.208	124.409	128.546	0.000	128.546	132.321	134.449	137.650	140.315	Continuing	Continuing
646021: Space Warfighting Analysis Center (SWAC)	0.000	123.208	124.409	128.546	0.000	128.546	132.321	134.449	137.650	140.315	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Warfighting Analysis Center (SWAC) develops/provides authoritative Force Design analysis for the USSF and Department of War. SWAC's (Project 646021) focus and analysis is on USSF core service operational function (Global Mission Operations) activities to deliver space capabilities to the Joint Force and the nation. This Program Element (PE) 1203622SF, Space Warfighting Analysis Center (SWAC) funds increased scope towards capability area analyses and integration, modeling, integrated modeling & analysis, and experimentation to create operational concepts and force design guidance for existing and emerging USSF missions. Capability Area design analyses identify the integrated suite of operational capabilities that fulfills USSF imperatives to preserve the United States' freedom of action in space; enables Joint Force lethality and effectiveness; and provides the Service options for developing capabilities operating in, from, and to space. These analyses efforts team with relevant stakeholders across the National Security Space enterprise from an independent perspective and will provide analytic insight to the Service to inform and/or validate solutions to operational needs and provide a basis for future capability development programs. USSF force design analyses are organized into three main focus areas: Multi-Domain Sensing, Spectrum Warfare, and Force Design Integration which are aligned to USSF priorities, and follow a disciplined approach to discover, analyze, and validate concepts and the associated family of systems required to satisfy current/future mission needs while including comprehensive threat analysis. The resulting force design products will help define and inform future USSF mission requirements, capabilities/architectures, priorities, funding needs, and interface standards.

This program element may include necessary emergent/unanticipated civilian pay expenses required to manage and execute the force design mission assigned to the SWAC and/or deliver products for evolving weapon system capabilities.

This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

This program falls within the Enterprise Management & Information Technology mission area. Enterprise Management provides the personnel and infrastructure required to manage USSF headquarters functions at the service and field command levels, including the Space Service Acquisition Executive for Space Systems and Programs, Office of the Assistant Secretary for Space Acquisition and Integration, the Office of the Chief of Space Operations (OCSO), the Space Staff, and Secretariat. Information Technology includes the IT infrastructure required for the USSF to acquire, sustain, and operate its assets. Program interdependencies include: Acq and Management Support (Space) (1207804SF); Acq Workforce - Space & Missile Sys (1206392SF); Asst SecAF - Space Acq & Integration (1203924SF); Combat Support - Other Program (1203969SF); Commercial Services (1206771SF); Force Structure Deviation (0808722F); Headquarters U.S. Space Force (1209398SF); Management Headquarters - STARCOM (1209158SF); Mgt Headquarters - Space (Admin) (1205498SF); Operational Headquarters - Space (1203925SF); Permanent Change of Station Travel (0808731F); Service Support to OSW (0901503SF); Service Support to SDA - MHA (1201198SF); Space & Missile Systems Center - MHA (1206398SF); Space Planning and Operations Support (1201000SF); Space Security and Defense Program (1206730SF); Space Warfighting Analysis (1203622SF); Svc Spt to The Joint Staff (0901507SF)

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1203622SF I Space Warfighting Analysis				
This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		121.409	125.982	0.000	0.000	0.000
Current President's Budget		123.208	124.409	128.546	0.000	128.546
Total Adjustments		1.799	-1.573	128.546	0.000	128.546
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-1.573			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-3.501	0.000			
• Other Adjustments		5.300	0.000	128.546	0.000	128.546
Change Summary Explanation						
The FY 2026 President's Budget submittal did not reflect the FY 2027 through FY 2030 funding. Therefore, an explanation of the changes between the two budget positions for FY 2027 cannot be made in a relevant manner.						
FY 2026: -1.573M Section 8151 SBIR reduction						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Space Warfighting Analysis Center (SWAC)				123.208	124.409	128.546
Description: Space Warfighting Analysis Center is the foundational element to develop and provide authoritative Force Design recommendations for the United States Space Force (USSF).						
FY 2026 Plans:						
(U) Fiscal Year 2026 enables the continuation of comprehensive Force Design analyses to assess future requirements informed by strategic guidance, threats, warfighter needs, and technology opportunities, tested through integrated modeling and analysis and experimentation and validated through physics-based, data-driven analysis. SWAC efforts address the following three areas: Integration, Multi-Domain Sensing and Spectrum Warfare. SWAC Integration efforts will establish USSF best practices for conducting the full scope of force design analysis (e.g., mission area, capability area, and capability enabling), ensure integration of SWAC analytical agendas and design recommendations, support and execute integrated analysis leveraging robust modeling						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1203622SF / <i>Space Warfighting Analysis</i>		
C. Accomplishments/Planned Programs (\$ in Millions) and dynamic coding. SWAC Integration will produce cost analysis and modeling methodology for studies and implement and maintain support infrastructure and information Technology. The Multi-Domain Sensing Program (MDSP) will define options to incorporate multiple phenomenology sensing to address warfighters' needs to maintain custody of moving targets on the ground, at sea, and in the air. Additionally, MDSP will evaluate options for the space and ground missile warning architecture to best support deterrence and ensure the survivability and endurability of the architecture through all phases of conventional and nuclear conflict. The Spectrum Warfare Program (SWP) Space Data Network (SDN) effort will refine and deliver design recommendations for space-based broadband and narrowband transport to both terrestrial and space-to-space users, to include NC3 capabilities. The SWP Navigation Warfare effort will refine the near-term "Resilient GPS" reference architecture and expand to longer term recommendations about GPS 4 and other Position, Navigation, and Timing capabilities. Lastly, the SWP Ground Data Network effort will deliver recommendations on global terrestrial data transport, processing, and C2 that seamlessly interfaces with the SDN. Analyzing options to leverage commercial and international partners is a significant part of all SWP efforts. FY 2027 Plans: (U) In Fiscal Year 2027 SWAC efforts will continue to address the three areas: Integration, Multi-Domain Sensing and Spectrum Warfare. SWAC Integration efforts will continue to develop Force Design guidance and integration of analytical plans. SWAC Integration will expand cost modeling capabilities to improve abilities to model new acquisition models and new space cost structures for emerging concepts without heritage. The Multi-Domain Sensing Program (MDSP) will develop and provide the authoritative space-based sensing force design guidance for the United States Space Force (USSF). MDSP will also provide Space architecture recommendations in support of homeland defense and develop sensing architectures in support of Golden Dome for America capabilities, complete capability enabling designs for Ground Moving Target Indicator (GMTI) and Air Moving Target Indicator (AMTI), update Missile Warning / Missile Tracking design based on 2035 threats, and develop recommendations for Space-based Environmental Monitoring. The Spectrum Warfare Program (SWP) will continue to evaluate the impacts to the space data network from nuclear attack, assess gaps in capability, and recommend changes/additions to service users who need capability into nuclear conflict. SWP will also synthesize and update existing recommendations for an optimized proliferated Low Earth Orbit (pLEO) Space Data network that integrates US government, commercial, and international partners into a unified DoW architecture facilitating the integration between various pLEO meshes such as PWSA and SDN Backbone. SWP will also perform analysis in support of Communications and PNT support to the Golden Dome for America Architecture. FY 2026 to FY 2027 Increase/Decrease Statement: FY27 funding increase due to workforce optimization.		FY 2025	FY 2026	FY 2027
Accomplishments/Planned Programs Subtotals		123.208	124.409	128.546
D. Other Program Funding Summary (\$ in Millions) N/A				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1203622SF I Space Warfighting Analysis
D. Other Program Funding Summary (\$ in Millions)		
Remarks N/A		
E. Acquisition Strategy SWAC collaborates with stakeholders and mission partners to access appropriate and existing contract vehicles to focus resources on USSF mission priorities.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203622SF / Space Warfighting Analysis Center						Project (Number/Name) 646021 / Space Warfighting Analysis Center (SWAC)			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Warfighting Analysis Center (SWAC)	Various	Various - TBD : TBD : TBD	-	123.208	Sep 2025	124.409	Sep 2026	128.546		-		128.546	Continuing	Continuing	-
Subtotal			-	123.208		124.409		128.546		-		128.546	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	123.208		124.409		128.546		-		128.546	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 4					PE 1203622SF / Space Warfighting Analysis					646021 / Space Warfighting Analysis Center (SWAC)			
					is								

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Space Warfighting Analysis Center (SWAC)																												
(U) Integration - Force Design Integration																												
(U) Integration - Mission Support (IT and Infrastructure)																												
(U) Integration - Planning, Programming & Costing																												
(U) Integration - Threat Assessment																												
(U) Multi-Domain Sensing Program (MDSP) - Missile Warning/Missile Tracking																												
(U) MDSP - Adversary Assessments																												
(U) MDSP - Surveillance Reconnaissance and Target Tracking																												
(U) Spectrum Warfare Program (SWP) - Space Data Network																												
(U) SWP - Ground Data Network																												
(U) SWP - Navigation Warfare (PNT)																												
(U) SWP - Cyber and Defense Networking																												
(U) SWP - Special Programs																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203622SF / <i>Space Warfighting Analysis</i> <i>is</i>	Project (Number/Name) 646021 / <i>Space Warfighting Analysis Center</i> <i>(SWAC)</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Space Warfighting Analysis Center (SWAC)</i>				
(U) Integration - Force Design Integration	1	2025	4	2031
(U) Integration - Mission Support (IT and Infrastructure)	1	2025	4	2031
(U) Integration - Planning, Programming & Costing	1	2025	4	2031
(U) Integration - Threat Assessment	1	2025	4	2031
(U) Multi-Domain Sensing Program (MDSP) - Missile Warning/Missile Tracking	1	2025	4	2031
(U) MDSP - Adversary Assessments	1	2025	4	2031
(U) MDSP - Surveillance Reconnaissance and Target Tracking	1	2025	4	2031
(U) Spectrum Warfare Program (SWP) - Space Data Network	1	2025	4	2031
(U) SWP - Ground Data Network	1	2025	4	2031
(U) SWP - Navigation Warfare (PNT)	1	2025	4	2031
(U) SWP - Cyber and Defense Networking	1	2025	4	2031
(U) SWP - Special Programs	1	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	PE 1203710SF I <i>EO/IR Weather Systems</i>											
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	66.967	69.777	144.434	0.000	144.434	154.309	166.173	163.183	263.635	Continuing	Continuing
643730: <i>EO/IR Weather System Dev</i>	0.000	66.967	69.777	144.434	0.000	144.434	154.309	166.173	163.183	263.635	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
This program, BA 4, PE 1203710SF, project 643730, Commercial GEO EO/IR, is a new start.

A. Mission Description and Budget Item Justification

System Delta 810 is developing Electro-Optical/Infrared (EO/IR) Weather System (EWS) (Project 643730) for Guardians across the Weather Mission Area. As a result, the Service will deliver space domain awareness capabilities, continue to advance all near term effects, and provide resilient infrastructure, equipment, and personnel.

Environmental Monitoring (EM) mission area funding enables development and fielding of the next generation of space-based EM (SBEM) capabilities to replace legacy systems as they reach their mission end of life, and continue global, 24/7, persistent coverages over terrestrial and upper atmosphere meteorological phenomena to enhance battlespace awareness for the theater commanders, protection of national/strategic assets and population centers and provide support to the intelligence community.

There are three main system capabilities that comprise the Department of War (DoW) SBEM mission area; electro-optical, microwave and space weather. EO/IR capabilities measure terrestrial meteorological phenomena, as well as 3-dimensional cloud mapping to support air/ground operations and provide support to the intelligence community. Microwave capabilities focus on sea surface conditions, upper atmospheric temperature/moisture profiles and severe storm tracking to support US/allied naval operations and protection of strategic assets/population centers. Space weather monitoring capabilities monitor upper ionospheric regions for charged particles and solar wind phenomena to provide early warning on-orbit asset protection.

The SBEM mission area seeks to address DoW weather requirements, as defined in previous Joint Requirements Oversight Council Memo (JROCM) 092-14, dated Sep 2014, encompassing Category A, B and C weather gap needs. In addition, aligned to USSF Chief of Space Operations (CSO) Commercial Space Strategy of 2024, the EM mission area will integrate commercial space capabilities into DoW weather architecture/operations to increase resiliency, capability and competitiveness. In addition to commercial integration, the EM mission area will also maintain persistent theater weather imagery and cloud coverage needs over the Indian Ocean region with Geostationary EO/IR capabilities after EO/IR Weather System Geostationary #2 (EWS-G2) mission end of life.

To address the comprehensive DoW SBEM requirements, the following programs are represented in this Budget Line Item:

EWS is an EO/IR capabilities follow-on to Defense Meteorological Satellite Program (DMSP). The needs for EWS are documented in previous 2015, 2016, 2017, and 2020 National Defense Authorization Act (NDAA) and Joint Requirements Oversight Council (JROC) Memos 092-14, 062-17, and 031-22. The EWS will provide

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1203710SF / <i>EO/IR Weather Systems</i>
global 24/7 Low Earth Orbit (LEO) coverage to meet Space-based EM weather requirements; specifically Gaps 1) Cloud Characterization (CC) and 2) Theatre Weather Imagery (TWI). This capability will operationally replace the obsolete and aging DMSP constellation, projected end-of-life Sep 2026 due to insufficient ops and sustainment funding for continued operations. Without the CC and TWI data, production of global predictive cloud and terrestrial weather data will be severely impacted, affecting daily air operations and intelligence gathering for strategic mission planning. Moreover, INDOPACOM, CENTCOM, and AFRICOM will be unable to forecast and monitor adverse weather conditions over eastern Africa and the Indian Ocean. Lastly, the US will not meet the Department of War DoW responsibility of maintaining the SBEM civil/international partnership for the Family of Systems architecture without timely delivery of a LEO replacement system. EM Data as a Service (DaaS): The EM DaaS effort matures commercial technologies through on-orbit demonstrations and integrates commercial data to meet validated DoW requirements that will augment or replace legacy SBEM systems. The EM DaaS program will more rapidly deliver EM products from space-based commercial sources without the long-lead times associated with traditional Government-owned systems. This program includes commercial system development, on-orbit deployment, testing and assessment of emerging commercial weather concepts in addition to ground processing updates to ensure compatibility with DoW Weather Center models. The EM DaaS program also procures validated data from commercial sources for operational forecaster products. The EM DaaS effort continues the Muon SBEM variant contract previously included in the EWS Major Thrust in FY 2026. This effort involves the modification of a commercial space vehicle line with both wildfire detection and SBEM mission capabilities in order to meet DoW requirements. The program has flexibility to provide data from EO/ IR, passive and active microwave and space weather sensors to meet prioritized requirements based on mission needs. Commercial Geostationary EO/IR Capabilities: The Geostationary (GEO) EO/IR capabilities provides overhead persistent TWI for near-real time weather data in the INDOPACOM and CENTCOM Area of Responsibility (AOR) in addition to providing low latency data for CC weather models. The GEO EO/IR capabilities is a follow-on to the EWS-G satellite system with projected end of life in 2030. The requirement for persistent GEO EO/IR coverage is necessary to meet a Global 1-hour refresh requirement as documented in JROCM 101-24. Without the capability, operational forecasters in the INDOPACOM and CENTCOM AOR would face TWI and CC data latency greater than the JROCM 101-24 requirement of 1 hour and result in high impacts to air, naval and ground operations. The Space Force will pursue commercial acquisition strategies, to include commercial operations, and civil/international partnerships to provide the GEO EO/IR capabilities affordably and rapidly to prevent a 2030 data gap in the INDOPACOM and CENTCOM AOR. Commercial GEO EO/IR capabilities also include upgrading the EWS-G Remote Ground Station with a resilient antenna capability compatible with high data rate modern Civil GEO satellites and future Commercial GEO EO/IR satellites. This program element may include necessary civilian pay expenses required to manage, execute, and deliver EWS for weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment. This program falls within the Weather mission area which provides mission-critical environmental intelligence to support global military operations and delivers essential meteorological and oceanographic data to joint forces across all domains and detects space-based environmental threats to protect vital U.S. and allied space assets. Space Force investment program interdependencies include:		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026				
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1203710SF I EO/IR Weather Systems					
RDT&E Budget Line Items: EO/IR Weather Systems (1203710SF); Space Force Weather Services Research (0604002SF); Weather Satellite Follow-on (1206422SF); elements of Space Situation Awareness Operations (1203940SF); elements of Space Control Technology (1206438SF); and elements of Procurement Budget Line Item: Space Mods (SPCMOD)							
This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.							
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	
Previous President's Budget		69.391	77.135	0.000	0.000	0.000	
Current President's Budget		66.967	69.777	144.434	0.000	144.434	
Total Adjustments		-2.424	-7.358	144.434	0.000	144.434	
• Congressional General Reductions		0.000	0.000				
• Congressional Directed Reductions		0.000	-7.358				
• Congressional Rescissions		0.000	0.000				
• Congressional Adds		0.000	0.000				
• Congressional Directed Transfers		0.000	0.000				
• Reprogrammings		0.000	0.000				
• SBIR/STTR Transfer		-2.424	0.000				
• Other Adjustments		0.000	0.000	144.434	0.000	144.434	
Change Summary Explanation							
Strategic Changes:							
FY 2027: The FY 2026 President's Budget submittal did not reflect the FY 2027 through FY 2030 funding. Therefore, an explanation of the changes between the two budget positions for FY 2027 cannot be made in a relevant manner.							
Technical Changes:							
FY 2025: -\$2.424M SBIR/STTR Transfer							
FY 2026: -\$6.300M Congressional Directed Reduction for the Program Carryover and							
FY 2026: -\$1.058M Congressional Directed Reduction for Section 8151 SBIR reduction							
C. Accomplishments/Planned Programs (\$ in Millions)					FY 2025	FY 2026	FY 2027
Title: Electro-Optical/Infrared Weather System (EWS)					66.967	69.777	68.979
Description: EWS will focus on an overlapping multi-phased approach intended to mature multi-spectral imaging capabilities to collect and disseminate terrestrial atmospheric phenomena to support Department of War (DoW) operations. Primary effort							

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1203710SF / <i>EO/IR Weather Systems</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
will focus on competitive prototyping of the latest industry sensor and bus designs, development, integration, test, launch and successful on-orbit demonstrations. This effort will also assess current industrial capability to deliver Cloud Characterization (CC) and Theatre Weather Imagery (TWI) data in a viable commercial service business, hosted on a proliferated Low Earth Orbit (LEO) mesh network. Program will minimize technology maturity risks by evaluating multiple, competitive Electro-optical/infrared (EO/IR) sensors, satellite vehicle prototypes and commercial services in order to inform a decision on a cost-effective system or service to replace the legacy Defense Meteorological Satellite Program (DMSP) constellation in a timely manner. Per the approved EWS Acquisition Strategy, the Program Office will continue to competitively prototype sensor and bus designs for a LEO architecture to replace DMSP constellation, while leveraging the existing SBEM Family of Systems (Phase II) to meet required data refresh rate for the DoW. FY 2026 Plans: Conduct Operational Demonstration #1 pre-ship review ahead of shipment of completed space vehicle to payload processing facility for launch processing. Support launch and on-orbit checkout of General Atomics Ops Demo #1, characterizing its performance to provide ops-quality data, meet space-based Environmental Monitoring (SBEM) Electro-optical/infrared (EO/IR) requirements for Cloud Characterization and Theater Weather Imagery, while informing SBEM acquisition strategy for fielding full operational systems. Fund small launch vehicle through RSLP OSP-4 contract to support Ops Demo #2 launch, currently slated for FY28, and provide support for Ops Demo #2 space vehicle to launch vehicle integration study. Continue to invest for the development of commercial capabilities to address full SBEM Gap requirements and Phase III activities. Develop options for remote ground station to support future Geostationary (GEO) for persistent EO/IR coverage of Indian Ocean region. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Conduct Operational Demonstration #1 pre-ship review ahead of shipment of completed space vehicle to payload processing facility for launch base processing. Support launch and on-orbit checkout of General Atomics Ops Demo #1, characterizing its performance to provide ops-quality data, meet Department of War (DoW) Environmental Monitoring (EM) Electro-optical/infrared (EO/IR) requirements for Cloud Characterization and Theater Weather Imagery, while informing overall EM Mission Area Acquisition Framework (MAAF) strategy for fielding full EO/IR operational systems. Initiate Operational Demonstration #2 space vehicle build. Conduct delta design activities and begin build, integration and test. Fund small launch vehicle through RSLP OSP-4 contract to support Ops Demo #2 launch in FY28, and provide support for Ops Demo #2 space vehicle to launch vehicle integration study.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1203710SF I <i>EO/IR Weather Systems</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. In FY 2027, MUON, Space-Based Environmental Monitoring transfers to the newly established 'EM Data as a Service' major thrust. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 net increase of \$0.798M includes funding to enable the Operational Demonstration #2 space vehicle build and the outgoing transfer of Muon SBEM to the 'EM Data as a Service' major thrust.				
Title: EM Data as a Service Description: Environmental Monitoring Data as a Service (EM Daas) is not a new start and was previously funded within the EWS major thrust of this program element. The EM DaaS Acquisition Strategy is built around the EM Mission Area Acquisition Framework (MAAF) which is a mission engineering process for prioritizing validated requirements, identifying capability gaps based on the civil and international Family of Systems, and leverages non-materiel solutions and commercial EM data buys before building dedicated Space Force-owned systems. The EM DaaS effort matures commercial EM technologies through on-orbit demonstrations and forecaster assessments to meet validated Department of War (DoW) EM requirements and will augment or replace legacy space-based EM systems. This program includes commercial system development, on-orbit deployment, testing and assessment of emerging commercial weather concepts in addition to ground processing updates to ensure compatibility with DoW Weather Center models. The EM DaaS effort includes, but is not limited to direct investment in commercial EM space vehicles, commercial launch in addition to commercial weather data buys for assessment and integration into DoW weather centers. The EM DaaS program also procures validated data from commercial sources for operational forecaster products. In addition to augmenting or replacing legacy EM systems, EM DaaS development and operational data procurements will meet prioritized requirements from DoW forecasters and more rapidly fill capability gaps due to potential loss of data from civil or international systems. The EM DaaS effort also continues the Muon SBEM variant contract. The FY 2027 Muon space-based Environmental Monitoring (SBEM) variant satellite effort will launch two satellites for DoW weather center suitability assessment. The EM DaaS acquires data from all EM sensor types to include Electro-optical/infrared (EO/IR), active and passive microwave, and space weather systems. FY 2026 Plans:		-	0.000	37.515

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1203710SF / <i>EO/IR Weather Systems</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
The efforts described in the description are funded in the 'Electro-Optical/Infrared Weather System (EWS)' major thrust within this program element in FY 2026, and will transfer to 'EM Data as a Service' in FY 2027. FY 2027 Plans: The EM DaaS effort continues the Muon SBEM variant contract, which transferred from the EWS Major Thrust in FY 2026. The FY 2027 Muon SBEM variant satellite effort will launch two satellites for DoW weather center suitability assessment. The EM DaaS program will mature technologies through commercially funded on-orbit demonstrations, modify ground processing algorithms for DoW Weather Center models and assess on-orbit data for operational suitability. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase reflects the transfer of the Muon SBEM variant demonstration effort previously executed from the EWS FY26 Major Thrust of this program element. Includes maturing and integrating commercial EM capabilities, including on-orbit demonstrations and integration with DoW Weather Center models.				
Title: Commercial GEO EO/IR Description: The Commercial GEO EO/IR capabilities provides overhead persistent Theatre Weather Imagery (TWI) for near-real time weather data in the INDOPACOM and CENTCOM AOR in addition to providing low latency data for Cloud Characterization (CC) weather models. The Geostationary (GEO) EO/IR capabilities is a follow-on to the EWS-G satellite system with projected end of life in 2030. The Commercial GEO EO/IR capabilities includes rapid development and deployment of commercial Geostationary (GEO) Electro-optical/infrared EO/IR solutions, to include but not limited to, commercially hosting compact GEO EO/IR sensors. The Commercial GEO EO/IR capabilities effort includes upgrades to the existing EWS-G ground infrastructure to enable processing of current generation GEO EO/IR high data rate imagery from Civil and Commercial GEO EO/IR satellites. The Commercial GEO EO/IR capabilities includes contractor operated Command and Control, mission data processing and mission data distribution. The requirement for persistent GEO EO/IR coverage is necessary to meet a Global 1-hour refresh requirement as documented in Joint Requirements Oversight Council Memo (JROCM) 101-24. FY 2026 Plans: N/A FY 2027 Plans: Procure long lead equipment for EWS-G Remote Ground Station (RGS) in Western Australia to include high data rate mission data antennas. Begin engineering and integration design work for EWS-G RGS upgrade. Award multiple concept design contracts for Commercial GEO EO/IR capabilities through System Readiness Review-level maturity and award multiple follow-on		-	0.000	37.940

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1203710SF I EO/IR Weather Systems		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
design contracts through Critical Design Review level maturity. Award rapid prototype contracts for at least one Commercial GEO EO/IR vendor. Initiate commercial GEO EO/IR rapid prototype contract long lead parts procurement.				
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase due to EWS-G remote ground station upgrade, commercial GEO EO/IR contract award, complete System Requirements Review and initiate long-lead commercial spacecraft and payload procurements.				
Accomplishments/Planned Programs Subtotals		66.967	69.777	144.434
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy In accordance with the approved space-based Environmental Monitoring (SBEM) Acquisition Strategy (Sep 2020), the EWS program will continue to use Other Transaction Authority (OTA) to competitively pursue technological advancements in smaller sensor designs and leveraging commercial-based capabilities to develop the most optimal solution to long-term Cloud Characterization and Theater Weather Imagery needs. The Phase II modernized pathfinder efforts will include OTA under Firm Fixed Price (FFP) contracts for technology risk reduction and operational demonstration efforts, while minimizing developmental cost risks. FFP efforts under Phase II have resulted in considerable cost savings for the government after conversion from Cost Plus, which enable the funding of the Ops Demo #2 launch vehicle within current budget profiles. The Environmental Monitoring Data As A Service (DaaS) Acquisition Strategy will guide EM DaaS commercial and GEO EO/IR capabilities acquisitions. The EM DaaS Acquisition Strategy is built around the Environmental Monitoring (EM) Mission Area Acquisition Framework (MAAF) which is a mission engineering process for prioritizing validated requirements, identifying capability gaps based on the civil and international Family of Systems, and leverages non-materiel solutions and commercial EM DaaS data buys before building dedicated Space Force-owned systems. The EM Data as a Service (DaaS) Acquisition Strategy identifies a progressive approach to maturing nascent Commercial Weather technologies from a concept stage through on-orbit demonstrations and finally procurement of operational weather data. The Space Force will partner with industry to fund technologies which meet prioritized validated requirements and collaborate in on-orbit demonstrations for operational suitability assessments. The Space Force will only procure commercial weather data that has passed an assessment performed with Department of War (DoW) weather centers and civil partners to ensure the data is ready for operational forecasts. Additionally, the EM DaaS Acquisition Strategy addresses commercial acquisition approaches for the Geostationary (GEO) Electro-optical/infrared (EO/IR) capabilities to include innovative commercial hosting of a compact GEO EO/IR imager design.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203710SF / EO/IR Weather Systems				Project (Number/Name) 643730 / EO/IR Weather System Dev					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Phase II Demo 1	C/FFP	General Atomics : San Diego, CA	-	21.349	Dec 2024	28.481	Dec 2025	22.296	Dec 2026	-		22.296	Continuing	Continuing	-
Phase II Demo 2	C/FFP	General Atomics : San Diego, CA	-	-		-		6.022	Dec 2026	-		6.022	Continuing	Continuing	-
Phase II Demo 2 Launch Vehicle	C/Various	TBD : TBD	-	-		-		18.000	Apr 2027	-		18.000	Continuing	Continuing	-
Commercial EO/IR	C/Various	TBD : TBD	-	21.080	Jul 2025	22.440	Jun 2026	0.000	Jun 2027	-		0.000	Continuing	Continuing	-
EM Data as a Service	TBD	Not specified. : TBD	-	-		-		37.515	Jan 2027	-		37.515	Continuing	Continuing	-
Commercial GEO EO/IR	TBD	Not specified. : TBD	-	-		-		37.940	Apr 2027	-		37.940	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace Corp : El Segundo, CA	-	8.507	Jan 2025	6.560	Oct 2025	6.903	Oct 2026	-		6.903	Continuing	Continuing	-
Enterprise Systems Engineering & Integration	C/CPIF	Booz Allen Hamilton : McLean, VA	-	1.098	Jan 2025	3.306	Jan 2026	2.758	Jan 2027	-		2.758	Continuing	Continuing	-
SBIR/STTR	C/Various	TBD : TBD	-	0.000	Mar 2025	0.000	Mar 2026	5.055	Mar 2027	-		5.055	Continuing	Continuing	-
Subtotal			-	52.034		60.787		136.489		-		136.489	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace Corp : El Segundo, CA	-	4.661	Jan 2025	2.896	Oct 2025	2.859	Oct 2026	-		2.859	Continuing	Continuing	-
A&AS	Various	Various : Various	-	10.153	Jan 2025	5.744	Jan 2026	5.036	Oct 2026	-		5.036	Continuing	Continuing	-
Other Support	Various	Various : Various	-	0.119	Oct 2024	0.350	Oct 2025	0.050	Oct 2026	-		0.050	Continuing	Continuing	-
Subtotal			-	14.933		8.990		7.945		-		7.945	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	66.967		69.777		144.434		-		144.434	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)		Project (Number/Name)	
3620F / 4		PE 1203710SF / EO/IR Weather Systems		643730 / EO/IR Weather System Dev	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
EO/IR Weather Systems (EWS)																												
Phase II - Operational Demonstrations																												
Phase II Inc 0 Operational Demonstration #1 No Later Than Launch (General Atomics)																												
Phase II Demo 2 Launch Vehicle																												
Commercial EO/IR Demonstration																												
EM Data as a Service																												
EO/IR Commercial Data																												
Microwave Commercial Data																												
Space Weather Commercial Data																												
Commercial GEO EO/IR																												
Resiliency Upgrade																												
Commercial Prototype Demonstration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203710SF / EO/IR Weather Systems	Project (Number/Name) 643730 / EO/IR Weather System Dev	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>EO/IR Weather Systems (EWS)</i>				
Phase II - Operational Demonstrations	1	2025	4	2031
Phase II Inc 0 Operational Demonstration #1 No Later Than Launch (General Atomics)	3	2027	3	2027
Phase II Demo 2 Launch Vehicle	4	2026	4	2027
Commercial EO/IR Demonstration	4	2025	4	2026
<i>EM Data as a Service</i>				
EO/IR Commercial Data	1	2027	4	2031
Microwave Commercial Data	1	2027	4	2031
Space Weather Commercial Data	1	2027	4	2031
<i>Commercial GEO EO/IR</i>				
Resiliency Upgrade	2	2027	3	2029
Commercial Prototype Demonstration	2	2027	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>					R-1 Program Element (Number/Name) PE 1203955SF / <i>Space Access, Mobility & Logistics (SAML)</i>							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	23.158	29.278	9.724	0.000	9.724	9.727	9.671	9.653	9.847	Continuing	Continuing
640016: <i>On Orbit Servicing, Mobility, and Logistics (OOSML)</i>	0.000	19.296	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	29.296
646601: <i>Point to Point Delivery (P2D)</i>	0.000	3.862	19.278	9.724	0.000	9.724	9.727	9.671	9.653	9.847	Continuing	Continuing

A. Mission Description and Budget Item Justification

System Delta 80 is developing, prototyping, and demonstrating On-Orbit Servicing, Mobility, and Logistics (SML) and Point-to-Point Delivery (P2D) capabilities for Guardians across Space Access, Training, and Combat Support. As a result, the Service will streamline capabilities development through institutional processes, improve readiness and operational reach of existing force structure, continue to advance all near term effects and ensure resilient infrastructure, equipment, and personnel.

The Servicing, Mobility, and Logistics (SML) program identifies and closes space related mobility and logistics capability gaps to facilitate integration and employment of on-orbit servicing and mobility for prepared and unprepared spacecraft and logistics in, from, and to space. The Servicing, Mobility, and Logistics mission areas are grouped into On-Orbit SML and Point to Point Delivery (P2D). On Orbit SML includes but is not limited to on-orbit refueling, repairing, upgrading, assembling and manufacturing; orbit repositioning; sustained maneuver; autonomous Rendezvous, Proximity Operations & Docking (RPOD); beyond geostationary orbit (XGEO) operations. Point to Point Delivery (P2D) includes but is not limited to orbital supply prepositioning and operational downmass as well as responsive sub-orbital and orbital point-to-point delivery operations.

The near-term focus of the On-Orbit SML project is to establish the foundational capability areas through RDT&E, technology demonstrations, operational integration, and fielding of on-orbit mobility services, to include refueling. The On-Orbit SML will integrate commercially available servicing technology into operational capabilities including prototyping of modified commercial off the shelf (COTS) systems and services.

The near-term focus of the P2D project will leverage technology developed within both commercial independent research and development (IRAD) and AFRL's Rocket Cargo Vanguard program to study and develop P2D reference missions. Advance mission integration analysis will assess and make recommendations regarding military utility, technical feasibility, and projected technical maturation paths to develop and refine initial Point to Point Delivery (P2D) reference missions. Individual reference missions will undergo mission specific integration analysis to pair emerging innovative technical commercial systems with prioritized warfighter needs to minimize research and development and non-recurring engineering while maximizing rapid field-ability and operational impact.

The SML program provides a cost-effective vehicle to cultivate commercial space systems that have achieved a high Technology Readiness Level (TRL) that can be leveraged to meet the needs of DoW components. Activities include system engineering technology maturation, tactics development required for operational integration, prototyping and test and evaluation required for technology transition to effective operational employment.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 1203955SF I Space Access, Mobility & Logistics (SAML)				
The SML program will mature, integrate, and transition space system demonstrations and prototypes in order to:						
- Rapidly address identified capability gaps with emergent technologies						
- Focus the integration of Science & Technology (S&T) innovations into operational capabilities and transition those capabilities to service acquisitions or space programs of record						
- Accelerate technical maturation of emerging technologies to close high-priority capability gaps to secure US overmatch against pacing threats						
- Provide targeted investment in the space industrial base to support U.S. National Security under Great Power Competition (GPC).						
This program element included all necessary expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605829F, 0605831F, 0605833F, and 0605898F.						
This program falls within the Launch mission area which provides the launch systems and corresponding ground architecture required to provide assured access to space, the movement of payloads to and from the space domain, and provision a safe and secure range for space launch operations. Program interdependencies include: EELVP (Space) - EMD (1206853SF); National Security Space Launch Program (1203953SF); Rocket System Launch Program (1206860SF); SDA Launch Procurement (1203954SF); Space Access, Mobility & Logistics (1203955SF); Spacelift Range System (1203182SF); Tactically Responsive Space (1206862SF).						
This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		24.000	14.478	0.000	0.000	0.000
Current President's Budget		23.158	29.278	9.724	0.000	9.724
Total Adjustments		-0.842	14.800	9.724	0.000	9.724
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	15.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-0.842	-0.200			
• Other Adjustments		0.000	0.000	9.724	0.000	9.724
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 640016: On Orbit Servicing, Mobility, and Logistics (OOSML)						
Congressional Add: On-Orbit Servicing						
						FY 2025
						FY 2026
						3.859
						10.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1203955SF I Space Access, Mobility & Logistics (SAML)	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2025	FY 2026
Congressional Add Subtotals for Project: 640016		3.859	10.000
Project: 646601: <i>Point to Point Delivery (P2D)</i>			
Congressional Add: <i>P2D Cargo Delivery System Development</i>		-	5.000
Congressional Add Subtotals for Project: 646601		-	5.000
Congressional Add Totals for all Projects		3.859	15.000
Change Summary Explanation FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1203955SF / Space Access, Mobility & Logistics (SAML)				Project (Number/Name) 640016 / On Orbit Servicing, Mobility, and Logistics (OOSML)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
640016: On Orbit Servicing, Mobility, and Logistics (OOSML)	0.000	19.296	10.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	29.296
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

On-Orbit Servicing, Mobility, and Logistics advances neglected support capabilities in the space domain, ensuring asset availability to the warfighter. The initial thrust for On-Orbit SML is a service architecture ensuring prepared systems can replenish energy, as needed, to maintain operator proficiency and sustained readiness in a contested domain with flexibility to meet the increased challenges of conflict. This capability provides USSPACECOM the requisite supply chain to de-constrain operations currently limited by a fixed fuel budget, enabling movement and maneuver Dynamic Space Operations for critical National Security Space assets. Advancing an on-orbit refueling architecture enables a prepared architecture for subsequent On-Orbit SML lines of effort including mobility, relocation, repair and disposal. Additionally, as refueling requires the application of Rendezvous, Proximity Operations and Docking (RPOD) technology, the techniques, tactics and procedures (TTPs) attained through refueling simplify and accelerate subsequent capabilities. In tandem with efforts to qualify and onboard refueling onto a "services contract" for ongoing propellant replenishment missions, On-Orbit SML will maintain connectivity to the burgeoning commercial market to capitalize on industry advancement to qualify and onboard additional on-orbit capabilities as they mature. As an "anchor tenant" this may include providing last-mile development funding for government purpose modifications, demonstrations, landscape assessments and architecture development. Due to client variations in mission, orbit, configuration and security, On-Orbit SML services will not be a "one size fits all" approach and will require an enduring programmatic and systems engineering investment to meet customer requirements.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: On-Orbit Servicing, Mobility & Logistics (SML)	15.437	0.000	0.000
Description: On-Orbit Servicing, Mobility & Logistics (SML) The capability to refuel assets on-orbit is critical to perform sustained maneuver for dynamic space operations (DSO). The first step to providing this service at scale is to demonstrate the capability in an on-orbit test event. This includes proving the viability of autonomous Rendezvous and Proximity Operations (RPO), ability of commercial vendors to provide refueling as a service and prove security of dynamic operations. As refueling capacity is proven, the next step is to quantify the amount, type, and timing of fuel required to be accessible by on-orbit assets. This necessitates an iterative SML architecture and commercial landscape assessment. Further, development of a process to onboard and qualify providers for on-orbit services requires establishment of program office cadre.			
FY 2026 Plans: N/A			
FY 2027 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203955SF / <i>Space Access, Mobility & Logistics (SAML)</i>	Project (Number/Name) 640016 / <i>On Orbit Servicing, Mobility, and Logistics (OOSML)</i>	
B. Accomplishments/Planned Programs (\$ in Millions) N/A FY 2026 to FY 2027 Increase/Decrease Statement: N/A		FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		15.437	0.000
		FY 2025	FY 2026
Congressional Add: On-Orbit Servicing FY 2025 Accomplishments: Conduct Congressionally directed small autonomous On-Orbit Servicing effort. Investments leverage near-term operational capabilities of commercial services and residual research and development capacity, which enhances the National Security Space mission area. Funding exploits commercial space systems already commercially employed and accelerates the development of small autonomous On-Orbit Servicing capability in support of Dynamic Space Operations and other operational requirements. Examples include, but are not limited to, on-orbit deployment of enabling and transformational technologies. FY 2026 Plans: Conduct congressional directed continuation of investments to leverage demonstration and operationalization of near-term commercial services, which enhance the National Security Space mission area. Funding exploits commercial On-Orbit Servicing, Mobility, and Logistics (SML) systems already operational by qualifying providers for operations with National Security Space assets, including any required programmatic support. Additionally, funding provides for ongoing assessment(s) of the commercial landscape as it relates to On-Orbit SML capabilities and the optimal application of those capabilities in achieving National Security Objectives. Examples of On-Orbit SML capabilities include, but are not limited to, on-orbit refueling, mobility, relocation, repair, resupply and development of enabling technologies.		3.859	10.000
Congressional Adds Subtotals		3.859	10.000
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy N/A			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force													Date: April 2026		
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203955SF / <i>Space Access, Mobility & Logistics (SAML)</i>				Project (Number/Name) 640016 / <i>On Orbit Servicing, Mobility, and Logistics (OOSML)</i>					

Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
APS-R Refueling	C/FFP	Astroscale US (ASUS) : Denver, CO	-	12.002	Mar 2025	-		-		-		-	0.000	12.002	-
Otter Augmented Maneuver	C/FFP	Starfish Space : Tukwila, WA	-	6.631	Jun 2025	-		-		-		-	0.000	6.631	-
Congressional Add	TBD	Not specified. : TBD	-	-		10.000	Sep 2026	-		-		-	Continuing	Continuing	-
Subtotal			-	18.633		10.000		-		-		-	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace : El Segundo, CA	-	0.523	Aug 2025	-		-		-		-	0.000	0.523	-
Other Support	Various	Various : Various	-	0.140	Jan 2025	-		-		-		-	0.000	0.140	-
Subtotal			-	0.663		-		-		-		-	0.000	0.663	N/A

			Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	19.296	10.000	-	-	-	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026									
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
3620F / 4					PE 1203955SF / Space Access, Mobility & Logistics (SAML)					640016 / On Orbit Servicing, Mobility, and Logistics (OOSML)									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
APS-R Refueling																												
Acceptance Test Report																												
Launch integration and licensing																												
Starfish Otter																												
Flight Payload Delivery																												
Acceptance Test Report																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203955SF / Space Access, Mobility & Logistics (SAML)	Project (Number/Name) 640016 / On Orbit Servicing, Mobility, and Logistics (OOSML)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
APS-R Refueling				
Acceptance Test Report	3	2025	4	2025
Launch integration and licensing	4	2025	4	2025
Starfish Otter				
Flight Payload Delivery	3	2025	4	2025
Acceptance Test Report	4	2025	4	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1203955SF / Space Access, Mobility & Logistics (SAML)				Project (Number/Name) 646601 / Point to Point Delivery (P2D)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
646601: Point to Point Delivery (P2D)	0.000	3.862	19.278	9.724	0.000	9.724	9.727	9.671	9.653	9.847	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Point-to-Point Delivery (P2D) project builds upon prior S&T work within AFRL's Rocket Cargo Vanguard program, to develop and integrate P2D prototype systems to meet unique military use cases. The project seeks to influence and integrate relevant component technologies and systems from S&T to high-TRL prototypes that demonstrate military-unique applications and early operational capability. The project will also analyze and deliver initial concepts of operation and tactics development recommendations for future operational applications. This project matures and transitions game-changing technology to close space mobility and logistics capability gaps and promotes a strong resilient national space industrial base.

The near-term focus of the P2D program is to establish the foundational capability areas through analysis and develop Point-to-Point Delivery (P2D) reference missions. The P2D project seeks to leverage commercially developed technology and integrate systems developed within the Rocket Cargo Vanguard program. P2D will identify and evaluate multiple Point to Point Delivery service and support providers including but not limited to responsive spacelift, precision downmass, ground support equipment, and both facilities and infrastructure upgrades to increase security, capacity, and readiness for emerging needs.

The SML program provides a cost-effective investment method to cultivate relevant commercial space systems that have achieved high Technical Readiness Level (TRL) and can be leveraged to meet the needs of DoW components. Activities include Advanced Mission Integration (AMI) analysis, system engineering technology maturation, tactics development required for operational integration, prototyping and test and evaluation required for technology transition to enable effective operational employment.

This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Servicing, Mobility, and Logistics capabilities. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Point to Point Delivery (P2D)	3.862	14.278	9.724
Description: Funds Advanced Mission Integration analysis, Small Business Innovation Research (SBIR) and development of initial Point-to-Point Delivery (P2D) reference missions. Analysis is focused on utilizing vehicles that traverse from or through space to transport DoW materiel anywhere around the world within tactically responsive timelines. The near-term focus of the program is to analyze and study the foundational capabilities to advance the transition of AFRL's Rocket Cargo Vanguard technology into operations. The long-term focus includes, but is not limited to, supporting the USTRANSCOM and USINDOPACOM resupply missions, with potential applications including the delivery of equipment needed to sustain stand-in mission operations and enable timely disaster relief payloads in support of consequence management CONPLAN execution.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203955SF / <i>Space Access, Mobility & Logistics (SAML)</i>	Project (Number/Name) 646601 / <i>Point to Point Delivery (P2D)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
FY 2026 Plans: FY2026 funding will support the Advanced Mission Integration (AMI) analysis necessary to evaluate P2D service providers' ability to perform airdrop and/or spacedrop (reentry) delivery to meet operational needs. Funding will support multi-security domain collaboration systems to facilitate timely iterative analysis of rapidly developing technologies. This work will build on AFRL's analysis of Payload Delivery Systems (PDS) i.e. container(s) and/or capsule(s), including early size, shape, and functional configurations. Funding will support development of logistics PDS and payload integration standards and PDS, payload, and space logistics ground support equipment facility and infrastructure requirements for emerging P2D missions. Funding will also support Small Business Innovation Research (SBIR) efforts and enable strategic funding increase (STRATFI) matching considerations for logistics digital engineering to enhance ground segment P2D/spaceport integration studies. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, research, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Continues funding will support the Advanced Mission Integration contract to evaluate P2D service provider ability to perform airdrop and/or spacedrop (reentry) delivery to meet operational needs. This work will build on AFRL's analysis of Payload Delivery Systems (PDS) i.e. container(s) and/or capsule(s), including early size, shape, and functional configurations. Funding will continue to support multi-security domain collaboration systems to facilitate timely iterative analysis of rapidly developing technologies. Funding will support development of logistics PDS and payload integration standards and PDS, payload, and space logistics ground support equipment facility and infrastructure requirements for emerging P2D missions. Funding will also support Small Business Innovation Research (SBIR) efforts and enable strategic funding increase (STRATFI) matching considerations for logistics digital engineering to enhance ground segment P2D/spaceport integration studies. Funding enables program activities that Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: The FY2027 funding decreased from FY26 by \$5M because of completion of the initial surge in analysis for P2D.			
Accomplishments/Planned Programs Subtotals		3.862	14.278
			9.724

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203955SF / <i>Space Access, Mobility & Logistics (SAML)</i>	Project (Number/Name) 646601 / <i>Point to Point Delivery (P2D)</i>

	FY 2025	FY 2026
Congressional Add: P2D Cargo Delivery System Development FY 2026 Plans: Conduct Congressionally directed cargo reentry technology development. Investments leverage near-term operational capabilities of commercial service providers to enhance the National Security Space and Contested Logistics mission area. Resourcing will exploit commercially developed technology and accelerate development of medium-mass cargo reentry systems to support prioritized joint operational problems and meet combatant command requirements.	-	5.000
Congressional Adds Subtotals	-	5.000

C. Other Program Funding Summary (\$ in Millions)
 N/A

Remarks

D. Acquisition Strategy
 P2D prioritizes commercial, fixed price contracts to leverage rapidly evolving commercial advancements to posture current and planned programs of record to rapidly field priority logistic capabilities to warfighters.
 Initially P2D leveraged three competitively awarded Other Transaction Authority contracts, via AFRL's Rocket Experimentation for Global Agile Logistics (REGAL) to advance payload delivery system integration and associate infrastructure and facility requirements assessments.
 P2D plans to use new OTA contracts (e.g. Space Enterprise Consortium (SpEC)) and existing AFRL contracts to promote payload delivery systems technology transfer combined with new Task Orders on existing Indefinite Delivery/Indefinite Quantity contract vehicles (e.g. National Security Space Launch Phase III Lane 1 and Orbital Services Program (OSP)-4) for commercial launch provider integration services to execute Advance Mission Integration. The project plans to leverage existing IDIQ contract vehicles (e.g. Space Force Range Contract (SFRC)) to execute Spaceport Planning.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026					
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203955SF / Space Access, Mobility & Logistics (SAML)						Project (Number/Name) 646601 / Point to Point Delivery (P2D)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract		
Point to Point Delivery	Various	Multiple : Multiple	-	3.577	Jun 2025	13.200	Dec 2025	-		-		-	Continuing	Continuing	-		
Spaceport Planning	Various	Multiple : Multiple	-	-		-		0.800	Dec 2026	-		0.800	Continuing	Continuing	-		
Advance Mission Integration	Various	Multiple : Multiple	-	-		-		6.774	Feb 2027	-		6.774	Continuing	Continuing	-		
SBIR/STTR	Allot	Not specified. : TBD	-	-		0.000	Mar 2026	0.344	Mar 2027	-		0.344	Continuing	Continuing	-		
Congressional Add	TBD	Not specified. : TBD	-	-		5.000	Sep 2026	-		-		-	Continuing	Continuing	-		
Subtotal			-	3.577		18.200		7.918		-		7.918	Continuing	Continuing	N/A		
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract		
FFRDC	RO	Aerospace : El Segundo, CA	-	0.105	Jan 2026	0.538	Nov 2025	0.554	Nov 2026	-		0.554	Continuing	Continuing	-		
Other Support	Various	Multiple : Multiple	-	0.180	Jun 2025	0.540	Dec 2025	1.252	Dec 2026	-		1.252	Continuing	Continuing	-		
Subtotal			-	0.285		1.078		1.806		-		1.806	Continuing	Continuing	N/A		
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract		
Project Cost Totals			-	3.862		19.278		9.724		-		9.724	Continuing	Continuing	N/A		
Remarks																	

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203955SF / Space Access, Mobility & Logistics (SAML)						Project (Number/Name) 646601 / Point to Point Delivery (P2D)			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Point to Point Delivery (P2D)																												
P2D Contract Award																												
Spaceport Planning																												
Infrastructure Planning Task Order																												
Spaceport Planning Contract																												
Advanced Mission Integration																												
Advanced Mission Integration Task Order																												
Capsule Development																												
Launch Compatibility																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203955SF / Space Access, Mobility & Logistics (SAML)	Project (Number/Name) 646601 / Point to Point Delivery (P2D)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Point to Point Delivery (P2D)				
P2D Contract Award	3	2025	4	2025
Spaceport Planning				
Infrastructure Planning Task Order	1	2026	3	2026
Spaceport Planning Contract	3	2026	4	2027
Advanced Mission Integration				
Advanced Mission Integration Task Order	1	2026	3	2026
Capsule Development	2	2026	4	2031
Launch Compatibility	2	2026	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 1206410SF I Space Technology Development and Prototyping							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	1,551.293	1,226.643	1,246.316	0.000	1,246.316	1,031.858	415.867	332.796	339.458	Continuing	Continuing
643729: Integration and Battle Management	0.000	262.662	391.669	172.259	0.000	172.259	96.899	74.225	56.460	57.597	Continuing	Continuing
643731: Transport	0.000	1,193.480	747.431	1,068.499	0.000	1,068.499	930.331	338.743	273.440	278.907	Continuing	Continuing
643732: Sensing	0.000	95.151	87.543	5.558	0.000	5.558	4.628	2.899	2.896	2.954	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Space Development Agency (SDA) is developing and demonstrating the Proliferated Warfighter Space Architecture (PWSA) Transport Layer (Projects 643729, 643731, 643732) for Guardians across the Combat Support, Satellite Communications, Operations, and Warfighting mission areas. As a result, the Service will improve readiness and operational reach of existing force structure and continue to advance all near term effects.

SDA is rapidly developing and demonstrating the next generation proliferated warfighter space architecture to enable U.S. military operations to be responsive to emerging multi-domain threats against our national security. To achieve that goal, SDA will help inform the Department of War (DoW)'s decision to develop and implement a proliferated architecture enabled by lower-cost, mass-produced space vehicles and routine space access; and shift the DoW to a development organization focused on experimentation, prototyping, and accelerated fielding. SDA will manage, direct, and execute the development of the space capabilities for the joint warfighter in accordance with the United States Space Force Space Warfighting Framework and National Defense Strategy, and field space capabilities at speed and scale, with the following goals:

- Bold breakthroughs designed to out-pace our competitors
- Mission-focused technology maturation and systems engineering
- Value-based lean engineering, manufacturing, and support
- Warfighter-centric capability development enabling joint all-domain operations
- Industrial base expansion; streamlined development and acquisition processes
- Increased acquisition cooperation across the space enterprise

SDA will rapidly deploy critical elements of next-generation space capabilities, initially focusing on these essential capabilities:

- Indications, warnings, targeting, and tracking for defense against hypersonic and advanced missile threats,
- Alternate position, navigation, and timing (APNT) for a navigation warfare (NAVWAR) resilient environment,
- Responsive, resilient, common ground-based space support infrastructure (e.g., optical and radio frequency (RF) ground stations and commercially-oriented satellite operations centers),
- Cross-domain, networked, node-independent battle management command, control, and communications (BMC3), and

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>
• Highly-scaled, low-latency, persistent, resilient proliferated Low Earth Orbit (LEO) space data transport. The establishment of a proliferated data Transport Layer in LEO is essential to developing a new, responsive space architecture, and will be SDA's primary initial focus within the Proliferated Warfighter Space Architecture (PWSA). SDA will develop an initial set of adjunct and sub-constellations in conjunction with this Transport Layer to provide additional capabilities, such as advanced missile warning and tactical satellite communications, showing connectivity to the Space Data Network (SDN). This program element funds efforts to develop and demonstrate a prototype proliferated Low Earth Orbit (pLEO) multi-band global communications access and persistent connectivity for warfighter missions. The total cost of the Transport Layer Tranche (TLT1) Middle Tier of Acquisition effort is \$3,087.300 million, including RDT&E and procurement of prototype units. The TLT1 program is fully funded across the Future Years Defense Program. The total cost of the Transport Layer Tranche (TLT2) Middle Tier of Acquisition effort is \$5,987.700 million, including RDT&E and procurement of prototype units. The TLT2 program is fully funded across the Future Years Defense Program. This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Space Force investment program interdependencies include: RDT&E Budget Line Items: Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); Narrowband Satellite Communications (1203109SF); Protected Tactical Enterprise Service (1206760SF); Protected Tactical Service (1206761SF); Space Tech Development & Prototyping (1206410SF); Tech Transition (Space) (1206458SF); Wideband Global SATCOM (SPACE) (1206433SF); Data Transport and Networking (1203156SF); Space Data Network (1203636SF); and elements of Procurement Budget Line Items: Family of Beyond Line-of-Sight Terminals (FBLOST); Mobile User Objective System (MUOS00); MILSATCOM (MILSAT); Wideband SATCOM Operational Management Systems (WSOMS0); Auxiliary Payloads (AUX000); Proliferated Low Earth Orbit SATCOM (PLEO00); PTES HUB (PTES00); ESS (ESS000) This program element may include necessary civilian pay expenses and contractor support required to manage, execute, and deliver the Transport capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 1201198SF. This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 1206410SF I Space Technology Development and Prototyping			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	1,607.685	1,307.970	0.000	0.000	0.000
Current President's Budget	1,551.293	1,226.643	1,246.316	0.000	1,246.316
Total Adjustments	-56.392	-81.327	1,246.316	0.000	1,246.316
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-125.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	62.500			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-56.392	-18.827			
• Other Adjustments	0.000	0.000	1,246.316	0.000	1,246.316
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 643731: <i>Transport</i> Congressional Add: <i>Cyber-Resilient Space Computing</i> Congressional Add: <i>Transport Layer Software Architecture</i> Congressional Add: <i>Warfighter Centric Capability</i> Congressional Add Subtotals for Project: 643731 Congressional Add Totals for all Projects				FY 2025	FY 2026
				-	5.000
				-	7.500
				-	50.000
				-	62.500
				-	62.500
Change Summary Explanation					
The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.					
FY 2025 decreases between the Previous President's Budget and Current President's Budget by 56.392 million for Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program allocation.					
FY 2026 decreases between the Previous President's Budget and Current President's Budget by 81.327 million due to 62.500 million of Congressional adds (Cyber-Resilient Space Computing, Warfighter Centric Capability, and Transport Layer Software Architecture), a 125.000 million Congressional reduction of risk management and a 18.827 million reduction for Section 8151 SBIR reduction					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206410SF / Space Technology Development and Prototyping				Project (Number/Name) 643729 / Integration and Battle Management			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
643729: Integration and Battle Management	0.000	262.662	391.669	172.259	0.000	172.259	96.899	74.225	56.460	57.597	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

SDA is rapidly developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and expedited acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of War (DoW) space needs that align with the United States Space Force Space Warfighting framework and includes space-based battle management and a ground support infrastructure. SDA will orchestrate the rapid development and fielding of the Proliferated Warfighter Space Architecture (PWSA), a resilient military sensing and data transport capability via a proliferated space architecture in LEO. This program element funds the development and demonstration of space technologies to deliver space-based command and control, tasking, mission processing and dissemination capabilities, as well as an integrated, resilient network of ground support capabilities, to U.S. joint warfighting forces in bi-annual tranches, which began in FY 2022.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Integration and Battle Management	262.662	391.669	172.259
Description: Deliver capabilities to U.S. joint warfighting forces in two-year enhanced capability tranches, beginning in FY 2022. Products include but are not limited to performing trade studies, technical analyses, or modeling and simulation; identifying and maturing enabling technologies; defining and conducting ground-based and on-orbit risk reduction demonstrations, prototyping hardware or software systems; and exploring novel concepts for future warfighting capabilities augmented by a resilient proliferated Low Earth Orbit (pLEO) satellite architecture. Provide operations support of resilient Transport capabilities to operational forces including beyond line of sight tactical datalink connectivity, direct downlinks to theater targeting cell, worldwide low-latency high volume data transport, and secure multi-domain optical communications			
FY 2026 Plans: Tranche 0 - Continue to conduct post-Capstone demonstrations and experimentations with warfighters. Tranche 1 - Complete site modifications, terminal installation, and Defense Information Systems Agency (DISA) network connectivity, and test and checkout for remaining Tranche 1 PWSA ground sites. - Sustain and continue automation of ground mission management, network management, enterprise system management capabilities to support Proliferated Warfighter Space Architecture (PWSA) operations.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>		Project (Number/Name) 643729 / <i>Integration and Battle Management</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Maintain Operation Centers, ground networks, and ground terminal equipment to support Tranche 1 test and operations. - Maintain development, security, and operations (DevSecOps) pipeline to support integrated Operations, Maintenance, and Sustainment from the ground operations centers. - Maintain a trained workforce of space vehicle and ground system operators for PWSA Government Owned, Contractor Operated (GOCO) mission operations. - Complete PWSA system level developmental test activities and continue operational test activities. - Maintain system connectivity and continue to onboard PWSA users and tasking authorities to support continued Transport test operations. - Operate and maintain the BMC3 Ecosystem including the ground and space components. - Maintain the Application Factory for the Battle Management Command, Control, and Communications (BMC3) Layer. - Continue design and development of BMC3 Applications to provide enhanced mission services, system automation, and data fusion capabilities in support of evolving warfighter priorities. Tranche 2 - Continue to build out foundational modeling, simulation, and digital engineering tools to enable dynamic modeling for future architecture growth of the PWSA. - Complete expansion of ground communication terminal network to support full PWSA capabilities. - Continue development of the PWSA Ground Segment and deliver functional baseline to support Tranche 2 (T2) launches. - Continue implementation of extensions and additional capabilities required in SDA Operations Centers for ground command and control of T2 assets. - Train operators for PWSA Government Owned, Contractor Operated (GOCO) mission operations. - Complete development of the Technology Acceleration Center (TAC), which includes the Satellite Support Facility (SSF), and ensure full PWSA Ground Segment integration in support of Tranche 2 launches and checkout activities. - Continue development of BMC3 Application Factory expansion. - Complete interoperability testing in support of T2 capabilities. Tranche 3 - Expand Ground Entry Point (GEP) global footprint in preparation for launch of Tranche 3 (T3) space vehicles. - Continue development of the PWSA Ground Segment in support of T3. - Initiate PWSA ground segment evolution, enhancing PWSA framework capabilities for future Tranches. - Initiate continued expansion of the BMC3 Application Factory, building upon prior development efforts. Advanced Fire Control - Complete facility and network construction for the Demonstration Operations Center (DOC) to support demonstrations.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>		Project (Number/Name) 643729 / <i>Integration and Battle Management</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Perform integration testing between Fire-control On Orbit-support-to-the-war Fighter (FOO Fighter) space vehicles and the DOC. - Continue AFC Ground Infrastructure (AFCGI) effort to provide a common, enduring ground infrastructure and resources to minimize cost and complexity for AFC space vehicle demonstration and experimentation programs. - Finalize TAC development delivering the Operational AFC Ground Operations Center. - Expand Operation Centers capabilities to support custody related mission areas. FY 2027 Plans: Tranche 0 - Conduct residual experimentation in support of PWSA Risk Reduction. Tranche 1 - Sustain and continue automation of ground mission management, network management, enterprise system management capabilities to support Proliferated Warfighter Space Architecture (PWSA) operations. - Maintain Operation Centers, ground networks, and ground terminal equipment to support Tranche 1 test and operations. - Maintain development, security, and operations (DevSecOps) pipeline to support integrated Operations, Maintenance, and Sustainment from the ground operations centers. - Maintain a trained workforce of space vehicle and ground system operators for PWSA Government Owned, Contractor Operated (GOCO) mission operations. - Complete PWSA system level developmental test activities and continue operational test activities. - Maintain system connectivity and continue to onboard PWSA users and tasking authorities to support continued Transport test operations. - Operate and maintain the BMC3 Ecosystem including the ground and space components. - Maintain the Application Factory for the Battle Management Command, Control, and Communications (BMC3) Layer. - Continue design and development of BMC3 Applications to provide enhanced mission services, system automation, and data fusion capabilities in support of evolving warfighter priorities. Tranche 2 - Continue to build out foundational modeling, simulation, and digital engineering tools to enable dynamic modeling for future architecture growth of the PWSA. - Continue development of the PWSA Ground Segment and deliver functional baseline to support Tranche 2 (T2) launches. - Continue implementation of extensions and additional capabilities required in SDA Operations Centers for ground command and control of T2 assets. - Continue to train operators for PWSA Government Owned, Contractor Operated (GOCO) mission operations. - Continue development and maintenance of BMC3 Application Factory expansion.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>		Project (Number/Name) 643729 / <i>Integration and Battle Management</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Complete site modifications, terminal installation, and Defense Information Systems Agency (DISA) baseline network connectivity, and test and checkout for remaining T2 PWSA ground sites. - Sustain and continue automation of ground mission management, network management, enterprise system management capabilities to support Proliferated Warfighter Space Architecture (PWSA) operations. - Maintain Operation Centers, ground networks, and ground terminal equipment to support T2 test and operations. - Maintain development, security, and operations (DevSecOps) pipeline to support integrated Operations, Maintenance, and Sustainment from the ground operations centers. - Maintain a trained workforce of space vehicle and ground system operators for PWSA Government Owned, Contractor Operated (GOCO) mission operations. - Complete PWSA system level developmental test activities and continue operational test activities. - Maintain system connectivity and continue to onboard PWSA users and tasking authorities to support continued Transport test operations. - Continue design and development of BMC3 Applications to provide enhanced mission services, system automation, and data fusion capabilities in support of evolving warfighter priorities. Tranche 3 - Continue Ground Entry Point (GEP) global footprint expansion in support of Tranche 3 (T3) launches. - Continue development of the PWSA Ground Segment and capability delivery in support of T3. - Continue PWSA ground segment evolution, enhancing PWSA framework capabilities for future Tranches. - Continue expansion of the BMC3 Application Factory, Follow-on Tranche Activity - Continue to build out foundational modeling, simulation, and digital engineering tools to enable dynamic modeling for future architecture growth of the PWSA. - Continue development of the PWSA Ground Segment and deliver functional baseline to support follow-on Tranches. - Continue implementation of extensions and additional capabilities required in SDA Operations Centers for ground command and control support to follow-on Tranches. Advanced Fire Control (AFC) - Perform integration testing between Gamma space vehicles and the Technology Acceleration Center (TAC)'s Demonstration Operations Center (DOC). - Continue AFC Ground Infrastructure (AFCGI) effort to provide a common, enduring ground infrastructure and resources to minimize cost and complexity for AFC space vehicle demonstration and experimentation programs.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 643729 / <i>Integration and Battle Management</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
- Expand Operation Centers capabilities to support custody related mission areas. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 decreases from FY 2026 to support sustainment of Tranche 1 capabilities, Tranche 2 launch and sustainment, and continued ground support activities.			
Accomplishments/Planned Programs Subtotals		262.662	391.669
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
Partners for these activities may include Missile Defense Agency (MDA), Space Systems Command (SSC), Space Operations Command (SpOC), Space Training and Readiness Command (STARCOM), Space Rapid Capabilities Office (SpRCO), DoW Combatant Commands, DoW research centers, small businesses, large defense contractors, commercial space providers, non-traditional aerospace and defense contractors, Federally Funded Research and Development Centers, and University Affiliated Research Centers. SDA's Transport Layer Tranche 1 and Transport Layer Tranche 2 space systems are being acquired via Firm Fixed Price contracts conducted in accordance with Other Transaction Authority (OT) for prototyping processes. Ground activities include Cost Plus Award Fee contracts.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206410SF / Space Technology Development and Prototyping						Project (Number/Name) 643729 / Integration and Battle Management			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Tranche 0	Various	Various : Various	-	0.804	Nov 2024	-		-		-		-	Continuing	Continuing	-
PWSA Ground Program (PGP) Activities	Various	Various : Various	-	261.858	Nov 2024	391.669	Nov 2025	172.259	Nov 2026	-		172.259	Continuing	Continuing	-
Subtotal			-	262.662		391.669		172.259		-		172.259	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	262.662		391.669		172.259		-		172.259	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4								R-1 Program Element (Number/Name) PE 1206410SF / Space Technology Development and Prototyping				Project (Number/Name) 643729 / Integration and Battle Management			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Integration and Battle Management																												
Manage Tranche 0 constellation operations.																												
Conduct Tranche 1 ground support and integration activities.																												
Conduct Tranche 2 ground support and integration activities.																												
Conduct Tranche 3 ground support and integration activities.																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 643729 / <i>Integration and Battle Management</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Integration and Battle Management</i>				
Manage Tranche 0 constellation operations.	1	2025	4	2028
Conduct Tranche 1 ground support and integration activities.	1	2025	4	2028
Conduct Tranche 2 ground support and integration activities.	1	2025	4	2028
Conduct Tranche 3 ground support and integration activities.	1	2026	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206410SF / Space Technology Development and Prototyping				Project (Number/Name) 643731 / Transport			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
643731: Transport	0.000	1,193.480	747.431	1,068.499	0.000	1,068.499	930.331	338.743	273.440	278.907	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

SDA is rapidly developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and expedited acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of War (DoW) space needs that align with the United States Space Force Space Warfighting framework and includes space-based battle management and a ground support infrastructure. SDA will orchestrate the rapid development and fielding of the Proliferated Warfighter Space Architecture (PWSA), a resilient military sensing and data transport capability via a proliferated space architecture in LEO. This program element funds the development and demonstration of space technologies to deliver space-based command and control, tasking, mission processing and dissemination capabilities, as well as an integrated, resilient network of ground support capabilities, to U.S. joint warfighting forces in bi-annual tranches, which began in FY 2022.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Transport	1,182.756	679.002	1,068.499
Description: Rapidly develop, deploy and demonstrate prototypes that enable a resilient and unified military data transport layer, sensor capabilities, and alternate position, navigation, and timing (APNT) capabilities enabled by a proliferated Low Earth Orbit (pLEO) architecture. This effort will define, demonstrate, and deliver the architectures and standards necessary to rapidly prototype and field new satellite capabilities in LEO.			
FY 2026 Plans: Tranche 0 - Continue to leverage Tranche 0 (T0) satellites as a testbed for investigating additional capabilities after Capstone demonstrations. - Begin end-of-life operations on select satellites.			
Tranche 1 - Complete assembly, integration, and test (AI&T) of Transport space vehicles and payloads in preparation for vehicle launches. - Complete Pre-Ship Reviews (PSR) for the remaining three (3) Transport plane launches and ship space vehicles to launch site - Conduct space vehicle integration onto the multi-vehicle launch dispensers and mate integrated stacks to the launch vehicle. - Fund mission unique hardware and integration of the Tranche 1 (T1) space vehicles on the National Security Space Launch (NSSL) Launch vehicles. - Complete readiness for launch, early orbit phase operations, and transition to nominal operations.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 643731 / <i>Transport</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
- Launch remaining (5) planes of Transport Layer T1 (TLT1) space vehicles. - Conduct system level verification and Developmental Testing. - Conduct Operational Testing of TLT1 capabilities. - Conduct space vehicle command and control, enterprise management, and sustainment for all TLT1 satellites. - Begin support to resilient operational space Transport capabilities including beyond line-of-sight tactical datalink connectivity, Direct downlinks to theatre targeting cell; worldwide low-latency high volume data transport, and secure multi-domain optical communications. - Other activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, exercise participation, etc. Tranche 2 - Continue manufacturing, assembly, integration, and test activities for the Transport Layer Tranche 2 (TLT2) Alpha and Beta space vehicles in preparation for T2 launches. - Support integration studies and mission requirements document development for TLT2 launches. - Fund mission unique hardware and integration of the T2 space vehicles on the National Security Space Launch (NSSL) Launch vehicles. - Begin preparations for launch and early orbit checkout and operations phases for TLT2 Alpha and Beta programs. - Begin shipping space vehicles to launch sites and integration with launch vehicles for multi-manifest missions. - Other activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc. Follow-on Tranche Activity - Continue to conduct analysis, pursue technology maturation initiatives, and apply lessons learned to inform on-going and future development and delivery activities for data transport at the tactical edge. Advanced Fire Control (AFC) - Continue execution of other advanced fire control efforts including F2, Warlock, and Goliath. - Continue assembly, integration, and testing of T2TL Gamma space vehicles. - Demonstrate capabilities, collect data, conduct technical analysis, and mature technologies to inform future Tranche deliveries. - Perform Studies to inform operationalization of demonstration activities. Other - Execute Integrated Broadcast Service - Low Earth Orbit (IBS-L) demonstration activities in support of Blackjack.			
			FY 2027

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 643731 / <i>Transport</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
- Develop on-orbit updates testing of IBS-L capability. FY 2027 Plans: Tranche 0 - Conduct residual experimentation in support of Proliferated Warfighter Space Architecture (PWSA) Transport Risk Reduction. - End-of-life fleet operations Tranche 1 - Complete system level verification and Developmental Testing. - Complete Operational Testing of Transport Layer Tranche 1 (TLT1) capabilities. - Conduct space vehicle command and control, enterprise management, and sustainment for all TLT1 satellites. - Provide continuing support to resilient operational space Transport capabilities including beyond line of sight tactical datalink connectivity, direct downlinks to theater targeting cell, worldwide low-latency high volume data transport, and secure multi-domain optical communications. - Other activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, exercise participation, etc. Tranche 2 - Complete manufacturing, assembly, integration, and test activities for the Transport Layer Tranche 2 (TLT2) Alpha and Beta space vehicles in preparation for T2 launches. - Continue to support integration studies and mission requirements document development for TLT2 launches. - Fund mission unique hardware and integration of the T2 space vehicles on the National Security Space Launch (NSSL) Launch vehicles. - Conduct new capability operational demonstrations for tactical satellite communications (TACSATCOM), Integrated Broadcast Service - LEO (IBS-L), and COSTAR capabilities. - Conduct Transport Layer Ground Operational Readiness Review (GORR). - Conduct Pre-Ship Reviews (PSR) for the transport space vehicles. - Ship space vehicles to launch site and integrate onto the multi-vehicle launch dispensers. - Conduct readiness for launch and early orbit phase operations and transition to nominal operations. - Launch eighteen (18) planes of TLT2 space vehicles (190 total space vehicles). - Conduct on-orbit test and checkout, orbital positioning, and transition operations to the operations centers for initial planes of space vehicles. - Other activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc.			
			FY 2027

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>		Project (Number/Name) 643731 / <i>Transport</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Follow-on Tranche Activity - Continue to conduct analysis, pursue technology maturation initiatives, and apply lessons learned to inform on-going and future development and delivery activities for data transport at the tactical edge.					
Advanced Fire Control (AFC) - Continue execution of other advanced fire control efforts including F2, Warlock, and Goliath. - Demonstrate capabilities, collect data, conduct technical analysis, and mature technologies to inform future Tranche deliveries. - Perform Studies to inform operationalization of demonstration activities.					
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increases from FY 2026 to support sustainment of Tranche 1 capabilities, Tranche 2 launch and sustainment, and continued ground support activities.					
Title: Classified Program Description: Due to the classified nature of this project, specific details are available at a higher classification level.			10.724	5.929	-
FY 2026 Plans: Due to the classified nature of this project, specific details are available at a higher classification level.					
FY 2026 to FY 2027 Increase/Decrease Statement: Due to the classified nature of this project, specific details are available at a higher classification level.					
Accomplishments/Planned Programs Subtotals			1,193.480	684.931	1,068.499
			FY 2025	FY 2026	
Congressional Add: Cyber-Resilient Space Computing FY 2026 Plans: Conduct specialized research and development to mature RadPC+CyberShield technology to create a cost-effective, high-performance computing system using commercial parts that can survive the space environment.			-	5.000	
Congressional Add: Transport Layer Software Architecture FY 2026 Plans: Continues effort to establish a test-bed initiative to identify threats to space-based low earth orbit Internet of Things assets. Build on prior years' work developing telemetry and datasets to train the artificial			-	7.500	

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 643731 / <i>Transport</i>	
		FY 2025	FY 2026
intelligence/machine learning model, and will include phases focused on anomaly detection, anomaly mitigation, and trust restoration.			
Congressional Add: Warfighter Centric Capability		-	50.000
FY 2026 Plans: Funds support the PWSA, a proliferated constellation in Low Earth Orbit (pLEO) that combines advanced tracking sensors with a resilient data transport layer. As an enclave within the Space Data Network (SDN), the PWSA Transport Layer, is an integrated component with of the warfighting architecture. PWSA's integration with the SDN will improve the resiliency and survivability of network connectivity between the PWSA and our Warfighters. This resilient mesh network provides the essential tracking and tactical communications, such as Link-16, needed to conduct battle management and close the Joint Force's long-range kill chains, even in a contested environment. This investment allows integration of necessary upgrades to support key national priorities and ensure the seamless integration of this advanced pLEO mesh.			
Congressional Adds Subtotals		-	62.500
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
Partners for these activities may include Missile Defense Agency (MDA), Space Systems Command (SSC), Space Operations Command (SpOC), Space Training and Readiness Command (STARCOM), Space Rapid Capabilities Office (SpRCO), DoW Combatant Commands, DoW research centers, small businesses, large defense contractors, commercial space providers, non-traditional aerospace and defense contractors, Federally Funded Research and Development Centers, and University Affiliated Research Centers. SDA's Transport Layer Tranche 1 and Transport Layer Tranche 2 space systems are being acquired via Firm Fixed Price contracts conducted in accordance with Other Transaction Authority (OT) for prototyping processes.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206410SF / Space Technology Development and Prototyping				Project (Number/Name) 643731 / Transport					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Transport Layer Tranche 0	Various	Various : Various	-	8.226	Nov 2024	1.865	Nov 2025	9.274	Nov 2026	-		9.274	Continuing	Continuing	-
Transport Layer Tranche 1	Various	Various : Various	-	136.239	Oct 2024	183.758	Nov 2025	55.621	Nov 2026	-		55.621	Continuing	Continuing	-
Transport Layer Tranche 2	Various	Various : Various	-	986.383	Nov 2024	433.920	Nov 2025	761.470	Nov 2026	-		761.470	Continuing	Continuing	-
Advanced Fire Control (Transport Layer Tranche 2 Gamma)	Various	Various : Various	-	20.666	Nov 2024	-		-		-		-	Continuing	Continuing	-
Blackjack	Various	Various : Various	-	5.163	Jun 2025	10.000	Nov 2025	-		-		-	Continuing	Continuing	-
Classified Project	Various	Various : Various	-	10.724	Nov 2024	5.929	Nov 2025	-		-		-	Continuing	Continuing	-
Transport Layer Projects	Various	Various : Various	-	0.523	Nov 2024	-		-		-		-	Continuing	Continuing	-
PWSA Ground Program (PGP) Activities	Various	Various : Various	-	25.556	Aug 2025	26.454	Dec 2025	196.644	Nov 2026	-		196.644	Continuing	Continuing	-
Cyber-Resilient Space Computing	Various	Various : Various	-	-		5.000	Jun 2026	-		-		-	Continuing	Continuing	-
Transport Layer Software Architecture	Various	Various : Various	-	-		7.500	Aug 2026	-		-		-	Continuing	Continuing	-
Warfighter Centric Capability	Various	Various : Various	-	-		50.000	Jun 2026	-		-		-	Continuing	Continuing	-
SBIR/STTR Set Aside	Various	Various : Various	-	-		23.005	Jul 2026	45.490	Mar 2027	-		45.490	Continuing	Continuing	-
Subtotal			-	1,193.480		747.431		1,068.499		-		1,068.499	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	1,193.480		747.431		1,068.499		-		1,068.499	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206410SF / Space Technology Development and Prototyping						Project (Number/Name) 643731 / Transport			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Transport																												
Operations of Tranche 0 Transport satellites.																												
Launch and operations of Tranche 1 Transport satellites.																												
Conduct activities for Tranche 2 capability development.																												
Launch and operations of Tranche 2 Transport satellites.																												
Conduct activities for PWSA ground support.																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 643731 / <i>Transport</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Transport</i>				
Operations of Tranche 0 Transport satellites.	1	2025	4	2028
Launch and operations of Tranche 1 Transport satellites.	4	2025	4	2028
Conduct activities for Tranche 2 capability development.	1	2025	4	2028
Launch and operations of Tranche 2 Transport satellites.	4	2026	4	2028
Conduct activities for PWSA ground support.	3	2025	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>				Project (Number/Name) 643732 / <i>Sensing</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
643732: <i>Sensing</i>	0.000	95.151	87.543	5.558	0.000	5.558	4.628	2.899	2.896	2.954	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Funds for the Tranche 1 Tracking Layer continue in RDT&E, Space Force, PE 1206446SF.												
A. Mission Description and Budget Item Justification SDA is rapidly developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and expedited acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of War (DoW) space needs that align with the United States Space Force Space Warfighting framework and includes space-based battle management and a ground support infrastructure. SDA will orchestrate the rapid development and fielding of the Proliferated Warfighter Space Architecture (PWSA), a resilient military sensing and data transport capability via a proliferated space architecture in LEO. This program element funds the development and demonstration of space technologies to deliver space-based command and control, tasking, mission processing and dissemination capabilities, as well as an integrated, resilient network of ground support capabilities, to U.S. joint warfighting forces in bi-annual tranches, which began in FY 2022.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: Sensing									25.354	29.733	1.704	
Description: Develop and demonstrate payload prototypes compatible with a proliferated Low Earth Orbit (pLEO) architecture. This effort will focus on developing and demonstrating sensors for beyond-line-of-sight targeting, space-to-space data links, space-to-tactical data links, and advanced missile warning capabilities to enable enhanced space domain awareness. On-orbit demonstrations will be tied to existing mission-specific ground infrastructure, when it exists. Ground infrastructure will be linked or developed to support payload integration and data processing.												
FY 2026 Plans: Tranche 0 - Continue to leverage operating Tranche 0 satellites to investigate potential developmental capabilities. - Continue to characterize high-resolution background clutter in wide range of spectral bands. - Continue to demonstrate Wide Field of View (WFOV) performance and cost that enables proliferation.												
FY 2027 Plans: Tranche 0 - Conduct residual experimentation in support of PWSA WFOV Risk Reduction.												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 643732 / <i>Sensing</i>		
B. Accomplishments/Planned Programs (\$ in Millions) - End-of-life fleet operations. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreases from FY 2026, reflecting end-of-fleet operations for some Tranche 0 space vehicles.		FY 2025	FY 2026	FY 2027
Title: Classified Projects Description: Due to the classified nature of this project, specific details are available at a higher classification level. FY 2026 Plans: Due to the classified nature of this project, specific details are available at a higher classification level. FY 2027 Plans: Due to the classified nature of this project, specific details are available at a higher classification level. FY 2026 to FY 2027 Increase/Decrease Statement: Due to the classified nature of this project, specific details are available at a higher classification level.		69.797	57.810	3.854
Accomplishments/Planned Programs Subtotals		95.151	87.543	5.558
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy Partners for these activities may include Missile Defense Agency (MDA), Space Systems Command (SSC), Space Operations Command (SpOC), Space Training and Readiness Command (STARCOM), Space Rapid Capabilities Office (SpRCO), DoW Combatant Commands, DoW research centers, small businesses, large defense contractors, commercial space providers, non-traditional aerospace and defense contractors, Federally Funded Research and Development Centers, and University Affiliated Research Centers.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206410SF / Space Technology Development and Prototyping						Project (Number/Name) 643732 / Sensing			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Tranche 0	Various	Various : Various	-	25.354	Nov 2024	29.733	Nov 2025	1.704	Nov 2026	-		1.704	Continuing	Continuing	-
Classified Projects	Various	Various : Various	-	69.797	Oct 2025	57.810	Nov 2025	3.854	Nov 2026	-		3.854	Continuing	Continuing	-
Subtotal			-	95.151		87.543		5.558		-		5.558	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	95.151		87.543		5.558		-		5.558	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4								R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>				Project (Number/Name) 643732 / <i>Sensing</i>			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Sensing																												
Complete the development of Tracking Tranche 0 space vehicles and integrate with Transport Layer.																												
Operations of Tranche 0 Tracking satellites.																												
Conduct capstone demonstration to validate mission capabilities.																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206410SF / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 643732 / <i>Sensing</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Sensing				
Complete the development of Tracking Tranche 0 space vehicles and integrate with Transport Layer.	1	2025	4	2025
Operations of Tranche 0 Tracking satellites.	1	2025	4	2028
Conduct capstone demonstration to validate mission capabilities.	1	2025	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>					R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	112.132	106.869	87.730	0.000	87.730	68.693	70.338	71.709	73.270	0.000	590.741
645601: <i>Space Defense Capabilities</i>	0.000	112.132	104.901	87.730	0.000	87.730	68.693	70.338	71.709	73.270	0.000	588.773
645611: <i>Assault Breaker II</i>	0.000	0.000	1.968	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.968

Note

Project 645611, Assault Breaker II transferred to PE 1206730SF Space Security and Defense Program in FY 2027 for transparency and efficient execution.

A. Mission Description and Budget Item Justification

Space Systems Command is executing Space Systems Prototype Transition (SSPT) (Project 645601) for Guardians across Space Control, Space Access, Networks, Command and Control, Warfighting, and the Space Domain Awareness Enterprise. As a result, the Service will deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland, principled public servants; space-minded warfighters; and bold and collaborative problem solvers.

The Space Systems Prototype Transitions Program addresses space technology and capability gaps to facilitate technology transition of military space prototypes into programs of record. SSPT conducts an array of activities to model, integrate, test, provide launch integration for, and support on-orbit testing of prototype technologies. The supported activities include systems engineering, technology planning, development, demonstration and testing, as well as modeling, simulation, and exercises to support the development and maturation of tactics, techniques, and procedures. This includes developing and prototyping critical technology within the Department of War, other government agencies, academia, and industry partners, along with the necessary systems engineering for effective deployment.

Project 645601, Space Defense Capabilities, prototypes technologies and facilitates informed insertion to programs of record and provides platforms to operate prototypes in space. Project 645611, Assault Breaker II, is an all-Service, classified, multi-year effort, led by the Office of the Under Secretary of War for Research and Engineering (OUSW(R&E)) to analyze, research, and recommend material and non-material solutions to the Joint Requirements Oversight Council/Requirements and Resourcing Alignment Board.

This program falls within the Science and Technology (S&T) and Test & Evaluation (T&E) mission area which provides the S&T initiatives, demonstrations, experiments, and studies towards developing next-generation space capabilities. The T&E mission area provides all efforts required to establish and operate the test infrastructure for USSF capabilities. Program interdependencies include:

Defense Research Sciences (0601102SF); Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Innov Intg & Rapid Tech Dev (1203174SF); Space Rapid Capabilities Office (1206857SF); Space Science and Technology (1206310SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); Space Test Program (1206864SF); University Research Initiatives (0601103SF).

The SSPT Program establishes a cost-effective framework to identify, mature and transition demonstrations and prototypes to:

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1206427SF I Space Systems Prototype Transitions (SSPT)				
-Rapidly address identified technology or capability gaps -Accelerate the maturation of systems intended for demonstrations/prototypes that enhance/compliment/replace existing capabilities -Support a more reliable, available, maintainable, and survivable military space enterprise -Energize the space industrial base supporting U.S. national security -Focus Science and Technology innovation and facilitate its transition to military space programs of record The FY 2027 request was reduced by 0.511 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency" Cost Efficiency Initiative. This program element may include necessary civilian pay expenses required to manage, execute, and deliver SSPT capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		115.739	67.246	0.000	0.000	0.000
Current President's Budget		112.132	106.869	87.730	0.000	87.730
Total Adjustments		-3.607	39.623	87.730	0.000	87.730
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-3.607	-1.064			
• Other Adjustments		0.000	40.687	87.730	0.000	87.730
Change Summary Explanation						
The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
Strategic Changes: N/A						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>
Technical Changes: FY 2026: +40.687 million; Space-To-Space Communications transfer from PE 1203609SF		

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>				Project (Number/Name) 645601 / <i>Space Defense Capabilities</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
645601: <i>Space Defense Capabilities</i>	0.000	112.132	104.901	87.730	0.000	87.730	68.693	70.338	71.709	73.270	0.000	588.773
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Defense Capabilities project prototypes technologies for insertion into programs of record and provides platforms to operate prototypes in space.

The Rapid On-Orbit Space Technology Evaluation Ring (ROOSTER) provides a low-cost, rapid, and flexible on-orbit capability to host and deploy numerous prototypes and payloads in order to mature critical technologies and enable investment or divestment decisions. Each ROOSTER on-orbit platform is designed to fly multiple payloads per mission, thus fully utilizing launch potential and providing the only recurring rideshare option for prototypes, demonstrations, and experiments to geosynchronous orbit. The objectives of the ROOSTER program are to enable rapid and cost-effective technology insertion into operational programs of record through the on-orbit checkout and testing of prototypes, demonstrations, and experimental payloads. Additionally, ROOSTER will work to mature operational concepts and tactics, techniques, and procedures, such as on-orbit refueling, for use within the United States Space Force space enterprise architecture.

Tetra provides a pathfinder to define future system architectures and operational concepts for several Space Domain Awareness (SDA) and Space Control programs and other mission partners, as well as prove prototype and experiment technologies for the Air Force Research Laboratory (AFRL) and other Department of War labs. It serves as an additional platform to host prototype and experiment payloads that need to operate in concert with ROOSTERS. As a secondary mission, it provides a training platform for operators to develop and demonstrate tactics, techniques, and procedures for the evolution of operations and training in alignment with objectives from organizations such as the National Space Test and Training Complex and United States Space Force Space Training and Readiness Command.

Quasi-Zenith Satellite System-Hosted Payload has dual goals of enhancing the US-Japan alliance and proving the feasibility and capability of a SDA sensor payload able to be proliferated and hosted on US and non-US satellites. In addition to prototyping such a capability, it will serve as a dedicated sensor in the Space Surveillance Network, enhancing SDA in Geostationary Earth Orbit over the Eurasian theater.

Space-to-Space Communications includes development of communications technologies to synchronize space-to-space Command and Control and data transport needs across the space community and enable system-agnostic communication pathways via a mobile ad-hoc network. It enhances the Defense Advanced Research Projects Agency Space-Based Adaptive Communication Node modem design to support long-range crosslinks and incorporate emerging optical waveform standards. In cooperation with AFRL, it develops networking systems to manage the Space Data Network (SDN). It also develops and maintains a communications testbed to mature communication waveforms and validate hardware.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Space Systems Prototype Transitions capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026				
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>	Project (Number/Name) 645601 / <i>Space Defense Capabilities</i>			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025			FY 2026	FY 2027
Title: Technology Maturation and Prototype Development Description: Plan, develop, test and transition advanced technologies into space system prototypes and capabilities to meet known and emerging threats. Conduct architecture studies, modeling and simulation, technical development, integration and test activities in preparation for transition of critical technologies into prototypes or space programs of record. Develop advanced capabilities for rapid prototyping and integration into space system programs of record and, if requested, to warfighter Urgent Operational Needs and Joint Urgent Operational Needs. Develop, test and integrate on-orbit platforms for checkout and testing of prototypes and experimental payloads to mature operational concepts and tactics, techniques, and procedures for future use in the United States Space Force (USSF) space enterprise architecture. Provide rideshare platform hosting opportunities to geosynchronous orbit. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 Plans: - Rapid On-Orbit Space Technology Evaluation Ring (ROOSTER): Support shipment and launch integration efforts for the ROOSTER-4 Space Vehicle. Continue development and integration of the ROOSTER-5 space vehicle and begin the factory test campaign. Obtain security and policy approval for the test campaigns of both integrated space vehicles and launch stacks USSF-43 and USSF-70, respectively. Initiate follow-on space vehicle bus and payload development. Award ROOSTER-6 contract. - Tetra: Continue development of Tetra 5 & Tetra 6, in addition to pending launch plans. Continue storage of Tetra 3 and 4 pending updated launch plans. - Quasi-Zenith Satellite System—Hosted Payload: Continue international cooperation with Japan by maturing system components and connectivity with internal and external systems. Continue ground system and data communication development. FY 2027 Plans: - ROOSTER: Support shipment and launch integration efforts for the ROOSTER-4 space vehicle, pending updated launch plans. For ROOSTER-5, complete platform development and factory testing of the ROOSTER-5 space vehicle and begin integrated test campaign. Prepare for shipment and launch integration efforts. Obtain security and policy approval for the test campaigns of both integrated space vehicles and launch stacks, USSF-43 and USSF-70, respectively. For ROOSTER-6, award integration contract to begin initial integration and development of the space vehicle platform. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.		36.267			36.170	46.086

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206427SF / Space Systems Prototype Transitions (SSPT)	Project (Number/Name) 645601 / Space Defense Capabilities		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
- Tetra: Finish Tetra 5 and continue storage pending updated launch plans (USSF-43). Continue development of Tetra 6 and continue storage pending updated launch plans (USSF-155). Continue storage of Tetra 3 and 4. Initiate follow-on space vehicle bus development and payload integration. Award future Tetra contract(s). - Quasi-Zenith Satellite System-Hosted Payload (QZSS-HP): Continue international cooperation with Japan by maturing system components and connectivity with internal and external systems. Continue maturation of the ground system data dissemination in support of HP-1 and HP-2 in preparation for acceptance as dedicated sensors to the Space Surveillance Network. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased by \$9.916 million due to continued development of the Rapid On-Orbit Space Technology Evaluation Ring (ROOSTER)-6 bus.				
Title: Prototype Integration, Test and On-Orbit Prototype Demonstration Description: Provide rideshare opportunities for prototypes and experiments, fund mission-unique payload integration into the rideshare or launch system, and conduct launch base integration, testing, and launch operations. Conduct prototype integration and testing into the designated Command and Control system and provide operational support to conduct prototype testing, demonstration, and operations. FY 2026 Plans: - ROOSTER: For ROOSTER-4, complete payload integration; support launch integration and launch; and begin the execution of the 12-month on-orbit prototype testing and demonstration phase. Conduct on-orbit tests and demonstrations to enable technology maturation. For ROOSTER-5, continue payload integration for manifested payloads; begin ground system development, integration, and testing. - Tetra: Continue integration, storage and operations to support future launch of Tetra 3, 4 & 5 space vehicles in FY 2026, pending updated launch plans. - QZSS-HP: Continue international cooperation with Japan via on-orbit testing and experimentation of HP-1 as well as final integration, launch and initial testing of HP-2. Support sensor calibration, on-orbit experimentation, and data validation/ dissemination. FY 2027 Plans: - ROOSTER: For ROOSTER-4, finish payload integration; support launch integration and launch, pending updated launch plans. Begin the execution of the 12-month on-orbit prototype testing and demonstration phase. Conduct on-orbit tests and demonstrations to enable technology maturation. For ROOSTER-5, continue integrating manifested payloads, begin launch integration campaign, continue ground system development and testing. Begin mission CONOP development. For ROOSTER-6, develop tunable payload dispensers with standardized interfaces to reduce payload integration costs and increase rideshare hosting opportunities for rapid needs.		22.569	28.044	21.594

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>	Project (Number/Name) 645601 / <i>Space Defense Capabilities</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
- Tetra: Finish integration, storage and operations to support future launch of Tetra 5 and 6 space vehicles, pending updated launch plans. - Quasi-Zenith Satellite System-Hosted Payload (QZSS-HP): Continue international cooperation with Japan via ongoing on-orbit testing and experimentation of HP-1 as well as final integration, launch, initial on-orbit testing, and experimentation of HP-2. Support sensor calibration, on-orbit experimentation, data validation/dissemination, and preparations for on-orbit operational leave-behind of both HPs. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased by \$6.450 million due to completion of the integration activities of Rapid On-Orbit Space Technology Evaluation Ring (ROOSTER)-4, Tetra-5a, and QZSS-HP QZS 7-HP.			
Title: Space-To-Space Communications Description: Continue Space-to-Space Communications activity through development of communications technologies to synchronize space-to-space Command and Control (C2) and data transport needs across the space community and enable system agnostic communication pathways via a mobile ad-hoc network. Perform environmental testing to characterize the impacts of operating in the space environment and to mitigate those impacts if design modifications are necessary. Develop networking standards and systems to manage the Space Data Network (SDN). Develop and maintain a communications testbed to mature communication waveforms and validate hardware. FY 2026 Plans: Funds were erroneously transferred to PE 1203609SF and will be realigned back for execution towards: - Continued development of optical communication terminal prototypes through Other Transaction Agreements and fund development, testing, and maintenance of the Optical Terminal Verification Testbed at Massachusetts Institute of Technology Lincoln Laboratory (MIT/LL). - Developing interface controls and integration plans in preparation for a space-based prototype demonstration. Mature networking management of optical crosslink terminals in partnerships with other organizations. FY 2027 Plans: Complete development of the optical space terminals, conduct functional and performance testing of the terminals on the government testbed at MIT/LL, conduct environmental testing on the terminals, and continue development of the Space Data Network C2 System. FY 2026 to FY 2027 Increase/Decrease Statement:		53.296	40.687
			20.050

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>	Project (Number/Name) 645601 / <i>Space Defense Capabilities</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
FY 2027 decreased by \$20.637 million due to planned completion and delivery of the optical communication terminal prototypes in 3Q FY 2027.				
Accomplishments/Planned Programs Subtotals		112.132	104.901	87.730
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
AFRL Tetra-5c has been repurposed to fulfill Tetra-6 mission.				
D. Acquisition Strategy				
All contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible. The Space Systems Prototype Transitions (SSPT) program consists of numerous projects in which the program office will leverage rapid prototyping authorities to the maximum extent possible.				
The Rapid On-Orbit Space Technology Evaluation Ring (ROOSTER) acquisition strategy was approved in 2Q FY 2022. A sole-source contract was awarded for ROOSTER 2Q FY 2023 which supports the ROOSTER-4 Initial Launch Capability (ILC) 1Q FY 2027. The follow-on ROOSTER-5 bus contract was competitively awarded in 1Q FY 2025 through a mission partner's contract. The payload and launch vehicle integration, ground systems development, and operation support scope will be awarded via sole-source contract to the bus contractor in 4Q FY 2025. The ROOSTER-6 bus contract will be competitively awarded in 1Q FY 2026 through a mission partner's contract. The payload and launch vehicle integration, ground systems development, and the operations scope will be awarded again via sole source to the bus contractor in late FY 2026 with an intent to simplify interfaces and reduce integration costs.				
The Tetra program office maintains the flexibility to employ a different acquisition strategy to procure, develop, and launch each Tetra. The first two Tetra vehicles were procured simultaneously as the first award on the Space Enterprise Consortium (SpEC) Other Transaction Authority (OTA) agreement. Tetras 3 and 4 were awarded in 4Q 2019. Tetra-5a awarded in 4Q 2022. Air Force Research Lab Tetra-5c has now been re-purposed to fulfill the Tetra 6 mission which was awarded in 3Q FY 2024.				
The Quasi-Zenith Satellite System—Hosted Payload acquisition strategy is to procure the two prototype payloads from Massachusetts Institute of Technology Lincoln Laboratory through a sole-source contract to develop and test the pathfinding system, as well as provide integration and long-term factory support. After the payloads' prototype mission, they will transition to an operational leave-behind mission, serving as dedicated sensors to Space Surveillance Network. Lessons learned in system development on-orbit operations will inform requirements and accelerate design for follow-on systems, as well as inform Space Domain Awareness Force Design and architecture.				
The S2S Comms acquisition strategy awarded agreements to multiple developers to develop beyond Low Earth Orbit optical crosslink terminal prototypes. These awards occurred on the SpEC OTA vehicle using a three-phased approach with potential down-selects occurring after Phase 1 and/or Phase 2. The total period of performance is planned for 34 months. In parallel, the project will fund further development of a low size, weight, and power optical modem developed under the				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>	Project (Number/Name) 645601 / <i>Space Defense Capabilities</i>
Defense Advanced Research Projects Agency Space-Based Adaptive Communication Node program to support long-range crosslinks and emerging waveform standards.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206427SF / Space Systems Prototype Transitions (SSPT)				Project (Number/Name) 645601 / Space Defense Capabilities					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ROOSTER Development & Assembly	C/CPFF	Northrop Grumman: VA: TBD : TBD	-	11.966	Jan 2025	6.635	Nov 2025	23.802	Nov 2026	-		23.802	Continuing	Continuing	-
ROOSTER Launch Vehicle and Payload Integration	C/CPFF	Northrop Grumman: VA: TBD : TBD	-	14.917	Jan 2025	6.433	Nov 2025	15.288	Jan 2027	-		15.288	Continuing	Continuing	-
ROOSTER Ground Systems Development, Ground Ops and Ground Script Support	C/Various	Various: Various: TBD : TBD	-	4.618	Jun 2025	11.965	Nov 2025	3.751	Jan 2027	-		3.751	Continuing	Continuing	-
ROOSTER Launch Vehicle Mission Unique and Technical Insertion Analysis	C/Various	Various: Various: TBD : TBD	-	0.202	Jan 2025	4.125	Nov 2025	0.815	Jan 2027	-		0.815	Continuing	Continuing	-
Tetra 5a Development	C/CPIF	Orion Space: CO: TBD : TBD	-	1.401	Jan 2025	5.358	Nov 2025	-		-		-	0.000	6.759	-
Tetra 6 Development	C/FPIF	Orion Space: CO: TBD : TBD	-	0.000	Jan 2025	1.458	Feb 2026	-		-		-	Continuing	Continuing	-
Tetra 1, 3, 4, & 5a Prototype Integration, Test & On-Orbit Prototype Demonstration	C/Various	Various: Various: TBD : TBD	-	0.781	Jan 2025	2.794	Jan 2026	1.398	Jan 2027	-		1.398	Continuing	Continuing	-
QZSS-HP Development, Integration, & Ground System	C/Various	Various: Various: TBD : TBD	-	8.910	Nov 2024	9.036	Nov 2025	10.644	Nov 2026	-		10.644	Continuing	Continuing	-
QZSS-HP Payloads Shipping, and Security (Japan)	C/Various	Various: Various: TBD : TBD	-	2.051	Jan 2025	2.727	Jan 2026	0.342	Jan 2027	-		0.342	Continuing	Continuing	-
Space-To-Space Comms. Space Terminals	C/Various	Various: Various: TBD : TBD	-	45.781	Jan 2025	20.911	Dec 2025	12.197	Nov 2026	-		12.197	Continuing	Continuing	-
Space-To-Space Comms. SDN C2 System	C/Various	Various: Various: TBD : TBD	-	4.670	Jan 2025	8.993	Jan 2026	4.125	Jan 2027	-		4.125	Continuing	Continuing	-
Space-To-Space Comms. Testbed	C/Various	Various: Various: TBD : TBD	-	0.350	Jan 2025	1.200	Feb 2026	-		-		-	Continuing	Continuing	-
SBIR/STTR	TBD	TBD:TBD:TBD : TBD	-	0.000	May 2025	1.261	Mar 2026	3.274	Mar 2027	-		3.274	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>				Project (Number/Name) 645601 / <i>Space Defense Capabilities</i>					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical MIssion Analysis	C/Various	Various: Various: TBD : TBD	-	3.499	Jan 2025	8.977	Jan 2026	4.442	Jan 2027	-		4.442	Continuing	Continuing	-
Subtotal			-	99.146		91.873		80.078		-		80.078	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SMC Technical Support (STS-3)	C/FFP	Axient Corp. : Huntsville, AL	-	5.849	Mar 2025	4.741	Nov 2025	3.031	Mar 2027	-		3.031	Continuing	Continuing	-
Subtotal			-	5.849		4.741		3.031		-		3.031	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace Corp. : El Segundo, CA	-	3.032	Jan 2025	3.005	Dec 2025	1.508	Jan 2027	-		1.508	Continuing	Continuing	-
A&AS	C/Various	Various: Various: TBD : TBD	-	3.435	Jan 2025	4.250	Nov 2025	1.993	Jan 2027	-		1.993	Continuing	Continuing	-
Other Support	C/Various	Various: Various: TBD : TBD	-	0.670	Nov 2024	1.032	Nov 2025	1.120	Nov 2026	-		1.120	Continuing	Continuing	-
Subtotal			-	7.137		8.287		4.621		-		4.621	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	112.132		104.901		87.730		-		87.730	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>		Project (Number/Name) 645601 / <i>Space Defense Capabilities</i>	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
ROOSTER-4																												
Integration																												
Launch/Ops																												
ROOSTER-5																												
Development																												
Integration																												
Launch/Ops																												
ROOSTER-6																												
Development																												
Integration																												
Launch/OPS																												
Tetra-5a																												
Development																												
Integration																												
Launch/Ops																												
Tetra-6																												
Development																												
Integration																												
Launch/Ops																												
QZS 6-Hosted Payload																												
Integration																												
Launch/Ops																												
QZS 7-Hosted Payload																												
Integration																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																		Date: April 2026																			
Appropriation/Budget Activity 3620F / 4										R-1 Program Element (Number/Name) PE 1206427SF / Space Systems Prototype Transitions (SSPT)								Project (Number/Name) 645601 / Space Defense Capabilities																			
										FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Launch/Ops																																					
Space-to-Space Communications																																					
Space Terminals																																					
SDN C2 System																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 4

R-1 Program Element (Number/Name)

PE 1206427SF / *Space Systems Prototype Transitions (SSPT)*

Project (Number/Name)

645601 / *Space Defense Capabilities*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ROOSTER-4				
Integration	1	2025	4	2026
Launch/Ops	1	2027	4	2027
ROOSTER-5				
Development	1	2025	2	2027
Integration	1	2026	1	2028
Launch/Ops	2	2028	1	2029
ROOSTER-6				
Development	1	2026	2	2028
Integration	1	2027	3	2029
Launch/OPS	4	2029	4	2030
Tetra-5a				
Development	1	2025	2	2025
Integration	3	2025	2	2026
Launch/Ops	2	2026	2	2028
Tetra-6				
Development	1	2025	4	2026
Integration	1	2027	3	2027
Launch/Ops	4	2027	4	2028
QZS 6-Hosted Payload				
Integration	1	2025	2	2025
Launch/Ops	2	2025	4	2031

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>	Project (Number/Name) 645601 / <i>Space Defense Capabilities</i>		
		Start		End
Events by Sub Project	Quarter	Year	Quarter	Year
QZS 7-Hosted Payload				
Integration	1	2025	3	2026
Launch/Ops	3	2026	4	2031
Space-to-Space Communications				
Space Terminals	1	2025	3	2027
SDN C2 System	2	2025	2	2027

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>				Project (Number/Name) 645611 / <i>Assault Breaker II</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
645611: <i>Assault Breaker II</i>	0.000	0.000	1.968	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1.968
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Assault Breaker II (ABII) is an all-Service, classified, multi-year effort, led by the Office of the Under Secretary of War for Research and Engineering (OUSW(R&E)) to analyze, research, and recommend material and non-material solutions to the Joint Requirements Oversight Council/Requirements and Resourcing Alignment Board (JROC/RRAB).

In FY 2027 funds in this project were transferred to Program Element (PE) 1206730SF Space Security and Defense Program for transparency and efficient execution.

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2025	FY 2026	FY 2027
Title: Assault Breaker II (ABII) Description: ABII is an all-Service, classified, multi-year effort, OUSW(R&E)-led effort, to analyze, research, and recommend material and non-material solutions to the JROC/RRAB. FY 2026 Plans: Provide warfighter analysis, experiments, and modeling and simulation to support warfighting objectives established by OUSW(R&E). FY 2027 Plans: N/A. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased by \$1.968 million due to funds transferred to PE 1206730SF Space Security and Defense Program for transparency and efficient execution.	0.000	1.968	0.000
Accomplishments/Planned Programs Subtotals	0.000	1.968	0.000

C. Other Program Funding Summary (\$ in Millions)
N/A

Remarks

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>	Project (Number/Name) 645611 / <i>Assault Breaker II</i>

D. Acquisition Strategy

Funds are sent via Military Interdepartmental Purchase Request to Space Security and Defense Program adhering to the ABII memorandum of understanding signed by the Vice Chief of Space Operations satisfying the United States Space Force continued analysis and development efforts.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>						Project (Number/Name) 645611 / <i>Assault Breaker II</i>			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Assault Breaker II	MIPR	Radiance Technologies : Huntsville, AL	-	0.000		1.929	Dec 2025	0.000	Oct 2026	-		0.000	0.000	1.929	-
SBIR/STTR	TBD	TBD : TBD	-	-		0.039	Mar 2026	-		-		-	0.000	0.039	-
Subtotal			-	0.000		1.968		0.000		-		0.000	0.000	1.968	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	0.000		1.968		0.000		-		0.000	0.000	1.968	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																Date: April 2026			
Appropriation/Budget Activity 3620F / 4								R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>								Project (Number/Name) 645611 / <i>Assault Breaker II</i>			

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206427SF / <i>Space Systems Prototype Transitions (SSPT)</i>	Project (Number/Name) 645611 / <i>Assault Breaker II</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Assault Breaker II</i>				
Development	1	2026	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	PE 1206438SF / <i>Space Control Technology</i>											
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	60.027	59.148	62.031	0.000	62.031	59.471	55.555	53.444	54.393	Continuing	Continuing
642611: <i>Technology Insertion Planning and Analysis</i>	0.000	34.926	34.200	46.328	0.000	46.328	47.857	48.595	49.512	50.513	Continuing	Continuing
646438: <i>Joint Space Integration Technology</i>	0.000	25.101	24.948	15.703	0.000	15.703	11.614	6.960	3.932	3.880	Continuing	Continuing

Note
This program, BA 4, PE 1206438SF, project 642611, Space Force TENCAP, is a new start.

The FY2026 spend plan amount for Research, Development, Test and Evaluation (RDT&E) of the Military Application of the Space Environment (MASE) project includes \$24,948 thousands of discretionary funds and \$9,010 thousands of mandatory funds (reconciliation) for a total \$33,958 thousands.

A. Mission Description and Budget Item Justification

Space Systems Command (SSC) is developing, prototyping, and executing the Integration and Technology Futures Project, the Rapid Reaction Project, and the Space Force TENCAP Project (Program 642611) for Guardians across the combat power mission area. As a result, the Service will deter, neutralize, defeat and/or destroy counterspace threats and defend the space domain.

These three projects fall within the Combat Power mission area which provides the systems required to protect and defend space-based capabilities and ensure space superiority by enabling and executing combat operations in space. Space Force investment program interdependencies include: RDT&E Budget Line Items: Space-Based Moving Target Indicator (1203155SF); Long Range Kill Chains (1203154SF); Counterspace systems (1206421SF); Space Superiority ISR (1203330SF) and elements of Procurement Budget Line Items: Space Mods (SPCMOD); Space Based Air Moving Target Indicator (AMTI00); Ground Moving Target Indicator (GMTI00); and Counterspace Systems (CTRSPC).

The Space Control Technology program supports a range of activities including systems engineering, technology planning, development, demonstrations and prototyping, and testing, as well as modeling, simulations and exercises to support development and maturation of tactics and procedures for a responsive and resilient Space Control mission area. This includes technology development and prototyping for Defensive Counterspace (DCS) and Offensive Counterspace (OCS) and the necessary systems engineering for the warfighter to effectively employ such systems.

Specifically supported are DCS and Space Domain Awareness (SDA) activities, which include developing threat warning payloads for monitoring, detecting, identifying, tracking, assessing, verifying, categorizing, and characterizing objects and events in space.

Additionally, Integration and Technology Futures (I&TF) project supports requirements development of space enterprise kill chains integration, including the identification and assessment of risks and gaps in the current and future space control architecture. I&TF also provides engineering requirements and configuration management,

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 1206438SF I Space Control Technology	
including development of governance documents, change management, risk management, and engineering reviews. I&TF provides functional analysis support critical to determining requirements for the future space control architecture.		
Specific OCS activities include disruption, denial, or degradation (and associated Electromagnetic Support) of adversary space systems that may be used for purposes hostile to U.S. national security interests. Rapid Reaction Capabilities in response to immediate warfighter needs in the Space Control mission area are developed within the Rapid Reaction Branch (RRB). Depending on the magnitude of Combatant Command Urgent Operational Needs (UON), this project may not include necessary funding for all contingency deployments. As required, necessary funding will be requested through established Joint Urgent Operational Need (JUON) and Overseas Contingency Operations (OCO) processes.		
SF TENCAP continues and expands efforts and increases space warfighter effectiveness, previously funded by AF TENCAP. SF TENCAP accomplishes this work through the exploitation of national capabilities and promotes cross- domain integration of these capabilities into Space Domain Awareness, Offensive Space Operations, and Defensive Space Operations. Develops these capabilities into operational prototypes delivered directly to the warfighter, intelligence community, and a program of record inside of two years. It is not a new start.		
Joint Space Integration Technology leverages knowledge of the space environment and impacts on weapon systems to prototype, develop, test, and field joint multi-domain software and modeling solutions to fill capability gaps for Combatant Commanders. Military Application of the Space Environment (MASE) project consolidates and integrates current space environment science and technology advancements to provide capability for joint force systems in all domains to address immediate and evolving threats to U.S. forces operating in harm's way. The data provided supports rapid and agile demonstrations, exercises, and war games that provide essential validation of delivered capabilities to improve operational effectiveness.		
MASE falls within the Weather mission area which provides mission-critical environmental intelligence to support global military operations and delivers essential meteorological and oceanographic data to joint forces across all domains and detects space-based environmental threats to protect vital U.S. and allied space assets. Space Force investment program interdependencies include: RDT&E Budget Line Items: EO/IR Weather Systems (1203710SF); Space Force Weather Services Research (0604002SF); Weather Satellite Follow-on (1206422SF); elements of Space Situation Awareness Operations (1203940SF); elements of Space Control Technology (1206438SF); and elements of Procurement Budget Line Item: Space Mods (SPCMOD).		
This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.		
This program element may include necessary civilian pay expenses required to manage, execute, and deliver SCT weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.		
This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 1206438SF I Space Control Technology			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	62.195	60.106	0.000	0.000	0.000
Current President's Budget	60.027	59.148	62.031	0.000	62.031
Total Adjustments	-2.168	-0.958	62.031	0.000	62.031
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-1.261	-0.404			
• Other Adjustments	-0.907	-0.554	62.031	0.000	62.031
Change Summary Explanation					
Change Summary Explanation					
Strategic Changes:					
FY 2027: The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner.					
Technical Changes:					
FY 2025: -\$1.261M SBIR/STTR Transfer					
FY 2025: -\$0.907M Other Adjustments					
FY 2026: -\$0.404M Section 8151 SBIR Reduction					
FY 2026: -\$0.554M Other Adjustments					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>				Project (Number/Name) 642611 / <i>Technology Insertion Planning and Analysis</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
642611: <i>Technology Insertion Planning and Analysis</i>	0.000	34.926	34.200	46.328	0.000	46.328	47.857	48.595	49.512	50.513	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 4, PE 1206438SF, project 642611, Space Force TENCAP, is a new start.

A. Mission Description and Budget Item Justification

This program supports a range of activities including systems engineering, technology planning, development, demonstrations and prototyping, and testing, as well as modeling, simulations and exercises to support development and maturation of tactics and procedures for responsive and resilient Space Superiority capabilities. This includes technology development and prototyping for Offensive and Defensive Space Operations and the necessary systems engineering for the warfighter to effectively employ such systems.

Specifically supported are Defensive Space Operations (DSO) and Space Domain Awareness (SDA) activities, which include developing threat warning payloads for monitoring, detecting, identifying, tracking, assessing, verifying, categorizing, and characterizing objects and events in space. Additionally, Integration and Technology Futures project supports the development of payload prototypes and space defense force packages for protecting U.S. space systems, resources, and operations from enemy attempts to negate, interfere, or destroy them.

Specific Offensive Space Operations (OSO) include disruption, denial, or degradation (and associated Electronic Support) of adversary space systems that may be used for purposes hostile to U.S. national security interests. Rapid Reaction Capabilities in response to immediate warfighter needs in the Space Superiority mission area are developed within the Rapid Reaction Branch (RRB). Depending on the magnitude of Combatant Command Urgent Operational Needs (UON), this program may not include necessary funding for all contingency deployments.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver SCT weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. For Technology Insertion Planning and Analysis in FY 2026 \$0.195 million was expended for civilian pay expenses in this program element, and in FY 2027 \$0.180 million is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Rapid Reaction Branch	21.285	20.833	21.657
Description: Develops advanced capabilities and rapid prototype capabilities for warfighter UONs and JUONs and if required, to transition to space control programs of record. Conducts prototype capability development, testing, training and rapid transition of			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>	Project (Number/Name) 642611 / <i>Technology Insertion Planning and Analysis</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
technology and techniques to space control systems. Sustains deployed quick reaction capabilities until transition to program of record or mission completion. FY 2026 Plans: Develop, test, train, field, transition and sustain advanced rapid reaction capabilities in response to emergent requirements from multiple Combatant Commands. Specifically, support development, testing, deployment and sustainment of two USSF UONs, 24-SOC-01 and 25-CYBER-01, supporting 5 Combatant Commands. Conduct initial technical development and integration activities against relevant threat systems and technologies in preparation for operational requirements based on operational intelligence. Develop and test advanced prototypes in support of activities within the OSO Technology portfolio. Based on technological advances relevant to the mission area, develop, integrate, and evaluate next generation capabilities into Government Reference Architecture (GRA) Increment 7. Execute remote DevSecOps activities using all three remote Outside Continental United States (OCONUS) development sites to verify system performance in the operational environment and stay abreast of emerging technologies. Enhance fielded rapid reaction capabilities in response to evolving threats and operator feedback. Additionally, FY 2026 funding will allow the program to enhance and refresh critical infrastructure equipment for all the remote development sites and the local development and integration labs. Lastly, we will look to leverage commercial developmental opportunities and international relationships, if appropriate. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc. FY 2027 Plans: -Develop, test, train, field, transition and sustain advanced rapid reaction capabilities in response to emergent requirements from multiple Combatant Commands. Specifically, sustain and transition USSF UONs 24- SOC-01 and 25-CYBER-01, supporting 5 Combatant Commands through the duration of their contingency operations. -Conduct initial technical development and integration activities against relevant threat systems and technologies in preparation for operational requirements based on operational intelligence. -Develop and test advanced prototypes in support of activities within the Offensive Space Operations (OSO) Technology portfolio. -Complete development, test and fielding of capabilities into new GRA Increment 7. -Stand up possible fourth overseas remote development site in partnership with USINDOPACOM. -Execute remote DevSecOps activities using all three remote Outside Continental United States (OCONUS) development sites to verify system performance in the operational environment and stay abreast of emerging technologies. -Enhance fielded rapid reaction capabilities in response to evolving threats and operator feedback. -Complete the tech refresh of critical infrastructure equipment for all the remote development sites and the local development and integration labs. -Leverage commercial developmental opportunities and international relationships, if appropriate.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>	Project (Number/Name) 642611 / <i>Technology Insertion Planning and Analysis</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
-Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc.				
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increased due to inflation.				
Title: Integration and Technology Futures Description: Foundational architecture development to enable the integration, interoperability and compatibility of new Space Control Technology into space systems. Funds modeling, analysis, and systems engineering services support to meet space control mission requirements. FY 2026 Plans: Conduct technical development and integration activities against relevant threat systems and technologies in preparation for operational requirements. This includes performing modeling, simulation, and analysis for DSO, OSO, SDA, and C2 capabilities using the Battle Management Kill Chain (BMKC) model and other models available (e.g., FFRDC Aerospace models). The program supports updating these models with the current threat information for SDA and C2 capabilities in performing individual mission threads and campaign analysis. Conduct systems engineering and mission architecture engineering activities to allow Space Force to link its individual space defense programs to define the enterprise-level system requirements supporting the Joint warfighter. Perform intelligence analysis and coordination to support the development of DSO, OSO, SDA, and C2 enterprise-level system requirements. FY 2027 Plans: -Conduct technical development and integration activities against relevant threat systems and technologies in preparation for operational requirements. This includes modeling, simulation, and analysis for DSO, OSO, SDA, and Battle Management Command, Control and Communications (BMC3) capabilities. The program supports updating these models with the current threat information for SDA and BMC3 capabilities in performing individual mission threads and campaign analysis. -Support requirements development of space enterprise kill chains integration, including the identification and assessment of risks and gaps in the current and future space control architecture. Provide engineering requirements and configuration management, including development of governance documents, change management, risk management, and engineering reviews. -Provide functional analysis support critical to determining requirements for the future space control architecture. -Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction,		13.641	13.367	14.096

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>	Project (Number/Name) 642611 / <i>Technology Insertion Planning and Analysis</i>		
B. Accomplishments/Planned Programs (\$ in Millions) prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increased due to inflation.		FY 2025	FY 2026	FY 2027
Title: Space Force TENCAP Description: Space Force Tactical Exploitation of National Capabilities (TENCAP) increases space warfighter effectiveness through the exploitation of national capabilities and promotes cross-domain integration of these capabilities into Space Domain Awareness, Offensive Space Operations, and Defensive Space Operations. Develops these capabilities into operational prototypes delivered directly to the warfighter, intelligence community, and a program of record inside of two years. FY 2026 Plans: N/A FY 2027 Plans: -Exploit existing and future National, global, and Non-Traditional systems in air, space and cyber domains for operational and tactical applications by rapidly prototyping and providing capability demonstrations. The program consists of multiple small projects supporting the Space Force warfighter. Projects are designed to transition to warfighters or national intelligence agencies for operational use and to appropriate acquisition Programs of Record for sustainment and further development. SF TENCAP projects influence the design and operation of current and future National, global, and Non-Traditional systems in air, space, and cyber while providing Space Domain Awareness and Offensive and Defensive Space Control capabilities to warfighters and intelligence organizations. -SF TENCAP requirements and existing resources may be rapidly re-prioritized in response to emerging warfighter needs. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increased due to addition of Space Force TENCAP in this Program Element. Efforts were previously funded in Research, Development, Test and Evaluation, Air Force Program Element 0207247F (AF TENCAP).		-	0.000	10.575
Accomplishments/Planned Programs Subtotals		34.926	34.200	46.328
C. Other Program Funding Summary (\$ in Millions) N/A Remarks 				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>	Project (Number/Name) 642611 / <i>Technology Insertion Planning and Analysis</i>

D. Acquisition Strategy

All contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 4

R-1 Program Element (Number/Name)

PE 1206438SF / Space Control Technology

Project (Number/Name)

642611 / Technology Insertion Planning and Analysis

Product Development (\$ in Millions)

				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SCT Counterspace Technology Prototyping/ Rapid Reaction Development	Various	Various : Various	-	20.678	Oct 2024	20.426	Oct 2025	20.863	Nov 2026	-		20.863	Continuing	Continuing	-
SCT Integration and Technology Futures	Various	Various : Various	-	9.725	Oct 2024	9.317	Oct 2025	9.467	Nov 2026	-		9.467	Continuing	Continuing	-
Space Force TENCAP	Various	Various : Various	-	-		-		10.188	Jan 2027	-		10.188	Continuing	Continuing	-
Civilian Pay	Various	Space Systems Command : El Segundo, CA	-	0.225	Oct 2024	0.225	Oct 2025	0.233	Oct 2026	-		0.233	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		-		1.696	Oct 2026	-		1.696	Continuing	Continuing	-
Subtotal			-	30.628		29.968		42.447		-		42.447	Continuing	Continuing	N/A

Management Services (\$ in Millions)

				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : Various	-	0.529	Jan 2025	0.705	Jan 2026	1.031	Jan 2027	-		1.031	Continuing	Continuing	-
FFRDC	RO	Aerospace : El Segundo, CA	-	2.750	Nov 2024	2.750	Oct 2025	2.750	Nov 2026	-		2.750	Continuing	Continuing	-
ECO/Risk Withholding	Various	Various : Various	-	0.919	Mar 2026	0.677		-		-		-	Continuing	Continuing	-
Other Support	Various	Various : El Segundo, CA	-	0.100	Nov 2024	0.100	Nov 2025	0.100	Dec 2026	-		0.100	Continuing	Continuing	-
Subtotal			-	4.298		4.232		3.881		-		3.881	Continuing	Continuing	N/A

			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	34.926		34.200		46.328		-		46.328	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>			Project (Number/Name) 642611 / <i>Technology Insertion Planning and Analysis</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
RRB																												
Rapid Prototyping/Demo/Testing/Fielding & Transition of UON/JUON/JEON Weapon System Capabilities- Ongoing Tests & DT Planning and Execution																												
Develop, test, delivery, deploy, and sustain USSF UON 24-SOC-01																												
Develop, test, delivery, deploy, and sustain USSF UON 25-CYBER-01																												
Remote Development Site x4 Design/ Integrate/Support																												
Signal Processing Lab GRA (dev) Increment 6																												
Signal Processing Lab GRA (dev) Increment 7																												
Signal Processing Lab GRA (dev) Increment 8																												
Integration and Technology Futures																												
Enterprise Systems Engineering																												
IRON JAR																												
Space Control Technology Development & Transition																												
Space Force TENCAP																												
Exploitation Applications																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>	Project (Number/Name) 642611 / <i>Technology Insertion Planning and Analysis</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
RRB				
Rapid Prototyping/Demo/Testing/Fielding & Transition of UON/JUON/JEON Weapon System Capabilities- Ongoing Tests & DT Planning and Execution	1	2025	4	2029
Develop, test, delivery, deploy, and sustain USSF UON 24-SOC-01	3	2025	2	2027
Develop, test, delivery, deploy, and sustain USSF UON 25-CYBER-01	1	2026	4	2027
Remote Development Site x4 Design/Integrate/Support	1	2025	4	2029
Signal Processing Lab GRA (dev) Increment 6	4	2025	1	2027
Signal Processing Lab GRA (dev) Increment 7	3	2026	1	2030
Signal Processing Lab GRA (dev) Increment 8	3	2029	4	2030
Integration and Technology Futures				
Enterprise Systems Engineering	1	2025	4	2031
IRON JAR	1	2025	1	2025
Space Control Technology Development & Transition	1	2025	4	2031
Space Force TENCAP				
Exploitation Applications	1	2027	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>				Project (Number/Name) 646438 / <i>Joint Space Integration Technology</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
646438: <i>Joint Space Integration Technology</i>	0.000	25.101	24.948	15.703	0.000	15.703	11.614	6.960	3.932	3.880	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Joint Space Integration Technology leverages knowledge of the space environment and impacts on weapon systems to prototype, develop, test, and field joint multi-domain software and modeling solutions to fill capability gaps for Combatant Commanders. Military Application of the Space Environment (MASE) project consolidates and integrates current space environment science and technology advancements to provide capability for joint force systems in all domains to address immediate and evolving threats to U.S. forces operating in harm's way. The data provided supports rapid and agile demonstrations, exercises, and war games that provide essential validation of delivered capabilities to improve operational effectiveness.

The FY 2026 spend plan amount for MASE includes 24,948 thousand of discretionary and 9,010 thousand of mandatory (reconciliation) for a total of 33,958. The FY 2025 spend plan amount for MASE includes 25,101 of discretionary. Additional details available at a higher classification.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver SCT weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Military Application of the Space Environment (MASE)	25.101	24.948	15.703
Description: The goal, mission and purpose of the Military Application of the Space Environment (MASE) Program is to design, develop, and field a decision aid to support air and maritime scheme of maneuver in a battlespace and satisfy the needs of multiple combatant commanders, service components, and the intelligence community.			
MASE provides commanders an operational risk assessment tool to improve air and maritime campaign mission effectiveness. Develops, tests, and delivers weapon system tailored visualizations/decision aids supporting operational level mission planning and tactical execution.			
FY 2026 Plans: Research, develop and validate software for enhanced modeling and simulation of regional ionospheric and signal propagation effects to forecast space domain impacts on joint force weapon systems. Integrate model output into weapon system tailored visualizations to improve multi-domain mission planning and execution. Complete software development of Major Release 1.5, and begin development of software for Major Release 1.6 of new capabilities and validate results during campaign planning,			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>	Project (Number/Name) 646438 / <i>Joint Space Integration Technology</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
exercises, and war games. Develop, test, and provide training for new or updated tactics, techniques, and procedures enhanced by MASE for operational users. Integrate new traditional and nontraditional data sources into models to improve space warfighting decision processes. Rapidly develop, test, and deploy new system features in response to continuously evolving threats to U.S. forces. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. <i>FY 2027 Plans:</i> Completed software development of release 1.6. Continue research, develop and validate software for enhanced modeling and simulation of regional ionospheric and signal propagation effects to forecast space domain impacts on joint force weapon systems. Integrate model output into weapon system tailored visualizations to improve multi-domain mission planning and execution. Begin development of software release 1.6.1 and 1.6.2. Software release 1.6.1 completes open system interface implementation with introduction of new capabilities and validate results during campaign planning, exercises, and war games. Software release 1.6.2 completes data source redundancy for software that supports Combatant Commanders. Continue to develop, test, and provide training for new or updated tactics, techniques, and procedures enhanced by MASE for operational users. Integrate new traditional and nontraditional data sources into models to improve space warfighting decision processes. Rapidly develop, test, and deploy new system features in response to continuously evolving threats to U.S. forces. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 reduction reflects phasing of program into sustainment.			
Accomplishments/Planned Programs Subtotals		25.101	24.948
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>	Project (Number/Name) 646438 / <i>Joint Space Integration Technology</i>
D. Acquisition Strategy All contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible. SSC obtained a long-term Systems Engineering and Integration (SE&I) support solution by leveraging the existing GSA contract for Ground Systems Engineering and Integration Support (GSIS) to provision efforts through November 2028. The software development uses the Department of the Air Force Rapid Capabilities Office (DAFRCO) contract through the end of FY2028. All modeling, simulation and demonstration contracts are awarded through the Air Force Research Lab's (AFRL) competitive processes. The application infrastructure/online services are a combination of MACs through the USAF Platform One Program and the Department of the Air Force Cloudworks (DAFCw) Program. Test and evaluation tasks will be accomplished on existing competitively awarded USSF, USAF, and USN contracts.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>				Project (Number/Name) 646438 / <i>Joint Space Integration Technology</i>					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MASE Systems Engineering & Integration (SE&I)	Various	Various : Colorado Springs, CO	-	8.252	Nov 2024	8.065	Nov 2025	4.897	Nov 2026	-		4.897	Continuing	Continuing	-
MASE Software Development	Various	DSoft Technologies : Colorado Springs, CO	-	6.036	Nov 2024	6.185	Nov 2025	5.747	Nov 2026	-		5.747	Continuing	Continuing	-
MASE Modeling, Simulation and Demonstration	Various	Various : Various	-	7.837	Nov 2024	6.506	Nov 2025	1.975	Nov 2026	-		1.975	Continuing	Continuing	-
MASE Application Infrastructure/Online Services	Various	Various : Various	-	1.933	Oct 2024	2.583	Nov 2025	1.557	Nov 2026	-		1.557	Continuing	Continuing	-
Technical Mission Analysis	RO	Not specified. : TBD	-	0.069	Oct 2024	0.000	Nov 2025	0.026	Nov 2026	-		0.026	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000	Oct 2024	0.495	Nov 2025	0.546	Oct 2026	-		0.546	Continuing	Continuing	-
Subtotal			-	24.127		23.834		14.748		-		14.748	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
MASE Developmental/ Operational Testing	Various	Various : Various	-	0.103	Oct 2024	0.350	Oct 2025	0.266	Oct 2026	-		0.266	Continuing	Continuing	-
Subtotal			-	0.103		0.350		0.266		-		0.266	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : El Segundo, CA	-	0.789	Mar 2025	0.750	Nov 2025	0.624	Nov 2026	-		0.624	Continuing	Continuing	-
FFRDC	RO	Aerospace Corp. : El Segundo, CA	-	0.072	Jan 2025	0.000	Nov 2025	0.060	Nov 2026	-		0.060	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206438SF / Space Control Technology						Project (Number/Name) 646438 / Joint Space Integration Technology			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Support	Various	Various : El Segundo, CA	-	0.010	Nov 2024	0.014	Nov 2025	0.005	Nov 2026	-		0.005	Continuing	Continuing	-
Subtotal			-	0.871		0.764		0.689		-		0.689	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	25.101		24.948		15.703		-		15.703	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026			
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>					Project (Number/Name) 646438 / <i>Joint Space Integration Technology</i>			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>MASE Integration and Test</i>																												
Systems Engineering and Integration																												
Application Infrastructure/Online Services																												
Developmental/Operational Testing																												
<i>MASE Modeling, Simulation and Demonstration</i>																												
Modeling and Propagation																												
Regional Models																												
Sensors and Data																												
<i>MASE Software Development</i>																												
Release 1.4																												
Release 1.5																												
Release 1.6																												
Release 1.6.1																												
Release 1.6.2																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / <i>Space Control Technology</i>	Project (Number/Name) 646438 / <i>Joint Space Integration Technology</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>MASE Integration and Test</i>				
Systems Engineering and Integration	1	2025	4	2031
Application Infrastructure/Online Services	1	2025	4	2031
Developmental/Operational Testing	1	2025	4	2031
<i>MASE Modeling, Simulation and Demonstration</i>				
Modeling and Propagation	1	2025	4	2029
Regional Models	1	2025	4	2029
Sensors and Data	1	2025	4	2029
<i>MASE Software Development</i>				
Release 1.4	1	2025	4	2025
Release 1.5	1	2025	4	2026
Release 1.6	1	2026	4	2027
Release 1.6.1	1	2027	4	2028
Release 1.6.2	1	2028	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>					R-1 Program Element (Number/Name) PE 1206458SF / <i>Tech Transition (Space)</i>							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	196.537	313.678	241.056	0.000	241.056	187.239	160.063	163.028	166.287	Continuing	Continuing
649493: <i>Resilient Architecture Design and Evaluation</i>	0.000	58.457	104.165	220.516	0.000	220.516	187.239	160.063	163.028	166.287	Continuing	Continuing
64S444: <i>Experimentation (Space)</i>	0.000	138.080	209.513	20.540	0.000	20.540	0.000	0.000	0.000	0.000	0.000	368.133

A. Mission Description and Budget Item Justification

The Air Force Research Laboratory (AFRL) is demonstrating and prototyping Tech Transition (Space) program (Projects 649493, 64S444) for Guardians across Satellite Communications enterprise. As a result, the Service will streamline capabilities development through institutional processes and improve readiness and operational reach of existing force structure.

The Tech Transition (Space) Program addresses the gaps between United States Space Force (USSF) Force Design activities, initial system-level technology or concept development and demonstration, and successful acquisition and operational capability implementation. This program also matures new warfighting concepts to rapidly develop and experiment with fieldable prototypes to assess military utility of transition-ready weapon systems. Following the guidance in the National Defense Strategy, the Department of the Air Force (DAF) has institutionalized Experimentation and Prototyping to achieve smarter, faster, and more efficient acquisitions that move technologies rapidly to support the most critical warfighting capabilities.

This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); Narrowband Satellite Communications (1203109SF); Protected Tactical Enterprise Service (1206760SF); Protected Tactical Service (1206761SF); Space Tech Development & Prototyping (1206410SF); Wideband Global SATCOM (SPACE) (1206433SF); Data Transport and Networking (1203156SF); Space Data Network (1203636SF); and elements of Procurement Budget Line Items: Family of Beyond Line-of-Sight Terminals (FBLOST); Mobile User Objective System (MUOS00); MILSATCOM (MILSAT); Wideband SATCOM Operational Management Systems (WSOMS0); Auxiliary Payloads (AUX000); Proliferated Low Earth Orbit SATCOM (PLEO00); PTES HUB (PTES00); ESS (ESS000).

Project 649493, Resilient Architecture Design and Evaluation, eases and accelerates the architectural pivots required by the Space Warfighting Analysis Center's Future Force design recommendations through engagement with commercial and industry partners, prototyping and demonstration, test buys and contracts, warfighter engagement, and the capturing of lessons learned to feed back into Force Design analytics and forward into requirements and acquisition.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206458SF / <i>Tech Transition (Space)</i>
Project 64S444, Experimentation (Space), explores new space-related concepts and their applications in potential future operating environments within a system-of-systems context, taking risks early in the acquisition process to drive a more optimized and efficient acquisition process and significantly reduce overall acquisitions costs. The Tech Transition Program allows acquisition program managers (the capability developers) and warfighters (the capability recipients and end users) to prototype, integrate, and demonstrate candidate technologies and assess them in an operational system-of-systems environment in partnership with Combatant Commanders, Major and Field Commands, Program Executive Officers, schoolhouses, simulation facilities, and development planning organizations. This Program is a parallel effort to United States Air Force RDT&E Program Element (PE) 0604858F/Tech Transition Program, Project 645350/Experimentation. The Projects quantify the performance and resilience of a Hybrid SATCOM architecture in an operational environment by connecting flexible terminals (from multiple vendors) to multiple SATCOM paths spanning low, medium, and geosynchronous orbits. Each of these new SATCOM pathways offer unique attributes to the Department of War (DoW). The terminal flexibility will allow rapid incorporation of new commercial SATCOM vendors as they emerge, thus ensuring low-cost SATCOM options for DoW in the foreseeable future. The Resilient Architecture Design and Evaluation project coupled with Hybrid SATCOM terminals will prototype and test techniques for dynamic networking, enhancing cybersecurity, and rapid switching capabilities between DoW and commercial paths, including broadband and narrowband, and other mission services for multi-domain sensing, position navigation and timing (PNT), space control among others, through both space-to-ground and space-to-space connectivity. The knowledge will transition to USSF to inform contract structures for operations that enable switching between DoW systems and multiple vendors at minimum cost. Together, these Projects will directly inform COCOMS, MAJCOMS, Field Commands, and PEOs in the acquisition and sustainment of Hybrid SATCOM capability for multiple Joint Force applications using commercial service level agreements and advanced cybersecurity architectures. The FY 2027 request was reduced by \$0.078 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency" Cost Efficiency Initiative. In order to manage, execute, and deliver science and technology capabilities, this program element may include: necessary civilian pay expenses; expenses to support the operation and maintenance of facilities; as well as expenses related to travel, supplies, IT hardware, software and support, administrative contractor services, etc. This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 1206458SF I Tech Transition (Space)			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	209.247	326.144	0.000	0.000	0.000
Current President's Budget	196.537	313.678	241.056	0.000	241.056
Total Adjustments	-12.710	-12.466	241.056	0.000	241.056
• Congressional General Reductions	0.000	-3.966			
• Congressional Directed Reductions	0.000	-8.500			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-6.905	0.000			
• SBIR/STTR Transfer	-5.805	0.000			
• Other Adjustments	0.000	0.000	241.056	0.000	241.056
Change Summary Explanation					
The FY 2026 President's Budget submittal did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.					
Technical Changes:					
FY 2026: -\$8.500 million: SDN architecture development ahead of need (-\$2.000 million) and Hybrid SATCOM terminal product development carryover (-\$6.500 million)					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)				Project (Number/Name) 649493 / Resilient Architecture Design and Evaluation			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
649493: Resilient Architecture Design and Evaluation	0.000	58.457	104.165	220.516	0.000	220.516	187.239	160.063	163.028	166.287	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Resilient Architecture Design and Evaluation project conducts experimentation within an interconnected hybrid satellite communication (SATCOM) architecture to validate the performance, scalability and resilience of providing the Joint Force with multiple separate communications paths. To achieve these resiliency gains, the hybrid network requires 1) on-demand management of multi-band, multi-orbit DoW, allied and commercial data links; and 2) management and control capabilities to orchestrate paths through the space and ground networks. The effort validates the "Resilience by Design" approach in the Space Warfighting Analysis Center (SWAC) Space Data Transport Force Design recommendations through a combination of 1) modeling and simulation; 2) hardware- and software-in-the-loop analysis; and 3) terrestrial and on-orbit demonstration. The project leverages Hybrid SATCOM terminal prototyping in the Experimentation (Space) project along with direct relationships with commercial terrestrial and space data transport providers to demonstrate dynamic networking, understand commercial offerings, assess security and resiliency, and jump-start future acquisition approaches that enable a pivot to a more resilient architecture. In addition to creating an experimental hybrid space network to meet DoW's unique resiliency, security, and scalability needs for broadband transport, the effort also quantifies the suitability of commercial 5G Non-terrestrial Networks (NTN) and other frequencies for a subset of current Ultra High Frequency (UHF) users while prototyping next-gen UHF technologies for the core users who need to stay on UHF. This will provide improved capacity, performance, security, and resiliency for dismounted disadvantaged user. Finally, the effort looks to understand how such a hybrid space network can support mission services for multi-domain sensing, Positioning Navigation and Timing (PNT), and space control.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Resilient Architecture Design and Evaluation	58.457	104.165	220.516
Description: Prototype and optimize a cyber-secure multi-orbit hybrid space networking capability that is resilient by design, as a core element of the USSF Hybrid Space Architecture for enterprise capability. Through collaborative modeling and simulation, prototype software and hardware in the loop systems, and on-orbit operational experimentation, validate critical underlying assumptions of the USSF Future Force Design elements built upon the integration of allied and commercial SATCOM capabilities across decoupled paths. Prototype existing high technology readiness level commercial capabilities in operational experiments to identify and resolve key unknowns regarding network topology management, data forwarding, quality of service, availability, security, and scalability. The products are prototypes that are validated with quantitative performance and scalability data suitable to develop USSF requirements and reduce risk to future acquisition.			
FY 2026 Plans: Continue:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)		Project (Number/Name) 649493 / Resilient Architecture Design and Evaluation	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
– Operational experimentation and modeling/simulation activities to advance next-generation resilient network enterprise management and control capabilities, establish scalability to DoW traffic loads, and optimize traffic flow algorithms across the hybrid DoW-commercial satellite communication (SATCOM) architecture. – Prototyping variable trust engine extending DoW zero trust principles across the internetwork to dynamically provide improved availability and security. – Development and test of network service orchestrator based on commercial products to quantify and improve security and resiliency. – Acquisition of commercial SATCOM services for use in experimentation and assessment of new capabilities. – Development of trusted network device engineering units to support software- and hardware-in-the-loop experimentation with related prototyping and acquisition programs. Includes procurement of secure processing devices and long-lead items for space-rated flight units. – Early adopter tests and integration with next-generation terrestrial data transport investments. – Next milestone experiment dynamic trust factors to inform ongoing and future programs of record. – Assessment of inclusion of narrowband technologies into the experimental next-generation resilient network. This may include (1) leveraging commercial 5G cellular waveforms and (2) technologies enabling space-based UHF broadcast supporting both legacy and modern user equipment. Complete: – Analysis of milestone experiment characterizing advanced authentication, authorization and trust factors to refine the experimental next-generation resilient network and inform ongoing and future programs of record. FY 2027 Plans: Continue: - Operational experimentation and modeling/simulation activities to advance next-generation resilient network enterprise management and control capabilities, establish scalability to DoW traffic loads, and optimize traffic flow algorithms across the hybrid DoW-commercial SATCOM architecture. – Acquisition of commercial SATCOM services for use in experimentation and assessment of new capabilities. – Development of trusted network device engineering units to support software- and hardware-in-the-loop experimentation with related prototyping and acquisition programs. Includes procurement of space- rated flight units. – Early adopter tests and integration with next-generation terrestrial data transport investments. – Next milestone experiment dynamic trust factors to inform ongoing and future programs of record. - Compatibility testing of existing and new user equipment with future narrowband architectures. Commence:					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)	Project (Number/Name) 649493 / Resilient Architecture Design and Evaluation		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
- Evaluation of 5G Non-terrestrial Networks (NTN) user equipment under DoW user requirements to include latency, capacity, and security. - Compatibility testing of existing and new user equipment for 5G Non-terrestrial Networks (NTN), as well as other frequencies - Prototype integration of commercial 5G Non-terrestrial Networks (NTN) capabilities into DoW information systems. - Efforts to seamlessly transition prototype systems into Department of Army, Navy, Air Force SATCOM procurements. - Analysis of new experiments for the full cohort of force designs including mission services for multi-domain sensing, Positioning Navigation and Timing (PNT) including security framework for Modular Open SaTnav Architecture, and space control within the hybrid space network. - Prototyping future Ultra High Frequency (UHF) capabilities including space and ground segments and user equipment modifications, including: --Procurement of long-lead parts for UHF communication payloads. --Procurement of long-lead parts for a space vehicle suitable for Medium Earth Orbit (MEO). --Systems engineering design reviews including Systems Requirements Review (SRR) and Preliminary Design Review (PDR) for the software defined radio and antenna communications payloads. --Systems engineering design reviews including Systems Requirements Review (SRR) and Preliminary Design Review (PDR) for the satellite vehicle system and components. --Testing of current UHF SATCOM user hardware in ground tests under the constraints of the newly designed system. Complete: – Prototyping variable trust engine extending DoW zero trust principles across the internetwork to dynamically provide improved availability and security. – Development and test of network service orchestrator based on commercial products to quantify and improve security and resiliency. – Assessment of inclusion of narrowband technologies into the experimental next-generation resilient network. This may include (1) leveraging commercial 5G cellular waveforms and (2) technologies enabling space-based UHF broadcast supporting both legacy and modern user equipment. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased compared to FY 2026 by \$116.351 million due to 1) accelerating Narrowband technologies, specifically 5G for tactical user equipment compatibility with commercial partners and Low Earth Orbit satellite constellations, 2) conducting initial requirements and design reviews and procurement of long-lead parts for innovative Ultra High Frequency (UHF) communication payloads and space vehicle for a Narrowband UHF prototype satellite launch in Medium Earth Orbit (MEO) planned for FY 2030 and 3) delivery of Space Data Network prototype ground trusted network hardware for terrestrial exchange point fielding.				
Accomplishments/Planned Programs Subtotals		58.457	104.165	220.516

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206458SF / <i>Tech Transition (Space)</i>	Project (Number/Name) 649493 / <i>Resilient Architecture Design and Evaluation</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy The AFRL at Kirtland Air Force Base, New Mexico manages and executes Resilient Architecture Design and Evaluation effort following the existing internetworking experimentation acquisition strategy. Baseline modeling and simulation and hardware-/software-in-the-loop development and experimentation is primarily conducted by a government team of Federally Funded Research and Development Center (FFRDCs) and Service Laboratories to avoid vendor lock-in or reduced competition from industry. Prototyping agreements jointly executed with the Defense Innovation Unit provide access to established commercial data transport capabilities as well as services under development, ensuring the technical vision for the future architecture is well-anchored in market realities. Competitive procurements of required hardware prototypes for terrestrial or space experimentation will occur through rapid prototyping and experimentation authorities. All funding vehicles are constructed to enable seamless transition to requirements, program development, and acquisition offices as appropriate to enable incremental fielding and avoid loss of momentum as the new architectures solidify. Access to the AFRL simulation environment is similarly available for further Government use.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)				Project (Number/Name) 649493 / Resilient Architecture Design and Evaluation					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Hybrid Space Architecture	C/FP	Various : Arlington, VA	-	4.577	Oct 2024	3.051	Feb 2026	-		-		-	Continuing	Continuing	-
Innovative Commercial SATCOM (previously named Commercial Space Data Providers)	C/TBD	TBD : TBD	-	3.750	Dec 2024	5.111	Mar 2026	4.656	Dec 2026	-		4.656	Continuing	Continuing	-
Space Data Network Architecture Prototyping (previously named Prototype Space Data Network Architecture Development)	C/Various	Various : Various	-	7.885	Sep 2025	19.955	May 2026	40.574	Feb 2027	-		40.574	Continuing	Continuing	-
Hardware/software-in-the-loop	C/Various	Various : Various	-	2.859	Jan 2025	5.484	Mar 2026	5.128	Dec 2026	-		5.128	Continuing	Continuing	-
Cloud Services (realigned under Hardware/software-in-the-loop)	SS/FP	Various : Various	-	0.000	Jan 2025	0.000	Nov 2025	0.000	Nov 2026	-		0.000	Continuing	Continuing	-
Network simulation software (realigned under SDN Architecture Prototyping)	Various	Various : Various	-	0.000	Jan 2025	0.000	Nov 2025	0.000	Nov 2026	-		0.000	Continuing	Continuing	-
Space Exchange Point Prototype	C/CPFF	MIT LL : Boston, MA	-	26.000	Jun 2025	16.000	May 2026	-		-		-	Continuing	Continuing	-
Narrowband Ultra High Frequency Prototype/5G Acceleration	C/TBD	TBD : TBD	-	0.000	Mar 2025	25.219	May 2026	123.321	Mar 2027	-		123.321	Continuing	Continuing	-
Narrowband 5G Acceleration (realigned under Narrowband UHF)	C/TBD	TBD : TBD	-	0.000	Aug 2025	0.000	Nov 2025	0.000	Nov 2026	-		0.000	Continuing	Continuing	-
Subtotal			-	45.071		74.820		173.679		-		173.679	Continuing	Continuing	N/A
Remarks "Commercial Space Data Providers" name changed to "Innovative Commercial SATCOM".															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)				Project (Number/Name) 649493 / Resilient Architecture Design and Evaluation					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
"Prototype Space Data Network Architecture Development" name changed to Space Data Network Architecture Prototyping.															
"Network Simulation Software" work was realigned to "Space Data Network Architecture Prototyping".															
"Cloud Services" work was realigned under "Hardware/software-in-the-loop".															
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Data Network Architecture & Specification	MIPR	FFRDC/Naval Research Lab : TBD	-	7.456	Nov 2024	5.733	Nov 2025	3.950	Nov 2026	-		3.950	Continuing	Continuing	-
Systems Engineering & Assessment	Various	Various : Various	-	3.143	Apr 2025	7.393	Nov 2025	8.853	Nov 2026	-		8.853	Continuing	Continuing	-
Narrowband Architecture & Specification	Various	Various : Various	-	-		10.790	Jan 2026	6.500	Nov 2026	-		6.500	Continuing	Continuing	-
Mission Services Architecture & Specification	Various	Various : Various	-	-		-		6.300	Nov 2026	-		6.300	Continuing	Continuing	-
Subtotal			-	10.599		23.916		25.603		-		25.603	Continuing	Continuing	N/A
Remarks															
"Resilient Architecture & Specification" name was changed to "Space Data Network Architecture & Specification".															
"Narrowband Architecture & Assessment" name was changed to "Narrowband Architecture & Specification".															
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration	Various	Various: TBD : Albuquerque, NM	-	2.787	Jul 2025	5.429	Jan 2026	21.234	Jan 2027	-		21.234	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)				Project (Number/Name) 649493 / Resilient Architecture Design and Evaluation					
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	2.787		5.429		21.234		-		21.234	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	58.457		104.165		220.516		-		220.516	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026				
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)					Project (Number/Name) 649493 / Resilient Architecture Design and Evaluation				

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Experimentation Campaign - Resilient Architecture Design & Evaluation																												
Transition to Force Design, PAE, and Ops																												
Experimentation Campaign - Resilient Architecture Design & Evaluation Space Data Network																												
Architectural Performance Assessments																												
Architectural Resilience Evaluations																												
Prototype Integration and Test																												
Operational Experimentation																												
Experimentation Campaign - Resilient Architecture Design & Evaluation Narrowband Communications																												
Narrowband UHF Technology Assessment & Evaluation																												
Narrowband UHF Technology Satellite Prototype Development																												
Narrowband UHF Technology Assembly Integration & Test																												
Narrowband UHF Technology Assembly Launch & Early Operations																												
Narrowband Operational Experimentation																												
Narrowband 5G Acceleration																												
Experimentation Campaign - Resilient Architecture Design & Evaluation Future Mission Services Prototyping																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																								Date: April 2026													
Appropriation/Budget Activity 3620F / 4										R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)								Project (Number/Name) 649493 / Resilient Architecture Design and Evaluation																			
										FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Analysis of future sensing, PNT and space control prototypes																																					
Development of sensing, PNT or space control prototypes																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 4

R-1 Program Element (Number/Name)

PE 1206458SF / Tech Transition (Space)

Project (Number/Name)

649493 / Resilient Architecture Design and Evaluation

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Experimentation Campaign - Resilient Architecture Design & Evaluation				
Transition to Force Design, PAE, and Ops	1	2025	4	2031
Experimentation Campaign - Resilient Architecture Design & Evaluation Space Data Network				
Architectural Performance Assessments	1	2025	4	2027
Architectural Resilience Evaluations	1	2025	4	2027
Prototype Integration and Test	3	2025	3	2028
Operational Experimentation	1	2026	2	2029
Experimentation Campaign - Resilient Architecture Design & Evaluation Narrowband Communications				
Narrowband UHF Technology Assessment & Evaluation	1	2026	3	2027
Narrowband UHF Technology Satellite Prototype Development	1	2027	4	2028
Narrowband UHF Technology Assembly Integration & Test	1	2027	2	2030
Narrowband UHF Technology Assembly Launch & Early Operations	3	2030	2	2031
Narrowband Operational Experimentation	4	2030	4	2031
Narrowband 5G Acceleration	1	2026	4	2028
Experimentation Campaign - Resilient Architecture Design & Evaluation Future Mission Services Prototyping				
Analysis of future sensing, PNT and space control prototypes	1	2026	3	2027
Development of sensing, PNT or space control prototypes	1	2027	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)				Project (Number/Name) 64S444 / Experimentation (Space)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
64S444: Experimentation (Space)	0.000	138.080	209.513	20.540	0.000	20.540	0.000	0.000	0.000	0.000	0.000	368.133
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Experimentation (Space), Project 64S444, efforts conduct experimentation and field prototyping of Hybrid Satellite Communications (SATCOM) terminals for Joint operational implementation. In FY 2024 through FY 2028, the Experimentation (Space) efforts will extend Hybrid SATCOM capabilities to an expanded set of Department of War (DoW) platforms, and enable assured communications through both commercial and military satellite constellations in multiple orbital regimes, while accessing multiple frequency bands to maintain resilient connectivity and security. The Hybrid SATCOM terminal effort implements and experimentally flight tests multi-band, multi-constellation, multi-orbit SATCOM terminals at three ground installations and on nine different aircraft types. Specific platforms and platform details are available through proper channels. The Project also demonstrates the ability of Hybrid SATCOM terminals to seamlessly switch between vendors and satellite constellations. The Hybrid SATCOM terminal prototyping will include secure connectivity using National Security Agency-approved approaches, and authority approvals at least to the interim levels needed for experimentation as required for DoW communications.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Experimentation Space	138.080	209.513	20.540
Description: Experimentation Space addresses significant gaps identified by Combatant Commands (COCOMs), Major Commands (MAJCOMs), and Department Air Force (DAF) Senior Leaders, often by quickly leveraging emerging capability into DoW systems.			
FY 2026 Plans: Continue: - Development of customized antennas needed for the most challenging platforms. - Integration on initial test platforms. - Ground and flight testing with emerging satellite constellations. - Networking and interoperability tests with DAF Battle Network. - Flight worthiness for initial platforms.			
Complete: - Integration assessments on all platforms. - Development of prototypes for the Hybrid SATCOM Terminals that can be integrated on air and ground platforms. - Complete flight test of dual-band, LEO-GEO SATCOM on tactical fighter			
FY 2027 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206458SF / <i>Tech Transition (Space)</i>	Project (Number/Name) 64S444 / <i>Experimentation (Space)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Complete: - Development of customized antennas needed for the most challenging platforms. - Integration and flight test on prioritized aircraft. - Ground and flight tests of various combinations of multi-constellation radios with multi-band antennas. - Inclusion of additional constellation links, integrated into Hybrid SATCOM Terminals, for air and ground platforms. - Networking and interoperability tests with DAF Battle Network - NSA certification of cryptographic unit. Continue: - Development of second-generation antenna for tactical fighter FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding decreased by \$188.973 million due to completion of antennas for all key aircraft and completion of modem/antenna testing, while remaining fielding activities will transition to PAE-C3BM.			
Accomplishments/Planned Programs Subtotals		138.080	209.513
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy			
The Air Force Research Lab (AFRL) at Wright-Patterson Air Force Base, Ohio manages and executes Experimentation (Space) efforts. The contracting approach includes full-and-open competition using the existing Defense Experimentation Using the Commercial Space Internet (DEUCSI) Acquisition Strategy. The effort will be executed using a combination of existing contracts and new contracts to be issued under the DEUCSI solicitation. The Prime Contractors will be expected to establish sub-contracts with multiple commercial vendors to secure access to a wide range of technology options, so as to allow the government to operationalize this capability as an integrated unit. With awards to a qualified integration contractor for each platform, the prototype units will be integrated onto a single platform of each type, complete operational worthiness approvals, interim authorities to test (IATT), and test in an operational environment to validate the design. For commercial SATCOM applications, the service will be acquired through the terminal prototype contracts for a limited duration to support the experimentation (typically 1 year).			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206458SF / <i>Tech Transition (Space)</i>	Project (Number/Name) 64S444 / <i>Experimentation (Space)</i>

Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Hybrid SATCOM Terminals Contractor 1	C/CPFF	Northrop Grumman : CA	-	43.160	Nov 2024	40.500	Nov 2025	4.000	Nov 2026	-		4.000	Continuing	Continuing	-
Hybrid SATCOM Terminals Contractor 2	C/CPFF	L3Harris : UT	-	25.000	Jan 2025	43.500	Nov 2025	2.250	Dec 2026	-		2.250	Continuing	Continuing	-
Hybrid SATCOM Terminals Contractor 3	C/CPAF	Intelsat : VA	-	1.805	May 2025	-		0.000		-		0.000	0.000	1.805	-
Custom Antennas for Key Platforms Contractor 1	C/CPAF	Collins : TX	-	1.945	Aug 2025	19.500	Nov 2025	0.000		-		0.000	Continuing	Continuing	-
Custom Antennas for Key Platforms Contractor 2	C/CPFF	Northrop Grumman : MD	-	0.000	Jun 2025	16.500	Nov 2025	0.000		-		0.000	Continuing	Continuing	-
Custom Antennas for Key Platforms Contractor 3	C/CPFF	VIASAT : VA	-	1.207	Aug 2025	4.000	Dec 2025	0.000		-		0.000	Continuing	Continuing	-
Platform Integration Assessments	Various	Various : TBD	-	-		-		0.000		-		0.000	Continuing	Continuing	-
Emerging LEO Constellation Experimentation	C/CPFF	Kuiper Govt Services : VA	-	2.491	Nov 2024	6.070	Nov 2025	0.000		-		0.000	Continuing	Continuing	-
LEO Resilience Improvements	C/CPFF	Space X : CA	-	8.513	Mar 2025	8.000	Dec 2025	0.000		-		0.000	Continuing	Continuing	-
Hybrid Space Architecture/ Commercial Data Providers	Various	Various : TBD	-	-		-		0.000		-		0.000	0.000	0.000	-
Platform Integration and Experiments	Various	Various : TBD	-	29.717	Jan 2025	53.643	Dec 2025	6.000	Nov 2026	-		6.000	Continuing	Continuing	-
Subtotal			-	113.838		191.713		12.250		-		12.250	Continuing	Continuing	N/A

Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Hybrid SATCOM Terminals Interoperability Assessments and Tests	Various	GTRI : Dayton, OH	-	2.677	Mar 2025	2.700	Nov 2025	1.800	Nov 2026	-		1.800	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)				Project (Number/Name) 64S444 / Experimentation (Space)					
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Support	Various	Various : Various	-	1.346	May 2025	4.400	Nov 2025	1.780	Nov 2026	-		1.780	0.000	7.526	-
Subtotal			-	4.023		7.100		3.580		-		3.580	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Test Support	PO	Various : TBD	-	3.656	Dec 2024	4.100	Dec 2025	2.158	Nov 2026	-		2.158	Continuing	Continuing	-
Contractor Flight Test Support 1	C/Various	Northrop Grumman : CA	-	2.313	Mar 2025	0.563		-		-		-	0.000	2.876	-
Contractor Flight Test Support 2	C/Various	Lockheed Martin : TX	-	4.078	Nov 2025	1.500		-		-		-	0.000	5.578	-
Contractor Flight Test Support 3	C/Various	Various : TBD	-	1.859	Nov 2025	1.037		-		-		-	0.000	2.896	-
Subtotal			-	11.906		7.200		2.158		-		2.158	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration	Various	Various : Various	-	5.813	Jun 2025	2.300	Mar 2026	1.552	Oct 2026	-		1.552	Continuing	Continuing	-
FFRDC	MIPR	MIT/LL : Lexington, MA	-	2.500	Apr 2025	1.200	Mar 2026	1.000	Oct 2026	-		1.000	Continuing	Continuing	-
Subtotal			-	8.313		3.500		2.552		-		2.552	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	138.080		209.513		20.540		-		20.540	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																Date: April 2026			
Appropriation/Budget Activity								R-1 Program Element (Number/Name)								Project (Number/Name)			
3620F / 4								PE 1206458SF / Tech Transition (Space)								64S444 / Experimentation (Space)			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Experimentation Campaign-Hybrid SATCOM Terminals																												
Platform Integration Assessments																												
Terminal & Antenna Development and Prototype																												
Platform Integration and Test																												
Operational Experimentation																												
Transition to PEO & Operations																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)	Project (Number/Name) 64S444 / Experimentation (Space)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Experimentation Campaign-Hybrid SATCOM Terminals				
Platform Integration Assessments	1	2025	4	2025
Terminal & Antenna Development and Prototype	1	2025	3	2027
Platform Integration and Test	2	2025	4	2027
Operational Experimentation	1	2026	4	2028
Transition to PEO & Operations	1	2026	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 1206617SF I Operational Test & Training Infrastructure							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	265.215	0.000	265.215	272.596	295.157	307.890	306.746	Continuing	Continuing
644441: Operational Test & Training Infrastructure	0.000	0.000	0.000	265.215	0.000	265.215	272.596	295.157	307.890	306.746	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY2027 this program (PE 1206617SF), project 644441 (Operational Test & Training Infrastructure) was created to consolidate funding and justification narratives for PE1206759SF (Major T&E Investment-Space), project 644598 (National Space Test and Training Complex-NSTTC), and PE1203174SF (Space Innovation, Integration and Rapid Technology Development-SIIRTD), project 674671 (Enterprise Training Services Development-ETSD) to optimize management of OTTI activities as well as improve clarity and traceability for reporting these activities.

The efforts contained herein are not a new start.

A. Mission Description and Budget Item Justification

SYD 81 is developing, operating and sustaining Operational Test & Training Infrastructure (OTTI) (Project 64441) for Guardians to improve test and training across the following mission areas: Combat Power, Missile Warning & Tracking, Space Domain Awareness, Launch, Position Navigation and Timing, Satellite Communications, Weather, Science & Technology and Test & Evaluation. As a result, the Service will improve readiness and operational reach of existing force structure through the resilient Infrastructure, equipment, and personnel training.

This program continues funding United States Space Force (USSF) OTTI as the service-level effort to test, train, and build combat credibility for National Security Space weapon systems and joint force space capabilities. OTTI is primarily a portfolio of systems being developed with intended delivery to the National Space Test and Training Complex (NSTTC) under the command of Space Training & Readiness Command (STARCOM).

OTTI has 4 lines of effort (LOEs): the Physical/Live Test and Training Range LOE, the Digital Test & Training Range LOE, a Test & Training Infrastructure LOE that supports the first two LOEs, and a Space Force Operational Readiness LOE focused on operation and sustainment of delivered systems. These efforts encompass the acquisition, development, integration, and sustainment activities to test and evaluate the performance of Department of War (DoW) space systems; train space operators for combat operations in, from, and through space; and develop and validate the tactics, techniques and procedures to support combat operations.

This program falls within the Science & Technology (S&T) and Test & Evaluation (T&E) mission area which provides for the validation of combat credibility for Combat Power space systems and the validation of Tactics, Techniques, and Procedures (TTPs) for space superiority. In addition, the program develops advanced training systems and networks to improve the readiness of all mission area combat units. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Defense Research Sciences (0601102SF); Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Innov Intg & Rapid Tech Dev (1203174SF); Space Rapid Capabilities Office (1206857SF);

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 1206617SF I Operational Test & Training Infrastructure				
Space Science and Technology (1206310SF); Space Systems Prototype Transition (1206427SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); Space Test Program (1206864SF); University Research Initiatives (0601103SF); and elements of Procurement Budget Line Item: General Information Tech - Space (GNRLIT).						
OTTI funding is used to develop and deliver realistic low, medium, and High-End Advanced Test, Training and Tactics Development (HEAT3) environments. The live, virtual, and constructive (LVC) capabilities consist of platforms, networks, models, simulations, tools, and associated physical and digital infrastructure across space, terrestrial, and virtual domains in support of all DoW space mission areas. Low to medium fidelity models and training environments include unit-level and distributed training systems that facilitate Guardian home-station mission combat training and distributed exercises. HEAT3 higher fidelity models are required for test, advanced training scenarios, and warfighting tactics development and validation.						
OTTI delivers enterprise capabilities and solutions to field combat-ready forces and ensure space domain superiority in an evolving threat environment.						
This program element included all necessary expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605829F, 0605831F, 0605833F, and 0605898F						
This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		0.000	0.000	0.000	0.000	0.000
Current President's Budget		0.000	0.000	265.215	0.000	265.215
Total Adjustments		0.000	0.000	265.215	0.000	265.215
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	265.215	0.000	265.215
C. Accomplishments/Planned Programs (\$ in Millions)						
Title: Operational Test & Training Infrastructure				FY 2025	FY 2026	FY 2027
				0.000	0.000	265.215

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206617SF / <i>Operational Test & Training Infrastructure</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Description: Provide space warfighters with interconnected, scalable, and distributed capabilities for full-spectrum test and training to achieve space superiority. Includes physical and digital test ranges and mission trainers to develop, validate, and sharpen joint warfighting capabilities necessary to enable the space superiority required to achieve peace through strength. Supports the development of the United States Space Force (USSF) Operational Test & Training Infrastructure (OTTI) in response to USSF prioritized requirements. Includes new capability developments required for the physical range, digital environments, systems, tools, capabilities, and underlying physical and digital infrastructure. These capability developments are critical for integrated testing activities, training, exercises, wargames, and tactics development for space systems. Includes development, demonstration, and continuous delivery of test and training hardware and software identified by Space Training & Readiness Command (STARCOM) (the USSF Operational Test Authority) to validate system performance and train the Guardians that operate them. Provides a safe, secure, realistic, and relevant space arena to support test and training needs. Capabilities enable Guardian and mission system combat lethality. LOE 1: Live/Physical Test and Training Range consists of four sub elements: a. Cyber Range: Provides live and simulated cyber operations and security test and training. Delivers Verification, Validation, and Accreditation (VV&A) of USSF systems to ensure cyber resiliency, security, and interoperability. b. Electromagnetic Spectrum Operations Range: Provides ground-based system, range control, and on-orbit surrogate for Electronic Warfare (EW), Satellite Communications (SATCOM), and Position Navigation and Timing (PNT) test and training. c. Orbital Range: Provides sensors, data fusion, and on-orbit surrogates to enable live, on-orbit Orbital Warfare (OW) test and training. On-orbit range system supports execution of exquisite, discrete demonstrations in the operational environment. d. Advanced Programs: Invests in ground-based activities (i.e. hardware-in-the-loop (HWIL) chamber modifications, material analysis, etc.) to satisfy enterprise needs associated with space superiority efforts. LOE 2: Digital Test & Training consists of two sub elements:				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206617SF / <i>Operational Test & Training Infrastructure</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
a. Distributed Training: Dedicated, distributed, and integrated training systems supporting USSF readiness-generating training and exercise requirements. Consists of the hardware, software, connectivity and data management to generate readiness. b. High-End Advanced Test, Training and Tactics Development (HEAT3): HEAT3 evolves the US Air force (USAF) / US Navy (USN) Joint Simulation Environment (JSE) baseline to include simulation of space systems in support of advanced test, training, and tactics validation for space system effectiveness to generate readiness. HEAT3 consists of hardware, software, connectivity and data management. LOE 3: Infrastructure consists of 3 sub elements: a. Facilities: Consists of secure physical spaces required to support integrated test planning and execution activities, acquisitions/ test/operations community collaboration, training activities, exercises, and wargames. b. Networks: Delivers the connectivity backbone, cloud distribution and transport, network circuits, last-mile connections, and the cybersecurity required to share data to integrate and distribute test and training systems. Provides access to test and training users, range operators, range developers, integrating programs and partner systems. c. Data Compute and Storage: Consists of cloud hosting, platform services, computing, storage, and data management at all classification levels, needed to ingest, analyze, share, and distribute data across an integrated test and training framework. LOE 4: Readiness consists of 2 sub elements: a. Develops, delivers, and integrates tools and applications for USSF/Joint Exercises and Wargames to enable Guardian readiness. b. Delivers and utilizes virtual environments and connectivity, and provides materiel solutions to rapidly address short-term Guardian training and tactics capability gaps. FY 2026 Plans: In FY 2027 this PE and program were created to consolidate Operational Test & Training Infrastructure (OTTI) funding previously contained in PE 1206759SF, project 664598 (National Space Test & Training Complex - NSTTC) and PE 1203174SF, project				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 1206617SF / <i>Operational Test & Training Infrastructure</i>			
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
674671 (Enterprise Training Services Development - ETSD). Prior year funding and justification narratives remain under those program (PE) justification materials. FY 2027 Plans: - Continue investments in Cyber, Electromagnetic, and Orbital ranges to improve: infrastructure; hardware; software; integrated data transport; Command, Control and Communications; sensors, surrogates, and other existing capabilities - Continue evolving fielded Electromagnetic Warfare (EW) digital training modeling & simulation (M&S) capabilities environment - Continue developing and maturing digital High-End Advanced Test, Training, and Tactics Development (HEAT3) capabilities for Joint Simulation Environment (JSE)-based digital test and training architecture - Continue development of advanced combat training capabilities, including tools and applications for training, exercises and wargames - Continue enhancing digital range capabilities via Commercial Solutions Openings (CSOs) and deliver capabilities to enhance, extend, and scale existing fielded distributed training capabilities and associated tools - Continue coordination and provisioning of near-term training and tactics solutions - Continue buildout of Integration Accelerator collaboration capability - Continue maintenance, sustainment, and tech refresh of current test capabilities - Continue distributed training capability development via Indefinite Delivery/Indefinite Quantity (IDIQ) vendor pool to extend distributed training capabilities to additional operational units at their home stations - Continue to modify and integrate mission simulator software into the synthetic space environment to expand multi-mission training and exercise capability - Continue software development and releases of Artificial Intelligence to augment aggressors in support of training and exercises - Develop and/or modify red threat models and related training systems per operational priorities and evolving/emerging threats - Continue development of distributed enterprise cloud and data management solution FY 2026 to FY 2027 Increase/Decrease Statement: In FY 2027 this PE and program were created to consolidate Operational Test & Training Infrastructure (OTTI) funding previously contained in PE 1206759SF, project 664598 (National Space Test & Training Complex - NSTTC) and PE 1203174SF, project 674671 (Enterprise Training Services Development - ETSD). Prior year funding and justification narratives remain under those program (PE) justification materials.				
Accomplishments/Planned Programs Subtotals		0.000	0.000	265.215
D. Other Program Funding Summary (\$ in Millions) N/A Remarks				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 1206617SF I Operational Test & Training Infrastructure	
E. Acquisition Strategy FY2026 and FY2027 activities are executed via existing contracts and Interagency Agreements. Contracts are both competitively awarded and sole sourced (in accordance with Small Business Innovative Research Policy Directive, May 2023). These contracts and Interagency Agreements allow for immediate execution of all FY2026 and FY2027 funds with minimal contracting actions required to ensure continuity of effort across the Fiscal Years.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206617SF / Operational Test & Training Infrastructure				Project (Number/Name) 644441 / Operational Test & Training Infrastructure					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Digital Range-Distributed Training Environment & Tools	C/Various	Various : Various	-	-		-		50.617	Nov 2026	-		50.617	Continuing	Continuing	-
Digital Range-Aggressor Augmentation AI & Threat Visualization Dev	C/FFP	SSC / SpEC : TBD	-	-		-		14.184	Nov 2026	-		14.184	Continuing	Continuing	-
Digital Range-Red Model Development	MIPR	Sandia National Labs : Albuquerque, NM	-	-		-		7.256	Nov 2026	-		7.256	Continuing	Continuing	-
Digital Range-Mission Trainers	C/CPFF	Sonalysts, Inc : Waterford, CT	-	-		-		11.659	Nov 2026	-		11.659	Continuing	Continuing	-
Infrastructure-Distributed Enterprise Cloud & Data Management	C/Various	TBD : TBD	-	-		-		33.588	Oct 2026	-		33.588	Continuing	Continuing	-
Infrastructure-Project Lighthouse	C/CPAF	Various : Various	-	-		-		13.250	Oct 2026	-		13.250	Continuing	Continuing	-
Infrastructure-Collaborative Environment Access	SS/FFP	Various : Colorado Springs, CO	-	-		-		3.745	Nov 2026	-		3.745	Continuing	Continuing	-
Infrastructure-Software Licenses	C/FFP	Sabel Systems : Various	-	-		-		1.580	Oct 2026	-		1.580	Continuing	Continuing	-
Infrastructure-Other	MIPR	Various : Colorado Springs, CO	-	-		-		2.882	Oct 2026	-		2.882	Continuing	Continuing	-
Physical Range-Orbital & EMS Ops (Nevada Test & Tng Rg/JTECH2)	C/CPAF	AFMC : Hill AFB, UT	-	-		-		3.728	Oct 2026	-		3.728	Continuing	Continuing	-
Physical Range-Antenna Services	C/CPFF	Naval NRL : Blossom Pt, MD	-	-		-		2.100	Jan 2027	-		2.100	Continuing	Continuing	-
Physical Range-Space Based Instrumentation	C/CPFF	AFRL : Kirtland AFB, MN	-	-		-		4.600	Jul 2027	-		4.600	Continuing	Continuing	-
Physical Range-Satellite Ground System TKG/TRG	C/CPFF	SAIC : Reston, VA	-	-		-		1.803	Feb 2027	-		1.803	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206617SF / Operational Test & Training Infrastructure				Project (Number/Name) 644441 / Operational Test & Training Infrastructure					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Physical Range-Satellite Operations Support TKG/ TRG	C/CPFF	AI SOLUTIONS INC : Lanham, MD	-	-		-		3.000	Mar 2027	-		3.000	Continuing	Continuing	-
Physical Range-Range Control System	C/CPFF	L3Harris : Melbourne, FL	-	-		-		3.800	Dec 2026	-		3.800	Continuing	Continuing	-
Physical Range-Shadow Raptor-Cyber Range Ops, Infrastructure Ops	C/CPAF	GSA : Boston, MA	-	-		-		10.060	Dec 2026	-		10.060	Continuing	Continuing	-
Physical Range-Space Cyber Test Range	C/CPFF	Dept of Energy : Washington, DC	-	-		-		4.952	Jun 2027	-		4.952	Continuing	Continuing	-
Physical Range-Systems Replication for the NSTTC-Cyber Range	C/CPFF	USASMDC : Huntsville, AL	-	-		-		10.120	Jul 2027	-		10.120	Continuing	Continuing	-
Physical Range-Orbital Training Readiness	C/CPFF	Astranis : San Francisco, CA	-	-		-		5.200	Dec 2026	-		5.200	Continuing	Continuing	-
Physical Range-Orbital Range Control System (ASTRO)	C/CPAF	SSC/SpEC : Los Angeles, CA	-	-		-		23.260	May 2027	-		23.260	Continuing	Continuing	-
Physical Range-Contested EMSO Training (USSTRATCOM)	Various	Various : Various	-	-		-		7.500	Dec 2026	-		7.500	Continuing	Continuing	-
Physical Range-Other	C/Various	Various : Various	-	-		-		8.329	Nov 2026	-		8.329	Continuing	Continuing	-
Readiness-Exercises Modeling & Simulation Development	C/FFP	Various : Various	-	-		-		5.250	Nov 2026	-		5.250	Continuing	Continuing	-
PEO Development & Operations	C/FFP	KBR : Colorado Springs, CO	-	-		-		3.740	Oct 2026	-		3.740	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		-		9.681	Dec 2026	-		9.681	Continuing	Continuing	-
Subtotal			-	-		-		245.884		-		245.884	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206617SF / Operational Test & Training Infrastructure						Project (Number/Name) 644441 / Operational Test & Training Infrastructure			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Not specified. : TBD	-	-		-		0.000		-		0.000	Continuing	Continuing	-
A&AS	Various	Various : Various	-	-		-		10.449	Dec 2026	-		10.449	Continuing	Continuing	-
UARC	Various	Various : Various	-	-		-		7.898	Oct 2026	-		7.898	Continuing	Continuing	-
Other	Various	Various : Various	-	-		-		0.984	Dec 2026	-		0.984	Continuing	Continuing	-
Subtotal			-	-		-		19.331		-		19.331	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		265.215		-		265.215	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 4

R-1 Program Element (Number/Name)

PE 1206617SF / Operational Test & Training
Infrastructure

Project (Number/Name)

644441 / Operational Test & Training
Infrastructure

FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

OTTI LOE 1 - Physical RangePhysical Range-ASTRO - Range Control
Phase IIIPhysical Range-ASTRO - Range Control Inc.
2.0 Phase IVPhysical Range-STRANGIR Antenna #2
DeliveryPhysical Range-STRANGIR Antenna #3
DeliveryPhysical Range-STRANGIR Antenna #4
DeliveryPhysical Range-Range Control-
EnhancementsPhysical Range-Range Optical Sensor at
ETS

Physical Range-Rooster 5 on-board to Acme

Physical Range-Rooster 5 Launch

Physical Range-Tetra 6 on-board to Acme/
Launch

Physical Range-CyDER 2.0 Delivery

Physical Range-CyDER 3.0 Delivery

Physical Range-CyDER 4.0 Delivery

Physical Range-CyDER 5.0 Delivery

OTTI LOE 2 - Digital RangeDigital Range-Distributed Training
Environment & Tools

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																				Date: April 2026																	
Appropriation/Budget Activity 3620F / 4										R-1 Program Element (Number/Name) PE 1206617SF / Operational Test & Training Infrastructure										Project (Number/Name) 644441 / Operational Test & Training Infrastructure																	
										FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Digital Range-Joint Exercise Space Effects Development																																					
Digital Range-Aggressor Augmentation AI & Threat Visualization Dev																																					
Digital Range-Red Model Development																																					
OTTI LOE 3 - Infrastructure																																					
Infrastructure-Integration Accelerator																																					
Infrastructure-Distributed Enterprise Cloud & Data Management																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206617SF / <i>Operational Test & Training Infrastructure</i>	Project (Number/Name) 644441 / <i>Operational Test & Training Infrastructure</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
OTTI LOE 1 - Physical Range				
Physical Range-ASTRO - Range Control Phase III	1	2027	2	2029
Physical Range-ASTRO - Range Control Inc. 2.0 Phase IV	1	2028	4	2031
Physical Range-STRANGIR Antenna #2 Delivery	1	2027	4	2027
Physical Range-STRANGIR Antenna #3 Delivery	1	2027	4	2027
Physical Range-STRANGIR Antenna #4 Delivery	3	2027	2	2028
Physical Range-Range Control-Enhancements	1	2027	2	2027
Physical Range-Range Optical Sensor at ETS	1	2027	3	2027
Physical Range-Rooster 5 on-board to Acme	2	2027	3	2027
Physical Range-Rooster 5 Launch	4	2027	4	2027
Physical Range-Tetra 6 on-board to Acme/Launch	3	2027	3	2027
Physical Range-CyDER 2.0 Delivery	1	2027	3	2027
Physical Range-CyDER 3.0 Delivery	3	2027	3	2028
Physical Range-CyDER 4.0 Delivery	3	2028	3	2029
Physical Range-CyDER 5.0 Delivery	3	2029	3	2030
OTTI LOE 2 - Digital Range				
Digital Range-Distributed Training Environment & Tools	1	2027	4	2031
Digital Range-Joint Exercise Space Effects Development	1	2027	4	2031
Digital Range-Aggressor Augmentation AI & Threat Visualization Dev	1	2027	4	2031
Digital Range-Red Model Development	1	2027	4	2031
OTTI LOE 3 - Infrastructure				
Infrastructure-Integration Accelerator	1	2027	4	2031

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206617SF / Operational Test & Training Infrastructure	Project (Number/Name) 644441 / Operational Test & Training Infrastructure	

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Infrastructure-Distributed Enterprise Cloud & Data Management	1	2027	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 1206730SF I Space Security and Defense Program							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	53.199	45.200	102.140	0.000	102.140	81.606	82.663	83.275	84.263	Continuing	Continuing
645611: Assault Breaker II	0.000	0.000	0.000	2.014	0.000	2.014	2.013	2.012	2.012	2.012	Continuing	Continuing
64A025: Space Security and Defense Program	0.000	53.199	45.200	100.126	0.000	100.126	79.593	80.651	81.263	82.251	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Space Security and Defense Program (SSDP) is a Joint Title-10/title 50 organization serving as the primary space survivability technical advisor to the DEPSECDEF and PDDNI. SSDP's focus and analysis is on USSF core and enterprise service operational functions (Space Control, Space Domain Awareness) with Title-10/Title 50 equities within the Space Protection Program (Project 64A025). Beginning in FY27, SSDP is also the USSF's designated agent for performing analytical activities, experimentation, and modeling & simulation (M&S), to deliver data-driven recommendations and carry-out other DoW efforts prescribed to the USSF in support of the Joint Assault Breaker II (ABII) Program (Project 645611).

This Program Element (PE) 1206730SF, Space Security and Defense Program (SSDP) funds activities executed by the Joint Department of War (DoW) and Office of the Director of National Intelligence (ODNI) organization Space Security and Defense Program. The Program and organization were established to function as the center of excellence for options and strategies (materiel, non-materiel, cross-Title, cross-domain) leading to a more resilient National Security Space (NSS) Enterprise. The organization and its activities operate under the authority of the Deputy Secretary of War (DEPSECWAR) and Principal Deputy Director of National Intelligence (PDDNI). SSDP's unique position with both the DoW and ODNI, authorities from both the DEPSECWAR and PDDNI, and broad NSS-scoped mission-set provides a crucial and objective protection competency to advance the highest priority efforts to deliver economical, programmatically-executable, and operationally-relevant space protection solutions for the Nation.

SSDP-funded activities support NSS stakeholders including the DoW, Intelligence Community (IC), civil, commercial, and international space entities/missions supporting current and future national security operations in both peacetime and throughout all phases of conflict. In this capacity, SSDP employs these funds to lead and collaborate on NSS susceptibility and vulnerability assessments, and threat mitigation processes. Its breadth of activities span the capability to conduct rigorous foundational analyses in order to understand red counterspace threat and blue operations environments, and to plan and execute projects to discover, analyze, and validate near-term and far-term options to detect, track, and mitigate and/or render these threats (including emerging space and transmedium threats) ineffective. SSDP analytic products to mitigate/defeat adversary counterspace threats either manifest themselves in validated materiel solution recommendations to corporate decision processes (including system and/or architectural requirements and potential investment opportunities), or as non-materiel recommendations such as Tactics, Techniques, and Procedures (TTP), Concepts of Operations (CONOPS), and/or space policy, or a combination of both. Regardless, SSDP threat analyses and models of all sorts are shared across the NSS enterprise to ensure efficiency and speed of analysis, and ultimately produce results in more resilient space effects for national security missions.

Project 645611, Assault Breaker II (ABII), is classified, all-Service, USSOCOM, and USCYBERCOM, multi-year effort led by the Office of the Under Secretary of War for Research and Engineering (OUSW(R&E)) to analyze, research, and recommend material and non-material solutions, and incorporate ABII program analysis and recommendations into ongoing Joint Staff (JS) and Office of the Secretary of War (OSW) capability development processes to field a lethal, resilient, and rapidly adaptive Joint Force able to defeat and deter potential adversaries.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1206730SF I Space Security and Defense Program				
This program falls within the Enterprise Management & Information Technology mission area. Enterprise Management provides the personnel and infrastructure required to manage USSF headquarters functions at the service and field command levels, including the Space Service Acquisition Executive for Space Systems and Programs, Office of the Assistant Secretary for Space Acquisition and Integration, the Office of the Chief of Space Operations (OCSO), the Space Staff, and Secretariat. Information Technology includes the IT infrastructure required for the USSF to acquire, sustain, and operate its assets. Program interdependencies include: Acq and Management Support (Space) (1207804SF); Acq Workforce - Space & Missile Sys (1206392SF); Asst SecAF - Space Acq & Integration (1203924SF); Combat Support - Other Program (1203969SF); Commercial Services (1206771SF); Force Structure Deviation (0808722F); Headquarters U.S. Space Force (1209398SF); Management Headquarters - STARCOM (1209158SF); Mgt Headquarters - Space (Admin) (1205498SF); Operational Headquarters - Space (1203925SF); Permanent Change of Station Travel (0808731F); Service Support to OSW (0901503SF); Service Support to SDA - MHA (1201198SF); Space & Missile Systems Center - MHA (1206398SF); Space Planning and Operations Support (1201000SF); Space Security and Defense Program (1206730SF); Space Warfighting Analysis (1203622SF); Svc Spt to The Joint Staff (0901507SF) This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		53.199	45.200	0.000	0.000	0.000
Current President's Budget		53.199	45.200	102.140	0.000	102.140
Total Adjustments		0.000	0.000	102.140	0.000	102.140
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	102.140	0.000	102.140
Change Summary Explanation						
The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner.						

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206730SF / <i>Space Security and Defense Program</i>				Project (Number/Name) 645611 / <i>Assault Breaker II</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
645611: <i>Assault Breaker II</i>	0.000	0.000	0.000	2.014	0.000	2.014	2.013	2.012	2.012	2.012	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Beginning in FY 2027, the Space Security and Defense Program (SSDP) is also the USSF's designated agent for performing analytical activities, experimentation, and modeling & simulation (M&S), to deliver data-driven recommendations and carry-out other DoW efforts prescribed to the USSF in support of the Joint Assault Breaker II (ABII) Program (Project 645611). Project 645611, Assault Breaker II (ABII), is a classified, all-Service, USSOCOM, and USCYBERCOM, multi-year effort led by the Office of the Under Secretary of War for Research and Engineering (OUSW(R&E)) to analyze, research, and recommend material and non-material solutions, and incorporate ABII program analysis and recommendations into ongoing Joint Staff (JS) and Office of the Secretary of War (OSW) capability development processes to field a lethal, resilient, and rapidly adaptive Joint Force able to defeat and deter potential adversaries.

This program falls within the Enterprise Management & Information Technology mission area. Enterprise Management provides the personnel and infrastructure required to manage USSF headquarters functions at the service and field command levels, including the Space Service Acquisition Executive for Space Systems and Programs, Office of the Assistant Secretary for Space Acquisition and Integration, the Office of the Chief of Space Operations (OCSO), the Space Staff, and Secretariat. Information Technology includes the IT infrastructure required for the USSF to acquire, sustain, and operate its assets. Program interdependencies include: Acq and Management Support (Space) (1207804SF); Acq Workforce - Space & Missile Sys (1206392SF); Asst SecAF - Space Acq & Integration (1203924SF); Combat Support - Other Program (1203969SF); Commercial Services (1206771SF); Force Structure Deviation (0808722F); Headquarters U.S. Space Force (1209398SF); Management Headquarters - STARCOM (1209158SF); Mgt Headquarters - Space (Admin) (1205498SF); Operational Headquarters - Space (1203925SF); Permanent Change of Station Travel (0808731F); Service Support to OSW (0901503SF); Service Support to SDA - MHA (1201198SF); Space & Missile Systems Center - MHA (1206398SF); Space Planning and Operations Support (1201000SF); Space Security and Defense Program (1206730SF); Space Warfighting Analysis (1203622SF); Svc Spt to The Joint Staff (0901507SF).

In FY 2027 funds in this project were transferred from Program Element (PE) 1206427SF Space Systems Prototype Transitions (SSPT) program for transparency and efficient execution.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Assault Breaker II (ABII)	-	0.000	2.014
Description: ABII is an all-Service, classified, multi-year effort, OUSW(R&E)-led effort, to analyze, research, and recommend material and non-material solutions to the JROC.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206730SF / <i>Space Security and Defense Program</i>	Project (Number/Name) 645611 / <i>Assault Breaker II</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
N/A			
FY 2027 Plans: Continue warfighter analysis, experiments, and development of modeling and simulation tools to support warfighting objectives.			
FY 2026 to FY 2027 Increase/Decrease Statement: Increase due to the transfer of Assault Breaker II (ABII) funding from the Space Systems Prototype Transitions (SSPT) Program in Program Element 1206427SF, Project Number 645611 (Assault Breaker II) for transparency and efficient execution.			
Accomplishments/Planned Programs Subtotals		-	0.000
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
Funds are sent via Military Interdepartmental Purchase Request to performing agencies and/or vendors adhering to the ABII memorandum of understanding signed by the Vice Chief of Space Operations satisfying the United States Space Force continued analysis and development efforts.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206730SF / Space Security and Defense Program						Project (Number/Name) 645611 / Assault Breaker II			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Assault Breaker II	MIPR	Radiance Technologies : Huntsville, AL	-	-		-		2.014	Nov 2026	-		2.014	Continuing	Continuing	-
Subtotal			-	-		-		2.014		-		2.014	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		2.014		-		2.014	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																Date: April 2026			
Appropriation/Budget Activity 3620F / 4								R-1 Program Element (Number/Name) PE 1206730SF / Space Security and Defense Program								Project (Number/Name) 645611 / Assault Breaker II			

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206730SF / Space Security and Defense Program	Project (Number/Name) 645611 / Assault Breaker II

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Assault Breaker II				
Development	1	2026	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206730SF / <i>Space Security and Defense Program</i>				Project (Number/Name) 64A025 / <i>Space Security and Defense Program</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
64A025: <i>Space Security and Defense Program</i>	0.000	53.199	45.200	100.126	0.000	100.126	79.593	80.651	81.263	82.251	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Security and Defense Program (SSDP) is a Joint Title-10/title 50 organization serving as the primary space survivability technical advisor to the DEPSECDEF and PDDNI. SSDP's focus and analysis is on USSF core and enterprise service operational functions (Space Control, Space Domain Awareness) with Title-10/Title 50 equities within the Space Protection Program (Project 64A025).

This Program Element (PE) 1206730SF, Space Security and Defense Program (SSDP) funds activities executed by the Joint Department of War (DoW) and Office of the Director of National Intelligence (ODNI) organization Space Security and Defense Program. The Program and organization were established to function as the center of excellence for options and strategies (materiel, non-materiel, cross-Title, cross-domain) leading to a more resilient National Security Space (NSS) Enterprise. The organization and its activities operate under the authority of the Deputy Secretary of War (DEPSECWAR) and Principal Deputy Director of National Intelligence (PDDNI). SSDP's unique position with both the DoW and ODNI, authorities from both the DEPSECWAR and PDDNI, and broad NSS-scoped mission-set provides a crucial and objective protection competency to advance the highest priority efforts to deliver economical, programmatically-executable, and operationally-relevant space protection solutions for the Nation.

SSDP-funded activities support NSS stakeholders including the DoW, Intelligence Community (IC), civil, commercial, and international space entities/missions supporting current and future national security operations in both peacetime and throughout all phases of conflict. In this capacity, SSDP employs these funds to lead and collaborate on NSS susceptibility and vulnerability assessments, and threat mitigation processes. Its breadth of activities span the capability to conduct rigorous foundational analyses in order to understand red counterspace threat and blue operations environments, and to plan and execute projects to discover, analyze, and validate near-term and far-term options to detect, track, and mitigate and/or render these threats (including emerging space and transmedium threats) ineffective. SSDP analytic products to mitigate/defeat adversary counterspace threats either manifest themselves in validated materiel solution recommendations to corporate decision processes (including system and/or architectural requirements and potential investment opportunities), or as non-materiel recommendations such as Tactics, Techniques, and Procedures (TTP), Concepts of Operations (CONOPS), and/or space policy, or a combination of both. Regardless, SSDP threat analyses and models of all sorts are shared across the NSS enterprise to ensure efficiency and speed of analysis, and ultimately produce results in more resilient space effects for national security missions.

This program falls within the Enterprise Management & Information Technology mission area. Enterprise Management provides the personnel and infrastructure required to manage USSF headquarters functions at the service and field command levels, including the Space Service Acquisition Executive for Space Systems and Programs, Office of the Assistant Secretary for Space Acquisition and Integration, the Office of the Chief of Space Operations (OCSO), the Space Staff, and Secretariat. Information Technology includes the IT infrastructure required for the USSF to acquire, sustain, and operate its assets. Program interdependencies include: Acq and Management Support (Space) (1207804SF); Acq Workforce - Space & Missile Sys (1206392SF); Asst SecAF - Space Acq & Integration (1203924SF); Combat Support - Other Program (1203969SF); Commercial Services (1206771SF); Force Structure Deviation (0808722F); Headquarters U.S. Space Force (1209398SF); Management Headquarters - STARCOM (1209158SF); Mgt Headquarters - Space (Admin) (1205498SF); Operational Headquarters - Space (1203925SF); Permanent

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206730SF / Space Security and Defense Program	Project (Number/Name) 64A025 / Space Security and Defense Program		
Change of Station Travel (0808731F); Service Support to OSW (0901503SF); Service Support to SDA - MHA (1201198SF); Space & Missile Systems Center - MHA (1206398SF); Space Planning and Operations Support (1201000SF); Space Security and Defense Program (1206730SF); Space Warfighting Analysis (1203622SF); Svc Spt to The Joint Staff (0901507SF)					
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Title: Space Protection and Survivability			53.199	45.200	100.126
Description: SSDP applies a holistic analytical approach to improve the resilience of NSS space effects for national security missions.					
FY 2026 Plans: Fiscal Year 2026 provides yet another year of continuous organizational change, growth, and challenges. As an integral part of the National Security Space (NSS) community, SSDP adapts to the changing environment to provide our stakeholders relevant, data-informed, and rigorously evaluated solutions for space superiority.					
SSDPS's four analytical priorities for FY26 focus on the following: Ensuring Resilience of Near-term and Future Space and Space-enabled Missions; Space Control and Multi-Domain Force Designs; Space Control Force Development; and Space and the Cross-Domain Fight. In support of the first analytic priority, SSDP will continue to focus on the resiliency of next-generation space missions and support to our stakeholder's development of Government Reference Architectures. Keeping pace with and getting ahead of adversary advances is a critical component of Space Control and Multi-Domain Force Design analysis and recommendations. SSDP Space Control Force Development provides support to our partners while ensuring system readiness and effectivity. Finally, understanding the impact of space to the cross-domain fight for both the US and our adversaries is an increasingly important aspect of SSDP's Space and the Cross-Domain Fight responsibilities. Our integrated modeling and analysis efforts continue to validate force design and joint service architecture recommendations (such as Assault Breaker II and other kill chain analyses efforts).					
It is through such steadfast commitment that SSDP efforts will ensure opportunities for the U.S. to engage our adversaries in any domain, at the time and location of our choosing, and in manners consistent with National Defense Strategy and National Strategy for Space objectives.					
FY 2027 Plans: In Fiscal Year 2027, SSDP will maintain its commitment to: 1. Understand the adversaries' evolving kill-chains; 2. Expand and deepen knowledge of state-of the-art space-related technologies; and 3. Perform work with strategic purpose, rigor and conviction. As an integral part of the National Security Space (NSS) community, SSDP will continue to uphold the most successful and time-tested methods to yield meaningful and actionable results for its stakeholders. These solutions will inform policy, budget, architecture, technical requirements, and TTPs to afford the U.S. and our allies' freedom of access and use of space while denying the same for our adversaries. SSDP will ensure a rapid response to OSW, USSTRATCOM, and SECAF critical priorities					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206730SF / <i>Space Security and Defense Program</i>	Project (Number/Name) 64A025 / <i>Space Security and Defense Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
and stated objectives for multi-domain effects analytical capabilities/results via increased investments to both accelerate and expand the program's integrated analytics environment and institute an ongoing capability to provide integrated solutions across all domains, to include multi-domain analytical frameworks, fully contextualized force designs, cost-optimized architectures, and actionable non-materiel recommendations for enhancing CONOPS, TTPs and National policies. These efforts constitute a foundational element of the DoW's effectivity and efficiency across a broad range of significant investments and architectures. SSDP's four analytical priorities for FY 2027 focus on the following: 1) Initiate an Integrated Space and Multi-Domain Warfare Architecture, 2) Ensuring capacity of Space Domain Awareness network to support space kill chains, combat identification, surveillance, and reconnaissance, 3) Representing ODNI equities, capabilities, and synchronization in analytics, and 4) Including joint force equities, capabilities, and synchronization in analytics. Specifically, SSDP will deliver an integrated, holistic architecture which defines a contextualized, realizable Objective Force architecture, implemented in models which can be used across tools. SSDP will complete the first Threat Environment Force Design. SSDP will identify and focus on clear target decisions, stakeholders, and transition partners, in an effort, to identify what, who, and how we are attempting influence with our analytic products. SSDP will continue to evolve the offensive and defensive Force Design, with specific consideration of the defense framework for the NSS enterprise. SSDP will define synchronized efforts in electromagnetic warfare and multi-domain effects. SSDP efforts will baseline common scenario(s) and assumptions to ensure traceable analytic results across the recommended architecture. SSDP will define a timeline of expected capability and identify and advocate for transitions. In FY 2027, SSDP will define and advocate for optimized architectures across the DoW and ODNI, focusing on NSS Protect and Defend, Space Control, Electromagnetic Warfare, and Multi-Domain Integration. Within the full context of SSDP's analytical priorities, SSDP will also perform as the USSF's designated agent to perform analyses, conduct research, model potential solutions, and deliver USSF recommendations to OSW and JS in support of the ABII Program. For FY27 this will include comprehensive evaluations and analysis of current USSF program of record (PORs) and emerging technology investments, along with providing data-driven recommendations on experimentation efforts that explore new technology concepts; including analytic validations of concept feasibility and performance predictions. It is through such steadfast commitment that SSDP efforts will ensure opportunities for the U.S. to engage our adversaries in any domain, at the time and location of our choosing, and in manners consistent with National Defense Strategy and National Strategy for Space objectives. FY 2026 to FY 2027 Increase/Decrease Statement: The FY 2027 increase funds a multi-domain effects analytical capability as directed to SSDP by USSTRATCOM and DoW. It represents a critical component of the Department's priority to address its requirement for an in-depth, integrated mod/sim			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206730SF / <i>Space Security and Defense Program</i>	Project (Number/Name) 64A025 / <i>Space Security and Defense Program</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
analytics environment to deliver options and solutions related to multi-domain effects; leaning on SSDP to build/provide a more comprehensive capability for providing integrated, validated and actionable solutions across all domains.			
Accomplishments/Planned Programs Subtotals		53.199	100.126
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
N/A			
D. Acquisition Strategy			
All contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible. The program consists of numerous efforts/projects.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206730SF / Space Security and Defense Program						Project (Number/Name) 64A025 / Space Security and Defense Program			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Protection and Survivability	Various	Various : TBD	-	46.349	Oct 2024	38.947	Oct 2025	89.405		-		89.405	Continuing	Continuing	-
Subtotal			-	46.349		38.947		89.405		-		89.405	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support and Infrastructure	Various	Various : TBD	-	2.503	Oct 2024	2.242	Oct 2025	3.802		-		3.802	Continuing	Continuing	-
Oversight, Advisory and other Technical Support	Various	Various : TBD	-	4.347	Oct 2024	4.011		6.919		-		6.919	Continuing	Continuing	-
Subtotal			-	6.850		6.253		10.721		-		10.721	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	53.199		45.200		100.126		-		100.126	Continuing	Continuing	N/A
Remarks N/A															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026					
Appropriation/Budget Activity 3620F / 4								R-1 Program Element (Number/Name) PE 1206730SF / Space Security and Defense Program						Project (Number/Name) 64A025 / Space Security and Defense Program			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Space Security and Defense Program																												
Multi- Domain Effects																												
Space Control																												
Space Domain Awareness																												
Future Technologies																												
Electronic Warfare																												
Cognitive Strategic Assessment																												
Threat Assessment																												
Policy Assessment																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206730SF / Space Security and Defense Program	Project (Number/Name) 64A025 / Space Security and Defense Program	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space Security and Defense Program				
Multi- Domain Effects	1	2025	4	2031
Space Control	1	2025	4	2031
Space Domain Awareness	1	2025	4	2031
Future Technologies	1	2025	4	2031
Electronic Warfare	1	2025	4	2031
Cognitive Strategic Assessment	1	2025	4	2031
Threat Assessment	1	2025	4	2031
Policy Assessment	1	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>					R-1 Program Element (Number/Name) PE 1206760SF / <i>Protected Tactical Enterprise Service (PTES)</i>							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	74.849	96.615	155.885	0.000	155.885	87.065	86.103	87.664	89.417	0.000	677.598
643726: <i>PTW Over WGS</i>	0.000	23.544	57.263	74.000	0.000	74.000	6.661	6.753	6.874	7.012	0.000	182.107
643733: <i>PTW Over Commercial</i>	0.000	51.305	39.352	81.885	0.000	81.885	80.404	79.350	80.790	82.405	0.000	495.491

A. Mission Description and Budget Item Justification

USSF is developing the Protected Tactical Enterprise Service (PTES) ground system for the United States and Allies within the mission area of Satellite Communications. As a result, the Service will improve battle management of all weapon systems, improve readiness and operational reach of existing force structure, augment, supplement, and/or integrate Allies, partners, and commercial space to USSF units, and improve resilience of infrastructure, equipment, and personnel.

The global threat of electronic warfare attacks against space systems will expand in the coming years in both number and types of weapons. Threat development will include a focus on jamming capabilities against military satellite communications (SATCOM). To address this critical threat, the Space Force is developing the Protected Tactical Enterprise Service (PTES) ground system to provide worldwide, anti-jam, Low Probability of Intercept communications for tactical warfighters via the Protected Tactical Waveform (PTW). This Program Element also provides for a capacity increase of non-PTW SATCOM for joint warfighters.

The PTES Program began as a Rapid Prototyping activity under the Middle Tier of Acquisition authority in June 2018. Upon a successful Operational Demonstration of PTW Over Wideband Global SATCOM (WGS) and satisfying MTA requirements, the program transitioned into the Software Acquisition Pathway in FY 2023. The PTES Program focused on getting PTW broadcasted over the WGS system, with a plan to later expand the capability over commercial satellites and the Protected Tactical SATCOM (PTS) system. PTES is comprised of these two efforts: Project 643726, PTW Over WGS (PTWoW) and Project 643733, PTW Over Commercial (PTWoC).

The PTES Program developed a Mission Management System (MMS), Key Management System (KMS), and Joint Hub (JH) to enable transponded PTW over SATCOM. The JH is unmanned computing and communications hardware located at a SATCOM teleport that provides the PTW signal processing, reach-back network connectivity, and near real-time networked control to direct the connected terminals. Each JH requires site surveys, equipment purchases (modems, End Cryptographic Unit, etc.), equipment installation, and equipment testing. Production-representative PTW modems for user terminals were developed by the Protected Tactical Service Field Demonstration and will be separately acquired by each Service and by international partners. The Navy Wideband Anti-Jam Modem System, the Air Force-Army Anti-Jam Modem, and other stakeholders rely on PTES to provide PTW ground infrastructure.

This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); Narrowband Satellite Communications (1203109SF); Protected Tactical Enterprise Service

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1206760SF I Protected Tactical Enterprise Service (PTES)				
(1206760SF); Protected Tactical Service (1206761SF; Space Tech Development & Prototyping (1206410SF); Tech Transition (Space) (1206458SF); Wideband Global SATCOM (SPACE) (1206433SF); Data Transport and Networking (1203156SF); Space Data Network (1203636SF); and elements of Procurement Budget Line Items: Family of Beyond Line-of-Sight Terminals (FBLOST); Mobile User Objective System (MUOS00); MILSATCOM (MILSAT); Wideband SATCOM Operational Management Systems (WSOMS0); Auxiliary Payloads (AUX000); Proliferated Low Earth Orbit SATCOM (PLEO00); PTES HUB (PTES00); ESS (ESS000)						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.						
This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		77.509	114.430	0.000	0.000	0.000
Current President's Budget		74.849	96.615	155.885	0.000	155.885
Total Adjustments		-2.660	-17.815	155.885	0.000	155.885
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-16.267			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	-1.548			
• Other Adjustments		-2.660	0.000	155.885	0.000	155.885
Change Summary Explanation						
Technical Changes:						
FY2025: -\$2.660M; 3620 FY 2025 Actuals Layin						
FY2026: -\$16.267M Congressional Direct Reduction for: -\$8.767M PTW over WGS contract delays, -\$7.500M PTES upgrades ahead of need.						
FY2026: -\$1.548M; SBIR/STTR						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterpr ise Service (PTES)				Project (Number/Name) 643726 / PTW Over WGS			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
643726: PTW Over WGS	0.000	23.544	57.263	74.000	0.000	74.000	6.661	6.753	6.874	7.012	0.000	182.107
Quantity of RDT&E Articles	7	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
Protected Tactical Waveform (PTW) over Wideband Global Satellite (WGS) Initial Operational Capability (IOC) is expected in FY 2027. IOC will be achieved through Joint Hub (JH) installation at two WGS teleport sites at separate locations, which utilize one WGS satellite, in addition to nominal operations using the PTES Mission Management System (MMS) and Key Management System (KMS). Full Operational Capability (FOC) is projected for FY 2028, at which time PTES will provide worldwide PTW operations using JHs installed in at least eight different WGS teleport sites and utilizing ten WGS satellites. Research, Development, Test & Evaluation funding is required for continued architecture development, software development, and test and evaluation of PTES systems and segments.												
This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: PTES Prototype Ground and Software Development									15.507	34.040	58.368	
Description: Develop and field the PTES ground system for enabling PTW over WGS. Develop software within the three PTES segments: MMS, KMS and JHs. Integrate these systems into existing Satellite Communications (SATCOM) teleports to enable PTW operations over WGS satellites. Support the build, test, and installation of hardware required to operate the system at IOC and FOC.												
FY 2026 Plans:												
Continue development of software focused on initial capability delivery and develop fixes for discrepancies identified in test and evaluation activities. Implement system resiliency, cyber resiliency, and crypto standards necessary to operate in the contested space and cyber domains.												
FY 2027 Plans:												
Continue development of software focused on initial capability delivery and develop fixes for discrepancies identified in test and evaluation activities in order to achieve IOC. Continue development to FOC delivery. Implement system resiliency, cyber resiliency, and crypto standards necessary to operate in the contested space and cyber domains.												
FY 2026 to FY 2027 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206760SF / <i>Protected Tactical Enterprise Service (PTES)</i>	Project (Number/Name) 643726 / <i>PTW Over WGS</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Increase due to continued software development to deliver the initial prototype, increased support required through test and evaluation activities, and implementation of system resiliency, cyber resiliency, and crypto standards.			
Title: PTES System Development Baseline, Integration, and Test		8.037	23.223
Description: Includes government-led end-to-end integration and test efforts up to IOC and FOC. Developmental and Operational Test to be conducted by the 45th Test Squadron and STAR Delta 12 / 4th Test and Evaluation Squadron. Development and management of the PTES technical baseline through acquiring, designing, testing, and integrating system segments with external interfaces within the larger SATCOM enterprise. Supports the Joint Satellite Engineering Center and Joint Interoperability Command risk- reduction efforts to demonstrate integration, validate interfaces, and obtain the data necessary to achieve both cybersecurity authorization and interoperability certification. Provides for operator involvement to enable effective technical and programmatic trades and decision-making. Enables studies and proof of concept demonstrations to inform requirements. Supports Tobyhanna Army Depot's role in key loading and initialization of Protected Tactical Waveform (PTW)-capable modems. FY 2026 Plans: Initiate Development and Operational Test towards Initial Operational Capability and Full Operational Capability. Perform test and integration activities with PTW-capable modems necessary to expand PTW capability to other Services and user groups. Witness and support PTES contractor-led events, including validation and verification activities and test scenario developments. Support software qualification testing, regression testing, capability demonstrations, risk reduction events, and cybersecurity assessments required to achieve Authorization to Operate. FY 2027 Plans: Continue integration and test towards Initial Operational Capability and Full Operational Capability. Perform test and integration activities with PTW-capable modems necessary to expand PTW capability to other Services and user groups. Witness and support PTES integration and test events, including validation and verification activities and test scenario developments. Support software qualification testing, regression testing, capability demonstrations, risk reduction events, and cybersecurity assessments required to achieve Authorization to Operate. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement:		15.632	

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4				R-1 Program Element (Number/Name) PE 1206760SF / <i>Protected Tactical Enterprise Service (PTES)</i>				Project (Number/Name) 643726 / <i>PTW Over WGS</i>				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2025	FY 2026	FY 2027
Decrease is due to progress made on subsystem development, and test planning on the path to achieving Initial Operational Capability and Full Operational Capability.												
Accomplishments/Planned Programs Subtotals										23.544	57.263	74.000
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost	
• SPSF 01 BA01 PTES00: <i>PTES HUB</i>	56.148	29.949	12.046	-	12.046	0.000	0.000	-	-	0.000	98.143	
Remarks												
D. Acquisition Strategy												
USSF is developing the PTS Family of Systems (FoS) in an evolutionary manner to introduce Protected Tactical Waveform (PTW) capabilities providing anti-jam (AJ) communications via military and commercial satellite systems for tactical users in all Services, initially providing service over the existing military Wideband Global SATCOM (WGS) system and then adding commercial and purpose-built Protected Tactical SATCOM satellites. The PTES Program was designated initially as a Rapid Prototyping effort in June 2018 from the NDAA for Fiscal Year 2016 (Public Law 114-92) under Middle Tier of Acquisitions (MTA) for Rapid Prototyping/ Rapid Fielding (Section 804) to kick off the design, development, integration and testing with PTW service via WGS. The PTES program competitively awarded a single Cost-Plus Incentive Fee (CPIF) contract to Boeing on 26 November 2018 to develop and field the PTES, through declaration of FOC planned for FY 2026. Boeing and subcontractors developed all PTES segments and performed / will perform all system integration, including end-to-end tests of the complete PTES system. Raytheon is the major sub-contractor to develop the End Cryptographic Units. The program office will secure Cloud and Infrastructure services from approved and secure sources. Tobyhanna Army Depot will be responsible for key loading and initialization of PTW-capable modems. The 45th Test Squadron (PTES Developmental Test), STAR Delta 12 / 4th Test and Evaluation Squadron (PTES Operational Test), Joint Support and Enabling Command, and Joint Interoperability Test Command support test events. On 31 May 2023, the PTES Program Office transitioned the program from a Middle Tier Acquisition (MTA) into the Execution Phase of the Software Acquisition Pathway upon a successful Operational Demonstration of PTW over Wideband Global SATCOM and satisfying the corresponding MTA requirements.												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterpr ise Service (PTES)				Project (Number/Name) 643726 / PTW Over WGS					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PTES Prototype Ground and Software Development	C/CPIF	Boeing : El Segundo, CA	0.000	15.507	Oct 2024	34.040	Nov 2025	58.368	Oct 2026	-		58.368	0.000	107.915	-
Additional System Development Support	Various	Various : Various	0.000	3.435	Nov 2024	12.772	Nov 2025	4.364	Nov 2026	-		4.364	0.000	20.571	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	0.000	-		0.274	Nov 2025	-		-		-	0.000	0.274	-
Enterprise SE&I	Various	Various : Various	0.000	2.711	Nov 2024	7.380	Nov 2025	3.252	Nov 2026	-		3.252	0.000	13.343	-
SBIR/STTR	Allot	Not specified. : Washington, DC	0.000	-		0.000		2.719		-		2.719	0.000	2.719	-
Subtotal			0.000	21.653		54.466		68.703		-		68.703	0.000	144.822	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Planning & Execution DT/OT	Various	Various : Various	0.000	1.187	Nov 2024	2.430	Nov 2025	4.362	Nov 2026	-		4.362	0.000	7.979	-
Subtotal			0.000	1.187		2.430		4.362		-		4.362	0.000	7.979	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace : El Segundo, CA	0.000	-		0.167	Nov 2025	-		-		-	0.000	0.167	-
A&AS	Various	Various : Various	0.000	0.451	Nov 2024	0.000	Nov 2025	0.735	Nov 2026	-		0.735	0.000	1.186	-
Other Support	Various	Various : Various	0.000	0.253	Oct 2024	0.200	Oct 2025	0.200	Oct 2026	-		0.200	0.000	0.653	-
Subtotal			0.000	0.704		0.367		0.935		-		0.935	0.000	2.006	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterprise Service (PTES)				Project (Number/Name) 643726 / PTW Over WGS				
	Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	23.544		57.263		74.000		-		74.000	0.000	154.807	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026					
Appropriation/Budget Activity 3620F / 4								R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterprise Service (PTES)						Project (Number/Name) 643726 / PTW Over WGS			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PTES Ground Development																												
PTES Development																												
Initial Operational Capability (IOC)																												
Full Operational Capability (FOC)																												
PTES Software Development																												
Software Development Test																												
PTES System Development Baseline/Integration/Test																												
Hardware Development Build/Test/Installation IOC/FOC Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterprise Service (PTES)	Project (Number/Name) 643726 / PTW Over WGS	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
PTES Ground Development				
PTES Development	1	2025	2	2029
Initial Operational Capability (IOC)	3	2027	3	2027
Full Operational Capability (FOC)	3	2028	3	2028
PTES Software Development				
Software Development Test	1	2025	3	2028
PTES System Development Baseline/Integration/Test				
Hardware Development Build/Test/Installation IOC/FOC Support	1	2025	3	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterprise Service (PTES)				Project (Number/Name) 643733 / PTW Over Commercial			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
643733: PTW Over Commercial	0.000	51.305	39.352	81.885	0.000	81.885	80.404	79.350	80.790	82.405	0.000	495.491
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

PTW over Commercial (PTWoC) Initial Operational Capability (IOC) is targeted for when Protected Tactical Waveform (PTW) operations are provided to users via a single Joint Hub over one commercial satellite, or International Partner (IP) satellite, including full Mission Management System (MMS) and Key Management System (KMS) support functions. PTWoC is expected to reach Full Operational Capability (FOC) after providing the ability to support geostationary, medium earth or highly inclined orbit PTW satellite communications from nine separate locations and for all equatorial longitudes. Highly inclined orbits are necessary in order to provide SATCOM coverage over the Earth's polar regions. Research, Development, Test & Evaluation funding is required for architecture development, acquisition strategy development, system requirements and system trades analysis, engineering, manufacturing, software development, and test and evaluation of PTES systems and segments.

Initial PTWoC efforts are focused on providing additional, cost-effective SATCOM capacity to Joint and Allied warfighters via an international partnership with Luxembourg. Future efforts will focus on enabling Protected Tactical Waveform SATCOM operations over the O3b mPOWER Medium Earth Orbit constellation, as well as over commercial SATCOM constellations in other orbits.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: PTW Over Commercial - mPower	50.175	8.152	18.813
Description: Procure, install, and test six mPOWER teleports through a NATO Support and Procurement Agency (NSPA) Indefinite Delivery, Indefinite Quantity (IDIQ) contract awarded 4th Quarter FY 2024. A teleport consists of SATCOM Gateway Terminals (GWs) and other supporting hardware installed at a physical location. Initially, these teleports will provide additional Non-Protected Tactical Waveform (PTW) SATCOM capacity to warfighters. Future efforts will enable PTW operations over the mPOWER constellation per the Department of War's partnership with the Luxembourg Ministry of Defense.			
FY 2026 Plans: Acquire two mPOWER teleports. Includes site preparation, surveys, installation, test and accreditation activities necessary to activate already procured teleports within the mPOWER effort. Activities may include, but are not limited to program office			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterpr ise Service (PTES)	Project (Number/Name) 643733 / PTW Over Commercial		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities. FY 2027 Plans: Complete site preparation, surveys, installation, test and accreditation activities necessary to complete teleports within the mPOWER effort. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities. FY 2026 to FY 2027 Increase/Decrease Statement: Increase is due to increased integration costs associated with site infrastructure and installation efforts.				
Title: PTW Over Commercial - PTES Upgrades Description: Upgrade PTES systems to enable Protected Tactical Waveform (PTW) operations over the mPOWER constellation, as well as over SATCOM constellations in other orbit regimes. Procure and install additional Joint Hubs (JHs) at additional DoW SATCOM teleports. Includes the development of requirements, architectures and interfaces to operate over a variety of terminals and access points. Other covered activities include software development, capability demonstrations, test and integration efforts, prototype development, program office support, studies, technical analysis, and activities that may leverage commercial, U.S. Government partnership, and international opportunities. FY 2026 Plans: Continue to develop requirements, acquisition strategy, and architecture for enabling PTW over commercial constellations. FY 2027 Plans: Continue to develop requirements, acquisition strategy, and architecture for enabling PTW over commercial constellations. Award of a contract to enhance the systems developed in the PTW over WGS effort to enable PTW over commercial constellations. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: Increase is due to the ramp up post contract award as well as finalization of the requirements and acquisition strategies to enable PTW over commercial capabilities.		1.130	31.200	63.072
Accomplishments/Planned Programs Subtotals		51.305	39.352	81.885

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterprise Service (PTES)	Project (Number/Name) 643733 / PTW Over Commercial	

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPSF 01 PTES00: PTES HUB	56.148	29.949	12.046	-	12.046	0.000	0.000	-	-	0.000	98.143

Remarks

D. Acquisition Strategy

Provide additional SATCOM capacity and enterprise resiliency through integration and teaming with commercial, international and other US Government partners. Activities include studies, demonstrations, and coordination with industry and with government organizations including the U.S. Space Force, U.S. Army, U.S. Air Force Research Laboratory, Space Warfighting Analysis Center, U.S. Space Force Commercial Satellite Communications Office, and the Defense Information Systems Agency. A Firm Fixed-Price contract was awarded to Astranis on 27 September 2023 to evaluate PTW SATCOM applications for Geosynchronous Earth Orbit small satellites within the PTES architecture. Massachusetts Institute of Technology/Lincoln Labs to conduct a demonstration of PTW operations over mPOWER commercial MEO satellites, the first allied hybrid government/commercial SATCOM solution. For the acquisition/integration of PTES with the mPOWER constellation, PTES procured mPOWER teleports via the Commercial Satellite Communications Office (CSCO's) contract with the NATO Support and Procurement Agency, which funds mPOWER bandwidth capacity in COMSATCOM PE 1206445SF, Project 650140. The contractual strategy to implement PTW over Commercial constellations will be informed by the execution of the PTW over WGS effort.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterprise Service (PTES)				Project (Number/Name) 643733 / PTW Over Commercial					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PTW Over Commercial - mPower	MIPR	CSCO : Ft Meade, MD	0.000	50.175	Jan 2025	8.152	Dec 2025	18.813	Jan 2027	-		18.813	0.000	77.140	-
PTW Over Commercial - PTES Upgrades	TBD	Not specified. : TBD	0.000	-		0.000	Jan 2026	43.997	May 2027	-		43.997	0.000	43.997	-
Additional Product Development	Various	Not specified. : TBD	0.000	-		26.060	Mar 2026	8.000	Mar 2027	-		8.000	0.000	34.060	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	0.000	-		3.093	Dec 2025	-		-		-	0.000	3.093	-
Enterprise SE&I	Various	Not specified. : TBD	0.000	-		2.047	Dec 2025	7.254	Oct 2026	-		7.254	0.000	9.301	-
SBIR/STTR	Allot	Not specified. : TBD	0.000	-		0.000		3.008		-		3.008	0.000	3.008	-
Subtotal			0.000	50.175		39.352		81.072		-		81.072	0.000	170.599	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : Various	0.000	1.130	Jun 2025	0.000	Jan 2026	0.813	Nov 2026	-		0.813	0.000	1.943	-
Subtotal			0.000	1.130		0.000		0.813		-		0.813	0.000	1.943	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	51.305		39.352		81.885		-		81.885	0.000	172.542	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206760SF / <i>Protected Tactical Enterprise Service (PTES)</i>			Project (Number/Name) 643733 / <i>PTW Over Commercial</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>PTW Over Commercial - mPower</i>																												
mPower Gateway Acquisition - Terminal Delivery & Installation																												
mPower Gateway Acquisition - Site Prep																												
mPower Integration, Testing, Certification, & Approvals to Operate																												
<i>PTW Over Commercial - PTES Upgrades</i>																												
PTES Joint Variant Upgrades - Joint Hub Delivery & Installation																												
Integration, Testing, Certification, & Approvals to Operate																												
Hub Integration with Gateway																												
Hub Integration with Gateway Testing																												
Initial Operational Capability																												
Full Operational Capability																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206760SF / <i>Protected Tactical Enterprise Service (PTES)</i>	Project (Number/Name) 643733 / <i>PTW Over Commercial</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>PTW Over Commercial - mPower</i>				
mPower Gateway Acquisition - Terminal Delivery & Installation	1	2025	3	2029
mPower Gateway Acquisition - Site Prep	3	2025	2	2029
mPower Integration, Testing, Certification, & Approvals to Operate	4	2026	4	2027
<i>PTW Over Commercial - PTES Upgrades</i>				
PTES Joint Variant Upgrades - Joint Hub Delivery & Installation	3	2027	3	2031
Integration, Testing, Certification, & Approvals to Operate	4	2027	4	2031
Hub Integration with Gateway	3	2028	4	2031
Hub Integration with Gateway Testing	4	2028	3	2031
Initial Operational Capability	2	2029	3	2029
Full Operational Capability	3	2031	3	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 1206761SF I Protected Tactical Service (PTS)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	390.585	428.697	449.434	0.000	449.434	450.808	326.372	391.236	389.432	Continuing	Continuing
643722: Protected Tactical SATCOM - Global (PTS_G)	0.000	82.522	236.822	150.361	0.000	150.361	112.617	33.196	13.278	0.000	0.000	628.796
643728: Protected Tactical SATCOM	0.000	308.063	191.875	299.073	0.000	299.073	338.191	293.176	377.958	389.432	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Protected Tactical Service (PTS) program is developing, demonstrating, prototyping, and operating beyond-line-of-sight, Anti-Jam (AJ), low-probability-of-intercept satellite communications and provides the space and dedicated ground architecture required to securely transport tactical satellite communications for warfighters across the Satellite Communications (SATCOM) mission area. As a result, the Service will improve readiness and operational reach of existing force structure and provide an enduring resilient Infrastructure, equipment, and personnel.

The global threat of electronic warfare attacks against space systems will expand in the coming years in both number and types of weapons. Threat development will very likely focus on jamming capabilities against dedicated military satellite communications (SATCOM). To address this critical threat, and in pursuit of more precise solutions for disaggregated strategic and tactical SATCOM, U.S Strategic Command (USSTRATCOM) and Air Force Space Command (AFSPC) initiated the tactical SATCOM family-of-systems. This integrated approach includes the Protected Tactical Satellite Communications (PTS) and Protected Tactical Enterprise Service (PTES) programs to mitigate adversarial jamming effects by using the Protected Tactical Waveform (PTW). The PTS program is the disaggregated tactical communications follow-on to the Advanced Extremely High Frequency (AEHF) program. The United States Space Force (USSF) is developing the PTS system to provide tactical users increased protection with worldwide, beyond-line-of-sight, Anti-Jam (AJ), low-probability-of-intercept communications in benign and highly-contested anti-access/area denial environments utilizing the PTW. The PTS system's on-board payload/signal processing, antenna design, and advanced beam-forming using a distributed, diversified, and agile constellation of hostable payloads and high capacity free-flyers enables reliable tactical SATCOM within close proximities to adversarial jammers. The system also employs interfaces consistent with USSF's on-going resilience initiatives enhancing mission assurance and interoperability. The program's modular, flexible, scalable, and protected tactical payload constellation architecture will increase resiliency through distribution across a larger number of space platforms (e.g., hostable, free-flyer, international partnerships). The PTES program (PE 1206760SF, Project 643726) establishes the ground infrastructure for PTS, which operationalizes the PTW.

This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Program interdependencies include:
Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); MILSATCOM Terminals (1203601SF); Narrowband Satellite Communications (1203109SF); Polar MILSATCOM (SPACE)

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206761SF / <i>Protected Tactical Service (PTS)</i>
(1206432SF); Protected Tactical Enterprise Service (1206760SF); Protected Tactical Service (1206761SF); SATCOM O&M (1203605SF); Space Tech Development & Prototyping (1206410SF); Tech Transition (Space) (1206458SF); Wideband Global SATCOM (SPACE) (1206433SF); Wideband Global System Satellites (1203600SF).		
For the initial PTS phase, USSF is utilizing FY 2016 National Defense Authorization Act (NDAA), Middle Tier of Acquisition (MTA) for Rapid Prototyping (RP) authority and Section 815, Other Transaction Authority (OTA), to achieve an affordable, rapid, operational capability for the tactical warfighter. This strategy employs rapid payload development to progressively and incrementally deploy prototypes with residual capabilities demonstrated in an operational environment. These prototyping payloads (PTS-P) demonstrate innovative AJ technologies with modular and scalable payloads to meet validated military needs for protected tactical communications. This includes technical baseline development, systems engineering trade analyses, internal/external system integration and development, candidate system architecture evaluations, risk reduction demonstrations, prototyping concepts development, system testing, and enabling technologies maturation. The PTS-Resilient (PTS-R) project will follow the PTS-P prototyping activity to develop purpose-built "hub in space" satellites with full signal processing and switching capability that allows direct connectivity between users. On June 13th 2024, the Milestone Decision Authority has designated PTS-R as an ACAT I, pre-Milestone B program in the Technology Maturation and Risk Reduction (TMRR) acquisition phase. The PTS-P and PTS-R Phases include a Space Segment, Ground Segment, and Gateway Segment. For the Space Segment, the USSF strategy utilizes a payload-centric focus to enable an affordable, resilient space architecture. This enables hosting and rideshare opportunities with other US government, commercial, International Partner (IP) satellites or integration onto a commodity satellite bus. For the Ground Segment, PTS develops satellite command and control (C2) and leverages the Protected Tactical Enterprise Service (PTES) activity for mission and key management planning. The PTS Gateway Segment enables tactical warfighters reach back to global DoW Information Network. The PTS user Terminal Segment, not included in this PTS acquisition, will be procured by the military services utilizing low-cost Protected Tactical Waveform (PTW) modem upgrades enabled by the Air Force - Army Anti-Jam Modem (A3M) ACAT III program and the Navy Wideband Anti-Jam Modem System (WAMS) technology demonstration program. PTS also develops the National Security Agency (NSA)-certified and space-flight qualified production-ready Space Hub End Cryptographic Unit (ECU). Starting the ECU as a single, early risk reduction effort targets a high-risk area of the PTS development and enables PTS program success. In CY 2022 the Space Warfighting Analysis Center (SWAC) identified gaps in protected SATCOM capabilities relative to existing and planned capabilities against current and predicted user needs, with consideration of current and emerging challenges to both operating environments and system deployment. SWAC developed a Force Design (FD) to address these gaps, realigning capabilities and disaggregating mission sets. Protected Tactical SATCOM - Global (PTS-G) is a key and enabling capability of the USSF FD that bridges the gap between the more focused capabilities provided by PTS-R, and the broadly-available but also the lower assured access capabilities provided by existing / emerging MILSATCOM and commercial services. PTS-G also augments current and future warfighter capability with increased global capacity. PTS-G is a moderate degree of assured access communications across military Ka-band and X-band using a disaggregated and proliferated sets of lower-complexity satellites. Space Systems Command (SSC) will develop the PTS-G space and ground systems to provide worldwide assured-access communications for tactical warfighters.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1206761SF I Protected Tactical Service (PTS)				
PTS-G will consist of space vehicles utilizing military Ka band and X band payloads (PTS-G-Ka and PTS-G-X), and ground infrastructure (system controller/hub with gateways), and will connect to existing Protected Tactical SATCOM Family of Systems ground infrastructure (mission management system and cryptographic key management system) developed under the PTES program, as well as integrating legacy SATCOM waveforms.						
PTS-G will consist of multiple satellites that can provide either X-band and/or mil Ka-band transponded capability while also supporting the utilization of the PTW Waveform. PTW modems for user terminals will be acquired by each Service and by international partners.						
Initially, PTS-G will provide capabilities in select regions. PTS-G will target a solution that can provide worldwide coverage. PTS-G will be interoperable with the PTES program to perform management and cryptographic key management for PTW users, but PTS-G will procure and install the associated PTES Joint Hubs and other ground infrastructure to operate the satellites, anchor the data, and perform Operation and Support (O&S). In addition, the PTS-R system will be integrated with components of PTES and will be complementary to PTS-G.						
PTS-G addresses the gap in protected communications capability identified in the USSF FD and in the Joint Space Communications Layer (JSCL) Initial Capabilities Document (ICD). To meet the warfighter requirements for protected tactical MILSATCOM and the capability gaps identified in these studies in a timely and cost-effective manner, use and modification of existing capabilities and Commercial Off the Shelf (COTS) products will be leveraged to the maximum extent, to develop the PTS-G capabilities. SSC will strategically execute prototyping and risk reduction as needed to develop and deploy PTS-G capabilities.						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver PTS weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		419.996	571.921	0.000	0.000	0.000
Current President's Budget		390.585	428.697	449.434	0.000	449.434
Total Adjustments		-29.411	-143.224	449.434	0.000	449.434
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-136.500			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		-14.999	0.000			
• SBIR/STTR Transfer		-14.412	-6.724			
• Other Adjustments		0.000	0.000	449.434	0.000	449.434

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 1206761SF I Protected Tactical Service (PTS)	
Change Summary Explanation Strategic Changes: FY2025: -\$14.999M to other USSF priorities Technical Changes: FY2026: -\$136.500M Congressional Directed Reduction FY2025 was rescinded \$153.000M and is not reflected in this budget documentation. The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.		

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)				Project (Number/Name) 643722 / Protected Tactical SATCOM - Global (PTS_G)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
643722: Protected Tactical SATCOM - Global (PTS_G)	0.000	82.522	236.822	150.361	0.000	150.361	112.617	33.196	13.278	0.000	0.000	628.796
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In CY 2022 the Space Warfighting Analysis Center (SWAC) identified gaps in protected SATCOM capabilities relative to existing and planned capabilities against current and predicted user needs, with consideration of current and emerging challenges to both operating environments and system deployment. SWAC developed a Force Design (FD) to address these gaps, realigning capabilities and disaggregating mission sets.

Protected Tactical SATCOM - Global (PTS-G) is a key and enabling capability of the USSF Force Design (FD) that bridges the gap between the more focused capabilities provided by Protected Tactical SATCOM - Resilient (PTS-R), and the broadly-available but also the lower assured access capabilities provided by existing / emerging MILSATCOM and commercial services. PTS-G also augments current and future warfighter capability with increased global capacity. PTS-G is a moderate degree of assured access communications across military Ka-band and X-band using a disaggregated and proliferated sets of lower-complexity satellites. Space Systems Command (SSC) will develop the PTS-G space and ground systems to provide worldwide assured-access communications for tactical warfighters.

PTS-G will consist of space vehicles utilizing military Ka band and X band payloads (PTS-G-Ka and PTS-G-X), and ground infrastructure (system controller/hub with gateways), and will connect to existing Protected Tactical SATCOM Family of Systems ground infrastructure (mission management system and cryptographic key management system) developed under the PTES program, as well as integrating legacy SATCOM waveforms.

PTS-G will consist of multiple satellites that can provide either X-band and/or mil Ka-band transponded capability while also supporting the utilization of the PTW Waveform. PTW modems for user terminals will be acquired by each Service and by international partners.

Initially, PTS-G will provide capabilities in select regions. PTS-G will target a solution that can provide worldwide coverage. PTS-G will be interoperable with the PTES program to perform management and cryptographic key management for PTW users, but PTS-G will procure and install the associated PTES Joint Hubs and other ground infrastructure to operate the satellites, anchor the data, and perform O&S. In addition, the PTS-R system will be integrated with components of PTES and will be complementary to PTS-G.

PTS-G addresses the gap in protected communications capability identified in the USSF FD and in the Joint Space Communications Layer (JSCL) Initial Capabilities Document (ICD). To meet the warfighter requirements for protected tactical MILSATCOM and the capability gaps identified in these studies in a timely and cost-effective manner, use and modification of existing capabilities and Commercial Off the Shelf (COTS) products will be leveraged to the maximum extent, to develop the PTS-G capabilities. SSC will strategically execute prototyping and risk reduction as needed to develop and deploy PTS-G capabilities.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206761SF / <i>Protected Tactical Service (PTS)</i>		Project (Number/Name) 643722 / <i>Protected Tactical SATCOM - Global (PTS_G)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Title: Protected Tactical SATCOM - Global (PTS-G)			82.522	236.822	150.361
Description: PTS-G includes the engineering, development and manufacturing of payload and satellites with X-band and military Ka-band transponder communication capability and ground infrastructure to include anchor stations that will connect into existing Protected Anti-jam Tactical SATCOM (PATs) infrastructure developed under the PTES program. Includes ground and software modifications required beyond the PTES baseline in order to interface with PTS-G segments. Includes ground development, modifications, and/or services for satellite operations. PTS-G is expected to use existing PTW-capable user modems, but it may also support transponded communications with other modems. PTW modems for user terminals will be acquired by each Service and by international partners. FY 2026 Plans: The Program Office completed the first delivery order with Astranis, Boeing, Intelsat, Northrop Grumman, and Viasat. The design and demonstration phase resulted in mature design reviews of proposed PTS-G space vehicles (driving competition among vendors to deliver SVs with X band and military Ka band payloads) and demonstrations of payload functionality. This will be followed by the Swarm 1 production award (second delivery order) for four payloads. The program office will continue to design, demo, engineer, manufacture, and test 4 payloads (2 Ka, 2 X), and procure Joint Hub modems to enable future ground connectivity. PTS-G will have two efforts; one for X-Band production and another for mil Ka-Band production. FY 2026 activities include Critical Design Review and SV production start for both the bus and payload, and parts buy in preparation for ground integration. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Continuing production of PTS-G space vehicles, completing procurement of HW items, and conducting interface checkout of bus and payload subsystems. The program will begin early integration activities. In addition to space vehicles, the program will continue with interface checkout of Ground Command and Control system, which includes delivery of Joint hubs, and review of anchor station facilities to determine necessary changes. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206761SF / <i>Protected Tactical Service (PTS)</i>	Project (Number/Name) 643722 / <i>Protected Tactical SATCOM - Global (PTS_G)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
The decrease is driven by the majority of space vehicles HW purchases being front loaded in the production effort starting in FY26. The program plans to complete Critical Design Reviews, including any delta reviews, in FY26, allowing execution to complete design work and focus on production and integration events in FY27.			
Accomplishments/Planned Programs Subtotals		82.522	236.822
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy PTS-G Acquisition strategy was approved by the SAE on 14 August, 2024. The Program Office awarded an IDIQ to Astranis, Boeing, Intelsat, Northrop Grumman, and Viasat using the first delivery order for design and development of PTS-G space vehicles (driving competition between vendors with respect to space vehicle type (X-Band and mil-Ka Band) or within a single space vehicle type). This would be followed by the EMD award, second delivery order, for four payloads to achieve IOC in FY 2029. A subsequent third delivery order for four more space vehicles would achieve FOC in FY 2031. Contract Type is Firm Fixed Price for all PTS-G delivery orders. The 45th Test Squadron is the PTES Developmental Test Organization and the 4th Test & Evaluation Squadron is the Operational Test organization.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)				Project (Number/Name) 643722 / Protected Tactical SATCOM - Global (PTS_G)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PTS-G Design & Demo	C/FFP	See Remarks : CA	-	37.296	Jul 2025	-		-		-		-	Continuing	Continuing	-
PTS-G Space Vehicles and Ground Modernization Ka-band	C/FFP	Not specified. : CA	-	-		98.279	Apr 2026	51.298	Oct 2026	-		51.298	0.000	149.577	-
PTS-G Space Vehicles and Ground Modernization X-band	C/FFP	Not specified. : CA	-	-		90.231	Apr 2026	51.084	Oct 2026	-		51.084	0.000	141.315	-
PTS-G Joint Hubs	SS/TBD	Not specified. : TBD	-	-		27.025	Oct 2026	30.000	Mar 2027	-		30.000	0.000	57.025	-
PTS-G Technical Mission Analysis (TMA)	RO	Aerospace : El Segundo, CA	-	22.551	Aug 2025	3.897	Nov 2025	2.898	Nov 2026	-		2.898	0.000	29.346	-
PTS-G Enterprise SE&I	C/Various	Various : Various	-	12.307	Aug 2025	9.328	Nov 2025	6.262	Nov 2026	-		6.262	0.000	27.897	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000		0.000		5.524		-		5.524	0.000	5.524	-
Subtotal			-	72.154		228.760		147.066		-		147.066	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace : El Segundo, CA	-	0.762	Aug 2025	0.919	Nov 2025	0.351	Nov 2026	-		0.351	0.000	2.032	-
A&AS	Various	Various : TBD	-	9.601	Aug 2025	7.040	Nov 2025	2.844	Nov 2026	-		2.844	0.000	19.485	-
Other Support	Various	Various : TBD	-	0.005	Aug 2025	0.103	Oct 2025	0.100	Oct 2026	-		0.100	0.000	0.208	-
Subtotal			-	10.368		8.062		3.295		-		3.295	0.000	21.725	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	82.522		236.822		150.361		-		150.361	Continuing	Continuing	N/A
Remarks															
\$37.3M in FY25 for PTS-G Space Vehicles and Ground Modernization Ka/X-band is divided evenly (~\$7.5M per vendor) between Viasat, Northrop Grumman, Astranis, Intelsat, and Boeing															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)						Project (Number/Name)			
3620F / 4						PE 1206761SF / Protected Tactical Service (PTS)						643722 / Protected Tactical SATCOM - Global (PTS_G)			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PTS-G																												
DO1 RFP and Contract Award																												
Design and Demonstration Phase																												
Joint Hubs																												
DO2 RFP and Contract Award																												
X-Band Production, Integration, and Fielding																												
Ka-Band Production, Integration, and Fielding																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)	Project (Number/Name) 643722 / Protected Tactical SATCOM - Global (PTS_G)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
PTS-G				
DO1 RFP and Contract Award	1	2025	4	2025
Design and Demonstration Phase	4	2025	1	2026
Joint Hubs	4	2026	4	2028
DO2 RFP and Contract Award	4	2025	3	2026
X-Band Production, Integration, and Fielding	3	2026	1	2029
Ka-Band Production, Integration, and Fielding	3	2026	2	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)				Project (Number/Name) 643728 / Protected Tactical SATCOM			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
643728: Protected Tactical SATCOM	0.000	308.063	191.875	299.073	0.000	299.073	338.191	293.176	377.958	389.432	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

The Enhanced PTS-Prototype project is pursuing an additional prototype effort, the Enhanced PTS-P under the PTS-R/P program, BA 4, PE 1206761SF, project 643728.

A. Mission Description and Budget Item Justification

The Protected Tactical Satellite Communications (PTS) program is employing a multi-phase strategy to progressively and incrementally deploy prototypes with residual capabilities demonstrated in an operational environment. For the initial PTS Prototype (PTS-P) phase, USSF is utilizing FY 2016 National Defense Authorization Act (NDAA), Middle Tier of Acquisition (MTA) for Rapid Prototyping (RP) authority and Section 815, Other Transaction Authority (OTA), to achieve an affordable, rapid, operational capability for the tactical warfighter. These prototyping payloads (PTS-P) demonstrate innovative Anti-Jam (AJ) technologies with modular and scalable payloads to meet validated military needs for protected tactical communications. This includes technical baseline development, systems engineering trade analyses, internal/external system integration and development, candidate system architecture evaluations, risk reduction demonstrations, prototyping concepts development, system testing, and enabling technologies maturation. The PTS-P projects have successfully completed delivery of prototype payloads meeting program objectives and transitioned to the PTS-R/P Major Capability Acquisition pathway in 2024. Launch, on-orbit checkout, and test/training utilization of the PTS-P payloads is ongoing. The Enhanced PTS-P is an MTA-RP additional effort continuing the strategy to rapidly deliver incremental capability, accelerating Initial Operational Capability (IOC)-like delivery by two years with purpose-built "hub in space" satellites utilizing full signal processing and switching capability allowing direct connectivity between users.

The PTS-Resilient (PTS-R) project will follow Enhanced PTS- P in FY28 and is intended to be a Program of Record to provide the full PTS-R CDD capability for the PTS Family of Systems (FoS), adding additional AJ and resiliency capability and further connectivity to the Protected Tactical Enterprise Service (PTES) ground segment. In a June 2025 ADM the milestone decision authority directed the program to cancel PTS-R source selection and rapidly acquire a PTS-P with enhancements as an incremental step towards the full operational capability of PTS-R. PTS-R EMD start is deferred until FY28. Pivoting effort to develop and deliver PTS capability to the Enhanced PTS-P thrust beginning in FY26.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: PTS Prototype Design and Development	68.615	24.810	79.027

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206761SF / <i>Protected Tactical Service (PTS)</i>		Project (Number/Name) 643728 / <i>Protected Tactical SATCOM</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Description: Rapid prototyping of the PTS Space Segment for two PTS-P payloads and bus C2 development/upgrades at the operating centers for the Ground Segment. Develop, demonstrate, test, and evaluate PTS hardware/software systems and key system components. Design and develop modular, scalable payloads to support hosted or free-flyer configurations. Includes integration to host vehicle or purchase of - and integration to - a bus for free-flier configuration. Demonstrate prototype payload on-orbit performance. Evaluate PTS concept of operations with user participation and enable early use capability opportunities for warfighters. Mature and validate user requirements. Support development, risk reduction, and integration efforts to launch two prototype payloads in early FY 2027, one as a hosted payload and one as a free flyer. FY 2026 Plans: Complete both hosted payload and free flyer PTS prototype payload readiness and space vehicle to launch vehicle integration in preparation for launch in early FY2027. Continue to mature technology readiness levels of the system's critical technology elements. Rapidly respond to implement system resiliency and situational awareness necessary to demonstrate and test in the contested space domain. Other activities include program office support, studies, technical analysis, experimentation, risk reduction, and efforts that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. Identify and begin implementation of prototype modifications required to enable early operational use of the prototype payloads. FY 2027 Plans: Complete free flyer PTS prototype space vehicle to launch vehicle integration and provide launch support activities. Support satellite initial checkout for both PTS prototype vehicles and complete all post-launch On-Orbit Demonstration and Test (OODT) activities and support. Continue supporting existing PTS-P payloads with payload software and ground maturation, continue integration and testing, develop training materials, and support operational testing to enable early operational use opportunities of all PTS-P prototypes. FY 2026 to FY 2027 Increase/Decrease Statement: Increase due to launch, on-orbit and OODT activities for both PTS hosted payload and free-flyer prototypes.					
Title: PTS Resilient Description: FY2025 was rescinded 153.000M and is not reflected in this budget documentation. FY 2026 Plans: N/A FY 2027 Plans:			153.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206761SF / <i>Protected Tactical Service (PTS)</i>	Project (Number/Name) 643728 / <i>Protected Tactical SATCOM</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
N/A			
FY 2026 to FY 2027 Increase/Decrease Statement: N/A			
Title: Enhanced PTS-Prototype Description: Rapid prototyping of additional PTS-P payload and bus with enhanced capabilities. Effort includes additional C2 development/upgrades at the operating centers for the Ground Segment. Develop, demonstrate, test, and evaluate PTS hardware/software systems and key system components. Design and develop a modular, scalable, and enhanced payload for a free-flyer configuration with purchase and integration to a bus. Demonstrate prototype payload on-orbit performance. Evaluate PTS concept of operations with user participation and enable early use capability opportunities for warfighters. Mature and validate user requirements. Support development, risk reduction, and integration efforts to launch enhanced prototype space vehicle in FY 2029. FY 2026 Plans: Initiate an additional rapid space payload prototype development effort that enhances an existing PTS-P design with operationally critical and/or technologically low risk enhancements to incrementally deliver rapid anti-jamming capabilities to the warfighter. Conduct a tailored Systems Requirement Review (SRR) and delta Preliminary Design Review (PDR). Prepare and lay groundwork to conduct a Critical Design Review (CDR) in early FY27. Develop the delivery plan of the additional prototype space vehicle and continue the incremental technology maturation and risk reduction effort from the initial PTS prototypes to enable a future cost-controlled PTS-R acquisition. Initiate the order of long lead parts as a key indicator of commitment from both the satellite contractor and government to execute an aggressive RP schedule. FY 2027 Plans: Continue the development of the PTS-P Enhanced space vehicle. Conduct a CDR event for the space vehicle leveraging previous PTS-P technology maturation. Initiate the manufacturing, build, and test phase of the satellite development by building both payload and bus components and begin integration with long lead items. Conduct modeling and simulation activities on software and hardware development using PTS-P testbed infrastructure to inform early integration and test activities. Initiate space vehicle to ground modifications to integrate with enterprise systems. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement:		28.684	127.272
			166.256

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)	Project (Number/Name) 643728 / Protected Tactical SATCOM		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Increase due to significant design review activity with CDR, initiation of space vehicle manufacturing, build, and test phase of the Enhanced PTS-P development and increased ground system integration activities.				
Title: PTS-P/R Space Hub End Cryptographic Unit (ECU) Description: Develop National Security Agency (NSA) certified, space-flight qualified, production-ready Space Hub ECUs for integration with the PTS payloads. Conduct and design development to alleviate critical path risks to the launch of PTS payloads. Conduct requirements reviews, functional and design reviews, PTS interface development, Interface Control Document (ICD) coordination, and payload integration with PTS vendors. FY 2026 Plans: Initiate the NSA engineering change process for Enhanced PTS-P ECUs and support the NSA delta certification process. Update ECU parts obsolescence to support the Enhanced PTS-P development and build. Develop ECU engineering development models for FY27 delivery to payload provider to support early integration and testing. FY 2027 Plans: Conclude development of Enhanced PTS-P ECU. Complete key documentation for NSA certification and advance through critical stages of the process. Conduct quick-action troubleshooting and deficiency resolution for PTS-P ECU contractor during on-orbit demonstration and test (OODT) activities for PTS prototypes. Finalize ECU engineering development models and deliver to payload provider to support early integration and testing. Deliver a new software version to resolve discrepancies identified in SHIELD prototypes. Complete an updated computer board for production representative assemblies and incorporate changes to address parts obsolescence. Conduct various testing for elements such as TEMPEST, environmental, and electromagnetic interface. FY 2026 to FY 2027 Increase/Decrease Statement: Decrease due to completion of software development and ECU obsolescence design.		12.564	11.302	9.93
Title: PTS-P/R Ground Development Description: Develops and incorporates key components of the PTS-P/R ground system or Protected Tactical Enterprise Service (PTES) Mission planning and Key Management, namely the Mission Management System and Key Management System (MMS/KMS) modifications. Integrates and updates program ground capability to plan and manage PTS-P/R, the associated cryptographic material, and the SATCOM links enabling them to route and manage secure communication. Develops and incorporates MMS modifications and capability with the WGS program ground segment for shared resource planning and management (i.e., Common Network Planning Software (CNPS) and Wideband SATCOM Trend Analysis and Anomaly Resolution System (WSTARS)). FY 2026 Plans:		4.435	10.172	16.273

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026			
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)	Project (Number/Name) 643728 / Protected Tactical SATCOM		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027	
Continue integration efforts for PTS-P and Enhanced PTS-P to leverage the PTES MMS & KMS simulators and the Aerospace Offline Planning Tool to support PTS-P payload and ground integration and test for PTS contractors. Finalize the functional requirements to the PTES MMS that will be modified to support mission planning and management for PTS-P (i.e., the requirements for the PTES MMS enterprise requirement document and scope of a potential offline planning tool for interim operational early use). Plan testing activities such as test scenarios, comm plans, and success criteria for the FY27 PTS-P on-orbit demonstration and test (OODT). Begin procurement of PTES interface tools from PTES prime contractor. FY 2027 Plans: Support the OODT of both PTS-P payloads that launch in FY26. Perform bulk of the development of PTES interface tools by the PTES prime contractor. As PTES interface tools mature, transition PTS-Prototypes from simulators and offline planning tool that enabled manual mission management during OODT activities. Initiate integration efforts for PTS-P and Enhanced PTS-P to leverage the PTES MMS & KMS capabilities to enable autonomous mission management using NSA certified cryptological keys. Plan testing activities to validate the successful PTS-P MMS transfer and integration onto the PTES baseline. Incorporate MMS & KMS changes found in PTES Integration and Test and review effectivity for Enhanced PTS-P ground development efforts. FY 2026 to FY 2027 Increase/Decrease Statement: Increase due to intensive PTES development to support PTS-P integration starting in late FY26 and continuing through FY27.					
Title: PTS-P Gateway Development Description: Develop the Gateway Segment, also called PTS Ground Entry Terminal-Prototype (PGET-P), for integration with the PTS system. Conduct requirements reviews, functional and design reviews, PTS interface development, and Interface Control Document (ICD) coordination, and integration with each PTS-P payload and Protected Tactical Waveform (PTW) modems (i.e. Air Force-Army Anti-Jam Modem and Navy Wideband Anti-Jam Modem System). FY 2026 Plans: Continue support to the PTS-P payload integration and test. Complete PGET-P integration and pre-launch systems checkout at test sites. Prepare OCONUS sites for relocation and installation of PGET-P to include site survey, establish Memorandum of Agreement, and coordinate with civil engineering. FY 2027 Plans: Relocate two PGET-Ps from test site to OCONUS sites. Complete PGET-P operation checkup and integration with PTS-P payload. Procure two additional PGETs including antennas and a digital core for the Enhanced PTS-P space vehicle. Complete PGET-P integration and test with available modems (one A3M and possibly one WAMS if available for each PGET-P). Support		9.346	4.815	9.916	

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206761SF / <i>Protected Tactical Service (PTS)</i>	Project (Number/Name) 643728 / <i>Protected Tactical SATCOM</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Enhanced PTS-P early integration tests. Prepare ground locations for PGET installation to be utilized by the Enhanced PTS-P space vehicle at multiple OCONUS operational sites.			
FY 2026 to FY 2027 Increase/Decrease Statement: Increase due to procurement of two additional PGETs in support of Enhanced PTS-P.			
Title: Protected Tactical Testbed		23.536	8.609
Description: The Protected Tactical Waveform Testbed is the government's gold standard reference for Protected Tactical Waveform (PTW) and Key Management System (KMS) within the Protected Tactical SATCOM (PTS) family of systems. Deployed across government, industry, and FFRDC facilities, it supports PTW development across space, ground, and user terminal modem segments, including PTS Prototype and Resilient Programs. It enables early interoperability checks and reduces integration risks among all segments developed by other DoW Services and Agencies. The PTW Testbed also supports on-orbit testing, system demonstrations, and operational maturation.			
FY 2026 Plans: Continue developing, enhancing, and integrating the PTW Testbed with ground and user terminal modem segments to support multi-Service testing, fielding, and early operations of PTS users, ensuring synchronization among all segments. Deploy, support, and maintain PTW Testbed instances across industry, government, and FFRDC facilities to aid in the development, integration, and ground testing of the PTS-Prototype system in preparation for launch. Support Enhanced PTS-P technical design reviews(delta PDR) and planned progress demonstrations to reduce integration risks. Distribute Testbed software and hardware updates to industry and government users to support development and integration of PTW-enabled user terminal modems for commercial constellations in both GEO and MEO orbits, aligning with Force Design objectives. Continue advancing PTW and the PTW Testbed through ongoing development, testing, and exploration of new capabilities and features to keep pace with threat. Fulfill PTW Lead Service duties to ensure PTW supports the DoW tactical needs, including verifying PTW modem interoperability with the joint force and international partners. Leverage the Protected Tactical Waveform (PTW) Testbed in outreach efforts with coalition partners and emerging users, demonstrating core capabilities using their existing space, ground, and user terminal assets.			
FY 2027 Plans: Continue developing, enhancing, and integrating the PTW Testbed across hub and terminal segments to support multi-Service testing, fielding, and early operations of Protected Tactical Waveform (PTW) over DoW and commercial constellations in GEO, MEO, and HEO orbits and to ensure compatibility and interoperability among all segments. Continue to develop the PTW Testbed's Key Management System (KMS) prototype to support of the development and integration of the operational PTW KMS across all segments. Deploy, support, and maintain PTW Testbed instances across industry, government, and FFRDC facilities. Distribute software and hardware updates to PTW Testbed instances to keep PTW Testbed users aligned with the PTW technical			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206761SF / <i>Protected Tactical Service (PTS)</i>	Project (Number/Name) 643728 / <i>Protected Tactical SATCOM</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
baseline. Continue supporting the PTW Testbed's development and integration with segments of the PTS-Prototype system in support of on-orbit demonstrations, testing, and operationalization. Support the Enhanced PTS-P system's technical design reviews, development, testing, integration, and demonstrations. Develop, deploy, and support Temporary Operational Prototype Hub (TOPHu) instances of the PTW Testbed for a limited set of early PTW users. Continue advancing the PTW technical baseline and the PTW Testbed through ongoing research, analysis, development, testing, and exploration of new capabilities and features to keep pace with threats and user missions. Fulfill PTW Lead Service duties to ensure PTW supports the DoW tactical needs, including verifying PTW modem interoperability with the joint force and international partners. Leverage the PTW Testbed in outreach efforts with coalition partners and emerging users to demonstrating core capabilities using their existing space, ground, and user terminal assets. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> Decrease due to realignment of engineering reviews which reduced direct testbed costs to PTS-R.			
<i>Title:</i> Technical Baseline Management, System Integration and Test Support <i>Description:</i> Perform as Government system integrator function through acquiring, designing, testing, and integrating key segments and interfaces. Mature technical baseline and interface requirements for the system. Conduct architectural engineering and system level integration planning to support the Space, Ground, and Gateway Segments. Support, configure, and conduct integrated testing of the major PTS subsystems, segments, and end-to-end system, to include supporting testing conducted by the 96th Test Wing (TW). Manage the PTS open system architecture, refine interface requirements, and validate concept of operations through integrated system performance demonstrations. <i>FY 2026 Plans:</i> Continue to manage and test key system interfaces for PTS Ground, Space, and Gateway Segments as well as tactical SATCOM family of systems ground and terminal segments to reduce integration risks. Continue to provide SV integration and test support for two PTS prototype payloads. Support contracting modification efforts to enable early use operations for the prototype payloads. Define the technical baseline and interface requirements for the Enhanced PTS-P payload. Continue interface tests between the PTS prototype and emulators/simulators to reduce risk to protected tactical family of systems level integration with PTES. Support launch integration activities, to include SV to LV coordination for two PTS-P payloads, for the FY27 launch of both prototypes. <i>FY 2027 Plans:</i> Continue to manage and test key system interfaces for PTS Ground, Space, and Gateway Segments as well as tactical SATCOM family of systems ground and terminal segments to reduce integration risks. Complete launch integration activities to include SV to LV coordination for the two PTS-P payloads. Continue to provide test support for two PTS prototype payloads while performing the necessary technical modifications to obtain early use. Continue to provide integration and test planning for Enhanced PTS-P.		7.883	4.895
			9.931

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206761SF / <i>Protected Tactical Service (PTS)</i>	Project (Number/Name) 643728 / <i>Protected Tactical SATCOM</i>		
B. Accomplishments/Planned Programs (\$ in Millions) Continue interface tests between the PTS prototype and emulators/simulators to reduce risk to protected tactical family of systems level integration with PTES. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> Increase due to delay of PTS-P launches to FY27 and increased effort to support Enhanced PTS-P development and test.		FY 2025	FY 2026	FY 2027
Accomplishments/Planned Programs Subtotals		308.063	191.875	299.073
C. Other Program Funding Summary (\$ in Millions) N/A Remarks This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.				
D. Acquisition Strategy The PTS team utilizes the FY 2016 NDAA MTA guidance for Rapid Prototyping/Rapid Fielding and Section 815 OTA guidance in developing the acquisition strategy. This strategy places an emphasis on the rapid prototyping, production, and incremental iteration of PTS capability. This strategy takes the form of a series of successively honed and tailored spirals, focusing on payload development and hosting opportunities and incorporating lessons learned from Milstar, Enhanced Polar System (EPS), EPS-Recapitalization (EPS-R), AEHF, Protected Tactical Enterprise Service (PTES), and commercial SATCOM practices. The program was initiated in June 2019 when the Space Hub ECU was competitively awarded as a Cost-Plus Incentive-Fee (CPIF) contract to L3-Harris under the Space Enterprise Consortium (SpEC) using OTA. For the Space Segment, PTS-P development of payloads 1-2 were competitively awarded as Firm-Fixed Price (FFP) contracts under the SpEC using OTA to NGC, Lockheed Martin, and Boeing. After completion of the prototype payload Preliminary Design Review (PDR) phase in March 2020, Boeing and NGC were selected to continue building their payloads for launch. Additionally, the Ground Segment (MMS/KMS upgrades) efficiently leverages Boeing's existing PTES contract (competitively awarded CPIF development contract) for PTES software updates and contracts with the US Army Project Management Integrated Enterprise Network (PM IEN) for modifications of WGS MMS. The Gateway Segment leverages agreements with the Naval Information Warfare Center (NIWC), PdM SATCOM (US Army), and MIT/LL. The 96th TW supports testing and initial operations and JSEC executes and enables critical testing activities for prototype payload contractors. On 4 Oct 2023, the Assistant Secretary of the Air Force for Space Acquisitions and Integration, approved the PTS-R acquisition strategy to award Space, Ground and Gateway Segment development efforts required for the Technology Maturation and Risk Reduction (TMRR) phase. On 13 June 2024, the PTS-P Middle Tier Acquisition activity transitioned into PTS-R Major Capability Acquisition ACAT I, pre-Milestone B program in the Technology Maturation and Risk Reduction (TMRR) acquisition phase.				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)	Project (Number/Name) 643728 / Protected Tactical SATCOM
The Enhanced PTS-P effort will use a FAR Part 15 Firm-Fixed Price contract with derived sole source authority as a follow-on to the successfully completed PTS-P OT projects.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)				Project (Number/Name) 643728 / Protected Tactical SATCOM					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PTS-P Development (Hosted)	C/FFP	Boeing : El Segundo, CA	-	24.747	May 2025	20.000	Jul 2026	24.260	Oct 2026	-		24.260	Continuing	Continuing	-
PTS-P Development (Free-Flyer)	C/FFP	Northrop Grumman : Redondo Beach, CA	-	24.243	May 2025	0.000	Jan 2026	30.000	Oct 2026	-		30.000	Continuing	Continuing	-
Enhanced PTS-P	C/TBD	TBD : TBD	-	20.480	May 2026	102.598	May 2026	144.756	Oct 2026	-		144.756	Continuing	Continuing	-
PTS Resilient	TBD	TBD : TBD	-	153.000	Oct 2025	0.000		0.000		-		0.000	Continuing	Continuing	-
Space Hub End Cryptographic Unit (ECU)	C/CPAF	L3Harris East : Camden, NJ	-	8.970	Sep 2025	7.651	Oct 2025	7.123	Oct 2026	-		7.123	Continuing	Continuing	-
NSA (ECU Support)	MIPR	NSA : Ft. Meade, MD	-	0.000	May 2025	1.460	Oct 2025	1.500	Oct 2026	-		1.500	Continuing	Continuing	-
PTS-P Ground Segment Development - CNPS/ WSTARS; MMS/KMS	MIPR	DITCO : Scott AFB,, IL	-	3.167	Mar 2025	8.200	Jul 2026	14.130	Oct 2026	-		14.130	Continuing	Continuing	-
PTS-P Gateway Segment Development	Various	Various : Various	-	6.673	May 2025	3.881	Oct 2025	8.610	Oct 2026	-		8.610	Continuing	Continuing	-
Protected Tactical Testbed	TBD	Various : Various	-	13.304	Feb 2025	4.000	Oct 2025	3.780	Oct 2026	-		3.780	Continuing	Continuing	-
JSEC (Protected Tactical Testbed Support)	MIPR	C5ISR : Aberdeen, MD	-	3.500	May 2025	2.940	Oct 2025	2.940	Oct 2026	-		2.940	Continuing	Continuing	-
Technical Baseline Management and System Integration Test Support	Various	Various : Various	-	5.628	Feb 2025	3.946	Oct 2025	8.623	Oct 2026	-		8.623	Continuing	Continuing	-
Technical Mission Analysis (TMA)	Various	Various : Various	-	15.077	Nov 2024	13.281	Nov 2025	11.480	Nov 2026	-		11.480	Continuing	Continuing	-
Enterprise SE&I	C/CPIF	Linquest : El Segundo, CA	-	13.546	Jan 2025	15.168	Nov 2025	18.096	Nov 2026	-		18.096	Continuing	Continuing	-
SBIR/STTR	Allot	Not Specified: TBD : Washington, DC	-	0.000		0.000	Oct 2025	16.538	Oct 2026	-		16.538	Continuing	Continuing	-
Subtotal			-	292.335		183.125		291.836		-		291.836	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)						Project (Number/Name) 643728 / Protected Tactical SATCOM			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	Various	Various : Various	-	1.686	Nov 2024	1.431	Nov 2025	1.267	Nov 2026	-		1.267	Continuing	Continuing	-
A&AS	Various	Various : Various	-	13.892	Feb 2025	7.169	Nov 2025	5.820	Nov 2026	-		5.820	Continuing	Continuing	-
Other Support	Various	Various : Various	-	0.150	Dec 2024	0.150	Dec 2025	0.150	Nov 2026	-		0.150	Continuing	Continuing	-
Subtotal			-	15.728		8.750		7.237		-		7.237	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	308.063		191.875		299.073		-		299.073	Continuing	Continuing	N/A
Remarks															
FY2025 was rescinded 153.000M and is not reflected in this budget documentation; due to PTS-R EMD delay/excess to need.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026	
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)					Project (Number/Name) 643728 / Protected Tactical SATCOM	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>PTS-P Design, Development, I&T</i>																												
PTS-P Payload Design and Development																												
PTS-P SV I&T																												
PTS-P 1 Available for Launch (Hosted)																												
PTS-P 2 Available for Launch (Free-Flyer)																												
PTS-P Launch and Operations																												
<i>Enhanced PTS-P</i>																												
Enhanced PTS-P																												
<i>PTS-P/R Space Hub End Cryptographic Unit (ECU)</i>																												
PTS-P ECU Design/Certification																												
PTS-R ECU Design/Certification																												
<i>PTS-P Ground Segment Development</i>																												
PTS-P MMS/CNPS Studies																												
<i>PTS-P Gateway Segment Development</i>																												
PTS-P PGET-P Development																												
PTS-P PGET-P I&T at test support sites																												
PTS-P PGET-P OODT & Ops support																												
<i>PTS Resilient</i>																												
PTS-R Acquisition Planning																												
PTS-R ATP (contract award)																												
PTS-R Design and Development																												
PTS-R SV I&T																												
PTS-R Ground Development																												
PTS-R Gateway Development																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																								Date: April 2026													
Appropriation/Budget Activity 3620F / 4										R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)										Project (Number/Name) 643728 / Protected Tactical SATCOM																	
										FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Technical Baseline Management and Test																																					
System Integration Test Support/Protected Tactical Testbed																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)	Project (Number/Name) 643728 / Protected Tactical SATCOM	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>PTS-P Design, Development, I&T</i>				
PTS-P Payload Design and Development	1	2025	1	2026
PTS-P SV I&T	1	2026	3	2026
PTS-P 1 Available for Launch (Hosted)	4	2026	4	2026
PTS-P 2 Available for Launch (Free-Flyer)	4	2026	1	2027
PTS-P Launch and Operations	1	2027	4	2031
<i>Enhanced PTS-P</i>				
Enhanced PTS-P	2	2026	2	2031
<i>PTS-P/R Space Hub End Cryptographic Unit (ECU)</i>				
PTS-P ECU Design/Certification	1	2025	4	2027
PTS-R ECU Design/Certification	4	2025	2	2029
<i>PTS-P Ground Segment Development</i>				
PTS-P MMS/CNPS Studies	1	2025	4	2029
<i>PTS-P Gateway Segment Development</i>				
PTS-P PGET-P Development	1	2025	3	2025
PTS-P PGET-P I&T at test support sites	2	2025	1	2027
PTS-P PGET-P OODT & Ops support	1	2027	4	2031
<i>PTS Resilient</i>				
PTS-R Acquisition Planning	2	2027	3	2028
PTS-R ATP (contract award)	3	2028	3	2028
PTS-R Design and Development	3	2028	1	2030
PTS-R SV I&T	2	2030	4	2031

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026	
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206761SF / Protected Tactical Service (PTS)	Project (Number/Name) 643728 / Protected Tactical SATCOM		
	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
PTS-R Ground Development	3	2028	4	2031
PTS-R Gateway Development	3	2028	4	2031
Technical Baseline Management and Test				
System Integration Test Support/Protected Tactical Testbed	1	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					R-1 Program Element (Number/Name) PE 1206855SF I Evolved Strategic SATCOM (ESS)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	876.055	1,111.595	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,987.650
643725: Evolved Strategic SATCOM (ESS)	0.000	876.055	1,111.595	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1,987.650
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

ESS is the backbone for Joint All Domain Nuclear Command, Control and Communications (NC3). The system will replace Advanced Extremely High Frequency (AEHF) Strategic Satellite Communications (SATCOM) services to provide global, integrated, survivable, resilient, and dynamic ground and satellite communications for assured strategic capabilities across the conflict continuum. The ESS program underwent a resiliency architecture shift to address emerging sophisticated threats and to ensure strategic SATCOM capabilities are available to the National Command Authority (NCA), Combatant Commanders, and joint warfighters in any potential future conflict. ESS will provide the only arctic DoW strategic communication capability across the joint enterprise, and will provide worldwide secure, jam-resistant communications for strategic ground, sea, and air assets. ESS will support existing strategic user terminals in all operational environments.

ESS is acquired and developed in several parallel efforts to accelerate delivery of capability to warfighters by the strategic need date in FY 2032. The ESS System includes a Space Segment (ACAT-I), Ground, User, and Integration Segment (ACAT-I equiv), and a Crypto Segment (ACAT-III). The Space Segment is a Major Capability Acquisition (MCA) program in the Engineering Manufacturing and Development (EMD) phase. The Ground Segment, also known as GRIFFON - Ground Resilient Integration & Framework for Operational NC3, is comprised of the Ground Integration and Framework (GIF), System of Systems Integration (SoSI), and Mission Software Applications. This enables a resilient and modular cybersecure architecture that bridges the gap between modern software practices and legacy user terminal capability. The GIF/SoSI and Mission Planning Software efforts are leveraging the Software Acquisition Pathway Other Transactional Authorities for rapid prototyping of ground software. The ESS Ground Framework creates cybersecure software development, integration, and operational environments utilizing agile Modular Open Systems Approach (MOSA) principles and onboards hosted external mission applications and services. SoSI ensures all ESS segments that are acquired in parallel, in addition to external entities, work together to accomplish the mission. Additional mission-unique capabilities, like In-Band Command and Control (C2); Out-of-Band C2; Mission Planning; Test, Evaluation, and Training; and other similar mission capabilities will be acquired modularly as applications that will be hosted on the ESS Ground Framework. The Crypto Segment is focused on the development, integration and testing of National Security Agency (NSA)-certified End-Cryptographic Units (ECUs) and modernization of the Protected Key Management Architecture (PKMA), that are both required for secure strategic communications encryption in the ESS payloads, bus, and test terminals.

The modular acquisition approach allows the program to avoid "vendor lock" in all segments and creates opportunities for industry competition and teaming with small innovative non-traditional partners for the Ground Segment using the Space Enterprise Consortium (SpEC) Other Transactional Authority (OTA). SpEC requires ESS ground segment primary contractors that are developing software to utilize small businesses for a significant portion of the prototyping work, allowing the program to integrate innovative practices, increase agility, and reduce costs and development lifecycles, while also expanding the resilient and strategic SATCOM capabilities.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>
The ESS system adheres to NC3 classification requirements. ESS will meet the requirements for strategic communications and capability gaps identified in the Protected Satellite Communications Services (PSCS) Analysis of Alternatives (AoA), the PSCS AoA Follow-on for Resiliency (PAFR) Study and the Strategic Tiger Team. The ESS architecture and functionality will be designed in accordance with the United States Space Command's signed ESS Concept of Operations and the Joint Requirements Oversight Council's validated Capability Development Document (CDD) satisfying the legacy Advanced Extremely High Frequency (AEHF) strategic requirements and mission performance with enhancements for increased resiliency and cybersecurity. The ESS system will satisfy emerging requirements using modular open system approaches to support incremental enhancements. This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Space Force investment program interdependencies include: RDT&E Budget Line Items: Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); Narrowband Satellite Communications (1203109SF); Protected Tactical Enterprise Service (1206760SF); Protected Tactical Service (1206761SF); Space Tech Development & Prototyping (1206410SF); Tech Transition (Space) (1206458SF); Wideband Global SATCOM (SPACE) (1206433SF); Data Transport and Networking (1203156SF); Space Data Network (1203636SF); and elements of Procurement Budget Line Items: Family of Beyond Line-of-Sight Terminals (FBLOST); Mobile User Objective System (MUOS00); MILSATCOM (MILSAT); Wideband SATCOM Operational Management Systems (WSOMS0); Auxiliary Payloads (AUX000); Proliferated Low Earth Orbit SATCOM (PLEO00); PTES HUB (PTES00); ESS (ESS000) This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D. This program element may include necessary civilian pay expenses required to manage, execute, and deliver ESS weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF, 1206398SF. This effort will transition to Budget Activity 5 (Projects 650014 and 650015) in FY 2027. This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 1206855SF I Evolved Strategic SATCOM (ESS)				
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	
Previous President's Budget	918.581	1,229.929	0.000	0.000	0.000	
Current President's Budget	876.055	1,111.595	0.000	0.000	0.000	
Total Adjustments	-42.526	-118.334	0.000	0.000	0.000	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	0.000	-100.900				
• Congressional Rescissions	0.000	0.000				
• Congressional Adds	0.000	0.000				
• Congressional Directed Transfers	0.000	0.000				
• Reprogrammings	0.000	0.000				
• SBIR/STTR Transfer	-30.259	-17.434				
• Other Adjustments	-12.267	0.000	0.000	0.000	0.000	
Change Summary Explanation						
Strategic Changes:						
FY 2025: -\$12.267M Omnibus source due to Space Segment contract delays.						
Technical Changes:						
FY 2026: -\$100.900M Congressional Directed Reduction for: -\$90.0M Space Segment excess to need. -\$10.9M C2 contract delays.						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Space Segment Prototyping				123.688	0.000	0.000
Description: Invest in technology and demonstrations that enable continued development of a modernized, strategic payload and other key technology prototypes, risk reduction, and space segment design utilizing competitive rapid-prototyping contracts. Enables long-term return on investment through an energized Strategic SATCOM industrial base, increased competition, promotion of innovation by driving diverse designs, and increased resiliency. Actively manage contractors through prototyping, demonstration and requirements/criteria needed for contractors to competitively bid on the ESS space segment Build, Integration and Test (I&T) and Delivery follow-on.						
FY 2026 Plans:						
N/A - Space Segment Prototyping completed in FY 2025						
FY 2027 Plans:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1206855SF I Evolved Strategic SATCOM (ESS)		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
N/A - Space Segment Prototyping completed in FY 2025				
Title: Space Development and Production Description: Space Development and Production builds upon the 4+ Years of Space Segment Prototyping and delivers the next generation of NC3 Strategic SATCOM to the warfighter. The ESS Space Development and Production contract will design, develop, build, test, and deliver resilient, cybersecure space vehicles that ensure communications through all warfighting environments. This effort will initiate the non-recurring engineering for the development and production of Space Vehicles 1- 4 in order to achieve IOC by 2032 and continuing through FOC FY 2026 Plans: Continue significant Non-Recurring Engineering (NRE) activities covering essential engineering, process documents, and building engineering models of flight hardware to lead up to a unit and system level critical design reviews (CDRs) in FY 2027. Additional NRE activities include developing and integrating auxiliary payloads, designing the ESS Payload Emulator and supporting SoSI activities with the ESS ground and crypto vendors. ESS is an extremely complex system of systems. The ESS space, ground, and crypto vendors will need to collaborate further to update and refine interface control documents, communication protocols, and software imaging formats. The program will procure additional critical hardware items necessary for the build and test of space vehicles (SVs) 1 and 2. The ESS SV vendor will continue developmental test activities with a crypto engineering development model (EDM) to reduce integration risk with the payload ECU. This activity will enable the successful integration of ESS crypto production representative articles (PRAs) in FY 2026. The ESS program will also continue software development for the payload and bus flight software and continue building digital twins to support the ESS digital engineering ecosystem. The digital engineering ecosystem is critical for design and integration risk reduction activities prior to building ESS space vehicles. Ancillary activities will involve starting or continuing special studies for survivability, resiliency, risk reduction, and architectural trades. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. Space Development and Production transitioned to BA 05 Project 650014 in FY 2027 FY 2027 Plans:		506.082	640.001	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
N/A - Space Development and Production transitioned to BA 05 Project 650014 in FY 2027				
FY 2026 to FY 2027 Increase/Decrease Statement:				
N/A - Space Development and Production transitioned to BA 05 Project 650014 in FY 2027				
Title: Ground Resilient Integration & Framework for Operational NC3 (GRIFFON) Description: GRIFFON is the Ground Segment solution for ESS. It includes the ESS Ground Integration and Framework (GIF), System of Systems Integration (SoSI), and software application development efforts. GRIFFON software applications include mission planning, command and control (both in-band and out-of-band) along with other architecture activities required to support the ESS Space Segment, system operators, strategic users, and Combatant Commands (COCOMs). FY 2026 Plans: The GRIFFON program will continue within the Execution Phase of the Software Acquisition Pathway and will begin a critical year for integration and testing across the entire ESS architecture, to include all Ground software applications, framework, and test sites. Continue Maturation of the ESS ground framework and integration prototype. The GIF/SoSI vendor will define and develop the Ground Assembly, Integration, and Test (Ground AI&T) minimum viable product (MVP) and run the integration test with all ESS vendors and system capabilities in FY 2026, with a projected exit of Ground AI&T in FY 2027. The Ground AI&T milestone will be the defining event that will encapsulate, integrate, and test all of ESS Ground's individual software applications and capabilities into the system architecture. The Ground AI&T milestone is the first integration test on the road to Initial Operational Capability (IOC), immediately preceding the next integration milestone testing of System AI&T in FY 2028. System AI&T will include testing Ground with the Space, Crypto, and Terminal segments, and will ensure that the system is interoperable and capable to enter into integrated launch testing. The Mission Planning prototype will be down-selected from two to one vendor and then will be integrated with the space, crypto, terminal, and ground framework segments. The Mission Planning prototype will then begin integrating with operational users and building test and training applications with the GIF/SoSI vendor. All integration issues found during Ground AI&T testing will be fixed in FY 2026 in an agile ramp up to ensure software is mission capable upon exit of Ground AI&T in FY 2027. The Out-of-Band Command and Control (OOB-C2) software application vendors will begin modernization of the legacy software to integrate with the Ground framework.		226.745	408.641	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
The In-Band Command and Control (IB-C2) software application will begin development and testing with the Ground Framework and other mission applications. IB-C2 will begin integration efforts and testing in an operationally relevant environment. The ESS C2 Terminals will be modernized for cryptographic, cybersecurity, resiliency, survivability, and interoperability requirements, necessary to support ESS and meet critical ground segment, space segment, and systems integration need dates. ESS must enter Ground Assembly, Integration and Test in FY 2026 to meet the USSTRATCOM threat-driven strategic need date by FY 2032. The production and fielding effort for C2 terminals is broken out into launch readiness, IOC requirements, and FOC requirements, to ensure the right terminals are fielded just in time for each of those milestones. While this effort may have begun in FY 2025, it will continue in FY 2026 with production of first articles required for launch readiness. Continue technology maturation of multiple GRIFFON prototype demonstration contracts that will conclude with a successful exit of Ground AI&T in FY 2027. Interoperability testing and integration patches will be developed in an agile DevSecOps pipeline to also ensure cyber resilience is a part of delivered software. Resilient technology studies will ensure the fielded system addresses current threat scenarios for endurance capability, command and control, mission control, and user terminal interface. Fund prototype technology maturation, system integration, and Ground AI&T testing in order to ensure an integrated, interoperable, secure software framework and cyber secure software delivery pipeline, software applications, and user interfaces with the enterprise community. Further mature a development, security, and operations (DevSecOps) pipeline for software vendors to test their applications on the ground framework to conduct end-to-end integration testing. Conduct early integration testing at government sites. Maintain user agreements with operational sites outlining deliveries and key milestones to ensure system functionality by FY 2029, prior to the first ESS space launch. Conduct integration testing and connectivity with Protected SATCOM Key Management Architecture (PKMA) and cryptographic modernization efforts with the NSA. Communicate any necessary modifications to legacy terminal programs to ensure entire integrated system functions within modernized cyber architecture. Continue development activities in support of the ground segment and system/mission integration schedules. GRIFFON transitioned to BA 05 Project 650015 in FY 2027 FY 2027 Plans: N/A - GRIFFON transitioned to BA 05 Project 650015 in FY 2027 FY 2026 to FY 2027 Increase/Decrease Statement:				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1206855SF I Evolved Strategic SATCOM (ESS)		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
N/A - GRIFFON transitioned to BA 05 Project 650015 in FY 2027				
Title: End-Cryptographic Unit (ECU) Description: Develop and deliver the NSA-certified Aerospace Vehicle Equipment (AVE) Production Representative Article (PRA) ECUs (e.g., KG-505) required for secure strategic communications encryption in the ESS Space Vehicle (SV) Bus, and non-flight AVE Engineering Development Model (EDM) ECU (e.g. KI-2200) for SV Payload and Ground Operating Equipment (GOE) EDM ECU (e.g., KG-256) in accordance with the approved ECU acquisition strategy and schedule. Bus AVE PRA ECU units, Payload AVE EDM ECU units, and GOE EDM ECU units will be delivered as government-furnished equipment (GFE) for SV and Strategic Test Terminal (ST2) interoperability and integration testing and validation activities. FY 2026 Plans: Continue the development and National Security Agency (NSA) cybersecurity certification process and procedures for AVE and GOE ECUs for the ESS Strategic Test Terminal (ST2). Upon successful completion of the PDRs and CDRs and development of engineering development models (EDMs) continue to execute AVE and GOE ECU contract through the Engineering and Manufacturing Development (EMD) phase. Develop and build the first ECU production representative articles (PRAs) for the Space Segment vendor to enable the complete manufacturing of an ESS Space Vehicle (SV). Deliver the first PRAs to MIT-LL to support the development of the ST2. Continue to fund CCSD, University Affiliated Research Center (UARC), and Federally Funded Research and Development Center (FFRDC) to provide program office support, planning, GFE, studies, technical analyses and information or resources in conjunction with the ESS Space Development and Production Contract. Continue the development to provide NSA-certified crypto solutions to support Telemetry, Tracking, and Command (TT&C), Mission Data, Transmission Security (TRANSEC), and Communications Security (COMSEC); includes all required cyber, resiliency, and security activities required, as well as Government support for contractor management and oversight. Continue to assist with requirements trades, technical design approaches, threat assessment (e.g., VOLT) and mitigation approaches, and ESS testing assets to include the test terminal. Continue coordination with NSA through the ECU Certification process and modified-PKMA compatible cryptographic key material delivery. Continue activities and start work to modify AEHF-based PKMA and Key Management Infrastructure (KMI) to support ESS development and testing, and ramp up of the KMI services, protocols, and modification work required to be interoperable to fully support all ESS constellation requirements. ECU transitioned to BA 05 Project 650015 in FY 2027 FY 2027 Plans: N/A - ECU transitioned to BA 05 Project 650015 in FY 2027 FY 2026 to FY 2027 Increase/Decrease Statement:		19.540	62.953	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force								Date: April 2026			
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>						R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>					
C. Accomplishments/Planned Programs (\$ in Millions)								FY 2025	FY 2026	FY 2027	
N/A - ECU transitioned to BA 05 Project 650015 in FY 2027											
Accomplishments/Planned Programs Subtotals								876.055	1,111.595	0.000	
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPSF 01 1206855SF: <i>Evolved Strategic SATCOM (ESS)</i>	-	0.000	139.700	-	139.700	461.572	538.645	666.696	650.533	Continuing	Continuing
Remarks											
E. Acquisition Strategy The Milestone Decision Authority (MDA) designated the ESS Space Segment as an FY 2016 National Defense Authorization Act MTA (Rapid Prototyping) activity and approved the ESS acquisition strategy on 14 December 2018. A rapid prototyping phase effectively replaces the Technology Maturation and Risk Reduction phase from a traditional acquisition under Department of War 5000 series Directives and Instructions. The ESS Program Office used this approach to award three Space Segment contracts in late FY 2020 and early FY 2021 that focused on reducing Space Segment risks with the objective of maximizing ESS demonstrated capability for the payload and other key technologies. In FY 2022 the Program Office executed the ESS Prime Pivot Study to provide a more robust and resilient capability to the Joint Warfighter. As a result of the ESS Prime Pivot Study, only the two most promising and lowest risk vendors to reaching the strategic need date had their options executed. The vendors' schedules were further accelerated by executing contract options one year earlier than planned. The ESS vendor termination was risk informed and required to mature technology readiness levels within available funding. The remaining vendors were awarded Engineering Change Proposals (ECP) focused on vendor-specific risk reduction, threat-resilient crosslink technical maturation, satellite processor upgrades, resiliency hosted payload development, and information technology cybersecurity enhancements. In June 2023, the ESS Space Production Acquisition Source Panel (ASP) was approved by the Space Force Service Acquisition Executive (SAE). This ASP finalized key design trades, contract types, and the comprehensive approach to procuring ESS Space vehicles. The ASP highlighted the transition from MTA to MCA, declaring the ESS Space Segment as an ACAT IB entering in Pre-Milestone B. Competition during space prototyping energized the industrial base in strategic SATCOM; injected diverse technical processes and integration approaches; burned down risks as early as possible; and decreased traditional fielding timelines to support a more resilient, responsive architecture against emerging threats. Success during competitive rapid-prototyping informed the follow-on Space Development and Production competition. In June 2025, the SAE approved the Space Segment to transition to Milestone B and ESS awarded the Space Development and Production contract for SV 1-4 on 3 July 2025. The program office will return to the SAE after Space CDR to award the Space Production Follow-on contract for SV 5-7.											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>
GRIFFON is the ground segment solution for ESS, and it includes ESS GIF, SoSI, and Software Application development efforts. The GIF will scope and provide advisory services on the ground system infrastructure to provide a software architecture and support the corresponding software factory. The GIF contractor will provide continual test and delivery services of the DevSecOps pipeline and software from different development and pre-production environments. It will also ensure NC3 compliance. The System Integrator will ensure all ESS segments operate cohesively to deliver interoperable capability. The SoSI will facilitate requirement verification, validation, and sell-off to maintain an authoritative source of truth throughout the system integration process. Mission unique capability will be provided by software applications. In June 2022, the SAE approved the use of Department of War Instruction (DoWI) 5000.87 Software Acquisition Pathway for the GRIFFON Ground Segment. This pathway will be used to design and develop a software-intensive ground system to promote agile software development, control program timelines, cost, and foster innovation that is needed for resilient NC3 systems. The ESS Ground Segment awarded two 18-month competitive contracts in FY 2023 for the GIF and SoSI prototypes. There was a down-select to one Framework and Integration prototype vendor in May 2024. The Strategic Mission Planning Applications were competitively awarded Phase-1 to five contractor teams in September 2024 for a 6-month software demonstration. In April 2025, two of the five prototypes were continued into a 14-month Phase-2 competition. In November 2023, the SAE approved the acquisition strategy for the In-Band C2 software application. The In-Band C2 application was included in the ESS Space RFP and will be completed under that contract. In June 2024, the SAE approved the acquisition strategy for the remainder of the Planning Phase for Mission Planning and Command and Control elements, as well as Phase-2 for GIF/SoSI that will culminate at the finalization of Ground AI&T. In June 2025, the remaining application acquisition strategies were approved by the SAE and the GRIFFON program was approved to transition from the Planning Phase to the Execution Phase of the Software Acquisition Pathway. An ECU acquisition strategy was approved as an ACAT III program by the Program Executive Officer (PEO) in FY 2021. The ESS program office partnered with the Air Force Life Cycle Management Center CCSD for ECU crypto development, both on the space vehicle for payload and bus cryptographic devices and in the test terminal. Using a CCSD-led competitive RFP, a contract for payload and payload test terminal ECU development was awarded in 1st Quarter FY 2024. The program also partners with CCSD and the NSA to modernize and integrate the PKMA for ESS. These activities are critical for reducing technical and integration risks, maturing the design for eventual production, and enabling a smooth transition to Budget Activity 5 for full system production and integration. The program and all pertaining segments shall be transitioning to Budget Activity 5 starting in FY 2027.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)				Project (Number/Name) 643725 / Evolved Strategic SATCOM (ESS)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Segment: Build, I&T and Delivery Follow-on	C/Various	Boeing : El Segundo, CA	-	408.979	May 2025	594.756	Oct 2025	-		-		-	0.000	1,003.735	-
Space Segment: Prototyping Northrop Grumman	SS/FFP	Northrop Grumman : Redondo Beach, CA	-	58.138	Oct 2024	-		-		-		-	0.000	58.138	-
Space Segment: Prototyping Boeing	SS/FFP	Boeing : El Segundo, CA	-	61.550	Oct 2024	-		-		-		-	0.000	61.550	-
GRIFFON: GIF and SoSI Demo Ctr 1	C/FFP	Lockheed Martin : El Segundo, CA	-	17.317	Oct 2024	-		-		-		-	0.000	17.317	-
GRIFFON: GIF and SoSI Follow-on	C/Various	Lockheed Martin/ BAE/ARKA : Waterton, CO	-	77.652	Jan 2025	161.654	Nov 2025	-		-		-	0.000	239.306	-
GRIFFON: Software Applications MP Demo Sphinx Defense/Boeing	C/FPIF	Sphinx Defense/ Boeing : Colorado Springs, CO	-	11.750	Apr 2025	8.754	Nov 2025	-		-		-	0.000	20.504	-
GRIFFON: Software Applications MP Demo Northrop Grumman/ARKA	C/FPIF	Northrop Grumman/ ARKA : Valley Forge, PA	-	14.750	Apr 2025	5.754	Nov 2025	-		-		-	0.000	20.504	-
GRIFFON : Software Applications MP Follow-on	C/TBD	TBD : TBD	-	-		15.000	Jun 2026	-		-		-	0.000	15.000	-
GRIFFON: Ground Resiliency	Various	Various : Various	-	-		16.156	Mar 2026	-		-		-	0.000	16.156	-
GRIFFON: In-Band	C/Various	Boeing : El Segundo, CA	-	10.000	May 2025	21.700	Oct 2025	-		-		-	0.000	31.700	-
GRIFFON: Out-of-Band	SS/FFP	Kratos : Colorado Springs, CO	-	10.000	Mar 2025	12.000	Nov 2025	-		-		-	0.000	22.000	-
GRIFFON: Command and Control (C-2) Terminal Acquisition	SS/ Various	RTX-Collins : Marlborough, MA	-	36.000	Mar 2025	76.812	Nov 2025	-		-		-	0.000	112.812	-
GRIFFON: User Terminal Studies	SS/FFP	RTX-Collins : Marlborough, MA	-	2.400	Feb 2025	-		-		-		-	0.000	2.400	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)				Project (Number/Name) 643725 / Evolved Strategic SATCOM (ESS)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GRIFFON Software Independent Framework Tester (SWIFT)	SS/CPFF	JHU/APL : Laurel, MD	-	3.930	Mar 2025	5.700	Nov 2025	-		-		-	0.000	9.630	-
GRIFFON: IT Upgrades to NC3 cybersecurity Follow-On	C/FFP	GDIT : Falls Church, VA	-	17.000	Mar 2025	16.000	Nov 2025	-		-		-	0.000	33.000	-
CRYPTO: End-Cryptographic Unit (ECU)	C/CPIF	Viasat : Carlsbad, CA	-	14.002	Apr 2025	34.132	Dec 2025	-		-		-	0.000	48.134	-
CRYPTO: PKMA /KMI Modifications	TBD	TBD : TBD	-	0.000	Jun 2025	15.000	Jul 2026	-		-		-	0.000	15.000	-
Test Terminal Development and Support	SS/CPFF	MIT/LL : Lexington, MA	-	14.025	Feb 2025	13.640	Nov 2025	-		-		-	0.000	27.665	-
Acquisition and Mission Planning Support	SS/CPFF	JHU/APL : Laurel, MD	-	3.850	Dec 2024	4.000	Dec 2025	-		-		-	0.000	7.850	-
Engineering Support	MIPR	BAH : San Antonio, TX	-	13.401	Dec 2024	25.612	Dec 2025	-		-		-	0.000	39.013	-
Technical Mission Analysis	RO	Various : Various	-	19.334	Nov 2024	17.153	Nov 2025	-		-		-	0.000	36.487	-
Enterprise SE&I	C/CPIF	KBR : Los Angeles, CA	-	27.380	Dec 2024	31.630	Dec 2025	-		-		-	0.000	59.010	-
SBIR/STTR	Allot	TBD : Washington, DC	-	-		0.000		-		-		-	0.000	0.000	-
Associated Product Development	Various	Various : Various	-	10.974	Dec 2024	9.908	Dec 2025	-		-		-	0.000	20.882	-
Subtotal			-	832.432		1,085.361		-		-		-	0.000	1,917.793	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace : El Segundo, CA	-	4.583	Nov 2024	4.652	Nov 2025	-		-		-	0.000	9.235	-
A&AS	Various	Various : Various	-	38.441	Nov 2024	20.289	Nov 2025	-		-		-	0.000	58.730	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)						Project (Number/Name) 643725 / Evolved Strategic SATCOM (ESS)			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Support	Various	Various : Various	-	0.599	Oct 2024	1.293	Oct 2025	-		-		-	0.000	1.892	-
Subtotal			-	43.623		26.234		-		-		-	0.000	69.857	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	876.055		1,111.595		-		-		-	0.000	1,987.650	N/A
Remarks Space Segment Prototyping, Space Development and Production, Ground Resilient Integration & Framework for Operational NC3 (GRIFFON), and End-Cryptographic Unit (ECU) have shared cost in the following cost categories: Test Terminal Development and Support, Acquisition and Mission Planning Support, Engineering Support, Technical Mission Analysis, Enterprise SE&I, SBIR/STTR, FFRDC, A&AS, and Other Support.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026	
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)					Project (Number/Name) 643725 / Evolved Strategic SATCOM (ESS)	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Space Segment Prototyping																												
System and Mission Integration																												
Space Segment Prototyping-Execution																												
Space Development and Production																												
System and Mission Integration																												
Space Segment Build, I&T and Delivery Follow-on - Contract Award																												
Space Segment Build, I&T and Delivery Follow-on - Execution																												
GRIFFON																												
Command and Control efforts																												
GIF and SoSI Demo - Execution																												
GIF and SoSI Follow-on - Contract Award																												
GIF and SoSI Follow-on - Prototype Completion																												
Mission Planning Software Application Prototype Demo (5 contractors)																												
Mission Planning Software App Demo - Prototype Completion (2 contractors)																												
Mission Planning Software Application Follow-on - Contract Award																												
Mission Planning Software Application Follow-on - Execution																												
Ground Resiliency																												
IT Upgrades to NC3 Cybersecurity																												
Upgrades to NC3 Cybersecurity Follow-On																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																								Date: April 2026													
Appropriation/Budget Activity 3620F / 4										R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)										Project (Number/Name) 643725 / Evolved Strategic SATCOM (ESS)																	
										FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
End-Cryptographic Unit (ECU)																																					
Development & Delivery																																					
PKMA Modifications																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 4

R-1 Program Element (Number/Name)

PE 1206855SF / Evolved Strategic SATCOM (ESS)

Project (Number/Name)

643725 / Evolved Strategic SATCOM (ESS)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space Segment Prototyping				
System and Mission Integration	1	2025	2	2025
Space Segment Prototyping-Execution	1	2025	4	2025
Space Development and Production				
System and Mission Integration	2	2025	4	2026
Space Segment Build, I&T and Delivery Follow-on - Contract Award	4	2025	4	2025
Space Segment Build, I&T and Delivery Follow-on - Execution	4	2025	4	2026
GRIFFON				
Command and Control efforts	1	2025	4	2026
GIF and SoSI Demo - Execution	1	2025	1	2025
GIF and SoSI Follow-on - Contract Award	1	2025	1	2025
GIF and SoSI Follow-on - Prototype Completion	1	2025	4	2026
Mission Planning Software Application Prototype Demo (5 contractors)	1	2025	3	2025
Mission Planning Software App Demo - Prototype Completion (2 contractors)	3	2025	3	2026
Mission Planning Software Application Follow-on - Contract Award	4	2026	4	2026
Mission Planning Software Application Follow-on - Execution	4	2026	4	2026
Ground Resiliency	2	2026	4	2026
IT Upgrades to NC3 Cybersecurity				
Upgrades to NC3 Cybersecurity Follow-On	3	2025	4	2026
End-Cryptographic Unit (ECU)				
Development & Delivery	1	2025	4	2026
PKMA Modifications	4	2026	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	PE 1206857SF / <i>Space Rapid Capabilities Office</i>											
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	104.661	15.582	9.950	0.000	9.950	10.301	10.483	10.680	10.894	Continuing	Continuing
64A020: <i>AF Funded ORSSats</i>	0.000	104.661	15.582	9.950	0.000	9.950	10.301	10.483	10.680	10.894	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

TRANSFERS: Starting in FY 2026, PE 1206857SF funding associated with Rapid Resilient Command and Control (R2C2) efforts transferred to PE 1206772SF, Rapid Resilient Command and Control, to consolidate functions for efficiency and improve transparency.

A. Mission Description and Budget Item Justification

The Space Rapid Capabilities Office (Space RCO) mission is to expedite the development and fielding of operationally focused capabilities for immediate and near term needs as directed by the Space RCO Board of Directors (BoD) for Guardians across Space Control, Operations, and Warfighting.

Key operating principles include a short and narrow chain of command, overarching programmatic insight, early and prominent war fighter involvement, and small integrated teams within a single office to rapidly augment existing space capabilities when needed, to expand operational capability, reconstitute/replenish/protect critical space capabilities to reserve "continuity of operations" capability, and exploit space technological or operational innovations to increase U.S. advantage. As a result, the Service will deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland. The Service will also augment, supplement, and/or integrate Allies, partners, and commercial space to USSF units. Furthermore, the Service will continue to advance all near term effects and provide resilient infrastructure, equipment, and personnel.

The Space RCO is ready to develop, test, train, and equip war fighter needs as they are identified at any time. First, the requirements must be validated by the commander U.S. Space Command; second, the project must be approved by the Space RCO BoD; third, the project will be executed by the Space RCO. If the effort is initiated during execution year, it will be described in the next year's budget exhibit.

Space RCO is supporting the Rapid Resilient Command and Control (R2C2) Combined Program Office (CPO) in FY 2025. The R2C2 CPO utilizes the Space RCO acquisition authorities under the Space RCO Program Executive Officer to execute funding in the Enterprise Ground Services (EGS) and Ground Command, Control, and Communications (GC3) program elements to develop an extensible, scalable, modular ground segment solution capable of supporting protect and defend missions of the United States Space Force. Combined EGS and GC3 funding will be used wholly and directly to support CPO activities. R2C2 will continue development and integration of the satellite operations (SatOps) ground segment solution to support the protect and defend mission set, including, but not limited to, capabilities and services needed to perform mission control.

Space RCO is supporting the Air Force Research Lab (AFRL) developed Space Solar Power project to collect solar energy and provide uninterrupted, assured, and logistically agile power to expeditionary forces operating in unimproved areas such as forward operating bases. AFRL formulated the Space Solar Power Incremental

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1206857SF I Space Rapid Capabilities Office				
Demonstrations and Research (SSPIDR) project to rapidly demonstrate this innovative technology via a series of integrated demos and technology development/ maturation efforts.						
In addition, Space RCO will conduct studies and analyses for future programs to support the BoD.						
This program falls within the Science and Technology (S&T) and Test & Evaluation (T&E) mission area which provides the S&T initiatives, demonstrations, experiments, and studies towards developing next-generation space capabilities. The T&E mission area provides all efforts required to establish and operate the test infrastructure for USSF capabilities. Program interdependencies include: Defense Research Sciences (0601102SF); Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Innov Intg & Rapid Tech Dev (1203174SF); Space Science and Technology (1206310SF); Space Systems Prototype Transition (1206427SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); Space Test Program (1206864SF); and University Research Initiatives (0601103SF).						
This program element included all necessary expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605829F, 0605831F, 0605833F, and 0605898F.						
This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		107.892	9.664	0.000	0.000	0.000
Current President's Budget		104.661	15.582	9.950	0.000	9.950
Total Adjustments		-3.231	5.918	9.950	0.000	9.950
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-0.082			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	6.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-3.231	0.000			
• Other Adjustments		0.000	0.000	9.950	0.000	9.950
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 64A020: AF Funded ORSSats						
Congressional Add: Deployable SCN Ground Based System Fielding						
Congressional Add: Deployable SCN Ground System Supply Chain						
		FY 2025	FY 2026			
		7.275	0.000			
		0.000	6.000			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1206857SF I Space Rapid Capabilities Office		
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2025	FY 2026	
		Congressional Add Subtotals for Project: 64A020	7.2756.000	
		Congressional Add Totals for all Projects	7.2756.000	
Change Summary Explanation				
Strategic Changes: FY 2027: The FY 2026 President's Budget submittal did not reflect the FY 2027 through FY 2030 funding. Therefore, an explanation of the changes between the two budget positions for FY 2027 cannot be made in a relevant manner.				
Technical Changes: FY 2025: 3.231 million decrease due to Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR).				
FY 2026: Net increase of 5.918 million; increase of 6 million due to Deployable Satellite Control Network (SCN) Ground System Supply Chain Congressional Add and decrease of 0.082 million due to Section 8151 SIBR reduction.				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Space RCO Board of Directors (BoD) Projects, Studies, and Analysis		9.213	9.582	9.950
Description: Execute projects, studies, and analyses under rapid acquisition authorities inherent to the Space RCO, that address emergent capabilities and respond to validated requirements and other BoD approved efforts to meet needs in year of execution. In addition, provide systems engineering, program management support and civilian pay across all the Space RCO activities as well as perform modeling, simulation, analyses, and assess alternative concepts and requirements.				
FY 2026 Plans: Continue to initiate rapid acquisition projects, studies, and analyses that address emergent capabilities requirements and other Space RCO BoD approved efforts. Continue ongoing systems engineering support of future mission development. Additionally, FY 2026 funding will allow the program to rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities include, but are not limited to, program office support, civilian pay, systems engineering, studies, technical analyses, experimentation, prototyping, etc.				
FY 2027 Plans: Will continue to initiate rapid acquisition projects, studies, and analyses that address emergent capabilities requirements and other Space RCO BoD approved efforts. Will continue ongoing systems engineering support of future mission development. Additionally, FY 2027 funding will allow the program to rapidly respond to implement system resiliency and situational awareness				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1206857SF I Space Rapid Capabilities Office		
C. Accomplishments/Planned Programs (\$ in Millions) necessary to operate in the contested space domain. Activities include, but are not limited to, program office support, civilian pay, systems engineering, studies, technical analyses, experimentation, prototyping, etc. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to inflation adjustment.		FY 2025	FY 2026	FY 2027
Title: Space RCO Solar Power Description: Space RCO is developing the Solar Power project to collect solar energy and provide uninterrupted, assured, and logistically agile power to expeditionary forces operating in unimproved areas such as forward operating bases. FY 2026 Plans: N/A FY 2027 Plans: N/A		1.732	0.000	0.000
Title: Rapid Resilient Command and Control (R2C2) Satellite Command and Control Services Description: Develop and integrate common satellite operations ground segment solution (SatOps) command and control (C2) services in cloud environments. Refine standards and interfaces, develop, and implement cybersecurity and cryptography requirements, develop training, address Zero Trust, mature antenna network services and connectivity, and integrate capabilities into the enterprise. Support mission partner demonstrations, integration, and test of mission-unique software. FY 2026 Plans: N/A FY 2027 Plans: N/A		49.027	0.000	0.000
Title: Rapid Resilient Command and Control (R2C2) Cloud Infrastructure and Platform/Antenna Services Description: Maintain hardware and software baselines, update software licenses, integrate cybersecurity, and provide help desk operations with associated training, to include support for developing software for cloud-hosted and antenna scheduling and command and control (C2). FY 2026 Plans: N/A FY 2027 Plans:		37.414	0.000	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>		R-1 Program Element (Number/Name) PE 1206857SF / <i>Space Rapid Capabilities Office</i>	
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
N/A			
Accomplishments/Planned Programs Subtotals		97.386	9.582
		FY 2025	FY 2026
Congressional Add: Deployable SCN Ground Based System Fielding		7.275	0.000
FY 2025 Accomplishments: The Space RCO executed the Deployable SCN ground system fielding project as a product development effort with emphasis on the acquisition of test assets to further develop and test the Satellite Communication Augmentation Resource (SCAR) program's production software defined antenna tiles, which are the linchpin of the program's phased array technical approach.			
FY 2026 Plans: N/A			
Congressional Add: Deployable SCN Ground System Supply Chain		0.000	6.000
FY 2025 Accomplishments: N/A			
FY 2026 Plans: The Space RCO will execute the Deployable SCN ground system fielding project as a product development effort with emphasis on the acquisition of test assets to further develop and test the SCAR program's production software defined antenna tiles, which are the linchpin of the program's phased array technical approach. The Congressional Add will specifically be used to enhance the supply chain in their acquisition of test assets to develop and test the SCAR program's production software defined antenna tiles.			
Congressional Adds Subtotals		7.275	6.000
D. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
E. Acquisition Strategy			
Expediently award contracts through Space RCO or partner organizations.			
The R2C2 Combined Program Office (CPO) has an approved acquisition strategy, leveraging Department of War (DoW)- and Department of the Air Force (DAF)-level contracts for commercial cloud capabilities, Other Transaction Agreements, and contracts awarded under a small business, multiple award Indefinite Delivery / Indefinite Quantity in FY 2024 operationalizing the satellite operations ground segment solution and providing support for protect and defend mission partners.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206857SF / Space Rapid Capabilities Office				Project (Number/Name) 64A020 / AF Funded ORSSats					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Space RCO Board of Directors (BoD) Projects, Studies, and Analysis	Various	Various : Various	-	3.683	Dec 2024	9.372	Dec 2025	9.740	Dec 2026	-		9.740	Continuing	Continuing	-
Space RCO Solar Power	SS/CPFF	Northrop Grumman : Linthicum, MD	-	1.732	Nov 2024	-		-		-		-	Continuing	Continuing	-
R2C2 Satellite Command and Control Services	Various	Various : Various	-	30.333	Nov 2024	-		-		-		-	Continuing	Continuing	-
R2C2 Cloud Infrastructure and Platform/Antenna Services	Various	Various : Various	-	37.414	Nov 2024	-		-		-		-	Continuing	Continuing	-
Systems Engineering and Integration	Various	Various : Various	-	5.435	Oct 2024	-		-		-		-	Continuing	Continuing	-
Deployable SCN Ground Based System Fielding (Congressional Add)	MIPR	SAF/FMBIB : Washington, DC	-	7.275	Jul 2025	-		-		-		-	Continuing	Continuing	-
Deployable SCN Ground System Supply Chain (Congressional Add)	MIPR	SAF/FMBIB : Washington, DC	-	-		6.000	Jun 2026	-		-		-	Continuing	Continuing	-
Subtotal			-	85.872		15.372		9.740		-		9.740	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Space RCO FFRDC	RO	Aerospace/Sandia : Various	-	5.320	Dec 2024	-		-		-		-	Continuing	Continuing	-
R2C2 FFRDC	Various	Various : Various	-	8.866	Oct 2024	-		-		-		-	Continuing	Continuing	-
Space RCO A&AS	C/CPAF	Various : Various	-	0.210	Dec 2024	0.210	Dec 2025	0.210	Dec 2026	-		0.210	Continuing	Continuing	-
R2C2 A&AS	Various	Various : Various	-	4.393	Dec 2024	-		-		-		-	Continuing	Continuing	-
Subtotal			-	18.789		0.210		0.210		-		0.210	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026				
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206857SF / <i>Space Rapid Capabilities Office</i>					Project (Number/Name) 64A020 / <i>AF Funded ORSSats</i>					
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	104.661		15.582		9.950		-		9.950	Continuing	Continuing	N/A

Remarks
N/A.

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206857SF / <i>Space Rapid Capabilities Office</i>		Project (Number/Name) 64A020 / <i>AF Funded ORSSats</i>	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Space Rapid Capabilities Office</i>																												
Space RCO Board of Directors (BoD) Projects, Studies, and Analysis																												
Deployable SCN Ground Based System Fielding (Congressional Add)																												
Deployable SCN Ground System Supply Chain (Congressional Add)																												
<i>Space RCO Solar Power</i>																												
Space RCO Solar Power																												
<i>Rapid Resilient Command and Control (R2C2)</i>																												
R2C2 Satellite Command and Control Services																												
R2C2 Cloud Infrastructure and Platform/Antenna Services																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206857SF / <i>Space Rapid Capabilities Office</i>	Project (Number/Name) 64A020 / <i>AF Funded ORSSats</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Space Rapid Capabilities Office</i>				
Space RCO Board of Directors (BoD) Projects, Studies, and Analysis	1	2025	4	2031
Deployable SCN Ground Based System Fielding (Congressional Add)	4	2025	4	2026
Deployable SCN Ground System Supply Chain (Congressional Add)	3	2026	3	2027
<i>Space RCO Solar Power</i>				
Space RCO Solar Power	1	2025	4	2025
<i>Rapid Resilient Command and Control (R2C2)</i>				
R2C2 Satellite Command and Control Services	1	2025	4	2025
R2C2 Cloud Infrastructure and Platform/Antenna Services	1	2025	4	2025

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 1206862SF I Tactically Responsive Space							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	43.635	29.800	86.306	0.000	86.306	54.000	62.700	48.100	49.000	Continuing	Continuing
643835: Tactically Responsive Space (TacRS)	0.000	43.635	29.800	86.306	0.000	86.306	54.000	62.700	48.100	49.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Safari Office is developing, prototyping, and executing the Tactically Responsive Space (TacRS) (project 643835) to deliver space control functions to Guardians and Combatant Commands. As a result of these activities, the Service will deliver capabilities to augment, supplement, and integrate with Allies, partners, and commercial space companies to Space Force units.

TacRS rapidly integrates and deploys space-based end-to-end capabilities in response to Combatant Commander (CCMD) urgent needs for power projection and characterization. TacRS missions will be capable of entering operations and generating effects on tactically relevant timelines. The near-term focus of TacRS is to establish these foundational concepts enabling the Space Force to establish the necessary capabilities, processes, concept of operations, and tactics, techniques and procedures to enable a rapid response. In FY 2026, funding will be used to finalize an early operational Space Domain Awareness (SDA) capability that will involve a rapid call-up, launch, and space vehicle operations. In addition, funding will be used to develop the maneuverable, prepositioned SDA TacRS missions. Furthermore, funding will be used to support follow-on SDA operational missions requiring both rapid launch and maneuverable, prepositioned capabilities. Finally, funding will be used to mature new TacRS concepts including, but not limited to, the ability to quickly utilize commercial capabilities.

This program falls within the Combat Power mission area which provides the systems required to protect and defend space-based capabilities and ensure space superiority by enabling and executing combat operations in space. Program interdependencies include: Counterspace Operations (1203936SF); Counterspace Systems (1206421SF); Defense Recon Support Activities (1203159SF); National Space Defense Center (1203620SF); National Space Defense Center - MIP (1203621SF); Space Control Technology (1206438SF); Space Intelligence Activities (1203375SF); Space Superiority ISR (1203330SF); Rocket Systems Launch Program (1206860SF); and Rapid Resilient Command & Control (1206772SF).

The FY 2026 spend plan amount for Research, Development, Test & Evaluation, Space Force, Tactically Responsive Space (TacRS) includes \$29,800 thousand of discretionary and \$135,000 thousand of mandatory (reconciliation) for a total of \$164,800 thousand.

This program element included all necessary expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605829F, 0605831F, 0605833F, and 0605898F.

This effort is in Budget Activity 4, Advanced Component Development and Prototypes (ACD&P), because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		PE 1206862SF I Tactically Responsive Space				
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		40.052	33.282	0.000	0.000	0.000
Current President's Budget		43.635	29.800	86.306	0.000	86.306
Total Adjustments		3.583	-3.482	86.306	0.000	86.306
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-3.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		5.000	0.000			
• SBIR/STTR Transfer		-1.417	-0.482			
• Other Adjustments		0.000	0.000	86.306	0.000	86.306
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 643835: Tactically Responsive Space (TacRS)						
Congressional Add: Tactically Responsive Space						
Congressional Add Subtotals for Project: 643835						
Congressional Add Totals for all Projects						
Change Summary Explanation						
Strategic Changes:						
FY 2025: +5M added to continue commercial satellite bus development for military use.						
FY 2025: -1.417M for SBIR						
FY 2026: -0.482M for SBIR						
Technical Changes:						
FY 2026: -3M Congressional reduction for management services ahead of need.						
The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: TacRS Initial Operations and Continuous Capability Development				33.635	29.800	86.306

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)		R-1 Program Element (Number/Name) PE 1206862SF I <i>Tactically Responsive Space</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Description: TacRS will leverage rapid, agile, and end-to-end acquisition processes to quickly evolve the design of future TacRS missions. This approach will enable timely integration and readiness for launch call-up, Combatant Commander (CCMD) tasking, and procurement of capabilities based on current threats and priorities. FY 2026 Plans: Support the development, readiness, launch, and operations for the VICTUS HAZE, VICTUS SOL and other VICTUS missions. The two maneuverable, prepositioned Space Domain Awareness (SDA) missions, VICTUS SURGO and VICTUS SALO, will begin integration and testing in the second half of FY 2026. Support range efforts and ground infrastructure developments that will provide necessary equipment, software, procedures and personnel to enable and support future TacRS missions. Continue acquisition of future operational missions that require both rapid launch capabilities and maneuverable, prepositioned capabilities. Support concept and capability development that enables the rapid use of commercial capabilities. Continue to evolve new tactically responsive space capabilities that include launch, satellites, control systems, and concept of operations using emerging and extant commercial launch and satellite providers while leveraging U.S. Government partnerships, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: In FY 2027, funding will be used to finalize assembly, integration and testing of the two maneuverable, prepositioned SDA TacRS missions, VICTUS SURGO and VICTUS SALO. In addition, funding will be used to support follow-on SDA operational missions requiring both rapid launch and maneuverable, prepositioned capabilities. FY 2027 funding will enhance navigation payloads allowing for improved on-orbit positional information for space characterization of resident space objects, operationalize prepositioned capabilities, and establish the rapid reaction force structure of having one space vehicle in production and one completed space vehicle and launch vehicle on hand ready for mission call up to execute rapid launch. FY 2026 to FY 2027 Increase/Decrease Statement: The increase in FY 2026 to FY 2027 funding is due to establishing the rapid launch cadence of having a space vehicle completed and ready for launch while another space vehicle is being built.				
Accomplishments/Planned Programs Subtotals		33.635	29.800	86.306

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 1206862SF / <i>Tactically Responsive Space</i>		
		FY 2025	FY 2026
Congressional Add: Tactically Responsive Space FY 2025 Accomplishments: This Congressional Add funding is being used to complete the primary payload for the VICTUS SALO pre-positioned fly-by space vehicle (SV), develop and implement operational crew procedures, and establish dedicated operational crews for the VICTUS SURGO, and VICTUS SALO missions, and conduct VICTUS SOL vehicle pre-flight testing and flight dress rehearsals.		10.000	-
Congressional Adds Subtotals		10.000	-
D. Other Program Funding Summary (\$ in Millions) N/A Remarks E. Acquisition Strategy TacRS prioritizes commercial, fixed-priced contracts to take advantage of evolving commercial capabilities, technology advancements, and reduced production timelines to rapidly deliver minimum viable warfighter solutions. This iterative nature of incremental, commercially-based system improvements that builds upon prior missions will allow TacRS to achieve 18-24-month space vehicle build and launch timelines resulting in substantially reduced cost when compared to traditional satellite procurements. TacRS has established contracts with multiple commercial satellite vendors providing an initial pool of contractors from which to procure satellites and will continue to expand the list of available vendors to increase the Government's available options to provide maximum flexibility and competition. Working with multiple small start-up businesses through fixed price contracts has allowed an increased understanding of industry partner capabilities and technical solutions available that can deliver unique performance capabilities that meet the TacRS responsive timelines and operational deployment objectives. TacRS will also utilize existing (and if necessary establish new) open competitive launch service, ground operations contracts, Small Business Innovative Research contracts, and Other Transaction Authority (OTA) Agreements to provide an end-to-end TacRS capability.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206862SF / <i>Tactically Responsive Space</i>						Project (Number/Name) 643835 / <i>Tactically Responsive Space (TacRS)</i>			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
TacRS Missions	TBD	Various : Various	-	35.698	Jan 2025	23.809	Jan 2026	73.144	Jan 2027	-		73.144	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified : TBD	-	1.417	Oct 2024	0.482	Oct 2025	3.004	Oct 2026	-		3.004	Continuing	Continuing	-
Subtotal			-	37.115		24.291		76.148		-		76.148	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	MIPR	Various : El Segundo, CA	-	3.690	Jan 2025	2.519	Jan 2026	4.700	Jan 2027	-		4.700	Continuing	Continuing	-
A&AS	Various	Various : Various	-	2.646	Jan 2025	2.740	Jan 2026	5.200	Jan 2027	-		5.200	Continuing	Continuing	-
Other Support	Various	Various : El Segundo, CA	-	0.184	Jan 2025	0.250	Jan 2026	0.258	Jan 2027	-		0.258	Continuing	Continuing	-
Subtotal			-	6.520		5.509		10.158		-		10.158	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	43.635		29.800		86.306		-		86.306	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 4					PE 1206862SF / <i>Tactically Responsive Space</i>					643835 / <i>Tactically Responsive Space (TacRS)</i>			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Tactically Responsive Space</i>																												
TacRS Missions																												
SBIR/STTR																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206862SF / <i>Tactically Responsive Space</i>	Project (Number/Name) 643835 / <i>Tactically Responsive Space (TacRS)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Tactically Responsive Space</i>				
TacRS Missions	3	2025	4	2031
SBIR/STTR	3	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1203269SF I GPS III Follow-On (GPS IIIF)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	992.137	233.109	196.152	123.793	0.000	123.793	105.056	90.488	72.290	70.658	Continuing	Continuing
653170: GPS IIIF	875.057	171.239	134.567	59.254	0.000	59.254	38.029	22.462	3.018	0.000	0.000	1,303.626
653171: GPS Enterprise Integration	117.080	61.870	61.585	64.539	0.000	64.539	67.027	68.026	69.272	70.658	Continuing	Continuing
Program MDAP/MAIS Code: 590												
A. Mission Description and Budget Item Justification												
System Delta 831 is developing the Global Positioning System III Follow-on (GPS IIIF) (Project 653170) for Guardians across Position, Navigation, and Timing. As a result, the Service will improve readiness and operational reach of existing force structure.												
The Global Positioning System (GPS) is a space-based navigation system that fills validated Joint Service requirements for worldwide, accurate, common grid three-dimensional positioning/navigation for military aircraft, ships, and ground personnel. The consistent accuracy, unaffected by location or weather and available in real time, significantly improves effectiveness of reconnaissance, weapons delivery, mine countermeasures and rapid deployment for all services. GPS must comply with Title 10 United States Code (USC) Sec. 2281, which requires that the Secretary of Defense ensures the continued sustainment and operation of GPS for military and civilian purposes, and 51 USC Sec. 50112, which requires that GPS complies with certain standards and facilitates international cooperation.												
The system is composed of three segments: User Equipment (funded under Program Element (PE) 1203164F, 1203164SF), Space (funded under PE 1203165F, 1203265F, 1203265SF, 1203269F, and 1203269SF), and a Control Network (funded under PE 1206423F, 1206423SF and 1203165F). The satellites broadcast high accuracy data using precisely synchronized signals that are received and processed by user equipment installed in military and civil platforms. The user equipment computes the platform position and velocity and provides steering vectors to target locations or navigation waypoints. The control segment provides daily updates to the navigation messages broadcast from the satellites to maintain system precision in three dimensions to 16 meters (spherical error probable) worldwide. Additionally, GPS supports the United States (US) Nuclear Detonation (NUDET) Detection System (USNDS) mission and provides strategic and tactical support to the following Department of War (DoW) missions: Joint Operations by providing capabilities for Positioning, Navigation, and Timing (PNT); Command, Control, Communications, and Intelligence (C3I); Special Operations; Military Operations in Urban Terrain (MOUT); Defense-Wide Mission Support (DWMS); Air Mobility; and Space Launch Orbital Support.												
GPS III Follow On (GPS IIIF) delivers improved satellites beyond the first ten GPS III Space Vehicles (SVs) being delivered (funded in PE 1203265SF GPS III Space Segment). While GPS IIIF satellites maintain the same capabilities as the GPS III satellites, they deliver significant enhancements to include: potential on-ramping of advanced PNT technology from efforts such as the Navigation Technology Satellite 3 (NTS-3), backward compatibility, Unified S-Band (USB) interface compliance, integration of hosted payloads including a redesigned USNDS payload, Laser Retro-reflector Arrays (LRAs), Search and Rescue/GPS (SAR/GPS), and Regional Military Protection (RMP) capabilities that provide the ability to deliver high-power regional Military Code (M-Code) signals in specific areas of intended effect.												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 1203269SF / <i>GPS III Follow-On (GPS IIIF)</i>	
Implementation of RMP into the GPS Enterprise requires integration with the ground and user segments, executed by the GPS ground system, along with the Military GPS User Equipment (MGUE) programs, respectively. The SAR/GPS payload provided by Canada supports Air Combat Command (ACC) and fills a validated National Search and Rescue Committee requirement to provide enduring, space-based distress alerting capability to detect, locate, and relay distress alerts to fulfill its responsibilities under international agreements for Search and Rescue. LRA, built by the Naval Research Lab (NRL), is a passive reflector that improves accuracy and provides better satellite ephemeris data. National Geospatial-Intelligence Agency (NGA) funds the integration costs of the LRA. This PE funds the Research, Development, Test, and Evaluation (RDT&E) of Global Positioning System III Follow On (GPS IIIF) SVs 11-12 (to include Non-Recurring Engineering (NRE) support efforts). This program includes risk-reducing simulators and systems engineering associated with delivering the new capabilities required of GPS IIIF satellites. The PNT Architecture program will conduct studies and analyses that will inform the development of a next-generation, reprogrammable, adaptable, and cost-effective future PNT enterprise architecture. This effort will explore a wide range of architectural alternatives and development pathways for both space and ground segments. It will also assess the application of Modular Open Systems Approaches (MOSA) and the integration of commercial capabilities and technologies. Program activities will include analysis, trade studies, modeling (MBSE), simulation, and prototyping to evaluate the feasibility, benefits, and risks of various architectural constructs for both space and ground. The primary objective is to produce data-driven recommendations and a list of viable options. This information will inform requirements definition, future investment, and development strategies for the PNT enterprise. This approach will ensure the program remains agile enough to pursue the most promising technologies and counter emerging threats. Starting in FY 2023, this program also funds the GPS Enterprise Integration (EI) project which includes critical efforts associated with the Government's responsibility to accomplish integration of multiple prime contracts across the three GPS enterprise segments, along with the transition to sustainment and operational communities. GPS EI maintains the current GPS architecture and system definition, controls and validates interfaces, ensures compatibility across current Generation II and III systems, and ongoing developments such as GPS IIIF space systems, GPS Next Generation Operational Control System (OCX control system)s, and Military GPS User Equipment (MGUE) Inc 1 and MGUE Inc 2 systems. GPS EI also develops/manages plans for execution and fielding of new capability like the new Military Code (M-Code) for use at the earliest opportunity. Further, GPS EI provides modeling, simulation, and technical analyses of impacts for Government-directed enterprise level trades among the GPS segments, leading to definition, management, maintenance, and evolution of the GPS Enterprise requirements and interface technical documents to build and ensure the integrity of the enterprise technical baseline, and perform system requirements verification. In addition, GPS EI funds the technical evolution, risk reduction, enterprise-level testing and delivery of all Positioning, Navigation, and Timing (PNT) Enterprise, capabilities. GPS EI also assists in the analysis and assessment of futures technology to continue the advancement of the PNT enterprise ensuring PNT capabilities continue to be at the forefront. Examples for Generation II include electronic protection; for Generation III, additional anti-jamming and anti-spoof protections and additional civil signals. To accomplish this, GPS EI delivers Test and Verification capabilities, Requirements and Interface Management, and Systems Integration support across the Space, Control, and User Segments. In this capacity, GPS EI is responsible for managing this cross-program work to provide these and other capabilities. GPS EI's analyses guide Government decisions to ensure efficient and effective synchronization and execution across all GPS II and III programs. For Enterprise-wide integration to be successful, GPS EI: works with the GPS and United States (US) Nuclear Detonation (NUDET) Detection System (USNDS) prime contractor teams to		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 1203269SF I GPS III Follow-On (GPS IIIF)	
develop plans for early risk reduction System Integration Demonstrations to ensure system interfaces and functionality meet user and system requirements; ensures all equipment and documentation is ready when needed; integrates and analyzes enterprise schedules; and conducts formal test and verification, including Requirement Verification Plans and System Test Plans and Procedures. GPS EI performs all these efforts across all Positioning, Navigation, and Timing (PNT) programs in all acquisition phases. The Government owns the GPS Enterprise system requirements and integration, interfaced specifications, and highly leverages the GPS EI team to eliminate the need to fund a development prime contractor to perform these functions. This enhances Government control, oversight and program accountability. Deliver advanced PNT capabilities, such as high-power anti-jam signals, to the warfighter ahead of need. The GPS enterprise will be a mixture of GPS IIR, GPS IIR-M, GPS IIF, GPS III, and GPS IIIF. FY25 was rescinded \$30M and is not reflected in this budget documentation This program falls within the Positioning, Navigation, and Timing (PNT) mission area which provides the space and dedicated ground architecture and associated user equipment required to provide PNT services to civil and military users. Program interdependencies include: GPS III - Operational (1206423SF); GPS III Follow-on (1203269SF); GPS III Space Segment (1203265SF); GPS Ops Control Segment - Next (1203365SF); NAVSTAR GPS (Space & Control Seg) (1203165SF); NAVSTAR GPS (User Equipment) (1203164SF) This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D. This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1203269SF I GPS III Follow-On (GPS IIIF)			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	240.246	179.249	0.000	0.000	0.000
Current President's Budget	233.109	196.152	123.793	0.000	123.793
Total Adjustments	-7.137	16.903	123.793	0.000	123.793
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-25.700			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	45.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-7.137	-2.397			
• Other Adjustments	0.000	0.000	123.793	0.000	123.793
Change Summary Explanation					
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)				Project (Number/Name) 653170 / GPS IIIF			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
653170: GPS IIIF	875.057	171.239	134.567	59.254	0.000	59.254	38.029	22.462	3.018	0.000	0.000	1,303.626
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

System Delta 831 is developing the Global Positioning System III Follow-on (GPS IIIF) (Project 653170) for Guardians across Position, Navigation, and Timing. As a result, the Service will improve readiness and operational reach of existing force structure.

The Global Positioning System (GPS) is a space-based navigation system that fills validated Joint Service requirements for worldwide, accurate, common grid three-dimensional positioning/navigation for military aircraft, ships, and ground personnel. The consistent accuracy, unaffected by location or weather and available in real time, significantly improves effectiveness of reconnaissance, weapons delivery, mine countermeasures and rapid deployment for all services. GPS must comply with Title 10 United States Code (USC) Sec. 2281, which requires that the Secretary of Defense ensures the continued sustainment and operation of GPS for military and civilian purposes, and 51 USC Sec. 50112, which requires that GPS complies with certain standards and facilitates international cooperation.

The system is composed of three segments: User Equipment (funded under Program Element (PE) 1203164F, 1203164SF), Space (funded under PE 1203165F, 1203265F, 1203265SF, 1203269F, and 1203269SF), and a Control Network (funded under PE 1206423F, 1206423SF and 1203165F). The satellites broadcast high accuracy data using precisely synchronized signals that are received and processed by user equipment installed in military platforms. The user equipment computes the platform position and velocity and provides steering vectors to target locations or navigation waypoints. The control segment provides daily updates to the navigation messages broadcast from the satellites to maintain system precision in three dimensions to 16 meters (spherical error probable) worldwide. Additionally, GPS supports the United States (US) Nuclear Detonation (NUDET) Detection System (USNDS) mission and provides strategic and tactical support to the following Department of War (DoW) missions: Joint Operations by providing capabilities for Positioning, Navigation, and Timing (PNT); Command, Control, Communications, and Intelligence (C3I); Special Operations; Military Operations in Urban Terrain (MOUT); Defense-Wide Mission Support (DWMS); Air Mobility; and Space Launch Orbital Support.

GPS III Follow On (GPS IIIF) delivers improved satellites beyond the first ten GPS III Space Vehicles (SVs) being delivered (funded in PE 1203265SF GPS III Space Segment). While GPS IIIF satellites maintain the same capabilities as the GPS III satellites, they deliver significant enhancements to include: potential on-ramping of advanced PNT technology from efforts such as the Navigation Technology Satellite 3 (NTS-3), backward compatibility, Unified S-Band (USB) interface compliance, integration of hosted payloads including a redesigned USNDS payload, Laser Retro-reflector Arrays (LRAs), Search and Rescue/GPS (SAR/GPS), and Regional Military Protection (RMP) capabilities that provide the ability to deliver high-power regional Military Code (M-Code) signals in specific areas of intended effect.

Implementation of RMP into the GPS Enterprise requires integration with the ground and user segments, executed by the GPS Next Generation Operational Control System (OCX), along with the Military GPS User Equipment (MGUE) programs, respectively. The SAR/GPS payload provided by Canada fills a validated National Search and Rescue Committee requirement to provide enduring, space-based distress alerting capability to detect, locate, and relay distress alerts to fulfill its responsibilities under international agreements for Search and Rescue. LRA, built by the Naval Research Lab (NRL), is a passive reflector that improves accuracy and provides better ephemeris data. National Geospatial-Intelligence Agency (NGA) funds the integration costs of the LRA.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1203269SF / <i>GPS III Follow-On (GPS III F)</i>	Project (Number/Name) 653170 / <i>GPS IIIF</i>
This Program Element (PE) funds the Research, Development, Test, and Evaluation (RDT&E) of GPS IIIF SVs 11-12 (to include Non-Recurring Engineering (NRE) support efforts). This program includes risk-reducing simulators (GPS Software and Simulator (GSS+ 1 & 2), (GPS Non-flight Satellite Test Bed (GNST+)) and systems engineering associated with delivering the new capabilities required of GPS IIIF satellites. The PNT Architecture program will conduct studies and analyses that will inform the development of a next-generation, reprogrammable, adaptable, and cost-effective future PNT enterprise architecture. This effort will explore a wide range of architectural alternatives and development pathways for both space and ground segments. It will also assess the application of Modular Open Systems Approaches (MOSA) and the integration of commercial capabilities and technologies. Program activities will include analysis, trade studies, modeling (MBSE), simulation, and prototyping to evaluate the feasibility, benefits, and risks of various architectural constructs for both space and ground. The primary objective is to produce data-driven recommendations and a list of viable options. This information will inform requirements definition, future investment, and development strategies for the PNT enterprise. This approach will ensure the program remains agile enough to pursue the most promising technologies and counter emerging threats. Starting in FY 2023, this program also funds the Global Positioning System (GPS) Enterprise Integration (EI) project which includes critical efforts associated with the Government's responsibility to accomplish integration of multiple prime contracts across the three GPS enterprise segments, along with the transition to sustainment and operational communities. GPS EI maintains the current GPS architecture and system definition, controls and validates interfaces, ensures compatibility across current Generation II and III systems, and ongoing developments such as GPS III Follow On (GPS IIIF) space systems, GPS Next Generation Operational Control System (OCX), and Military GPS User Equipment (MGUE) Inc 1 and MGUE Inc 2 systems. GPS EI also develops/ manages plans for execution and fielding of new capability like the new M-Code for use at the earliest opportunity. Further, GPS EI provides modeling, simulation, and technical analyses of impacts for Government-directed enterprise level trades among the GPS segments, leading to definition, management, maintenance, and evolution of the GPS Enterprise requirements and interface technical documents to build and ensure the integrity of the enterprise technical baseline, and perform system requirements verification. In addition, GPS EI funds the technical evolution, risk reduction, enterprise-level testing and delivery of all PNT Enterprise capabilities. GPS EI also assists in the analysis and assessment of futures technology to continue the advancement of the PNT enterprise ensuring PNT capabilities continue to be at the forefront. Examples for Generation II included electronic protection; for Generation III, additional anti-jamming protection and additional civil signals. To accomplish this, GPS EI delivers Test and Verification capabilities, Requirements and Interface Management, and Systems Integration support across the Space, Control, and User Segments. In this capacity, GPS EI is responsible for managing this cross-program work to provide these and other capabilities. GPS EI's analyses guide Government decisions to ensure efficient and effective synchronization and execution across all GPS II and III programs. For Enterprise-wide integration to be successful, GPS EI works with the GPS and United States (US) Nuclear Detonation (NUDET) Detection System (USNDS) prime contractor teams to develop plans for early risk reduction System Integration Demonstrations to ensure system interfaces and functionality meet user and system requirements; ensures all equipment and documentation is ready when needed; integrates and analyzes enterprise schedules; and conducts formal test and verification, including Requirement Verification Plans and System Test Plans and Procedures. GPS EI performs all these efforts across all PNT programs in all acquisition phases. The Government owns the GPS Enterprise system requirements and integration, and interfaced specifications, and interfaced specifications, and highly leverages the GPS EI team to eliminate the need to fund a development prime contractor to perform these functions. This enhances Government control, oversight and program accountability.		

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)	Project (Number/Name) 653170 / GPS IIIF		
The GPS enterprise end state will be a mixture of GPS IIR, GPS IIR-M, GPS IIF, GPS III, and GPS IIIFs. FY25 was rescinded 30M and is not reflected in this budget documentation. This program may include necessary civilian pay expenses required to manage, execute, and deliver GPS IIIF Space Segment weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in PEs 1206392SF and 1206398SF. This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D..				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: GPS III Follow-On (GPS IIIF) Development		171.239	89.567	59.254
Description: The program utilizes RDT&E funds to develop and deliver space vehicles (SVs) 11-12, conduct the Non-recurring Engineering (NRE) of developing risk-reducing simulators (Global Positioning System (GPS) Software and Simulator (GSS+ 1 & 2), (GPS Non-flight Satellite Test Bed (GNST+)), developing support test equipment, and conducting the systems engineering associated with delivering the new capabilities required of GPS III Follow On (GPS IIIF) including backward compatibility, dual band Telemetry, Tracking, and Control, integration of Government Furnished Equipment hosted payloads, and Regional Military Protection (RMP), which delivers high power regional Military-Code (M-Code) signals in specific areas of intended effect. In conjunction with the delivery schedule, the GSS+ require an extended period of performance for implementation and operations.				
FY 2026 Plans: Continue Development of GPS IIIF SV 11 and SV12. Continue development and initiate launch vehicle assembly of GPS IIIF SV12. Continue the build, qualification, and delivery of GSS+ which will be utilized for Mission Readiness testing, Integrated Cyber Testing, System Integration Demo 31, and Space Vehicle risk reduction events and provide critical capabilities for on-orbit checkout testing (OOCT) and anomaly resolution for the GPS IIIF constellation. As part of overall GPS IIIF advanced capabilities development, continue developing the Enhanced Command & Control/Modular Open System Approach capability through Implementation Design Review 1 (IDR.1)/Preliminary Design Review, continue development toward a GPS IIIF optical crosslinks demonstration (as a follow-on to the GPS III SV10 crosslinks demonstration), continue the On-Orbit Reprogramming capability through IDR.1. GPS IIIF crosslinks IDR will focus on risks, interoperability to the larger architecture, and incorporating/validating commercial/driving modernization of capabilities. GPS IIIF will continue special studies targeted to mitigate on-ramp capability risks. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction,				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)	Project (Number/Name) 653170 / GPS IIIF	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Continue Development of GPS IIIF SV 11 and SV12. Continue development and initiate launch vehicle assembly of GPS IIIF SV12. Finalize the build, qualification, and delivery of GSS+ which will be utilized for Mission Readiness testing, Integrated Cyber Testing, System Integration Demo 31, and Space Vehicle risk reduction events and provide critical capabilities for on- orbit checkout testing (OOCT) and anomaly resolution for the GPS IIIF constellation. As part of overall GPS IIIF advanced capabilities development, continue developing the Enhanced Command & Control/Modular Open System Approach capability through continued special studies and reviews, continue development toward a GPS IIIF optical crosslinks demonstration (as a follow-on to the GPS III SV10 crosslinks demonstration), and continue development of the On-Orbit Reprogramming capability. GPS IIIF will continue special studies targeted to mitigate on-ramp capability risks. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 Funding decreased due to the delivery of risk-reducing simulators (GSS+) and reduction in costs in late-stage development of SVs 11 and 12.			
Title: Resilient GPS Description: Will conduct trade studies and analysis towards furthering efforts completed with Phase 0 of Resilient GPS. Effort focused on proving out new, flexible architectures and will implement lessons learned from Phase 0. FY 2026 Plans: Certify on-orbit, reprogrammable cryptography unit(s) to meet SERD 2.0 requirements, capitalize on new commercial capabilities, and mitigate major schedule risk. Validate program anti-jam opportunity, which could deliver key anti-jam capability to the warfighter using MGUE Inc 1. Design and prove out new, flexible architectures for GPS monitoring stations and data transport to take advantage of industry advancements and prepare control segment for a proliferated constellation FY 2027 Plans: N/A FY 2026 to FY 2027 Increase/Decrease Statement:		-	15.000
			0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force									Date: April 2026		
Appropriation/Budget Activity 3620F / 5				R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)				Project (Number/Name) 653170 / GPS IIIF			
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027
No funding planned for FY27.											
Title: PNT Architecture									0.000	30.000	0.000
Description: The PNT Architecture effort leverages lessons learned from Resilient GPS phase 0 to modernize the space and ground supply chain by integrating commercial solutions, enabling the rapid delivery of mission-critical capabilities to the warfighter in response to emerging threats. Program will conduct trade studies and analysis towards developing an integrated PNT Architecture.											
FY 2026 Plans: Initiate contracts for studies and analyses that will inform the development of a next-generation, reprogrammable, adaptable, and cost-effective future PNT enterprise architecture. Assess the application of Modular Open Systems Approaches (MOSA) and the integration of commercial capabilities and technologies on a wide range of architectural alternatives and development pathways for both space and ground segments. Program activities will include analysis, trade studies, modeling (MBSE), simulation, and prototyping to evaluate the feasibility, benefits, and risks of various architectural constructs for both space and ground.											
FY 2027 Plans: N/A											
FY 2026 to FY 2027 Increase/Decrease Statement: Funding ends in FY26. \$30M in FY26 funds will further the efforts located in PE 1203165SF in FY27.											
Accomplishments/Planned Programs Subtotals									171.239	134.567	59.254
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPSF 01 BA01 GPS03C: GPSIII Follow On	647.165	637.944	680.875	-	680.875	666.783	687.649	696.497	-	0.000	4,016.913
Remarks											
D. Acquisition Strategy											
In December 2017, Principal Deputy Office of the Assistant Secretary of the Air Force Acquisition & Logistics began the GPS IIIF program. Beginning in FY 2019 and, consistent with the Fiscal Year 2016 National Defense Authorization Act, the program was categorized as an Acquisition Category 1B Major Defense Acquisition Program (MDAP) with the Service Acquisition Executive serving as the Milestone Decision Authority (MDA). During this time, the MDA approved the second phase of the two-phased GPS III Follow-On (GPS IIIF) acquisition strategy. Executed using funds in PE 1203265F, GPS III Space Segment, the Phase 1 Production Readiness											

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1203269SF / <i>GPS III Follow-On (GPS III F)</i>	Project (Number/Name) 653170 / <i>GPS IIIF</i>
Feasibility Assessments conducted during FY 2016-2017 provided data and insight into contractors' GPS satellite production designs with emphasis on a mature navigation payload and production-ready designs. Phase 1 results affirmed the viability of a competitive approach for Phase 2. The Phase 2 strategy directed the Air Force to conduct a full-and-open competition for GPS IIIF space vehicles and specified the use of RDT&E funds to deliver SVs 11-12 and conduct associated Non-Recurring Engineering (NRE). In addition to SVs 11-12, the RDT&E effort is comprised of developing risk-reducing simulators (GPS Software and Simulator (GSS+), (GPS Non-flight Satellite Test Bed (GNST+)), support test equipment, and conducting the systems engineering associated with delivering the new capabilities required of GPS IIIF. The Air Force awarded the contract to Lockheed Martin in September 2018 and began the 1-year Critical Design Review (CDR) campaign in March 2019. Completion of CDR was done in March 2020 and Milestone C production certification completed in July 2020. Procurement of SVs 13 and 14 awarded on October 7, 2020. Procurement of SVs 15-17 awarded on October 22, 2021. GPS III Follow On (GPS IIIF) SVs 18, 19, and 20 were awarded on October 27, 2022. SVs 21 and 22 were awarded on May 28, 2025. The Space Force will continue to procure future GPS IIIF satellites via annual contract options exercised using Procurement, Space Force funds consistent with full-funding policy under an annual buy approach.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)				Project (Number/Name) 653170 / GPS IIIF					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GPS IIIF Space Vehicle	C/FPIF	Lockheed Martin : Littleton, CO	700.817	65.223	Oct 2024	40.770	Oct 2025	13.373	Oct 2026	-		13.373	0.000	820.183	1,374.851
GPS IIIF Other Contract Actions	C/FPIF	Lockheed Martin : Various, CA	26.021	2.261	Mar 2025	10.936	Oct 2025	13.938	Oct 2026	-		13.938	0.000	53.156	-
GPS IIIF Storage	C/CPFF	Lockheed Martin : Littleton, CO	0.000	-		0.477		0.490	Jan 2027	-		0.490	0.000	0.967	-
GPS IIIF Award Fee	C/FFP	Lockheed Martin : Littleton, CO	24.029	11.443	Aug 2025	2.917	Mar 2026	1.144	Mar 2027	-		1.144	0.000	39.533	-
Crosslinks	C/FPIF	Lockheed Martin : Littleton, CO	12.500	22.705	Jun 2025	-		-		-		-	0.000	35.205	-
PNT Timing Study	C/FFP	Space Exploration Tech : Hawthorne, CA	3.398	3.235	Mar 2025	-		-		-		-	0.000	6.633	-
NTS-3 Payload and Launch	Various	Various : Various, CA	24.152	4.831	Mar 2025	-		-		-		-	0.000	28.983	-
Resilient GPS	C/CPAF	Not specified. : TBD	0.000	30.000		15.000	May 2026	-		-		-	0.000	45.000	-
PNT Architecture	TBD	Not specified. : TBD	0.000	-		30.000	May 2026	-		-		-	0.000	30.000	-
GPS IIIF SBIR/STTR	Allot	Not Specified : Washington, DC	0.000	-		3.475		2.193		-		2.193	0.000	5.668	-
GPS IIIF Associated Product Development	Various	Various : Various, CA	7.749	12.414	Nov 2024	3.298	Oct 2025	3.000		-		3.000	0.000	26.461	-
GPS IIIF Technical Mission Analysis	RO	Aerospace : El Segundo, CA	12.377	1.780	Nov 2024	1.810	Nov 2025	1.384	Nov 2026	-		1.384	0.000	17.351	-
GPS IIIF Enterprise SE&I	C/CPAF	SAIC : El Segundo, CA	12.282	7.870	Nov 2024	7.859	Nov 2025	5.922	Nov 2026	-		5.922	0.000	33.933	-
GPS IIIF Launch Services	Various	Various : Various, CA	0.000	1.268	Mar 2025	13.798	Oct 2025	16.061	Oct 2026	-		16.061	0.000	31.127	-
Subtotal			823.325	163.030		130.340		57.505		-		57.505	0.000	1,174.200	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)						Project (Number/Name) 653170 / GPS IIIF			
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GPS IIIF Test and Evaluation	Various	Various : Various	1.000	1.889	Nov 2024	0.954		-		-		-	0.000	3.843	-
Subtotal			1.000	1.889		0.954		-		-		-	0.000	3.843	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GPS IIIF FFRDC	RO	Aerospace : El Segundo, CA	5.946	0.663	Nov 2024	0.648	Nov 2025	0.602	Nov 2026	-		0.602	0.000	7.859	-
GPS IIIF A&AS	Various	Various : Various, CA	43.420	5.237	Nov 2024	2.325	Nov 2025	1.147	Nov 2026	-		1.147	0.000	52.129	-
GPS IIIF Other Support	Various	Various : El Segundo, CA	1.366	0.420	Nov 2024	0.300	Nov 2025	-		-		-	0.000	2.086	-
Subtotal			50.732	6.320		3.273		1.749		-		1.749	0.000	62.074	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			875.057	171.239		134.567		59.254		-		59.254	0.000	1,240.117	N/A
Remarks															
FY25 was rescinded \$30M and is not reflected in this budget documentation. Resilient GPS FY25 should reflect \$0.															
FINANCIAL PERFORMANCE:GPS IIIF is evaluated against traditional Research and Development (R&D) program expenditure benchmarks. Unlike many traditional R&D programs, however, the GPS IIIF Development contract is a FPIF contract with progress payments. 10 percent of incurred costs are withheld until the end of the contract, when they are liquidated. Mandatory funding obligations and progress payment withholds will cause the program to lag traditional expenditure benchmarks, painting an inaccurate portrait of overall program execution health.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026	
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)					Project (Number/Name) 653170 / GPS III F	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
GNST+																												
GNST+ Integration																												
GSS+																												
GSS+ 1 Delivered																												
GSS+ 2 Delivered																												
GSS+ 1/2 Integration																												
GPS III F																												
SV 11 System Integration & Test																												
SV 11 Available for Launch																												
SV 11 Storage																												
SV 11 Launch																												
SV 11 Launch Integration, Early Orbit Operations and On Orbit Checkout																												
SV 12 System Integration & Test																												
SV 12 Available for Launch																												
SV 12 Storage																												
SV 12 Launch																												
SV 12 Launch Integration, Early Orbit Operations and on Orbit Checkout																												
GPS III F Advanced Capabilities Development																												
Navigation Technology Satellite-3 (NTS-3)																												
NTS-3 Payload and Launch																												
PNT Architecture																												
Resilient GPS Studies																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																							Date: April 2026																
Appropriation/Budget Activity 3620F / 5												R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)										Project (Number/Name) 653170 / GPS IIIF																	
												FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
												1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PNT Architecture																																							

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1203269SF / <i>GPS III Follow-On (GPS III F)</i>	Project (Number/Name) 653170 / <i>GPS IIIF</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
GNST+				
GNST+ Integration	1	2025	2	2028
GSS+				
GSS+ 1 Delivered	1	2025	2	2026
GSS+ 2 Delivered	1	2025	2	2027
GSS+ 1/2 Integration	2	2026	2	2028
GPS IIIF				
SV 11 System Integration & Test	1	2025	3	2027
SV 11 Available for Launch	4	2027	4	2027
SV 11 Storage	1	2028	3	2028
SV 11 Launch	4	2028	4	2028
SV 11 Launch Integration, Early Orbit Operations and On Orbit Checkout	2	2025	2	2028
SV 12 System Integration & Test	1	2025	2	2028
SV 12 Available for Launch	3	2028	3	2028
SV 12 Storage	4	2028	2	2029
SV 12 Launch	3	2029	3	2029
SV 12 Launch Integration, Early Orbit Operations and on Orbit Checkout	3	2025	1	2029
GPS IIIF Advanced Capabilities Development	1	2025	4	2030
Navigation Technology Satellite-3 (NTS-3)				
NTS-3 Payload and Launch	2	2025	2	2026
PNT Architecture				
Resilient GPS Studies	3	2026	2	2027

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)	Project (Number/Name) 653170 / GPS IIIF	

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
PNT Architecture	3	2026	2	2027

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)				Project (Number/Name) 653171 / GPS Enterprise Integration			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
653171: GPS Enterprise Integration	117.080	61.870	61.585	64.539	0.000	64.539	67.027	68.026	69.272	70.658	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Global Positioning System (GPS) Program Office established and maintains the technical baseline and is responsible for the successful fielding of all the GPS Segments (space, control, and user). In order to successfully execute these responsibilities, GPS Enterprise Integrator (EI) creates an enterprise architecture, integrates segment products, verifies the enterprise requirements are adequately met, develops and implements various Systems Engineering documents, defines methods of verification, conducts integrated system test and test analysis, develops and manages the Enterprise technical baseline which reflect multiple stakeholder requirements; stakeholders include the Department of War (DoW), foreign governments, industry, and the general public (through four public interface specifications). Furthermore, GPS EI ensures Positioning, Navigation, and Timing (PNT) capabilities meet the warfighter's, civil agencies, commercial entities, international treaties, and over four billion global GPS users needs. Moreover, GPS EI is responsible for delivering a reliable PNT signal capability to military operators, the civil user community, and international partners. In addition, GPS EI validates the system performance in various mission threat scenarios during its development as well as provides in-depth technical expertise to enhance government control, oversight and program accountability. GPS EI is also responsible for all aspects of schedule and technical alignment across the GPS segments (space, control, and user equipment).

In order to assist in achieving program milestones, GPS EI is responsible for technical baseline management, integration, synchronizing, testing, and verifying GPS III, GPS III Follow-on (IIIF), Operational Control System (OCS), Next Generation Operational Control System (OCX), Military GPS User Equipment (MGUE) Increment (Inc) 1 and Inc 2, and other PNT investment projects. Additionally, GPS EI is responsible for creating and managing plans that provide early exercise of the products under development, compatibility analysis, and inter-segment testing. The inter-segment tests are required to prove OCX interoperability with GPS III satellites and Modernized User Equipment. More importantly, it ensures backwards compatibility with legacy systems such as GPS Block II satellites, OCS, and legacy user equipment. The GPS EI also manages the process through which the Joint Requirements Oversight Council validated requirements are matured and flowed down to the system segments, while remaining consistent with various interfaces. This enables the GPS system to meet Title 10 of the USC, Sec 2281, mandated PNT capabilities, and various other obligations to the international community that provide inter-operable PNT signals.

GPS EI also supports GPS spectrum protection at international forums such as the International Telecommunications Union. Such support consists of providing technical support to the Departments of State and Defense to advocate on behalf of the US Government when negotiating with foreign partners. In addition, GPS EI provides technical expertise to maintain relationships with other US government agencies that include the Federal Aviation Administration, National Geospatial-Intelligence Agency (NGA), National Aeronautics and Space Administration, and Departments of State, Transportation, Homeland Security, and Commerce. GPS EI Spectrum also ensures GPS priority for eight essential spectrum signals, including those required for civil air navigation and safety of life. Spectrum Protection prevents encroachment from commercial or foreign entities, which results in the preservation of warfighter's reliable signal. As a result, military operations and the integrity of the global economic infrastructure are protected.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)	Project (Number/Name) 653171 / GPS Enterprise Integration		
Global Positioning System Enterprise Integrator (GPS EI) also manages GPS and other navigation system performance monitoring and publishes performance specifications and reports to ensure anomalies with GPS can be resolved. In addition, GPS EI provides technical expertise for the development for GPS program technical baselines and public specifications to make certain that the DoW fulfills its commitment to the world for civilian GPS Service.				
GPS EI also provides the Positioning, Navigation, and Timing (PNT) enterprise expertise in Enterprise Schedule Management, Risk Management, System Safety, Enterprise level System Security Engineering covering Acquisition Systems Program Security (i.e., personnel, industrial, operations, information, sensitive compartmented information, communication, and physical), Program Protection, Foreign Disclosure, Public Release reviews, Mission System Certification and Accreditation, and Enterprise Cybersecurity. GPS EI is accountable for the development, execution, and analysis of the PNT Enterprise Segments, cybersecurity, and associated test cases necessary to deliver a secure operational system.				
GPS EI will support a range of future PNT initiatives to include program planning and strategies, technology assessments, PNT innovation initiatives, systems engineering, approach to integrating new capabilities into the current GPS Enterprise, and other related activities. Future PNT development initiatives will be strongly influenced by modeling and analysis currently in development by the Space Warfighting Analysis Center (SWAC). This could include a broad range of innovations such as enhancements to Military GPS User Equipment (MGUE), creative distribution of Timing, PNT signal situational awareness, advanced payloads, optical crosslinks, or future proliferated GPS spacecraft, including early concept development for GPS IV spacecraft alternatives.				
This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.				
This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Enterprise Integration		61.870	61.585	64.539
Description: Funding supports the integration and technical baseline control of all elements of the Global Positioning System (GPS) system (space/control/user) in support of both military and civil users. Test and verification of integrated system performance in preparation for operational test and evaluation.				
FY 2026 Plans: Continue integrated, Government-led development and operational testing using operational assets, facilities and resources. Continue supporting prototype hardware, software, and critical component maturation, ultimately driving toward initial production readiness. Continue supporting vendor test activities to include field and user testing. Support work off of test discrepancies to ensure system functionality and requirement satisfaction. The MGUE Inc 2 effort will continue to expand Military-Code (M-Code) receiver technology into additional applications (precision guided munitions) and develop aJoint Modernized Handheld (JMHH) device. Support OCX 3F software development and System Integration Testing (SIT) of OCX 3F into the Operationally				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1203269SF / <i>GPS III Follow-On (GPS III F)</i>	Project (Number/Name) 653171 / <i>GPS Enterprise Integration</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Accepted (OA) OCX baseline. Continue GPS Enterprise-wide systems engineering, systems integration, and technical baseline management to ensure GPS Programs of Record work effectively together. Continue to explore future PNT technology initiatives. Support GPS III SV launches. Support OCX early operational capabilities. Support government management team to test and resolve any OCX discrepancies and mission integration efforts. Support integration planning for OCX 3F and GPS IIIF SVs. Evaluate systems for effectiveness in delivering capabilities of GPS Constellation Management, GPS Enterprise M-Code PNT Determination, GPS L2C signal PNT Determination, and GPS L5 signal PNT Determination. Support operational demonstration of Vanguard NTS-3 program and acquisition planning for selected technology for transition to operational systems. Work with US Civil Partners to develop and assess future GPS opportunities to make GPS more resilient for civil users. Support Mission System Certification and Accreditation, Enterprise Cybersecurity and Security Certification. Continue program planning and strategies, technology assessments, PNT innovation initiatives, systems engineering, approach to integrating new capabilities into the current GPS Enterprise, and other related activities. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Continue integrated, Government-led development and operational testing using operational assets, facilities and resources. Continue supporting prototype hardware, software, and critical component maturation, ultimately driving toward initial production readiness and deployment. Continue supporting vendor test activities to include field and user testing. Continue supporting test discrepancy work-off to ensure system functionality and requirement satisfaction. Enterprise Integrator continues to support the MGUE Inc 2 effort, to expand Military-Code (M- Code) receiver technology into additional applications. Continue supporting OCX 3F software planning, development and System Integration Testing (SIT) of OCX 3F into the Operationally Accepted (OA) OCX baseline. Continue GPS Enterprise-wide systems engineering, systems integration, and technical baseline management to ensure GPS Programs of Record work effectively together. Continue to explore future PNT technology initiatives. Support GPS III SV post-launch activities. Continue supporting OCX early operational capabilities. Continue supporting the government management team to test and resolve any OCX discrepancies and mission integration efforts. Continue supporting			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force							Date: April 2026				
Appropriation/Budget Activity 3620F / 5				R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)			Project (Number/Name) 653171 / GPS Enterprise Integration				
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2025	FY 2026	FY 2027		
integration and launch preparation activities for OCX 3F and GPS IIIF SVs. Support PNT ground contingency planning and integration efforts.											
Continue systems evaluation for effectiveness in delivering capabilities of GPS Constellation Management, GPS Enterprise M-Code PNT Determination, GPS L2C signal PNT Determination, and GPS L5 signal PNT Determination. Support operational demonstration of Vanguard NTS-3 program and acquisition planning for selected technology for transition to operational systems. Work with US Civil Partners to develop and assess future GPS opportunities to make GPS more resilient for civil users.											
Support Mission System Certification and Accreditation, Enterprise Cybersecurity and Security Certification. Continue program planning and strategies, technology assessments, PNT innovation initiatives, systems engineering, approach to integrating new capabilities into the current GPS Enterprise, and other related activities.											
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.											
FY 2026 to FY 2027 Increase/Decrease Statement: FY27 Increased due to additional cybersecurity and certification efforts for GPS hardware and software system assurance as well as providing systems engineering support for PNT ground contingency support and additional GPS enterprise resiliency planning.											
Accomplishments/Planned Programs Subtotals							61.870	61.585	64.539		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• RDTE 07 1206423F: Global Positioning System III - Operational Control Segment	184.128	190.329	222.243	-	222.243	0.000	0.000	-	-	0.000	596.700
• RDTE 04 1203164F: NAVSTAR Global Positioning System (User Equipment) (SPACE)	260.198	152.003	0.000	-	0.000	0.000	0.000	-	-	0.000	412.201
• RDTE 05 1203269SF: GPS III Follow-On (GPS IIIF)	141.239	134.567	59.122	-	59.122	36.882	21.247	1.789	-	0.000	394.846

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force								Date: April 2026			
Appropriation/Budget Activity 3620F / 5				R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)				Project (Number/Name) 653171 / GPS Enterprise Integration			

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPSF 01 GPSIII: GPS III Space Segment	54.805	29.274	0.000	-	0.000	0.000	0.000	-	-	0.000	84.079
• SPSF 01 GPS03C: GPSIII Follow On	647.165	637.944	680.875	-	680.875	666.783	687.649	696.497	710.465	0.000	4,727.378

Remarks

D. Acquisition Strategy

In accordance with a "back to basics" acquisition approach the Space Force is required to exercise complete ownership of the architecture, system definition, technical baseline, and integration of the Global Positioning System (GPS) space, ground, and user segments. This complex inter-segment integration requires the government to be the integrator. To execute this responsibility, the government leverages systems engineering and integration expertise from both Federally Funded Research and Development Center (FFRDC) contractors and a Systems Engineering & Integration (SE&I) contractor. The GPS EI function of the SE&I contractor is currently funded within this PE. SE&I effort was awarded in April 2022 through a full and open competition, following a sole source SE&I Bridge Contract that began in 1QFY22.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)				Project (Number/Name) 653171 / GPS Enterprise Integration					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GPS EI Enterprise SE&I	RO	SAIC : El Segundo, CA	51.713	32.526	Nov 2024	32.336	Nov 2025	25.198	Nov 2026	-		25.198	0.000	141.773	-
GPS EI GPS Certification	RO	Various : Various	0.000	0.000		0.000		18.672	Oct 2026	-		18.672	0.000	18.672	-
GPS EI Technical Mission Analysis 1	RO	Aerospace : El Segundo, CA	10.847	4.437	Oct 2024	1.169	Oct 2025	1.722	Oct 2026	-		1.722	0.000	18.175	-
GPS EI Technical Mission Analysis 2	Various	Mitre : Various	22.645	8.261	Oct 2024	6.822	Oct 2025	6.025	Oct 2026	-		6.025	0.000	43.753	-
GPS EI SBIR/STTR	Various	Various : Washington, DC	0.000	0.000		1.475		2.388		-		2.388	0.000	3.863	-
GPS EI Additional Product Development	Various	Various : Various	8.020	3.019	Dec 2024	2.801	Dec 2025	1.723	Dec 2026	-		1.723	0.000	15.563	-
Subtotal			93.225	48.243		44.603		55.728		-		55.728	0.000	241.799	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GPS EI Integrated System Test	Various	Various : TBD	8.676	6.670	Dec 2024	11.715	Dec 2025	5.000	Dec 2026	-		5.000	0.000	32.061	-
GPS EI GPS Test Asset Program (GTAP)	C/CPAF	Draper Labs : Cambridge, MA	10.263	4.586	Dec 2024	4.208	Dec 2025	3.042	Dec 2026	-		3.042	0.000	22.099	-
Subtotal			18.939	11.256		15.923		8.042		-		8.042	0.000	54.160	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GPS EI A&AS	Various	Various : El Segundo, CA	4.029	2.071	Oct 2024	0.859	Nov 2025	0.569	Nov 2026	-		0.569	0.000	7.528	-
GPS EI Other Support	Various	Various : Various	0.887	0.300	Oct 2024	0.200	Nov 2025	0.200	Nov 2026	-		0.200	0.000	1.587	-
Subtotal			4.916	2.371		1.059		0.769		-		0.769	0.000	9.115	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026						
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)					Project (Number/Name) 653171 / GPS Enterprise Integration							
					Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals					117.080	61.870		61.585		64.539		-		64.539	0.000	305.074	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1203269SF / GPS III Follow-On (GPS III F)			Project (Number/Name) 653171 / GPS Enterprise Integration

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Support GPS III and GPS IIIF AFL																												
GPS IIIF SV11 Available for Launch																												
GPS IIIF SV12 Available for Launch																												
GPS IIIF SV13 Available for Launch																												
GPS IIIF SV14 Available for Launch																												
GPS IIIF SV15 Available for Launch																												
GPS IIIF SV16 Available for Launch																												
GPS IIIF SV17 Available for Launch																												
GPS IIIF SV18 Available for Launch																												
GPS IIIF SV19 Available for Launch																												
GPS IIIF SV20 Available for Launch																												
Enterprise Integration Support																												
Mission Integration and Technical Baseline Management																												
OCX Block 1 Ready to Transition to Operations (RTO)																												
M-Code PNT IOC																												
OCX 3F Operational Acceptance																												
Constellation Management Full Operational Capability																												
L5 PNT Full Operational Capability																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 5

R-1 Program Element (Number/Name)

PE 1203269SF / GPS III Follow-On (GPS III F)

Project (Number/Name)

653171 / GPS Enterprise Integration

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Support GPS III and GPS IIIF AFL				
GPS IIIF SV11 Available for Launch	4	2028	4	2028
GPS IIIF SV12 Available for Launch	3	2029	4	2029
GPS IIIF SV13 Available for Launch	4	2029	4	2029
GPS IIIF SV14 Available for Launch	1	2030	1	2030
GPS IIIF SV15 Available for Launch	2	2030	2	2030
GPS IIIF SV16 Available for Launch	3	2030	3	2030
GPS IIIF SV17 Available for Launch	4	2030	4	2030
GPS IIIF SV18 Available for Launch	1	2031	1	2031
GPS IIIF SV19 Available for Launch	2	2031	2	2031
GPS IIIF SV20 Available for Launch	3	2031	3	2031
Enterprise Integration Support				
Mission Integration and Technical Baseline Management	1	2025	4	2030
OCX Block 1 Ready to Transition to Operations (RTO)	4	2027	4	2027
M-Code PNT IOC	3	2026	3	2026
OCX 3F Operational Acceptance	2	2028	2	2028
Constellation Management Full Operational Capability	1	2028	1	2028
L5 PNT Full Operational Capability	1	2028	1	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206421SF I Counterspace Systems							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	33.776	30.820	43.702	0.000	43.702	35.082	35.684	36.438	37.167	Continuing	Continuing
65A001: Counter Satellite Communications System	0.000	31.653	28.631	39.993	0.000	39.993	31.262	31.792	32.459	33.108	Continuing	Continuing
65A013: BOUNTY HUNTER	0.000	2.123	2.189	3.709	0.000	3.709	3.820	3.892	3.979	4.059	Continuing	Continuing

A. Mission Description and Budget Item Justification

Space Systems Command (SSC) / Mission Delta-3 (MD-3) is developing, operating, prototyping, and executing the Counter Satellite Communications System (CCS) (Project 65A001) and the BOUNTY HUNTER program (Project 65A013) for Guardians across the combat power mission area. As a result, the Service will deter, neutralize, defeat and/or destroy counterspace threats and defend the space domain.

Both of these programs fall within the Combat Power mission area which provides the systems required to protect and defend space-based capabilities and ensure space superiority by enabling and executing combat operations in space. Space Force investment program interdependencies include: RDT&E Budget Line Items: Space-Based Moving Target Indicator (1203155SF); Long Range Kill Chains (1203154SF); Space Control Technology (1206438SF); Space Superiority ISR (1203330SF) and elements of Procurement Budget Line Items: Space Mods (SPCMOD); Space Based Air Moving Target Indicator (AMTI00); Ground Moving Target Indicator (GMTI00); and Counterspace Systems (CTRSPC).

Acquisition Decision Memorandum (ADM), April 24th 2009, directed all capabilities identified in the October 4th 2006, CCS Block 20, Joint Requirements Oversight Council (JROC) approved Capability Development Document (CDD) shall be accomplished as Pre-planned Product Improvement Program (P3I) upgrades to the CCS Block 10. On April 11th 2016, Air Force Space Command (AFSPC) updated the ADM adding additional responsibility for CCS Block 10.3 Meadowlands.

CCS provides expeditionary, deployable, reversible offensive space control (OCS) effects applicable across the full spectrum of conflict. It prevents adversary Satellite Communications (SATCOM) in Area of Responsibility (AOR) including Command & Control (C2), Early Warning, and Propaganda; and hosts Rapid Reaction Capabilities in response to Urgent Operational Needs. This program effort includes architecture engineering and studies, system hardware design and development, software design and integration, and testing and demonstration of capabilities to provide disruption of satellite communications signals.

Electromagnetic Warfare Threat Integration Program (EWTIP) is a software agile program that develops, tests, and integrates new software capabilities, cyber techniques, and minor hardware solutions to ensure the Electromagnetic Warfare (EW) enterprise can maintain effectiveness against emerging threats and adversary capabilities.

This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206421SF I Counterspace Systems				
This program element may include necessary civilian pay expenses required to manage, execute, and deliver Counter Satellite Communications System CCS weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF, 1206398SF and 0605829S.						
BOUNTY HUNTER (BH) is a ground-based, deployable, tactical space Electromagnetic Warfare Support system (EWS) that provides satellite communication (SATCOM), geolocation and interference detection capabilities to support the Defensive Space Control of United States (US) systems in a specific area of responsibility (AOR). BH provides the capability to monitor, detect, characterize and geolocate friendly and unfriendly electromagnetic interference (EMI) across multiple radio frequency bands in support of Command, Control, Communications, Computers, and Intelligence (C4I) systems by US Joint Forces. Continuing annual agile development is needed to meet new user needs in an ever-changing threat environment.						
This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		34.978	31.298	0.000	0.000	0.000
Current President's Budget		33.776	30.820	43.702	0.000	43.702
Total Adjustments		-1.202	-0.478	43.702	0.000	43.702
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-1.111	-0.478			
• Other Adjustments		-0.091	0.000	43.702	0.000	43.702
Change Summary Explanation						
The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
FY 2026: -\$0.478 Sec 8151 SBIR Reduction						

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems				Project (Number/Name) 65A001 / Counter Satellite Communications System			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
65A001: Counter Satellite Communications System	0.000	31.653	28.631	39.993	0.000	39.993	31.262	31.792	32.459	33.108	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Acquisition Decision Memorandum (ADM), April 24th 2009, directed all capabilities identified in the Oct 4th 2006 Counter Satellite Communications System (CCS) Block 20, Joint Requirements Oversight Council (JROC) approved Capability Development Document (CDD) shall be accomplished as Pre-planned Product Improvement Program (P3I) upgrades to the CCS Block 10. On April 11th 2016, Air Force Space Command (AFSPC) signed and updated the ADM adding additional responsibility for CCS Block 10.3 Meadowlands.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: CCS Pre-planned Product Improvement (P3I) Program Description: Develop, integrate, test and field the CCS P3I program. This is an incremental approach to deliver Counter Satellite Communications System (CCS) capabilities. FY 2026 Plans: Continue ICS. FY 2027 Plans: Classified effort; further information available upon request and need to know. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to a classified effort.	15.198	4.000	10.000
Title: Electromagnetic Warfare Threat Integration Program (EWTIP) Description: The software agile program provides time relevant and intelligence informed software capabilities, cyber techniques, and minor hardware solutions against new and emerging threats. Updates and transitions existing mission techniques and establishes new mission techniques to ensure the Electromagnetic Warfare (EW) enterprise maintains effectiveness against evolving adversary capabilities. FY 2026 Plans: Continue studies for up to three mission techniques with options for development and start studies for new mission techniques as directed. Begin development of selected mission techniques following successful studies. Continue concentrated stand-alone testing of CCS capabilities to refine space warfighting techniques and prepare for transition into EW architecture. Complete new	16.455	24.631	29.993

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206421SF / <i>Counterspace Systems</i>	Project (Number/Name) 65A001 / <i>Counter Satellite Communications System</i>

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2025	FY 2026	FY 2027
antenna band development. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. <i>FY 2027 Plans:</i> -Continue studies for up to three mission techniques with options for development and start studies for new mission techniques as directed. -Begin development of selected mission techniques following successful studies. -Increase Space EW capabilities through increased EW effects, integration of cognitive EW techniques, increased mission automation, and enhanced signal detection. -Research and develop alternative antenna technologies to enhance operator non-attribution. -Continue concentrated stand-alone testing of EW capabilities to refine space warfighting techniques. -Complete new antenna band and other hardware development/modification to improve EW capabilities -Continue to implement system resiliency, response options and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY2027 increased due to expanded capability deliveries and developments across multiple Space Electromagnetic Warfare systems, a broader scope than the initial focus on the Meadowlands system.			
Accomplishments/Planned Programs Subtotals	31.653	28.631	39.993

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027 Base</u>	<u>FY 2027 OOC</u>	<u>FY 2027 Total</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>FY 2030</u>	<u>FY 2031</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• SPAF 01 CTRSPC: <i>Counterspace Systems</i>	4.277	2.027	2.096	-	2.096	2.137	2.173	2.222	2.267	0.000	17.199
Remarks											

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems	Project (Number/Name) 65A001 / Counter Satellite Communications System

D. Acquisition Strategy

The Electromagnetic Warfare Threat Integration Program (EWTIP), formerly called the Counter Satellite Communications System (CCS) Emerging Threat Integration Program (CETIP), acquisition will be awarded using competitive procedures and existing contracts when applicable to upgrade existing capabilities, as well as, to acquire next-generation capabilities through incremental acquisitions.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems				Project (Number/Name) 65A001 / Counter Satellite Communications System					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Block 10 Pre-Planned Product Improvement (P3I) Development	Various	Various : El Segundo, CA	-	14.392	Feb 2025	4.000	Oct 2025	-		-		-	0.000	18.392	-
Electromagnetic Warfare Threat Integration Program (EWTIP) Development	Various	TBD : TBD	-	5.761	Oct 2024	13.423	Oct 2025	18.902	Oct 2026	-		18.902	Continuing	Continuing	-
Classified Effort	TBD	TBD : TBD	-	-		-		10.000	Oct 2026	-		10.000	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace Corp : El Segundo, CA	-	1.296	Oct 2024	1.335	Oct 2025	1.375	Oct 2026	-		1.375	Continuing	Continuing	-
Enterprise Systems Engineering and Integration	C/FFP	Various : Various, CA	-	0.952	May 2025	1.063	May 2026	1.085	May 2027	-		1.085	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000	Oct 2024	1.068	Oct 2025	1.090	Oct 2026	-		1.090	Continuing	Continuing	-
Counterspace Architecture Development	C/CPFF	NGMS : Redondo Beach, CA	-	0.954	Jan 2025	0.971	Jan 2026	0.965	Jan 2027	-		0.965	Continuing	Continuing	-
Subtotal			-	23.355		21.860		33.417		-		33.417	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Security	C/CPAF	Mantech : El Segundo, CA	-	3.249	Nov 2024	2.434	Nov 2025	2.467	Nov 2026	-		2.467	Continuing	Continuing	-
Subtotal			-	3.249		2.434		2.467		-		2.467	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace Corp : El Segundo, CA	-	1.271	Oct 2024	1.309	Oct 2025	1.348	Oct 2026	-		1.348	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems						Project (Number/Name) 65A001 / Counter Satellite Communications System			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : El Segundo, CA	-	3.671	May 2025	2.923	May 2026	2.614	May 2027	-		2.614	Continuing	Continuing	-
Other Support	Various	Various : El Segundo, CA	-	0.107	Oct 2024	0.105	Oct 2025	0.147	Oct 2026	-		0.147	Continuing	Continuing	-
Subtotal			-	5.049		4.337		4.109		-		4.109	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	31.653		28.631		39.993		-		39.993	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206421SF / <i>Counterspace Systems</i>			Project (Number/Name) 65A001 / <i>Counter Satellite Communications System</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Counter Satellite Communications System (CCS) B10.3																												
10.3 Development																												
Technique Development (2x per year)																												
10.3 Development Test/Operational Test																												
10.3 System Deliveries #1-4																												
Classified Effort																												
Classified Effort																												
Electromagnetic Warfare Threat Integration Program (EWTIP)																												
Risk Reduction Study																												
Mission Technique #1																												
Mission Technique #2																												
New Antenna Band Development																												
Mission Technique #3																												
Alternative SATCOM Antenna Development																												
Space Electromagnetic Warfare development																												
Mission Technique #4																												
Mission Technique #5																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206421SF / <i>Counterspace Systems</i>	Project (Number/Name) 65A001 / <i>Counter Satellite Communications System</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Counter Satellite Communications System (CCS) B10.3</i>				
10.3 Development	1	2025	1	2025
Technique Development (2x per year)	1	2025	1	2029
10.3 Development Test/Operational Test	1	2025	2	2025
10.3 System Deliveries #1-4	2	2026	3	2026
<i>Classified Effort</i>				
Classified Effort	1	2027	4	2028
<i>Electromagnetic Warfare Threat Integration Program (EWTIP)</i>				
Risk Reduction Study	1	2025	1	2025
Mission Technique #1	1	2025	2	2026
Mission Technique #2	3	2025	1	2027
New Antenna Band Development	3	2025	2	2029
Mission Technique #3	2	2026	4	2027
Alternative SATCOM Antenna Development	2	2026	4	2028
Space Electromagnetic Warfare development	1	2027	1	2028
Mission Technique #4	3	2026	3	2028
Mission Technique #5	1	2027	2	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems				Project (Number/Name) 65A013 / BOUNTY HUNTER			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
65A013: BOUNTY HUNTER	0.000	2.123	2.189	3.709	0.000	3.709	3.820	3.892	3.979	4.059	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

BOUNTY HUNTER (BH) is a ground-based, deployable, tactical space Electromagnetic Warfare System (EWS) that provides satellite communication (SATCOM), geolocation and interference detection capabilities to support the Defensive Space Control of United States (US) systems in a specific Area of Responsibility (AOR). BH provides the capability to monitor, detect, characterize and geolocate friendly and unfriendly electromagnetic interference (EMI) across multiple radio frequency bands in support of Command, Control, Communications, Computers, and Intelligence (C4I) systems by US Joint Forces. Continuing annual agile development is needed to meet new user needs in an ever-changing threat environment. In FY2025, the program management office of BOUNTY HUNTER began the realignment from the United States Air Force to the United States Space Force.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver BOUNTY HUNTER for emergent or unanticipated weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program 0605829F. In PY 2025 0.061 million was expended for civilian pay expenses in this program, and in CY 2026 0.00 forecasted for civilian pay expenses in this program.

FY2027 funding is to integrate Defensive Cyber Operations - Space (DCO-S) into BOUNTY HUNTER. DCO-S is a coordinated act of resistance that guards information, systems, and networks from cyber - attacks by implementing protective procedures such as firewalls, network detection and response (NDR), endpoint detection and response (EDR) to identify, analyze, and report incidents that occur within a network, as apart of DCO-S which protects space-based systems and supports the Cyber Flag-Full Spectrum (CF-FS) process enabling the integration of cyber defense operations to defend against cyber threats and protect critical space-based infrastructure.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Bounty Hunter (BH)	2.123	2.189	3.709
Description: Develop new capabilities for the BH program to meet and maintain pace with the operational threat environment. Specific accomplishments are classified.			
FY 2026 Plans: -Continue to execute the programs RDT&E plan for system upgrades by focusing efforts towards: -Establishing a potentially unmanned system and/or reducing crew -Establishing a small form factor system that can be remotely deployed -Establishing a mesh network to integrate all remote operations across the BH systems fleet -Continuing automation of BH system processing utilizing machine learning			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force							Date: April 2026				
Appropriation/Budget Activity 3620F / 5				R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems			Project (Number/Name) 65A013 / BOUNTY HUNTER				
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2025	FY 2026	FY 2027		
-Other development efforts will be including, but are not limited to, program office support, studies, technical analysis, experimentation, and prototyping.											
FY 2027 Plans: Execute the program Research, Development, Test & Evaluation (RDT&E) plan for system upgrades and smaller form factor systems can be forward deployed to develop a mesh network by means of remote operations across all BH systems within the fleet. Development activities/efforts include, but are not limited to, studies, technical analysis, experimentation, and prototyping. Further, FY 2027 development focuses on continued effort to automate BH capabilities through machine learning to reduce the operational manning of the deployed systems, as well as, exploring an operational concept to expand over the horizon capacities.											
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.											
FY 2026 to FY 2027 Increase/Decrease Statement: FY2027 increased due to increase for Research, Development, Test & Evaluation (RDT&E) supports integration and utilization of Machine Learning as the primary technique to conduct signal processing within the Bounty Hunter (BH) system and ultimately the BH fleet. This technique is anticipated to reduce manning requirements and accelerate the response time in mission execution taskings for the forward and remotely deployed BH systems.											
Accomplishments/Planned Programs Subtotals							2.123	2.189	3.709		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPAF 01 CTRSPC: Counterspace Systems	0.000	0.000	1.870	-	1.870	1.920	1.970	0.000	0.000	0.000	5.760
Remarks Bounty Hunter (BH) was established in FY 2016 as a Joint Capability Technology Demonstration (JCTD) project in response to a Joint Urgent Operational Need (JUON) in 2010. BH was established as a Program of Record (PoR) in March 2019.											
D. Acquisition Strategy Contracts funded for development efforts supporting the BH Program Management Office (PMO) shall be awarded to the COLSA Corporation through FY 2030. The PMO will re-compete the contract every five years to ensure continued alignment with program goals and objectives. The BH PMO obtained a new award for a Sustainment & Development support contract for March 2025 through March 2030.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems				Project (Number/Name) 65A013 / BOUNTY HUNTER					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Bounty Hunter Developmental Test Support	PO	AFLCMC/HNCP : TBD	-	0.000	Jan 2025	0.315	Jan 2026	0.321	Jan 2027	-		0.321	Continuing	Continuing	-
Bounty Hunter Development	SS/CPFF	COLSA : Huntsville, AL	-	1.459	Mar 2025	1.832	Feb 2026	1.816	Feb 2027	-		1.816	Continuing	Continuing	-
Bounty Hunter Machine Learning (ML)	C/CPFF	COLSA : Huntsville, AL	-	0.000		-		-		-		-	0.000	0.000	-
SBIR/STTR	C/TBD	Not specified. : TBD	-	-		0.042	Aug 2026	0.152	Aug 2027	-		0.152	Continuing	Continuing	-
Subtotal			-	1.459		2.189		2.289		-		2.289	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Bounty Hunter Civilian Pay DCA	TBD	USAF : Hanscom AFB, MA	-	0.061	Oct 2024	-		0.000		-		0.000	0.000	0.061	-
Defensive Cyber Operations - Space	TBD	USSF : TBD	-	-		-		1.420		-		1.420	Continuing	Continuing	-
Subtotal			-	0.061		-		1.420		-		1.420	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Bounty Hunter EPASS Contract	C/CPAF	Applied Research Solution : Beavercreek, OH	-	0.603	Aug 2025	-		-		-		-	Continuing	Continuing	-
Subtotal			-	0.603		-		-		-		-	Continuing	Continuing	N/A
			Prior Years	FY 2025	FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			-	2.123		2.189		3.709		-		3.709	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force							Date: April 2026		
Appropriation/Budget Activity 3620F / 5				R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems		Project (Number/Name) 65A013 / BOUNTY HUNTER			
	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Remarks									

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026									
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
3620F / 5					PE 1206421SF / Counterspace Systems					65A013 / BOUNTY HUNTER									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Bounty Hunter																												
Bounty Hunter Incremental Development																												
Bounty Hunter Ops System #1 Operations																												
Bounty Hunter Ops System #2 Operations																												
Bounty Hunter Ops System #3 Operations																												
Bounty Hunter Ops System #4 Operations																												
Bounty Hunter Ops System #5 Operations (#3 Trainer)																												
Bounty Hunter Ops System #6 Operations																												
Bounty Hunter Trainer #1 Operations																												
Bounty Hunter Trainer #2 Operations																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206421SF / <i>Counterspace Systems</i>	Project (Number/Name) 65A013 / <i>BOUNTY HUNTER</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Bounty Hunter</i>				
Bounty Hunter Incremental Development	1	2025	4	2031
Bounty Hunter Ops System #1 Operations	1	2025	4	2031
Bounty Hunter Ops System #2 Operations	1	2025	4	2031
Bounty Hunter Ops System #3 Operations	1	2025	4	2031
Bounty Hunter Ops System #4 Operations	1	2025	4	2031
Bounty Hunter Ops System #5 Operations (#3 Trainer)	1	2025	4	2031
Bounty Hunter Ops System #6 Operations	1	2025	4	2031
Bounty Hunter Trainer #1 Operations	1	2025	4	2031
Bounty Hunter Trainer #2 Operations	1	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206422SF I Weather System Follow-on							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	266.409	47.488	37.925	34.756	0.000	34.756	25.116	0.000	0.000	0.000	0.000	411.694
65A038: SSA Environmental Monitoring	9.814	1.970	1.984	2.077	0.000	2.077	2.124	0.000	0.000	0.000	0.000	17.969
65A039: WSF-M	256.595	45.518	35.941	32.679	0.000	32.679	22.992	0.000	0.000	0.000	0.000	393.725

A. Mission Description and Budget Item Justification

Weather System Follow-on program 1206422SF consists of Space Situational Awareness Environmental Monitoring (SSAEM) Project 65A038 and Weather System Follow-on - Microwave (WSF-M) Project 65A039.

System Delta 810 is developing WSF-M (Project 65A039) and operating SSAEM (Project 65A038) for Guardians across the Weather Mission Area. As a result, the Service will deliver space domain awareness capabilities, continue to advance all near term effects, and provide resilient infrastructure, equipment, and personnel.

SSAEM Project 65A038 is a non-ACAT, Class D technology demonstration project to support the international Constellation Observing System for Meteorology, Ionosphere and Climate 2 (COSMIC-2) mission. The SSAEM program provides the acquisition, development and launch/on-orbit support of 18 space/terrestrial weather sensors to COSMIC-2 partnership in coordination with National Oceanic and Atmospheric Administration (NOAA) and Taiwan Space Agency (TASA). COSMIC-2 launched six satellites in an equatorial, Low Earth Orbit (LEO) with 3 SSAEM sensors on each spacecraft in FY 2019. The sensors are the primary Tri-Global Navigation Satellite System (Tri-GNSS) Radio occultation System (TGRS), and the secondary Ion Velocity Meter (IVM) and Radio Frequency Beacon (RFB). The SSAEM sensors will address three distinct Joint Requirement Oversight Committee (JROC)-approved Category A weather capability gaps, specifically Gap #4 (Ionospheric Density), Gap #7 (Equatorial Ionospheric Scintillation) and Gap #12 (Electric Field), to provide ionospheric space meteorological data to improve forecast capabilities and improve warfighter navigation/communication capabilities. TGRS also provides atmospheric refractivity profiles that are important inputs to Department of War (DoW) operational numerical weather prediction models.

WSF-M Project 65A039 includes funds for the WSF-M system, the Compact Ocean Wind Vector Radiometer (COWVR) technology demonstration, and the Energetic Charged Particle (ECP) sensor development.

WSF-M is a Low-Earth Orbit (LEO) microwave imaging system developed and delivered by the United States Space Force's Space Systems Command (SSC). WSF is the next generation of space-based passive microwave sensing technology. It will provide U.S. and Allied warfighters with essential weather data, including the measurement of ocean surface wind speed and direction, ice thickness, snow depth, soil moisture, and local spacecraft energetic charged particle environment. The ocean surface wind speed measurement enables tropical cyclone intensity determination by the Joint Typhoon Warning Center. The data gathered by WSF will be provided to meteorologists in support of the generation of a wide variety of weather products necessary to conduct mission planning and operations globally.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206422SF / <i>Weather System Follow-on</i>
WSF is an Acquisition Category IB program comprised of two Space Vehicles (SV) and their associated command, control, and data dissemination network. Global environmental monitoring data is gathered, stored, and downlinked through the Satellite Control Network (SCN) and disseminated to Air Force and Navy weather centers. Additionally, data is broadcast real time by the satellite for utilization by heritage Direct Readout Terminals that use the data for local weather forecasting. WSF is a Major Defense Acquisition Program (MDAP) with the Space Force as the lead component. Founded on the Space-Based Environmental Monitoring (SBEM) Analysis of Alternatives (AoA) results, the WSF will be to enable: 1) Timely weather collection over broad oceans in support of maneuvering forces. 2) Space weather capabilities to characterize operational orbits, space situational awareness, and the ionosphere. Secondary investments may be supported to address weather gaps identified in the SBEM AoA and validated by the JROC. The Space Force will pursue prototyping of latest commercial industry capabilities for simplified designs to meet the SBEM Gap requirements. COWVR is an on-orbit demonstration project of the new COWVR technology to deliver Weather Gap #3, Ocean Surface Vector Winds (OSVW) and Gap #8, Tropical Cyclone Intensity (TCI). ECP supports the SBEM Weather Gap #11, Low Earth Orbit Energetic Charged Particle Characterization. To support this requirement, the ECP sensor will be integrated on the WSF-M satellites. This program element may include necessary civilian pay expenses required to manage, execute, and deliver WSF for weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. This program falls within the Weather mission area which provides mission-critical environmental intelligence to support global military operations and delivers essential meteorological and oceanographic data to joint forces across all domains and detects space-based environmental threats to protect vital U.S. and allied space assets. Space Force investment program interdependencies include: RDT&E Budget Line Items: EO/IR Weather Systems (1203710SF); Space Force Weather Services Research (0604002SF); Weather Satellite Follow-on (1206422SF); elements of Space Situation Awareness Operations (1203940SF); elements of Space Control Technology (1206438SF); and elements of Procurement Budget Line Item: Space Mods (SPCMOD) This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206422SF I Weather System Follow-on			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	49.207	38.501	0.000	0.000	0.000
Current President's Budget	47.488	37.925	34.756	0.000	34.756
Total Adjustments	-1.719	-0.576	34.756	0.000	34.756
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-1.719	-0.576			
• Other Adjustments	0.000	0.000	34.756	0.000	34.756
Change Summary Explanation					
Strategic Changes:					
FY 2024: -2.329M FY 2024 Project 65A039 WSF-M realignment to Project 65A038 Space Situational Awareness Environmental Monitoring					
FY 2027 - 2030: The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner.					
Technical Changes:					
FY 2025: -1.719M FY 2025 Actuals Layin					
FY 2026: -0.576M FY 2026 Small Business Innovation and Research / Small Business Technology Transfer					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206422SF / Weather System Follow-on				Project (Number/Name) 65A038 / SSA Environmental Monitoring			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
65A038: SSA Environmental Monitoring	9.814	1.970	1.984	2.077	0.000	2.077	2.124	0.000	0.000	0.000	0.000	17.969
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Situational Awareness Environmental Monitoring (SSAEM) program is a non-ACAT, Class D technology demonstration project to support the international Constellation Observing System for Meteorology, Ionosphere and Climate 2 (COSMIC-2) mission. The SSAEM program provides the acquisition, development and launch/on-orbit support of 18 space/terrestrial weather sensors to COSMIC-2 partnership in coordination with National Oceanic and Atmospheric Administration (NOAA) and Taiwan Space Agency (TASA). COSMIC-2 launched six satellites in an equatorial, Low Earth Orbit (LEO) with 3 SSAEM sensors on each spacecraft in FY 2019. The sensors are the primary Tri-Global Navigation Satellite System (Tri-GNSS) Radio occultation System (TGRS), and the secondary Ion Velocity Meter (IVM) and Radio Frequency Beacon (RFB). The SSAEM sensors address three distinct Joint Requirement Oversight Committee (JROC)-approved Category A weather gaps, specifically Gap #4 (Ionospheric Density), Gap #7 (Equatorial Ionospheric Scintillation) and Gap #12 (Electric Field), to provide ionospheric space meteorological data to improve forecast capabilities and improve warfighter navigation/communication capabilities. TGRS also provides atmospheric refractivity profiles that are important inputs to DoW operational numerical weather prediction models.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver SSAEM for weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

The RFB ground station equipment was previously transferred to AFRL to continue development and potential fielding options for future ops capability. Incremental operational fixes and improvements to the TGRS sensor via a series of flight software/firmware uploads began in the months following launch, continue through the present and are expected to continue through FY 2026 at least. Design life has extended through FY 2033 due to system performance exceeding expectations.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Space Situational Awareness Environment Monitoring (SSAEM)	1.970	1.984	2.077
Description: The SSAEM program provides the acquisition, development and launch/on-orbit support of 18 space/terrestrial weather sensors to COSMIC-2 partnership in coordination with National Oceanic and Atmospheric Administration (NOAA) and Taiwan Space Agency (TASA).			
FY 2026 Plans: Continue implementing operational improvements via TGRS flight software uploads so as to meet and in some cases exceed program requirements, deliver new upgrades to data products, continue improvements through Solar Maximum period. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping,			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206422SF / <i>Weather System Follow-on</i>	Project (Number/Name) 65A038 / <i>SSA Environmental Monitoring</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.			
FY 2027 Plans: Continue implementing operational improvements via TGRS flight software uploads so as to meet and in some cases exceed program requirements, deliver new upgrades to data products, continue improvements through Solar Maximum period. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.			
FY 2026 to FY 2027 Increase/Decrease Statement: FY2027 increase compared to FY2026 due to annual inflationary cost to continue software updates to generate data products.			
Accomplishments/Planned Programs Subtotals		1.970	1.984
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
SSAEM post-launch and cal/val support contract is the sole-source contract to University Corporation Atmospheric Research (UCAR) due to their expertise in radio occultation and space weather monitoring for the primary SSAEM sensors. The Justification & Approval (J&A) was approved in June 2018 and the Request for Proposal was released on August 1st, 2018. The contract was initially awarded in July 2019 to provide post-launch cal/val and on-orbit support of its 5-year mission and with the continued SSAEM performance beyond its design life, the contract has been extended to FY2028 to align with the updated space vehicles' mission life.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206422SF / Weather System Follow-on				Project (Number/Name) 65A038 / SSA Environmental Monitoring					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
UCAR Sensor R&D	SS/CPFF	UCAR : Boulder, CO	2.706	0.300	Nov 2024	0.677	Nov 2025	0.958	Nov 2026	-		0.958	0.000	4.641	-
On-Orbit Support (NASA/JPL)	MIPR	NASA/JPL : Boulder, CO	4.253	0.865	Nov 2024	0.970	Nov 2025	0.778	Nov 2026	-		0.778	0.000	6.866	-
Ground Support	Various	Various : TBD	1.825	0.300	Nov 2024	0.100	Nov 2025	0.000	Nov 2026	-		0.000	0.000	2.225	-
Technical Mission Analysis	RO	Aerospace Corp : El Segundo, CA	0.355	0.287	Nov 2024	0.131	Nov 2025	0.131	Nov 2026	-		0.131	0.000	0.904	-
SBIR/STTR	Various	TBD : TBD	0.000	0.000	Mar 2025	0.000	Mar 2026	0.072	Mar 2027	-		0.072	0.000	0.072	-
Subtotal			9.139	1.752		1.878		1.939		-		1.939	0.000	14.708	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace Corp : El Segundo, CA	0.673	0.123	Nov 2024	0.056	Nov 2025	0.056	Nov 2026	-		0.056	0.000	0.908	-
A&AS	Various	Various : Various	0.000	0.095	May 2025	0.050	May 2026	0.082	May 2027	-		0.082	0.000	0.227	-
Other Support	Various	Various : TBD	0.002	-		-		-		-		-	0.000	0.002	-
Subtotal			0.675	0.218		0.106		0.138		-		0.138	0.000	1.137	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			9.814	1.970		1.984		2.077		-		2.077	0.000	15.845	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026									
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
3620F / 5					PE 1206422SF / Weather System Follow-on					65A038 / SSA Environmental Monitoring									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Space Situational Awareness																												
Environmental Monitoring																												
On Orbit Activities																												
Ground Activities																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206422SF / Weather System Follow-on	Project (Number/Name) 65A038 / SSA Environmental Monitoring	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space Situational Awareness Environmental Monitoring				
On Orbit Activities	1	2025	4	2028
Ground Activities	1	2025	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206422SF / Weather System Follow-on				Project (Number/Name) 65A039 / WSF-M			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
65A039: WSF-M	256.595	45.518	35.941	32.679	0.000	32.679	22.992	0.000	0.000	0.000	0.000	393.725
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Weather System Follow-on - Microwave (WSF-M) Project 65A039 includes funds for the WSF-M system, the Compact Ocean Wind Vector Radiometer (COWVR) technology demonstration, and the Energetic Charged Particle (ECP) sensor development.

Weather System Follow-on (WSF) is a Low-Earth Orbit (LEO) microwave imaging system developed and delivered by the United States Space Force's Space Systems Command (SSC). WSF is the next generation of space-based passive microwave sensing technology. It will provide U.S. and Allied warfighters with essential weather data, including the measurement of ocean surface wind speed and direction, ice thickness, snow depth, soil moisture, and local spacecraft energetic charged particle environment. The ocean surface wind speed measurement enables tropical cyclone intensity determination by the Joint Typhoon Warning Center. The data gathered by WSF will be provided to meteorologists in support of the generation of a wide variety of weather products necessary to conduct mission planning and operations globally.

WSF is an Acquisition Category IB program comprised of two Space Vehicles (SV) and their associated command, control, and data dissemination network. Global environmental monitoring data is gathered, stored, and downlinked through the Satellite Control Network (SCN) and disseminated to Air Force and Navy weather centers. Additionally, data is broadcast real time by the satellite for utilization by heritage Direct Readout Terminals that use the data for local weather forecasting.

WSF is a Major Defense Acquisition Program (MDAP) with the Space Force as the lead component. Founded on the Space-Based Environmental Monitoring (SBEM) Analysis of Alternatives (AoA) results, the WSF will be to enable:

- 1) Timely weather collection over broad oceans in support of maneuvering forces.
- 2) Space weather capabilities to characterize operational orbits, space situational awareness, and the ionosphere.

Secondary investments may be supported to address weather gaps identified in the SBEM AoA and validated by the JROC. The Space Force will pursue prototyping of latest commercial industry capabilities for simplified designs to meet the SBEM Gap requirements.

COWVR is an on-orbit demonstration project of the new COWVR technology to deliver Weather Gap #3, Ocean Surface Vector Winds (OSVW) and Gap #8, Tropical Cyclone Intensity (TCI).

ECP supports the SBEM Weather Gap #11, Low Earth Orbit Energetic Charged Particle Characterization. To support this requirement, the ECP sensor will be integrated on the WSF-M satellites.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: WSF Microwave Satellite (SV1-2)	44.038	35.560	32.679

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206422SF / <i>Weather System Follow-on</i>		Project (Number/Name) 65A039 / <i>WSF-M</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Description: Develop, build, integrate, and test the WSF Microwave (WSF-M) satellites, including bus, payloads, and ground upgrades to satisfy JROC-directed SBEM Capability gaps. FY 2026 Plans: Conduct on-orbit trending analysis factory reach-back and operational support for SV-1. Complete integration and test for WSF-M SV-2 and prepare for launch. Initiate launch preparation activities, including Day-in-the Life and Integrated Crew Exercises. Conduct SV-2 pre-ship review ahead of shipment of SV-2 to payload processing facility for launch processing. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain; Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Complete integration and test for WSF-M SV-2. Complete launch preparation activities, including Day-in-the Life and Integrated Crew Exercises. Conduct SV-2 Launch and Early On-orbit Test Activities and post-launch calibration/validation activities. Conduct on-orbit trending analysis factory reach-back and operational support for SV-1 and SV-2. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain; Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decrease due to completion of WSF-M SV-2 build activities.					
Title: COWVR Tech Demo Description: The Compact Ocean Wind Vector Radiometer (COWVR) launch objective supports Category A Weather Requirements, as codified in JROC Memo 092-014, providing on-orbit technology demonstration of the new COWVR technology to deliver Weather Gap #3, Ocean Surface Vector Winds (OSVW) and Gap #8, Tropical Cyclone Intensity (TCI). This is a cooperative mission with NASA for integrating the sensor onto the International Space Station (ISS) as a weather technology demonstration project. The mission designation for the COWVR is Space Test Program Houston Mission #8 (STP-H8). Demonstrating COWVR technology in the space environment remains an important milestone for the microwave data weather mission. FY 2026 Plans:			0.111	0.381	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206422SF / <i>Weather System Follow-on</i>	Project (Number/Name) 65A039 / <i>WSF-M</i>		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Continue COWVR contract closeout activities including final reporting. FY 2027 Plans: N/A. FY 2026 to FY 2027 Increase/Decrease Statement: FY27 decrease due to end of COWVR activities in FY26.				
Title: ECP Description: Energetic Charged Particles (ECP) will support the SBEM Weather Gap 11 and address the Secretary of the Air Force (SECAF) policy which directed each Space Force Satellite Office to plan for ECP sensors on all pre-Milestone B satellite acquisitions. To support this requirement, the ECP sensor will be integrated on the WSF-M satellites and include software development, testing, and on-orbit support for the ECP sensor. FY 2026 Plans: The build and integration of the ECP sensor was finished in September 2025. No additional funding specific to ECP is necessary. FY 2027 Plans: N/A FY 2026 to FY 2027 Increase/Decrease Statement: N/A		1.369	0.000	0.000
Accomplishments/Planned Programs Subtotals		45.518	35.941	32.679
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy The acquisition strategy for WSF is based on validated SBEM AoA results from FY 2014 and subsequent acquisition strategy development activities that were conducted in FY 2015. The WSF acquisition strategy focuses on streamlined acquisition processes for providing materiel solutions to OSVW, TCI & LEO ECP, as validated by the JROC; deliver microwave sensing solution to address DoW needs for OSVW and TCI capabilities and deliver space environment sensing solution to address LEO ECP capabilities for on-orbit attributions and support of anomaly resolutions. The Space Force is conducting a technology demonstration of the Compact Ocean Wind Vector Radiometer (COWVR) sensor on the International Space Station (ISS), utilizing its unique technology demonstration capabilities for on-orbit demonstration of COWVR technology. The Space Systems Command (SSC) Space Test Program				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206422SF / <i>Weather System Follow-on</i>	Project (Number/Name) 65A039 / <i>WSF-M</i>
Office is the lead Space Force organization spearheading the NASA partnership, with the SSC Space Sensing (SN) Directorate responsible for the COWVR sensor and providing programmatic support to enable COWVR sensor to ISS integration/technology demonstration. The program awarded a contract for WSF-M with up to two satellites through a full and open competition. The WSF-M first satellite (SV-1) base contract awarded Nov 2017. The pre-priced WSF-M SV-2 option was exercised in Nov 2022. WSF-M SV-2 ILC is 3rd quarter FY 2027. The WSF SV-2 will be functionally equivalent to SV-1. The Naval Research Lab Blossom Point Tracking Facility (BPTF) will be the Satellite Operations Center (SOC) for WSF-M. The WSF ECP sensor is developed by AFRL and will be integrated onto the WSF-M satellites.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 5

R-1 Program Element (Number/Name)

PE 1206422SF / Weather System Follow-on

Project (Number/Name)

65A039 / WSF-M

Product Development (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
WSF COWVR Technology Demonstration	MIPR	JPL : Pasadena, CA	4.607	0.222	Apr 2025	0.381	Dec 2025	0.000	Dec 2026	-		0.000	0.000	5.210	-
WSF Microwave System (SV1-2)	C/CPFF	BAE Systems : Boulder, CO	180.442	23.050	Nov 2024	17.883	Nov 2025	18.783	Nov 2026	-		18.783	0.000	240.158	546.793
WSF ECP	C/Various	AFRL : Kirtland AFB, NM	3.334	1.369	Jan 2025	0.000	Apr 2026	0.000	Apr 2027	-		0.000	0.000	4.703	-
WSF Enterprise Systems Engineering & Integration	C/CPAF	Booz Allen Hamilton : McLean, VA	6.487	3.125	Nov 2024	3.280	Nov 2025	3.283	Nov 2026	-		3.283	0.000	16.175	-
WSF Technical Mission Analysis	RO	Aerospace Corp. : El Segundo, CA	22.688	5.994	Nov 2024	2.611	Nov 2025	2.611	Nov 2026	-		2.611	0.000	33.904	-
WSF Blossom Point Naval Research Laboratory	MIPR	NRL : Welcome, MD	20.838	7.867	Dec 2024	8.257	Dec 2025	4.497	Dec 2026	-		4.497	0.000	41.459	-
SBIR/STTR	Various	Not specified. : TBD	0.000	0.000		0.667	Mar 2026	1.006	Mar 2027	-		1.006	0.000	1.673	-
Subtotal			238.396	41.627		33.079		30.180		-		30.180	0.000	343.282	N/A

Management Services (\$ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
WSF FFRDC	RO	Aerospace Corp : El Segundo, CA	9.105	2.092	Nov 2024	1.119	Nov 2025	1.131	Nov 2026	-		1.131	0.000	13.447	-
WSF A&AS	Various	Various : El Segundo, CA	8.464	1.711	Feb 2025	1.525	Feb 2026	1.150	Feb 2027	-		1.150	0.000	12.850	-
WSF Other Support	Various	Various : El Segundo, CA	0.630	0.088	Nov 2024	0.218	Nov 2025	0.218	Nov 2026	-		0.218	0.000	1.154	-
Subtotal			18.199	3.891		2.862		2.499		-		2.499	0.000	27.451	N/A

			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			256.595	45.518		35.941		32.679		-		32.679	0.000	370.733	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force							Date: April 2026			
Appropriation/Budget Activity 3620F / 5				R-1 Program Element (Number/Name) PE 1206422SF / <i>Weather System Follow-on</i>		Project (Number/Name) 65A039 / <i>WSF-M</i>				
	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks										

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force															Date: April 2026				
Appropriation/Budget Activity										R-1 Program Element (Number/Name)					Project (Number/Name)				
3620F / 5										PE 1206422SF / Weather System Follow-on					65A039 / WSF-M				

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Weather System Follow-On																												
WSF SV-1 Initial Operational Capability																												
WSF SV-1 Full Operational Capability																												
WSF ECP On-Orbit Support Activities																												
WSF SV-2 Production/Integration and Test																												
WSF SV-2 Initial Launch Capability																												
WSF SV-2 Initial Operational Capability																												
WSF SV-2 Full Operational Capability																												
COWVR Technology Demonstration On-Orbit Operations																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206422SF / <i>Weather System Follow-on</i>	Project (Number/Name) 65A039 / <i>WSF-M</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Weather System Follow-On</i>				
WSF SV-1 Initial Operational Capability	1	2025	3	2025
WSF SV-1 Full Operational Capability	4	2025	4	2026
WSF ECP On-Orbit Support Activities	1	2025	4	2027
WSF SV-2 Production/Integration and Test	1	2025	1	2027
WSF SV-2 Initial Launch Capability	1	2027	1	2027
WSF SV-2 Initial Operational Capability	2	2027	1	2028
WSF SV-2 Full Operational Capability	2	2028	4	2028
COWVR Technology Demonstration On-Orbit Operations	1	2025	2	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206425SF I Space Situation Awareness Systems							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	444.500	0.000	1,317.841	0.000	1,317.841	1,806.199	2,124.284	1,026.162	601.791	Continuing	Continuing
656565: Ground Based SDA	0.000	226.292	0.000	442.252	0.000	442.252	605.873	508.234	353.553	190.128	0.000	2,326.332
65A006: Space Based SDA	0.000	169.071	0.000	148.811	0.000	148.811	43.522	30.118	30.656	31.270	Continuing	Continuing
65A036: RG-XX	0.000	0.000	0.000	355.903	0.000	355.903	791.449	1,089.937	264.293	253.663	Continuing	Continuing
65A037: Ground Based Optical Sensor	0.000	49.137	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	49.137
65A041: SG-XX	0.000	0.000	0.000	370.875	0.000	370.875	365.355	495.995	377.660	126.730	Continuing	Continuing

A. Mission Description and Budget Item Justification

Space Domain Awareness (SDA) is one of five core competencies of the Space Force and includes the effective identification, characterization, and understanding of any factor, passive or active, associated with the space domain that could affect space operations and thereby impact the security, safety, economy, or environment of our nation. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities.

This programs falls within the Space Domain Awareness (SDA) mission area which provides the space-based and ground-based architecture required to detect, track, catalogue, and identify objects and activities in the space domain. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. Program interdependencies include: SC&C Software Pilot Program (1208248SF); Space Defense Interface Network (1203904SF); Space Situational Awareness Operations (1203940SF); Space Situational Awareness Systems (1206425SF)”

Deep Space Advanced Radar Capability (DARC) is a ground-based, SDA radar system that detects, tracks, and maintains custody of deep space objects 24/7 in all weather and through the solar exclusion gap. DARC will augment the SSN as an additional sensor with increased capacity and capability for deep space object custody, providing full global coverage. In 2021, DARC Site 1 was awarded as a Middle Tier Acquisition (MTA) rapid prototype. In 2024, the DARC program transitioned to a Major Capability Acquisition (MCA) program that now includes all three sites; Australia, United Kingdom (UK), and the U.S.

The SILENTBARKER program is developing and delivering a space-based SDA system to provide space object surveillance through a phased acquisition approach starting with SILENTBARKER Baseline. The baseline program will be followed by SILENTBARKER Expansion and then SILENTBARKER-B in accordance with the National Reconnaissance Office (NRO) approved acquisition strategy. The United States Space Force (USSF) and NRO have signed a Memorandum of Agreement partnering on the SILENTBARKER program based on overlapping requirements with an updated Memorandum of Understanding in FY26 for SILENTBARKER-B. The USSF will continue to explore and study surveillance architecture options for space-based SDA post SILENTBARKER-B in FY26. Space Based SDA SILENTBARKER

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>
requirements are based on the SILENTBARKER Statement of Capabilities (SOC) and the 2022 Space Domain Awareness (SDA) Initial Capabilities Document, which is focused on protecting High Value Assets. Starting in FY27, the Space-Based Surveillance Mission, SG-XX, is a proliferated surveillance SDA follow-on mission to SILENTBARKER that leverages incremental technology insertion throughout the lifecycle of the program. Space Based SDA enables timely detection and custody of on-orbit threats in order to protect U.S. High Value Assets in space in support of the National Defense Strategy. SG-XX will use a flexible acquisition contract to field both what is commercially available as well as integrating emerging prototypes enabling concurrent and rapid onboarding of multiple new vendors, incorporate allied nation partnerships where able, and leverage commercial capabilities and services to the maximum extent possible. With evolving threats, the program will enable the USSF to rapidly deploy wide area search surveillance needed in FY 2030 and beyond. SG-XX requirements for Space Based SDA are aligned with capabilities documented in the U.S. SPACECOM SDA Mission Area Capability Need Statements (MACNs), the SILENTBARKER SOC, and the SDA Mission Area Requirement Document (MARD). Space Based capabilities will provide the capability to search, detect, and track objects from a space-based sensor for timely custody and event detection. Surveillance from space augments and overcomes existing ground sensor limitations with timely 24-hour above-the-weather collection of satellite metric data. This data is communicated to operators at the Combined Space Operations Center (CSpOC), National Space Defense Center (NSDC), and other classified users. This program element includes efforts related to Space Based SDA, its integration into the broader space superiority architecture, and analysis and experimentation to ensure space-based space surveillance capabilities are effective against the evolving threat. Ground Based Optical Sensor System (GBOSS) includes an upgrade to the Ground-based Electro-Optical Deep Space Surveillance (GEODSS) system that enables GEODSS to monitor small, closely-spaced, and advanced threats in low, mid, high, and geostationary orbits. The upgraded system will discover currently undetectable space threats, reduce an adversary's tactical surprise and deliver the data required to support accurate, timely, and actionable SDA. This facilitates decision-making within the compressed timelines dictated by the realities of the congested, contested, competitive space domain. The program delivers a combination of performance upgrades to existing GEODSS sites, including advanced data exploitation and rapid data dissemination. The GBOSS program will also incorporate coalition data, commercial data, and includes options to develop and field new sites to extend our global footprint and increase our capacity to positively identify an adversary committing an orbital attack. The program also includes updates to image processing and optical subsystems that will enhance sensitivity and search rate, and may field new multi-spectral sensors supporting extended operations, closely-spaced object discrimination, high-fidelity characterization, enhanced indications and warnings (I&W), and attribution. Space-Based Reconnaissance Mission, RG-XX, is a reconnaissance and surveillance Space Domain Awareness (SDA) capability, consisting of a constellation of new proliferated space vehicles (SV), which will significantly enhance current capabilities and capacity. SVs will integrate seamlessly with existing, but evolving Space Control operations, increasing capability to detect, track, and characterize threats to high value U.S. and allied satellites. SVs will use dynamic Rendezvous and Proximity Operations (RPO) capabilities and may include refuelability. RG-XX will use a flexible acquisition construct enabling concurrent and rapid onboarding of multiple new vendors, incorporate allied nation partnerships, and leverage commercial capabilities and services. On 28 July 2025, the Service Acquisition Executive (SAE) signed an Acquisition Decision Memorandum (ADM) authorizing RG-XX to proceed on the MTA Rapid Prototyping Pathway.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206425SF I Space Situation Awareness Systems				
This program element falls within the Space Domain Awareness (SDA) mission area which provides the space-based and ground-based architecture required to detect, track, catalogue, and identify objects and activities in the space domain. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. Space Force investment program interdependencies include, RDT&E Budget Line Items: Space Domain Awareness/Planning/Tasking SW (1208248SF); Automate Sat C2 (1207440SF); Space Situational Awareness Operations (1203940SF); Space Situational Awareness Systems (1206425SF); and elements of Procurement Budget Line Item: Space Mods (SPCMOD) The FY 2026 request for Space Situational Awareness Systems includes 528,000 thousand of mandatory (reconciliation) funds for a total of 528,000 thousand. The mandatory funds continue construction and integration of DARC Site 1, and development of Site 2; ongoing baseline and expansion capabilities for SILENTBARKER; and fielding the GBOSS upgrade to the Maui GEODSS site in FY 2026. Further information for this reconciliation request is provided in Section 20009 (INDOPACOM Capabilities) of the Reconciliation Exhibit. This program element may include necessary civilian pay expenses required to manage, execute, and deliver Space and Ground Based SDA and Ground Based Optical system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. For Space Based SDA in PY 0.225M was expended for civilian pay expenses in this program element, and in CY 0.225M is forecasted for civilian pay expenses in this program element. This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		455.605	0.992	0.000	0.000	0.000
Current President's Budget		444.500	0.000	1,317.841	0.000	1,317.841
Total Adjustments		-11.105	-0.992	1,317.841	0.000	1,317.841
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-0.992			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		-11.105	0.000	1,317.841	0.000	1,317.841

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 1206425SF I Space Situation Awareness Systems	
Change Summary Explanation FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.		

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems				Project (Number/Name) 656565 / Ground Based SDA			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
656565: Ground Based SDA	0.000	226.292	0.000	442.252	0.000	442.252	605.873	508.234	353.553	190.128	0.000	2,326.332
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
SSC/SYD 85/BAS is developing the Deep Space Advanced Radar Capability (DARC) (Project 656565) for Guardians across the USSF Space Domain Awareness (SDA) mission, Combined Forces Command, Mission Delta 2, and 20th Space Surveillance Squadron. As a result, the Service will (Pick at least one FY27 Effects, one enduring effect and add optional as needed).												
Space Domain Awareness (SDA) is one of five core competencies of the Space Force and is the effective identification, characterization, and understanding of any factor, passive or active, associated with the space domain that could affect space operations and thereby impact the security, safety, economy, or environment of our nation. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warnings on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities.												
This program element develops, tests, upgrades and fields new SDA capabilities across the space surveillance network (SSN) while companion program element 1203940SF develops, fields, and operationalizes sensor networks and information integration capabilities. Activities funded in this program element (1206425SF) also support efforts such as engineering studies and analyses, architectural engineering studies, trade studies, technology needs forecasting, modernization initiatives, systems engineering, system development, and test & evaluation. Activities may include prototyping and technology demonstration(s).												
This program falls within the SDA mission area which provides a ground-based radar system that detects, tracks, and maintains custody of deep space objects 24/7 in all weather and through the solar exclusion gap. DARC will augment the Space Surveillance Network as an additional sensor with increased capacity and capability for deep space object custody, providing full global coverage.												
The FY 2026 spend plan amount includes \$0 thousand of discretionary and \$281,861 thousands of mandatory (reconciliation) for a total of \$281,861 thousands. The mandatory funds continue construction and integration of Site 1, and development of Sites 2 & 3. Further information for this reconciliation request is provided in Section 20009 (INDOPACOM Capabilities) of the Reconciliation Exhibit.												
This program element may include necessary civilian pay expenses required to manage, execute, and deliver DARC weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: DARC Sites 1, 2 and 3 Operational Capability									226.292	0.000	442.252	

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 656565 / <i>Ground Based SDA</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Description: The program will complete development, test, and delivery of DARC Sites 1, 2 and 3 with a current estimated completion date of FY 2030. The 3-site system will be responsive to regularly scheduled and un-scheduled tasks to locate, identify, characterize deep space objects and report the results to Battle Management Command and Control locations and the Space Surveillance Network. This major thrust was retitled from DARC Sites 2 and 3 Operational Capability to capture the remaining scope of the DARC Site 1 prototype. The follow-on Major Capability Acquisition (MCA) will complete and field all three DARC sites. It is not a New Start. FY 2026 Plans: Mandatory funding would complete Site 1 system and software integration and developmental test activities. Complete the integration of all DARC Site 1 subsystems, such as antennas, racks and operations consoles. Begin Operational Test and Evaluation subsystems, such as antennas, racks and operations consoles for Site 1. Continue Site 2 design and development activities and complete Critical Design Review (CDR). Continue pre-construction activities, to include environmental work and any requirements from UK Towne & Planning council. Prepare for connection of fiber optics communication lines and infrastructure, such as the power grid, backup generators, and main water line. Begin purchasing Site 2 long-lead and facility hardware. For Site 3, the Program Office will execute pre-acquisition activities such as coordination with Federal Aviation Administration (FAA) to gain approval to use the U.S. site. Collaborate with Government stakeholders to finalize roles, responsibilities, and resources required for site development and operations. Rapidly respond to urgent needs by developing and implementing the system resiliency and domain awareness capabilities necessary to operate in the contested space domain and support USINDOPACOM activities. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities. FY 2027 Plans: Complete Site 1 Operational Testing, deliver the Operational Leave-Behind Capability, and begin Interim Contract Support. Continue Site 2 pre-construction activities and begin site construction. For Site 3, the Program Office will initiate engineering and design work. These efforts include execution of critical activities such as coordination with the Federal Aviation Administration (FAA) to gain approval to use the U.S. site. The Program Office will			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 656565 / <i>Ground Based SDA</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
initiate Government stakeholder collaboration to finalize all roles, responsibilities, and resources required for streamlined site development and operations.			
<i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> The FY 2026 spend plan amount includes 281,861 thousands of mandatory (reconciliation) funds. FY 2027 increased due to funding required for DARC Site 1 Interim Contract Support and increased funding needed for DARC Site 2 and DARC Site 3.			
Accomplishments/Planned Programs Subtotals		226.292	0.000
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy Originally this effort utilized existing DoW engineering/study contracts and activities to conduct science and technology development and data analysis. Preliminary Government critical design effort for the technology maturation and prototype commenced in FY 2017. A Broad Agency Announcement (BAA) was used to award seven Integrated System Engineering Team (ISET) contracts which allowed for organizations to participate, advise the government, and gain insight into the prototype design and build. In May of 2019, DARC was designated as a Middle Tier Acquisition (MTA) program under Section 804 of the 2016 National Defense Authorization Act (NDAA). In 2020, DARC was directed to proceed with a Rapid Prototyping MTA program for Site 1. The Prime System Integrator (PSI) contract was awarded to Northrop Grumman Inc. (NG) via a single, competitive award through the Space Enterprise Consortium (SpEC) Other Transaction Authority (OTA) agreement. The DARC Site 1 MTA rapid prototype program successfully transitioned to a Major Capability Acquisition program that now includes all three DARC sites under a single program. DARC Site 1 will remain under the awarded OTA contract and DARC Sites 2 & 3 will be awarded under a sole source contract to NG.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>				Project (Number/Name) 656565 / <i>Ground Based SDA</i>					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DARC System Development Site 1	C/CPIF	Northrop Grumman : Colorado Springs, CO	-	141.232	Oct 2024	-		16.700	Nov 2026	-		16.700	Continuing	Continuing	-
DARC System Development Site 2	C/CPIF	Northrop Grumman : Colorado Springs, CO	-	66.693	Nov 2024	-		255.252	Nov 2026	-		255.252	Continuing	Continuing	-
DARC System Development Site 3	C/CPIF	Northrop Grumman : Colorado Springs, CO	-	-		-		66.400	Jul 2027	-		66.400	Continuing	Continuing	-
DARC Technical Mission Analysis	Various	Various : Various	-	9.638	Jan 2025	-		4.800	Jan 2027	-		4.800	Continuing	Continuing	-
Interim Contractor Support	C/TBD	Northrop Grumman : Colorado Springs, CO	-	-		-		62.800	Nov 2026	-		62.800	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		-		16.200	Oct 2026	-		16.200	Continuing	Continuing	-
Subtotal			-	217.563		-		422.152		-		422.152	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DARC Test Support	Various	Various : Various	-	0.234	Feb 2025	-		1.800	Feb 2027	-		1.800	Continuing	Continuing	-
Subtotal			-	0.234		-		1.800		-		1.800	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : Various	-	6.260	Nov 2024	-		15.100	Nov 2026	-		15.100	Continuing	Continuing	-
FFRDC	RO	MITRE Corp : Colorado Springs, CO	-	2.115	Nov 2024	-		2.900	Nov 2026	-		2.900	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems						Project (Number/Name) 656565 / Ground Based SDA			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Support	Various	Various : Colorado Springs, CO	-	0.120	Oct 2024	-		0.300	Oct 2026	-		0.300	Continuing	Continuing	-
Subtotal			-	8.495		-		18.300		-		18.300	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	226.292		-		442.252		-		442.252	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>			Project (Number/Name) 656565 / <i>Ground Based SDA</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Prototype Risk Reduction Build and Test																												
Site 1 Development/Operational Testing																												
Site 1 Completion (Operational Leave Behind Capability)																												
Site 1 Interim Contractor Support																												
Site 2 Development																												
Site 2 Construction																												
Site 2 Development/Operational Testing																												
Site 2 Completion (Operational Leave Behind Capability)																												
Site 3 Contract Award																												
Site 3 Development																												
Site 3 Construction																												
Site 3 Development/Operational Testing																												
Site 3 Completion (Operational Leave Behind Capability)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 656565 / <i>Ground Based SDA</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Prototype Risk Reduction Build and Test</i>				
Site 1 Development/Operational Testing	3	2026	1	2027
Site 1 Completion (Operational Leave Behind Capability)	1	2027	1	2027
Site 1 Interim Contractor Support	1	2027	1	2029
Site 2 Development	1	2025	4	2029
Site 2 Construction	2	2027	1	2029
Site 2 Development/Operational Testing	2	2029	1	2030
Site 2 Completion (Operational Leave Behind Capability)	4	2029	4	2029
Site 3 Contract Award	4	2026	1	2027
Site 3 Development	2	2027	4	2030
Site 3 Construction	3	2028	4	2029
Site 3 Development/Operational Testing	1	2030	4	2030
Site 3 Completion (Operational Leave Behind Capability)	4	2030	4	2030

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>				Project (Number/Name) 65A006 / <i>Space Based SDA</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
65A006: <i>Space Based SDA</i>	0.000	169.071	0.000	148.811	0.000	148.811	43.522	30.118	30.656	31.270	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Space Domain Awareness (SDA) is one of five core competencies of the Space Force and is the effective identification, characterization, and understanding of any factor, passive or active, associated with the space domain that could affect space operations and thereby impact the security, safety, economy, or environment of our nation. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities.

This programs falls within the Space Domain Awareness (SDA) mission area which provides the space-based architecture required to detect, track, catalogue, and identify objects and activities in the space domain. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. Program interdependencies include: SC&C Software Pilot Program (1208248SF); Space Defense Interface Network (1203904SF); Space Situational Awareness Operations (1203940SF); Space Situational Awareness Systems (1206425SF)"Space Based SDA will develop and deliver capabilities and prototypes to provide space object surveillance and reconnaissance from space. The United States Space Force (USSF) and National Reconnaissance Office (NRO) have partnered on the Space Based SDA program to meet overlapping requirements through the SILENTBARKER program. The program is also developing prototypes to deliver additional space surveillance capabilities to meet emerging threats. Space Based SDA enables timely detection and custody of on-orbit threats to protect U.S. High Value Assets in support of the National Defense Strategy.

Space Based SDA requirements are based on both the Statement of Capabilities and the current 2022 SDA Initial Capabilities Document, which is focused on protecting High Value Assets. Surveillance from space augments and overcomes existing ground sensor limitations with timely 24-hour above-the-weather collection of satellite metric data. This data is communicated to operators at the Combined Space Operations Center (CSpOC), National Space Defense Center (NSDC), and other classified users. Further, this Program Element includes efforts related to Space Based SDA, its integration into the broader space superiority architecture, and analysis and experimentation to ensure space-based space surveillance capabilities are effective against the evolving threat.

This Program Element also evaluates affordable Space Based SDA replenishment options to provide the system resiliency necessary to operate in the contested space domain via studies through technical analysis, risk reduction experiments, affordable prototyping, and partnership with Air Force Research Laboratory (AFRL). In addition, this Program Element leverages opportunities for space-based commercial, international partnerships, and hosted payloads to support the SDA mission.

The FY 2026 spend plan amount for RDT&E includes 0 thousand of discretionary and 236,854 thousands of mandatory (reconciliation) for a total of 236,854 thousands.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems	Project (Number/Name) 65A006 / Space Based SDA		
This Program Element may include necessary civilian pay expenses required to manage, execute, and deliver Space Based SDA weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Space-Based Space Domain Awareness (SDA)		169.071	0.000	148.811
Description: SDA includes effective identification, characterization, and understanding of any factor, passive or active, associated with the space domain.				
Performs space-based SDA analysis, research, and development for the SILENTBARKER system in partnership with the NRO.				
FY 2026 Plans:				
Mandatory (reconciliation) funding in FY2026 will continue advancing space-based SDA capabilities critical to operations in the contested space domain, with a focus on system resiliency, prototyping, and operational experimentation.				
Key planned efforts include:				
SILENTBARKER Expansion: Continue launch preparations, integration, and development activities for the SILENTBARKER Expansion increment, as well as development for the follow-on SILENTBARKER-B increment to enhance GEO-based SDA capabilities. Support ongoing mission data processing and dissemination efforts across SILENTBARKER and other SDA prototypes. Technology Development and Prototyping: Advance SDA capability through technology enhancements targeting evolving threats. FY2026 efforts will include studies, SB-NEXT studies, analyses, demonstrations, and experimentation to support future upgrades, system extensions, and performance augmentations for surveillance and reconnaissance. Oculus Hosted Payload Program: Continue development and integration of SDA Hosted Payload on a commercial platform. FY 2026 will integrate the Oculus payload onto a host, including payload characterization and environmental testing. The Oculus effort remains a cost-effective GEO-based SDA gap-filler leveraging commercial and international partnerships. Prototype Missions (Oracle-M): Launch, on-orbit experimentation, and operations for AFRL and SSC prototype missions. Enterprise Integration and Resiliency: Continue support for implementing resilient SDA systems and enhancing situational awareness. Activities may include program office support, technical studies, experimentation, integration and testing of C2 systems, mission partner interfaces, space test/ combat range events, and related support efforts. Strategic Partnerships: FY 2026 will further leverage commercial, international, and interagency collaboration opportunities to expand SDA capabilities and accelerate threat-responsive innovation.				
FY 2027 Plans:				
Key planned efforts include:				
SILENTBARKER-B: Continue development for the next increment of GEO-based SDA capabilities.				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A006 / <i>Space Based SDA</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Continue studies and development for future USSF SDA GEO space-based SDA capabilities leveraging commercial/DoW product lines. Support on-going mission data processing and dissemination efforts across SILENTBARKER and other SDA prototypes. Technology Development and Prototyping: Advance SDA capability through technology enhancements targeting evolving threats. FY 2027 efforts will include studies, analyses, demonstrations, and experimentation to support future upgrades, system extensions, and performance augmentations for surveillance. Prototype Mission (Oracle-M) and operational checkout for AFRL and SSC prototype mission to include contractor logistics support. Continue on-orbit experimentation, mission level technical baseline activities. The Oculus SV effort (YSG-XX) will transition to the SG-XX BPAC in FY27 to cover payload and bus integration and launch preparation. Enterprise Integration and Resiliency: Continue support for implementing resilient SDA systems and enhancing situational awareness. Activities may include program office support, technical studies, experimentation, integration and testing of C2 systems, mission partner interfaces, space test/combat range events, and related support efforts. Strategic Partnerships: FY2027 will further leverage commercial, international, and interagency collaboration opportunities to expand SDA capabilities and accelerate threat-responsive innovation. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> The program received 236,854 thousands of mandatory (reconciliation) funding in FY26. In FY27, there is a funding decrease for Space-Based Space Domain Awareness (SDA).			
Accomplishments/Planned Programs Subtotals		169.071	0.000
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
The SILENTBARKER Acquisition Strategy was approved to minimize the SDA Space Based surveillance gap. SILENTBARKER Baseline launched in FY 2023. The SBSS Follow-on (SBSS FO) Materiel Development Decision was approved by the Milestone Decision Authority (MDA) on April 5, 2016. The Acquisition Strategy Panel was completed with the MDA on August 29, 2016. To satisfy the SDA architecture needs, the SBSS FO program requirements combined with an NRO program and were updated in the December 2017 SILENTBARKER Statement of Capabilities. The USSF is partnered with the NRO on SILENTBARKER space segment and telemetry, tracking, and commanding (TT&C) program segments to further National Security Space objectives. Mutual investment for the non- recurring engineering (NRE) cost enables the potential lower unit costs and increase satellite capacity. The SILENTBARKER phased acquisition approach is executed in accordance with NRO approved acquisition strategy and signed agreements between the USSF and NRO. The agreement includes the SILENTBARKER Baseline program and its follow-on increments, SILENTBARKER Expansion and SILENTBARKER-B. The SILENTBARKER Expansion contract was awarded Jun 2021 to extend capabilities past			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
3620F / 5	PE 1206425SF / <i>Space Situation Awareness Systems</i>	65A006 / <i>Space Based SDA</i>
initial operational capability (IOC). SILENTBARKER-B long lead parts procurement contract award in FY 2025 and FY2026. SILENTBARKER-B development award in FY 2026.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems				Project (Number/Name) 65A006 / Space Based SDA					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Based SDA Development	MIPR	Classified : Various	-	150.468	Dec 2024	0.000	Mar 2026	140.390	Dec 2026	-		140.390	Continuing	Continuing	-
Space Based SDA Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	1.200	Nov 2024	0.000	Mar 2026	0.500	Jan 2027	-		0.500	Continuing	Continuing	-
Space Based SDA Enterprise SE&I	Various	JHU/APL : Los Angeles, CA	-	11.162	Nov 2024	0.000	Mar 2026	1.000	Nov 2026	-		1.000	Continuing	Continuing	-
Space Based SDA SBIR/ STTR	Allot	TBD : TBD	-	-		0.000	Apr 2026	5.446	Mar 2027	-		5.446	Continuing	Continuing	-
Subtotal			-	162.830		0.000		147.336		-		147.336	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Based SDA FFRDC	RO	Aerospace Corp : Los Angeles, CA	-	0.475	Nov 2024	0.000	Mar 2026	0.500	Jan 2027	-		0.500	Continuing	Continuing	-
Space Based SDA A&AS	Various	Various : Various	-	5.666	Jan 2025	0.000	Mar 2026	0.950	Dec 2026	-		0.950	Continuing	Continuing	-
Space Based SDA Other Support	Various	Various : Various	-	0.100	Mar 2025	0.000	Mar 2026	0.025	Oct 2026	-		0.025	Continuing	Continuing	-
Subtotal			-	6.241		0.000		1.475		-		1.475	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	169.071		0.000		148.811		-		148.811	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>		Project (Number/Name) 65A006 / <i>Space Based SDA</i>	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SILENTBARKER-B																												
Technology Development, Engineering and Manufacturing Development, Production																												
Available for Launch																												
Follow-On To SILENTBARKER																												
Studies																												
SDA Hosted Payloads																												
Oculus Hosted Payloads Development																												
Oculus Hosted Payloads - Available for Host Integration																												
Oculus Host Development Activities																												
AFRL-SSC Tech Demonstrations																												
AFRL-Oracle Mobility (Oracle-M) Launch																												
Oracle-M On-orbit Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A006 / <i>Space Based SDA</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>SILENTBARKER-B</i>				
Technology Development, Engineering and Manufacturing Development, Production	4	2025	3	2031
Available for Launch	4	2031	4	2031
<i>Follow-On To SILENTBARKER</i>				
Studies	1	2026	4	2027
<i>SDA Hosted Payloads</i>				
Oculus Hosted Payloads Development	1	2025	3	2026
Oculus Hosted Payloads - Available for Host Integration	2	2026	4	2026
Oculus Host Development Activities	2	2026	4	2026
<i>AFRL-SSC Tech Demonstrations</i>				
AFRL-Oracle Mobility (Oracle-M) Launch	3	2026	4	2026
Oracle-M On-orbit Support	3	2026	3	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>				Project (Number/Name) 65A036 / RG-XX			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
65A036: RG-XX	0.000	0.000	0.000	355.903	0.000	355.903	791.449	1,089.937	264.293	253.663	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
Space Domain Awareness (SDA) is one of five core competencies of the Space Force and is the effective identification, characterization, and understanding of any factor, passive or active, associated with the space domain that could affect space operations and thereby impact the security, safety, economy, or environment of our nation. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. This program element expands reconnaissance and surveillance SDA capabilities, deploying a constellation of new proliferated space vehicles (SVs), which will integrate with existing, but evolving Space Control operations. Activities funded in this program element (1206425SF) also support efforts such as engineering studies and analyses, architectural engineering studies, trade studies, technology needs forecasting, modernization initiatives, systems engineering, system development, risk mitigation, and test & evaluation, and may include prototyping and technology demonstration. RG-XX will increase SDA capabilities and capacity to detect, track, and characterize threats to high value U.S. and allied satellites. SVs will use dynamic Rendezvous and Proximity Operations (RPO) capabilities and may include refueling capability. RG-XX will use a flexible acquisition construct enabling concurrent and rapid onboarding of multiple new SV vendors, incorporate allied nation partnerships, and leverage commercial capabilities and services. RG-XX requirements are based on a Rapid Prototyping Requirements Document (RPRD) and a classified Capability Description Document (CDD). RG-XX will provide critical Fire Control capability such as search, detect, and track objects from space-based sensors for timely custody and event detection. Reconnaissance and Surveillance from space augments and overcomes existing ground sensor limitations with timely 24-hour above-the-weather collection of satellite metric data only possible with space-based sensors. This data is communicated to USSF operators, National Space Defense Center (NSDC), and other classified users. This project includes efforts related to Space Based SDA, its integration into the broader space superiority architecture, and analysis and experimentation to ensure space-based space surveillance capabilities adapt to an evolving threat environment. This RG-XX project also evaluates affordable replenishment options to provide additional capacity, system resiliency, situational awareness, and capability enhancement, necessary to operate in the contested space domain. RG-XX will do this through studies, technical analysis, risk reduction activities, modeling and simulation, software development, and prototyping. In addition, this program will seek opportunities for space-based commercial vendors, international partnerships, hosted payloads, ground-based commercial vendors, and ground-as-a service commercial vendors to support the SDA mission.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: RG-XX									-	0.000	355.903	

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A036 / RG-XX	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Description: RG-XX includes effective identification, characterization, and understanding of any factor, passive or active, associated with the space domain. Performs space-based SDA analysis, risk reduction, and research and development for RG-XX program. FY 2026 Plans: N/A FY 2027 Plans: FY 2027 will continue activities for implementation of system resiliency and situational awareness necessary to operate in the contested space domain environment. Activities may include, but are not limited to: program office support, studies, technical analysis, experimentation integration and test of command and control (C2), resiliency measures, risk mitigation, mission partner interfaces, commercial and international partner engagement, space test/combat range events and office support, etc. Continue SV contracts to design and build first RG-XX increment, award second increment of SVs to grow the constellation to meet capacity requirement, and continue ground development. SV providers will support design reviews and initiate efforts critical to timely and cost-effective SV production. SV providers will actively collaborate and coordinate with the ground-based systems provider and other SV providers to establish common standards and protocols, improving RG-XX mission effectiveness. Continue Ground development and integration efforts. Efforts include mission unique software development, infrastructure and platform provisioning and additional antenna site development. Additionally, develop training curriculum and prepare for operator training. Continue implementation of mission data processing and data dissemination efforts. Technology enhancements and prototyping efforts for space-based space domain surveillance against evolving threats, may include, but are not limited to: future upgrades, analysis, studies, demonstration, and experimentation to increase SV and constellation performance. FY 2027 will leverage opportunities for SDA space-based commercial, international, academic, and Federally Funded Research and Development Center (FFRDC) partnerships. System Engineering, Integration and Test (SEIT) efforts may include, but are not limited to: technology road mapping and improving coordination and collaboration across RG-XX Ground and SV segments, other SDA programs, and down-stream programs anticipated to leverage RG-XX mission capabilities. Working groups will be coordinated and established, facilitating risk mitigation and cross-program collaboration, facilitating system-of-system integration and effectiveness. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increased due to addition of RG-XX funding.			
Accomplishments/Planned Programs Subtotals		-	355.903

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A036 / RG-XX
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy The RG-XX Acquisition Strategy, which uses the Mid-Tier of Acquisition (MTA) Rapid Prototype Pathway, was approved on 28 JUL 2025. The RG-XX Program budget was approved in AUG 2025. RG-XX will leverage an IDIQ and competitive eco-system to award multiple SV development contracts incrementally to meet constellation mission performance requirements. RG-XX Ground will use an existing enterprise ground solution with mission unique upgrades.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>				Project (Number/Name) 65A036 / RG-XX					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
RG-XX Development	TBD	Unclassified: Various : TBD	-	-		-		332.077	Jul 2027	-		332.077	Continuing	Continuing	-
RG-XX Technical Mission Analysis	RO	Aerospace; El Segundo, CA : TBD	-	-		-		2.100	Nov 2026	-		2.100	Continuing	Continuing	-
RG-XX Enterprise SE&I	Various	JHU/APL; Los Angeles, CA : TBD	-	-		-		1.600	Oct 2026	-		1.600	Continuing	Continuing	-
RG-XX SBIR/ STTR	Allot	TBD: TBD : TBD	-	-		-		13.026	Mar 2027	-		13.026	Continuing	Continuing	-
Subtotal			-	-		-		348.803		-		348.803	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
RG-XX FFRDC	RO	Aerospace; El Segundo, CA : TBD	-	-		-		2.000	Nov 2026	-		2.000	Continuing	Continuing	-
RG-XX A&AS	Various	Various : TBD	-	-		-		4.600	Jan 2027	-		4.600	Continuing	Continuing	-
RG-XX Other Support	Various	Various : TBD	-	-		-		0.500	Nov 2026	-		0.500	Continuing	Continuing	-
Subtotal			-	-		-		7.100		-		7.100	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		355.903		-		355.903	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 5					PE 1206425SF / Space Situation Awareness Systems					65A036 / RG-XX			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
RG-XX SV Increment #1																																
Concept, Design, and Production																																
Launch																																
On-orbit Support																																
RG-XX SV Increment #2																																
Concept, Design, and Production																																
Launch																																
On-orbit Support																																
RG-XX SV Increment #3																																
Concept, Design, and Production																																
Launch																																
On-orbit Support																																
RG-XX Ground																																
Ground Segment Development																																
Ground Segment Updates																																
Sustainment																																

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A036 / RG-XX	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>RG-XX SV Increment #1</i>				
Concept, Design, and Production	3	2026	2	2029
Launch	2	2029	4	2030
On-orbit Support	2	2029	4	2031
<i>RG-XX SV Increment #2</i>				
Concept, Design, and Production	3	2028	1	2030
Launch	1	2030	4	2031
On-orbit Support	1	2030	4	2031
<i>RG-XX SV Increment #3</i>				
Concept, Design, and Production	4	2028	4	2030
Launch	4	2030	4	2031
On-orbit Support	4	2030	4	2031
<i>RG-XX Ground</i>				
Ground Segment Development	3	2026	1	2028
Ground Segment Updates	1	2028	2	2031
Sustainment	2	2031	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>				Project (Number/Name) 65A037 / <i>Ground Based Optical Sensor</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
65A037: <i>Ground Based Optical Sensor</i>	0.000	49.137	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	49.137
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2026, Project 65A037, Ground Based Optical Sensor, was completed.

A. Mission Description and Budget Item Justification

This Program Element develops, tests, upgrades and fields SDA capabilities across the Space Surveillance Network (SSN) while companion Program Element 1203940SF develops, fields, and operationalizes ground sensor networks and information integration capabilities. Activities funded in this Program Element (1206425SF) also support efforts such as engineering studies and analyses to include prototyping and technology demonstration(s), architectural engineering studies, trade studies, technology needs forecasting, modernization initiatives, systems engineering, system development, and test and evaluation.

Ground Based Optical Sensor System (GBOSS) includes an upgrade to the Ground-based Electro-Optical Deep Space Surveillance (GEODSS) system that enables GEODSS to monitor small, closely-spaced, and advanced threats in low, mid, high, and geostationary orbits. The upgraded system will discover currently undetectable space threats, reduce an adversary's tactical surprise and deliver the data required to support accurate, timely, actionable Space Domain Awareness (SDA). This facilitates decision-making within the compressed timelines dictated by the realities of the congested, contested, competitive space domain. This enhanced SDA capability directly supports the Find, Fix, Track, Target, Engage, and Assess (F2T2EA) stages of the GEO Kill Chain, enabling more effective space control operations. GBOSS also investigates and may field the use of passive RF, infrared, or other capabilities to augment its current optical data, providing a more comprehensive understanding of the space domain. The program delivers a combination of performance upgrades to existing GEODSS sites, including advanced data exploitation and rapid data dissemination. The program will seek Allied partnerships to incorporate coalition data, purchase commercial data to increase capacity, and/or investigate and field new sites to provide a global capability to positively identify an adversary committing an orbital attack. This collaborative approach with allies leverages shared optical capabilities for enhanced space domain awareness and collective defense. The program includes updates to image processing and optical subsystems that will enhance sensitivity and search rate, and may field new multi-spectral sensors supporting extended operations, closely-spaced object discrimination, high-fidelity characterization, enhanced indications and warnings (I&W), and attribution.

The FY 2026 spend plan amount includes \$0 thousand of discretionary and \$9,285 thousands of mandatory (reconciliation) for a total of \$9,285 thousands. The mandatory funds complete the fielding of the GBOSS upgrade to the MAUI GEODSS site in FY 2026. Further information for this reconciliation request is provided in Section 20009 (INDOPACOM Capabilities) of the Reconciliation Exhibit.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Space Based SDA weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems	Project (Number/Name) 65A037 / Ground Based Optical Sensor		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Ground Based Optical Sensor System (GBOSS) Description: GBOSS provides a global, ground-based, optical sensor capability for Space Domain Awareness (SDA). The program implements advanced capabilities that may leverage coalition data, commercial data, and passive RF capabilities to enhance system response and resiliency to operate in the contested space domain based on aggressive threats by our pacing-competitors, China and Russia. By incorporating these data sources, GBOSS strengthens its ability to support multiple stages of the GEO Kill Chain, particularly in the Find, Fix, and Track phases. GBOSS improves resolution, sensitivity, search rate, tracking of non-cooperative launches, precise tagging of clustered objects, detection of closely spaced dim objects, attribution of orbital attackers and delivers foundational technology to support data exploitation for advanced indications and warnings. This effort includes upgrading existing sensors and dissemination of all data to DoW and IC stakeholders via the Unified Data Library (UDL). Collaboration with allies on shared optical capabilities is integral to GBOSS, enabling a more comprehensive and resilient SDA architecture. FY 2026 Plans: Complete contractor verification, developmental, and operational testing of the GEODSS Enhanced Tower (GET) upgrade at the Maui GEODSS site leading to operational acceptance. Conclude investigating the use of passive RF capabilities to enhance the optical sites contribution to support multiple stages of the GEO Kill Chain, particularly in the Find, Fix, and Track phases. Complete investment in commercial data to bolster United States Indo-Pacific Command (USINDOPACOM) efforts and to mitigate coverages in the Atlantic gap, further bolstering the GEO Kill Chain by enhancing space object tracking and characterization. Complete initial exploration into using commercial data to bolster United States Indo-Pacific Command (USINDOPACOM) efforts and mitigate coverages in the Atlantic sensor coverage gap, with a focus on incorporating passive RF capabilities to strengthen the GEO Kill Chain. FY 2026 funding will allow the program office to rapidly respond to urgent needs by developing and implementing the system resiliency and domain awareness capabilities necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility, further bolstering the GEO Kill Chain through enhanced space domain awareness. FY 2027 Plans: N/A FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased due to completion of GBOSS effort.		49.137	0.000	0.000
Accomplishments/Planned Programs Subtotals		49.137	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A037 / <i>Ground Based Optical Sensor</i>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
D. Acquisition Strategy This program began in FY 2018 to address ground-based optical SDA gaps and shortfalls. The acquisition strategy, approved in March 2018, accelerates the development and fielding of the solution, minimizing the time to address the requirements considering current and emerging threats. Initial Technology Maturation & Risk Reduction (TMRR) activities were executed using existing defense, intelligence, and lab contracts. Engineering & Manufacturing Development (EMD) activities are being executed on the Maintenance of Space Situational Awareness Integrated Capabilities (MOSSAIC) contract awarded through full and open competition. Commercial data purchases are through the GSA FEDSIM SBIR Phase III ACCESS contract.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems				Project (Number/Name) 65A037 / Ground Based Optical Sensors					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GBOSS Design, development and life extension	C/CPIF	L3 Harris : Colorado Springs, CO	-	38.038	Nov 2024	-		-		-		-	0.000	38.038	-
GBOSS Testing	Various	Various : Various	-	0.750	Nov 2024	-		-		-		-	0.000	0.750	-
GBOSS Technical Mission Analysis	Various	Various : Various	-	2.985	Nov 2024	-		-		-		-	0.000	2.985	-
GBOSS Commercial Data	C/CPFF	Various : Various	-	4.000	Jun 2025	-		-		-		-	0.000	4.000	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		0.000	Oct 2025	-		-		-	0.000	0.000	-
Subtotal			-	45.773		0.000		-		-		-	0.000	45.773	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : Various	-	2.551	Nov 2024	-		-		-		-	0.000	2.551	-
FFRDC	RO	Various : Various	-	0.693	Nov 2024	-		-		-		-	0.000	0.693	-
Other Support	C/CPAF	Various : Various	-	0.120	Nov 2024	-		-		-		-	0.000	0.120	-
Subtotal			-	3.364		-		-		-		-	0.000	3.364	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	49.137		0.000		-		-		-	0.000	49.137	N/A
Remarks FY26 PB Mandatory GBOSS Design, Development and Life Extension - \$6.79M GBOSS Test and Training Materials Development - \$.75M GBOSS Technical Mission Analysis - \$.63M Commercial Data Augmentation - \$.50M A&AS - \$.57M Other Support - \$.05M Total - \$9.28M															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026									
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
3620F / 5					PE 1206425SF / Space Situation Awareness Systems					65A037 / Ground Based Optical Sensors									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
GBOSS Development																												
GET Engineering and Manufacturing Development (EMD)																												
Installation and Test at White Sands Missile Range																												
Operational Acceptance at White Sands Missile Range																												
Installation and Test at Maui																												
Operational Acceptance at Maui																												
Commercial Data																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems	Project (Number/Name) 65A037 / Ground Based Optical Sensor	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
GBOSS Development				
GET Engineering and Manufacturing Development (EMD)	1	2025	4	2026
Installation and Test at White Sands Missile Range	1	2025	2	2025
Operational Acceptance at White Sands Missile Range	3	2025	3	2025
Installation and Test at Maui	3	2025	3	2026
Operational Acceptance at Maui	4	2026	4	2026
Commercial Data	1	2025	4	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>				Project (Number/Name) 65A041 / SG-XX			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
65A041: SG-XX	0.000	0.000	0.000	370.875	0.000	370.875	365.355	495.995	377.660	126.730	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Space Systems Command/Space Delta 89/Space Surveillance and Reconnaissance Branch (SSC/SYD89/SYZ) is developing, prototyping, demonstrating, and executing the next generation Surveillance Geosynchronous Earth Orbit (GEO) program (SG-XX) to replace SILENTBARKER capabilities. This SDA effort satisfies one of five core competencies of the Space Force and is the effective identification, characterization, and understanding of any factor, passive or active, associated with the space domain that could affect space operations and thereby impact the security, safety, economy, or environment of our nation. As the foundation for space control, SDA encompasses surveillance of all space objects and activities: detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities.

These programs fall within the Space Domain Awareness (SDA) mission area which provides the space-based architecture required to detect, track, catalogue, and identify objects and activities in the space domain. This program element expands surveillance SDA capabilities, deploying a constellation of new proliferated SVs, which plans to integrate with existing, but evolving Space Control operations. Activities funded in this program element (1206425SF) also support efforts such as engineering studies and analyses, architectural engineering studies, trade studies, technology maturation, modernization initiatives, systems engineering, system development, risk mitigation, test & evaluation, and may include prototyping and technology demonstrations, such as the YSG-XX prototype program which directly applies commercial practices and risk reduction activities for SG-XX.

SG-XX provides SDA capabilities and capacity to detect, track, and characterize threats to high value U.S. and allied satellites and is the USSF led follow-on to the SILENTBARKER program. SG-XX will use a flexible acquisition construct enabling concurrent and rapid onboarding of multiple new SV vendors, incorporate allied nation partnerships, and leverage commercial capabilities and services.

SG-XX requirements for Space Based SDA are aligned with capabilities documented in the U.S. SPACECOM SDA Mission Area Capability Need Statements (MACNs), the SILENTBARKER SOC, and the SDA Mission Area Requirement Document (MARD). SG-XX will provide critical wide field of view surveillance for search, detection, and tracking of Resident Space objects from space-based sensors. Surveillance from space augments and overcomes existing ground sensor limitations with timely 24-hour above-the-weather collection of satellite metric data only possible with space-based sensors. This data is communicated to USSF operators, National Space Defense Center (NSDC), and other classified users. This project includes efforts related to Space Based SDA, its integration into the broader space superiority architecture, and analysis and experimentation to ensure space-based space surveillance capabilities against the evolving threat.

The SG-XX program provides additional capacity, system resiliency, situational awareness, and capability enhancement, necessary to operate in the contested space domain. This program requires studies through technical analysis, risk reduction activities, modeling and simulation, software development, and prototyping. In addition,

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems	Project (Number/Name) 65A041 / SG-XX		
this program leverages opportunities for space-based commercial vendors, international partnerships, hosted payloads, ground-based commercial vendors, and ground-as-a service commercial vendors to support the SDA mission.				
This Program Element may include necessary civilian pay expenses required to manage, execute, and deliver Space Based SDA weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: SG-XX		-	0.000	370.875
Description: SG-XX provides SDA capabilities and capacity to detect, track, and characterize threats to high value U.S. and allied satellites and is the USSF led follow-on to the SILENTBARKER program. Program will perform space-based SDA analysis, risk reduction, and research and development for the SDA mission area. This effort was initiated with mandatory funds in FY 2026 and is not a new start.				
FY 2026 Plans: The efforts described in the description are resourced with mandatory funds within this program element in FY 2026.				
FY 2027 Plans: FY 2027 continues the development and build of the first SG-XX constellation increment. Space Vehicle (SV) providers will support design reviews and initiate efforts critical to timely and cost-effective SV production. SV providers will collaborate and coordinate with the ground-based systems provider and other SV providers to establish common standards and protocols, improving mission effectiveness. Ground development and integration efforts will begin, and efforts will include mission unique software development and integration into an enterprise ground network construct. Additionally, the development of training curriculum and preparations for operator training will commence.				
Technology enhancements and prototyping efforts for space-based space domain surveillance against evolving threats, may include, but are not limited to: future upgrades, extension and augmentations through analysis, studies, demonstrations, and experimentation. FY 2027 will seek opportunities for commercial, international, academic, and Federally Funded Research and Development Center (FFRDC) partnerships. Efforts will include implementation of mission data processing and data dissemination efforts. Efforts will include the integration of YSG-XX prototyping efforts into the SG-XX technical baseline, which will inform future SG-XX spacecraft and sensor development. YSG-XX prototype activities will focus on completing host development, integration, and preparations for the launch and on-orbit demonstration of two commercial spacecraft. This demonstration will enhance system resiliency and situational awareness for operations in the contested space domain.				
System Engineering, Integration and Test (SEIT) efforts may include, but are not limited to: technology road mapping and improving coordination and collaboration across SG-XX Ground and SV segments, collaboration with other SDA programs (e.g. RG-XX), and down-stream programs anticipated to leverage SG-XX mission capabilities. Working groups will be coordinated and				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A041 / SG-XX	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
established, facilitating risk mitigation and cross-program collaboration, facilitating system-of-system integration and effectiveness. Activities may include, but are not limited to: program office support, studies, technical analysis, experimentation integration and test of command and control (C2), resiliency measures, risk mitigation, mission partner interfaces, commercial and international partner engagement, space test/combat range events and office support, etc. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 funding increase reflects the initial request of discretionary funds for the SG-XX program for continued development of the first SG-XX constellation increment. FY 2026 mandatory funds initiated this effort.			
Accomplishments/Planned Programs Subtotals		-	0.000
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
The SG-XX Acquisition Strategy plans to use the Mid-Tier of Acquisition (MTA) Rapid Prototype Pathway. The SG-XX Program budget was approved in Feb 2026. Multiple SV vendor production contracts are anticipated to be awarded by 2nd quarter of FY 2027, enabling SV Non-Recurring Engineering (NRE) and Recurring Engineering (RE) efforts to proceed from FY 2028 through FY2032. Incremental ground maturation and risk reduction efforts will be incrementally funded.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>				Project (Number/Name) 65A041 / SG-XX					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SG-XX Development	TBD	Unclassified; Various : TBD	-	-		-		342.805	Mar 2027	-		342.805	Continuing	Continuing	-
SG-XX Technical Mission Analysis	RO	Aerospace El Segundo, CA : TBD	-	-		-		2.800	Jan 2027	-		2.800	Continuing	Continuing	-
SG-XX Enterprise SE&I	TBD	TBD : TBD	-	-		-		3.875	Nov 2026	-		3.875	Continuing	Continuing	-
SG-XX SBIR/ STTR	Allot	TBD : TBD	-	-		-		13.575	Mar 2027	-		13.575	Continuing	Continuing	-
Subtotal			-	-		-		363.055		-		363.055	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SG-XX FFRDC	RO	Aerospace El Segundo, CA : TBD	-	-		-		2.600	Jan 2027	-		2.600	Continuing	Continuing	-
SG-XX A&AS	Various	TBD : TBD	-	-		-		5.070	Dec 2026	-		5.070	Continuing	Continuing	-
SG-XX Other Support	Various	TBD : TBD	-	-		-		0.150	Oct 2026	-		0.150	Continuing	Continuing	-
Subtotal			-	-		-		7.820		-		7.820	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		370.875		-		370.875	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026			
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>					Project (Number/Name) 65A041 / SG-XX			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
YSG-XX Commercial SV Prototypes																												
YSG-XX Host Development, Environmental and Test																												
YSG-XX Ground Integration activities																												
YSG-XX Launch																												
YSG-XX On-Orbit demonstrations																												
SG-XX SV Increment #1																												
Concept, Design, and Production																												
Launch																												
On-orbit Support																												
SG-XX SV Increment #2																												
Concept, Design, and Production																												
Storage																												
SG-XX SV Increment #3																												
Concept, Design, and Production																												
SG-XX Ground																												
Ground Segment Development																												
Ground Segment Updates																												
Sustainment																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A041 / SG-XX	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
YSG-XX Commercial SV Prototypes				
YSG-XX Host Development, Environmental and Test	1	2027	1	2028
YSG-XX Ground Integration activities	1	2027	3	2028
YSG-XX Launch	2	2028	2	2028
YSG-XX On-Orbit demonstrations	2	2028	4	2031
SG-XX SV Increment #1				
Concept, Design, and Production	2	2027	1	2030
Launch	2	2030	4	2030
On-orbit Support	2	2030	4	2031
SG-XX SV Increment #2				
Concept, Design, and Production	2	2028	2	2031
Storage	2	2031	4	2031
SG-XX SV Increment #3				
Concept, Design, and Production	2	2029	4	2031
SG-XX Ground				
Ground Segment Development	3	2026	2	2030
Ground Segment Updates	2	2030	4	2031
Sustainment	4	2031	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206431SF I Advanced EHF MILSATCOM (SPACE)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.981	13.598	10.157	0.000	10.157	1.053	0.000	0.000	0.000	0.000	25.789
657104: MILSATCOM Space Modernization Initiative (SMI)	0.000	0.981	13.598	10.157	0.000	10.157	1.053	0.000	0.000	0.000	0.000	25.789
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Modernization Initiative (SMI) evolves current and future SATCOM systems to develop a more affordable and resilient integrated enterprise capable of meeting near-term and emerging requirements. SMI will demonstrate technologies and Concepts of Operations (CONOPS) supporting the Protected Anti-jam Tactical SATCOM (PATs) family-of-systems capability that provides tactical-level military SATCOM (MILSATCOM) users protected, anti-jam SATCOM while operating in a contested environment. PATs is an integrated approach that includes the Protected Tactical Satellite Communications (PTS) and Protected Tactical Enterprise Service (PTES) programs to mitigate adversarial jamming effects by using the Protected Tactical Waveform (PTW). For this effort, SMI includes the Air Force - Army Anti-Jam Modem (A3M) to develop PTW-capable modems, providing high throughput and enhanced anti-jam capability in benign and contested environments. Finally, Global Broadcast Service (GBS) functionality will be added to the PATs modems. GBS implements a worldwide high-capacity satellite broadcast information system to provide a continuous, one-way, high-speed, high-volume flow of classified and unclassified intelligence products (full motion video, imagery, data) to garrisoned, deployed or moving forces.

This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); Narrowband Satellite Communications (1203109SF); Protected Tactical Enterprise Service (1206760SF); Protected Tactical Service (1206761SF); Space Tech Development & Prototyping (1206410SF); Tech Transition (Space) (1206458SF); Wideband Global SATCOM (SPACE) (1206433SF); Data Transport and Networking (1203156SF); Space Data Network (1203636SF); and elements of Procurement Budget Line Items: Family of Beyond Line-of-Sight Terminals (FBLOST); Mobile User Objective System (MUOS00); MILSATCOM (MILSAT); Wideband SATCOM Operational Management Systems (WSOMS0); Auxiliary Payloads (AUX000); Proliferated Low Earth Orbit SATCOM (PLEO00); PTES HUB (PTES00); ESS (ESS000).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver AEHF and SMI capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206431SF I Advanced EHF MILSATCOM (SPACE)				
This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		1.020	13.825	0.000	0.000	0.000
Current President's Budget		0.981	13.598	10.157	0.000	10.157
Total Adjustments		-0.039	-0.227	10.157	0.000	10.157
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-0.039	-0.227			
• Other Adjustments		0.000	0.000	10.157	0.000	10.157
Change Summary Explanation						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Global Broadcast Service (GBS)				0.981	13.598	10.157
Description: GBS is required to have a Transmission Security (TRANSEC) capable modem that is a man portable, Protected Tactical Waveform (PTW) device to be used with the GBS Portable Receive Suite (PRS) systems. Current PTW capable modem designs are not suited for use with the GBS PRS. These requirements are driven by the GBS PRS System Requirements Document (SRD) dated 12 January 2015, Protected Anit-Jam Tactical SATCOM (PATs) Small Form Factor (SFF) Modem Technical Requirements Document (TRD) 11 October 2019, and GBS Joint Operational Requirements Document (ORD) dated 12 January 2005. The TRANSEC requirement comes from the "National Information Assurance Policy for Space System Used to Support National Security Missions", CNSSP No. 12. PPD-4 is the National Space Policy.						
FY 2026 Plans:						
Conduct SFF Critical Design Review, finalize and complete prototype of SFF TRANSEC modems to meet the Command, Control, and Communications Leadership Board (C3LB) mandate requiring the use of PTW/TRANSEC. Conduct Production Readiness Reviews. Deliver initial Engineering Development Models for Testing and Certification.						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206431SF / <i>Advanced EHF MILSATCOM (SPACE)</i>		
C. Accomplishments/Planned Programs (\$ in Millions) Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Funds will provide for continued PTW SFF design and Critical Design Review, deliver Engineering Development Models for testing and certification, conducting Production Readiness Reviews, End Cryptographic Unit procurements, and transportable Receive Suite integration. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding decreased due to removal of GBS Small Form Factor excess funding		FY 2025	FY 2026	FY 2027
Accomplishments/Planned Programs Subtotals		0.981	13.598	10.157
D. Other Program Funding Summary (\$ in Millions) N/A Remarks The MILSATCOM Procurement Space Force (MILSAT) PTW Modems line funds the production costs of the A3M for AEHF - GBS.				
E. Acquisition Strategy The Space Force will utilize existing contracts to the fullest extent possible for all updates necessary. Those contracts include: GBS receive suite contracts for terminal integration; GBS architecture sustaining engineering contract for SBM updates; and an existing service level agreement with the 520th Software Engineering Squadron (SWES) for receive suite and SBM software updates. GBS Protected Tactical Waveform (PTW) Small Form Factor (SFF) development to leverage the Air Force - Army Anti-Jam Modem (A3M) crypto capability, which was used to develop three receive-only, NSA TRANSEC compliant modem, to meet the C3LB mandate requiring the use of PTW for TRANSEC. Completes GBS PTW SFF design, conduct Critical Design Review (CDR), deliver Engineering Development Models (EDM) for testing and certification, conduct Production Readiness Review (PRR). Receive Suite Integration: Design of new Transportable Ground Receive Suite (TGRS) transit case(s) to integrate A3M, contractor testing, update technical order and other TGRS documentation. Leveraging similar mission and environmental requirements enables selection of the high-water mark requirements to meet both mission parameters with greater efficiency while reducing risk and lifecycle cost. A3M leverages the Protected Tactical Satellite Communications (PTS) Field Demonstration technology maturation resulting in a low-risk development effort delivering pre-production modems with 100% production-ready components. This will include certified End Cryptographic Units (ECUs) for full-scope operational and cyber testing, operator and maintainer training materials, and all required intellectual property rights and provisioning				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 1206431SF I Advanced EHF MILSATCOM (SPACE)	
documentation to enable swift terminal modification for operational use and sustainment. The development phase will deliver pre-production PTW-capable modems ready for "build-to-print" production. Blended developmental and operational testing is expected to include full environmental, blue, and red team testing prior to the production decision. The GBS Joint Program Office (JPO) will utilize B-Cubed via the SOFWERX contract. The funds will cover PTW SFF design, conduct Critical Design Review (CDR), deliver Engineering Development Models (EDM) for testing and certification, conduct Production Readiness Review (PRR) and (End Cryptographic Unit) ECU procurements. Receive Suite Integration: Design of new TGRS transit case(s) to integrate A3M, contractor testing, update technical order and other TGRS documentation. This contract strategy will enable GBS to produce a receive unit NSA TRANSEC compliant modem, to meet the C3LB mandate requiring the use of PTW for TRANSEC.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206431SF / Advanced EHF MILSATC OM (SPACE)						Project (Number/Name) 657104 / MILSATCOM Space Modernization Initiative (SMI)			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Global Broadcast System (GBS) -A3M Software/ Firmware Design Changes	C/CPAF	Various : Various	-	-		-		-		-		-	0.000	0.000	-
GBS Receive Suite Integration	C/Various	Various : Various	-	-		0.182		-		-		-	0.000	0.182	-
GBS Small Form Factor	C/CPFF	Various : Various	-	0.981	Mar 2025	13.131	Jan 2026	10.157	Apr 2027	-		10.157	0.000	24.269	-
GBS SBIR/STTR	Various	Various : Various	-	-		0.285		-		-		-	0.000	0.285	-
Subtotal			-	0.981		13.598		10.157		-		10.157	0.000	24.736	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	0.981		13.598		10.157		-		10.157	0.000	24.736	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206431SF / Advanced EHF MILSATC OM (SPACE)			Project (Number/Name) 657104 / MILSATCOM Space Modernization Initiative (SMI)

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MILSATCOM Space Modernization Initiative																												
A3M PTW Modem Development																												
Global Broadcast System (GBS) -PTW SW/FW design changes (DVB-S2 Mod for TRANSEC)																												
GBS-PTW Test Planning and DT/IT/OT																												
GBS-PTW SBM and TGRS Integration (Receive Suite Integration)																												
GBS PRS Development (Small Form Factor)																												
GBS PRS Test and Certification (Small Form Factor)																												
GBS PRS Integration (Small Form Factor)																												
GBS DR Resolution																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206431SF / <i>Advanced EHF MILSATCOM (SPACE)</i>	Project (Number/Name) 657104 / <i>MILSATCOM Space Modernization Initiative (SMI)</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>MILSATCOM Space Modernization Initiative</i>				
A3M PTW Modem Development	1	2025	1	2025
Global Broadcast System (GBS) -PTW SW/FW design changes (DVB-S2 Mod for TRANSEC)	1	2025	2	2025
GBS-PTW Test Planning and DT/IT/OT	1	2025	4	2027
GBS-PTW SBM and TGRS Integration (Receive Suite Integration)	1	2025	4	2025
GBS PRS Development (Small Form Factor)	4	2025	4	2027
GBS PRS Test and Certification (Small Form Factor)	4	2026	2	2027
GBS PRS Integration (Small Form Factor)	4	2025	4	2027
GBS DR Resolution	3	2025	2	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206433SF I Wideband Global SATCOM (SPACE)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	19.296	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.296
657107: WGS Space Systems Resiliency Upgrade	0.000	0.000	19.296	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.296
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Wideband Global SATCOM (WGS) System provides the Department of War (DoW) with high data rate military satellite communication (MILSATCOM) services in accordance with the Joint Space Management Board-approved MILSATCOM architecture (August 1996), the Joint Requirements Oversight Council (JROC)-approved MILSATCOM Capstone Requirements Document (October 1997), and JROC-approved WGS Operational Requirements Document (May 2000). Dual-frequency WGS satellites augment, then replace the DoW's Defense Satellite Communications System X-band service and augment one-way Global Broadcast Service Ka-band capabilities. In addition, WGS provides a high capacity two-way Ka-band Service. This program was originally conceived to augment the near-term "bandwidth gap" in warfighter communications needs but it remains to be the DoW's primary wideband system. WGS has 10 operational legacy satellites and WGS-11 and WGS-12 (WGS-11 & 12) are in development as the first modern digital payloads using commercial technologies providing more coverage beams than their existing WGS predecessors combined and delivering twice the operational capacity than previous WGS analog satellites. Funding for this effort supports the advanced capabilities for WGS-11 & 12 under development for launch in FY 2026 and FY 2027, respectively. Project 657107, WGS Space Systems Resiliency Upgrade, enables the WGS ground system, Global SATCOM Configuration Control Element (GSCCE), to control both WGS-11 and WGS-12 satellites from one control site, clearing the way for WGS-12 to join the constellation. In May 2024, the DoW Chief Information Office endorsed re-direction of Beam Optimization & Operational Management (BOOM) funds towards GSCCE modernization. In FY2026 the program will restart WGS-BOOM. The objective of the WGS-BOOM effort is for the development, integration, and test of advanced beam management to enhance WGS-11 & 12 baseline beam management tools in support of rapid planning and control. This effort will develop and deploy capabilities across the WGS enterprise to provide WGS-11 & 12 management and control (M&C) ground enhancements with responsive end-to-end mission planning, protection, and terminal synchronized capabilities. WGS BOOM development includes upgrades to the WGS-11 & 12 payload control system, Global SATCOM Configuration Control Element (GSCCE), to decrease operational timelines effectively and support airborne ISR missions as they move through the theater.

This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Program interdependencies include: Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); MILSATCOM Terminals (1203601SF); Narrowband Satellite Communications (1203109SF); Polar MILSATCOM (SPACE)1206432SF); Protected Tactical Enterprise Service (1206760SF); Protected Tactical Service (1206761SF); SATCOM O&M (1203605SF); Space Tech Development & Prototyping (1206410SF); Tech Transition (Space) (1206458SF); Wideband Global SATCOM (SPACE) (1206433SF); Wideband Global System Satellites (1203600SF).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206433SF / <i>Wideband Global SATCOM (SPACE)</i>
The 10 operational legacy WGS satellites on-orbit were each developed by building on heritage WGS capabilities. Continually improving WGS capability and leveraging advances in Boeing commercial technology, in FY 2018 the DoW procured a more advanced single WGS-11 satellite (previously referenced as WGS-11+ to designate meeting the Congressional intent of two satellites, herein referenced as WGS-11 with the new Congressional add of WGS-12) enhancing support to the US military, DoW, and allied nations with more flexibility and mission capacity to support dispersed users than previous WGS spacecraft. The new capabilities allow operators to create unique coverage anywhere within the satellite's field of view and custom designed for the mission at hand. In FY 2024, the DoW contracted for WGS-12, a clone of the WGS-11 spacecraft with the Protected Tactical SATCOM (PTS) as a hosted payload. WGS-12 was added to the WGS Block II Follow On (B2FO) contract. The advanced beam management capabilities of WGS-11 & 12 payloads will produce more coverage beams (over 1500) than the entire existing WGS constellation and deliver twice the mission capacity than WGS-10 can, thereby operationally increases the availability of military-grade communications. The objective of the GSCCE modernization effort is to integrate GSCCE architecture utilized to manage and control both the legacy 10 WGS satellites and additional WGS-11 & 12 satellites in production into the modern Wideband SATCOM Operational Management System (WSOMS) Mediated Interoperability Infrastructure (WMII) hardware. This effort will develop and deploy modern hardware and software capabilities across the WGS enterprise to provide payload management tools in support of planning and control to all WGS satellites, to include the advanced capabilities of WGS-11 & 12. This funding will also be utilized to integrate and deploy the full suite of Mitigation and Anti-Jam Enhancements (MAJE) nodes for WGS 1-10 X-band interference mitigation capabilities. WGS Block I consists of satellites 1-3, Block II consists of satellites 4-6 and Block II Follow On (B2FO) includes satellites 7-12. WGS satellites 1-10 have been funded, procured and launched in previous budget cycles. With the operation of WGS-5, the constellation provided global coverage and Full Operational Capability (FOC) was declared on 12 May 2014. In the Consolidated Appropriations Act, FY 2018, Congress added 600M Space Force Procurement in FY 2018 for "full funding for WGS-11 and WGS-12." A sole source Request for Proposal was released to Boeing in June 2018. A final decision was made to procure a single satellite (once designated as WGS-11+ but will herein forward be referenced as WGS-11) with twice the operational capacity of WGS-10 as the best approach to delivering the directed additional WGS capacity in a cost- effective manner. WGS-11 will host a PTS payload providing robust anti-jam capability to tactical warfighters, funded by the Protected Tactical SATCOM (PTS) program in PE 1206761SF. In the Consolidated Defense Appropriations Act, FY 2023, Congress added 442M Space Force Procurement in FY 2023 for "Protected Wideband Satellite" to procure a protected wideband satellite providing resilient, jam resistant tactical communications to support warfighter needs. The United States Space Force (USSF) has interpreted the Congressional add is intended to procure a WGS-12 satellite equipped with the tactical anti-jam capabilities identical with WGS-11 including the PTS hosted payload. The funding covered costs for a WGS-12 spacecraft clone of the WGS-11 to include a PTS hosted payload. The current B2FO Acquisition Program Baseline (APB) allows for procurement of a WGS-12, and the acquisition is a Firm Fixed Price effort with integration of PTS in FY 2026 and launch in FY 2027. Since the Congressional add did not include funding for a launch vehicle, ground activities and other Government costs, the USSF is pursuing International Partner (IP) sources to cover additional funding required by FY 2025 these additional requirements. IPs receive constellation-wide WGS resources commensurate with their financial contributions to the WGS system. Investment from IPs to cooperatively enhance the system started in November 2007 through a bilateral Memorandum of Understanding (MOU) with Australia to fund WGS space vehicle (SV)-6, launch and launch		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206433SF I Wideband Global SATCOM (SPACE)				
services. Five countries (Canada, Denmark, Netherlands, Luxembourg, New Zealand) signed a new multilateral WGS MOU in CY 2012 and funded the procurement of WGS SV-9. In CY 2017, Amendment One to the WGS MOU leveraged additional funding for resiliency enhancements from two new IPs (Czech Republic and Norway). In CY 2022, nine countries signed Amendment Two to the multilateral MOU (adds Belgium and United Kingdom) to cover necessary ground upgrades and launch costs for WGS-11 not covered by the FY 2018 Congressional add, and extends the duration of the WGS MOU, as amended, through September 2039. An updated MOU is in coordination to include WGS 12. Currently with International participants for signature, expected by end-of-February 2026. Space Systems Command (SSC) provides program management engineering expertise through FY 2028. Discussions for potential future partnerships regarding the Wideband Global SATCOM (WGS) program continue in support of National Space Policy and improved operational efficiency.						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver WGS-11 & 12 for weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		0.000	29.609	0.000	0.000	0.000
Current President's Budget		0.000	19.296	0.000	0.000	0.000
Total Adjustments		0.000	-10.313	0.000	0.000	0.000
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-10.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	-0.313			
• Other Adjustments		0.000	0.000	0.000	0.000	0.000
Change Summary Explanation						
Technical Changes:						
FY2026: -\$10.0M Congressional Mark Sac-D, Insufficient justification provided.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: WGS - BOOM Modernization				0.000	19.296	0.000
Description: WGS-BOOM Modernization encompasses three development efforts to improve the beam management panning ability for WGS-11 & 12 missions utilizing the GSCCE, Common Network Planning (CNPS) and Power Control and Management						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force							Date: April 2026				
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>				R-1 Program Element (Number/Name) PE 1206433SF / <i>Wideband Global SATCOM (SPACE)</i>							
C. Accomplishments/Planned Programs (\$ in Millions)							FY 2025	FY 2026	FY 2027		
Subsystem (PCMS). GSCCE and CNPS are existing ground systems with Boeing that performs payload commanding and mission planning at all five of the Wideband SATCOM Operations Centers (WSOCs). PCMS is a system in development which will improve the ability to rapidly plan WGS-11 & 12 missions. PCMS will establish machine-to-machine connection to terminals to provide automated RF configuration management when problems are indicated and rapid restoral of services to begin before operators identify a discrepancy. WGS-BOOM Modernization development upgrade will reduce commanding/commit time due to increased commanding pace as a result of additional users/beams on WGS-11 & 12. This will result in the ability to rapidly plan WGS-11 & 12 missions. FY 2026 Plans: Continue to build upon previous BOOM-PCMS development effort. PCMS will be fully deployed across the globe to provide superior situational awareness of user resource usage and automated configuration capability to restore users. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: NA FY 2026 to FY 2027 Increase/Decrease Statement: Decrease due to completion of a one time add in FY26 to address minimum viable WGS ground enhancement BOOM Modernization.											
Accomplishments/Planned Programs Subtotals							0.000	19.296	0.000		
D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>FY 2027</u> <u>Base</u>	<u>FY 2027</u> <u>OOC</u>	<u>FY 2027</u> <u>Total</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>FY 2030</u>	<u>FY 2031</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• SPSF 01 GAP000: <i>Wideband Gapfiller Satellites (Space)</i>	10.020	-	-	-	-	-	-	-	-	0.000	10.020
Remarks											
E. Acquisition Strategy PCMS are being acquired separately through Army managed IDIQ contracts utilizing CPFF. This acquisition approach allows performance structures, contract type and execution pace to be tailored to each effort's technical maturity and scope. Leveraging existing contract vehicles enables rapid execution to meet schedule driven milestones.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206433SF / Wideband Global SATC OM (SPACE)				Project (Number/Name) 657107 / WGS Space Systems Resiliency Upgrade					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
WGS - BOOM - PCMS	Various	SERCO/OSI : Herndon, VA	-	-		12.596	Apr 2026	-		-		-	0.000	12.596	-
Subtotal			-	-		12.596		-		-		-	0.000	12.596	N/A
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical Mission Analysis	C/Various	Aerospace : TBD	-	-		3.000	Apr 2026	-		-		-	Continuing	Continuing	-
Subtotal			-	-		3.000		-		-		-	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : El Segundo, CA	-	-		3.600	Apr 2026	-		-		-	0.000	3.600	-
Other Support	Various	Various : El Segundo, CA	-	-		0.100	Jan 2026	-		-		-	0.000	0.100	-
Subtotal			-	-		3.700		-		-		-	0.000	3.700	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		19.296		-		-		-	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)		Project (Number/Name)	
3620F / 5		PE 1206433SF / Wideband Global SATC OM (SPACE)		657107 / WGS Space Systems Resiliency Upgrade	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
WGS-BOOM PCMS																												
PCMS Enhancement																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206433SF / Wideband Global SATC OM (SPACE)	Project (Number/Name) 657107 / WGS Space Systems Resiliency Upgrade

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
WGS-BOOM PCMS				
PCMS Enhancement	2	2026	3	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>	PE 1206440SF / <i>Next-Gen OPIR -- Ground</i>											
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	500.395	348.330	761.425	0.000	761.425	669.035	652.239	536.423	398.181	Continuing	Continuing
657106: <i>Next-Gen OPIR-Ground</i>	0.000	500.395	348.330	651.125	0.000	651.125	490.735	375.639	225.723	89.981	Continuing	Continuing
657111: <i>Resilient Ground Architecture (RGA)</i>	0.000	0.000	0.000	110.300	0.000	110.300	178.300	276.600	310.700	308.200	Continuing	Continuing

Note

This program, BA 5, PE 1206440SF, project 657111, Resilient Ground Architecture (RGA), is a new start.

A. Mission Description and Budget Item Justification

The program office is developing the Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) Ground (Project 657106) for Guardians across Missile Warning and Missile Tracking (MW/MT) mission area. As a result, the Service will advance space-based technology associated with Golden Dome, and deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland.

Next-Gen OPIR Ground, also known as Future Operationally Resilient Ground Evolution (FORGE), consists of a modern Command and Control (C2) capability, modernization of Mission Data Processing (MDP) to implement an open framework and develop mission applications, required development and upgrades to Relay Ground Stations (RGS), to provide a modern survivable and endurable architecture to meet USSF current and future space domain needs. FORGE will provide the flexibility and scalability to integrate new satellites, sensors and capabilities more rapidly and efficiently in order to meet evolving threats and warfighter needs. The Next-Gen OPIR Ground efforts enable cyber enhancements for both space and ground systems. FORGE C2 will introduce infrastructure and common platform services, mission unique software such as Telemetry, Tracking, and Commanding (TT&C), and mission management to support initial Next-Gen OPIR Space satellite launches without driving risk into the FORGE development schedule. The program has established a risk reduction ground capability, Next-Gen OPIR Interim Operations (NIO), based on a limited Space Based Infrared System (SBIRS) Block 20 solution.

The FORGE program was designated as a Software Acquisition Pathway (SWP) on 30 July 2025. The total cost of the FORGE SWP effort is 2,930.62 million. The RGS development and fielding is not contained in the SWP effort, as it consists of stand-alone Acquisition Category (ACAT). The FORGE SWP is fully funded across the Future Years Defense Program.

Resilient Ground Architecture establishes a proliferated missile warning processing & data distribution ground architecture that holistically creates a robust day-today operation with predictable and graceful degradation to a Survivable & Endurable mission—providing increased resilience through all phases of conflict and threat spectrum. Fielding RGA capabilities meets/aligns with JROC-M 059-23, PPD-35/40, and CJCSI 3296.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Next-Gen OPIR Ground system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 126398SF.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 1206440SF / <i>Next-Gen OPIR -- Ground</i>

This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Missile Defense Radars (1203873SF); Ballistic Missile EW Systems (1203909SF); Joint Tactical Ground System (1208053SF); NCMC - TW/AA System (1203906SF); Next - Generation OPIR (1206442SF); Next - Generation - GEO (1206443SF); Next - Generation - Ground (1206440SF); Next - Generation - Polar (1206444SF); NUDET Detection System (1203913SF); Resilient MW / MT - LEO (1206446SF); Resilient MW / MT - MEO (1206447SF) and elements of Procurement Budget Line Item: Space Mods (SPCMOD)

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.

B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	500.395	358.330	0.000	0.000	0.000
Current President's Budget	500.395	348.330	761.425	0.000	761.425
Total Adjustments	0.000	-10.000	761.425	0.000	761.425
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-10.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	761.425	0.000	761.425

Change Summary Explanation

Strategic Changes:

FY 2027 - 2030: The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner.

Technical Changes:

FY 2026: -10.000M SE&I excess to need.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206440SF / Next-Gen OPIR -- Ground				Project (Number/Name) 657106 / Next-Gen OPIR-Ground			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
657106: Next-Gen OPIR-Ground	0.000	500.395	348.330	651.125	0.000	651.125	490.735	375.639	225.723	89.981	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The program office is developing the Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) Ground (Project 657106) for Guardians across Missile Warning and Missile Tracking (MW/MT) mission area. As a result, the Service will advance space-based technology associated with Golden Dome, and deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland.

Next-Gen OPIR Ground, also known as Future Operationally Resilient Ground Evolution (FORGE), consists of a modern Command and Control (C2) capability, modernization of Mission Data Processing (MDP) to implement an open framework and develop mission applications, required development and upgrades to Relay Ground Stations (RGS), to provide a modern survivable and enduring architecture to meet USSF current and future space domain needs. FORGE will provide the flexibility and scalability to integrate new satellites, sensors and capabilities more rapidly and efficiently in order to meet evolving threats and warfighter needs. The Next-Gen OPIR Ground efforts enable cyber enhancements for both space and ground systems. FORGE C2 will introduce infrastructure and common platform services, mission unique software such as Telemetry, Tracking, and Commanding (TT&C), and mission management to support initial Next-Gen OPIR Space satellite launches without driving risk into the FORGE development schedule. The program has established a risk reduction ground capability, Next-Gen OPIR Interim Operations (NIO), based on a limited Space Based Infrared System (SBIRS) Block 20 solution.

The FORGE program was designated as a Software Acquisition Pathway (SWP) on 30 July 2025. The total cost of the FORGE SWP effort is 2,930.62 million. The RGS development and fielding is not contained in the SWP effort, as it consists of stand-alone Acquisition Category (ACAT). The FORGE SWP is fully funded across the Future Years Defense Program.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Next-Gen OPIR Ground system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 126398SF

This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Missile Defense Radars (1203873SF); Ballistic Missile EW Systems (1203909SF); Joint Tactical Ground System (1208053SF); NCMC - TW/AA System (1203906SF); Next - Generation OPIR (1206442SF); Next - Generation - GEO (1206443SF); Next - Generation - Ground (1206440SF); Next - Generation - Polar (1206444SF); NUDET Detection System (1203913SF); Resilient MW / MT - LEO (1206446SF); Resilient MW / MT - MEO (1206447SF) and elements of Procurement Budget Line Item: Space Mods (SPCMOD)

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: FORGE Command and Control (FC2)	57.702	43.291	97.665

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206440SF / <i>Next-Gen OPIR -- Ground</i>		Project (Number/Name) 657106 / <i>Next-Gen OPIR-Ground</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Description: FC2 is a Government-owned Missile Warning ground architecture that provides infrastructure, Mission Unique Software (MUS) and sensor/spacecraft specific Command and Control (C2) capabilities that use common messaging standards to transition C2 of the legacy Space-Based Infrared System (SBIRS) constellation, including MUS efforts developed under the Geosynchronous Non-Integrated Tactical Warning and Attack Assessment Ops Migration to EGS (GNOME) prototype, and integration of Next-Gen OPIR Geosynchronous Earth Orbit (NGG) to Future Operationally Resilient Ground Evolution (FORGE) in order to deliver an integrated Missile Warning C2 ground system. Includes Mission Management, Telemetry Command and Control, Ground Resource Management, and user interface software development and the integration of the Flight Dynamics software. FY 2026 Plans: Continue work on the FORGE Command and Control (FC2) prototype to integrate the Mission Management, Ground Resource Control Management, and user interface software. Depending on the maturity of the prototype and performance of the contractor there is an option to develop and integrate legacy Space-Based InfraRed system (SBIRS) Mission Unique Software (MUS) in FY 2026. FY 2027 Plans: Finalize work on the FORGE Command and Control (FC2) prototype to integrate Mission Management, Ground Resource Control Management, and user interface software. Develop and integrate Next Generation GEO (NGG) and legacy SBIRS Mission Unique Software (MUS) and Mission Unique Applications (MUA) in FY 2027. FY 2026 to FY 2027 Increase/Decrease Statement: The budget for this activity increases in FY2027 due to a significant expansion in development and integration efforts. The funding for FY2027 is required for the full development and integration of the Next Generation GEO (NGG) and legacy SBIRS Mission Unique Software (MUS) and Mission Unique Applications (MUA) into the FORGE baseline.					
Title: Mission Data Processing (MDP) Description: The Future Operationally Resilient Ground Evolution (FORGE) MDP is a replacement for the existing legacy Space Based Infrared System (SBIRS) Ground mission processing applications which have cyber security and scalability limitations. MDP is creating a cyber-resilient, flexible, and scalable open framework capable of meeting current and future threats. MDP will plan Overhead Persistent Infrared (OPIR) and other mission data resource utilization to meet warfighter requirements. MDP provides the ability to ingest and publish varying levels of processed data for enhanced processing, perform efficient and systematic upgrades, and orchestrate real-time wideband processing for Integrated Tactical Warning/Attack Assessment (ITW/AA) and non-ITW/AA mission areas. The MDP system provides modular mission applications to meet the future challenges of Missile Warning (MW), Missile Defense (MD), Battlespace Awareness (BA), and Technical Intelligence (TI). MDP is critical to making cyber-secure, effective use of the increased amounts of data that will be collected by Next-Gen OPIR.			203.724	173.737	336.529

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206440SF / Next-Gen OPIR -- Ground	Project (Number/Name) 657106 / Next-Gen OPIR-Ground		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
FY 2026 Plans: Continue follow-on development and complete integration of Mission Data Processing Application Provider (MDPAP) application onto the FORGE Framework for SBIRS ITW/AA data processing. Mission Data Processing Application Framework (MDPAF) to close out end of FY2025, and Enterprise OPIR Solution (EOS) to be the new contract in place starting FY2026. Complete final system level integration and testing of mission data processing thrust area (EOS, MDPAP, and Sensor Specific Processing) for SBIRS transition to operations on FORGE. Further develop the DevSecOps pipeline to be responsive to evolving threats. Develop and implement plans to integrate Medium Earth Orbit (MEO)/ Low Earth Orbit (LEO) sensor data from MEO Epochs and Space Development Agency (SDA) Tranches. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Complete integration of FORGE Applications onto the FORGE Framework for SBIRS ITW/AA Strategic Missile Warning data processing. Complete final system level integration and testing of mission data processing thrust area (EOS, MDPAP, and SSP) for SBIRS and NGG transition to operations on FORGE. Further develop the DevSecOps pipeline to be responsive to evolving threats. Implement plans to integrate Medium Earth Orbit (MEO) / Low Earth Orbit (LEO) sensor data from MEO Epochs and Space Development Agency (SDA) Tranches. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, cloud technologies U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: The budget for this activity increases in FY2027 to fund the transition of the legacy SBIRS system to the FORGE baseline and integration of next-generation sensors. The FY2027 budget supports the significant work of completing the final system-level integration and testing for the Next-Gen GEO (NGG) and proliferated LEO tranche 1 to operations on FORGE.					
Title: Next-Gen Transition Description: Next-Gen transition is the development to enable use of Future Operationally Resilient Ground Evolution (FORGE) for mission processing and Command and Control (C2) for future Overhead Persistent Infrared (OPIR) space systems. Included in this effort is the development of Next Gen Interim Ops (NIO) to ensure the most critical ground processing is ready in time for the first Next-Gen OPIR Geostationary Equatorial Orbit (GEO) satellite launch as required by Joint Requirements Oversight Council Memorandum (JROCM) 130-17. NIO will create mono tracks and publish those mono tracks to the existing Space Based Infrared System			176.482	80.048	104.934

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206440SF / <i>Next-Gen OPIR -- Ground</i>		Project (Number/Name) 657106 / <i>Next-Gen OPIR-Ground</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
(SBIRS) Block 20 ground system for fusion and dissemination to the warfighter.					
FY 2026 Plans: Finalize and integrate the mission unique software needed for C2 and sensor specific processing for NGG. Continue integration of multiple mission data processing applications into the framework to support NGG.					
FY 2027 Plans: Integrate the mission unique software needed for C2, and sensor specific processing for NGG. Continue integration of multiple mission data processing applications onto the FORGE framework to support NGG-1 operations, NGG-2 launch.					
FY 2026 to FY 2027 Increase/Decrease Statement: The budget for this activity increases in FY2027 to support the program's operational support for NGG Space Vehicle 1 (NGG-1). Funding in FY2027 is required to continue the integration of mission data processing applications to support NGG-1 operations and NGG-2 launch.					
Title: Relay Ground Station - Asia (RGS-A)			54.687	51.254	47.929
Description: Overhead Persistent Infrared (OPIR) data collected in space must be relayed to ground entry points and routed to provide warfighters with timely information. The legacy Space Based Infrared System (SBIRS) ground architecture requires RGS upgrades and new RGSs to receive OPIR data from legacy and future Next-Gen OPIR assets. This effort will provide data to the Mission Control Station (MCS) for processing and dissemination to warfighters and National Command Authorities. The RGS modernization effort will include the ability to operate antennas and process data. This activity is for the Asia ground station portion of the Future Operationally Resilient Ground Evolution (FORGE) - RGS architecture and includes up to 4 antennas. It is currently an ACAT III program that will be re-categorized to an ACAT II program which includes additional sites beyond RGS-A.					
FY 2026 Plans: Complete antenna installation at Camp Blaz, Guam. Integrate communication and cryptological equipment. Conduct initial and final qualification tests for Relay Ground Station (RGS) antennas. Activate the Relay Ground Station - Asia (RGS-A) site.					
FY 2027 Plans: Complete Integration of communication and cryptological equipment at Camp Blaz, Guam. Deliver and Integrate mission unique hardware for Next Generation Consolidated Relay Ground Station (CRGS) and complete integration testing. Complete of Facilities and Infrastructure build, completion of Antenna build and installation at RGS-A, and transition to test and delivery.					
FY 2026 to FY 2027 Increase/Decrease Statement: The budget for this activity slightly decreases in FY 2027 as the program transitions from major hardware installation activities to the final integration and activation.					
Title: Relay Ground Stations (RGSs)			7.800	0.000	64.068

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206440SF / Next-Gen OPIR -- Ground		Project (Number/Name) 657106 / Next-Gen OPIR-Ground	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Description: Overhead Persistent Infrared (OPIR) data collected in space must be relayed to ground entry points and routed to provide warfighters with timely information. The legacy Space Based Infrared System (SBIRS) ground architecture requires RGS upgrades and new RGSs to receive OPIR data from legacy and future Next-Gen OPIR assets. This effort expands the RGS system to two additional sites that will use common hardware capable of supporting all Next Gen-OPIR space assets. This effort will provide data to the Mission Control Station (MCS) for processing and dissemination to warfighters and National Command Authorities. The RGS modernization effort will include the ability to operate antennas, process data, and support older Defense Support Program (DSP) assets. This activity is for RGSs not included in the RGS-A portion of the Future Operationally Resilient Ground Evolution (FORGE) - RGS architecture. All RGS activities will be consolidated with RGS-A to capture the RGS system as as an ACAT II program. FY 2026 Plans: Complete site specific environmental work and award Task Order for procurement, installation, and test for RGS antennas. Finish design for support facilities and infrastructure, begin construction of communication shelters, ring walls, and complete installation of networking and telecommunications equipment. FY 2027 Plans: Complete RGS-S and RGS-UK antenna procurement and communication equipment testing. Ship antennas, communication and cryptological equipment to Schriever SFB and RAF Croughton. Finish RGS-S and RGS-UK design for support facilities and infrastructure construction of communication shelters and ring walls. FY 2026 to FY 2027 Increase/Decrease Statement: While initial design and site preparation activities began FY2026, the FY2027 budget is necessary for Facilities and Infrastructure build out, high-cost procurement of the RGS-S and RGS-UK equipment, and the subsequent shipment of the antennas, communication, and cryptological equipment to their operational sites.					
Accomplishments/Planned Programs Subtotals			500.395	348.330	651.125
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
D. Acquisition Strategy					
The Next-Gen Overhead Persistent Infrared (OPIR) Ground program is executing an acquisition strategy using a Software Acquisition Pathway in the Execution Phase approved via Acquisition Decision Memorandum on 30 Jul 25.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206440SF / <i>Next-Gen OPIR -- Ground</i>	Project (Number/Name) 657106 / <i>Next-Gen OPIR-Ground</i>
To support this acquisition strategy, the program will follow an agile approach to develop capabilities and a robust DevSecOps (Development/Security/Operations) solution to deliver the capabilities. The Future Operationally Resilient Ground Evolution (FORGE) program is executing a software acquisition approach founded primarily on software and infrastructure reuse, partnerships with other programs, limited scope, use of existing contracts where necessary, and maximizing competition and flexibility in contracting. For the Mission Data Processing (MDP) thrust, the FORGE program is using competitive Other Transaction (OT) authorities to develop the software framework and applications. For the FORGE Command and Control (FC2) thrust, the FORGE team is using competitive OT authorities to develop Mission Management, Telemetry Command and Control, Ground Resource Management, and user interface software, while the mission unique software will be provided by the space vehicle contractors. For the Next-Gen Transition effort, the program is using the Next-Gen Geostationary Equatorial Orbit (GEO) and Next-Gen Polar contracts with the space vehicle prime contractors to perform the work needed to develop ground capabilities. The program is executing the MDP, FC2, and Next-Gen OPIR Interim Operations (NIO) thrusts within the scope of its acquisition authorities. The program is executing the Relay Ground Station (RGS) thrust using traditional acquisition authorities. Relay Ground Station - Asia (RGS-A) was designated an ACAT III by the MDA. All RGS activities will be consolidated with RGS-A to capture the RGS system as an ACAT II program.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206440SF / Next-Gen OPIR -- Ground				Project (Number/Name) 657106 / Next-Gen OPIR-Ground					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FC2	Various	Various : TBD	-	57.702	Dec 2024	43.291	Dec 2025	97.665	Dec 2026	-		97.665	Continuing	Continuing	-
MDP	Various	Various : TBD	-	150.504	Nov 2024	110.093	Nov 2025	254.411	Nov 2026	-		254.411	Continuing	Continuing	-
Next-Gen Transition	Various	Various : TBD	-	176.482	Nov 2024	80.048	Nov 2025	104.934	Nov 2026	-		104.934	Continuing	Continuing	-
RGS-A	Various	NWIC and Northrop Grumman : Boulder, CO	-	54.687	Nov 2024	51.255	Nov 2025	47.930	Nov 2026	-		47.930	Continuing	Continuing	-
RGSs	TBD	Various : TBD	-	7.800	Nov 2024	0.000	Nov 2025	64.067	Nov 2026	-		64.067	Continuing	Continuing	-
SE&I	TBD	TBD : TBD	-	14.220	Dec 2024	31.122	Dec 2025	40.551	Dec 2026	-		40.551	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace Corporation : El Segundo, CA	-	5.762	Jan 2025	8.045	Jan 2026	8.684	Nov 2026	-		8.684	Continuing	Continuing	-
Subtotal			-	467.157		323.854		618.242		-		618.242	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace Corporation : El Segundo, CA	-	8.823	Jan 2025	6.245	Jan 2026	6.302	Nov 2026	-		6.302	Continuing	Continuing	-
A&AS	Various	Various : TBD	-	24.161	Nov 2024	17.907	Nov 2025	26.180	Nov 2026	-		26.180	Continuing	Continuing	-
Other Support	Various	Various : TBD	-	0.254	Nov 2024	0.324	Nov 2025	0.401	Nov 2026	-		0.401	Continuing	Continuing	-
Subtotal			-	33.238		24.476		32.883		-		32.883	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	500.395		348.330		651.125		-		651.125	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206440SF / <i>Next-Gen OPIR -- Ground</i>	Project (Number/Name) 657106 / <i>Next-Gen OPIR-Ground</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
FC2																												
Phase 1 - Prototype Competition																												
Phase 2 - Follow-on Effort																												
NGP																												
NGG																												
MDP																												
Follow-On Prototype Framework Development																												
Follow-On Prototype Applications Provider Development																												
Sensor Specific Processing																												
Next-Gen Transition																												
Next-Gen GEO Development																												
Next-Gen Polar Development																												
RGS-A																												
RGS-A Development																												
RGSs																												
RGS-UK Development																												
RGS-S Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206440SF / Next-Gen OPIR -- Ground	Project (Number/Name) 657106 / Next-Gen OPIR-Ground	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
FC2				
Phase 1 - Prototype Competition	1	2025	2	2025
Phase 2 - Follow-on Effort	2	2025	4	2031
NGP	3	2025	3	2026
NGG	1	2026	4	2031
MDP				
Follow-On Prototype Framework Development	1	2025	4	2031
Follow-On Prototype Applications Provider Development	1	2025	4	2031
Sensor Specific Processing	1	2025	3	2026
Next-Gen Transition				
Next-Gen GEO Development	1	2025	1	2029
Next-Gen Polar Development	1	2025	3	2026
RGS-A				
RGS-A Development	1	2025	4	2027
RGSs				
RGS-UK Development	1	2025	1	2029
RGS-S Development	1	2025	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206440SF / Next-Gen OPIR -- Ground				Project (Number/Name) 657111 / Resilient Ground Architecture (RGA)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
657111: Resilient Ground Architecture (RGA)	0.000	0.000	0.000	110.300	0.000	110.300	178.300	276.600	310.700	308.200	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 5, PE 1206440SF, project 657111, Resilient Ground Architecture (RGA), is a new start.

A. Mission Description and Budget Item Justification

Resilient Ground Architecture establishes a proliferated missile warning processing & data distribution ground architecture that holistically creates a robust day-to-day operation with predictable and graceful degradation to a Survivable & Endurable mission—providing increased resilience through all phases of conflict and threat spectrum. Fielding RGA capabilities meets/aligns with JROC-M 059-23, PPD-35/40, and CJCSI 3296.

B. Accomplishments/Planned Programs (\$ in Millions)

Title: Resilient Ground Architecture (RGA)	FY 2025	FY 2026	FY 2027
Description: Resilient Ground Architecture (RGA) establishes a proliferated missile warning processing & data distribution ground architecture that holistically creates a robust day-to-day operation with predictable and graceful degradation to a Survivable & Endurable mission—providing increased resilience through all phases of conflict and threat spectrum. This development effort resolves current stovepipe limitations and provides the scalable foundation necessary to deploy and manage a proliferated network of ground locations. Fielding RGA capabilities meets/aligns with JROC-M 059-23, PPD-35, and CJCSI 3296.	0.000	0.000	110.300
FY 2026 Plans: N/A			
FY 2027 Plans: Begin high value Mesh Data Transport and processing upgrades to connect MW assets and enable data distribution. Begin stand up cloud infrastructure to establish central and edge-node compute processing. Start containerizing of missile warning applications to enable globally accessible Missile Warning and Tracking (MWT) mission baseline and geographically-agnostic baseline management. Start cloud proliferation to enable a MWT baseline globally accessible with high availability. Begin technology maturation and risk reduction for S/E-capable communication antenna, mission antenna, and containerized processing capabilities. Begin S/E prototype development: building prototype S/E node with pathway to delivering first operational S/E node.			
FY 2026 to FY 2027 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206440SF / Next-Gen OPIR -- Ground	Project (Number/Name) 657111 / Resilient Ground Architecture (RGA)	

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2025	FY 2026	FY 2027
FY 2027 increased due to new Resilient Ground Architecture efforts beginning in 2027.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	110.300

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPSF 01 1208053SF: Joint Tactical Ground Station	6.937	6.698	92.731	-	92.731	147.700	115.640	57.821	38.750	0.000	466.277

Remarks

D. Acquisition Strategy

USSF will leverage existing acquisition contracts to make rapid progress on systems upgrades and integration efforts. Long-lead survivable and endurable production and integration efforts will begin in FY 2027.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206440SF / Next-Gen OPIR -- Ground				Project (Number/Name) 657111 / Resilient Ground Architecture (RGA)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Resilient Ground Architecture (RGA)	TBD	Not specified. : TBD	-	-		-		96.927	Oct 2026	-		96.927	Continuing	Continuing	-
SE&I	TBD	Not specified. : TBD	-	-		-		5.348	Oct 2026	-		5.348	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace Corporation : El Segundo, CA	-	-		-		2.520	Oct 2026	-		2.520	Continuing	Continuing	-
Subtotal			-	-		-		104.795		-		104.795	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace Corporation : El Segundo, CA	-	-		-		1.080	Oct 2026	-		1.080	Continuing	Continuing	-
A&AS	Various	Not specified. : TBD	-	-		-		3.925	Oct 2026	-		3.925	Continuing	Continuing	-
Other Support	Various	Not specified. : TBD	-	-		-		0.500	Oct 2026	-		0.500	Continuing	Continuing	-
Subtotal			-	-		-		5.505		-		5.505	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		110.300		-		110.300	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)		Project (Number/Name)	
3620F / 5		PE 1206440SF / Next-Gen OPIR -- Ground		657111 / Resilient Ground Architecture (RGA)	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Resilient Ground Architecture																												
Strategic Warning Proliferation																												
Virtualization & Edge Node Deployment																												
S/E Infrastructure																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206440SF / Next-Gen OPIR -- Ground	Project (Number/Name) 657111 / Resilient Ground Architecture (RGA)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Resilient Ground Architecture				
Strategic Warning Proliferation	1	2027	4	2030
Virtualization & Edge Node Deployment	1	2027	3	2031
S/E Infrastructure	1	2027	4	2031

Note
Note that Resilient Ground Architecture funding is split between PE 1208053SF and PE 1206440SF.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206442SF I Next Generation OPIR							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	190.951	189.621	209.851	0.000	209.851	221.162	223.360	228.306	232.871	Continuing	Continuing
657009: Space Mod Initiative	0.000	158.717	160.113	179.491	0.000	179.491	189.697	191.461	195.827	199.742	Continuing	Continuing
657123: Integration	0.000	32.234	29.508	30.360	0.000	30.360	31.465	31.899	32.479	33.129	Continuing	Continuing

Note

This program, BA 5, PE 1206442SF, project 657009, Capability Exploitation, is a new start.

A. Mission Description and Budget Item Justification

The program office is developing and prototyping the Resilient Next Generation OPIR (Projects 657009 & 657123) for Guardians across Missile Warning and Missile Tracking (MW/MT) mission area. As a result, the Service will deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland.

The Overhead Persistent Infrared (OPIR) program succeeds the current Space Based Infrared System (SBIRS) and will provide improved missile warning, missile defense, battlespace awareness, and technical intelligence collection capabilities that are more survivable against emerging adversary threats. The program will deliver prototypes and demonstrations of novel Missile Warning/Missile Tracking (MW/MT) approaches and technologies; invest in critical industrial base gaps to meet future production needs; mature advanced target tracking and typing concepts to meet emerging threats; and an integration effort will identify, plan, manage and execute integration activities at the enterprise level. Due to funding transfers to segregate Next-Gen OPIR into other Program Elements, PE 1206442SF is now comprised of two projects: 1. Next-Gen OPIR Space Modernization Initiative (SMI) and 2. Integration.

1. SMI (Project 657009/Program Element 1206442SF): To better enable response to emerging global missile threats, SMI advances capabilities and reduces risk through five major thrust areas: Demonstrations/Prototypes, Technology Maturation, Data Processing and Analytics, Wide Field of View (WFOV) On-Orbit Testbed Mission Integration, and Capability Exploitation each with a flagship investment. The use of demonstrations help mature technologies by delivering ground and on-orbit prototypes. These demonstrations advance OPIR capabilities for missile warning and tracking, ensuring low risk transition of advanced technology to future operational systems. Each year, Space Systems Command (SSC) conducts a review of all technical development needs for future OPIR systems across the stakeholder community to include the Missile Defense Agency (MDA), Space Development Agency (SDA), Air Force Research Lab (AFRL), and mission partners to analyze future capability gaps and shared technology development interests in order to identify and prioritize development projects to maximize utility of SMI funds. Technology Maturation focuses development on advanced infrared sensing optics and electronics, resiliency hardware and software, and on-board processing algorithms and on-board computers. The investments within the Technology Maturation portfolio are heavily focused on developments that will benefit programs across SSC, SDA, MDA, and the Intelligence Community. Data Processing & Analytics provides return-on-investment aimed at ingestion and fusion of current and future proliferated sensor program data to enhance missile warning, missile tracking, missile defense, battlespace awareness and technical intelligence mission capabilities. This includes the processing and exploitation of legacy SBIRS wideband data and its fusion with Wide Field of View (WFOV) Geosynchronous Earth Orbit (GEO) wideband sensor data focused on dimmer threat targets and the Indo-Pacific Command (INDOPACOM). Subsequently, this work will expand to include ingestion and fusion of WFOV Low Earth Orbit (LEO), Resilient Missile Warning/Missile Tracking (MW/MT), Medium-Earth Orbit (MEO) and other data as it becomes available. The large volume of data and event detections expected from these proliferated OPIR sensors threaten to overwhelm the enterprise and operators. Data Processing & Analytics will focus on incorporating

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 1206442SF I Next Generation OPIR	
automation and innovation to overcome these challenges. Initiatives include leveraging Artificial Intelligence and Machine Learning (AI/ML) to reduce cognitive workload on operators while maintaining full operator oversight. The Data Processing and Analytics thrust area includes maintaining the Boulder Ground Innovation Facility (BGIF) as the host location for the Overhead Persistent Infrared (OPIR) Tool, Applications, and Processing Laboratory (TAP Lab) Information Technology (IT) infrastructure and Development, Security, Operations (DevSecOps) Continuous Integration/Continuous Delivery (CI/CD) pipeline used by the OPIR TAP Lab to develop and field advanced software applications and algorithms. Wide Field of View (WFOV) On-Orbit Testbed Mission Integration, brings new or enhanced capabilities to the operational community. Capability Exploitation focuses on rapidly fielding, integrating, and operationally employing prototype capabilities derived from Space Modernization Initiative (SMI) investments, emphasizing speed, iteration, and real-world use to deliver residual operational capability, generate operational insight, reduce transition risk, and directly inform requirements, Concept of Operations (CONOPS), and future acquisition decisions. SMI funds engineering activities to reduce both production and future system costs through manufacturing and producibility enhancements, and technology insertion. SMI includes risk reduction for Program of Record (PoR) to deliver capabilities on threat-relevant timelines to include Future Operationally Resilient Ground Evolution (FORGE), Next-Gen Geosynchronous Earth Orbit (GEO), and Resilient Missile Warning/Missile Tracking (MW/MT), and Medium-Earth Orbit (MEO). 2. Integration (Project 657123/Program Element 1206442SF): The Next-Gen Overhead Persistent Infrared (OPIR) Integration project includes efforts associated with the Government's primary role in, and tasks necessary to accomplish, the critical lead system integration function between the OPIR enterprise segments (Next-Gen Geosynchronous Earth Orbit (GEO), Next-Gen Ground, and the Resilient MW/MT Medium Earth Orbit (MEO)/Low Earth Orbit (LEO) architecture). This includes Enterprise Systems Engineering and Integration (SE&I) activities, Modeling and Simulation activities, and Digital Engineering activities, to include Model Based System Engineering (MBSE). The focus of the Integration project is on system-level integration activities, between the Next-Gen OPIR segments, such as Space to Ground. This differs from integration within the individual program segments, which refers to subsystem-level integration between subsystems such as a spacecraft bus to the mission payload. The Government Integrator directs the Next-Gen OPIR current enterprise architecture and system definition, controls and validates interfaces, ensures compatibility of Next-Gen systems, and develops/manages plans for execution and fielding of the Next-Gen OPIR Enterprise. Further, the Integrator, through various Federally Funded Research and Development Centers (FFRDCs), government partners, and contractors, executes unique MBSE and integration requirements of each segment by providing modeling, simulation, and technical analyses of Government-directed enterprise level trades among the Next-Gen OPIR segments. These trades lead to definition, management, maintenance, and evolution of the Next-Gen OPIR Enterprise requirements and interface technical documents to ensure the integrity of the enterprise technical baseline. This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Space Force investment program interdependencies include: RDT&E Budget Line Items: Missile Defense Radars (1203873SF); Ballistic Missile EW Systems (1203909SF); Joint Tactical Ground System (1208053SF); NCMC - TW/AA System (1203906SF); Next - Generation OPIR (1206442SF); Next - Generation - GEO (1206443SF); Next - Generation - Ground (1206440SF); Next - Generation - Polar (1206444SF); NUDET Detection System (1203913SF); Resilient MW / MT - LEO (1206446SF); Resilient MW / MT - MEO (1206447SF) and elements of Procurement Budget Line Item: Space Mods (SPCMOD). This program element may include necessary civilian pay expenses required to manage, execute, and deliver Next-Gen OPIR weapon system capabilities. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206389SF.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206442SF I Next Generation OPIR			
This program is in Budget Activity 5, System Development and Demonstration (SDD) because the majority of Projects under PE 1206442SF have been declared Section 804 Rapid Prototype efforts conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.					
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	190.951	189.621	0.000	0.000	0.000
Current President's Budget	190.951	189.621	209.851	0.000	209.851
Total Adjustments	0.000	0.000	209.851	0.000	209.851
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	209.851	0.000	209.851
Change Summary Explanation					
Strategic Changes:					
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.					
Technical Changes:					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR				Project (Number/Name) 657009 / Space Mod Initiative			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
657009: Space Mod Initiative	0.000	158.717	160.113	179.491	0.000	179.491	189.697	191.461	195.827	199.742	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 5, PE 1206442SF, project 657009, Capability Exploitation, is a new start.

A. Mission Description and Budget Item Justification

Next-Generation Overhead Persistent Infrared (OPIR) Space Modernization Initiative (SMI) (Project 657009): To better enable response to emerging global missile threats, SMI advances critical capabilities and reduces risk through five major thrust areas: Demonstrations/Prototypes, Technology Maturation, Data Processing & Analytics, Wide Field of View (WFOV) On-Orbit Testbed Mission Integration, and Capability Exploitation, each with a flagship investment. Demonstrations rapidly prototype new game-changing technologies for the broader mission warning enterprise by delivering ground and on-orbit prototypes. Demonstrations also advance OPIR capabilities for missile warning and tracking ensuring a low risk, smooth transition of advanced technology to future operational systems. Technology Maturation focuses investments on high pay-off critical components to reduce production risks and development costs. Technology Maturation also focuses development on advanced Infrared (IR) sensing optics and electronics, resiliency hardware and software, and on-board processing algorithms and on-board computers. Data Processing & Analytics provides return-on-investment aimed at ingestion and fusion of current and future proliferated sensor program data to enhance missile warning, missile defense, battlespace awareness and technical intelligence mission capabilities. This includes the processing and exploitation of legacy Space Based Infrared Systems (SBIRS) wideband data and its fusion with Wide Field of View (WFOV) Geosynchronous Earth Orbit (GEO) wideband sensor. Subsequently, this work will expand to include the ingestion and fusion of WFOV Low Earth Orbit (LEO), Next-Gen GEO, Resilient Missile Warning/Missile Tracking (MW/MT) Medium-Earth Orbit (MEO) and other data as it becomes available as well as overcoming the proliferated sensor challenges expected with the large volumes of data and tracks that could overwhelm the enterprise and operators. Data Processing & Analytics will focus on automation and innovation to overcome these challenges to include Artificial Intelligence and Machine Learning (AI/ML) that reduce cognitive workload reduction of the operators. Data Processing & Analytics includes maintaining the Boulder Ground Innovation Facility (BGIF) and associated OPIR Tool, Applications, and Processing (TAP) Lab infrastructure and Development, Security, Operations (DevSecOps) Continuous Integration/Continuous Delivery (CI/CD) pipeline used for advanced software application and algorithm development. WFOV On-Orbit Testbed Mission Integration advances the capability of the OPIR enterprise by augmenting it with data from the WFOV system. Testbed system will provide data to operations, as available, demonstrate the value of new OPIR system Concept of Operations (CONOPS) and work to integrate MW/MT data into new mission areas. Capability Exploitation focuses on rapidly fielding, integrating, and operationally employing prototype capabilities derived from SMI investments, emphasizing speed, iteration, and real-world use to deliver residual operational capability, generate operational insight, reduce transition risk, and directly inform requirements, CONOPS, and future acquisition decisions. SMI funds engineering activities to reduce both production and future system costs through manufacturing and producibility enhancements, and technology insertion. SMI includes studies and risk reduction activities to evolve the current Program of Record (PoR) constellation and/or simultaneously mature breakthrough technologies to create a leap in capability for follow-on systems to include Future Operationally Resilient Ground Evolution (FORGE), Next-Gen GEO and Polar, and Resilient MW/MT MEO.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Demonstrations/Prototypes	30.377	46.832	38.522

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206442SF / <i>Next Generation OPIR</i>		Project (Number/Name) 657009 / <i>Space Mod Initiative</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Description: Demonstrations and Prototypes accelerate the transition of time-critical Overhead Persistent Infrared (OPIR) capabilities from concept to fielded architecture by reducing technical, integration, and operational risk prior to Program of Record commitment. This thrust delivers on-orbit and ground-based prototypes that validate emerging sensing phenomenologies, communications pathways, and mission data processing approaches in operationally relevant environments. By generating decision-quality data and early operational experience, this effort directly informs Medium-Earth Orbit (MEO) Missile Warning/ Missile Tracking (MW/MT) Epoch transitions, Resilient Ground Architecture (RGA), and future enterprise architectures. The Space Modernization Initiative (SMI) effort is critical to competing, maturing, designing, testing, and validating a system capable of tracking emerging missile threats outlined in the Missile Warning Missile Defense Capability Development Document (CDD). FY 2026 Plans: Test and demonstrate Low Size Weight and Power (SWaP), high bandwidth, agile crosslinks for MEO MW/MT Epoch 2 as the FY 2026 flagship investment for SMI Demonstrations. Deliver the necessary technical data to inform Epoch 2 of viable implementation paths, provide prototype hardware for on-orbit demonstrations, and reduce risk to the FY 2028 launch and Initial Warfighting Capability. Exploit early development of novel MW/MT phenomenologies to prove feasibility for cold target tracking. Transition Mid-Long Wave Infrared sensors, Event Based Cameras, and Middle Ultraviolet sensors into integrated demonstrations with mission partners to prove new capabilities are ready to onboard into MEO MW/MT Epoch 3. These technologies are aimed to close a capabilities gap in traditional infrared missile tracking. FY 2027 Plans: The flagship investment for SMI Demonstrations in FY 2026 matures into FY 2027 as the orbital vehicles manufactured by K2 Space complete integration and are launched into MEO. The current plan is to test Space Development Agency (SDA) v4.0 optical crosslinks in orbit from multiple orbital vehicles in MEO and in a higher orbit (in collaboration and coordination with SDA and other mission partners) two years ahead of the planned launch of MW/MT Epoch 2. Space-to-space, space-to-ground, and high-throughput long-distance communication links will be tested. In addition, the current plan includes integration of a low-cost on orbit Overhead Persistent Infrared (OPIR) sensor to pathfind high-throughput optical data pathways, to act as a pathfinder for on-orbit track fusion algorithms in collaboration with Wide Field of View (WFOV) and provide residual mission capability. Johns Hopkins Applied Physics Laboratory's Agamotto Event Based Sensor (AEBS), launched in FY 2026 in collaboration with a mission partner, will yield data in FY2027 for detailed analysis, enabling the true evaluation of this sensor capability across a breadth of mission profiles.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR		Project (Number/Name) 657009 / Space Mod Initiative	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Further investment will continue in orbital demonstration and prototyping of novel sensor types, including Mid-Long Wave Infrared sensors, Event Based Cameras, High Dynamic Range (HDR) sensors, hyperspectral, and Middle Ultraviolet sensors to enable cold-target tracking with a design for rapid iteration and implementation. Space Modernization Initiative (SMI) will continue to seeking partnership and rideshare opportunities to demo on-orbit capability and reduce risk for Medium Earth Orbit (MEO) Missile Warning/Missile Tracking (MW/MT) Epoch 3 and future systems.					
SMI will demonstrate ground architectures to inform the requirements process that enable resilient, proliferated capabilities such as phased array antennas (one such effort is with ThinKom), optical ground terminals, and other low-cost solutions. This thrust will also explore Ground Station as a Service (GSaaS) demonstration opportunities.					
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased due to realignment of funds from the Demos thrust to the Tech Mat thrust to optimize mission investments.					
Title: Technology Maturation			35.153	10.876	24.621
Description: Technology Maturation develops and hardens critical component and subsystem technologies required to sustain, scale, and proliferate the Next-Generation Overhead Persistent Infrared (OPIR) enterprise. This thrust focuses on manufacturability, affordability, resiliency, and performance advancements in key enabling technologies such as focal plane arrays, processors, automation algorithms, and survivability enhancements. By maturing technologies prior to system integration, this effort reduces cost, schedule, and technical risk for future OPIR architectures.					
Assess technology needs to support resiliency of Program of Record (PoR) assets and future architectures that are responsive to the evolving threat environment. Perform trade and design studies to assess obsolescence, affordability, capability design modifications, and Concept of Operations (CONOPS) for the Overhead Persistent Infrared (OPIR) mission. Mature technologies and manufacturability to reduce cost, schedule, and technical risk for new component and subsystem designs that may be used in the future systems. Mature technologies including algorithms, Focal Plane Array (FPA), optical filters, on-board processors, auxiliary resiliency payloads, and other payload components for future missile warning satellites, and reconstitution capabilities. Develop Modeling and Simulation (M&S) capabilities, and engineering model prototypes for hardware/software integration and testing. These efforts will reduce risk and mature technologies applicable to future systems and architectures. Additionally, develop test beds to validate/verify requirements and ensure technical maturity for next-generation payload technologies as well as threat mitigation components and techniques.					
As a result of the Space Warfighting Analysis Center (SWAC) Analysis of Alternatives (AoA) and Force Design, several key technologies areas were highlighted to execute the Medium-Earth Orbit (MEO)/Low Earth Orbit (LEO) pivot. A detailed manufacturability study was conducted in coordination with the SWAC during the AoA that recommend several critical technology maturation areas.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206442SF / <i>Next Generation OPIR</i>		Project (Number/Name) 657009 / <i>Space Mod Initiative</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
FY 2026 Plans: As the FY 2026 Technology maturation flagship investment, Space Modernization Initiative (SMI) will deliver the final components needed to meet Missile Warning/Missile Tracking (MW/MT) Enterprise-wide peak production demands for large format, resilient, high dynamic range Focal Plane Arrays (FPA) and protective filters and coatings for the FPAs. The thrust array will seek to transition developments for intelligent mission management into MW/MT Epoch 2 in order to merge various stovepipes of satellite tasking and inject event-based automation to the tasking architecture. Additionally, technology maturation will continue to propel emerging technologies to include meta optics, edge computing tools, and neuromorphic imaging in order to meet threats posed by our pacing adversaries in the FY 2030s. FY 2027 Plans: Through Technology Maturation, Space Modernization Initiative (SMI) will continue to ensure the final components needed to meet Missile Warning/Missile Tracking (MW/MT) Enterprise-wide peak production demands for large format, resilient, high dynamic range infrared Focal Plane Arrays (FPAs) and protective filters and coatings for the FPAs. Advancing the FPA state-of-the-art is critical for space-based sensing and this thrust directly impacts manufacturability and cost reduction of sensors used in MW/MT Epochs and Space Development Agency (SDA) Tranches. Effort will involve higher resolution (8K X 8K) sensors for better tracking capabilities, supply chain resilience and domestic manufacturability, digital in-pixel Read Out Integrated Circuits (ROICs), and other advancements that provide increased capability and/or lower cost. The thrust will seek to transition developments into MW/MT Epoch 2 and inform Epoch 3 in order to merge various stovepipes of satellite tasking and inject event-based automation to the tasking architecture. This thrust will also be used to pursue activities that investigate the tasking and coordination of sensors across Space Systems Command (SSC), SDA, and Missile Defense Agency (MDA) assets. SMI will continue to propel emerging technologies to include more advanced hardened planar array antennas to meet the needs of Relay Ground Antenna (RGA) and Space-Based Infrared System (SBIRS) Survivable Endurable Evolution (S2E2), meta optics, edge computing tools, and novel phenomenology sensor development to meet threats posed by our pacing adversaries in FY 2030. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to realignment of funds from the Demos thrust to the Tech Mat thrust to optimize mission investments.					
Title: Data Processing & Analytics Description: Data Processing & Analytics, formerly titled Data Exploitation, ensures the Overhead Persistent Infrared (OPIR) enterprise can exploit, fuse, and operationalize proliferated sensor data at scale. This thrust develops automated ground processing, artificial intelligence and machine learning tools, and resilient Development, Security, Operations (DevSecOps)			93.187	83.937	78.142

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR		Project (Number/Name) 657009 / Space Mod Initiative	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
infrastructure to manage increasing data volume while reducing operator cognitive burden. This thrust also transitions advanced detection, extraction, and typing algorithms from ground environments to on-orbit compute architectures to reduce latency, decrease bandwidth demands, and enable faster decision timelines. By distributing analytics across space and ground segments and transitioning capabilities into the Future Operationally Resilient Ground Evolution (FORGE) framework, this effort strengthens enterprise resiliency and operational responsiveness across the missile warning mission. Data Processing & Analytics will continue delivery of operationally contributing Wide Field of View (WFOV) Geosynchronous Earth Orbit (GEO) wideband data to end users in multiple mission areas and explore transition of capabilities to operations and sustainment on Future Operationally Resilient Ground Evolution (FORGE). WFOV GEO remains a valuable source of next generation sensor data exploitation. Lessons-learned from WFOV GEO operationalization are leveraged to exploit, fuse, type and characterize target tracks from future proliferated sensors (or emulated data for sensors not yet launched) including WFOV Low Earth Orbit (LEO), Next-Gen GEO, and Resilient Missile Warning/Missile Track (MW/MT). Medium-Earth Orbit (MEO) Data Processing & Analytics will research and develop solutions to overcome challenges stemming from large volumes of proliferated sensor data that could overwhelm the enterprise and operators. Efforts will focus on increased automation and introduction of Artificial Intelligence and Machine Learning (AI/ML) to reduce cognitive workload on operators. Data Processing & Analytics includes maintaining the Boulder Ground Innovation Facility (BGIF) and associated Overhead Persistent Infrared (OPIR) Tool, Applications, and Processing laboratory (TAP Lab) Information Technology (IT) infrastructure and Development, Security, Operations (DevSecOps) Continuous Integration/Continuous Delivery (CI/CD) pipeline used by OPIR TAP Lab to develop and field advanced software applications and algorithms. Space Systems Command (SSC), Space Development Agency (SDA), and Missile Defense Agency (MDA) will collaborate to develop and field the future ground reference architecture for Medium-Earth Orbit (MEO) and Low Earth Orbit (LEO) that relies on sensors delivering formatted data to the Real-Time Transfer Service (RTS). Once published to the RTS, operational warning and defense software is designed to fuse and correlate data from across OPIR sensors from all orbits to generate Three Dimensional (3D) tracks. The 3D tracks will allow warning and defense operational systems to distribute and message appropriately. The OPIR TAP Lab will continue to work with the Resilient Missile Warning/Missile Track (MW/MT) Medium-Earth Orbit (MEO) program office and SDA for early integration and testing using the Future Operationally Resilient Ground Evolution (FORGE) framework. FY 2026 Plans: As the Data Processing & Analytics flagship investment, Space Modernization Initiative (SMI) will exploit emerging Artificial Intelligence and Machine Learning (AI/ML) solutions to deliver tools necessary to operate the Proliferated Warfighting Architecture and manage the warfighters' cognitive load that will be stressed by the volume of data from proliferated sensors. Develop intelligent automated ground processing and operator Common Operating Picture (COP) solutions that ultimately put the operator on-the-loop instead of in-the-loop. More specifically, automate target extraction, typing, and characterization with a confidence level that will enable lower priority targets to be released and reported automatically when operators become overwhelmed,					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206442SF / <i>Next Generation OPIR</i>		Project (Number/Name) 657009 / <i>Space Mod Initiative</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
enabling operators to focus on higher priority targets. Data Processing & Analytics will also continue to enhance methods of generating Two Dimensional (2D) monotracks and fused 3D tracks to type and characterize Overhead Persistent Infrared (OPIR) events more precisely. In addition, Data Processing & Analytics will explore new ways to extract targets and deliver capabilities for extracting and typing targets from raw OPIR data. These efforts will support long-term objectives of transitioning new solutions to onboard (in orbit) processing to more fully exploit proliferated sensor investments while simultaneously mitigating challenges associated with large volumes of data overwhelming ground systems and operators. Data Processing & Analytics will leverage and enhance modeling and simulation tools, such as the Air Force Institute of Technology (AFIT) Sensor and Scene Emulation Tool (ASSET) to emulate OPIR data from future proliferated sensors using high fidelity payload models. These efforts will enable OPIR Tools, Applications, and Processing (TAP) Lab to develop and test Artificial Intelligence/Machine Learning (AI/ML) solutions before actual sensor data becomes available. Execute larger Development, Security, Operations (DevSecOps) infrastructure investments to include development and delivery of a hybrid on-prem/cloud environment to fully support exploitation of projected proliferated sensor data, host associated Machine Learning (ML) operations and provide fast access to curated data object storage for solution implementation, enabling a seamless Continuous Integration/Continuous Delivery (CI/CD) pipeline for capability deployment to the program of record. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: As the Data Processing & Analytics flagship investment, Space Modernization Initiative (SMI) will exploit emerging Artificial Intelligence and Machine Learning (AI/ML) solutions to deliver tools necessary to operate the Proliferated Warfighting Architecture and manage the warfighters' cognitive load that will be stressed by the volume of data from proliferated sensors. Develop intelligent automated ground processing and operator Common Operating Picture (COP) solutions that ultimately put the operator on-the-loop instead of in-the-loop. More specifically, automate target extraction, typing, and characterization with a confidence level that will enable lower priority targets to be released and reported automatically when operators become overwhelmed, enabling operators to focus on higher priority targets. Data Processing & Analytics will also continue to enhance methods of generating Two Dimensional (2D) monotracks and fused Three Dimensional (3D) tracks to type and characterize Overhead Persistent Infrared (OPIR) events more precisely. In addition, Data Processing & Analytics will explore new ways to extract targets and deliver capabilities for extracting and typing targets from raw OPIR data. These efforts will support long-term objectives of transitioning new solutions to onboard (in orbit) processing to more fully exploit proliferated sensor investments while simultaneously mitigating challenges associated with large volumes of data overwhelming ground systems and operators.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR	Project (Number/Name) 657009 / Space Mod Initiative		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Data Processing & Analytics will leverage and enhance modeling and simulation tools, such as the Air Force Institute of Technology (AFIT) Sensor and Scene Emulation Tool (ASSET) to emulate Overhead Persistent Infrared (OPIR) data from future proliferated sensors using high fidelity payload models. These efforts will enable OPIR Tools, Applications, and Processing (TAP) Lab to develop and test Artificial Intelligence/ Machine Learning (AI/ML) solutions before actual sensor data becomes available. Execute larger Development, Security, Operations (DevSecOps) infrastructure investments to include development and delivery of a hybrid on-prem/cloud environment to fully support exploitation of projected proliferated sensor data, host associated ML operations and provide fast access to curated data object storage for solution implementation, enabling a seamless Continuous Integration/Continuous Delivery (CI/CD) pipeline for capability deployment to the program of record. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased due to reduction of TAP Lab and OBAC Support Services (TLOSS) activities.					
Title: Wide Field of View (WFOV) On-Orbit Testbed Mission Integration Description: The Wide Field of View (WFOV) On-Orbit Testbed Mission Integration thrust operationalizes and exploits the WFOV demonstration as both an enterprise pathfinder and an operationally contributing sensor for Theater Event System (TES) and Integrated Tactical Warning and Attack Assessment (ITW/AA) ITW/AA serving Indo-Pacific Command (INDOPACOM). This effort bridges prototype capability and sustained operational integration, refining mission data products, validating ground integration through Future Operationally Resilient Ground Evolution (FORGE), and informing future Overhead Persistent Infrared (OPIR) system design. WFOV provides real-world operational data that shapes future sensor architectures, mission integration approaches, and multi-domain applications. The flagship investment for the On-Orbit Testbed Mission Integration thrust area is the Wide Field of View (WFOV) program. The demonstration testbed was launched on 1 July 2022 and has been a success. The system was originally planned and budgeted for a three-year demonstration but has proven to be a valuable asset as a pathfinder for future Overhead Persistent Infrared (OPIR) system mission integration and as a contributing sensor for the operational enterprise. WFOV is a government owned contractor operated system with a distributed architecture that includes a Factory Reach Back Center (FRBC) at Millennium Space Systems (MSS), a ground site at Blossom Point Tracking Facility (BPTF) and a tasking/data exploitation site at the Boulder Ground Innovation Facility (BGIF). The system works to advance Resilient Missile Warning Missile Tracking (MW/MT),			-	18.468	18.249

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206442SF / <i>Next Generation OPIR</i>	Project (Number/Name) 657009 / <i>Space Mod Initiative</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
battlespace awareness and technical intelligence in the Indo-Pacific Command (INDOPACOM) area while also pushing the limits of OPIR utility through experimentation against targets of opportunity. This is a new major thrust but not a new start. This effort was previously accomplished in the data exploitation thrust area and in program 1206410SF (Space Technology Development and Prototyping). FY 2026 Plans: The Wide Field of View (WFOV) system proves the utility of the wide area, sensitive, persistent capability with full frame, real-time image data provided in support of operational exercises and tests with the Department of War (DoW), Missile Defense Agency (MDA), and other targets of opportunity as available. The WFOV program will continue to provide missile track data to support data fusion in systems that message out on both the Theater Event System (TES) and Integrated Tactical Warning and Attack Assessment (ITW/AA) system. The program plans to create and test new specific data products for end users as requested in support of Resilient Missile Warning Missile Tracking (MW/MT) and Battlespace Awareness/Technical Intelligence (BA/TI) missions. The program is cooperating with the National Geospatial-Intelligence Agency (NGA), National Air and Space Intelligence Center (NASIC) and others to make the mono-track data and full frame messages fully accessible and available for both near real time and post processed intelligence reporting and technical analysis. WFOV is preparing to pathfind and demonstrate the added value that Overhead Persistent Infrared (OPIR) data could bring to several other critical mission areas and push the limits of OPIR mission capability. FY 2027 Plans: The Wide Field of View (WFOV) system is an operationally-contributing sensor to the Theater Event System (TES) and the Integrated Tactical Warning and Attack Assessment (ITW/AA) system that is currently positioned over the strategically-important INDOPACOM region. WFOV is also capability that acts as a capability pathfinder ahead of Next-Gen Geosynchronous Earth Orbit (GEO) (NGG), Next-Gen Polar (NGP), and Missile Warning Missile Tracking (MW/MT) Medium-Earth Orbit (MEO) Epoch programs and will continue to provide utility of the wide area, sensitive, persistent capability with full frame, real-time image data provided in support of operational exercises and tests with the Department of War (DoW), Missile Defense Agency (MDA), and other targets of opportunity as available. In FY 2027, the program will continue operationalizing Wide Field of View (WFOV) Overhead Persistent Infrared (OPIR) data and exploring risk reduction opportunities for future sensors. The WFOV program will continue to provide missile track data to support data fusion in systems that message out on both the Theater Event System (TES) and Integrated Tactical Warning and Attack Assessment (ITW/AA) system. In support of operations, the program will be included as part of the Future Operationally Resilient Ground Evolution (FORGE) baseline and will provide updated software to enable the operational data string. WFOV will also be improving our ground architecture for better availability and reliability. The program plans to optimize different missile warning products for the operational and intelligence communities and create and test new specific data products for end users as requested in support of Resilient Missile Warning Missile Tracking (MW/MT) and Battlespace Awareness/Technical Intelligence			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR	Project (Number/Name) 657009 / Space Mod Initiative		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
(BA/TI) missions. The program is cooperating with the National Geospatial-Intelligence Agency (NGA), National Air and Space Intelligence Center (NASIC) and others to make the mono-track data and full frame messages fully accessible and available for both near real time and post processed intelligence reporting and technical analysis. Wide Field of View (WFOV) is a pathfinder to demonstrate the added value that Overhead Persistent Infrared (OPIR) data could bring to several other critical mission areas and push the limits of OPIR mission capability. As an on-orbit demo system the Space Vehicle (SV) will be available to test and demonstrate alternative modes of data transport from Outside the Continental United States (OCONUS) back to the Continental United States (CONUS). FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased due to realignment of funds within the program to optimize mission investments.					
Title: Capability Exploitation Description: Capability Exploitation focuses on fielding, integrating, and operationally employing prototype capabilities derived from SMI investments to deliver near-term mission value and leave behind residual operational capacity. Unlike demonstrations that validate technical feasibility, this thrust deliberately designs and executes efforts in operationally relevant environments with the intent to accelerate learning, inform Concept of Operations (CONOPS), and reduce transition risk to Programs of Record (PoR). This thrust adopts a deliberate lean-forward risk posture. Building beyond the Demonstration thrust, activities are structured to pursue meaningful operational outcomes, even when technical risk remains, with demonstrations intentionally designed to provide residual mission utility wherever feasible. In this construct, measured risk and iterative learning are acceptable outcomes if they advance enterprise understanding, inform architecture decisions, and accelerate capability adoption across the Overhead Persistent Infrared (OPIR) and Resilient Missile Warning Missile Tracking (MW/MT) mission sets. Capability Exploitation is a new start. FY 2027 Plans: Capability Exploitation is a new start. In FY 2027, Capability Exploitation will operationalize the first transition of an Space Modernization Initiative (SMI)-derived effort into this construct through the ThinKom phased array antenna initiative. Originally launched to rapidly demonstrate and inform requirements for the Resilient Ground Architecture (RGA), this effort evolved into a more operationally relevant demonstration with the goal of utility in both Continental United States (CONUS) and Indo-Pacific Command (INDOPACOM) locations. Building on this model, the thrust will mature efforts under the emerging program to leverage the growing availability of commercially hosted platforms, enabling rapid placement of OPIR and MW/MT payloads across diverse space architectures. Additionally, this effort will identify and pursue opportunities to demonstrate Hypersonic Glide Vehicle (HGV) sensing capabilities with the intent to both prove feasibility and leave behind operationally relevant sensor contributions wherever possible. These			-	-	19.957

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206442SF / <i>Next Generation OPIR</i>	Project (Number/Name) 657009 / <i>Space Mod Initiative</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
activities accelerate architectural learning, expand commercially-enabled mission pathways, and reinforce the deliberate design principle of designing a demonstration prototype that can also enable residual operational utility.			
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to establishment of Capability Exploitation new start.			
Accomplishments/Planned Programs Subtotals		158.717	160.113
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy The program office will use a variety of acquisition approaches to execute various concept studies, technology maturation efforts, testbed/prototype demonstrations, data processing & analytics, and capability exploitation initiatives and projects. The program office will collaborate with appropriate contracting agencies to support each individual effort. Data Processing & Analytics efforts in the Overhead Persistent Infrared (OPIR) Tools, Applications, and Processing (TAP) Lab and the Overhead Persistent Infrared Battlespace Awareness Center (OBAC) will leverage existing external contracts, as well as new internal competitive contracts. Activities, such as Space Based Infrared Systems (SBIRS) obsolescence and affordability enhancements to the existing satellite design, will leverage existing Program of Record (PoR) contracts. Technology maturation and component prototyping and/or qualification could leverage existing contracts. Broad Agency Announcements (BAAs) and Other Transaction Agreements (OTAs) are planned in collaboration with Air Force Research Lab (AFRL) and other government agencies. Where practical, other efforts are competed. A Space Systems Command (SSC) BAA will be used to acquire and mature high priority technology items. Federally Funded Research and Development Center (FFRDC), University Affiliated Research Centers (UARCs), and Systems Engineering and Technical Assistance (SETA) contractors will also be used to conduct and support studies. New technology, replacement components, and system designs will be acquired with government data rights to the maximum extent, allowing incorporation into future Overhead Persistent Infrared (OPIR) satellite production or system development. Contracting partnerships with other agencies will also be used to study, develop, demonstrate, and prove emerging capabilities. To accelerate contracting actions and program execution, the Space Enterprise Consortium (SpEC) will be utilized to execute Other Transaction Agreements (OTAs) to conduct data exploitation improvements at the Overhead Persistent Infrared Battlespace Awareness Center (OBAC), OPIR Tools, Applications, and Processing (TAP) Lab and the Boulder Ground Innovation Facility (BGIF). A local SSC contract is being utilized for services at OBAC, OPIR TAP Lab and BGIF.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR				Project (Number/Name) 657009 / Space Mod Initiative					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Demos - MEO Digital Engineering	Various	Various : Various	-	5.698	Dec 2024	5.581	Dec 2025	3.371	Dec 2026	-		3.371	Continuing	Continuing	-
Demos - Low Size Weight and Power (SWaP) Crosslink	Various	Various : Various	-	11.832	Dec 2024	11.435	Dec 2025	4.000	Dec 2026	-		4.000	Continuing	Continuing	-
Demos - Cold Target Tracking	Various	Various : Various	-	5.949	Jan 2025	4.034	Jan 2026	8.500	Jan 2027	-		8.500	Continuing	Continuing	-
Demos - Edge Processing	Various	Various : Various	-	0.412	Jan 2025	-		5.100	Jan 2027	-		5.100	Continuing	Continuing	-
Demos - On-Orbit Demo	Various	Various : Various	-	-		14.000	Jan 2026	8.000	Jan 2027	-		8.000	Continuing	Continuing	-
Tech Mat - Resilient FPAs	Various	Various : Various	-	22.800	Jan 2025	3.000	Jan 2026	9.516	Jan 2027	-		9.516	Continuing	Continuing	-
Tech Mat - Intelligent Tasking	Various	Various : Various	-	2.500	Jan 2025	2.500	Jan 2026	4.700	Jan 2027	-		4.700	Continuing	Continuing	-
Tech Mat - Filters and Coating	MIPR	Various : Various	-	0.705	Jan 2025	-		1.000	Jan 2027	-		1.000	Continuing	Continuing	-
Tech Mat - Resilient Algorithms	MIPR	Various : Various	-	1.641	Jan 2025	0.530	Jan 2026	-		-		-	Continuing	Continuing	-
Tech Mat - Crosslink Enabling Tech	Various	Various : Various	-	-		0.320	Jan 2026	3.300	Jan 2027	-		3.300	Continuing	Continuing	-
Tech Mat - Advanced Optics	MIPR	Leidos : Reston, VA	-	-		0.790	Jan 2026	-		-		-	Continuing	Continuing	-
Tech Mat - ThinKom	RO	ThinKom : Hawthorne, CA	-	-		1.000	Jan 2026	-		-		-	Continuing	Continuing	-
Data - OPIR	Various	Various : Various	-	29.092	Jan 2025	30.862	Jan 2026	23.643	Jan 2027	-		23.643	Continuing	Continuing	-
Data - TAP Lab Other Activities	RO	AFRL : Albuquerque, NM	-	10.195	Jan 2025	5.317	Jan 2026	6.350	Jan 2027	-		6.350	Continuing	Continuing	-
Data - TAP Lab and OBAC Support Services (TLOSS)	RO	Parsons : Pasadena, CA	-	14.878	Jan 2025	5.220	Jan 2026	-		-		-	Continuing	Continuing	-
Data - Artificial Intelligence/Machine Learning (AI/ML)	Various	Various : Various	-	8.949	Jan 2025	11.895	Jan 2026	12.875	Jan 2027	-		12.875	Continuing	Continuing	-
Data - BGIF and OBAC Support Services (BOSS)	RO	TBD : TBD	-	-		14.331	Jan 2026	22.419	Jan 2027	-		22.419	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)				Project (Number/Name)					
3620F / 5						PE 1206442SF / Next Generation OPIR				657009 / Space Mod Initiative					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
WFOV On-Orbit Testbed Mission Integration	MIPR	Various : Various	-	-		18.468	Jan 2026	18.249	Jan 2027	-		18.249	Continuing	Continuing	-
Data - Wide Field of View (WFOV) Activities	MIPR	Various : Various	-	14.176	Jan 2025	-		-		-		-	Continuing	Continuing	-
Capability Exploitation	Various	Various : Various	-	-		-		19.957	Jan 2027	-		19.957	Continuing	Continuing	-
Enterprise SE&I	MIPR	Booz Allen Hamilton : El Segundo, CA	-	2.343	Dec 2024	3.494	Dec 2025	1.236	Dec 2026	-		1.236	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace Corporation : El Segundo, CA	-	8.020	Jan 2025	8.575	Jan 2026	8.233	Jan 2027	-		8.233	Continuing	Continuing	-
Subtotal			-	139.190		141.352		160.449		-		160.449	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	Various	Various : Various	-	9.923	Oct 2024	8.571	Oct 2025	7.971	Oct 2026	-		7.971	Continuing	Continuing	-
A&AS	Various	Various : Various	-	9.405	Oct 2024	9.940	Oct 2025	10.821	Oct 2026	-		10.821	Continuing	Continuing	-
Other Support	Various	Various : Various	-	0.199	Oct 2024	0.250	Oct 2025	0.250	Oct 2026	-		0.250	Continuing	Continuing	-
Subtotal			-	19.527		18.761		19.042		-		19.042	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	158.717		160.113		179.491		-		179.491	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206442SF / <i>Next Generation OPIR</i>	Project (Number/Name) 657009 / <i>Space Mod Initiative</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Demonstration/Prototypes																												
Rapid Prototyping Studies and additional Design Development																												
Digital Engineering Models																												
Develop Low SWaP Crosslink																												
Cold Target Tracking																												
On-Orbit Demo																												
Technology Maturation																												
FPA Manufacturability Investments																												
Development High Dynamic Range (HDR) FPAs																												
Operational HDR (TRL 5-6)																												
Develop Manufacturable Filters																												
Resilient Algorithm Development & Test Bed																												
Intelligent Tasking																												
Data Processing & Analytics																												
SpEC Characterization and Typing																												
BGIF/TAP Lab Facility and Infrastructure																												
WFOV MDP and Exploitation																												
WFOV Taskings and Mission Planning																												
Prototype Integrations & Test (I&T) Current and Future Sensor Data Exploitation, Track & Fusion; Target; Typing and Characterization for AI/ML																												
WFOV Data Delivery on FORGE Framework																												
WFOV Data Delivery on FORCE Application Layer																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																	Date: April 2026											
Appropriation/Budget Activity 3620F / 5										R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR								Project (Number/Name) 657009 / Space Mod Initiative										
	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Artificial Intelligence & Machine Learning Development (AI/ML) Infrastructure																												
AI/ML #1 SBIR (Four Awards-Toyon/Etegent/RAIC/Jaxon)																												
AI/ML #2 SpEC OT (Four Awards-TBD/Downselect to Two after Six-Months)																												
TAP Lab - Host/Support FORGE MDP Integration and Testing																												
TAP Lab - Host/Support Next-Gen Ground/Interim Operations Control Center (NICC) GEO C2																												
Host/Support Resilient MWMT MEO C2																												
Wide Field of View On-Orbit Testbed Mission Integration																												
Initial integration of WFOV in to FORGE for data fusion in the OBAC																												
Demonstration of OPIR data in new mission areas																												
Capability Exploitation																												
Capability Exploitation																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 5

R-1 Program Element (Number/Name)

PE 1206442SF / Next Generation OPIR

Project (Number/Name)

657009 / Space Mod Initiative

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Demonstration/Prototypes</i>				
Rapid Prototyping Studies and additional Design Development	1	2025	4	2031
Digital Engineering Models	1	2025	4	2029
Develop Low SWaP Crosslink	1	2025	4	2027
Cold Target Tracking	1	2025	4	2031
On-Orbit Demo	1	2026	4	2029
<i>Technology Maturation</i>				
FPA Manufacturability Investments	1	2025	4	2031
Development High Dynamic Range (HDR) FPAs	1	2025	4	2028
Operational HDR (TRL 5-6)	1	2026	1	2026
Develop Manufacturable Filters	1	2025	1	2026
Resilient Algorithm Development & Test Bed	1	2025	4	2026
Intelligent Tasking	1	2025	4	2027
<i>Data Processing & Analytics</i>				
SpEC Characterization and Typing	1	2025	4	2029
BGIF/TAP Lab Facility and Infrastructure	1	2025	4	2031
WFOV MDP and Exploitation	1	2025	4	2026
WFOV Taskings and Mission Planning	1	2025	4	2026
Prototype Integrations & Test (I&T) Current and Future Sensor Data Exploitation, Track & Fusion; Target; Typing and Characterization for AI/ML	1	2025	4	2028
WFOV Data Delivery on FORGE Framework	1	2025	4	2026
WFOV Data Delivery on FORCE Application Layer	1	2025	4	2026
Artificial Intelligence & Machine Learning Development (AI/ML) Infrastructure	1	2025	4	2031

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 5

R-1 Program Element (Number/Name)

PE 1206442SF / Next Generation OPIR

Project (Number/Name)

657009 / Space Mod Initiative

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AI/ML #1 SBIR (Four Awards-Toyon/Etegent/RAIC/Jaxon)	1	2025	1	2026
AI/ML #2 SpEC OT (Four Awards-TBD/Downselect to Two after Six-Months)	3	2025	3	2027
TAP Lab - Host/Support FORGE MDP Integration and Testing	1	2025	4	2031
TAP Lab - Host/Support Next-Gen Ground/Interim Operations Control Center (NICC) GEO C2	1	2025	4	2031
Host/Support Resilient MWMT MEO C2	1	2025	4	2031
Wide Field of View On-Orbit Testbed Mission Integration				
Initial integration of WFOV in to FORGE for data fusion in the OBAC	4	2025	3	2026
Demonstration of OPIR data in new mission areas	1	2026	4	2028
Capability Exploitation				
Capability Exploitation	1	2027	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR				Project (Number/Name) 657123 / Integration			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
657123: Integration	0.000	32.234	29.508	30.360	0.000	30.360	31.465	31.899	32.479	33.129	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Government works with the Enterprise System Engineering & Integration (SE&I) contractor as a team to define the Next-Gen OPIR enterprise architecture, control and validate interfaces, ensure compatibility of Next-Gen OPIR systems, and develop/manage plans for fielding the Next-Gen OPIR segments. Further, the Enterprise SE&I executes system-level integration requirements between segments such as Space to Ground. This differs from integration within each segment; integration within segments refers to subsystem-level integration between subsystems such as a spacecraft bus to the mission payload. The Government Integrator is responsible for defining the Next-Gen OPIR enterprise architecture, controls and validates interfaces, ensures compatibility of Next-Gen OPIR systems, and develops/manages plans for fielding the Next-Gen OPIR Enterprise. Further, the Integrator executes Model Based System Engineering (MBSE) through modeling, simulation, and technical analyses of Government-directed enterprise level trades among the Next-Gen OPIR segments. These trades lead to definition, management, maintenance, and evolution of the Next-Gen OPIR Enterprise technical requirements and interface documents to ensure the integrity of the enterprise technical baseline.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Next-Gen OPIR weapon system capabilities. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206389SF.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Next-Gen OPIR Integration	32.234	29.508	30.360
Description: The Next-Gen OPIR Space Integration project executes the Government's lead systems integrator function across the Missile Warning enterprise, ensuring architectural coherence, interface control, and end-to-end system performance across space and ground segments. Through disciplined systems engineering and robust Modeling, Simulation, and Analysis (M&S) activities executed by the OPIR Modeling and Simulation & Analysis Center (OMAC) and through external funded projects, this effort predicts enterprise performance, validates design decisions, informs resiliency strategies, and provides the analytical foundation for next-generation OPIR architectures. By synchronizing Next-Generation GEO (NGG), Next-Generation Polar (NGP), Resilient MW/MT architectures, Resilient Ground Architecture (RGA) and FORGE within a unified technical baseline, this thrust both safeguards interoperability of current systems and shapes the evolution of future missile warning and tracking capabilities. FY 2026 Plans: Continue to plan and execute the critical lead system integration function across the Missile Warning System of Systems, to include systems engineering, process development and execution, requirements analysis, and vertical and horizontal integration at the system, ground, space, segment, and element levels. Continue management of the missile warning technical baseline, and planning and oversight of system level requirement verification/validation and test activities. Support NGG SV1 initial launch capability, on-orbit checkout, tuning and Operational Acceptance campaign and NGG SV2 Integration and Testing (I&T) activities.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206442SF / <i>Next Generation OPIR</i>		Project (Number/Name) 657123 / <i>Integration</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Serve as the Systems Integrator for NGP SV1 & SV2. Supporting early integration and risk reduction activities, NGP Mission Payload (MPL) assembly and testing, and development and execution of end-to-end system test activities to enable NGP to be integrated into the FORGE architecture, including Command & Control (C2) and Mission Data Processing. Support the Operational Acceptance campaign and Integrated Tactical Warning/Attack Assessment (ITW/AA) certification of SBIRS HEO, GEO and Next-Gen GEO MW operations on FORGE Mission Data Processing (MDP), and Relay Ground Station Site A (RGS-A) qualification testing, installation and activation. Support activities to enable FORGE to ingest and process additional sensor data. Through the OPIR Modeling and Simulation & Analysis Center (OMAC), it will execute analysis to support overall integration functions across the enterprise with four specific focus areas; first it will provide independent reviews of NGG SV1 on-orbit testing to fully exploit the multi-band sensor data. Second, it will further refine NGG resiliency support plans to execute during potential windows of opportunity testing as directed. Third, it will continue to plan and execute modeling and simulation tool updates and enhancements to support evolving Missile Warning Architecture, as well as prepare for future Missile Warning System fielding via predictive performance analysis compared to on-orbit testing. Fourth, it will execute any real-time simulations/analysis requests to support the missile warning enterprise. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Continue to plan and execute the critical lead system integration function across the System Delta (SYD) 84 Missile Warning and Tracking System of Systems, to include systems engineering, process development and execution, requirements analysis, vertical and horizontal integration at the system, ground, space, segment and element levels. Continue the management of the Space based missile warning technical baseline, planning and oversight of system level requirement verification/validation and test activities to ensure end-to-end system level performance. Support the transition of legacy operations to FORGE framework and processing Operational Acceptance 3 (OA3). Support the integration testing, verification of the space and ground architecture, including of RGS-A, to enable the operational acceptance of NGG-1, as well as the integration, test, verification planning for NGG-2 OA. Execute the Lead Systems Integrator functions to include system level Integration, testing, and verification for NGP, to include the required elements of FORGE and the ground architecture in the lead up to NGP SV1 Initial Launch Capability (ILC). Support the Integration and planning to incorporate the MW/MT Epoch 1 and beyond mission data into FORGE. Begin to integrate various proliferated systems of space assets across Space Systems Command (SSC) and Space Development Agency (SDA) programs. This includes the coordination and orchestration of space sensing assets across SYD 84 Programs of Record, developmental programs, and SDA programs (LEO, MEO, GEO and beyond). Integrate the ingestion and fusion of sensor data from these sensing assets.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR		Project (Number/Name) 657123 / Integration	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Through the OPIR Modeling and Simulation & Analysis Center (OMAC), it will execute analysis to support overall integration functions across the enterprise with four specific focus areas; first it will complete independent reviews of NGG SV1 on-orbit testing to fully exploit the multi-band sensor data and begin updates specific to NGG SV2. Second, it will continue to refine NGG resiliency support plans to execute during potential windows of opportunity testing as directed. Third, it will continue to plan and execute modeling and simulation tool updates and enhancements to support evolving Missile Warning Architecture, as well as prepare for future Missile Warning System (MEO and LEO as directed) fielding via predictive performance analysis compared to on-orbit testing. Fourth, it will execute any real-time simulations/analysis requests to support the missile warning enterprise. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.					
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to continued integration functions across the enterprise.					
Accomplishments/Planned Programs Subtotals			32.234	29.508	30.360
C. Other Program Funding Summary (\$ in Millions) N/A					
Remarks					
D. Acquisition Strategy The Space Force will exercise complete ownership of the architecture, system definition, technical baseline, and integration of Next-Gen OPIR space and ground segments. While this complex intersegment integration is traditionally performed by a prime contractor under a systems development contract, for Next-Gen OPIR, this approach requires the government to be the integrator. To execute this responsibility, the government leverages systems engineering and integration expertise from the SE&I contractor. The Program Office has been executing this effort through an SSC managed SE&I contract, for which the final option period concludes in 4th Quarter 2023. A new SE&I support contract (one-year base with 6 one-year options) was awarded to Booz Allen Hamilton by GSA in Jan 2022, however two protests delayed the award. Following GAO dismissals of the protest and proposal review activities, GSA provided Authority to Proceed (ATP) on 19 June 2023. The period of performance overlap in the two contracts provides the required time to enable an efficient transition. In this effort, the contractor will be tightly integrated with the government team to assist in executing the government lead system integration and validation function. This function requires system analysis, integration planning, integration execution, leveraging that expertise from the Prime Contractors for NGG, NGP, and FORGE. These prime contractors have System Engineering, Integrations and Test (SEIT) scope on the respective contracts. The new SE&I contract encompasses two functions: first, it primarily supports the Enterprise SE&I effort captured in this Integration Project. Secondly, the contract includes scope to execute SE&I requirements internal to each segment.					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR				Project (Number/Name) 657123 / Integration					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Enterprise SE&I Direct Support	Various	Various : Various	-	20.579	Jun 2025	17.664	Dec 2025	16.739	Nov 2026	-		16.739	Continuing	Continuing	-
OPIR Modeling & Simulation	Various	Various : Various	-	9.870	Jan 2025	10.818	Dec 2025	12.332	Dec 2026	-		12.332	Continuing	Continuing	-
Subtotal			-	30.449		28.482		29.071		-		29.071	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : Various	-	1.750	Dec 2024	0.951	Dec 2025	1.214	Dec 2026	-		1.214	Continuing	Continuing	-
Other Support	Various	Various : Various	-	0.035	Dec 2024	0.075	Jan 2026	0.075	Dec 2026	-		0.075	Continuing	Continuing	-
Subtotal			-	1.785		1.026		1.289		-		1.289	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	32.234		29.508		30.360		-		30.360	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206442SF / <i>Next Generation OPIR</i>	Project (Number/Name) 657123 / <i>Integration</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>OPIR Space & Ground Systems</i>																												
Systems of Systems Engineering/Technical Baseline Management																												
<i>Next-Gen OPIR GEO (NGG)</i>																												
SV1 Space to Ground Compatibility Test																												
SV1 ILC																												
SV2 Space to Ground Compatibility Test																												
SV1 On-Orbit Calibration & Tuning Test																												
SV1 OA																												
SV2 On-Orbit Calibration & Tuning Test																												
SV2 OA																												
<i>Next-Gen OPIR Polar (NGP)</i>																												
SV1 Assembly, Integration & Test																												
SV1 ILC																												
SV2 Assembly, Integration, & Test																												
SV1 OA																												
<i>MW/MT MEO</i>																												
Epoch 1(1-6) ILC																												
Epoch 1(7-12) ILC																												
<i>Future Operationally Resilient Ground Evolution (FORGE)</i>																												
FORGE OBAC Ops: (OA #2) OBAC on FORGE Processing/Framework																												
FORGE Legacy Ops: (OA #3) Legacy on FORGE Processing/Framework																												
FORGE NGG-1 OA																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																								Date: April 2026															
Appropriation/Budget Activity 3620F / 5												R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR								Project (Number/Name) 657123 / Integration																			
												FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
												1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Relay Ground Station (RGS) Integration																																							
RGS-A OA												■																											
RGS-S & UK												■																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 5

R-1 Program Element (Number/Name)

PE 1206442SF / Next Generation OPIR

Project (Number/Name)

657123 / Integration

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
OPIR Space & Ground Systems				
Systems of Systems Engineering/Technical Baseline Management	1	2025	4	2031
Next-Gen OPIR GEO (NGG)				
SV1 Space to Ground Compatibility Test	1	2025	1	2026
SV1 ILC	2	2026	2	2026
SV2 Space to Ground Compatibility Test	3	2026	4	2027
SV1 On-Orbit Calibration & Tuning Test	3	2026	3	2027
SV1 OA	3	2027	3	2027
SV2 On-Orbit Calibration & Tuning Test	1	2028	4	2028
SV2 OA	3	2029	3	2029
Next-Gen OPIR Polar (NGP)				
SV1 Assembly, Integration & Test	4	2025	4	2028
SV1 ILC	4	2028	4	2028
SV2 Assembly, Integration, & Test	2	2027	2	2030
SV1 OA	2	2028	2	2028
MW/MT MEO				
Epoch 1(1-6) ILC	3	2027	3	2027
Epoch 1(7-12) ILC	2	2028	2	2028
Future Operationally Resilient Ground Evolution (FORGE)				
FORGE OBAC Ops: (OA #2) OBAC on FORGE Processing/Framework	3	2025	3	2025
FORGE Legacy Ops: (OA #3) Legacy on FORGE Processing/Framework	1	2027	1	2027
FORGE NGG-1 OA	3	2027	3	2027
Relay Ground Station (RGS) Integration				

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR		Project (Number/Name) 657123 / Integration	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
RGS-A OA		3	2027	3	2027
RGS-S & UK		4	2028	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206443SF I Next-Gen OPIR -- GEO							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	3,545.195	458.727	422.173	485.703	0.000	485.703	366.635	123.126	95.157	0.000	581.300	6,078.016
657120: Next-Gen OPIR Space GEO	3,545.195	458.727	422.173	485.703	0.000	485.703	366.635	123.126	95.157	0.000	581.300	6,078.016
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The program office is developing the Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) Geosynchronous Earth Orbit (GEO) (Project 657120) for Guardians across Missile Warning and Missile Tracking (MW/MT) mission area. As a result, the Service will deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland while providing resilient infrastructure, equipment and personnel.

Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) Geosynchronous Earth Orbit (GEO) (Project 657120): The primary mission is to provide initial missile warning of a strategic missile attack on the US, deployed forces and allies. The Next-Gen OPIR GEO (NGG) missile warning satellites enhance detection and improve reporting of intercontinental ballistic missile launches, submarine ballistic missile launches, and tactical ballistic missile launches. Development consists of new payloads in a highly resilient bus, providing real-time persistent global infrared coverage to meet validated Joint Requirements Oversight Council (JROC) requirements on current and future space domain demands. The Program Office is acquiring the NGG capability in two contract actions. Phase 1 awarded in August 2018 encompasses requirements analysis, design/development, critical path flight hardware procurement, and risk reduction efforts leading to a System Critical Design Review (CDR) in October 2021. Phase 2 was awarded in January 2021 for the manufacturing, assembly, system integration and test, launch, and early on-orbit test through operational acceptance of NGG satellites 1-3.

The Department has assessed the third Space Vehicle (SV) is not required as a result of continued positive performance of the Space-Based Infrared System (SBIRS) constellation and the anticipated full operational capability of the Medium Earth Orbit (MEO), Program Element 1206447SF/ Low Earth Orbit (LEO), Program Element 1206446SF missile tracking constellation. As a result, the program has removed the third satellite development efforts. NGG is now a 2 SV baseline.

The NGG program has been designated as a Major Capability Acquisition.

This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Missile Defense Radars (1203873SF); Ballistic Missile EW Systems (1203909SF); Joint Tactical Ground System (1208053SF); NCMC - TW/ AA System (1203906SF); Next - Generation OPIR (1206442SF); Next - Generation - GEO (1206443SF); Next - Generation - Ground (1206440SF); Next - Generation - Polar (1206444SF); NUDET Detection System (1203913SF); Resilient MW / MT - LEO (1206446SF); Resilient MW / MT - MEO (1206447SF) and elements of Procurement Budget Line Item: Space Mods (SPCMOD).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206443SF I Next-Gen OPIR -- GEO				
The total cost of the NGG program is 9130.8 million which includes prior year costs from Program Element (PE) 1206442SF, Project 657120 of 1338.6 million and PE 1206442F, Project 657120 of 1704.2 million.						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver Next-Gen OPIR GEO system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		458.727	432.073	0.000	0.000	0.000
Current President's Budget		458.727	422.173	485.703	0.000	485.703
Total Adjustments		0.000	-9.900	485.703	0.000	485.703
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	-9.900	485.703	0.000	485.703
Change Summary Explanation						
Strategic Changes:						
FY 2027: The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner.						
Technical Changes:						
FY 2026: -\$9.9 million for development excess to need.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Next-Gen OPIR GEO				458.727	422.173	485.703
Description: Development of the Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) Geosynchronous Earth Orbit (GEO) missile warning satellites with a proven bus, new hardened sensors, and auxiliary payloads for increased resilience.						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206443SF / <i>Next-Gen OPIR -- GEO</i>		
C. Accomplishments/Planned Programs (\$ in Millions) The space segment for GEO missile warning satellites consists of a resilient architecture providing real time persistent global equatorial infrared coverage. The first GEO satellite is required in 2026. FY 2026 Plans: FY 2026 funds are required to execute launch & on-orbit testing and interim contractor operations support for Space Vehicle (SV)#1, preserve 2027 initial launch capability (ILC) for SV#2, perform space/ground integration activities, and continue build and integration activities for SV#2. Continue executing ground system mission data processing, command and control, and integration development to support SV#1 and SV#2. Conduct system level assembly and test for SV#2, including space-to-ground testing to enable discovery and correction of defects critical to launch. Conduct SV#2 space vehicle baseline test, electromagnetic interference test and acoustic test. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: FY 2027 funds are required to ensure the successful transition of Space Vehicle (SV)#1 to operational status and preserves the 2027 Initial Launch Capability for SV#2. This includes completing on-orbit testing of SV#1 and maintaining interim contractor operations support throughout the operational acceptance phase; supporting the necessary space-to-ground integration activities; continuation of build and integration efforts for SV#2, encompassing vital processes such as completion of environmental Thermal-Vacuum testing, Acoustic testing and Space Vehicle Final test. Continue integrating the ground system's mission data processing, command and control, and overall integration to support SV#2's operations and the program's ultimate transition to Future Operationally Resilient Ground Evolution (FORGE). Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased by \$63.530 million from FY 2026 due to SV#2 environmental Thermal-Vacuum testing, Acoustic testing, Space Vehicle Final testing, and final integration testing. Funds are required to ensure SV#2 meets its 2027 launch date.		FY 2025	FY 2026	FY 2027
Accomplishments/Planned Programs Subtotals		458.727	422.173	485.703
D. Other Program Funding Summary (\$ in Millions) N/A				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206443SF / <i>Next-Gen OPIR -- GEO</i>
D. Other Program Funding Summary (\$ in Millions) Remarks E. Acquisition Strategy The Space Force intends to rapidly acquire Next-Generation systems in order to out-pace adversary missile and counterspace threats while maintaining survivable, global missile warning capability sufficient to enable a transition to the future Force Design architecture. Next-Gen Overhead Persistent Infrared (OPIR) Geosynchronous Earth Orbit (GEO) consists of two Next-Gen OPIR GEO satellites. The Next-Gen OPIR GEO Space program was designated a Middle Tier Acquisition (MTA) Rapid Prototype effort under Section 804 of the 2016 National Defense Authorization Act (NDAA). The Next-Gen OPIR GEO program was re-designated as an Acquisition Category (ACAT)-1B Major Capability Acquisition program in July 2023. The program office awarded a sole source contract under the authority of a Justification & Authorization document. The Next-Gen OPIR GEO Phase 1 contract was awarded in FY 2018, consisting of requirements development, critical path flight hardware procurement, and risk reduction efforts culminating in an October 2021 System Critical Design Review (CDR). The Next-Gen OPIR GEO Phase 2 modification was awarded in January 2021, and includes scope for parts procurement, assembly, integration, test, launch, and checkout of 3 GEO space vehicles. The third space vehicle was defunded in the FY2024 PB as a result of continued positive performance of the Space-Based Infrared System (SBIRS) constellation and the anticipated operational capability of the Medium Earth Orbit (MEO), Program Element 1206447SF/ Low Earth Orbit (LEO), Program Element 1206446SF missile tracking constellation. Next-Gen OPIR GEO is now a two space vehicle baseline.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206443SF / Next-Gen OPIR -- GEO				Project (Number/Name) 657120 / Next-Gen OPIR Space GEO					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Next-Gen OPIR GEO (Phase 1 & 2)	Various	Lockheed Martin; Various : Various	3,252.079	392.209	Oct 2024	365.846	Oct 2025	431.390	Oct 2026	-		431.390	509.874	4,951.398	7,230.308
Enterprise Crypto	Various	General Dynamics; Various : Various	26.568	2.876	Oct 2024	0.819	Oct 2025	1.120	Oct 2026	-		1.120	3.450	34.833	-
Comm GFP	C/CPFF	Sev1 Tech : El Segundo, CA	8.041	0.000		0.000		0.000		-		0.000	0.000	8.041	-
Launch Support	Various	Various : Various	3.369	1.776	Oct 2024	6.132	Oct 2025	4.678	Oct 2026	-		4.678	0.000	15.955	-
SE&I	Various	Various : Various	27.031	7.897	Nov 2024	5.397	Nov 2025	5.504	Nov 2026	-		5.504	11.929	57.758	-
Technical Mission Analysis	RO	Aerospace Corporation : El Segundo, CA	48.800	15.083	Oct 2024	14.170	Oct 2025	11.060	Oct 2026	-		11.060	15.680	104.793	-
Subtotal			3,365.888	419.841		392.364		453.752		-		453.752	540.933	5,172.778	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace Corporation : El Segundo, CA	30.428	6.464	Oct 2024	6.073	Oct 2025	4.740	Oct 2026	-		4.740	6.720	54.425	-
A&AS	Various	Various : TBD	147.914	32.003	Nov 2024	23.275	Nov 2025	26.715	Nov 2026	-		26.715	31.972	261.879	-
Other Support	Various	Various : TBD	0.965	0.419	Oct 2024	0.461	Oct 2025	0.496	Oct 2026	-		0.496	1.675	4.016	-
Subtotal			179.307	38.886		29.809		31.951		-		31.951	40.367	320.320	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			3,545.195	458.727		422.173		485.703		-		485.703	581.300	5,493.098	N/A
Remarks															
Other "Prior Years" costs of \$3042.891 million are held in previous Program Elements: 1206442F and 1206442SF. \$1704.241 million + \$1338.650 million = \$3042.891 million															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206443SF / <i>Next-Gen OPIR -- GEO</i>	Project (Number/Name) 657120 / <i>Next-Gen OPIR Space GEO</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Next-Gen OPIR GEO Phase 2</i>																												
SV#1 Bus Build Integration & Testing																												
SV#1 Launch Support																												
SV#1 Ready for Launch																												
SV#1 On-Orbit Testing																												
SV#1 Interim Contractor Operations Support																												
SV#2 Bus Build Integration & Testing																												
SV#2 Launch Support																												
SV#2 Ready for Launch																												
SV#2 On-Orbit Test																												
SV#2 Interim Contractor Operations Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206443SF / <i>Next-Gen OPIR -- GEO</i>	Project (Number/Name) 657120 / <i>Next-Gen OPIR Space GEO</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Next-Gen OPIR GEO Phase 2</i>				
SV#1 Bus Build Integration & Testing	1	2025	4	2025
SV#1 Launch Support	1	2025	3	2026
SV#1 Ready for Launch	2	2026	1	2027
SV#1 On-Orbit Testing	1	2027	2	2028
SV#1 Interim Contractor Operations Support	1	2026	4	2030
SV#2 Bus Build Integration & Testing	1	2025	3	2027
SV#2 Launch Support	1	2025	1	2028
SV#2 Ready for Launch	4	2027	1	2028
SV#2 On-Orbit Test	1	2028	2	2029
SV#2 Interim Contractor Operations Support	3	2027	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206444SF I Next-Gen OPIR -- Polar							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	2,187.407	769.478	436.521	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3,393.406
657121: Next-Gen OPIR Space, Block 0 Polar	2,187.407	769.478	436.521	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	3,393.406
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The program office is developing the Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) Polar (Project 657121) for Guardians across Missile Warning and Missile Tracking (MW/MT) mission area. As a result, the Service will deter, neutralize, defeat, and/or destroy counterspace threats and defend the homeland while providing resilient infrastructure, and equipment.

Next-Generation Overhead Persistent Infrared (Nex-Gen OPIR) Space, Block 0 Polar (Project 657121): The primary mission is to provide initial missile warning of a ballistic missile attack on the US, its deployed forces, and its allies. Next-Gen OPIR Space enhances detection and improves reporting of intercontinental ballistic missile launches, submarine launched ballistic missile launches, and tactical ballistic missile launches. Development consists of the Next-Gen OPIR Polar (NGP) missile warning satellites with new payloads in a highly resilient bus, providing real-time persistent global infrared coverage to meet validated Joint Requirements Oversight Council (JROC) requirements on current and future space domain demands.

The program office is acquiring the NGP capability through three contract phases. Phase 0, awarded in June 2018, encompassed system requirements analysis and risk reduction efforts, which led to a March 2020 System Requirements Review (SRR). Phase 1, awarded in May 2020, encompasses engineering design, unit hardware procurement, component and subsystem qualification and design, critical path flight hardware procurement, and risk reduction efforts, and culminated in a System Critical Design Review (CDR) in August 2024. Phase 2 was awarded in October 2024, encompassing manufacture, assembly, integration, test and launch of two satellites.

This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Space Force investment program interdependencies include: RDT&E Budget Line Items: Missile Defense Radars (1203873SF); Ballistic Missile EW Systems (1203909SF); Joint Tactical Ground System (1208053SF); NCMC - TW/AA System (1203906SF); Next - Generation OPIR (1206442SF); Next - Generation - GEO (1206443SF); Next - Generation - Ground (1206440SF); Next - Generation - Polar (1206444SF); NUDET Detection System (1203913SF); Resilient MW / MT - LEO (1206446SF); Resilient MW / MT - MEO (1206447SF) and elements of Procurement Budget Line Item: Space Mods (SPCMOD).

The NGP program had been designated as a Major Capability Acquisition. The total cost of the NGP program is 3,440.763 million which includes prior year costs from Program Element (PE) 1206442SF (Next-Gen OPIR), Project 657121 (Next-Gen OPIR Space, Block 0 Polar) of 330.136 million, and PE 1206442F (Mission OPIR), Project 657121 (Next-Gen OPIR Space, Block 0 Polar) of 153.742 million.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026					
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206444SF I Next-Gen OPIR -- Polar						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver Next-Gen OPIR Polar system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.								
This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.								
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total		
Previous President's Budget		769.478	0.000	0.000	0.000	0.000		
Current President's Budget		769.478	436.521	0.000	0.000	0.000		
Total Adjustments		0.000	436.521	0.000	0.000	0.000		
• Congressional General Reductions		0.000	0.000					
• Congressional Directed Reductions		0.000	0.000					
• Congressional Rescissions		0.000	0.000					
• Congressional Adds		0.000	0.000					
• Congressional Directed Transfers		0.000	436.521					
• Reprogrammings		0.000	0.000					
• SBIR/STTR Transfer		0.000	0.000					
• Other Adjustments		0.000	0.000	0.000	0.000	0.000		
Change Summary Explanation								
Technical Changes:								
FY 2026: +\$436.521M transfer from line 999								
Strategic Changes:								
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.								
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Title: Next-Gen OPIR Space, Block 0 Polar				769.478	436.521	0.000	0.000	0.000
Description: Development of the Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) Polar (NGP) missile warning satellites using a proven bus with modifications, auxiliary payloads for improved resiliency, and new hardened sensors. The Polar space segment will consist of two Next-Gen OPIR Polar (NGP) satellites in a resilient architecture, providing real time persistent infrared coverage of the northern hemisphere.								

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206444SF I Next-Gen OPIR -- Polar				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
FY 2026 Plans: FY 2026 funds required to complete Phase 1 contract closeout activities for development activities of spacecraft bus & communication payload and all associated subsystem components. Complete flight hardware procurements for SVs #1 and #2. Continue development of ground and spacecraft flight software and mission data processing algorithms. Continue assembly, integration and test of flight mission payload for SV #1. Continue subsystem component and integration testing, and simulation development for requirements verification. Continue Phase 2 efforts to manufacture, build, integrate, test and launch of the NGP SVs #1 and #2 to include the mission payload, communications payload and satellite bus. Continue activities for system test and factory ops support center planning. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Base Plans: The Space Force intends to terminate the program in FY 2027. FY 2027 OOC Plans: N/A FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 through FY 2031 funding for NGP is removed as the Space Force continues investment in the Resilient Missile Warning/Missile Tracking (MW/MT) architecture. Due to projected polar coverage from the Low Earth Orbit (LEO) and Medium Earth Orbit (MEO) layers of the Resilient Missile Warning/Missile Tracking (MW/MT); a risk-informed decision has been made to terminate the Next-Gen OPIR Polar program.						
Accomplishments/Planned Programs Subtotals		769.478	436.521	0.000	0.000	0.000
D. Other Program Funding Summary (\$ in Millions) N/A						
Remarks						
E. Acquisition Strategy Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) Polar consists of two satellites. The Next-Gen OPIR Space program was designated a Middle Tier Acquisition (MTA) Rapid Prototype effort under Section 804 of the 2016 National Defense Authorization Act (NDAA). The Next-Gen OPIR Polar (NGP) program was re-						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 1206444SF / <i>Next-Gen OPIR -- Polar</i>	
designated as an Acquisition Category (ACAT)-1B Major Capability Acquisition program in Nov 2023. The first Polar satellite is required in FY 2028. The program office awarded a sole source contract under the authority of a Justification & Authorization document. The NGP Phase 0 was awarded in FY 2018, consisting of requirements development, and culminated in a March 2020 System Requirements Review (SRR). Phase 1 was awarded May 2020, encompassing requirements review, design, development, critical path flight hardware procurement, and risk reduction efforts leading to a System Critical Design Review (CDR) no later than FY 2024 for NGP Space Vehicle #1 and #2. Phase 2 was awarded in October 2024, encompassing manufacture, assembly, integration, test and launch of two satellites.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026					
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206444SF / Next-Gen OPIR -- Polar						Project (Number/Name) 657121 / Next-Gen OPIR Space, Block 0 Polar					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract		
Next-Gen OPIR Space, Polar (Phase 1 & 2)	Various	Northrop Grumman : Various	1,998.670	687.369	Oct 2024	376.254	Oct 2025	-		-		-	0.000	3,062.293	3,753.689		
Launch Support	Various	Various : Various	0.054	0.202	Oct 2024	0.867	Oct 2025	-		-		-	0.000	1.123	-		
Enterprise Comm and Crypto	Various	Various : Various	44.655	6.310	Dec 2024	6.821	Dec 2025	-		-		-	0.000	57.786	-		
SE&I	Various	Various : Various	20.919	10.295	Dec 2024	2.671	Dec 2026	-		-		-	0.000	33.885	-		
Technical Mission Analysis	RO	Aerospace Corporation : El Segundo, CA	31.607	14.421	Oct 2024	14.866	Nov 2026	-		-		-	0.000	60.894	-		
Subtotal			2,095.905	718.597		401.479		-		-		-	0.000	3,215.981	N/A		
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract		
FFRDC	RO	Aerospace Corporation : El Segundo, CA	18.641	6.180	Oct 2024	6.371	Nov 2026	-		-		-	0.000	31.192	-		
A&AS	Various	Various : Various	72.435	44.611	Feb 2025	28.484	Nov 2026	-		-		-	0.000	145.530	-		
Other Support	Various	Various : Various	0.426	0.090	Oct 2024	0.187	Nov 2026	-		-		-	0.000	0.703	-		
Subtotal			91.502	50.881		35.042		-		-		-	0.000	177.425	N/A		
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract		
Project Cost Totals			2,187.407	769.478		436.521		-		-		-	0.000	3,393.406	N/A		
Remarks Other "Prior Years" costs held in previous Programs Elements: 1206442SF and 1206442F. \$330.136M + \$153.742M = \$483.878M																	

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026																			
Appropriation/Budget Activity 3620F / 5										R-1 Program Element (Number/Name) PE 1206444SF / Next-Gen OPIR -- Polar										Project (Number/Name) 657121 / Next-Gen OPIR Space, Block 0 Polar									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Phase 1																												
Bus Development																												
Mission Payload Development																												
Space Vehicle 1																												
SV 1 Payload Build, Integration & Test																												
SV 1 Bus Build, Integration & Test																												
SV 1 Assembly, Integration & Test																												
Space Vehicle 2																												
SV 2 Payload Build, Integration & Test																												
SV 2 Bus Build, Integration & Test																												
SV 2 Assembly, Integration & Test																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 5

R-1 Program Element (Number/Name)

PE 1206444SF / Next-Gen OPIR -- Polar

Project (Number/Name)

657121 / Next-Gen OPIR Space, Block 0
Polar

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Phase 1				
Bus Development	1	2025	1	2025
Mission Payload Development	1	2025	1	2025
Space Vehicle 1				
SV 1 Payload Build, Integration & Test	1	2025	4	2026
SV 1 Bus Build, Integration & Test	1	2025	4	2026
SV 1 Assembly, Integration & Test	1	2025	4	2026
Space Vehicle 2				
SV 2 Payload Build, Integration & Test	3	2025	4	2026
SV 2 Bus Build, Integration & Test	3	2025	4	2026
SV 2 Assembly, Integration & Test	3	2025	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					PE 1206445SF I Commercial SATCOM (COMSATCOM) Integration							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	124.117	127.261	68.554	0.000	68.554	70.995	71.975	73.396	74.979	0.000	611.277
650140: COMSATCOM	0.000	119.131	127.261	68.554	0.000	68.554	70.995	71.975	73.396	74.979	0.000	606.291
651126: COMSATCOM Infrastructure	0.000	4.986	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.986

A. Mission Description and Budget Item Justification

Commercial Satellite Communication (COMSATCOM) Integration is developing, prototyping, demonstrating, and executing Enterprise Management and Control (EM&C) integration tools and mission software applications (Project 650140) for Guardians across the Satellite Communications Mission Area; the Service Institutional Function: Operations; and the Operational Unit Force Structure: Warfighting, Operations Commands, and Combat Service Support. As a result, the Service will (1) streamline capabilities development through institutional processes, (2) improve readiness and operational reach of existing force structure, (3) augment, supplement, and/or integrate Allies, partners, and commercial space to USSF units, and (4) achieve resilient infrastructure, equipment, and personnel.

COMSATCOM Integration develops, prototypes and demonstrates the capabilities required to fully leverage COMSATCOM as part of the Department of War's (DoW) SATCOM enterprise. The United States Space Force (USSF) has determined that an enterprise approach to the procurement, delivery and management of its SATCOM capabilities is the best means to create an environment that is responsive to Combatant Commanders and other users across the spectrum of conflict. In addition, an enterprise approach will improve affordability, Department purchasing power and mission assurance. Project 650140, COMSATCOM, will rapidly prototype and deliver EM&C integration tools and mission applications enabling warfighters to operate responsive and resilient SATCOM as a single enterprise. Project 651126, COMSATCOM Infrastructure, will develop and stand up COMSATCOM business and customer management tools, finalizing the Congressionally directed migration from Defense Information Systems Agency (DISA) systems to USSF systems.

Development of enhanced COMSATCOM acquisition capabilities leverage enterprise innovation activities focused on transforming how DoW acquires, accesses and deploys COMSATCOM capabilities.

The COMSATCOM Project 650140 includes an International Medium Earth Orbit (MEO) SATCOM for the USSF to partner, explore, prototype, and integrate an international commercial SATCOM service into the DoW SATCOM enterprise. Luxembourg (LUX) MEO establishes the baseline satellite capability in partnership with the LUX Ministry of Defense (MoD), leveraging the commercial satellite communications system in MEO.

The funding in the International MEO SATCOM will be used to demonstrate the onboarding of MEO commercial SATCOM services into the SATCOM architecture and Space Data Transport Force Design. Demonstrations will include utilizing EM&C for provisioning and planning, usage of Protected Tactical Waveform (PTW) over MEO Commercial SATCOM and integration of Protected Tactical Enterprise Services (PTES) hubs into commercial SATCOM capable gateways. Early adaption of capability will also be used to prototype and demonstrate fiber resiliency for large gateway backhaul via space. Capacity will further be used to demonstrate platforms use of multi-orbital terminals for Airborne Intelligence, Surveillance, and Reconnaissance (AISR), maritime communications and ground force mobile communications.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206445SF I Commercial SATCOM (COMSATCOM) Integration				
Luxembourg is also procuring commercial SATCOM services and will contribute to international demonstration and testing of integrated and interoperable ground and space architecture elements. This partnership will also enable additional international partners to join and demonstrate the ability to bulk buy future capacity together to drive cost savings.						
This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Program interdependencies include:						
Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); MILSATCOM Terminals (1203601SF); Narrowband Satellite Communications (1203109SF); Polar MILSATCOM (SPACE) (1206432SF); Protected Tactical Enterprise Service (1206760SF); Protected Tactical Service (1206761SF); SATCOM O&M (1203605SF); Space Tech Development & Prototyping (1206410SF); Tech Transition (Space) (1206458SF); Wideband Global SATCOM (SPACE) (1206433SF); Wideband Global System Satellites (1203600SF).						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		134.487	132.060	0.000	0.000	0.000
Current President's Budget		124.117	127.261	68.554	0.000	68.554
Total Adjustments		-10.370	-4.799	68.554	0.000	68.554
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-2.825			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		-6.000	0.000			
• SBIR/STTR Transfer		-4.370	-1.974			
• Other Adjustments		0.000	0.000	68.554	0.000	68.554
Change Summary Explanation						
Strategic Change:						
FY 2025: -6.000M Reprogramming for other Higher Space Force Priorities						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)	PE 1206445SF I Commercial SATCOM (COMSATCOM) Integration	
FY 2026: -2.825M SAC-D Congressional Mark FY 2026: -1.974M Small Business Innovation Research (SBIR) Reduction FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.		

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration				Project (Number/Name) 650140 / COMSATCOM			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
650140: COMSATCOM	0.000	119.131	127.261	68.554	0.000	68.554	70.995	71.975	73.396	74.979	0.000	606.291
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
The backbone of Fighting SATCOM is a SATCOM EM&C capability for an Integrated SATCOM Enterprise. This is the foundation for SATCOM integration into an operational level Command and Control (C2) system that enables the end-to-end sensor-to-shooter execution serving to protect and defend, as well as theatre support missions for United States Space Command (USSPACECOM) and the Theater Combatant Commands. SATCOM EM&C applications will provide critical services to warfighters to facilitate timely, quality driven battlespace decisions for SATCOM allocation and use. The effort leverages a Development Security Operations (DevSecOps) platform to rapidly prototype and deliver EM&C mission applications enabling responsive, resilient SATCOM as prioritized by Space Operations Command (SpOC), Delta 8, SATCOM Integrated Operations Division (SIOD), and four Consolidated SATCOM Systems Experts (CSSEs). The four CSSEs cover Wideband, Narrowband, Protected, and Commercial SATCOM bands. SATCOM EM&C applications are delivered in capability categories identified in the DoW Chief Information Officer's (CIO) Enterprise SATCOM Management and Control (ESC-MC) Implementation Plan. Capabilities are incrementally developed using agile methodology and delivered into subsets identified in the DoW CIO's Implementation Plan, which will support the three imperatives (integrate data management, automate resource allocation, fuse situational awareness) and seven core capabilities (mobility and continuous communications, management common operating environment, enterprise SATCOM situational awareness/common operating picture, automated resource allocation, electromagnetic interference mitigation, continuity of operations, element/enterprise network interface) across the four SATCOM bands.												
In addition to USSF developed EM&C capabilities, USSF will demonstrate the onboarding of MEO commercial SATCOM services into the SATCOM architecture and Space Data Transport Force Design. The LUX MEO activity is an initial effort for the USSF to partner, explore, prototype, and integrate an international commercial SATCOM service into the DoW SATCOM enterprise. Demonstrations will include utilizing EM&C for provisioning and planning, usage of PTW over MEO Commercial SATCOM, and integration of PTES hubs into commercial satellite capable gateways. Early adoption of capability will also be used to prototype and demonstrate fiber resiliency for large gateway backhaul via space. Capacity will further be used to demonstrate platforms use of multi-orbital terminals for AISR, maritime communications and communications on the move. Luxembourg government is also procuring commercial SATCOM services to contribute to international demonstration and testing of integrated and interoperable ground and space architecture elements. This international partnership intends to demonstrate the ability to jointly procure communication capacity services that will result in a higher return on US DoW SATCOM investment and potentially lead to future international partnering opportunities.												
Activity priorities are subject to change as determined by our internal and external stakeholders.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: Enterprise Integration of Fighting SATCOM (EM&C)									58.906	64.744	68.554	
Description: USSF is developing software capabilities to achieve Chief of Space Operations (CSO) vision of evolving SATCOM into a single enterprise. The three core imperatives that EM&C addresses are integrating data management, automating resource												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206445SF / <i>Commercial SATCOM (COMSATCOM) Integration</i>	Project (Number/Name) 650140 / <i>COMSATCOM</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
allocation, and fusing situational awareness. The EM&C program ensures that our forces remain agile and responsive in contested, degraded and operationally limited environments, meeting the demands of the warfighter and maintaining a strategic edge over near-peer adversaries. FY 2026 Plans: Continues to deliver software capabilities that align with the strategic vision of the DoW Chief Information Officer's (CIO) Implementation Plan. Through the DISA Encore III contract, EM&C ordered effort to obtain a team of System Engineers. EM&C will integrate its applications to the Joint Management Tool (JMT) and WGS planning system, along with other applications in the ESC-MC ecosystem. Additionally, new software developers were awarded on the AFWERX IDIQ to develop the remaining two capability areas in the Software Initial Capabilities Document (SW-ICD), and these efforts extend through FY26. The two production OTA contracts awarded continue to operationalize the ten prototype capabilities developed under the original SpEC OTAs. EM&C transitions from the Planning Phase to the Execution Phase. EM&C will serve as the Program Office for PTES and the PTS Family of Systems. Lastly, EM&C will award a task order on an IDIQ for a vendor to specifically develop Artificial Intelligence software (AI) capabilities. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Continues delivering software capabilities that align with the DoW CIO's Implementation Plan. EM&C's new Integrator continues integrating EM&C applications with JMT, WGS, and other ESC-MC applications. The AFWERX IDIQ vendor continues developing the remaining two software capability areas, in alignment with the SW-ICD, through FY27. The two production OTAs continue operationalizing the ten prototype capabilities developed under the original SpEC OTAs. EM&C will continue integrating with the PTES and PTS Family of Systems, as well as the DISA Joint Management Tool. The AI vendor continues developing those software capabilities. Program aims to achieve initial operationalization of all software capabilities in FY27. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206445SF / <i>Commercial SATCOM (COMSATCOM) Integration</i>		Project (Number/Name) 650140 / <i>COMSATCOM</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Increase is due to prime contractor pre-negotiated option year costs for Commander services and Fuse SA.					
Title: Commercial Integration Cell			5.000	5.000	0.000
Description: Information sharing is the foundation of how we conduct any activity in space. Space related threats and operational sharing with the USG, private sector, and Allies and partners is imperative for day-to-day operations. USSF should be compelled to develop the structure to manage, enforce, correct, and continually improve on threat I&W as it impacts the operational environment. As USSF's Commercial Augmentation Space Reserve (CASR) program continues to develop formal processes for threat information sharing as an incentive for commercial participation, the U.S. Space Forces- Space (S4S) Commercial Integration Cell (CIC) remains a force multiplier and a catalyst for real- time information sharing with the commercial sector across security classifications. To enhance and build onto the asymmetrical advantage CIC provides, and as the method by which the US can execute the CASR program, SSC's Commercial Space Office (COMSO) seeks to enable the enhancement of the CIC's operationally relevant information sharing capability through CASR's contractual framework, offering the USG surge capacity beyond the currently limited CIC construct. Funds in this Major Thrust will be executed under PE 1206445SF, Project 651126.					
FY 2026 Plans: Complete test and evaluation phase and begin implementation with a set of directed decision briefings and an implementation plan finalizing the way in which SpOC, S4S, COMSO and fielded forces will operate with respect to operational environment and threat sharing with Allies, partners, and private sector. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.					
FY 2027 Plans: N/A					
FY 2026 to FY 2027 Increase/Decrease Statement: In FY 2027, PE 1206445SF, COMSATCOM Integration, Project 650140 efforts will be transferred to PE 1203940SF, Space Situation Awareness Operations, in order to put the funds in the correct PE and Project.					
Title: International Medium Earth Orbit (MEO) SATCOM			55.225	57.517	0.000
Description: US DoW and LUX MoD is pursuing a Global Commercially Contracted (GCC) SATCOM Support Partnership (SP) through the NATO Support and Procurement Agency (NSPA) to establish a contracting mechanism to procure commercially available SATCOM on behalf of both nations and leverage economies of scale. By partnering with the LUX MoD for mPOWER					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206445SF / <i>Commercial SATCOM (COMSATCOM) Integration</i>		Project (Number/Name) 650140 / <i>COMSATCOM</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
satellite access, the DoW can leverage a multi-year international arrangement to drive affordability, resiliency, and flexibility into military SATCOM architectures that align with USSF SATCOM vision to deploy multi-orbit, multi-frequency capabilities. This international partnership intends to demonstrate the ability to jointly procure communication capacity services that will result in a higher return on US DoW SATCOM investment and lead to future international partnering opportunities.					
FY 2026 Plans: Continue to procure commercial SATCOM services to continue to provide capabilities of international commercial Medium Earth Orbit (MEO) SATCOM. Activities to include but not limited to, program office support, studies, technical analysis, experimentation, prototyping etc. Commercial SATCOM capability will provide operational satellite communications support to combatant commands and situational awareness necessary to effectively operate in a contested space communications domain.					
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.					
FY 2027 Plans: N/A					
FY 2026 to FY 2027 Increase/Decrease Statement: Funding decreased due to the completion of the mPOWER capacity program.					
Accomplishments/Planned Programs Subtotals			119.131	127.261	68.554
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
D. Acquisition Strategy					
Fighting SATCOM Integration leverages Other Transaction Authority (OTA) agreement awards through the Space Enterprise Consortium to rapidly develop prototype capabilities in operationally relevant timelines. Early risk reduction and delivery of first operational prototypes began in FY 2021. Individual prototype efforts are competitively awarded fixed-price agreements leveraging non-traditional defense contractors. SATCOM EM&C entered into the Software Acquisition Pathway Planning Phase in 4th Quarter FY 2024 and will seek approval for entry to the Software Acquisition Execution Phase in 2nd Quarter FY 2026. As part of the software acquisition pathway, USSF is considering leveraging other acquisition options in addition to the current OTAs to incrementally deliver capability enhancements through multiple vendors, including options to adopt commercially available or open-source solutions instead of developing government unique products. SATCOM EM&C also leverages an SE&I contractor to facilitate a vendor agnostic and government-owned solution for the back end DevSecOps systems to integrate the various contractors into a					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206445SF / <i>Commercial SATCOM (COMSATCOM) Integration</i>	Project (Number/Name) 650140 / <i>COMSATCOM</i>
consolidated EM&C system, maximize competition, guarantee a modular open-ended systems architecture, and coordinate user feedback sessions. Prototyping efforts will work in concert with this strategy. The LUX MEO COMSATCOM capacity will be acquired by Space Systems Center/Commercial Satellite Communications Office in coordination with the PATS Program Office, SSC/IA, and the NATO Support Procurement Agency (NSPA). The DoW and LUX Minister of Defense activated the Global Commercially Contracted SATCOM Support Partnership with NSPA on 31 October 2022 to enable combined contracting for commercial SATCOM capabilities.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration				Project (Number/Name) 650140 / COMSATCOM					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Application Development IDIQ	Various	Various : TBD	-	0.572	Jun 2025	11.647	Jul 2026	5.230	Oct 2026	-		5.230	Continuing	Continuing	-
Commander Services SA/ COP	C/FFP	RKF : El Segundo, CA	-	17.620	Apr 2025	12.024	Mar 2026	15.952	Nov 2026	-		15.952	Continuing	Continuing	-
Planning Services	C/FFP	NIUSG : El Segundo, CA	-	10.091	Mar 2025	4.392	Mar 2026	6.054	Nov 2026	-		6.054	Continuing	Continuing	-
Hosting Platform Services	C/FFP	KM : El Segundo, CA	-	4.491	Apr 2025	3.228	Oct 2025	3.712	Oct 2026	-		3.712	Continuing	Continuing	-
Software Integrator	C/FFP	FedTec : El Segundo, CA	-	3.579	Sep 2025	9.600	Dec 2025	8.700	Dec 2026	-		8.700	Continuing	Continuing	-
FUSE SA, Automated Resource Allocation, Data mgmt	C/FFP	Rlse8 : El Segundo, CA	-	5.219	Apr 2025	8.520	Jan 2026	9.176	Jan 2027	-		9.176	Continuing	Continuing	-
LUX MEO	Various	Betzdorf : Luxembourg	-	53.440	Apr 2025	52.223	Nov 2025	0.000		-		0.000	0.000	105.663	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	2.386	Nov 2024	2.916	Nov 2025	3.621	Nov 2026	-		3.621	Continuing	Continuing	-
SE&I	C/CPIF	Linquest : El Segundo, CA	-	10.792	Dec 2024	12.322	Nov 2025	9.067	Nov 2026	-		9.067	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : Washington, DC	-	0.000		0.000		2.519		-		2.519	Continuing	Continuing	-
Fund COMSATCOM CIC	TBD	TBD : TBD	-	5.000	Sep 2025	5.000	Mar 2026	0.000		-		0.000	0.000	10.000	-
Subtotal			-	113.190		121.872		64.031		-		64.031	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Not specified. : TBD	-	0.486	Nov 2024	0.131	Nov 2025	0.541	Nov 2026	-		0.541	Continuing	Continuing	-
A&AS	Various	Various : TBD	-	5.403	Nov 2024	5.158	Nov 2025	3.882	Nov 2026	-		3.882	0.000	14.443	-
Other Support	Various	Various : TBD	-	0.052	Jan 2025	0.100	Oct 2025	0.100	Oct 2026	-		0.100	0.000	0.252	-
Subtotal			-	5.941		5.389		4.523		-		4.523	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026				
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration					Project (Number/Name) 650140 / COMSATCOM					
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	119.131		127.261		68.554		-		68.554	Continuing	Continuing	N/A

Remarks
Enterprise and Management Control (EM&C) and Luxembourg (LUX) International Medium Earth Orbit (MEO) have shared cost in the following cost categories: Technical Mission Analysis, SE&I, SBIR/STTR, FFRDC, A&AS, and Other Support.

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 5

R-1 Program Element (Number/Name)

PE 1206445SF / Commercial SATCOM (C
OMSATCOM) Integration

Project (Number/Name)

650140 / COMSATCOM

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Prototyping and Integration																												
Electromagnetic Interference Work Up																												
Fusing Situational Awareness Capabilities (1-7)																												
Terminal Orchestration (Automating Resource Allocation)																												
Automating Resource Allocation Capabilities (1-2)																												
Terminal Registry Service (Data Management)																												
Data Management Capabilities (1-2)																												
Authoritative Sources of Truth																												
Mission Planning Services																												
EMI Event Messenger																												
EMI Workup																												
SATCOM Resource Authorization Portal																												
SAA/SAR Mission Work Up (Automating Resource Allocation)																												
Global Viewer																												
Spectral Eye																												
Service Provider Registry																												
Mission Provider Registry																												
COMSATCOM Report																												
Emerging User Requirements																												
Requirements defined by USSF Delta 8																												
Prototype Transition																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																				Date: April 2026																					
Appropriation/Budget Activity 3620F / 5										R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration										Project (Number/Name) 650140 / COMSATCOM																					
										FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031							
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Transition to operational environment																																									
Mission Support																																									
Maintain SATCOM EM&C application, environment, data sources, etc. Integrate new capabilities																																									
COMSO																																									
Commercial Integration Cell (CIC)																																									
LUX MEO																																									
International MEO SATCOM																																									

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 5

R-1 Program Element (Number/Name)

PE 1206445SF / Commercial SATCOM (COMSATCOM) Integration

Project (Number/Name)

650140 / COMSATCOM

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Prototyping and Integration				
Electromagnetic Interference Work Up	1	2025	3	2029
Fusing Situational Awareness Capabilities (1-7)	3	2025	4	2028
Terminal Orchestration (Automating Resource Allocation)	1	2025	2	2031
Automating Resource Allocation Capabilities (1-2)	1	2025	3	2031
Terminal Registry Service (Data Management)	1	2025	4	2030
Data Management Capabilities (1-2)	2	2025	3	2027
Authoritative Sources of Truth	1	2025	4	2027
Mission Planning Services	1	2025	4	2029
EMI Event Messenger	1	2025	4	2029
EMI Workup	1	2025	4	2029
SATCOM Resource Authorization Portal	1	2025	4	2029
SAA/SAR Mission Work Up (Automating Resource Allocation)	1	2025	1	2029
Global Viewer	1	2025	2	2028
Spectral Eye	1	2025	3	2028
Service Provider Registry	2	2025	2	2031
Mission Provider Registry	2	2025	2	2031
COMSATCOM Report	2	2025	2	2026
Emerging User Requirements				
Requirements defined by USSF Delta 8	1	2025	4	2031
Prototype Transition				
Transition to operational environment	3	2025	4	2026

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206445SF / <i>Commercial SATCOM (C OMSATCOM) Integration</i>	Project (Number/Name) 650140 / <i>COMSATCOM</i>

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Mission Support				
Maintain SATCOM EM&C application, environment, data sources, etc. Integrate new capabilities	1	2025	4	2031
COMSO				
Commercial Integration Cell (CIC)	1	2025	4	2026
LUX MEO				
International MEO SATCOM	1	2025	4	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration				Project (Number/Name) 651126 / COMSATCOM Infrastructure			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
651126: COMSATCOM Infrastructure	0.000	4.986	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.986
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In accordance with the FY 2018 National Defense Authorization Act 1601(a), as amended, and on behalf of the CSO and in consultation with the DoW CIO, the USSF Commercial Satellite Communications Office (CSCO), serves as the sole authority for the procurement of COMSATCOM services for the DoW; this responsibility was previously held by DISA. In order to provide the joint warfighter with modernized access to COMSATCOM services and ensure combat effectiveness across all domains, the CSCO requires a comprehensive COMSATCOM Enterprise Technology (COMET) Systems of Systems to provide required business suite financial management and customer and contract support systems. The COMET programs implementation of the COMSATCOM Business Suite (CBS) tool is also critical to complete the Congressionally mandated COMSATCOM mission transition from DISA to USSF. The CBS tool will have multiple components including: (1) Business Suite & Marketplace designed to automate and streamline requests for work and customer interaction, thereby replacing manual processes for over 100 different contracts valued at \$5 billion over the future year defense program; (2) Financial Management System required to operate a new and cutting-edge Enterprise Space Activity Group (ESAG) under the Air Force Working Capital Funds (AFWCF); (3) Integration with third party systems and capabilities, including cloud-based hosting and EM&C - the nexus of future USSF space-based SATCOM C2.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: COMSATCOM Enterprise Technology (COMET) System of Systems	4.986	0.000	0.000
Description: SSC establishment of mission critical COMSATCOM support systems to enable transformational change to the acquisition of COMSATCOM, increasing speed to service, improving quality of service, reducing costs, and laying the foundation to incorporate new industry innovations into the future. Development of the CBS tool will enable transition and enhance the existing COMSATCOM customer-facing tools and background financial management data systems from DISA to the USSF. The CBS tool is required to automate and securely distribute COMSATCOM services and capabilities to stakeholders in order to improve the ordering, billing, activation, provisioning, and other financial management tasks currently leveraging DISA capability.			
FY 2026 Plans: N/A			
FY 2027 Plans: N/A			
FY 2026 to FY 2027 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206445SF / <i>Commercial SATCOM (COMSATCOM) Integration</i>	Project (Number/Name) 651126 / <i>COMSATCOM Infrastructure</i>	
B. Accomplishments/Planned Programs (\$ in Millions) N/A		FY 2025	FY 2026
		FY 2027	
Accomplishments/Planned Programs Subtotals		4.986	0.000
C. Other Program Funding Summary (\$ in Millions) N/A Remarks D. Acquisition Strategy The acquisition strategy is to perform competitive awards to qualified contractors via multiple contracting authorities. Efforts will include required compliance tools and processes supporting existing business models, necessary operational readiness updates to existing equipment, and other services required to implement the transition from DISA to USSF. Contracts may be competitively awarded, utilizing a to-be-determined contract type.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)					Project (Number/Name)				
3620F / 5						PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration					651126 / COMSATCOM Infrastructure				
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CBS Marketplace / Enterprise	TBD	Not specified. : TBD	-	1.669		-		-		-		-	Continuing	Continuing	-
CSCO Integration	Various	Not specified. : TBD	-	1.735		-		-		-		-	Continuing	Continuing	-
SBIR/STTR	TBD	Not specified. : TBD	-	0.182		-		-		-		-	Continuing	Continuing	-
Subtotal			-	3.586		-		-		-		-	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Support	Various	Not specified. : TBD	-	1.400		-		-		-		-	Continuing	Continuing	-
Subtotal			-	1.400		-		-		-		-	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	4.986		-		-		-		-	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026									
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
3620F / 5					PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration					651126 / COMSATCOM Infrastructure									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
COMET System-of-Systems																												
Other Support																												
CBS Marketplace/Enterprise																												
CSCO Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration	Project (Number/Name) 651126 / COMSATCOM Infrastructure	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
COMET System-of-Systems				
Other Support	1	2025	4	2025
CBS Marketplace/Enterprise	1	2025	4	2025
CSCO Integration	1	2025	4	2025

Note
No funding was requested in FY 2024. Activities in FY 2024 continue from the FY 2023 budget allocation.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206446SF I Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	1,697.821	1,695.454	3,564.176	0.000	3,564.176	2,933.204	3,130.564	2,945.565	3,010.514	Continuing	Continuing
657LEO: Resilient MW/MT - LEO	0.000	1,697.821	1,695.454	3,564.176	0.000	3,564.176	2,933.204	3,130.564	2,945.565	3,010.514	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Development Agency (SDA) is developing and demonstrating the Proliferated Warfighter Space Architecture (PWSA) Tracking Layer (Project 657LEO) for Guardians across the Combat Support, Satellite Communications, Operations, and Warfighting mission areas. As a result, the Service will improve readiness and operational reach of existing force structure and continue to advance all near term effects.

SDA is rapidly developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and a new acquisition model utilizing rapid spiral development. SDA is advancing a proliferated space architecture to address a wide range of Department of War (DoW) space needs aligned with the United States Space Force Space Warfighting Framework, including advanced missile tracking and global surveillance enabling beyond-line-of-sight targeting. In coordination with Combatant Commands and other DoW Space stakeholders, SDA will orchestrate the rapid development and fielding of the Proliferated Warfighter Space Architecture (PWSA), a resilient military sensing and data transport capability via a proliferated space architecture in LEO. This program element funds the development and demonstration of space technologies to deliver Missile Warning, Missile Tracking and Missile Defense (MW/MT/MD) and Fire Control capabilities to U.S. joint warfighting forces in bi-annual tranches, which began in FY 2022.

As part of the PWSA, SDA is building and fielding the Tracking Layer, using a proliferated constellation of satellites to provide resiliency through a layered sensor net to ensure space sensing necessary to respond to incoming threats. The PWSA Tracking Layer provides worldwide persistent visibility at fidelity levels which enable low-latency detection and real-time tracking to meet critical operational timelines.

The total cost of the Tracking Layer Tranche 1 (TRKT1) Middle Tier of Acquisition effort is \$2,841.700 million, including RDT&E and procurement of prototype units. The TRKT1 program is fully funded across the Future Years Defense Program.

The total cost of the Tracking Layer Tranche 2 (TRKT2) Middle Tier of Acquisition effort is \$3,965.900 million, including RDT&E and procurement of prototype units. The TRKT2 program is fully funded across the Future Years Defense Program.

The total cost of the Tracking Layer Tranche 3 (TRKT3) Middle Tier of Acquisition effort is \$5,249.800 million, including RDT&E and procurement of prototype units. The TRKT3 program is fully funded across the Future Years Defense Program.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 1206446SF / <i>Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)</i>

This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Missile Defense Radars (1203873SF); Ballistic Missile EW Systems (1203909SF); Joint Tactical Ground System (1208053SF); NCMC - TW/AA System (1203906SF); Next - Generation OPIR (1206442SF); Next - Generation - GEO (1206443SF); Next - Generation - Ground (1206440SF); Next - Generation - Polar (1206444SF); NUDET Detection System (1203913SF); Resilient MW / MT - LEO (1206446SF); Resilient MW / MT - MEO (1206447SF) and elements of Procurement Budget Line Item: Space Mods (SPCMOD)

This program element may include necessary civilian pay expenses and contractor support required to manage, execute, and deliver the MW/MT/MD capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 1201198SF.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.

B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	1,697.821	1,757.354	0.000	0.000	0.000
Current President's Budget	1,697.821	1,695.454	3,564.176	0.000	3,564.176
Total Adjustments	0.000	-61.900	3,564.176	0.000	3,564.176
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	-61.900			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	3,564.176	0.000	3,564.176

Change Summary Explanation

The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.

FY 2026 decreases between the Previous President's Budget and Current President's Budget by \$61.900 million due to a Congressional reduction of Tracking Layer Tranche 3 (TRKT3) carryover.

FY 2027 increases from FY 2026 by \$1,868.722 million to reflect the ramp up of Tranche 3 space vehicle production to prepare for launch in FY 2029, support for Space-Based Sensing for Hypersonic Fire Control, and initial Tranche 4 acquisition tasks.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206446SF I Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO) Description: Rapidly develop, deploy and demonstrate prototype architecture that enables resilient Missile Warning/Missile Tracking/Missile Defense (MW/MT/MD) enabled by a proliferated Low Earth Orbit (pLEO) architecture. This effort will define, demonstrate, and deliver the architectures and standards necessary to fully populate a MW/MT/MD LEO layer as part of the Proliferated Warfighter Space Architecture (PWSA). FY 2026 Plans: Tranche 1 - Complete final space vehicle system Assembly, Integration and Testing (AI&T) for remaining Tracking Layer Tranche 1 (TRKT1) satellites. - Continue integration with Missile Warning/Missile Tracking/Missile Defense (MW/MT/MD) enterprise data interfaces and fusion applications. - Conduct Tracking Layer Ground Readiness Review (GRR). - Conduct Pre-Ship Reviews (PSR) for each of four (4) planes of tracking space vehicles. - Ship space vehicles to launch site and integrate onto the multi-vehicle launch dispensers. - Conduct readiness for launch and early orbit phase operations and transition to nominal operations. - Launch four (4) planes of TRKT1 space vehicles (32 total space vehicles). - Conduct on-orbit test and checkout, orbital positioning, and transition operations to the operations centers for each plane of space vehicles. - Transition to nominal operations and conduct space vehicle command and control, and enterprise management, and sustainment for all TRKT1 satellites. - Conduct payload sensor calibration and system acceptance testing. - Conduct system level verification and Developmental Testing. - Begin Operational Testing of TRKT1 capabilities including flight demonstrations and exercise participation. - Begin operational support to resilient space Tracking missions including Missile Warning, Missile Tracking, and Missile Defense (MW/MT/MD). - Continue to support investments in facilities, hardware, network management, Ground Entry Points (GEPs), Optical Ground Terminals (OGT), software development, mission payloads, contract services, and any other integration requirements to support the MW/MT/MD enterprise. These efforts will leverage and expand upon existing Mission Data Processing Applications (MDPAPs) and Joint Overhead Persistent Infrared (OPIR) Ground initiatives to ensure rapid processing and dissemination to global warfighting community.		1,697.821	1,695.454	3,564.176

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206446SF / <i>Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
- Continue to support the planning and execution of performance and integration risk mitigation activities associated with command and control (C2) challenges, MDP expansion, and interagency integration. Other activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc. Tranche 2 - Continue payload and space vehicle manufacturing, assembly, integration and test activities. - Complete interoperability testing with Transport Layer Tranche 2 (TLT2) space vehicles to ensure optical and network connectivity. Some interoperability testing will continue to support on-orbit testing and on-orbit software updates. - Support ground activities to ensure integration with PWSA Operations Centers. - Continue Missile Warning, Missile Tracking, and Missile Defense (MW/MT/MD) enterprise data integration with networks and fusion applications. - Continue space vehicle FlatSat development and begin operations testing. - Planning for Tracking payload ground calibration and begin space vehicle environmental test campaigns. - Continue investments in facilities, hardware, network management, Ground Entry Points (GEPs), Optical Ground Terminals (OGT), software development, mission payloads, contract services, and any other integration requirements to support the MW/MT/MD enterprise. These efforts will leverage and expand upon existing Mission Data Processing Applications (MDPAPs) and Joint OPIR Ground initiatives to ensure rapid processing and dissemination to global warfighting community. - Support the planning and execution of performance and integration risk mitigation activities associated with C2 challenges, MDP expansion, and interagency integration. Other activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc. - Fund mission unique hardware and integration of the T2 space vehicles on the National Security Space Launch (NSSL) Launch vehicles. - Complete the development of the Technology Acceleration Center (TAC) and ensure full PWSA Ground Segment integration to support T2 launches and checkout activities. Tranche 3 - Execute Tranche 3 (T3) acquisition and source selection processes leading to space vehicle vendor procurement instruments. - Award Tracking Layer T3 (TRKT3) to additional space vehicle vendors. - Execute TRKT3 award kick-offs. - Initiate and continue designing the TRKT3 space vehicles based on requirements and lessons learned from Tranche 0 (T0), Tranche 1 (T1), and T2 space vehicles, ground system, and interoperability requirements. - Complete TRKT3 System Requirements Reviews (SRRs). - Begin Early Integration Studies to support launch. - Begin TRKT3 MW/MT/MD enterprise data integration.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206446SF <i>I Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
- Expand Ground Entry Point (GEP) global footprint in preparation for launch of T3 space vehicles. - Continue development of the PWSA Ground Segment in support of T3. - Initiate PWSA ground segment evolution, enhancing PWSA framework capabilities for future Tranches. Advanced Fire Control (AFC) - Complete Fire-control On Orbit-support-to-the-war Fighter (FOO Fighter) space vehicles build and test. - Complete facility and network construction for the Demonstration Operations Center (DOC) to support demonstrations. - Perform integration testing between FOO Fighter and the Demonstration Operations Center (DOC). - Complete installation of AFC Ground Infrastructure (AF CGI) GEPs to support launch and operation of FOO Fighter and follow-on AFC space vehicle demonstration programs. - Begin FOO Fighter enterprise data integration. - Continue Transport Layer Tranche 2 (TLT2) Gamma efforts to support demonstration in FY 2027. - Deliver the Operational AFC Ground Infrastructure Demonstration Operations Center. - Continue execution of other advanced fire control efforts including Warlock and Goliath. - Expand Operation Centers capabilities to support custody related mission areas. FY 2027 Plans: Tranche 1 - Continue integration with Missile Warning/Missile Tracking/Missile Defense (MW/MT/MD) enterprise data interfaces and fusion applications. - Continue space vehicle command and control, and enterprise management, and sustainment for all Tracking Layer Tranche 1 (TRKT1) satellites. - Complete system level verification. - Complete Operational Testing of TRKT1 capabilities including flight demonstrations and exercise participation. - Provide continuing operational support to resilient space Tracking mission including Missile Warning, Missile Tracking, and Missile Defense (MW/MT/MD). - Continue to support investments in facilities, hardware, network management, Ground Entry Points (GEPs), Optical Ground Terminals (OGT), software development, mission payloads, contract services, and any other integration requirements to support the MW/MT/MD enterprise. These efforts will leverage and expand upon existing Mission Data Processing Applications (MDPAPs) and Joint Overhead Persistent Infrared (OPIR) Ground initiatives to ensure rapid processing and dissemination to global warfighting community. - Continue to support the planning and execution of performance and integration risk mitigation activities associated with command and control (C2) challenges, MDP expansion, and interagency integration. Other activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206446SF <i>I Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Tranche 2 - Complete payload and space vehicle manufacturing, assembly, integration and test activities. - Continue to support ground activities to ensure integration with PWSA Operations Centers. - Continue Missile Warning, Missile Tracking, and Missile Defense (MW/MT/MD) enterprise data integration with networks and fusion applications. - Complete space vehicle FlatSat development and continue operations testing. - Complete Tracking payload ground calibration and space vehicle environmental test campaigns. - Conduct Tracking Layer Ground Operational Readiness Review (GORR). - Conduct Pre-Ship Reviews (PSR) for the tracking space vehicles. - Ship space vehicles to launch site and integrate onto the multi-vehicle launch dispensers. - Conduct readiness for launch and early orbit phase operations and transition to nominal operations. - Launch six (6) planes of Tracking Layer Tranche 2 (TRKT2) space vehicles (54 total space vehicles). - Conduct on-orbit test and checkout, orbital positioning, and transition operations to the operations centers for initial planes of space vehicles. - Transition to nominal operations and conduct space vehicle command and control, and enterprise management, and sustainment for all TRKT2 satellites. - Conduct system level verification and Developmental Testing. - Begin early Operational Testing of TRKT2 capabilities. - Provide continuing support to operational space Tracking capabilities including Missile Warning, Missile Tracking, and Missile Defense (MW/MT/MD). - Continue investments in facilities, hardware, network management, Ground Entry Points (GEPs), software development, mission payloads, contract services, and any other integration requirements to support the MW/MT/ MD enterprise. These efforts will leverage and expand upon existing Mission Data Processing Applications (MDPAPs) and Joint OPIR Ground initiatives to ensure rapid processing and dissemination to global warfighting community. - Continue to support the planning and execution of performance and integration risk mitigation activities associated with C2 challenges, MDP expansion, and interagency integration. Other activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc.				
Tranche 3 - Complete Tracking Layer Tranche 3 (TRKT3) System Designs for all performers. - Complete TRKT3 Preliminary Design Review for all performers by Quarter 1 Fiscal Year 2027. - Complete TRKT3 Critical Design Review for all performers. - Begin early Assembly Integration & Test (AI&T) Activities.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206446SF / <i>Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)</i>		
C. Accomplishments/Planned Programs (\$ in Millions) - Begin payload proto-qual AI&T. - Begin space bus proto-qual AI&T. - Initiate Tracking space vehicle component deliveries and vehicle assembly and integration. - Planning for Tracking payload ground calibration and begin space vehicle environmental test campaigns. - Continue investments in facilities, hardware, network management, Ground Entry Points (GEPs), software development, mission payloads, contract services, and any other integration requirements to support the MW/MT/ MD enterprise. These efforts will leverage and expand upon existing Mission Data Processing Applications (MDPAPs) and Joint OPIR Ground initiatives to ensure rapid processing and dissemination to global warfighting community. - Continue development of the PWSA Ground Segment and capability delivery in support of T3. Tranche 4 - Initiate Tranche 4 acquisition leading to space vehicle procurement instruments. - Continue PWSA ground segment evolution, enhancing PWSA framework capabilities for future Tranches. Advanced Fire Control (AFC) - Launch eight (8) Fire-control On Orbit-support-to-the-war Fighter (FOO Fighter/F2) space vehicles. - Conduct F2 on-orbit test and checkout, orbital positioning, and conduct demonstrations of space vehicles. - Begin Gamma enterprise integration. - Continue execution of other advanced fire control efforts including Warlock and Goliath. - Expand Operation Centers capabilities to support custody related mission areas. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 increases from FY 2026 to reflect the ramp up of Tranche 3 space vehicle production to prepare for launch in FY 2029, support for Space-Based Sensing for Hypersonic Fire Control, and initial Tranche 4 acquisition tasks.		FY 2025	FY 2026	FY 2027
Accomplishments/Planned Programs Subtotals		1,697.821	1,695.454	3,564.176
D. Other Program Funding Summary (\$ in Millions) N/A Remarks E. Acquisition Strategy Partners for these activities may include Missile Defense Agency (MDA), Space Systems Command (SSC), Space Operations Command (SpOC), Space Training and Readiness Command (STARCOM), DoW Combatant Commands, DoW research centers, small businesses, non-traditional aerospace and defense contractors, large defense contractors, commercial space providers, Federally Funded Research and Development Centers, and University Affiliated Research Centers. SDA's Tracking				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force / BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 1206446SF / Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)	
Layer Tranche 1, Tracking Layer Tranche 2, and Tracking Layer Tranche 3 space systems are being acquired via Firm Fixed Price contracts conducted in accordance with Other Transaction Authority (OT) for prototyping processes.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206446SF / Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)				Project (Number/Name) 657LEO / Resilient MW/MT - LEO					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Tracking Layer Tranche 1	Various	Various : Various	-	187.002	Nov 2024	211.439	Nov 2025	91.478	Nov 2026	-		91.478	Continuing	Continuing	-
Tracking Layer Tranche 2	Various	Various : Various	-	651.106	Nov 2024	594.362	Nov 2025	441.056	Nov 2026	-		441.056	Continuing	Continuing	-
Tracking Layer Tranche 3	Various	Various : Various	-	355.563	Dec 2025	420.545	Dec 2025	1,943.477	Nov 2026	-		1,943.477	Continuing	Continuing	-
Tracking Layer Tranche 4	Various	Various : Various	-	-		-		480.000	Sep 2027	-		480.000	Continuing	Continuing	-
PWSA Ground Program (PGP) Activities	Various	Various : Various	-	207.627	Nov 2024	233.538	Dec 2025	308.984	Nov 2026	-		308.984	Continuing	Continuing	-
Enterprise Integration Activities	Various	Various : Various	-	10.506	Jan 2025	44.651	Mar 2026	56.328	Nov 2026	-		56.328	Continuing	Continuing	-
Advanced Fire Control	Various	Various : Various	-	237.980	Nov 2024	186.558	Nov 2025	194.470	Nov 2026	-		194.470	Continuing	Continuing	-
Advanced Fire Control (Transport Layer Tranche 2 Gamma)	Various	Various : Various	-	37.259	Nov 2024	-		27.694	Nov 2026	-		27.694	Continuing	Continuing	-
Custody Layer Projects	Various	Various : Various	-	2.153	Oct 2025	-		-		-		-	Continuing	Continuing	-
Subtotal			-	1,689.196		1,691.093		3,543.487		-		3,543.487	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC Support	RO	Aerospace Corp. : El Segundo, CA	-	8.625	Dec 2024	4.361	Dec 2025	20.689	Dec 2026	-		20.689	Continuing	Continuing	-
Subtotal			-	8.625		4.361		20.689		-		20.689	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	1,697.821		1,695.454		3,564.176		-		3,564.176	Continuing	Continuing	N/A
Remarks															
The worked performed in this PE continues efforts that were previously funded in FY 2022 under RDT&E, Defense-Wide, PE 1206410SDA.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206446SF / Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)		Project (Number/Name) 657LEO / Resilient MW/MT - LEO	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)																												
Develop, test, and deliver Tracking Layer Tranche 1 (TRKT1) Satellites																												
Launch and Operations of TRKT1 Satellites																												
Develop, test, and deliver Tracking Layer Tranche 2 (TRKT2) Satellites																												
Launch and Operations of TRKT2 Satellites																												
Develop, test, and deliver Tracking Layer Tranche 3 Satellites																												
Conduct initial Tracking Layer Tranche 4 acquisition activities																												
Conduct ground integration activities																												
Develop, test, and deliver Transport Layer Tranche 2 Gamma Satellites																												
Develop, test, and delivery FOO Fighter Satellites																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206446SF / <i>Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)</i>	Project (Number/Name) 657LEO / <i>Resilient MW/MT - LEO</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)</i>				
Develop, test, and deliver Tracking Layer Tranche 1 (TRKT1) Satellites	1	2025	4	2028
Launch and Operations of TRKT1 Satellites	1	2026	4	2028
Develop, test, and deliver Tracking Layer Tranche 2 (TRKT2) Satellites	1	2025	4	2028
Launch and Operations of TRKT2 Satellites	2	2027	4	2028
Develop, test, and deliver Tracking Layer Tranche 3 Satellites	3	2025	4	2028
Conduct initial Tracking Layer Tranche 4 acquisition activities	1	2027	4	2028
Conduct ground integration activities	1	2025	4	2028
Develop, test, and deliver Transport Layer Tranche 2 Gamma Satellites	1	2025	4	2028
Develop, test, and delivery FOO Fighter Satellites	1	2025	4	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					PE 1206447SF I Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	756.349	675.848	1,413.662	0.000	1,413.662	1,589.750	1,591.857	1,749.492	2,000.070	Continuing	Continuing
657MEO: Resilient MW/MT - MEO	0.000	756.349	675.848	1,413.662	0.000	1,413.662	1,589.750	1,591.857	1,749.492	2,000.070	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The program office is developing and prototyping the Resilient Missile Warning Tracking (MWT) MEO (Project 657MEO) for Guardians across Missile Warning and Missile Tracking (MW/MT) mission area. As a result, the Service will advance space-based technology associated with Golden Dome, and deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland.

A new class of threat requires a new class of architecture. Since legacy systems alone cannot maintain custody of advanced, dim and maneuverable missile threats, Resilient MWT delivers a multi-orbit architecture designed to defeat new threats, support homeland defense, Combatant Command operations and the broader missile defense kill chain. The United States Space Force Space Systems Command and Space Development Agency are collaborating to deliver Overhead Persistent Infrared capabilities, in concert with Department of War and Intelligence Community partners, to support a proliferated space architecture that is resilient by design and capable of operating through contested environments. Resilient Missile Warning and Tracking - Medium Earth Orbit space and ground efforts pivot the Department of the Air Force's legacy missile warning force design to a more resilient multi-orbit approach to counter advanced missiles, hypersonic glide vehicles, and fractional orbital bombardment threats. Resilient Missile Warning and Tracking Medium Earth Orbit was originally anchored in Missile Warning and Missile Defense Capability Development Document requirements validated by the Joint Requirements Oversight Council; there is now a Joint Requirement Oversight Council-approved Capability Development Document Annex with very specific Medium Earth Orbit and Low Earth Orbit requirements. Constellation resiliency is foundational to the Department of the Air Force's Resilient Missile Warning and Tracking force design, therefore, the Overhead Persistent Infrared Family of Systems, including Missile Warning and Tracking Medium Earth Orbit, is designed to work cohesively to gain and maintain custody of a spectrum of missile threats.

This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Missile Defense Radars (1203873SF); Ballistic Missile EW Systems (1203909SF); Joint Tactical Ground System (1208053SF); NCMC - TW/AA System (1203906SF); Next - Generation OPIR (1206442SF); Next - Generation - GEO (1206443SF); Next - Generation - Ground (1206440SF); Next - Generation - Polar (1206444SF); NUDET Detection System (1203913SF); Resilient MW / MT - LEO (1206446SF); Resilient MW / MT - MEO (1206447SF) and elements of Procurement Budget Line Item: Space Mods (SPCMOD).

The Medium Earth Orbit program will deploy space assets in multiple Epochs to allow for incremental capability delivery and to ensure competition throughout the lifecycle of the program. Resilient Missile Warning and Tracking Medium Earth Orbit will bolster legacy Space Based Infrared Satellite and Next-Gen Overhead Persistent Infrared capabilities and will independently satisfy mission area Capability Development Document requirements for missile tracking by as early as FY

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 1206447SF I Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)	
2033. FY 2026 funding supports final build, test, and delivery of flight payloads and buses to support Epoch 1, space vehicle level assembly integration and test, and launch/early orbit operations. FY 2026 funding also includes ground activities previously captured in PE 1206448SF, Project 657124, that continue ground segment Mission Data Processing application development and integration, command and control software and facilities build and integration into the Medium Earth Orbit Space Operations Center, and ground entry point site construction to support on-orbit initialization in FY 2027. In order to preserve Epoch 1 schedule and avoid additional costs, the Program Executive Officer (PEO) approved the transition of the space segment development to a single vendor as of September 2024. Space Systems Command, Space Development Agency, and the Missile Defense Agency will continue to use the Combined Program Office construct to develop and implement a system-of-systems integration strategy across for Missile Warning and Tracking and Missile Defense constellations supporting Low Earth Orbit, Medium Earth Orbit, Geosynchronous Orbit and Polar Orbit regimes. Resilient Missile Warning and Tracking Medium Earth Orbit Epoch 1 is now comprised of a single space vendor and multiple ground lines of effort to include the following: -Space vehicle development efforts are currently underway with Millennium Space Systems for the delivery of twelve space vehicles. -Delivery includes: design, build, hardware integration, testing, delivery, launch vehicle integration, space vehicle. -Launch & early orbit operations, calibration, tuning, flying, and delivery of formatted two-dimensional tracks into the Real-Time Transfer Service for incorporation with other sensors data necessary for warning/tracking requirements and operations. -Mission Data Processing and unique ground software on contract as of December 2022. -Perform the integration of the space vehicles into the operations center for command and control at the Boulder Ground Innovation Facility (BGIF). -Develop integration command and control and Mission Data Processing software to operate constellation of Medium Earth Orbit space vehicles for supporting multiple collection layers. -Additional ground applications for ground resource management and sensor tasking will be included as part of the Operations and Integration contract and transition to the Ground Management and Integration contract in support of all Epochs. -Acquire, build, install, test, and operate ground-based antennas for uplink/downlink of commands and mission data. At least two sites and six apertures are required for Epoch 1. The antennas for Epoch 1 are on contract as of December 2022 and will be located at Schriever Space Force Base, Colorado, and Al Udeid Air Base, Qatar. An additional set of antennas at Clear Space Force Station, Alaska will be modified to support Epoch 1 ground contacts. Additional overseas locations are necessary to ensure Ground Entry Point (GEP) availability for future Epochs and will improve communication diversity, and mission assurance. -Test, assess, and validate sensor performance on the ground and on-orbit to ensure track data is integrated by Program of Record data and fusion operational programs such as Future Operationally Resilient Ground Evolution (FORGE) (PE 1206440SF), Ballistic Missile Defense Overhead Persistent Infrared Architecture (BOA), other classified partners and missions, research and development multi-intelligence fusion (PE 1206442SF), and intelligence characterization. Space vehicle testing is on contract as of December 2022. Fusion software studies underway with FORGE program as of March 2023, and with BOA as of 2024. -Mature integrated digital model: support Space System Command's role as the mission area integrator, perform resiliency analyses, baseline future requirements, and assess performance against current and new targets. On contract as of May 2021. The Epoch 2 acquisition began in FY 2025 and will continue in FY 2027 with the acquisition of additional planes of missile warning and tracking space vehicle capability (total number of space vehicles depend on source selection); managing up to two prime vendors delivering space vehicles as well as Ground Command and Control and Mission Data Processing software. The program will leverage the FORGE framework and BGIF for both operations and underlying hardware and software framework services and will continue the tasking and fusion architecture that began in Epoch 1 for Epoch 2 acquisitions. Furthermore, Epoch 2 will continue to manage a ground		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206447SF I Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)				
management & integration contractor to assist with on boarding space craft and vendor operations into the BGIF. Epoch 2 will expand upon the current GEPs to procure additional antennas necessary to support space vehicle planes. Finally, Epoch 2 will also continue the use of model-based systems engineering and digital models to ease integration.						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver Missile Warning and Tracking capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		756.349	686.348	0.000	0.000	0.000
Current President's Budget		756.349	675.848	1,413.662	0.000	1,413.662
Total Adjustments		0.000	-10.500	1,413.662	0.000	1,413.662
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-10.500			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	1,413.662	0.000	1,413.662
Change Summary Explanation						
Strategic Changes:						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
Technical Changes:						
FY 2025: -\$80.700M was rescinded and is not reflected in this budget documentation.						
FY 2026: -\$10.500M Congressional Directed Reduction for Ground Management Integration early to need.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Missile Warning and Tracking - MEO Epoch 1				458.860	207.212	259.203

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206447SF / <i>Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Description: This activity funds development of Medium Earth Orbit space vehicles, with two launches planned to deliver twelve space vehicles by FY 2028, and ground efforts with operations necessary to deliver initial capability for the combined Low Earth Orbit and Medium Earth Orbit architecture. Initial capability consists of regional tracking, mission management and control, and coordinated regional warning and tracking access validated through on-orbit measurements. After performance validation is complete, prototype sensors will feed data directly to operational warning and defense systems. Furthermore, the initial capability will provide sensitivity to detect emerging threats, accurate tracking to contain maneuvering targets, and mission data delivery within required latency timelines to close the kill-chain. Initial Warfighter Capability is now defined in the Overhead Persistent Infrared Resilient Medium Earth Orbit/Low Earth Orbit Capability Development Document Annex as global missile tracking access and will be provided in Epoch 2. Data Fusion: Test, assess, and validate sensor performance on the ground and on-orbit to ensure track data is integrated by program of record data fusion operational programs such as Future Operationally Resilient Ground Evolution (FORGE) (PE 1206440SF), Ballistic Missile Defense Overhead Persistent Infrared Architecture (BOA), other classified partners and missions, research and development multi-intelligence fusion (PE 1206442SF), and intelligence characterization. Space Vehicle testing is on contract as of December 2022. Fusion software studies underway with Future Operationally Resilient Ground Evolution (FORGE) program as of March 2023. Additional early integration support and studies with BOA started in FY 2024. In FY 2025, sensor models began to support future modeling and simulation activities with the Future Operationally Resilient Ground Evolution (FORGE) and Missile Defense program offices. FY 2026 Plans: Space: Crucial deliveries of payloads and satellite buses from the remaining contractor for integration and assembly. The vendor intends to deliver flight payloads and satellite buses for the first six satellites and begin space vehicle level assembly, integration and testing. Millennium Space Systems will initiate assembling and testing space vehicles 7-12 to complete two orbital planes of capability. They will complete launch vehicle integration studies and launch vehicle selection for both launches, and support first launch no earlier than the end of 3Q FY 2027. Ground: Contractor will complete software builds for both command and control and mission data processing; The MEO Space Operations Center (MSOC) fit up at the Boulder Ground Innovation Facility (BGIF) will be completed and the operations floor will be prepared for launch rehearsals. The Ground Entry Point (GEP) contractor will complete Integration, test, validation, and verification in preparation for launch rehearsals and Launch and Early On-Orbit Test campaign. Ground antenna initialization and system end to end testing at the BGIF, Schriever Space Force Base, AI Udeid Air Base, Clear Space Force Station, and other associated antennas will be completed in FY 2026.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206447SF / <i>Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Data Fusion: Finalize verification and validation campaigns to ensure the fidelity of the models are adequate to be integrated into enterprise sensor test campaigns spanning the entire Overhead Persistent Infrared architecture. In FY 2026, major simulation and ground test campaign planning will occur to ensure sensor models and live on-orbit data will be ingested at the appropriate missile warning and missile defense test events occurring in FY 2026-2027. Work with data fusion programs (FORGE, BOA, Persistent Unified Messaging Architecture) to ensure on-orbit data is timely and accurate. FY 2027 Plans: Space: Final testing and integration of flight payloads and satellite buses for Plane 1. These events will culminate in satellite shipment to launch site at Cape Canaveral and initial launch capability. Immediately following launch, Millennium Space Systems will conduct early orbit checkout and testing procedures. The vendor will then conduct operational testing of the full orbital plane of satellites. In addition, Epoch 1 will be going through assembly, integration and testing of Plane 2 in preparation for a second launch and on-orbit test campaign beginning in mid to late FY 2028. Ground: Conduct site configuration and instrumentation efforts, including RF interference testing, installation of hardware, system integration, and execute engineering support during developmental testing and implement corrective actions, through the use of a deficiency reporting list, resulting from developmental testing at GEP sites at Schriever Space Force Base, Al Udeid Air Base, and Clear Space Force Station, as well as the MEO Space Operations Center (MSOC) located at the Boulder Ground Innovation Facility (BGIF). FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase due to continuing execution of MEO Epoch 1 testing and integration of flight payloads and satellite buses and start maintenance of Ground Entry Point (GEP) sites.				
Title: Resilient Missile Warning / Missile Tracking - MEO Epoch 2 Description: This activity funds development of Resilient Missile Warning and Tracking Medium Earth Orbit Epoch 2 space vehicles, up to four launches planned to deliver up to four planes of capability (10-22 space vehicles) by FY 2031 and supporting ground efforts with operations necessary to deliver Initial Warfighter Capability (IWC) for Medium Earth Orbit architecture. Epoch 2 builds upon Epoch 1 to meet JROC-validated Capability Development Document requirements through agile development. The Epoch 2 acquisition will balance delivery of the IWC while establishing a path toward delivering Full Warfighter Capability (FWC) in future Epochs. The Resilient Missile Warning and Tracking Medium Earth Orbit Epoch 2 prototyping effort will deliver a new post-boost phase, global missile tracking access capability, and enhanced raid coverage mission capability to contain dimmer and maneuvering hypersonic and ballistic missiles with unpredictable trajectories. This effort will demonstrate the ability to function within a coordinated Overhead Persistent Infrared enterprise, which receives taskings from the Joint Overhead Persistent Infrared Planning Center, executes that tasking through sensor collections and delivers missile data back to the enterprise. All space vehicles will operate in an integrated fashion through a common ground system rooted in the Future Operationally Resilient		297.489	468.636	1,154.459

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206447SF <i>I Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)</i>		
C. Accomplishments/Planned Programs (\$ in Millions) Ground Evolution (FORGE) framework. Epoch 2 space vehicle design, build, integration and test efforts began in FY 2025. This effort also funds mission data processing, command and control, ground operations, ground entry points and system engineering, terrestrial communications, integration, test and demonstration efforts with stakeholders and mission partners. FY 2026 Plans: Space: Continue Epoch 2 activities to include managing multiple contracts executing space system development, ground segment development, and integration at our operating center. Will consist of preliminary and critical design reviews that finalize the designs. Primes will transition from design to build of space vehicles and ground development. Epoch 2 will build out the architecture for global missile tracking with up to four planes of additional capability. Ground: Begin site surveys and selection process for additional GEP locations needed for Epoch 2. Initiate and award Ground Management and Integration contract to add Epoch 2 capability to the MSOC, to build a Backup MSOC, and to build additional GEPs. Start design of Epoch 2 MSOC fit up for additional space vehicle provider operations at BGIF, design of Backup MSOC, & additional GEPs. Funds allow both space and ground efforts to rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Space: Continue Epoch 2 activities to finalize Critical Design Review (4Q FY 2026) for two planes of capability consisting of ten missile warning & tracking space vehicles. The vendor will execute Payload Integration and Test; Bus Material Readiness Review; Bus Test Readiness Review; Bus Integration and Test; Ground Software Demos (for Ground Segment Integration); conduct Mission Systems Engineering Integration and Test activities; and develop procedures for the Launch Early Operations and Test campaign. Epoch 2 Planes 1 and 2 will be prepared for staggered Pre-Ship Reviews and deliveries to the launch site in 2Q FY 2029 and 4Q FY 2029. The program office will be executing source selection activities for a second Other Transaction for Prototype Agreement award for a third plane of Epoch 2 capability comprised of three to six additional missile warning & tracking satellite vehicles. Award is anticipated no earlier than 1QFY27. The Epoch 2 Vendor 2 will finalize System Readiness Review and Preliminary Design Review for up to two additional planes of capability (space vehicle quantity TBD). Epoch 2 Vendor 2 will work towards a critical design review in FY 2028. Ground: The ground infrastructure will support two planes in development and continue to expand to support a full four plane architecture. The mission data processing application development, command and control software, and facilities build will		FY 2025	FY 2026	FY 2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206447SF I Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)		
C. Accomplishments/Planned Programs (\$ in Millions) continue to support the lead up to Epoch 2 Plane 1 initial launch capability. The Ground Management and Integration contract will continue to add Epoch 2 capability to the Boulder Ground Innovation Facility (BGIF) MEO Space Operations Center (MSOC), continue the planned build-out of a Backup MSOC. Ground will also continue to develop and build-out up to two additional Ground Entry Point (GEP) sites. In the meantime, Epoch 2 will continue to leverage existing GEP sites, one through three, for mission data and command and control requirements. Funds allow both space and ground efforts to rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase due to the awards of Vendor 2 and Ground Management and Integration contract.		FY 2025	FY 2026	FY 2027
Accomplishments/Planned Programs Subtotals		756.349	675.848	1,413.662
D. Other Program Funding Summary (\$ in Millions) N/A Remarks FY 2025: -\$80.700M was rescinded and is not reflected in this budget documentation. The reduction impacted contract award to Epoch 2 program.				
E. Acquisition Strategy The Resilient Missile Warning and Tracking (MWT) Medium Earth Orbit (MEO) Acquisition Strategy features competition in a growing space industrial base to rapidly field resilient capabilities at achievable technology readiness levels. This strategy combines firm fixed price contracting, other transactional authorities and consistent industry touchpoints on iterative Middle Tier of Acquisition (MTA) pathways.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206447SF / Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)				Project (Number/Name) 657MEO / Resilient MW/MT - MEO					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Epoch 1 Plane 1	C/FFP	Millennium Space Systems : El Segundo, CA	-	166.148	Dec 2024	96.515	Feb 2026	96.277	Oct 2026	-		96.277	Continuing	Continuing	-
Epoch 1 Plane 2	SS/FFP	Millennium Space Systems : El Segundo, CA	-	114.823	Dec 2024	44.830	Mar 2026	92.800	Oct 2026	-		92.800	Continuing	Continuing	-
Epoch 2 Plane 1	C/FFP	BAE : Boulder, CO	-	90.727	May 2025	195.342	Oct 2025	243.900	Oct 2026	-		243.900	Continuing	Continuing	-
Epoch 2 Plane 2	C/FFP	BAE : Boulder, CO	-	90.000	May 2025	194.116	Oct 2025	153.653	Oct 2026	-		153.653	Continuing	Continuing	-
Epoch 2 Vendor 2 (E2V2) Plane 3	C/TBD	TBD : TBD	-	80.700	Mar 2026	-		525.990	Nov 2026	-		525.990	Continuing	Continuing	-
Ground Operations & Integration	MIPR	Parsons : Centreville, VA	-	33.914	Jan 2025	16.412	Apr 2026	-		-		-	Continuing	Continuing	-
Ground Management & Integration (GMI)	C/Various	Kratos T&TS, Inc : Colorado Springs, CO	-	-		48.900	Mar 2026	164.864	Dec 2026	-		164.864	Continuing	Continuing	-
Ground Entry Points (GEPs)	MIPR	Northrop Grumman : Fairfax, VA	-	86.147	Nov 2024	14.700	Apr 2026	17.900	Dec 2026	-		17.900	Continuing	Continuing	-
Ground Data Fusion	Various	Various : Various	-	21.194	Jan 2025	11.400	Mar 2026	12.204	Dec 2026	-		12.204	Continuing	Continuing	-
Launch Support	Various	Various : Various	-	0.574	Jun 2025	0.700	Jan 2026	7.770	Nov 2026	-		7.770	Continuing	Continuing	-
Enterprise SE&I	Various	Various : Various, CA	-	15.084	Dec 2024	8.305	Dec 2025	18.558	Nov 2026	-		18.558	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	12.290	Oct 2024	14.729	Oct 2025	13.940	Nov 2026	-		13.940	Continuing	Continuing	-
Subtotal			-	711.601		645.949		1,347.856		-		1,347.856	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026					
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206447SF / Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)						Project (Number/Name) 657MEO / Resilient MW/MT - MEO					
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract		
FFRDC	RO	Aerospace Corp. : El Segundo, CA	-	7.165	Jan 2025	6.151	Nov 2025	8.936	Oct 2026	-		8.936	Continuing	Continuing	-		
A&AS	Various	Various : TBD	-	37.330	Nov 2024	23.423	Dec 2025	56.545	Nov 2026	-		56.545	Continuing	Continuing	-		
Other Support	Various	Various : TBD	-	0.253	Nov 2024	0.325	Dec 2025	0.325	Dec 2026	-		0.325	Continuing	Continuing	-		
Subtotal			-	44.748		29.899		65.806		-		65.806	Continuing	Continuing	N/A		
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract		
Project Cost Totals			-	756.349		675.848		1,413.662		-		1,413.662	Continuing	Continuing	N/A		
Remarks																	
Due to the 31 July 2025 recission of 80.7M in FY 2025 RDT&E funds, full funding of the Epoch 2 Vendor 2 (E2V2) effort was no longer possible in Q4FY2025/Q1FY2026, so the program shifted the remaining FY 2025 E2V2 funds to prioritize Ground Entry Points and the FY26 funds for Epoch 2 Vendor 1 spacecraft to support IWC. Additionally, the SYD 84 MEO Program Office faces manpower challenges in FY 2026 to support multiple source selections as the Ground Integration contract award is scheduled for 2QFY26. Reevaluation of the E2V2 proposal will begin in 3QFY26 with contract award scheduled for 1QFY27, with full funding available based on the FY27 PB funding profiles.																	

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206447SF / <i>Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)</i>		Project (Number/Name) 657MEO / <i>Resilient MW/MT - MEO</i>	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>Resilient Missile Warning and Tracking - Space</i>																												
Epoch 1 Design and Development																												
Epoch 1 Bus Assembly, Integration & Test																												
Epoch 1 Mission Payload Assembly, Integration & Test																												
Epoch 1 SV Assembly, Integration & Test																												
Epoch 1 Plane 1 Pre-Ship Review																												
Epoch 1 Plane 1 Delivery to Launch Site																												
Epoch 1 Plane 1 Launch and Early-orbit Operations																												
Epoch 1 Plane 2 Pre-Ship Review																												
Epoch 1 Plane 2 Delivery to Launch Site																												
Epoch 1 Plane 2 Launch and Early-orbit Operations																												
Epoch 2 Vendor 1 Authority to Proceed																												
Epoch 2 Vendor 1 System Requirements Review																												
Epoch 2 Vendor 1 Preliminary Design Review																												
Epoch 2 Vendor 1 Critical Design Review																												
Epoch 2 Vendor 1 Plane 1 Pre-Ship Review																												
Epoch 2 Vendor 1 Plane 1 Delivery to Launch Site																												
Epoch 2 Vendor 1 Plane 1 Launch and Early-orbit Operations																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force														Date: April 2026																	
Appropriation/Budget Activity										R-1 Program Element (Number/Name)										Project (Number/Name)											
3620F / 5										PE 1206447SF / Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)										657MEO / Resilient MW/MT - MEO											
	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Epoch 2 Vendor 1 Plane 2 Pre-Ship Review																															
Epoch 2 Vendor 1 Plane 2 Delivery to Launch Site																															
Epoch 2 Vendor 1 Plane 2 Launch and Early-orbit Operations																															
Epoch 2 Vendor 2 Authority to Proceed																															
Epoch 2 Vendor 2 System Requirements Review																															
Epoch 2 Vendor 2 Preliminary Design Review																															
Epoch 2 Vendor 2 Critical Design Review																															
Epoch 2 Vendor 2 Plane 3 Pre-Ship Review																															
Epoch 2 Vendor 2 Plane 3 Delivery to Launch Site																															
Epoch 2 Vendor 2 Plane 3 Launch and Early-orbit Operations																															
Resilient Missile Warning/Missile Tracking - Ground																															
Mission Data Processing design, build, integration & test																															
Command & Control design, build, integration & test																															
Initial Operating Capability for Ground Operations																															
GEPs ready for end-to-end testing																															
GEP Contract Support																															
Build and deploy GEP testbeds to contractor facilities																															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																				Date: April 2026																					
Appropriation/Budget Activity 3620F / 5										R-1 Program Element (Number/Name) PE 1206447SF / Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)										Project (Number/Name) 657MEO / Resilient MW/MT - MEO																					
										FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031							
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
MSOC ground network infrastructure design and construction, hardware installation and checkout																																									
MEO Data Fusion																																									
MSOC fit up: Ops room fit up, HVAC and power, furnish workstations																																									
GEP sites design, development, and integration & test																																									
GEP site construction for sites 1-3																																									
Epoch 2 Ground Management and Integration Launch Ready																																									
GEP site construction for sites 4 & 5																																									
Ground Management and Integration Ground Entry Point Sites 4 & 5																																									
MSOC ready for end-to-end testing with GEPs and SCN																																									
Ground Management Integration (GMI) Authority to Proceed																																									
GMI Initial Operating Capability																																									

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206447SF / Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)	Project (Number/Name) 657MEO / Resilient MW/MT - MEO	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Resilient Missile Warning and Tracking - Space				
Epoch 1 Design and Development	1	2025	1	2026
Epoch 1 Bus Assembly, Integration & Test	3	2025	3	2027
Epoch 1 Mission Payload Assembly, Integration & Test	4	2025	2	2027
Epoch 1 SV Assembly, Integration & Test	2	2026	1	2028
Epoch 1 Plane 1 Pre-Ship Review	2	2027	2	2027
Epoch 1 Plane 1 Delivery to Launch Site	3	2027	3	2027
Epoch 1 Plane 1 Launch and Early-orbit Operations	3	2027	2	2028
Epoch 1 Plane 2 Pre-Ship Review	1	2028	1	2028
Epoch 1 Plane 2 Delivery to Launch Site	2	2028	2	2028
Epoch 1 Plane 2 Launch and Early-orbit Operations	2	2028	1	2029
Epoch 2 Vendor 1 Authority to Proceed	3	2025	3	2025
Epoch 2 Vendor 1 System Requirements Review	4	2025	4	2025
Epoch 2 Vendor 1 Preliminary Design Review	2	2026	2	2026
Epoch 2 Vendor 1 Critical Design Review	4	2026	4	2026
Epoch 2 Vendor 1 Plane 1 Pre-Ship Review	2	2029	2	2029
Epoch 2 Vendor 1 Plane 1 Delivery to Launch Site	3	2029	3	2029
Epoch 2 Vendor 1 Plane 1 Launch and Early-orbit Operations	3	2029	2	2030
Epoch 2 Vendor 1 Plane 2 Pre-Ship Review	4	2029	4	2029
Epoch 2 Vendor 1 Plane 2 Delivery to Launch Site	1	2030	1	2030
Epoch 2 Vendor 1 Plane 2 Launch and Early-orbit Operations	1	2030	4	2030

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206447SF / Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)		Project (Number/Name) 657MEO / Resilient MW/MT - MEO	
	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Epoch 2 Vendor 2 Authority to Proceed	1	2027	1	2027
Epoch 2 Vendor 2 System Requirements Review	1	2027	1	2027
Epoch 2 Vendor 2 Preliminary Design Review	3	2027	3	2027
Epoch 2 Vendor 2 Critical Design Review	3	2028	3	2028
Epoch 2 Vendor 2 Plane 3 Pre-Ship Review	2	2031	2	2031
Epoch 2 Vendor 2 Plane 3 Delivery to Launch Site	3	2031	3	2031
Epoch 2 Vendor 2 Plane 3 Launch and Early-orbit Operations	3	2031	4	2031
Resilient Missile Warning/Missile Tracking - Ground				
Mission Data Processing design, build, integration & test	1	2025	4	2031
Command & Control design, build, integration & test	1	2025	4	2031
Initial Operating Capability for Ground Operations	1	2025	4	2026
GEPs ready for end-to-end testing	1	2025	2	2026
GEP Contract Support	1	2025	4	2031
Build and deploy GEP testbeds to contractor facilities	1	2025	4	2025
MSOC ground network infrastructure design and construction, hardware installation and checkout	1	2025	4	2026
MEO Data Fusion	1	2025	4	2031
MSOC fit up: Ops room fit up, HVAC and power, furnish workstations	1	2025	4	2026
GEP sites design, development, and integration & test	1	2025	3	2026
GEP site construction for sites 1-3	1	2026	4	2028
Epoch 2 Ground Management and Integration Launch Ready	2	2028	2	2028
GEP site construction for sites 4 & 5	2	2026	4	2028
Ground Management and Integration Ground Entry Point Sites 4 & 5	4	2028	4	2028
MSOC ready for end-to-end testing with GEPs and SCN	1	2025	4	2026
Ground Management Integration (GMI) Authority to Proceed	2	2026	2	2026

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206447SF / Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)	Project (Number/Name) 657MEO / Resilient MW/MT - MEO

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
GMI Initial Operating Capability	2	2026	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206771SF I Commercial Services							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	44.699	168.026	23.752	0.000	23.752	26.128	29.008	31.625	32.258	Continuing	Continuing
650008: Commercial Augmentation Space Reserve (CASR)	0.000	6.000	23.282	10.427	0.000	10.427	12.550	15.170	17.530	17.881	Continuing	Continuing
650009: Commercial Capability Integration	0.000	38.699	144.744	13.325	0.000	13.325	13.578	13.838	14.095	14.377	0.000	252.656
A. Mission Description and Budget Item Justification												
Commercial Services delivers integrated, effective, efficient, and resilient commercial space capabilities to the warfighter in support of OSW's Commercial Space Integration Strategy and USSF's Commercial Space Strategy. It determines capability needs in USSF mission area architectures that can and should be fulfilled with commercial capabilities, identifies and integrates viable commercial solutions, and ensures the reliability, availability, resiliency, cybersecurity, operational utility and interoperability of the commercial capability to be presented to the space operators, military warfighters, and combatant commands. It ensures commercial capabilities will be available in peacetime and through the entire spectrum of conflict. The Commercial Space Office (COMSO) leads USSF efforts to develop sufficient and efficient capabilities by integrating commercial capabilities into hybrid (government, commercial, allied) architectures.												
Project 650008 funds Commercial Augmentation Space Reserve (CASR), a contractually managed framework for building relationships with industry during peacetime to ensure DoW access to commercial space capabilities throughout the spectrum of conflict. This funding supports the initial establishment and execution of the CASR program and activities to include contractual integration of commercial providers into CASR framework; threat sharing; wargaming/exercises; readiness and inspection program of CASR companies; Commercial Space Marketplace for Innovation and Collaboration (COSMIC); and other CASR incentives (security, cyber, protection measures, etc.).												
Project 650009 funds Commercial Capability Integration. With the commercial space industry innovating and developing capability at a record rate, COMSO will leverage the full force of this innovation by rapidly integrating commercial space capabilities to meet warfighter demand. The near-term focus of this effort is to expand commercial integration efforts where architecture gaps and current/emerging commercial capabilities match, in areas such as as space sensing and multi-domain awareness, Space-Based Environmental Monitoring (SBEM), alternate forms of Positioning, Navigation and Timing (alternate PNT), Space Domain Awareness (SDA), and Space Access, Mobility and Logistics (SAML). Commercial Capability Integration efforts will encompass all USSF mission areas to identify and integrate commercial capabilities necessary to meet warfighter needs. Leveraging commercial space will allow for cost efficiencies and will expedite delivery of space capabilities to the warfighter.												
This program falls within the Multi-Mission mission area which provides the systems and efforts that evenly contribute to multiple mission areas across the space enterprise. Space Force investment program interdependencies include:												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206771SF I Commercial Services				
RDT&E Budget Line Items: Defensive Cyber Operations - Space (1203040SF); Rapid Resilient Command and Control (1206772SF); Satellite Control Network (1203110SF); Space and Missile Test and Evaluation (1203173SF; Space Force IT, Data Analytics, Digital (1203010SF); and elements of Procurement Budget Line Items: AF Satellite Comm System (AFSCOM); Spaceborne Equip (Comsec) (MC0MSE); Spares and Repair Parts (SSPARE); Space Digital Integrated Network (SDN000)”						
The Commercial Space Office (COMSO) is developing the Commercial Services (PE 1206771SF) program for Guardians across all USSF Mission Areas. As a result, the Service will streamline capabilities development through institutional processes; improve readiness and operational reach of existing force structure; augment, supplement, and/or integrate Allies, partners, and commercial space to USSF units						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F, 0606392F.						
This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.						
This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		40.000	36.628	0.000	0.000	0.000
Current President's Budget		44.699	168.026	23.752	0.000	23.752
Total Adjustments		4.699	131.398	23.752	0.000	23.752
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	131.398			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		4.699	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	23.752	0.000	23.752
Congressional Add Details (\$ in Millions, and Includes General Reductions)					FY 2025	FY 2026
Project: 650009: Commercial Capability Integration						
Congressional Add: Program Increase - Space-based monitoring over the U.S. Southern Command AOR					0.000	-
Congressional Add: Program Increase - CCMD direct commercial surveillance, reconnaissance and tracking services					0.000	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206771SF / <i>Commercial Services</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2025	FY 2026
Congressional Add: <i>Commercial Surveillance, Reconnaissance and Tracking</i>		38.699	80.000
Congressional Add: <i>Commercial Services Integration</i>		-	52.000
Congressional Add Subtotals for Project: 650009		38.699	132.000
Congressional Add Totals for all Projects		38.699	132.000
<u>Change Summary Explanation</u>			
Strategic Changes:			
FY 2027: Program increase of 13.325 for COMSO basic operating costs (Project 650009)			
FY 2026: Commercial STRATFIs/TACFIs S8 add for 15.532 (Project 650008)			
FY 2026: Program increase of 12.744 for COMSO basic operating costs (Project 650009)			
FY 2025: CASR VCSO UFR funding for 6.000 (Project 650008)			
Technical Changes:			
FY 2026: Commercial TacSRT COCOM Tasking Congressional Add for 30.000 (Project 650009)			
FY 2026: Sustained TacSRT through Commercial EO Agreements Congressional Add for 50.000 (Project 650009)			
FY 2026: Commercial Digital Collection Management Congressional Add for 10.000 (Project 650009)			
FY 2026: Commercial PNT Capability Demo Congressional Add for 15.000 (Project 650009)			
FY 2026: Commercial SBEM Congressional Add for 5.000 (Project 650009)			
FY 2026: Commercial SDA Gap Filler Congressional Add for 2.000 (Project 650009)			
FY 2026: Commercial Satellite Services Testbed Congressional Add for 10.000 (Project 650009)			
FY 2026: Multi-role Space Vehicles Congressional Add for 10.000 (Project 650009)			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force / BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 1206771SF / Commercial Services	
FY 2025: TacSRT Congressional Add funding for 38.699 (Project 650009)		

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206771SF / Commercial Services				Project (Number/Name) 650008 / Commercial Augmentation Space Reserve (CASR)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
650008: Commercial Augmentation Space Reserve (CASR)	0.000	6.000	23.282	10.427	0.000	10.427	12.550	15.170	17.530	17.881	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

CASR is a contractually managed framework that ensures DoW has access to commercial space capabilities throughout the spectrum of conflict. CASR ensures that commercial capabilities, integrated during peacetime, can be leveraged throughout the spectrum of conflict and that they remain secure, reliable, and available to support the warfighter. This funding supports CASR baseline operating costs as well as threat sharing; wargaming/exercises; a CASR readiness and inspection program; and additional incentive structures. Near-term funding (FY 2027) supports participation of approximately 15 CASR companies.

Specific surge capacity within CASR may include: Leveraging commercial capabilities already on orbit; augmenting existing USSF missions with added capacity (e.g., SATCOM); reach back into existing production lines to rapidly acquire satellites, payloads, and launch vehicles; denial of service over a region or to a certain customer set; and other potential concepts.

Rapidly delivers impactful commercial solutions to the warfighter by identifying viable capabilities, implementing development contracts, and integrating them into the USSF ecosystem.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F, 0606392F.

This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: CASR	6.000	23.282	10.427
Description: CASR provides a foundational capability across all mission areas to ensure commercial capabilities are fully integrated into operations and available immediately during a crisis or conflict to combatant commands. It provides threat sharing, wargame/exercise participation; contract readiness and incentives, etc., to CASR companies to fully integrate and assure commercial capabilities are available across the spectrum of conflict at CCMD's timing/tempo to achieve operational objectives. CASR ensures commercial solutions for joint requirements/capabilities are met during crisis or conflict. CASR predetermines			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206771SF / <i>Commercial Services</i>	Project (Number/Name) 650008 / <i>Commercial Augmentation Space Reserve (CASR)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
commercial capability and actions during crisis, with known cost points, and enables training/exercising/wargaming with these "surge" capabilities during peacetime, assuring understood and integrated effects.			
This strategic initiative also bolsters operational effectiveness in contested environments by integrating alternative technologies, fostering commercial innovation, and enhancing resilience and awareness across critical domains.			
FY 2026 Plans: Fund operating baseline as well as threat sharing for initial COMSATCOM, SDA and key commercial contracts; wargaming/ exercise participation for approximately 10 commercial participants; CASR readiness and inspection program; and incentives. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain.			
Leverages commercial capabilities to include integrating alternate PNT constellations enabling a more resilient PNT architecture to complement GPS, demonstrating space superiority operations with on-orbit assets, combining payloads for multi-domain aware-ness on tactical space assets, and advancing commercial multi-domain awareness and cyber capabilities.			
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.			
FY 2027 Plans: We are continuing to prioritize key efforts, including funding the operating baseline and furthering threat sharing initiatives for initial COMSATCOM, SDA, and critical commercial contracts. Our ongoing engagement includes maintaining participation in wargaming and exercises with approximately 15 commercial partners, alongside sustaining the CASR readiness and inspection program and providing relevant incentives. We remain committed to rapidly responding to and implementing the necessary system resiliency and situational awareness required to operate effectively within the contested space domain.			
This involves consistently leveraging commercial capabilities such as integrating alternate PNT constellations to build a more resilient architecture complementing GPS, demonstrating space superiority operations with on-orbit assets, combining payloads for multi-domain awareness on tactical space assets, and advancing commercial multi-domain awareness and cyber capabilities.			
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction,			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206771SF / <i>Commercial Services</i>	Project (Number/Name) 650008 / <i>Commercial Augmentation Space Reserve (CASR)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY27 reduced to exclude a 15.921M S8 one-time add for altPNT STRATFIs/TACFIs from and other commercial integration efforts from FY26. FY27 CASR Baseline increased to 10.427M from 7.75M due to increased participation from 10 to 15 commercial companies.			
Accomplishments/Planned Programs Subtotals		6.000	23.282
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
CASR will modify new and existing commercial contracts by adding the appropriate CASR contract clauses to companies that volunteer and are accepted into the program, and modifying commercial contracts to include CASR incentives.			
Utilize new and existing contracting vehicles including SpaceWERX Strategic Finance Increase (STRATFI) and Small Business Innovative Research Phase III contracts for specific integration efforts in several mission areas, Other Transactional Authority (OTA) agreements, and other contracting vehicles.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206771SF / Commercial Services				Project (Number/Name) 650008 / Commercial Augmentation Space Reserve (CASR)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Commercial Augmentation Space Reserve	TBD	Not specified. : TBD	-	6.000		7.447		10.090		-		10.090	Continuing	Continuing	-
SBIR/STTR	TBD	Not specified. : TBD	-	-		0.643		0.337		-		0.337	Continuing	Continuing	-
AltPNT	TBD	Not specified. : TBD	-	-		6.611		-		-		-	Continuing	Continuing	-
Space Superiority	TBD	Not specified. : TBD	-	-		3.000		-		-		-	Continuing	Continuing	-
Responsive Space Sensing	TBD	Not specified. : TBD	-	-		3.000		-		-		-	Continuing	Continuing	-
Multi-domain Awareness and Cyberspace	TBD	Not specified. : TBD	-	-		2.581		-		-		-	Continuing	Continuing	-
Subtotal			-	6.000		23.282		10.427		-		10.427	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	6.000		23.282		10.427		-		10.427	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5								R-1 Program Element (Number/Name) PE 1206771SF / Commercial Services				Project (Number/Name) 650008 / Commercial Augmentation Space Reserve (CASR)			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
CASR																												
CASR Contract Execution																												
CASR Incentives and Threat Sharing																												
Wargames and Exercises																												
CASR Readiness																												
Commercial Capabilities																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206771SF / Commercial Services	Project (Number/Name) 650008 / Commercial Augmentation Space Reserve (CASR)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
CASR				
CASR Contract Execution	2	2026	4	2030
CASR Incentives and Threat Sharing	3	2026	4	2030
Wargames and Exercises	3	2026	4	2030
CASR Readiness	2	2026	4	2030
Commercial Capabilities	1	2026	4	2027

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206771SF / Commercial Services				Project (Number/Name) 650009 / Commercial Capability Integration			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
650009: Commercial Capability Integration	0.000	38.699	144.744	13.325	0.000	13.325	13.578	13.838	14.095	14.377	0.000	252.656
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Commercial Capability integration funds Commercial Space Office (COMSO) efforts to deliver expedited, game-changing commercial capabilities to the warfighter. Primary efforts will identify commercial capabilities with viability to solve gaps in several USSF mission areas, implement commercial contracts to develop late-stage capabilities and integrate those capabilities into the USSF ecosystem, then present those commercial capabilities, products or services to operations. The near-term focus is to expand commercial integration in areas such as space sensing and multi-domain awareness; Space-Based Environmental Monitoring (SBEM); alternate forms of Positioning, Navigation and Timing (alternate PNT); Space Domain Awareness (SDA), and Space Access, Mobility and Logistics (SAML). Commercial Capability Integration efforts will encompass all USSF mission areas to identify and integrate commercial capabilities necessary to meet warfighter needs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F, 0606392F.

This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Commercial Integration	-	12.744	13.325
Description: COMSO will leverage commercial capabilities to rapidly deliver game-changing solutions to warfighters in contested domains. Efforts include identification, implementation, and integration of viable commercial solutions addressing gaps across USSF mission areas. COMSO will execute commercial contracts to develop late-stage capabilities, integrate them into the USSF ecosystem, and present these commercial capabilities, products, or services to operational users. Focus areas include space sensing and multi-domain awareness, Space-Based Environmental Monitoring (SBEM); alternate Positioning, Navigation and Timing (alternate PNT); Space Domain Awareness (SDA), and Space Access, Mobility and Logistics (SAML). This directly supports the National Defense Strategy, the DoW Commercial Space Integration Strategy, and the USSF Commercial Space Strategy, all of which emphasize the importance of implementing commercial solutions.			
COMSO executes its mission through operations of the USSF Front Door, SpaceWERX, the Commercial SATCOM Office (CSCO), Integration and Engineering, and CASR.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206771SF / <i>Commercial Services</i>		Project (Number/Name) 650009 / <i>Commercial Capability Integration</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Support COMSO operations to identify and integrate innovative commercial capabilities with warfighter needs. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.					
FY 2027 Plans: Continuing efforts to support COMSO operations, focusing on identifying and integrating innovative commercial capabilities that directly address warfighter needs. Our ongoing priority includes rapidly responding to and implementing the necessary system resiliency and situational awareness required for effective operations within the contested space domain.					
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.					
FY 2026 to FY 2027 Increase/Decrease Statement: FY27 increased due to projected increase to contracts costs.					
Accomplishments/Planned Programs Subtotals			-	12.744	13.325
			FY 2025	FY 2026	
Congressional Add: Program Increase - Space-based monitoring over the U.S. Southern Command AOR			0.000	-	
FY 2025 Accomplishments: Not applicable					
Congressional Add: Program Increase - CCMD direct commercial surveillance, reconnaissance and tracking services			0.000	-	
FY 2025 Accomplishments: Not applicable					
Congressional Add: Commercial Surveillance, Reconnaissance and Tracking			38.699	80.000	
FY 2025 Accomplishments: TacSRT rapidly delivers unclassified, fully releasable, commercial sensing and analytic capabilities to Combatant Commands (CCMDs). It delivers informational Operational Planning Products (OPPs) to provide answers and context to Space Component queries. It also works with commercial providers to develop new capabilities, promote healthy competition, and increase space sensing and analytics resiliency for future conflict. It continues development and demonstration of new automation and analysis techniques to					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
3620F / 5	PE 1206771SF / <i>Commercial Services</i>	650009 / <i>Commercial Capability Integration</i>
	FY 2025	FY 2026
improve response time to CCMDs to near-real time. Supports the CASR program to ensure these capabilities are available to surge during times of crisis and conflict.		
FY 2026 Plans: TacSRT continues to rapidly deliver unclassified, fully releasable, commercial sensing and analytic capabilities to Combatant Commands (CCMDs). It delivers informational Operational Planning Products (OPPs) to provide answers and context to Space Component queries. It also works with commercial providers to develop new capabilities, promote healthy competition, and increase space sensing and analytics resiliency for future conflict. It continues development and demonstration of new automation and analysis techniques to improve response time to CCMDs to near-real time. Supports the CASR program to ensure these capabilities are available to surge during times of crisis and conflict.		
Congressional Add: Commercial Services Integration	-	52.000
FY 2026 Plans: COMSO continues to expand commercial integration efforts where architecture gaps and current/emerging commercial capabilities match, in areas such as as digital collection management; alternate forms of Positioning, Navigation and Timing (alternate PNT); Space-Based Environmental Monitoring (SBEM); Space Domain Awareness (SDA); satellite services testbeds; and multi-role space vehicles.		
Congressional Adds Subtotals	38.699	132.000

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

Commercial Capability Integration will use new and existing contracting vehicles including SpaceWERX Strategic Finance Increase (STRATFI) and Small Business Innovative Research Phase III contracts for specific integration efforts in several mission areas, Other Transactional Authority (OTA) agreements, and other contracting vehicles.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206771SF / Commercial Services				Project (Number/Name) 650009 / Commercial Capability Integration					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
CCMD Direct Commercial SRT Data	TBD	Not specified. : TBD	-	9.148		36.000		-		-		-	0.000	45.148	-
CCMD Direct Commercial SRT Exploratory	TBD	Not specified. : TBD	-	7.264		3.100		-		-		-	0.000	10.364	-
CCMD Direct Commercial SRT Future Ops Development	TBD	Not specified. : TBD	-	8.453		20.317		-		-		-	0.000	28.770	-
USSOUTHCOM Space Based Monitoring Data	TBD	Not specified. : TBD	-	-		-		-		-		-	0.000	0.000	-
SBIR/STTR	TBD	Not specified. : TBD	-	1.301		3.960		0.430		-		0.430	0.000	5.691	-
Commercial Integration	Various	Various : TBD	-	6.750		52.054		2.649		-		2.649	Continuing	Continuing	-
Subtotal			-	32.916		115.431		3.079		-		3.079	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Support	TBD	Not specified. : TBD	-	1.458		3.259		0.230		-		0.230	0.000	4.947	-
Contractor Support	TBD	Not specified. : TBD	-	4.325		26.054		10.016		-		10.016	0.000	40.395	-
Subtotal			-	5.783		29.313		10.246		-		10.246	0.000	45.342	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	38.699		144.744		13.325		-		13.325	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026									
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
3620F / 5					PE 1206771SF / Commercial Services					650009 / Commercial Capability Integration									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Commercial Capability Integration																												
CCMD Direct Commercial SRT																												
Commercial Integration																												
Commercial SRT																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206771SF / Commercial Services	Project (Number/Name) 650009 / Commercial Capability Integration

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Commercial Capability Integration				
CCMD Direct Commercial SRT	1	2025	4	2025
Commercial Integration	4	2025	4	2030
Commercial SRT	4	2025	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					PE 1206853SF I National Security Space Launch Program (SPACE) - EMD							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	101.138	6.540	2.748	0.000	2.748	3.735	3.707	3.756	3.831	0.000	125.455
650006: Next Generation Launch System Investment	0.000	101.138	6.540	2.748	0.000	2.748	3.735	3.707	3.756	3.831	0.000	125.455
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

System Delta 80 is executing the National Security Space Launch program (Program Element NSSL00) for Guardians across Space Access. As a result, the Service will advance space-based technology associated with Golden Dome, deliver space domain awareness capabilities, improve readiness and operational reach of existing force structure, and ensure resilient infrastructure, equipment, and personnel.

The National Security Space Launch (NSSL) program provides a space launch service that satisfies the government's National Launch Forecast (NLF) requirements to place National Security Space (NSS) space vehicles on orbit. NSSL is a launch service, not a weapon system, which is primarily funded with production funds.

NSSL Phase 2 development, started late FY 2014, funds research and development activities and related studies, to include, but not limited to, investments in new and/or upgraded launch systems and associated launch facilities to meet NSS launch needs leveraging domestic commercial launch providers.

The Space Force continues to provide support to monitor and close out the remaining activities for the Launch Service Agreement (LSA) public-private partnership with United Launch Alliance Vulcan Centaur. Future development to capitalize on new technology and innovations developed by industry may continue to utilize public-private partnerships.

This program falls within the Launch mission area which provides the launch systems and corresponding ground architecture required to provide assured access to space, the movement of payloads to and from the space domain, and provision a safe and secure range for space launch operations. Program interdependencies include: EELVP (Space) - EMD (1206853SF); National Security Space Launch Program (1203953SF); Rocket System Launch Program (1206860SF); SDA Launch Procurement (1203954SF); Space Access, Mobility & Logistics (1203955SF); Spacelift Range System (1203182SF); Tactically Responsive Launch (1206862SF).

This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

This program element included all necessary expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605829F, 0605831F, 0605833F, and 0605898F.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206853SF I National Security Space Launch Program (SPACE) - EMD				
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		103.392	6.595	0.000	0.000	0.000
Current President's Budget		101.138	6.540	2.748	0.000	2.748
Total Adjustments		-2.254	-0.055	2.748	0.000	2.748
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-2.254	-0.055			
• Other Adjustments		0.000	0.000	2.748	0.000	2.748
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 650006: Next Generation Launch System Investment						
Congressional Add: NSSL Payload Processing Facility						
Congressional Add Subtotals for Project: 650006						
Congressional Add Totals for all Projects						
Change Summary Explanation						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Launch Service Agreement (LSA)				22.882	6.540	2.748
Description: Invest in providers of domestic Launch Services. This investment enables the transition from the use of non-Allied space launch engines to commercial launch services that also meet National Security Space (NSS) needs. Execute Other Transaction Authority (OTA) agreements to develop various industry solutions utilizing public-private partnerships. Continue the technical maturation and risk reduction activities in support of Launch Service OTAs.						
FY 2026 Plans:						
Complete required supporting analysis and technical evaluations to close Launch Service Agreement (LSA) activities.						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 1206853SF I National Security Space Launch Program (SPACE) - EMD		

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2025	FY 2026	FY 2027
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Funding DoW Civilian pay expenses required to manage, execute, and deliver weapon system capability. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY2027 funding decreased due to conclusion of funding for the ULA Vulcan development contract.			
Accomplishments/Planned Programs Subtotals	22.882	6.540	2.748

	FY 2025	FY 2026
Congressional Add: NSSL Payload Processing Facility FY 2025 Accomplishments: Funds provide for development of Payload Processing capabilities to support National Security Space Launch (NSSL) Satellite Vehicle (SV) processing requirements at Cape Canaveral Space Force Base. Acquisition effort will be via Commercial Solutions Opening (CSO), which is a competitive solicitation of proposals focused on innovative technologies and services to meet AATS SV processing mission needs. AATS is seeking the best commercial approaches to meet AATS SV processing objectives.	78.256	-
Congressional Adds Subtotals	78.256	-

D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPSF 01 NSSL00: National Security Space Launch	1,670.586	1,329.263	3,370.958	-	3,370.958	4,737.696	5,206.069	5,163.734	4,455.648	555.557	26,489.511
Remarks											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 1206853SF I National Security Space Launch Program (SPACE) - EMD	
E. Acquisition Strategy SYD 80 will continue execution of NSSL Phase 2 Public-Private Partnership investments and NSSL Enabling Investments, including those for Next Generation Rocket Engine Testing and Upper Stage Resiliency Enhancements. Phase 2 consists of RDT&E investment in commercial launch system prototypes developed via the Space Force's Launch Service Agreements (LSAs) and Rocket Propulsion System (RPS) Other Transaction Authority (OTA) agreements to ensure two domestic launch service providers are certified to meet all NSS requirements. Phase 2 ends the use of the Russian RD-180 engine and leverages the U.S. launch industry to meet more stressing national security needs. This strategy ensures space launch operations meet requirements for Assured Access to Space (AATS) codified in 10 USC 2273 and Congressional direction to end U.S. reliance on non-allied propulsion systems.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206853SF / National Security Space Launch Program (SPACE) - EMD				Project (Number/Name) 650006 / Next Generation Launch System Investment					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
LSA OTA1	C/Various	United Launch Alliance : Denver, CO	-	1.470	Jan 2025	-		-		-		-	0.000	1.470	-
LNG/LOX Characterization Testing	Various	Various : Various	-	4.884	Dec 2024	-		-		-		-	0.000	4.884	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	2.870	Oct 2024	1.096	Dec 2025	-		-		-	0.000	3.966	-
Enterprise System Engineering and Integration (SE&I)	C/CPFF	Various : Various	-	3.057	Nov 2024	1.687	Dec 2025	-		-		-	0.000	4.744	-
Payload Processing Facility	C/TBD	TBD : TBD	-	78.256	Sep 2025	-		-		-		-	0.000	78.256	-
RDT&E SBIR/STTR	Allot	Not Specified:TBD : TBD	-	-		0.285	Mar 2026	0.055	Mar 2027	-		0.055	Continuing	Continuing	-
Subtotal			-	90.537		3.068		0.055		-		0.055	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Organic Civilian Support	Reqn	DOW : El Segundo, CA	-	2.246	Oct 2024	2.650	Oct 2025	2.693	Oct 2026	-		2.693	Continuing	Continuing	-
Subtotal			-	2.246		2.650		2.693		-		2.693	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace : El Segundo, CA	-	1.007	Oct 2024	0.432	Dec 2025	-		-		-	0.000	1.439	-
Advisory and Assistance Services	Various	Various : Various	-	6.894	Dec 2024	0.094	Jan 2026	-		-		-	0.000	6.988	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206853SF / National Security Space Launch Program (SPACE) - EMD						Project (Number/Name) 650006 / Next Generation Launch System Investment			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Support	Various	Various : Various	-	0.454	Oct 2024	0.296	Nov 2025	-		-		-	0.000	0.750	-
Subtotal			-	8.355		0.822		-		-		-	0.000	9.177	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	101.138		6.540		2.748		-		2.748	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026									
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
3620F / 5					PE 1206853SF / National Security Space Launch Program (SPACE) - EMD					650006 / Next Generation Launch System Investment									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Launch Service Agreement LSA																												
Finalize Cat C for Vulcan																												
Payload Processing Facility																												
Award Contracts for Payload Processing Facility (FY25 Cong Add)																												
Civilian Pay																												
Civilian Pay																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206853SF / National Security Space Launch Program (SPACE) - EMD	Project (Number/Name) 650006 / Next Generation Launch System Investment

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Launch Service Agreement LSA				
Finalize Cat C for Vulcan	1	2026	4	2026
Payload Processing Facility				
Award Contracts for Payload Processing Facility (FY25 Cong Add)	4	2025	4	2025
Civilian Pay				
Civilian Pay	1	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 1206855SF I Evolved Strategic SATCOM (ESS)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	1,838.718	0.000	1,838.718	1,682.562	1,017.348	1,172.547	951.863	Continuing	Continuing
650014: Evolved Strategic SATCOM (ESS) Space	0.000	0.000	0.000	1,266.878	0.000	1,266.878	986.382	746.387	525.964	406.777	Continuing	Continuing
650015: Evolved Strategic SATCOM (ESS) GRIFFON & Crypto	0.000	0.000	0.000	571.840	0.000	571.840	696.180	270.961	646.583	545.086	Continuing	Continuing

A. Mission Description and Budget Item Justification

This is not a new start.

The Evolved Strategic SATCOM (ESS) Program office is developing the next-generation strategic SATCOM (Projects ESS000, 650014, 650015) for Guardians across the Satellite Communications Mission Area. As a result, the Service will improve readiness and operational reach of existing force structure, integrate Allies, partners, and commercial space to USSF units, and deliver resilient infrastructure, equipment, and personnel.

ESS is the backbone for Joint All Domain Nuclear Command, Control and Communications (NC3). The system will replace Advanced Extremely High Frequency (AEHF) Strategic Satellite Communications (SATCOM) services to provide global, integrated, survivable, resilient, and dynamic ground and satellite communications for assured strategic capabilities across the conflict continuum. The ESS program underwent a resiliency architecture shift to address emerging sophisticated threats and to ensure strategic SATCOM capabilities are available to the National Command Authority (NCA), Combatant Commanders, and joint warfighters in any potential future conflict. ESS will provide the only arctic DoW strategic communication capability across the joint enterprise, and will provide worldwide secure, jam-resistant communications for strategic ground, sea, and air assets. ESS will support existing strategic user terminals in all operational environments.

ESS is acquired and developed in several parallel efforts to accelerate delivery of capability to warfighters by the strategic need date in FY 2032. The ESS System includes a Space Segment (ACAT-I), Ground, User, and Integration Segment (ACAT-I equiv), and a Crypto Segment (ACAT-III). The Space Segment is a Major Capability Acquisition (MCA) program in the Engineering Manufacturing and Development (EMD) phase. The Ground Segment, also known as GRIFFON - Ground Resilient Integration & Framework for Operational NC3, is comprised of the Ground Integration and Framework (GIF), System of Systems Integration (SoSI), and Mission Software Applications. This enables a resilient and modular cybersecure architecture that bridges the gap between modern software practices and legacy user terminal capability. The GIF/SoSI and Mission Planning Software efforts are leveraging the Software Acquisition Pathway Other Transactional Authorities for rapid prototyping of ground software. The ESS Ground Framework creates cybersecure software development, integration, and operational environments utilizing agile Modular Open Systems Approach (MOSA) principles and onboards hosted external mission applications and services. SoSI ensures all ESS segments that are acquired in parallel, in addition to external entities, work together to accomplish the mission. Additional mission-unique capabilities, like In-Band Command and Control (C2); Out-of-Band C2; Mission Planning; Test, Evaluation, and Training; and other similar mission capabilities will be acquired modularly as applications that will be hosted on the ESS Ground Framework. ESS Ground is also pursuing alternative approaches to software applications and C2 Terminals to maintain competition and bolster the industrial base. The Crypto Segment is focused on the development, integration and testing of National Security Agency (NSA)-certified End-Cryptographic Units (ECUs)

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)</i>		R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>
and modernization of the Protected Key Management Architecture (PKMA), that are both required for secure strategic communications encryption in the ESS payloads, bus, and test terminals. The modular acquisition approach allows the program to avoid "vendor lock" in all segments and creates opportunities for industry competition and teaming with small innovative non-traditional partners for the Ground Segment using the Space Enterprise Consortium (SpEC) Other Transactional Authority (OTA). SpEC requires ESS ground segment primary contractors that are developing software to utilize small businesses for a significant portion of the prototyping work, allowing the program to integrate innovative practices, increase agility, and reduce costs and development lifecycles, while also expanding the resilient and strategic SATCOM capabilities. The ESS system adheres to NC3 classification requirements. ESS will meet the requirements for strategic communications and capability gaps identified in the Protected Satellite Communications Services (PSCS) Analysis of Alternatives (AoA), the PSCS AoA Follow-on for Resiliency (PAFR) Study and the Strategic Tiger Team. The ESS architecture and functionality will be designed in accordance with the United States Space Command's signed ESS Concept of Operations and the Joint Requirements Oversight Council's validated Capability Development Document (CDD) satisfying the legacy Advanced Extremely High Frequency (AEHF) strategic requirements and mission performance with enhancements for increased resiliency and cybersecurity. The ESS system will satisfy emerging requirements using modular open system approaches to support incremental enhancements. This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Space Force investment program interdependencies include: RDT&E Budget Line Items: Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); Narrowband Satellite Communications (1203109SF); Protected Tactical Enterprise Service (1206760SF); Protected Tactical Service (1206761SF); Space Tech Development & Prototyping (1206410SF); Tech Transition (Space) (1206458SF); Wideband Global SATCOM (SPACE) (1206433SF); Data Transport and Networking (1203156SF); Space Data Network (1203636SF); and elements of Procurement Budget Line Items: Family of Beyond Line-of-Sight Terminals (FBLOST); Mobile User Objective System (MUOS00); MILSATCOM (MILSAT); Wideband SATCOM Operational Management Systems (WSOMS0); Auxiliary Payloads (AUX000); Proliferated Low Earth Orbit SATCOM (PLEO00); PTES HUB (PTES00); ESS (ESS000) This program element may include necessary civilian pay expenses required to manage, execute, and deliver ESS weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF, 1206398SF. As of FY 2027, ESS has transitioned to Budget Activity 5. Previously, this effort was in Budget Activity 4 (Project 643725). This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing development tasks aimed at meeting validated requirements prior to full rate production.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206855SF I Evolved Strategic SATCOM (ESS)			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	1,838.718	0.000	1,838.718
Total Adjustments	0.000	0.000	1,838.718	0.000	1,838.718
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	1,838.718	0.000	1,838.718
Change Summary Explanation					
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATC OM (ESS)				Project (Number/Name) 650014 / Evolved Strategic SATCOM (ESS) Space			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
650014: Evolved Strategic SATCOM (ESS) Space	0.000	0.000	0.000	1,266.878	0.000	1,266.878	986.382	746.387	525.964	406.777	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

ESS is the backbone for Joint All Domain Nuclear Command, Control and Communications (NC3). The system will replace Advanced Extremely High Frequency (AEHF) Strategic Satellite Communications (SATCOM) services to provide global, integrated, survivable, resilient, and dynamic ground and satellite communications for assured strategic capabilities across the conflict continuum. The ESS program underwent a resiliency architecture shift to address emerging sophisticated threats and to ensure strategic SATCOM capabilities are available to the National Command Authority (NCA), Combatant Commanders, and joint warfighters in any potential future conflict. ESS will provide the only arctic DoW strategic communication capability across the joint enterprise, and will provide worldwide secure, jam-resistant communications for strategic ground, sea, and air assets. ESS will support existing strategic user terminals in all operational environments.

ESS is acquired and developed in several parallel efforts to accelerate delivery of capability to warfighters by the strategic need date in FY 2032. The ESS System includes a Space Segment (ACAT-I), Ground, User, and Integration Segment (ACAT-I equiv), and a Crypto Segment (ACAT-III). The Space Segment is a Major Capability Acquisition (MCA) program in the Engineering Manufacturing and Development (EMD) phase. The Ground Segment, also known as GRIFFON - Ground Resilient Integration & Framework for Operational NC3, is comprised of the Ground Integration and Framework (GIF), System of Systems Integration (SoSI), and Mission Software Applications. This enables a resilient and modular cybersecure architecture that bridges the gap between modern software practices and legacy user terminal capability. The GIF/SoSI and Mission Planning Software efforts are leveraging the Software Acquisition Pathway Other Transactional Authorities for rapid prototyping of ground software. The ESS Ground Framework creates cybersecure software development, integration, and operational environments utilizing agile Modular Open Systems Approach (MOSA) principles and onboards hosted external mission applications and services. SoSI ensures all ESS segments that are acquired in parallel, in addition to external entities, work together to accomplish the mission. Additional mission-unique capabilities, like In-Band Command and Control (C2); Out-of-Band C2; Mission Planning; Test, Evaluation, and Training; and other similar mission capabilities will be acquired modularly as applications that will be hosted on the ESS Ground Framework. ESS Ground is also pursuing alternative approaches to software applications and C2 Terminals to maintain competition and bolster the industrial base. The Crypto Segment is focused on the development, integration and testing of National Security Agency (NSA)-certified End-Cryptographic Units (ECUs) and modernization of the Protected Key Management Architecture (PKMA), that are both required for secure strategic communications encryption in the ESS payloads, bus, and test terminals.

The modular acquisition approach allows the program to avoid "vendor lock" in all segments and creates opportunities for industry competition and teaming with small innovative non-traditional partners for the Ground Segment using the Space Enterprise Consortium (SpEC) Other Transactional Authority (OTA). SpEC requires ESS ground segment primary contractors that are developing software to utilize small businesses for a significant portion of the prototyping work, allowing the program to integrate innovative practices, increase agility, and reduce costs and development lifecycles, while also expanding the resilient and strategic SATCOM capabilities.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATC OM (ESS)	Project (Number/Name) 650014 / Evolved Strategic SATCOM (ESS) Space		
The ESS system adheres to NC3 classification requirements. ESS will meet the requirements for strategic communications and capability gaps identified in the Protected Satellite Communications Services (PSCS) Analysis of Alternatives (AoA), the PSCS AoA Follow-on for Resiliency (PAFR) Study and the Strategic Tiger Team. The ESS architecture and functionality will be designed in accordance with the United States Space Command's signed ESS Concept of Operations and the Joint Requirements Oversight Council's validated Capability Development Document (CDD) satisfying the legacy Advanced Extremely High Frequency (AEHF) strategic requirements and mission performance with enhancements for increased resiliency and cybersecurity. The ESS system will satisfy emerging requirements using modular open system approaches to support incremental enhancements.				
This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Space Development and Production		-	0.000	1,266.878
Description: Space Development and Production builds upon the 4+ Years of Space Segment Prototyping and delivers the next generation of NC3 Strategic SATCOM to the warfighter. The ESS Space Development and Production contract will design, develop, build, test, and deliver resilient, cybersecure space vehicles that ensure communications through all warfighting environments. This effort will initiate the non-recurring engineering for the development and production of Space Vehicles 1- 4 in order to achieve IOC by 2032 and continuing through FOC.				
FY 2026 Plans: (Project 643725 BA 04) Continue significant Non-Recurring Engineering (NRE) activities covering essential engineering, process documents, and building engineering models of flight hardware to lead up to a unit and system level critical design reviews (CDRs) in FY 2027. Additional NRE activities include developing and integrating auxiliary payloads, designing the ESS Payload Emulator and supporting SoSI activities with the ESS ground and crypto vendors. ESS is an extremely complex system of systems. The ESS space, ground, and crypto vendors will need to collaborate further to update and refine interface control documents, communication protocols, and software imaging formats.				
The program will procure additional critical hardware items necessary for the build and test of space vehicles (SVs) 1 and 2. The ESS SV vendor will continue developmental test activities with a crypto engineering development model (EDM) to reduce integration risk with the payload ECU. This activity will enable the successful integration of ESS crypto production representative articles (PRAs) in FY 2026. The ESS program will also continue software development for the payload and bus flight software and continue building digital twins to support the ESS digital engineering ecosystem. The digital engineering ecosystem is critical for design and integration risk reduction activities prior to building ESS space vehicles.				
Ancillary activities will involve starting or continuing special studies for survivability, resiliency, risk reduction, and architectural trades.				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>		Project (Number/Name) 650014 / <i>Evolved Strategic SATCOM (ESS) Space</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. Space Development and Production transitioned from BA 04 Project 643725 in FY2026 to BA 05 Project 650014 in FY 2027 FY 2027 Plans: ESS Space segment will complete all final design trades and reviews to complete space contractor Critical Design Review. After completion, ESS will enter Space Assembly Integration & Test (AI&T) and will begin integration activities to include ECUs into SVs and initial configuration testing. Further, ESS will continue SV payload emulator and Flatsat development and engineering design to support early integration with ESS ground C2 and existing strategic user terminals. Finally, ESS will continue any additional needed NRE. Significant classified facilities and lab testing efforts will occur to validate parts purchases and integration to meet nuclear communication requirements. SV1 and SV2 will begin initial assembly and production once all parts are tested and validated. New and updated manufacturing lines will be stood up at contractor and subcontractor facilities for ESS production. Begin work for initial test campaign plan with 4 Test and Evaluation Squadron and external test stakeholders to create plan for Operational Test and Acceptance. The ESS program will also continue software development for the payload and bus flight software and continue building digital twins to support the ESS digital engineering ecosystem. The digital engineering ecosystem is critical for design and integration risk reduction activities prior to building ESS space vehicles. Ancillary activities will involve starting or continuing special studies for survivability, resiliency, risk reduction, and architectural trades. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, resiliency tech insertion, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to completion of major technical and manufacturing milestones for SV1 and SV2. Complete critical hardware buys for SV1 and SV2 to include full assembly and parts integration into a functional vehicle for launch. Long lead parts will be tested for compliance and reliability for payload emulator as well as final integration into SVs for Hardware in the Loop Testing and space worthiness testing. SV assembly and resiliency requirements drive need for classified testing labs and facilities.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>	Project (Number/Name) 650014 / <i>Evolved Strategic SATCOM (ESS) Space</i>

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
The ESS system of systems Critical Design Review requires surge labor and engineering to finalize production ready designs for approval and integration. SV prototype test assets and simulators need to be purchased to support the Ground Segment to meet accelerated IOC timeline. Buys down risk related to ESS SoSI with space and ground milestone Assembly, Integration and Test events. This is the key integration event to validate working systems and interfaces between SV, crypto, and Ground C2 terminals.			
Space Development and Production transitioned to BA 05 Project 650014 in FY 2027			
Accomplishments/Planned Programs Subtotals	-	0.000	1,266.878

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• RDTE 04 1206855F: <i>Evolved Strategic SATCOM (ESS)</i>	876.055	1,111.595	-	-	-	-	-	-	-	0.000	1,987.650
• SPSF 01 1206855SF: <i>Evolved Strategic SATCOM (ESS)</i>	-	-	139.700	-	139.700	461.572	538.645	666.696	650.533	Continuing	Continuing

Remarks

D. Acquisition Strategy

The Milestone Decision Authority (MDA) designated the ESS Space Segment as an FY 2016 National Defense Authorization Act MTA (Rapid Prototyping) activity and approved the ESS acquisition strategy on 14 December 2018. A rapid prototyping phase effectively replaces the Technology Maturation and Risk Reduction phase from a traditional acquisition under Department of War 5000 series Directives and Instructions. The ESS Program Office used this approach to award three Space Segment contracts in late FY 2020 and early FY 2021 that focused on reducing Space Segment risks with the objective of maximizing ESS demonstrated capability for the payload and other key technologies.

In FY 2022 the Program Office executed the ESS Prime Pivot Study to provide a more robust and resilient capability to the Joint Warfighter. As a result of the ESS Prime Pivot Study, only the two most promising and lowest risk vendors to reaching the strategic need date had their options executed. The vendors' schedules were further accelerated by executing contract options one year earlier than planned. The ESS vendor termination was risk informed and required to mature technology readiness levels within available funding. The remaining vendors were awarded Engineering Change Proposals (ECP) focused on vendor-specific risk reduction, threat-resilient crosslink technical maturation, satellite processor upgrades, resiliency hosted payload development, and information technology cybersecurity enhancements.

In June 2023, the ESS Space Production Acquisition Source Panel (ASP) was approved by the Space Force Service Acquisition Executive (SAE). This ASP finalized key design trades, contract types, and the comprehensive approach to procuring ESS Space vehicles. The ASP highlighted the transition from MTA to MCA, declaring the ESS Space Segment as an ACAT IB entering in Pre-Milestone B.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)	Project (Number/Name) 650014 / Evolved Strategic SATCOM (ESS) Space
Competition during space prototyping energized the industrial base in strategic SATCOM; injected diverse technical processes and integration approaches; burned down risks as early as possible; and decreased traditional fielding timelines to support a more resilient, responsive architecture against emerging threats. Success during competitive rapid-prototyping informed the follow-on Space Development and Production competition. In June 2025, the SAE approved the Space Segment to transition to Milestone B and ESS awarded the Space Development and Production contract for SV 1-4 on 3 July 2025. The program office will return to the SAE after Space CDR to award the Space Production Follow-on contract for SV 5-7.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATC OM (ESS)				Project (Number/Name) 650014 / Evolved Strategic SATCOM (ESS) Space					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Segment: Build, I&T and Delivery Follow-on	C/Various	Boeing : El Segundo, CA	-	-		-		1,066.324	Oct 2026	-		1,066.324	Continuing	Continuing	-
Resiliency Tech Insertion	C/TBD	TBD : TBD	-	-		-		46.927		-		46.927	Continuing	Continuing	-
Test Terminal Development and Support	SS/CPFF	MIT/LL : Lexington, MA	-	-		-		9.267	Nov 2026	-		9.267	Continuing	Continuing	-
Acquisition and Mission Planning Support	SS/CPFF	JHU/APL : Laurel, MD	-	-		-		2.747	Nov 2026	-		2.747	Continuing	Continuing	-
Engineering Support	MIPR	BAH : San Antonio, TX	-	-		-		16.622	Oct 2026	-		16.622	Continuing	Continuing	-
Technical Mission Analysis	RO	Various : Various	-	-		-		10.638	Oct 2026	-		10.638	Continuing	Continuing	-
Enterprise SE&I	C/CPIF	KBR : Los Angeles, CA	-	-		-		39.812	Oct 2026	-		39.812	Continuing	Continuing	-
SBIR/STTR	Allot	TBD : Washington, DC	-	-		-		48.402		-		48.402	Continuing	Continuing	-
Associated Product Development	Various	Various : Various	-	-		-		0.169	Nov 2026	-		0.169	Continuing	Continuing	-
Subtotal			-	-		-		1,240.908		-		1,240.908	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace : El Segundo, CA	-	-		-		1.248	Nov 2026	-		1.248	Continuing	Continuing	-
A&AS	Various	Various : Various	-	-		-		24.497	Nov 2026	-		24.497	Continuing	Continuing	-
Other Support	Various	Various : Various	-	-		-		0.225	Oct 2026	-		0.225	Continuing	Continuing	-
Subtotal			-	-		-		25.970		-		25.970	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)				Project (Number/Name) 650014 / Evolved Strategic SATCOM (ESS) Space				
	Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		-		1,266.878		-		1,266.878	Continuing	Continuing	N/A

Remarks
ESS Space transitioned to BA 05 Project 650014 in FY 2027

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026																			
Appropriation/Budget Activity 3620F / 5										R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATC OM (ESS)										Project (Number/Name) 650014 / Evolved Strategic SATCOM (ESS) Space									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Space Development and Production																												
System and Mission Integration																												
Space Segment Unit Critical Design Review																												
Space Segment Critical Design Review																												
Space Segment Build, I&T and Delivery																												
Follow-on - Execution																												
Resiliency Tech Insertion																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)	Project (Number/Name) 650014 / Evolved Strategic SATCOM (ESS) Space	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space Development and Production				
System and Mission Integration	1	2027	4	2031
Space Segment Unit Critical Design Review	2	2027	4	2027
Space Segment Critical Design Review	4	2027	4	2027
Space Segment Build, I&T and Delivery Follow-on - Execution	1	2027	4	2031
Resiliency Tech Insertion	1	2027	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATC OM (ESS)				Project (Number/Name) 650015 / Evolved Strategic SATCOM (ESS) GRIFFON & Crypto			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
650015: Evolved Strategic SATCOM (ESS) GRIFFON & Crypto	0.000	0.000	0.000	571.840	0.000	571.840	696.180	270.961	646.583	545.086	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

ESS is the backbone for Joint All Domain Nuclear Command, Control and Communications (NC3). The system will replace Advanced Extremely High Frequency (AEHF) Strategic Satellite Communications (SATCOM) services to provide global, integrated, survivable, resilient, and dynamic ground and satellite communications for assured strategic capabilities across the conflict continuum. The ESS program underwent a resiliency architecture shift to address emerging sophisticated threats and to ensure strategic SATCOM capabilities are available to the National Command Authority (NCA), Combatant Commanders, and joint warfighters in any potential future conflict. ESS will provide the only arctic DoW strategic communication capability across the joint enterprise, and will provide worldwide secure, jam-resistant communications for strategic ground, sea, and air assets. ESS will support existing strategic user terminals in all operational environments.

ESS is acquired and developed in several parallel efforts to accelerate delivery of capability to warfighters by the strategic need date in FY 2032. The ESS System includes a Space Segment (ACAT-I), Ground, User, and Integration Segment (ACAT-I equiv), and a Crypto Segment (ACAT-III). The Space Segment is a Major Capability Acquisition (MCA) program in the Engineering Manufacturing and Development (EMD) phase. The Ground Segment, also known as GRIFFON - Ground Resilient Integration & Framework for Operational NC3, is comprised of the Ground Integration and Framework (GIF), System of Systems Integration (SoSI), and Mission Software Applications. This enables a resilient and modular cybersecure architecture that bridges the gap between modern software practices and legacy user terminal capability. The GIF/SoSI and Mission Planning Software efforts are leveraging the Software Acquisition Pathway Other Transactional Authorities for rapid prototyping of ground software. The ESS Ground Framework creates cybersecure software development, integration, and operational environments utilizing agile Modular Open Systems Approach (MOSA) principles and onboards hosted external mission applications and services. SoSI ensures all ESS segments that are acquired in parallel, in addition to external entities, work together to accomplish the mission. Additional mission-unique capabilities, like In-Band Command and Control (C2); Out-of-Band C2; Mission Planning; Test, Evaluation, and Training; and other similar mission capabilities will be acquired modularly as applications that will be hosted on the ESS Ground Framework. ESS Ground is also pursuing alternative approaches to software applications and C2 Terminals to maintain competition and bolster the industrial base. The Crypto Segment is focused on the development, integration and testing of National Security Agency (NSA)-certified End-Cryptographic Units (ECUs) and modernization of the Protected Key Management Architecture (PKMA), that are both required for secure strategic communications encryption in the ESS payloads, bus, and test terminals.

The modular acquisition approach allows the program to avoid "vendor lock" in all segments and creates opportunities for industry competition and teaming with small innovative non-traditional partners for the Ground Segment using the Space Enterprise Consortium (SpEC) Other Transactional Authority (OTA). SpEC requires ESS ground segment primary contractors that are developing software to utilize small businesses for a significant portion of the prototyping work, allowing the program to integrate innovative practices, increase agility, and reduce costs and development lifecycles, while also expanding the resilient and strategic SATCOM capabilities.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)	Project (Number/Name) 650015 / Evolved Strategic SATCOM (ESS) GRIFFON & Crypto		
The ESS system adheres to NC3 classification requirements. ESS will meet the requirements for strategic communications and capability gaps identified in the Protected Satellite Communications Services (PSCS) Analysis of Alternatives (AoA), the PSCS AoA Follow-on for Resiliency (PAFR) Study and the Strategic Tiger Team. The ESS architecture and functionality will be designed in accordance with the United States Space Command's signed ESS Concept of Operations and the Joint Requirements Oversight Council's validated Capability Development Document (CDD) satisfying the legacy Advanced Extremely High Frequency (AEHF) strategic requirements and mission performance with enhancements for increased resiliency and cybersecurity. The ESS system will satisfy emerging requirements using modular open system approaches to support incremental enhancements.				
This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Ground Resilient Integration & Framework for Operational NC3 (GRIFFON)		-	0.000	519.640
Description: GRIFFON is the Ground Segment solution for ESS. It includes the ESS Ground Integration and Framework (GIF), System of Systems Integration (SoSI), and software application development efforts. GRIFFON software applications include mission planning, command and control (both in-band and out-of-band) along with other architecture activities required to support the ESS Space Segment, system operators, strategic users, and Combatant Commands (COCOMs).				
FY 2026 Plans: (Project 643725 BA 04) The GRIFFON program will continue within the Execution Phase of the Software Acquisition Pathway and will begin a critical year for integration and testing across the entire ESS architecture, to include all Ground software applications, framework, and test sites.				
Continue Maturation of the ESS ground framework and integration prototype. The GIF/SoSI vendor will define and develop the Ground Assembly, Integration, and Test (Ground AI&T) minimum viable product (MVP) and run the integration test with all ESS vendors and system capabilities in FY 2026, with a projected exit of Ground AI&T in FY 2027. The Ground AI&T milestone will be the defining event that will encapsulate, integrate, and test all of ESS Ground's individual software applications and capabilities into the system architecture. The Ground AI&T milestone is the first integration test on the road to Initial Operational Capability (IOC), immediately preceding the next integration milestone testing of System AI&T in FY 2028. System AI&T will include testing Ground with the Space, Crypto, and Terminal segments, and will ensure that the system is interoperable and capable to enter into integrated launch testing.				
The Mission Planning prototype will be down-selected from two to one vendor and then will be integrated with the space, crypto, terminal, and ground framework segments. The Mission Planning prototype will then begin integrating with operational users and building test and training applications with the GIF/SoSI vendor. All integration issues found during Ground AI&T testing will be fixed in FY 2026 in an agile ramp up to ensure software is mission capable upon exit of Ground AI&T in FY 2027.				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>	Project (Number/Name) 650015 / <i>Evolved Strategic SATCOM (ESS) GRIFFON & Crypto</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
The Out-of-Band Command and Control (OOB-C2) software application vendors will begin modernization of the legacy software to integrate with the Ground framework. The In-Band Command and Control (IB-C2) software application will begin development and testing with the Ground Framework and other mission applications. IB-C2 will begin integration efforts and testing in an operationally relevant environment. The ESS C2 Terminals will be modernized for cryptographic, cybersecurity, resiliency, survivability, and interoperability requirements, necessary to support ESS and meet critical ground segment, space segment, and systems integration need dates. ESS must enter Ground Assembly, Integration and Test in FY 2026 to meet the USSTRATCOM threat-driven strategic need date by FY 2032. The production and fielding effort for C2 terminals is broken out into launch readiness, IOC requirements, and FOC requirements, to ensure the right terminals are fielded just in time for each of those milestones. While this effort may have begun in FY 2025, it will continue in FY 2026 with production of first articles required for launch readiness. Continue technology maturation of multiple GRIFFON prototype demonstration contracts that will conclude with a successful exit of Ground AI&T in FY 2027. Interoperability testing and integration patches will be developed in an agile DevSecOps pipeline to also ensure cyber resilience is a part of delivered software. Resilient technology studies will ensure the fielded system addresses current threat scenarios for endurance capability, command and control, mission control, and user terminal interface. Fund prototype technology maturation, system integration, and Ground AI&T testing in order to ensure an integrated, interoperable, secure software framework and cyber secure software delivery pipeline, software applications, and user interfaces with the enterprise community. Further mature a development, security, and operations (DevSecOps) pipeline for software vendors to test their applications on the ground framework to conduct end-to-end integration testing. Conduct early integration testing at government sites. Maintain user agreements with operational sites outlining deliveries and key milestones to ensure system functionality by FY 2029, prior to the first ESS space launch. Conduct integration testing and connectivity with Protected SATCOM Key Management Architecture (PKMA) and cryptographic modernization efforts with the NSA. Communicate any necessary modifications to legacy terminal programs to ensure entire integrated system functions within modernized cyber architecture. Continue development activities in support of the ground segment and system/mission integration schedules. GRIFFON transitioned from BA 04 Project 643725 in FY 2026 to BA 05 Project 650015 in FY 2027 FY 2027 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>	Project (Number/Name) 650015 / <i>Evolved Strategic SATCOM (ESS) GRIFFON & Crypto</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
The GRIFFON program will continue efforts in the Execution Phase of the Software Acquisition Pathway for integration and testing across the entire ESS architecture, to include the Ground software applications, framework, terminals, and test sites. Continue maturation of the ESS ground framework and integration prototype. Complete Systems Engineering work in support of the System-Level CDR in FY 2027. The GIF/SoSI vendor, with the program office as the lead systems integrator, will continue to run the Ground Assembly, Integration, and Test (Ground AI&T) minimum viable product (MVP) integration test with a projected exit of Ground AI&T in FY 2027. The Ground AI&T milestone will be the defining event that will encapsulate, integrate, and test all of ESS GRIFFON software applications and capabilities into the system architecture. The Ground AI&T milestone is the first integration test on the road to Initial Operational Capability (IOC) and precedes the next integration test milestone, System AI&T, in FY 2028. The down-selected Mission Planning (MP) application developer will continue development and integration in support of Ground AI&T. The MP prototype releases will be integrated with space, crypto, terminal, and ground framework segments. Continue development of the Out-of-Band Command and Control (OOB-C2) application MVP capability during the Phase 1 period and support continued integration and testing throughout Ground AI&T. Prepare and release a solicitation for the Phase 2 OOB-C2 application development with contract award expected in early FY 2028. Phase 2 will complete application development through System AI&T and continue mission integration and testing through FY 2030. The In-Band Command and Control (IB-C2) software application will continue development and integration to support Ground AI&T testing with the Ground Framework and other mission applications throughout FY 2027. The Ground AI&T IB-C2 testing will be performed in an operationally-relevant test environment with the, MIT-LL developed, Terminal Management Plane Emulator (TMP-E) and System Test Terminal. The ESS Command and Control (C2) Terminals (i.e., Family of Advanced Beyond-Line-of-Sight Terminal (FAB-T) Command Post Terminal (CPT) will be modernized for cryptographic, cybersecurity, resiliency, survivability, and interoperability requirements, necessary to support ESS and meet critical Ground Segment, Space Segment, and systems integration need dates, as well as the production and fielding of 4 ESS C2 terminal pre-production units in support of Systems AI&T in FY 2028, Initial Launch Capability (ILC), IOC, and FOC milestones. The ESS Ground Resiliency initiative will be leveraging both existing and commercial capabilities to prototype a more robust and effective ground architecture compared to the legacy system, utilizing IL-6/ IL-7 cloud capabilities and data transport connections. Continue prototype maturation throughout FY 2027, as well as integration and test with software applications, framework, and ground components during Ground AI&T.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)	Project (Number/Name) 650015 / Evolved Strategic SATCOM (ESS) GRIFFON & Crypto		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Award the alternative C2 Terminals and OOB-C2 commercial efforts. Begin terminal architecture design, implementation and test plan development. Begin prototyping the OOB-C2 Terminal application.				
Complete initial integration testing and connectivity with PKMA and cryptographic modernization efforts with the NSA. Continue development activities in support of the ground segment and system/mission integration schedules.				
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increased due to scope of Ground AI&T activities, System-Level CDR support, concurrent ramp-up of system level integration and test planning for Systems AI&T in FY 2028, and the production and fielding of 4 C2 Terminals.				
GRIFFON transitioned from BA 04 Project 643725 in FY 2026 to BA 05 Project 650015 in FY 2027				
Title: End-Cryptographic Unit (ECU)		-	0.000	52.200
Description: Develop and deliver the NSA-certified Aerospace Vehicle Equipment (AVE) Production Representative Article (PRA) ECUs (e.g., KG-505) required for secure strategic communications encryption in the ESS Space Vehicle (SV) Bus, and non-flight AVE Engineering Development Model (EDM) ECU (e.g. KI-2200) for SV Payload and Ground Operating Equipment (GOE) EDM ECU (e.g., KG-256) in accordance with the approved ECU acquisition strategy and schedule. Bus AVE PRA ECU units, Payload AVE EDM ECU units, and GOE EDM ECU units will be delivered as government-furnished equipment (GFE) for SV and Strategic Test Terminal (ST2) interoperability and integration testing and validation activities.				
FY 2026 Plans: (Project 643725 BA 04) Continue the development and National Security Agency (NSA) cybersecurity certification process and procedures for AVE and GOE ECUs for the ESS Strategic Test Terminal (ST2). Upon successful completion of the PDRs and CDRs and development of engineering development models (EDMs) continue to execute AVE and GOE ECU contract through the Engineering and Manufacturing Development (EMD) phase. Develop and build the first ECU production representative articles (PRAs) for the Space Segment vendor to enable the complete manufacturing of an ESS Space Vehicle (SV). Deliver the first PRAs to MIT-LL to support the development of the ST2. Continue to fund CCSD, University Affiliated Research Center (UARC), and Federally Funded Research and Development Center (FFRDC) to provide program office support, planning, GFE, studies, technical analyses and information or resources in conjunction with the ESS Space Development and Production Contract. Continue the development to provide NSA-certified crypto solutions to support Telemetry, Tracking, and Command (TT&C), Mission Data, Transmission Security (TRANSEC), and Communications Security (COMSEC); includes all required cyber, resiliency, and security activities required, as well as Government support for contractor management and oversight.				

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>	Project (Number/Name) 650015 / <i>Evolved Strategic SATCOM (ESS)</i> <i>GRIFFON & Crypto</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Continue to assist with requirements trades, technical design approaches, threat assessment (e.g., VOLT) and mitigation approaches, and ESS testing assets to include the test terminal. Continue coordination with NSA through the ECU Certification process and modified-PKMA compatible cryptographic key material delivery. Continue activities and start work to modify AEHF-based PKMA and Key Management Infrastructure (KMI) to support ESS development and testing, and ramp up of the KMI services, protocols, and modification work required to be interoperable to fully support all ESS constellation requirements. GRIFFON transitioned from BA 04 Project 643725 in FY 2026 to BA 05 Project 650015 in FY 2027 FY 2027 Plans: Continue National Security Agency (NSA) cybersecurity certification process and procedures for AVE and GOE ECUs for the ESS Space Segment and ST2. Maintain all required and appropriate Interim Authority to Test (IATT) approval letter(s) from NSA. Deliver AVE and GOE PRAs to Space Segment and MIT-LL to support ST2 development. Begin integration support for for Space Assembly, Integration & Testing (AI&T) events upon delivery of the AVE and GOE PRA ECUs. Continue iterative development and delivery of software updates for the ECUs and continue to meet NSA's Crypto Modernization (CM) 2 and Security Evaluation Requirements Document (SERD) 2.0 requirements. With assistance from NSA, CCSD, and MIT/LL, plan for and conduct AVE and GOE ECU design verification, qualification, and acceptance milestones. Submit TEMPEST test plan to NSA, then begin TEMPEST testing. Conduct Functional Configuration Audit (FCA) and Physical Configuration Audit (PCA) and provide complete FCA and PCA data and artifacts packages to NSA and CCSD. Continue modification of the AEHF PKMA and KMI services and protocols to support ESS capabilities and features. Deliver cryptographic key material (Keys) and PKMA development equipment to support ECU Security Verification Testing and Space AI&T. Continue coordination with NSA through the ECU certification process and cryptographic key material delivery. Continue to fund CCSD, UARC, and FFRDC to provide program office support, planning, GFE, studies, technical analyses and information or resources in conjunction with the ESS Space Development and Production Contract. Continue the development to provide NSA-certified crypto solutions to support TT&C, Mission Data, TRANSEC, and COMSEC; includes all required cybersecurity, resiliency, and program protection activities, as well as Government support for contractor management and oversight. Continue to assist with requirements trades, technical design, threat assessment and mitigation strategies, and ESS testing assets to include the test terminal. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to start of various NSA cybersecurity certification activities (SVT, TEMPEST testing, EMI/EMC testing, FCA/PRA, etc.) for the AVE and GOE ECU units along with ST2 interoperability testing with the delivery of GOE EDM ECU units to MIT/LL. In addition, modified PKMA test vectors/keys such as the M-keys (Maintenance Keys) will be formulated, verified, and			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 5					R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)					Project (Number/Name) 650015 / Evolved Strategic SATCOM (ESS) GRIFFON & Crypto		
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2025	FY 2026	FY 2027
validated through collaboration amongst CCSD, GOE ECU vendor, and NSA to perform preliminary interrogability testing of the GOE EDM and ST2 emulators.												
ECU transitioned from BA 04 Project 643725 in FY 2026 to BA 05 Project 650015 in FY 2027												
Accomplishments/Planned Programs Subtotals										-	0.000	571.840
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost	
• RDTE 04 1206855F: Evolved Strategic SATCOM (ESS)	876.055	1,111.595	-	-	-	-	-	-	-	0.000	1,987.650	
• SPSF 01 1206855SF: Evolved Strategic SATCOM (ESS)	-	-	139.700	-	139.700	461.572	538.645	666.696	650.533	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
GRIFFON is the ground segment solution for ESS, and it includes ESS GIF, SoSI, and Software Application development efforts. The GIF will scope and provide advisory services on the ground system infrastructure to provide a software architecture and support the corresponding software factory. The GIF contractor will provide continual test and delivery services of the DevSecOps pipeline and software from different development and pre-production environments. It will also ensure NC3 compliance. The System Integrator will ensure all ESS segments operate cohesively to deliver interoperable capability. The SoSI will facilitate requirement verification, validation, and sell-off to maintain an authoritative source of truth throughout the system integration process. Mission unique capability will be provided by software applications. In June 2022, the SAE approved the use of Department of War Instruction (DoWI) 5000.87 Software Acquisition Pathway for the GRIFFON Ground Segment. This pathway will be used to design and develop a software-intensive ground system to promote agile software development, control program timelines, cost, and foster innovation that is needed for resilient NC3 systems. The ESS Ground Segment awarded two 18-month competitive contracts in FY 2023 for the GIF and SoSI prototypes. There was a down-select to one Framework and Integration prototype vendor in May 2024. The Strategic Mission Planning Applications were competitively awarded Phase-1 to five contractor teams in September 2024 for a 6-month software demonstration. In April 2025, two of the five prototypes were continued into a 14-month Phase-2 competition. In November 2023, the SAE approved the acquisition strategy for the In-Band C2 software application. The In-Band C2 application was included in the ESS Space RFP and will be completed under that contract. In June 2024, the SAE approved the acquisition strategy for the remainder of the Planning Phase for Mission Planning and Command and Control elements, as well as Phase-2 for GIF/SoSI that will culminate at the finalization of Ground AI&T. In June 2025, the remaining application												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATC OM (ESS)	Project (Number/Name) 650015 / Evolved Strategic SATCOM (ESS) GRIFFON & Crypto	

acquisition strategies were approved by the SAE and the GRIFFON program was approved to transition from the Planning Phase to the Execution Phase of the Software Acquisition Pathway.

An ECU acquisition strategy was approved as an ACAT III program by the Program Executive Officer (PEO) in FY 2021. The ESS program office partnered with the Air Force Life Cycle Management Center CCSD for ECU crypto development, both on the space vehicle for payload and bus cryptographic devices and in the test terminal. Using a CCSD-led competitive RFP, a contract for payload and payload test terminal ECU development was awarded in 1st Quarter FY 2024. The program also partners with CCSD and the NSA to modernize and integrate the PKMA for ESS.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATC OM (ESS)				Project (Number/Name) 650015 / Evolved Strategic SATCOM (ESS) GRIFFON & Crypto					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GRIFFON: GIF and SoSI Follow-on	C/Various	Lockheed Martin : Waterton, CO	-	-		-		201.027	Nov 2026	-		201.027	Continuing	Continuing	-
GRIFFON : Software Applications MP Follow-on	C/TBD	TBD : TBD	-	-		-		64.000	Oct 2026	-		64.000	Continuing	Continuing	-
GRIFFON: In-Band	C/Various	Boeing : El Segundo, CA	-	-		-		22.500	Jan 2027	-		22.500	Continuing	Continuing	-
GRIFFON: Out-of-Band	SS/FFP	Kratos / TBD : Colorado Springs, CO	-	-		-		35.330	Jan 2027	-		35.330	Continuing	Continuing	-
GRIFFON: Command and Control (C-2) Terminal Acquisition	SS/ Various	RTX-Collins : Marlborough, MA	-	-		-		79.700	Dec 2026	-		79.700	Continuing	Continuing	-
GRIFFON Software Independent Framework Tester (SWIFT)	SS/CPFF	JHU/APL : Laurel, MD	-	-		-		8.300	Dec 2026	-		8.300	Continuing	Continuing	-
GRIFFON: IT Upgrades to NC3 cybersecurity Follow- On	C/FFP	GDIT : Falls Church, VA	-	-		-		25.000	Jan 2027	-		25.000	Continuing	Continuing	-
GRIFFON: Ground Resiliency	Various	Various : Various	-	-		-		8.757	Dec 2026	-		8.757	Continuing	Continuing	-
Crypto: End-Cryptographic Unit (ECU)	C/CPIF	Viasat : Carlsbad, NM	-	-		-		4.606	Dec 2026	-		4.606	Continuing	Continuing	-
Crypto: PKMA Modernization	TBD	TBD : TBD	-	-		-		43.638	Nov 2026	-		43.638	Continuing	Continuing	-
Test Terminal Development and Support	SS/CPFF	MIT/LL : Lexington, VA	-	-		-		5.823	Nov 2026	-		5.823	Continuing	Continuing	-
Acquisition and Mission Planning Support	SS/CPFF	JHU/APL : Laurel, MD	-	-		-		1.253	Nov 2026	-		1.253	Continuing	Continuing	-
Engineering Support	MIPR	BAH : San Antonio, TX	-	-		-		6.826	Oct 2026	-		6.826	Continuing	Continuing	-
Technical Mission Analysis	RO	Various : Various	-	-		-		6.248	Oct 2026	-		6.248	Continuing	Continuing	-
Enterprise SE&I	C/CPIF	KBR : Los Angeles, CA	-	-		-		20.832	Oct 2026	-		20.832	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)				Project (Number/Name) 650015 / Evolved Strategic SATCOM (ESS) GRIFFON & Crypto					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SBIR/STTR	Allot	TBD : Washington, DC	-	-		-		21.258		-		21.258	Continuing	Continuing	-
Associated Product Development	Various	Various : Various	-	-		-		1.934	Nov 2026	-		1.934	Continuing	Continuing	-
Subtotal			-	-		-		557.032		-		557.032	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace : El Segundo, CA	-	-		-		0.733	Oct 2026	-		0.733	Continuing	Continuing	-
A&AS	Various	Various : Various	-	-		-		13.248	Oct 2026	-		13.248	Continuing	Continuing	-
Other Support	Various	Various : Various	-	-		-		0.827	Nov 2026	-		0.827	Continuing	Continuing	-
Subtotal			-	-		-		14.808		-		14.808	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		571.840		-		571.840	Continuing	Continuing	N/A
Remarks GRIFFON and ECU transitioned to BA 05 Project 650015 in FY 2027															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATCOM (ESS)		Project (Number/Name) 650015 / Evolved Strategic SATCOM (ESS) GRIFFON & Crypto	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
GRIFFON																												
Command and Control efforts																												
GIF and SoSI Follow-on - Prototype Completion																												
GIF and SoSI Follow-on - Production OTA																												
Mission Planning Software Application Follow-on - Execution																												
Mission Planning Software App Demo Production OTA																												
Ground Resiliency																												
IT Upgrades to NC3 Cybersecurity																												
Upgrades to NC3 Cybersecurity Follow-On																												
End-Cryptographic Unit (ECU)																												
Development & Delivery																												
PKMA Modifications																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>	Project (Number/Name) 650015 / <i>Evolved Strategic SATCOM (ESS)</i> <i>GRIFFON & Crypto</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>GRIFFON</i>				
Command and Control efforts	1	2027	4	2031
GIF and SoSI Follow-on - Prototype Completion	1	2027	4	2027
GIF and SoSI Follow-on - Production OTA	1	2028	4	2031
Mission Planning Software Application Follow-on - Execution	1	2027	4	2031
Mission Planning Software App Demo Production OTA	1	2030	4	2031
Ground Resiliency	1	2027	4	2031
<i>IT Upgrades to NC3 Cybersecurity</i>				
Upgrades to NC3 Cybersecurity Follow-On	1	2027	4	2031
<i>End-Cryptographic Unit (ECU)</i>				
Development & Delivery	1	2027	4	2027
PKMA Modifications	1	2027	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support					R-1 Program Element (Number/Name) PE 1205502SF I Small Business Innovation Research							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	448.511	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
663005: Small Business Innovation Research	0.000	448.511	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program implements 15 U.S.C Section 638 to maximize the creative, innovative, and entrepreneurial spirit of small businesses to solve technological problems. The AFWERX Office in the Air Force Research Laboratory (AFRL) administers the Department of the Air Force (DAF) SBIR/STTR program with a vision to empower an innovation ecosystem that delivers disruptive Air & Space capabilities. AFWERX accelerates agile and affordable capability transitions by teaming innovation technology developers with Airmen and Guardian talent.

In conjunction with the establishment of the United States Space Force (USSF), AFWERX stood up SpaceWERX to execute SBIR and STTR funds for the space portfolio. SpaceWERX's mission is to identify, acquire, and integrate innovation capabilities into the USSF while cultivating partnership among the nation's Space Guardians and top problem solvers. SpaceWERX will accomplish this mission through (i) connecting diverse, innovative industry, academia, and Government entities; (ii) creating capability options and prototype opportunities for the USSF; (iii) facilitating streamlined acquisition processes; and (iv) fostering a culture of innovation.

This is a parallel effort to United States Air Force (USAF) SBIR/STTR PE 0605502F.

The DAF SBIR/STTR program implements three different approaches to provide funding and opportunities to small businesses: 1) Open Topic Program, 2) Specific Topic Program, and 3) STRATFI (Strategic Funding Increase) and TACFI (Tactical Funding Increase) Programs. The Open Topic Program uses a technology-agnostic solicitation which encourages commercial industry to submit dual-use technology solutions without having a known end-user. It is used to capture the best capabilities and emerging technologies and allows industry to bring novel solutions to the DAF. The Specific Topic Program seeks innovative solutions for SECAF identified Operational Imperatives and defined problem sets by a DAF end user or customer. Specific Topics have clearly-defined requirements and a known DAF customer built into the topic solicitation. The STRATFI (Strategic Funding Increase) and TACFI (Tactical Funding Increase) Programs help to scale Phase II efforts to the level needed to achieve technology transitions. These programs de-risk development through syndication with multiple transition-focused partners and leveraging outside investment. Administrative costs to support the SBIR program and due diligence activities are also included in this program.

This program is in Budget Activity 6, RDT&E Management Support because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1205502SF I Small Business Innovation Research			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	448.511	0.000	0.000	0.000	0.000
Total Adjustments	448.511	0.000	0.000	0.000	0.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	448.511	0.000	0.000	0.000	0.000
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026
Title: Small Business Innovation Research & Small Business Technology Transfer				448.511	0.000
Description: The Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) program implements 15 U.S.C Section 638 to maximize the creative, innovative, and entrepreneurial spirit of small businesses to solve technological problems.					
The DAF SBIR/STTR program implements three different approaches to provide funding and opportunities to small businesses:					
1) Open Topic Program uses a technology-agnostic solicitation which encourages commercial industry to submit dual-use technology solutions without having a known end-user. It is used to capture the best capabilities and emerging technologies and allows industry to bring novel solutions to the DAF.					
2) Specific Topic Program seeks innovative solutions for SECAF identified Operational Imperatives and defined problem sets by a DAF end user or customer. Specific Topics have clearly-defined requirements and a known DAF customer built into the topic solicitation.					
3) STRATFI (Strategic Funding Increase) and TACFI (Tactical Funding Increase) Programs help to scale Phase II efforts to the level needed to achieve technology transitions. These programs de-risk development through syndication with multiple transition-focused partners and leveraging outside investment.					
FY 2026 Plans:					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 1205502SF / <i>Small Business Innovation Research</i>		

C. Accomplishments/Planned Programs (\$ in Millions) FY 2026 USSF SBIR/STTR funds will continue to align with USSF, Combatant Command, and Component Command priorities and needs for operationally relevant space technologies while continuing investments in the emerging technologies that drive future capabilities. Investment allocations will be made in Open Topic, Specific Topic, and TACFI/STRATFI programs and associated administrative costs based on demand signals, timeliness of funds allocation and availability, and changes to strategic guidance or priorities as defined by the Office of the Assistant Secretary of the Air Force for Space Acquisition and Integration. FY 2027 Plans: FY 2027 USSF SBIR/STTR funds will continue to align with USSF, Combatant Command, and Component Command priorities and needs for operationally relevant space technologies while continuing investments in the emerging technologies that drive future capabilities. Investment allocations will be made in Open Topic, Specific Topic, and TACFI/STRATFI programs and associated administrative costs based on demand signals, timeliness of funds allocation and availability, and changes to strategic guidance or priorities as defined by the Office of the Assistant Secretary of the Air Force for Space Acquisition and Integration.	FY 2025	FY 2026	FY 2027
Accomplishments/Planned Programs Subtotals	448.511	0.000	0.000

D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• RDTE 06 0605502F: <i>Small Business Innovation Research</i>	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
Remarks											
E. Acquisition Strategy Not Applicable											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 1206392SF / <i>ACQ Workforce - Space & Missile Systems</i>

COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	263.288	269.162	260.731	0.000	260.731	265.432	271.424	277.070	282.859	Continuing	Continuing
664280: <i>SMC Civilian Pay</i>	0.000	263.288	269.162	260.731	0.000	260.731	265.432	271.424	277.070	282.859	Continuing	Continuing

A. Mission Description and Budget Item Justification

Space Systems Command (SSC) equips US and allied forces with operational space and missile systems, launch systems, and command and control infrastructure in support of global military and national security operations. SSC operates with over 6,300 people and an annual budget exceeding 6.4B providing joint warfighters navigation, communication, weather, warning, force application, and space control capabilities.

SSC is authorized to employ approximately 1,500 civilian acquisition professionals providing the management, tools, and technical capabilities needed to oversee acquisition programs to include materiel solution analysis, technology development, engineering and manufacturing development, production and deployment, and operations and support. This funding does not include costs for base operating support civilian personnel supporting the Space Based Delta 3 (SBD3) at Los Angeles Air Force Base (AFB). Funding SSC civilian payroll from the RDT&E appropriation provides program managers the flexibility to hire additional civilian personnel with program dollars versus additional contractors in concert with initiatives in response to the Defense Acquisition Workforce Improvement Act (DAWIA). This program element supports both civilian pay and non-pay support requirements.

In FY 2027 260.731M is forecasted to expend for civilian pay expenses in this program element.

This program falls within the Enterprise Management & Information Technology mission area. Enterprise Management provides the personnel and infrastructure required to manage USSF headquarters functions at the service and field command levels, including the Space Service Acquisition Executive for Space Systems and Programs, Office of the Assistant Secretary for Space Acquisition and Integration, the Office of the Chief of Space Operations (OCSO), the Space Staff, and Secretariat. Information Technology includes the IT infrastructure required for the USSF to acquire, sustain, and operate its assets. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Headquarters U.S. Space Force (1209398SF); Space & Missile Systems Center - MHA (1206398SF); Space Security and Defense Program (1206730SF); Space Warfighting Analysis (1203622SF); Service Wide Support (1201212SF); 1206399SF (SSC Enterprise & Integration; Commercial Services (1206771SF); and elements of Procurement Budget Line Items: USSF Vehicles (SFV000); General Information Tech - Space (GNRLIT)

This program is in Budget Activity 6, RDT&E Management Support because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		PE 1206392SF I ACQ Workforce - Space & Missile Systems			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	263.288	269.162	0.000	0.000	0.000
Current President's Budget	263.288	269.162	260.731	0.000	260.731
Total Adjustments	0.000	0.000	260.731	0.000	260.731
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	260.731	0.000	260.731
Change Summary Explanation					
The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 6					R-1 Program Element (Number/Name) PE 1206392SF / ACQ Workforce - Space & Missile Systems				Project (Number/Name) 664280 / SMC Civilian Pay			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
664280: SMC Civilian Pay	0.000	263.288	269.162	260.731	0.000	260.731	265.432	271.424	277.070	282.859	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
Space Systems Command (SSC) equips US and allied forces with operational space and missile systems, launch systems, and command and control infrastructure in support of global military and national security operations. SSC operates with over 6,300 people and an annual budget exceeding 6.4B providing joint warfighters navigation, communication, weather, warning, force application, and space control capabilities.												
SSC is authorized to employ approximately 1,500 civilian acquisition professionals providing the management, tools, and technical capabilities needed to oversee acquisition programs to include materiel solution analysis, technology development, engineering and manufacturing development, production and deployment, and operations and support. This funding does not include costs for base operating support civilian personnel supporting the SBD3 at Los Angeles AFB. Funding SSC civilian payroll from the RDT&E appropriation provides program managers the flexibility to hire additional civilian personnel with program dollars versus additional contractors in concert with initiatives in response to the Defense Acquisition Workforce Improvement Act. This program element supports both civilian pay and non-pay support requirements.												
The FY 2027 projection is 257.156. The projection is sufficient based on End-Strength, premium pay, performance, awards, and projected hires.												
This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: SSC Acquisition Workforce									263.288	269.162	260.731	
Description: Provide professional government civilian acquisition workforce in support of all Space Systems Command programs. Implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, prototyping, etc.												
FY 2026 Plans: Provide professional government civilian acquisition workforce in support of all Space Systems Command programs. Implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, prototyping, etc.												
FY 2027 Plans:												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 6	R-1 Program Element (Number/Name) PE 1206392SF / ACQ Workforce - Space & Missile Systems	Project (Number/Name) 664280 / SMC Civilian Pay	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Provide professional government civilian acquisition workforce in support of all Space Systems Command programs. Implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, prototyping, etc.			
FY 2026 to FY 2027 Increase/Decrease Statement: Decrease due to Civ Pay cleanup efforts, reprice adjustments, and transfers.			
Accomplishments/Planned Programs Subtotals		263.288	269.162
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity	R-1 Program Element (Number/Name)											
3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>	PE 1206398SF / <i>Space & Missile Systems Center - MHA</i>											
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	12.867	15.356	13.717	0.000	13.717	14.031	14.283	14.435	14.738	Continuing	Continuing
664280: <i>SMC Civilian Pay</i>	0.000	12.867	15.356	13.717	0.000	13.717	14.031	14.283	14.435	14.738	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Systems Command (SSC) equips US and allied forces with operational space and missile systems, launch systems, and command and control infrastructure in support of global military and national security operations. SSC operates with over 6,300 people and an annual budget exceeding 6.4B providing joint warfighters navigation, communication, weather, warning, force application, and space control capabilities.

Program Element 1206398SF, Project: 664280 Space Systems Command - Major Headquarters Activities (MHA) was established to improve overall performance, strengthen business operations, and achieve efficiencies, effectiveness and cost savings that can be transferred to higher priority needs. PE adds approximately 80 acquisition professionals.

In FY 2027 13.717 is forecasted to expense for civilian pay expenses in this program element.

This program falls within the Enterprise Management & Information Technology mission area. Enterprise Management provides the personnel and infrastructure required to manage USSF headquarters functions at the service and field command levels, including the Space Service Acquisition Executive for Space Systems and Programs, Office of the Assistant Secretary for Space Acquisition and Integration, the Office of the Chief of Space Operations (OCSO), the Space Staff, and Secretariat. Information Technology includes the IT infrastructure required for the USSF to acquire, sustain, and operate its assets. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Acq Workforce - Space & Missile Sys (1206392SF); Space & Missile Systems Center - MHA (1206398SF); Space Security and Defense Program (1206730SF); Space Warfighting Analysis (1203622SF); Service Wide Support (1201212SF); 1206399SF (SSC Enterprise & Integration; Commercial Services (1206771SF); and elements of Procurement Budget Line Items: USSF Vehicles (SFV000); General Information Tech - Space (GNRLIT)

This program is in Budget Activity 6, RDT&E Management Support because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1206398SF I Space & Missile Systems Center - MHA				
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	
Previous President's Budget	12.867	15.356	0.000	0.000	0.000	
Current President's Budget	12.867	15.356	13.717	0.000	13.717	
Total Adjustments	0.000	0.000	13.717	0.000	13.717	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	0.000	0.000				
• Congressional Rescissions	0.000	0.000				
• Congressional Adds	0.000	0.000				
• Congressional Directed Transfers	0.000	0.000				
• Reprogrammings	0.000	0.000				
• SBIR/STTR Transfer	0.000	0.000				
• Other Adjustments	0.000	0.000	13.717	0.000	13.717	
Change Summary Explanation The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: SSC - Major Headquarters Activities				12.867	15.356	13.717
Description: Provide professional government civilian acquisition workforce in support of all Space Systems Command Headquarters Activities. Implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to SSC Staff support, studies, technical analysis, prototyping, etc.						
FY 2026 Plans: Provide professional government civilian acquisition workforce in support of all Space Systems Command Management Headquarters Activities.						
FY 2027 Plans: Provide professional government civilian acquisition workforce in support of all Space Systems Command Management Headquarters Activities.						
FY 2026 to FY 2027 Increase/Decrease Statement: Decrease from FY 2026 to FY 2027 due to Civ Pay reprice.						
Accomplishments/Planned Programs Subtotals				12.867	15.356	13.717

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1206398SF I Space & Missile Systems Center - MHA
D. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
E. Acquisition Strategy N/A		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support					R-1 Program Element (Number/Name) PE 1206399SF I SSC Enterprise Engineering & Integration							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	109.161	230.848	0.000	230.848	115.828	122.022	130.858	133.474	Continuing	Continuing
664111: SSC Enterprise Engineering & Integration	0.000	0.000	109.161	230.848	0.000	230.848	115.828	122.022	130.858	133.474	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Systems Integration Office (SSIO) is executing Space Systems Command (SSC) Enterprise Engineering & Integration (Project 664111) for Guardians across Space Control, Global Mission Operations (GMO), and Space Access operational functions and Command and Control and Networks enterprise functions supporting operational warfighting, operational commands, combat support, and combat service support units. As a result, the Service will improve battle management integrated of all weapon systems; streamline capabilities development through institutional processes; and augment, supplement, and/or integrate Allies, partners, and commercial space to USSF units.

The primary mission of SSIO is to orchestrate and integrate end-to-end capability delivery for warfighter operations across all Space Force Program Executive Officers (PEOs) and Portfolio Acquisition Executives (PAEs), Space Force Field Commands, Combatant Commands, and mission partners such as the Department of the Air Force Rapid Capabilities Office (AFRCO), the Missile Defense Agency (MDA), and the National Reconnaissance Office (NRO). SSIO is the only USSF office that looks throughout the fielded and programmed force to integrate kill chains across PEOs/PAEs and partners to deter, defeat, and dominate a dynamic red threat.

In 2021, the Space Force established SSIO. In July 2024, the Assistant Secretary of the Air Force for Space Acquisition and Integration (ASAF)(SA&I) broadened SSIO's mission and designated SSIO as the organization responsible for integration across all Space Force PEO/PAE portfolios to include SSC, Space Development Agency (SDA), and the Space Rapid Capabilities Office (SpRCO). In April 2025, the ASAF(SA&I) appointed a Senior Advisor to the Service Acquisition Executive (SASAE), and, in response to a 2025 NDAA requirement, the Senior Advisor for Space Command, Control, and Integration (SASC2I). The SASAE is the USSF lead for System of Systems Engineering (SoSE) across the space acquisition enterprise and is responsible to drive engineering and assess all acquisition efforts under the authority of the ASAF(SA&I) portfolio and applicable mission partner organizations. This includes advising the Service Acquisition Executive (SAE) on matters of enforcement needed to enable and accelerate integrated enterprise capability delivery. The SASC2I is responsible for conducting oversight of all acquisition efforts within the authority of the ASAF(SA&I) with respect to developing, upgrading, deploying, and sustaining space command, control, and integration to meet the space command, control, and integration requirements of the combatant commands. SSIO executes the functions necessary to meet these responsibilities on behalf of the SASAE and SASC2I.

SSIO advises the ASAF(SA&I) on strategy to inform PEO portfolios across all mission areas to meet warfighting needs. These efforts also provide systems engineering for the space component of the Command, Control, Communications, and Battle Management (C3BM) portfolio to deliver an integrated command and control architecture to support the joint fight. SSIO enterprise-level integration includes three lines of effort. The first is Enterprise Mission Integration and Analysis which supports a multitude of Space Force programs at all classification levels needed to close mission threads and kill chains and deliver war-winning capabilities. The

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1206399SF I SSC Enterprise Engineering & Integration				
second is Enterprise Technical Governance and Requirements management which delivers enterprise standards across cyber, crypto, spectrum, and digital ecosystem, matures enterprise enabling capabilities including supply chain risk management and space industrial base foreign influence mitigation and documents and enforces technical governance for space programs to a manage a cohesive warfighting technical baseline and ensure integration across the space enterprise. The third is Space Futures which defines the future operating environment, prioritizes science and technology initiatives, and supports wargaming required to refine operational concepts.						
This program falls within the Enterprise Management & Information Technology mission area. Enterprise Management provides the personnel and infrastructure required to manage USSF headquarters functions at the service and field command levels, including the Space Service Acquisition Executive for Space Systems and Programs, Office of the Assistant Secretary for Space Acquisition and Integration, the Office of the Chief of Space Operations (OCSO), the Space Staff, and Secretariat. Information Technology includes the IT infrastructure required for the USSF to acquire, sustain, and operate its assets. Space Force investment program interdependencies include:						
RDT&E Budget Line Items: Acq Workforce - Space & Missile Sys (1206392SF); Headquarters U.S. Space Force (1209398SF); Space & Missile Systems Center - MHA (1206398SF); Space Security and Defense Program (1206730SF); Space Warfighting Analysis (1203622SF); Service Wide Support (1201212SF); Commercial Services (1206771SF); and elements of Procurement Budget Line Items: USSF Vehicles (SFV000); General Information Tech - Space (GNRLIT)						
This program element includes all necessary expenses required to manage, execute, and deliver SSIO enterprise integration. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.						
This program is in Budget Activity 6, RDT&E Management Support because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		0.000	110.598	0.000	0.000	0.000
Current President's Budget		0.000	109.161	230.848	0.000	230.848
Total Adjustments		0.000	-1.437	230.848	0.000	230.848
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	-1.437			
• Other Adjustments		0.000	0.000	230.848	0.000	230.848

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1206399SF I SSC Enterprise Engineering & Integration		
Change Summary Explanation Strategic Change: FY 2027: The FY 2026 President's Budget submittal did not reflect the FY 2027 through FY 2030 funding. Therefore, an explanation of the changes between the two budget positions for FY 2027 cannot be made in a relevant manner.				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Enterprise Mission Integration and Analysis		-	84.134	171.317
Description: Enterprise Mission Integration and Analysis assesses, validates, and in collaboration with USSF Program Executive Officers (PEOs) and Portfolio Acquisition Executives (PAEs), funds the USSF's ability to close combatant command prioritized mission threads and kill chains to achieve space superiority and provide space support to the joint force. This effort executes end-to-end mission thread analysis on operational scenarios needed to deliver mission effects as identified in Combatant Commanders' Operational Plans using robust System-of-Systems Engineering (SoSE) processes. This includes aligning cross-program interfaces, system-of-systems tests, multiple program schedules, identifying gaps, and driving integration requirements with the Chief Strategy and Resourcing Officer (CSRO) for 8 PEO/PAE portfolios' acquisitions to meet warfighter needs.				
This synchronizes the USSF's existing, programmed, and objective architectures to provide integrated combat capabilities. It includes modeling and simulation tools, multi-level security data architecture, and subject matter expertise for analysis, mission engineering, communication, and collaboration across the space enterprise. This includes rapid response to implement system resiliency and awareness necessary to operate in the contested space domain. This effort also supports the integration and modifications of USSF capabilities to realize the DAF Battle Network, enabling space support to the joint fight and increasing interoperability to achieve sensor-to-shooter effects. It includes the collection and analysis of programmatic data to identify efficiencies and provide prioritization recommendations to USSF leadership.				
SSIO partners with PEOs/PAEs to acquire and integrate capabilities to deliver a fully integrated, resilient, and lethal end-to-end system-of-systems architecture for multi-domain warfare. In FY2027, this effort expands beyond assessing and validating warfighter-priority mission threads and kill chains to include budget to directly fund acquisition and integration to close documented capability gaps. This will be executed by directly funding specific PEO/PAE program increments, system modifications, and new technology procurements. This direct-funding approach ensures enterprise-level priorities are resourced appropriately, preventing critical integration tasks from being deferred and guaranteeing that solutions are delivered with the urgency required to counter peer adversaries.				
FY 2026 Plans: Integrate space command and control (C2) capabilities across USSF PEO portfolios and mission partner organizations to close kill chains and enable effective and resilient counterspace operations. Develop an end-to-end, system-of-systems test plan to test the integration of 4+ weapon systems across the USSF needed to execute the Joint Space Operations Plan (JSOP). The				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>		R-1 Program Element (Number/Name) PE 1206399SF / <i>SSC Enterprise Engineering & Integration</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
enterprise integration of these systems also requires access to infrastructure, sensors, networks, cyber, and security which requires touchpoints to 5+ program offices and respective mission partner organizations. Develop 12 critical and baselined system-of-systems engineering documents to include operational capability to system-of-systems allocation matrix, enterprise mission performance functionality allocations, DoW Architecture Framework (DoWAF) Systems Viewpoints to identify architecture connections, and threat/target performance and characteristics associated with the operational scenarios. Complete analysis on 4+ operational scenarios at highly classified levels in support of the JSOP's C3BM scenarios associated with Command, Control, Communications, Computer, Cyber, Intelligence, Surveillance, Reconnaissance, and Targeting (C5ISR), Protect and Defend, and Electronic Warfare/Joint Fires missions. The analysis will include cross-program interfaces, which spans validation and verification of data link connections and message data formats needed for operational effectiveness, reliability/availability/maintainability of systems across kill chains, and overarching interoperability. As discrepancies are identified, complete analysis of cross-program interfaces will be done resulting in enterprise requirements that will be run through the SoSE processes for governance and inserted into the enterprise technical baseline as necessary and in coordination with CSRO. Deliver capability roadmaps to ensure multi-system readiness to find, fix, track, target, engage, and assess an engagement for all operational scenarios. Develop in concert with partnered organizations integrated assessment plans resulting in participation of joint exercises to deliver fully burdened combat ready capabilities to the USSF warfighter. Expand analysis and integration into additional mission threads and provide USSF leadership recommendations on actions needed to deliver an integrated space enterprise. Drive the use of next generation digital engineering capabilities at the Combined Space Operations Center (CSpOC) to enable timely and effectively delivery of space support to the Joint Force. Assess threats to USSF terrestrial data transport infrastructure, identify high-risk locations and missions, and formulate resilience measures that assure connectivity in competition and conflict. Coordinate with mission partners to integrate commercial antennas into USSF tracking, telemetry, and control architecture and supporting resource scheduling systems. Assist program offices with the integration of cyber-security and Defensive Cyber Operations for Space capabilities into space weapon systems. Provide the modeling, simulation and analysis tools and expertise needed for the above tasks. Transition prototype digital services and digital engineering ecosystems to SSC PEOs for execution. Prototype and evolve cloud data architecture, machine learning, and artificial intelligence integration. Provide resource prioritization analysis and recommendations to USSF leaders. FY 2027 Plans: Scale and deliver space enterprise capabilities beyond discrete mission threads to a fully integrated, resilient, and adaptive end-to-end system-of-systems architecture for multi-domain operational scenarios. Integrate, in partnership with PEOs/Portfolio Acquisition Executives (PAEs) 4+ classified weapon systems at the core of multiple kill chains requiring capabilities across USSF and mission partner portfolios needed to execute the Joint Space Operations Plans (JSOP) and Command, Control, Communications, and Battle Management (C3BM) scenarios associated with Command, Control, Communications, Computer,				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>		R-1 Program Element (Number/Name) PE 1206399SF / <i>SSC Enterprise Engineering & Integration</i>		
C. Accomplishments/Planned Programs (\$ in Millions) Cyber, Intelligence, Surveillance, Reconnaissance, and Targeting (C5ISRT), Protect and Defend, and Electronic Warfare/Joint Fires missions. Enterprise integration of these systems requires infrastructure, sensors, networks, cyber, and security with touchpoints to 8 PEO/PAE portfolios and respective mission partner organizations, international, Allies, and partners. Lead and participate in 3+ joint exercises with other U.S. military branches and mission partners to assess and validate the integrated enterprise's capabilities in 6+ simulated real-world multi-domain conflict scenarios, including high-intensity warfare, to deliver fully burdened combat ready capabilities to the USSF warfighter. Analyze cross-program interfaces, validate data link connections and message data formats needed for operational effectiveness, and assess reliability/availability/maintainability of systems across mission threads. Verify command and control interfaces and protocols to ensure seamless communication and data sharing across 8+ PEO/PAE portfolios, mission partner organizations, and commercial and international partners. Extend testing to include integration with terrestrial, air, and maritime-based systems. Develop and deliver 24+ critical, baselined System-of-Systems Engineering (SoSE) documents to include system-of-systems requirements in collaboration with CSRO, enterprise mission performance functionality allocations, DoW Architecture Framework (DoWAF) Systems Viewpoints, and threat/target performance and characteristics associated with operational scenarios. Deliver integrated enterprise schedules to ensure multi-system integration and readiness to find, fix, track, target, engage, and assess (F2T2EA) across multiple, contested operational scenarios. Deliver these SoSE documents within a robust governance process to maintain authoritative documentation of the integrated enterprise, ensuring requirements traceability and program integration accountability. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to expanding the program's integration activities to directly fund the acquisition and integration of capabilities necessary to close existing gaps in USSPACECOM and Combat Forces Command (CFC) priority kill chains to deter through strength, defend the U.S. homeland and space and terrestrial assets, and defeat near-peer threats in space.		FY 2025	FY 2026	FY 2027
Title: Enterprise Technical Governance and Requirements Description: Enterprise Technical Governance and Requirements establishes and enforces the space enterprise technical baseline through a disciplined engineering and governance process, acting as a standards provider and integration adjudicator for every space program. Governance of the technical baseline is executed through Space Enterprise Engineering and Configuration Control Boards (SEERB & SECCB) where products from the Enterprise Mission Integration and Analysis Thrust in this Program, such as authoritative technical standards, system-to-system interfaces, and end-to-end testing requirements for space and ground architectures, are delivered and put into governance. Complementary standards from this Thrust for cyber, crypto, spectrum,		-	20.274	54.635

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>		R-1 Program Element (Number/Name) PE 1206399SF / <i>SSC Enterprise Engineering & Integration</i>		
C. Accomplishments/Planned Programs (\$ in Millions) and a digital ecosystem enabled by Artificial Intelligence (AI) tools are also boarded, as are enterprise standards created in collaboration with other mission partners. SSIO executes Service Acquisition Executive (SAE)-directed enterprise integration assessments to ensure Program Executive Officers (PEOs)/Portfolio Acquisition Executives (PAEs) deliver fully integrated and interoperable capabilities. These assessments are the SAE's primary tool for proactive enterprise risk management by strategically assessing programs at acquisition milestones to verify compliance with the technical baseline and acquisitions best practices. This creates a cohesive framework that is critical for integrating high-priority capabilities like the Command Control Communications and Battle Management (C3BM) space component and rapidly onboarding commercial innovation and allied systems. This process is deliberately dynamic, driven by a continuous cycle of requirements analysis informed by real-world mission threads and evolving threats, ensuring the enterprise architecture remains tactically relevant and strategically aligned. Funding this core function is a direct investment in programmatic risk reduction, preventing costly integration failures and ensuring every capability is interoperable. This effort also provides requirements and governance to support continuous Supply Chain Risk Management (SCRM) monitoring to include critical materials and technologies, Space Industrial Base Working Group (SIBWG) membership and ability to steer investment funding from across the space community towards USSF priorities, and an integrated Digital Ecosystem (interoperable and networked cloud, digital and AI tools, data, machines, and users) in close partnership with other USSF programs, to effectively execute the above activities. FY 2026 Plans: Execute the repeatable SoSE processes across SSIO enabling a configuration-managed Enterprise technical baseline that standardizes configurations across the Space Force architecture. Prioritize and expand efforts for operational priorities such as space superiority and C3BM. Document, standardize, and control interfaces between 9 critical systems. Analyze change requests and their potential impact on mission execution. Transition technical baseline management to Model Based Systems Engineering (MBSE) to more effectively assess the impact of change requests across the architecture. Align acquisition strategies across USSF. Perform independent assessments, as directed by the SAE, to evaluate program maturity, assess integration risks to the USSF architecture, and inform acquisition program decisions. Drive integration requirements with CSRO and PEO's to mitigate enterprise risks that jeopardize mission integration required for executing the Joint Space Operations Plan. Address emerging enterprise requirements with CSRO for disposition across programs. Establish integrated end-to-end mission capability and mission thread test plans. Develop a comprehensive portfolio assessment and program integration scorecard that the SAE will use to assess and enforce enterprise integration. FY 2027 Plans: Execute robust and repeatable System-of-Systems Engineering (SoSE) processes to establish a configuration-managed enterprise technical baseline and standardize the Space Force architecture to support operational priorities such as space		FY 2025	FY 2026	FY 2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>		R-1 Program Element (Number/Name) PE 1206399SF / <i>SSC Enterprise Engineering & Integration</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
superiority and C3BM. Baseline 24+ critical enterprise governance documents to standardize and control interfaces for 4+ classified weapon systems, ensuring their integration across 6+multi-domain conflict scenarios. Work with industry and professional standards societies to promote and drive adoption of Modular Open Systems Architecture (MOSA) standards and achieve unity of effort with commercial market developments. Deliver and maintain an enterprise Integrated Master Schedule (eIMS) for all acquisitions across USSF. This master schedule provides the SAE with enterprise-wide visibility into critical giver/receiver dependencies, serving as the primary tool to identify cross-program schedule risks, deconflict resources, and enforce accountability to ensure integrated capabilities are delivered on time. Perform integration assessments for USSF programs to assess risks to the USSF architecture and inform acquisition decisions. Drive integration requirements with the Chief Strategy and Resourcing Officer (CSRO), USSF Program Executive Officers (PEOs)/Portfolio Acquisition Executives (PAEs), and mission partners to mitigate enterprise risks to mission integration required for executing the Joint Space Operations Plans (JSOP). Coordinate with Space Training and Readiness Command (STARCOM) to establish integrated end-to-end mission capability and mission thread assessments and test plans. Provide standards and expertise to 8+ PEO/PAE portfolios across foundational enterprise, capability areas. Deliver and integrate 8+ enterprise Defensive Cyber Operations for Space (DCO-S) and 7+ crypto standards to the USSF enterprise to protect against cyber threats. Provide the digital modeling, simulation, and analysis tools and expertise needed to support effective integration across the USSF enterprise. Prototype and evolve cloud data architecture, machine learning, and artificial intelligence integration to enhance warfighter operations and maintain space superiority. Provide space spectrum management to maintain strategic orbital positions, mitigate operational interference, and ensure USSF and allied satellites can reliably communicate. Support debris management to protect critical space-based capabilities and ensure the long-term sustainability of space activities. Operate SCRM monitoring and membership in the Space Industrial Base Working Group (SIBWG) to provide continuous monitoring of the space supply chain, set standards to increase domestic production capabilities, and defend against the threat of Foreign Ownership, Control, or Influence (FOCI) to ensure the integrity and reliability of USSF assets. Provide resource prioritization analysis and recommendations to USSF and mission partner leaders. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to the realignment and augmentation of funds to scale delivery of mission engineering and integration products into enterprise governance, deliver integration requirements and enterprise standards, supercharge the U.S. defense industrial base and enforce the space enterprise technical baseline.				
Title: Space Futures Description: Space Futures supports the definition of the future operating environments for selected and relevant time epochs, supports development of Operational and Functional Concepts and leads development of Enabling Concepts to inform future architectures and force designs, prioritizes Science & Technology (S&T) initiatives and activities across mission areas to align to		-	4.753	4.896

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 1206399SF / <i>SSC Enterprise Engineering & Integration</i>			
C. Accomplishments/Planned Programs (\$ in Millions) the Objective Force, and informs and identifies prototype and experimentation activities to pursue. This work includes supporting wargaming initiatives for future concept employment to refine concept required capabilities based on findings and the emerging warfighter needs to address evolving threats. <i>FY 2026 Plans:</i> Refine a Future Operating Environment for the 2028-2032 timeframe to support priority operational concept development. Support a high-fidelity wargame validating developed concepts. Develop 4+ materiel solution candidates in the form of enabling concepts to support validated operational concept work. Evaluate planned and ongoing S&T initiatives and develop both a strategic and tactical-level prioritized list of S&T needs to support funding determinations and planning by USSF/S5R and SAF/SQT. Deploy enhanced capabilities for an S&T data integration platform to assess and monitor USSF S&T portfolio investments. Continue to lead the USSF S&T annual process ensuring maximum alignment of activities to the needs of the Objective Force. <i>FY 2027 Plans:</i> Refine a Future Operating Environment for the 2035 timeframe to support priority operational concept development. Support a high-fidelity wargame validating developed concepts. Develop 4+ materiel solution candidates in the form of enabling concepts to support validated operational concept work. Evaluate planned and ongoing Space & Technology (S&T) initiatives and develop both a strategic and tactical-level prioritized list of S&T needs to support funding determinations and planning by USSF/S5R and SAF/SQT. Deploy enhanced capabilities for an S&T data integration platform to assess and monitor USSF S&T portfolio investments. Continue to lead the USSF S&T annual process ensuring maximum alignment of activities to the needs of the Objective Force. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 increase in funding is due to inflation rate adjustments.		FY 2025	FY 2026	FY 2027
Accomplishments/Planned Programs Subtotals		-	109.161	230.848
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy NA				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>					R-1 Program Element (Number/Name) PE 1206759SF / <i>Major T&E Investment - Space</i>							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	216.282	195.977	65.731	0.000	65.731	63.594	65.312	66.829	71.595	0.000	745.320
660191: <i>660191 - Space Systems Operational Test & Eval</i>	0.000	51.585	41.678	60.627	0.000	60.627	58.481	60.088	61.493	66.152	0.000	400.104
664597: <i>664597 - Professional Test Workforce</i>	0.000	5.912	4.794	5.104	0.000	5.104	5.113	5.224	5.336	5.443	0.000	36.926
664598: <i>664598 - National Space Test and Training Complex (NSTTC)</i>	0.000	158.785	149.505	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	308.290

A. Mission Description and Budget Item Justification

STARCOM is developing and operating the U.S. Space Force's Major Test and Evaluation (T&E) resources (Projects 660191, 664597, and 664598) to improve test for Guardians across the following mission areas: Science & Technology and Test & Evaluation; Space Domain Awareness; Position, Navigation, and Timing; Satellite Communications; Weather; Combat Power; and Launch. As a result, the Service will benefit from improved testing and validation of new capabilities across all Service Operational Functions, as well as streamlined capabilities development through improved institutional processes.

This program funds the United States Space Force (USSF) Test Enterprise. Funds support enterprise-level, threat-relevant, and fully-integrated developmental and operational Space Test & Evaluation (T&E) activities and capabilities; the development of a professional space T&E workforce; and the organization and operations of the National Space Test and Training Complex (NSTTC) under the Space Training & Readiness Command (STARCOM) Field Command.

Space T&E activities and capabilities include the USSF Integrated Test Force (ITF) structures, USSF Operational Test Agency (OTA) test execution campaigns, and the workforce and activities required to conduct T&E to adequately assess the performance and survivability of Department of War (DoW) space systems, tactics, and technologies in contested environments.

Workforce development refers to the organizations, training, and activities required to develop a professional space T&E workforce including the development and operation of the Space Test Course at the United States Air Force (USAF) Test Pilot School (TPS).

Space T&E infrastructure encompasses the organization, operations, and associated activities as part of the NSTTC to integrate, operate, and sustain the minimum technical capabilities required to test and evaluate the performance and survivability of critical DoW space systems in contested environments. The NSTTC delivers realistic test and training environments to support capability development by incorporating a mix of live and virtual capabilities to conduct threat emulation, advanced training, tactics development, and integrated testing.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>	R-1 Program Element (Number/Name) PE 1206759SF / <i>Major T&E Investment - Space</i>

This program falls within the Science and Technology (S&T) and Test & Evaluation (T&E) mission area which provides the S&T initiatives, demonstrations, experiments, and studies towards developing next-generation space capabilities. The T&E mission area provides all efforts required to establish and operate the test infrastructure for USSF capabilities. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Defense Research Sciences (0601102SF); University Research Initiatives (0601103SF) ; Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Innov Intg & Rapid Tech Dev (1203174SF); Space Rapid Capabilities Office (1206857SF); Space Science and Technology (1206310SF); Space Systems Prototype Transition (1206427SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); Space Test Program (1206864SF); University Research Initiatives (0601103SF); Operational Test & Training Infrastructure (1206617SF) and elements of Procurement Budget Line Item: General Information Tech - Space (GNRLIT)

Beginning in FY 2027, Project 664598, National Space Test & Training Complex, has been moved into the new Project 644441, Operational Test & Training Infrastructure, within the new Program Element 1206617SF, Operational Test & Training Infrastructure.

This program is in Budget Activity 6, RDT&E Management Support because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.

B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	229.665	189.083	0.000	0.000	0.000
Current President's Budget	216.282	195.977	65.731	0.000	65.731
Total Adjustments	-13.383	6.894	65.731	0.000	65.731
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	10.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-5.000	0.000			
• SBIR/STTR Transfer	-8.383	-3.106			
• Economic Assumptions	0.000	0.000	65.731	0.000	65.731
• Program Adjustments	0.000	0.000	0.000	0.000	0.000

Change Summary Explanation

FY 2026 10.000M Congressional Add for Training Range Sensor Capabilities. The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 6					R-1 Program Element (Number/Name) PE 1206759SF / Major T&E Investment - Space				Project (Number/Name) 660191 / 660191 - Space Systems Operational Test & Eval			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
660191: 660191 - Space Systems Operational Test & Eval	0.000	51.585	41.678	60.627	0.000	60.627	58.481	60.088	61.493	66.152	0.000	400.104
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Space Operational Test and Evaluation refers to Congressionally mandated Space Initial Operational Test and Evaluation (IOT&E) to support major weapon system acquisition decisions beyond Low-Rate Initial Production (LRIP), Milestone C, full-rate production (FRP), fielding, and declaration of Initial Operational Capability (IOC). For Major Defense Acquisition Programs (MDAP), Title 10 USC 2399 requires IOT&E to be completed under realistic operating conditions before proceeding beyond LRIP. IOT&E will be planned to answer all Critical Operational Issues (COI) as thoroughly as possible. IOT&E is conducted to determine operational effectiveness and suitability and resolve overall mission capability of systems undergoing Research and Development (R&D) efforts. It is an evaluation of a system's performance when the complete system is tested and evaluated against operational criteria by personnel with the same qualifications as those who will operate, maintain and support the system when deployed. In general, IOT&E is performed on new systems in development, major modifications, and other systems as directed.

This project provides funding for the USSF Operational Test Agency's participation in Integrated Test and Evaluation (IT&E). Additionally, it funds the Multi-service Operational Test and Evaluation (MOT&E) and Follow-on Operational Test and Evaluation (FOT&E) when it is the continuation of IOT&E activities past the FRP decision. FOT&E answers specific questions about unresolved COIs and test issues or completes areas not finished during the IOT&E. This effort also funds related Operational Test and Evaluation (OT&E) activities such as Early Influence (EI), Operational Utility Evaluations (OUE), Early Operational Assessments (EOA), and Operational Assessments (OA) which are independent OT&Es supporting major milestones and decision points, FRP, fielding, or declaration of IOC for USSF programs. USSF schedules and executes tests according to the forecasted test readiness of the MDAP program offices.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Space Systems Operational Test and Evaluation (OT&E)	51.585	41.678	60.627
Description: Plan, execute and report OT&E for Space Systems			
FY 2026 Plans:			
Continue FY 25 Activities, namely:			
Advanced Tracking Launch Analysis System: Conduct IOT&E			
Deep Space Advanced Radar Capability (DARC): Conduct IOT&E			
Enhanced Polar System - Recapitalization: Conduct IOT&E			
Evolved Strategic SATCOM (ESS): Conduct MTA			
Family of Beyond Line-of-Site Terminals (FAB-T): Conduct IOT&E, Conduct FOT&E			
Force Element Terminal: Prepare for IOT&E			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 6		R-1 Program Element (Number/Name) PE 1206759SF / <i>Major T&E Investment - Space</i>		Project (Number/Name) 660191 / 660191 - <i>Space Systems Operational Test & Eval</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
Future Operational Resilient Ground Evolution (FORGE): Conduct MTA GPS IIIF: Conduct early influence Mobile AEHF Terminal: Conduct operations demonstration IRIS: Conduct IOT&E Military GPS User Equipment: Conduct IOT&E GPS Next Generation Control Segment: Conduct MOT&E Missile Defense System (MDS): Conduct MOT&E Proliferated Warfighter Satellite Architecture (PWSA) - Tranche 2,3,4: Conduct OT&E Next-Generation Overhead Persistent Infrared (Next-Gen OPIR): Conduct FDE (MCA) Presidential and National Voice Conferencing: Conduct FOT&E Protected Tactical Satcom: Conduct IOT&E(MTA) Space Based Infrared System: Conduct FOT&E SBIRS Survivable Endurable Evolution (S2E2): Conduct FDE SpaceFence: Plan and design for OT&E Conduct other planning and operational testing for new space system programs as the requirement becomes known to USSF. FY 2027 Plans: Evolved Strategic Satellite Communications (ESS): Conduct Developmental & Operational (Integrated) Testing COBRA DANE: Conduct Cyber Test Future Operationally Resilient Ground Evolution (FORGE): Conduct Software Acquisition Pathway & cyber test Next Generation Overhead Persistent Infrared - Geosynchronous: Conduct IT&E and cyber test Resilient Missile Warning/Missile Track Epoch 1 & 2: Conduct Test for Epoch 1 and cyber and physical penetration test Long Range Discrimination Radar (LRDR): Conduct FOT&E/Sustainment test Upgraded Early Warning Radar (UEWR): Conduct Sustainment test (5 sites) Perimeter Attack and Characterization System (PARCS): Conduct Sustainment test Ground Based Optical Sensor System - Maui: Conduct FOT&E Ground Based Optical Sensor System - Socorro: Conduct FOT&E Ground Based Optical Sensor System - Diego Garcia: Conduct FOT&E Relay Ground Station - Asia: Conduct IOT&E and FOT&E Joint Tactical Ground System: Conduct Sustainment test (all sites) Deep Space Advanced Radar Capability (DARC): Conduct IOT&E and FOT&E (Site 1) Resilient Electro-Optical (REO): Conduct IOT&E RRS-G (including AMTI): Conduct IOT&E Proliferated Warfighter Space Architecture Tranche 1-3 (including AMTI): Conduct Operational Assessments					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 6	R-1 Program Element (Number/Name) PE 1206759SF / <i>Major T&E Investment - Space</i>	Project (Number/Name) 660191 / 660191 - <i>Space Systems Operational Test & Eval</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
IRIS: Conduct IOT&E Quasi-Zenith Satellite System - Hosted Payload (QZSS-HP): Conduct IOT&E Defensive Cyber Operations for Space (DCO-S): Conduct IOT&E Military GPS User Equipment: Conduct IOT&E GPS Next Generation Control Segment: Conduct MOT&E Missile Defense System (MDS): Conduct MOT&E Proliferated Warfighter Satellite Architecture (PWSA) - Tranche 2,3,4: Conduct OT&E Next-Generation Overhead Persistent Infrared (Next-Gen OPIR): Conduct FDE (MCA) Presidential and National Voice Conferencing: Conduct FOT&E Protected Tactical Enterprise Service: Conduct Multi-Service Operational Test and Evaluation (MOT&E) Protected Tactical Satcom: Conduct MOT&E(MTA) Space Based Infrared System: Conduct FOT&E Space Data Network: Support IOT&E SBIRS Survivable Endurable Evolution (S2E2): Conduct FDE Wideband Global SATCOM -11 (WGS-11): Conduct Operational Utility Evaluation (OUE) Conduct other planning and operational testing for new space system programs as the requirement becomes known to USSF <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 increase of 18.949M will provide technical and administrative support required to execute classified space-related testing, integrated systems end-to-end testing, expanded management requirements to support the programs at Delta and Headquarters (HQ) levels, and evaluate activities intended to prepare Guardians for near-peer competition on timelines directed by the Secretary of the Air Force, and the Chief of Space Operations. The funding increase will also establish USSF Cyber survivability test teams and associated test unit to support the sustained increased USSF weapon system fieldings			
Accomplishments/Planned Programs Subtotals		51.585	41.678
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 6					R-1 Program Element (Number/Name) PE 1206759SF / Major T&E Investment - Space				Project (Number/Name) 664597 / 664597 - Professional Test Workforce			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
664597: 664597 - Professional Test Workforce	0.000	5.912	4.794	5.104	0.000	5.104	5.113	5.224	5.336	5.443	0.000	36.926
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification This project provides funding for the organizations, training, and activities required to develop a professional space T&E workforce, in conjunction with the USSF Chief Human Capital Officer. Funding primarily supports the development of the Space Test Course (STC) as the United States Air Force (USAF) Test Pilot School (TPS). The STC at USAF TPS will provide graduate-level education for the core space T&E workforce.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: Professional Test Workforce Description: Manage the professional test workforce in conjunction with the USSF Chief Human Capital Officer, including the T&E training opportunities necessary to develop our professional test workforce. FY 2026 Plans: Continue producing Guardians with the necessary expertise in robust survivability testing, procedure validation, full-envelope characterization, and system performance validation. Continue acquiring accreditation to being a degree granting institution. FY 2027 Plans: Continue producing Guardians with the necessary expertise in robust survivability testing, procedure validation, full-envelope characterization, and system performance validation. Continue acquiring accreditation to being a degree granting institution. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase of 310K due to minor budget fluctuations.									5.912	4.794	5.104	
Accomplishments/Planned Programs Subtotals									5.912	4.794	5.104	
C. Other Program Funding Summary (\$ in Millions) N/A Remarks Formerly titled Space Force Test Investments												
D. Acquisition Strategy N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 6					R-1 Program Element (Number/Name) PE 1206759SF / Major T&E Investment - S pace				Project (Number/Name) 664598 / 664598 - National Space Test and Training Complex (NSTTC)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
664598: 664598 - National Space Test and Training Complex (NSTTC)	0.000	158.785	149.505	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	308.290
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Beginning in FY 2027, program was moved into new Program Element 1206617SF, Project 644441, Operational Test & Training Infrastructure.

A. Mission Description and Budget Item Justification

Provide space warfighters with interconnected, scalable, high-fidelity and distributed physical and digital ranges for full-spectrum test and training to develop, validate, and sharpen joint warfighting capabilities necessary to prevail and enable space superiority that is essential to achieve peace through strength.

B. Accomplishments/Planned Programs (\$ in Millions)

Title: NSTTC	FY 2025	FY 2026	FY 2027
Description: Supports the development of the National Space Test & Training Complex (NSTTC) to deliver physical and digital environments, systems, tools and capabilities critical for developmental and operational test, training, exercises, wargames, and tactics development for space systems. Includes development, demonstration, and continuous delivery of test and training, hardware and software that yield the capabilities required to test, validate, and verify performance of integrated space systems and the Guardians that operate them. Provides a safe, secure, and realistic, relevant space-based physical and digital arena for controlled space, ground, and cyber systems to support test and training needs. Capabilities enable Guardian and mission system combat lethality. Cyber Range: Provides live and simulated cyber operations and security test and training. Delivers USSF systems Verification, Validation, and Accreditation (VV&A) to ensure cyber resiliency, security, and interoperability. Electromagnetic Spectrum Operations Range: Provides ground-based system, range control, and on-orbit surrogate for Electromagnetic Warfare (EW), Satellite Communications (SATCOM), and Position Navigation and Timing (PNT) test and training. Orbital Range: Provides sensor and data fusion to enable live, on-orbit Orbital Warfare (OW) test and training. On-orbit range system supports execution of exquisite, discrete demonstrations.	158.785	149.505	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 6	R-1 Program Element (Number/Name) PE 1206759SF / <i>Major T&E Investment - S pace</i>	Project (Number/Name) 664598 / <i>664598 - National Space Test and Training Complex (NSTTC)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Digital Test & Training: Delivers digital environments, connectivity, and cradle-to-grave Modeling and Simulation (M&S) to enable operational test, operator training and tactics development in US Space Force (USSF) and Joint exercises, and wargaming. Consists of framework, applications, physical hardware, simulation, and data management needed to meet operational test and training requirements in accordance with Space Training and Readiness Command (STARCOM) priorities. Infrastructure: Delivers the computer, storage, data management, and connectivity backbone, at all classification levels, to enable an integrated NSTTC framework across Space Force, Joint, and Government owned environments. Consists of facilities support, common network infrastructure, cloud hosting, data centers, platform services and the cybersecurity required to analyze and share data as well as integrate and distribute test and training systems. Provides access to test and training users, range operators, range developers, integrating programs and partners systems. Readiness: Delivers and utilizes virtual environments, connectivity, tools, and applications for USSF and Joint Exercises and Wargames to enable Guardian advanced training and readiness to be presented to the Combatant Commands. Provides materiel solutions to rapidly address short-term Guardian training and tactics capability gaps. FY 2026 Plans: - Continue investments in Cyber, Electromagnetic, and Orbital ranges, including foundational infrastructure development as well as modernization and improvement of existing capabilities to keep current with military priorities, evolving threats, and advanced training involving USSF and joint systems and operations - Continue development of Electromagnetic Spectrum range Command, Control, and Communication (C3), terminal, data generation systems - Continue support to warfighting community of Electromagnetic Warfare (EW) advanced training environment - Continue development of integrated data transport architecture across the ranges - Continue developing digital High-End Advanced Test, Training, and Tactics Development (HEAT3) platform to enable enduring Joint Simulation Environment (JSE)-based digital test and training architecture - Deliver Minimum Viable Product (MVP)-level digital HEAT3 platform for initial JSE integration; deliver and integrate initial set of intel-validated threat models, enabling HEAT3 platform to support test and training relevant to top-priority DoW threat scenario - Continue development of advanced and combat training capabilities for exercises and wargames. Deliver MVP medium fidelity digital capability to support evolved Space Flag requirements. - Continue development of digital range operations via Commercial Solutions Openings (CSOs) FY 2027 Plans: In FY 2027, funds transferred to new Program Element 1206617SF, Project 644441 Operational Test & Training Infrastructure. FY 2026 to FY 2027 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 6	R-1 Program Element (Number/Name) PE 1206759SF / Major T&E Investment - S pace	Project (Number/Name) 664598 / 664598 - National Space Test and Training Complex (NSTTC)		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
FY 2027 decrease of 149.505 million was a result of funds transferred to new Program Element 1206617SF, Project 644441 Operational Test & Training Infrastructure.				
Accomplishments/Planned Programs Subtotals		158.785	149.505	0.000
C. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
D. Acquisition Strategy N/A				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support					R-1 Program Element (Number/Name) PE 1206860SF I Rocket Systems Launch Program (SPACE)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	34.761	65.031	19.965	0.000	19.965	21.163	21.537	21.943	22.380	Continuing	Continuing
661023: Rocket System Launch Program (RSLP)	0.000	34.761	65.031	19.965	0.000	19.965	21.163	21.537	21.943	22.380	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

System Delta 80 is developing, operating, prototyping, and executing the Rocket System Launch Program (RSLP) for Guardians across Space Access, Warfighting, and Combat Support. As a result, the Service will advance space-based technology associated with Golden Dome, deliver space domain awareness capabilities, improve readiness and operational reach of existing force structure, continue to advance all near term effects, and ensure resilient infrastructure, equipment, and personnel.

RSLP provides responsive space and Research, Development, Test and Evaluation (RDT&E) launch vehicle support to the Department of War (DoW) and other government agencies using commercial launch systems and excess ballistic missile assets. The RSLP mission was established by the Secretary of Defense in 1972. The small launch program complements the National Security Space Launch (NSSL) program with multiple options to acquire dedicated spacelift and rideshare services for developmental, demonstration, and small operational space vehicles. It provides mission planning, payload integration, vehicle acquisition, processing, launch operations, booster storage and disposition, aging surveillance, maintenance and logistics support for selected DoW responsive space and RDT&E launches. Costs directly attributable to a specific launch or program (e.g., reliability of flight testing, maintenance of launch vehicle processing infrastructure) are paid by users (Navy, Army, Missile Defense Agency (MDA), Defense Advanced Research Project Agency (DARPA), National Reconnaissance Office (NRO), etc.). RSLP maintains exclusive control of decommissioned Minuteman and Peacekeeper assets used in testing to include refurbishment, transportation and handling, storage, aging surveillance, and launch services. RSLP enhances capacity to provide mid-to-low & polar-to-high inclination orbits as a part of support for national security space programs through Spaceports that are commercially licensed by the Federal Aviation Administration and received funding from the local or State government. RSLP also funds general research, development, prototyping, integration, and supplemental reliability of flight testing efforts for launch to enhance the reliability of a variety of launch vehicles using RSLP motors for suborbital and orbital missions (e.g., updates to the Modular Mechanical Ordnance Destruct System).

While the corresponding RSLP Procurement, Space Force line is set to 0 due to no planned procurements of Space Force funded missions, the activities funded by this RDT&E line are still required to safely store and maintain the RSLP inventory of launch assets.

This program falls within the Launch mission area which provides the launch systems and corresponding ground architecture required to provide assured access to space, the movement of payloads to and from the space domain, and provision a safe and secure range for space launch operations. Program interdependencies include: EELVP (Space) - EMD (1206853SF); National Security Space Launch Program (1203953SF); Space Test Program (1206864SF); SDA Launch Procurement (1203954SF); Space Access, Mobility & Logistics (1203955SF); Spacelift Range System (1203182SF); Tactically Responsive Space (1206862SF).

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1206860SF I Rocket Systems Launch Program (SPACE)				
The FY 2026 spend plan amount for Research, Development, Test & Evaluation, Space Force, Rocket System Launch Program (RSLP) includes 65,031 thousand of discretionary and 60,000 thousand of mandatory (reconciliation) for a total of 125,031 thousand. The mandatory funds will be used to expand the capabilities at the Mid-Atlantic Regional Spaceport to provide a resilient and responsive launch enterprise.						
This program element included all necessary expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605829F, 0605831F, 0605833F, and 0605898F						
This program is in Budget Activity 6, RDT&E Management Support because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		35.134	19.857	0.000	0.000	0.000
Current President's Budget		34.761	65.031	19.965	0.000	19.965
Total Adjustments		-0.373	45.174	19.965	0.000	19.965
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	45.500			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-0.373	-0.118			
• Other Adjustments		0.000	-0.208	19.965	0.000	19.965
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 661023: Rocket System Launch Program (RSLP)						
Congressional Add: State Launched Range Services						
Congressional Add Subtotals for Project: 661023						
Congressional Add Totals for all Projects						
Change Summary Explanation						
Strategic Changes:						
FY 2025: -0.373M for SBIR						
FY 2026: -0.118M for SBIR						
FY 2026: -0.208M for USSF higher priorities						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1206860SF I Rocket Systems Launch Program (SPACE)		
Technical Changes: FY 2026: +45.5M congressional add for state spaceports The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner.				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Storage/Refurbishment/Flight Readiness/Demil Description: Storage, refurbishment, inventory control, and demil/disposal of decommissioned Minuteman, Peacekeeper and other missile flight test assets FY 2026 Plans: Continue storage, refurbishment, inventory control, and demil/disposal of decommissioned Minuteman, Peacekeeper and other missile flight test assets and perform research and development support operations as required. Investigate and develop shipping throughput capacity to maximize opportunity for motor disposal. Continue support activities to include but not limited to sustainment replacement and refurbishment of support equipment, mission support, special studies etc. FY 2027 Plans: To continue storage, refurbishment, inventory control, and demil/disposal of decommissioned Minuteman, Peacekeeper and other missile flight test assets and perform research and development support operations as required. Investigate and develop shipping throughput capacity to maximize opportunity for motor disposal. Continue support activities to include but not limited to sustainment replacement and refurbishment of support equipment, mission support, special studies etc. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased to capture cost savings.		16.097	16.044	15.784
Title: Aging Surveillance Description: Perform aging surveillance-related activities on stored motors FY 2026 Plans: Continue performing aging surveillance-related activities on stored motors; continue performing analysis/studies to identify and evaluate potential safety-related issues affecting stored motors; continue program office support and related support activities such as, but not limited to mission support, special studies, etc. FY 2027 Plans:		2.700	2.985	3.309

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1206860SF I Rocket Systems Launch Program (SPACE)		
C. Accomplishments/Planned Programs (\$ in Millions) To continue performing aging surveillance-related activities on stored motors; continue performing analysis/studies to identify and evaluate potential safety-related issues affecting stored motors; continue program office support and related support activities such as, but not limited to mission support, special studies, etc. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased to capture inflation costs.		FY 2025	FY 2026	FY 2027
Title: Other Launch Support Services Description: Perform Launch Services Activities FY 2026 Plans: Continue launch vehicle acquisition, processing, launch services support including responsive launch, mission assurance, reliability of flight and operations to launch RDT&E payloads. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: To continue launch vehicle acquisition, processing, launch services support including responsive launch, mission assurance, reliability of flight and operations to launch RDT&E payloads. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased to capture inflation costs.		0.964	0.502	0.872
Accomplishments/Planned Programs Subtotals		19.761	19.531	19.965
		FY 2025	FY 2026	
Congressional Add: State Launched Range Services		15.000	45.500	

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>		R-1 Program Element (Number/Name) PE 1206860SF / <i>Rocket Systems Launch Program (SPACE)</i>	
		FY 2025	FY 2026
FY 2025 Accomplishments: Improving Spaceports that are commercially licensed by the Federal Aviation Administration and receive funding from the local or State government. Enhanced capacity to provide mid-to-low inclination orbits and polar-to-high inclination orbits in support of national security space programs.			
FY 2026 Plans: Continue to improve Spaceports that are commercially licensed by the Federal Aviation Administration and receive funding from the local or State government. Enhanced capacity to provide mid-to-low inclination orbits and polar-to-high inclination orbits in support of national security space programs.			
Congressional Adds Subtotals		15.000	45.500
D. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
E. Acquisition Strategy N/A			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support					R-1 Program Element (Number/Name) PE 1206864SF I Space Test Program (STP)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	29.568	28.404	29.598	0.000	29.598	30.675	31.102	31.660	32.294	Continuing	Continuing
662617: Free-Flyer Spacecraft Missions	0.000	29.568	28.404	29.598	0.000	29.598	30.675	31.102	31.660	32.294	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Space Systems Command is executing the Department of War (DoW) Space Test Program (Project 662617) through the Space Access and the Combat Power Enterprise. As a result, the United States Space Force will advance the Department's space capabilities development through institutional processes, principled public servants; space-minded warfighters; and bold and collaborative problem solvers.

This program falls within the Science and Technology (S&T) and Test & Evaluation (T&E) mission area which provides the S&T initiatives, demonstrations, experiments, and studies towards developing next-generation space capabilities. The T&E mission area provides all efforts required to establish and operate the test infrastructure for USSF capabilities. Program interdependencies include:

Defense Research Sciences (0601102SF); Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Innov Intg & Rapid Tech Dev (1203174SF); Space Rapid Capabilities Office (1206857SF); Space Science and Technology (1206310SF); Space Systems Prototype Transition (1206427SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); University Research Initiatives (0601103SF).

The Department of the Air Force (DAF), as the Department's designated Space Test Program (STP) Executive Agent (EA), provides a critical multi-user space program that is essential for national security. America secures peace through strength, and that strength is built on the unyielding technological edge in space forged by strategic investments in the STP. As the Department of War's (DoW) primary gateway for space experimentation, STP is a direct investment in deterring adversaries and ensuring the nation's space superiority. STP provides the primary spaceflight capability to demonstrate, evaluate, and accelerate risk-reducing and advanced technologies in operational space environments. STP is responsible for mission design, spacecraft acquisition, integration, launch, and on-orbit operations for emerging technologies from the entire DoW research community, including the Army, Navy, Air Force, Space Force, National Reconnaissance Office, and other agencies. By centrally financing these critical mission elements, STP offers the most cost-effective way to flight-test new space systems, technologies, and concepts.

Central to STP's mission is the DoW Space Experiments Review Board (SERB), which conducts a rigorous annual review to evaluate and prioritize space experiment proposals to meet joint warfighter needs. This process ensures that STP focuses on cutting-edge technologies with direct military relevance, accelerating their maturation into operational capabilities and providing our troops with a decisive advantage. This strategic approach enables DoW space researchers to:

- Demonstrate Feasibility: Prove the viability of new space systems and technologies through rigorous testing and evaluation, raising their Technology Readiness Levels.
- Improve Operational Design: Characterize the space environment and sensor physics to enhance operational systems and future upgrades.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1206864SF I Space Test Program (STP)				
•Develop Future Capabilities: Provide early operational capabilities to evaluate military utility, mature promising space technologies into operational systems, and quickly respond to new developments. •Foster Innovation and Collaboration: Offer first flight and high-risk tolerance opportunities for new space launch providers, leveraging diverse government, commercial, and international partners to maximize value and accelerate innovation.						
Furthermore, the DAF designates STP as the primary DoW program supporting human spaceflight. STP acts as the single manager for all DoW payloads on National Aeronautics and Space Administration (NASA) manned flights, including the International Space Station. In this role, STP performs or manages all crew training, payload integration, and operations for DoW experiments on NASA manned platforms.						
STP operates in accordance with Executive Orders 10521 and 13185, DoW Instruction 3210.1, and policy from the Office of the Under Secretary of War for Research and Engineering (OUSW(R&E)). STP's role as the primary provider of spaceflight for the DoW research community was reaffirmed by the Deputy Secretary of Defense in July 2002. This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
The FY 2027 request was reduced by \$0.278 million for Advisory and Assistance Services to promote efficiencies and advance the policies of the Administration in alignment with Executive Order 14222, "Implementing the President's Department of Government Efficiency" Cost Efficiency Initiative.						
This program is in Budget Activity 6, RDT&E Management Support because this budget activity includes research, development, test and evaluation efforts and funds to sustain and/or modernize the installations or operations required for general research, development, test and evaluation.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		30.279	28.787	0.000	0.000	0.000
Current President's Budget		29.568	28.404	29.598	0.000	29.598
Total Adjustments		-0.711	-0.383	29.598	0.000	29.598
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-0.711	-0.383			
• Other Adjustments		0.000	0.000	29.598	0.000	29.598
Change Summary Explanation						
The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1206864SF I Space Test Program (STP)		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Payload Integration Description: Integrate payloads onto spaceflight missions on the full spectrum of Department of War (DoW) on-orbit Research & Development (e.g. space vehicle, free-flyer payloads, hosted payloads, etc.). Includes acquisition of associated spacecraft and integration hardware. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 Plans: Complete STP-H11 integration activities and delivery of payload for pre-launch environmental testing. Conduct STP-H12 design and begin integration activities. Complete space-craft integration and launch readiness for STP-S29A (which includes STPSat-7), STP-S30, STP-5 and K2 Gravitas missions. Being planning and manifesting activities for STPSat-8. Continue to work with Tetra-6 program to finish integration of payload onto the host vehicle. Begin integration activities for Air Force Research Laboratory's cislunar Oracle-Prime mission. Initiate planning for the next Space Test Program (STP) launch opportunity as rideshare. Collaborate on technical analysis and other future missions as required. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Complete STP-H12 integration activities and delivery of payload for pre-launch environmental testing. Begin STP-H13 design and begin integration activities. Complete remanifesting actions and continue STP-5 integration activities. Prepare to begin STPSat-8 integration activities. Continue Oracle-Prime integration activities. Continue planning with the National Aeronautics and Space Administration and industry on integration requirements for commercial follow-on space stations to the International Space Station, so that STP can leverage these stations to host DoW Space Experiments Review Board (SERB) experiments; STP-H14 would be the first mission on a commercial station. Initiate planning for the next STP launch opportunity as rideshare. Collaborate on technical analysis and other future missions as required. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement:		16.060	16.504	18.700

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1206864SF I Space Test Program (STP)		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
FY 2027 increased by \$2.196 million due to additional integration activities for STP-H12, STP-H13, Oracle-Prime and emerging launch opportunities for new space experiments.				
Title: Launch Vehicle and Launch Services Description: Purchase launch services, launch vehicles, and launch vehicle support for the full spectrum of Department of War (DoW) on-orbit R&D (e.g. space vehicle, free-flyer payloads, hosted payloads, etc.), enabling spaceflight worthiness and "Do No Harm" certification for Space Systems Command and United States Space Force Headquarters. FY 2026 Plans: Continue to support spaceflight worthiness and "Do No Harm" Certification. Continue STP-5 medium launch initiative, to include purchase of mission unique hardware and services through National Security Space Launch. Plan and complete technical analysis for commercial rideshare launch of DoW SERB experiments and specific international agreement-approved experiments. Complete STPSat-7 (via STP-S29A), STP-30, K2 Gravitas, STP-H10, and STP-H11 launch activities and conduct other launch activities as required. FY 2027 Plans: Continue to support spaceflight worthiness and "Do No Harm" certification for space experiments as rideshare opportunities. Continue STP-5 medium launch initiative into the National Security Space Launch campaign. Conduct STP-H12 launch campaign in accordance with National Aeronautics & Space Administration Commercial Resupply Program to the International Space Station (ISS). Start planning launch campaign of STPSat-8. Continue planning of STP-S29B launch campaign according to launch service provider's readiness. Plan and complete technical analysis for commercial rideshare launch of DoW Space Experiment Review Board (SERB) experiments and specific international agreement-approved experiments. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased by \$0.602 million due to maximizing commercial rideshare opportunities and less dedicated launch campaigns, as well as completion of STP-5 mission unique acquisitions.		11.979	9.900	9.298
Title: On-Orbit Satellite Operations Description: Execute first-year operations and operations support for STP-sponsored missions. FY 2026 Plans: Continue supporting Navigational Technology Satellite-3 (NTS-3) operations. Continue on-going operations for ISS payloads and DoW SERB payloads as requested. Complete on-orbit operations for STP-H10, STPSat-7 and STP-S29A. Support on-		1.529	2.000	1.600

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support</i>		R-1 Program Element (Number/Name) PE 1206864SF / <i>Space Test Program (STP)</i>		
C. Accomplishments/Planned Programs (\$ in Millions) orbit operations of the STP-S30 mission. Begin planning for on-orbit operations for STP-5 payloads, such as Naval Research Laboratory's SIRI-III and Air Force Research Laboratory's PUMA. Initiate on-orbit operations for K2 Gravitas mission. FY 2027 Plans: Complete on-orbit operations and any additional objectives for NTS-3, K2 Gravitas, STP-S29A, STP-S30, STPSat-7 and facilitate transition of satellites with useable life to another organization; likely STARCOM for further use as a test and training asset. Complete on-orbit operations for International Space Station (ISS) payloads, such as STP-H11, and DoW SERB payloads as requested. Work with the Tetra-6 program office to support on-orbit operations. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased by \$0.400 million due to less concurrent on-orbit space experiments, including the cessation of NTS-3 on-orbit operations.		FY 2025	FY 2026	FY 2027
Accomplishments/Planned Programs Subtotals		29.568	28.404	29.598
D. Other Program Funding Summary (\$ in Millions) N/A Remarks E. Acquisition Strategy The Space Test Program (STP) employs a multi-faceted acquisition strategy designed to maximize taxpayer dollars, cultivate a dynamic space industrial base, and leverage commercial, government, and academic partners. This strategy supports space research experiments which are developed, financed, and delivered by various service research laboratories and Department of War (DoW) agencies, and prioritized annually by the independent DoW Space Experiments Review Board (SERB). STP then seeks out the most cost-effective means of spaceflight to maximize the number of experiments flown within the constraints of priority, opportunity, and available funding. For experiments with requirements that cannot be satisfied by auxiliary payload opportunities, STP procures dedicated spacecraft and launch vehicle hardware within the constraints of available funding and according to experiment requirements. These include small and medium launch vehicle-class satellites, as well as small launch vehicle-class boosters and commercial rideshares (previously procured under PE 1206860SF). Medium launch vehicle-class boosters from National Security Space Launch (NSSL) under PE 1206853SF provide medium launch as required. If a service fails to adequately fund a particular experiment, if STP deems the experiment impractical to fly, or if the appropriate spaceflight opportunity becomes unavailable, STP shifts remaining resources to provide spaceflight support for the next highest priority experiment. STP also leverages National Aeronautics and Space Administration (NASA) investments and contracting vehicles, such as using a Task Order on NASA's Research, Engineering & Mission Integration Services (REMIS)-2 contract. STP continues to explore innovative contracting mechanisms, like AFWERX's Strategic Funding Increase, and collaborates with partners like the Air Force Research Lab to leverage existing contracts.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1201212SF I Service-Wide Support (Not Otherwise Accounted For)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	9.073	28.425	0.000	28.425	15.863	4.988	2.651	2.834	0.000	63.834
670220: Datalake & UI/UX Development	0.000	0.000	9.073	28.425	0.000	28.425	15.863	4.988	2.651	2.834	0.000	63.834
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Systems Delta (SYD) 81 is developing, operating and sustaining Datalake & User Interface/User Experience (UI/UX) (Project 670220) for Guardians across Combat Power, Enterprise Management and Information Technology, Space Domain Awareness, Launch, Position Navigation and Timing, Satellite Communications, Weather, and Science & Technology and Test & Evaluation. As a result, the Service will improve operational readiness of existing force structure through the resilient infrastructure, equipment, and personnel training.

In FY 2027, the Department of the Air Force transferred funding from PE 0605018F, Project 676003, HRM Structural Development, to PE 1201212SF, project 670220, based on the orderly and expeditious shutdown of the Air Force Integrated Personnel and Pay System (AFIPPS) program which was funded in PE 0605018F, to fund critical initiative activity to implement Personnel Management Act (PMA) Human Resource (HR) Information Technology (IT) Automation and develop a data layer within the existing Air Force Human Resources structure that can be utilized to meet current and future Space Force needs.

This Program Element includes two Service-Wide Space Force lines of effort (LOEs), Space Force Personnel Management Act (PMA) Human Resource (HR) Information Technology (IT) Automation and the Continuous Fitness Assessment (CFA) wearables. LOE 1 is divided into LOE-1a and LOE-1b to develop the Guardian Automation and Guardian data layers required to support PMA compliance, and LOE 2 is for the CFA wearables program.

LOE 1a Guardian Automation Layer: This program continues to implement the Space Force Personnel Management Act (PMA) IAW 10 U.S.C. Ch 2001 Sec. 20001 and FY2024 NDAA "All members of the Space Force shall be managed through a single personnel management system without component". This will be accomplished with the development of PMA HR IT Automation Layer to deliver modernized Human Resources capabilities to meet current and future Space Force needs. This development will provide the United States Space Force (USSF) with a cohesive capability for readiness presentation, manpower analysis, and Guardian HR actions across full time and part time Guardian work roles.

LOE 1b Guardian Data Layer: The program continues to implement the Guardian Data Layer that serves as the foundational link between the Automation Layer and the Department of the Air Force HR data structures. The capability will provide the USSF with a single authoritative data source for all Guardian HR data and create a seamless and integrated enterprise experience.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		PE 1201212SF I Service-Wide Support (Not Otherwise Accounted For)				
LOE 2 Continuous Fitness Assessment: This program continues Air Force Research Laboratory's (AFRLs) CFA program within USSF program office and oversight from HQ Space Force staff. Funds development and delivery of wearable fitness tools and software to Guardians to promote holistic health for the CFA. Supports AFRL studies for Department of War holistic health and wearable technologies.						
This program falls within the Enterprise Management & Information Technology mission area. Enterprise Management provides the personnel and infrastructure required to manage USSF headquarters functions at the service and field command levels, including the Space Service Acquisition Executive for Space Systems and Programs, Office of the Assistant Secretary for Space Acquisition and Integration, the Office of the Chief of Space Operations (OCSO), the Space Staff, and Secretariat. Information Technology includes the IT infrastructure required for the USSF to acquire, sustain, and operate its assets. Space Force investment program interdependencies include: RDT&E Budget Line Items: Acq Workforce - Space & Missile Sys (1206392SF); Headquarters U.S. Space Force (1209398SF); Space & Missile Systems Center - MHA (1206398SF); Space Security and Defense Program (1206730SF); Space Warfighting Analysis (1203622SF); 1206399SF (SSC Enterprise & Integration; Commercial Services (1206771SF); and elements of Procurement Budget Line Items: USSF Vehicles (SFV000); General Information Tech - Space (GNRLIT)						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver Space and Ground Based SDA and Ground Based Optical system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. For Space Based SDA in PY 0.225M was expended for civilian pay expenses in this program element, and in CY 0.225M is forecasted for civilian pay expenses in this program element.						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		0.000	18.451	0.000	0.000	0.000
Current President's Budget		0.000	9.073	28.425	0.000	28.425
Total Adjustments		0.000	-9.378	28.425	0.000	28.425
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-9.226			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	-0.152			
• Other Adjustments		0.000	0.000	28.425	0.000	28.425
Change Summary Explanation						
Strategic						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1201212SF I Service-Wide Support (Not Otherwise Accounted For)		
FY2026: The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner. Technical FY2026: -9.226 million Congressional directed reduction for lack of adequate justification.				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Datalake and UI/UX Development		0.000	9.073	28.425
Description: Develop and prototype Datalake and UI/UX systems including studies, analyses, risk reduction, and technology maturation of human capital management sytems.				
FY 2026 Plans: Conduct market research and evaluate available commercial technologies with multiple vendors to enable risk reduction across cost, schedule, and performance. Develop, demonstrate and prototype a user interface and experience capable of meeting unique Space Force Human Resources (HR) needs under the Personnel Management Act (PMA) including studies, analyses, risk reduction, technology maturation, designs, demonstrations, and prototyping. Conduct preliminary integration studies and mature selected platform though continuous configuration development as PMA centric policies are finalized.				
FY 2027 Plans: -LOE 1a: Continue development of Space Force Human Resources (HR) Automation and user interface -LOE 1b: Continue integration of Space Force data elements with Air Force and DoW data sources -LOE 2: Continue development and delivery of wearable fitness tools and software to Guardians				
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increased due to funding transfer from PE 0605018F, Project 676003, HRM Structural Development, to PE 1201212SF, project 670220, to fund critical USSF activity to implement Personnel Management Act (PMA) Human Resource (HR) Information Technology (IT) Automation and develop a data layer within the existing Air Force Human Resources structure that can be utilized to meet current and future Space Force needs.				
Accomplishments/Planned Programs Subtotals		0.000	9.073	28.425
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy The program office will leverage Software Acquisition Pathway and Commercial Solutions Openings to deliver Human Resources (HR) Information Technology (IT) applications and fitness devices to meet the service needs.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1201212SF / Service-Wide Support (Not Otherwise Accounted For)				Project (Number/Name) 670220 / Datalake & UI/UX Development					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
LOE 1a: Guardian Automation Layer	Various	TBD : TBD	-	-		4.205	Jun 2026	8.485	Jun 2027	-		8.485	Continuing	Continuing	-
LOE 1b: Guardian Data Layer	Various	TBD : TBD	-	-		3.372	Jun 2026	6.736	Jun 2027	-		6.736	Continuing	Continuing	-
LOE 2: Continuous Fitness Assessment Wearables	Various	TBD : TBD	-	-		0.000		4.290	Jan 2027	-		4.290	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		-		1.038	Oct 2026	-		1.038	Continuing	Continuing	-
Subtotal			-	-		7.577		20.549		-		20.549	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Not specified. : TBD	-	-		0.000		0.000		-		0.000	Continuing	Continuing	-
A&AS	TBD	Not specified. : TBD	-	-		1.496	Sep 2026	5.370	Nov 2026	-		5.370	Continuing	Continuing	-
Other (CIVPAY)	TBD	Not specified. : TBD	-	-		0.000		2.506	Nov 2026	-		2.506	Continuing	Continuing	-
Subtotal			-	-		1.496		7.876		-		7.876	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		9.073		28.425		-		28.425	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026							
Appropriation/Budget Activity 3620F / 7								R-1 Program Element (Number/Name) PE 1201212SF / Service-Wide Support (Not Otherwise Accounted For)								Project (Number/Name) 670220 / Datalake & UI/UX Development			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
LOE 1a: Guardian Automation Layer																												
1																												
LOE 1b: Guardian Data Layer																												
1																												
LOE 2: Continuous Fitness Assessment Wearables																												
1																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1201212SF / Service-Wide Support (Not Otherwise Accounted For)	Project (Number/Name) 670220 / Datalake & UI/UX Development

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
LOE 1a: Guardian Automation Layer				
1	4	2026	4	2029
LOE 1b: Guardian Data Layer				
1	4	2026	4	2029
LOE 2: Continuous Fitness Assessment Wearables				
1	2	2027	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203001SF I Family of Advanced BLoS Terminals (FAB-T)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	2.582	0.303	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.885
673035: <i>Presidential and National Voice Conferencing</i>	0.000	1.978	0.303	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.281
673040: <i>Force Element Terminal</i>	0.000	0.604	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.604

A. Mission Description and Budget Item Justification

Activities funded in this program element continue to pay for AN/USQ-225 integration into multiple legacy systems, other ongoing NC3 acquisition programs, and future capabilities for the overall AF NC3 WS.

The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) - Command Post Terminal (CPT), Presidential and National Voice Conferencing (PNVC) Integrator, and Force Element Terminal (FET) programs - transitioned from AFPEO/SP to AFPEO/NC3 effective December 2018.

FY 2027 transfer of FAB-T CPT program from Space Force (PE 1203001SF / Project 672490 / Appropriation 3620 / Research, Development, Test, and Evaluation) to Air Force (PE 0303131F, Project 672490 / Appropriation 3600 / Research, Development, Test, and Evaluation) Transfer Memo signed 18 Dec 2025.

The FAB-T - Command Post Terminal (FAB-T CPT) project replaces legacy Milstar (AFCPT) terminals and will provide Extremely High Frequency (EHF) protected high data rate communication for nuclear and conventional forces to include PNVC. FAB-T CPT will provide this new, highly secure, state-of-the-art capability for Department of War (DoW) platforms to include strategic platforms and airborne/ground command posts via Milstar, and Advanced EHF (AEHF), and Evolved Strategic SATCOM (ESS) satellite constellations. FAB-T CPTs will also support the critical command and control (C2) of the Milstar, Advanced EHF (AEHF), and Evolved Strategic SATCOM (ESS) satellite constellations.

FY 2027 transfer of \$0.311M for PNVC from Space Force (PE 1203001SF / Project 673035 / Appropriation 3620 / Research, Development, Test, and Evaluation) to Air Force (PE 0303131F, Project 673035 / Appropriation 3600 / Research, Development, Test, and Evaluation) Transfer Memo signed 18 Dec 2025.

The Presidential and National Voice Conferencing (PNVC) Integrator project is a critical element of the Nuclear Command, Control, and Communications (NC3) System. PNVC integrator replaces the Survivable Emergency Conferencing Network (SECN) capability, and will provide anti-jam, anti-scintillation, survivable, and enduring voice communications via AEHF and ESS satellite constellations for national and strategic users. There are several components being developed and procured by other organizations that must be synchronized to expeditiously field the capability. The PNVC Integrator is responsible for end-to-end integration of these components, to include requirements traceability, end-to-end system testing, configuration and checkout activities, training and technical manuals, network transition support, identification of deficiencies in overall PNVC system capability, enterprise, and life cycle support for PNVC components. The AFPEO/SP approved entry into the acquisition lifecycle as a post MS-A Acquisition Category (ACAT) III Program of Record in January 2016. Starting in December 2018, PNVC Integrator became

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1203001SF I Family of Advanced BLoS Terminals (FAB-T)	
responsible for the funding requests of all program elements related to the Defense Information Systems and Agency (DISA) components of the PNVC System in accordance with FY 2018 National Defense Authorization Act, Sec. 1661. In March 2019, the AFPEO/NC3 declared the PNVC Integrator an ACAT II Program based on the inclusion of DISA funding in the program budget. FY 2026 transfer of \$67.793M from Space Force (PE 1203001SF / Project 673040 / Appropriation 3620 / Research, Development, Test, and Evaluation) to Air Force (PE 0303131F, Project 673040 / Appropriation 3600 / Research, Development, Test, and Evaluation) Transfer Memo signed 12 Nov 2024. The FAB-T FET program replaces the Ultra High Frequency (UHF) Milstar terminals and provides secure, protected, and survivable communications for the strategic warfighter through airborne-based Military Satellite Communication (MILSATCOM) terminals. The FAB-T FET will provide worldwide nuclear and non-nuclear, survivable, anti-jam Low Probability of Detect (LPD)/ Low Probability of Intercept (LPI) data and voice communications. The FAB-T FET will be interoperable with Advanced Extremely High Frequency (AEHF), Enhanced Polar Systems - Recapitalization (EPS-R), and satellite constellations utilizing waveforms and will be installed on the B-52 aircraft (threshold). FAB-T FET was designated as a Middle Tier of Acquisition (MTA) in February 2019. The FY 2026 cost of the FAB-T FET Middle Tier of Acquisition effort is reflected in the budget request, including RDT&E and procurement of prototype. The Department will certify Future Year Defense Program funding in a future budget submission. FAB-T FET is planned to transition to the Major Capability Acquisition (MCA) Pathway at Milestone C. This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program's funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2025 0.000M was expended for civilian pay expenses in this program element, and in FY 2026 0.000 is forecasted for civilian pay expenses in this program element. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		PE 1203001SF I Family of Advanced BLoS Terminals (FAB-T)			
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	2.607	0.303	0.000	0.000	0.000
Current President's Budget	2.582	0.303	0.000	0.000	0.000
Total Adjustments	-0.025	0.000	0.000	0.000	0.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.025	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203001SF / Family of Advanced BLoS Terminals (FAB-T)				Project (Number/Name) 673035 / Presidential and National Voice Conferencing			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
673035: Presidential and National Voice Conferencing	0.000	1.978	0.303	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	2.281
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Presidential and National Voice Conferencing (PNVC) Integrator project is a critical element of the Nuclear Command, Control, and Communications (NC3) System. PNVC integrator replaces the Survivable Emergency Conferencing Network (SECN) capability, and will provide anti-jam, anti-scintillation, survivable, and enduring voice communications via Milstar, Advanced EHF, and ESS satellite constellations for national and strategic users. There are several components being developed, procured and updated by other organizations that must be synchronized to expeditiously field this capability. The PNVC Integrator is responsible for end-to-end integration of these components, to include requirements traceability, end-to-end system testing, configuration and checkout activities, training and technical manuals, network transition support, identification of deficiencies in overall PNVC system capability, enterprise, and life cycle support for PNVC components. The AFPEO/SP approved entry into the acquisition life-cycle as a post MS-A Acquisition Category (ACAT) III Program of Record in January 2016. In March 2019 the AFPEO/NC3 declared the PNVC Integrator an ACAT II Program based on updated approved budget request.

Starting in December 2018 PNVC Integrator became responsible for the funding requests of all program elements related to the Defense Information Systems and Agency (DISA) components of the PNVC System in accordance with FY 2018 National Defense Authorization Act, Sec. 1661. In October 2021, PNVC completed Milestone B/C.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: PNVC Integrator	1.978	0.303	0.000
Description: PNVC is the SECN replacement capability which provides anti-jam, anti-scintillation, survivable, and endurable voice communications via Milstar, Advanced EHF, and ESS satellite constellations for national and strategic users. The PNVC capability consists of constituent programs being developed and produced by other organizations. This program will integrate, test, and support configuration of hardware from these other programs. PNVC components will be installed at ground fixed and mobile command locations as well as three aircraft platforms.			
FY 2026 Plans: The PNVC Integrator will continue to conduct integration and checkout activities and training at remaining operational sites world-wide and continue to work closely with the applicable sustainment organizations, as they make their preparations for becoming responsible for PNVC sustainment, engineering, and maintenance.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7				R-1 Program Element (Number/Name) PE 1203001SF / Family of Advanced BLoS Terminals (FAB-T)				Project (Number/Name) 673035 / Presidential and National Voice Conferencing				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2025	FY 2026	FY 2027
PNVC Integrator activities will include, but are not limited, to program office support, test execution, deficiency resolution, logistics and sustainment support planning, component product support, risk reduction activities, technical analysis and studies, platform integration and support at final locations, and integration of laboratory support. PNVC will continue to support component fielding, conduct site integration and checkout, finish integrated developmental activities, and prepare for Initial Operational Capability followed by Full Operational Capability. Multi-Service Operational Test and Evaluation (MOT&E) concluded in FY 2025. Software maturation will now extend into FY 2026.												
FY 2027 Plans: In FY 2027 the PNVC Integrator transfers to the Air Force (PE 0303131F, Project 673035, Appropriation 3600), refer to it FY2027 Plans.												
FY 2026 to FY 2027 Increase/Decrease Statement: Decrease due to FY 2027 transfer to the Air Force (PE 0303131F, Project 673035, Appropriation 3600).												
Accomplishments/Planned Programs Subtotals										1.978	0.303	0.000
Other Service Funding Adjustment										-	-	0.000
Air Force Subtotals										1.978	0.303	0.000
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost	
• SPSF 01 FBLOST FAB-T: FAB-T	15.589	13.693	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing	
• SPSF 01 FBLOST PNVC: FAB-T	1.675	1.711	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing	
• SPSF 01 FET000: FAB-T	210.155	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	210.155	
• RDTE 07 FET: FAB-T	0.604	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	0.604	
• RDTE 07 FAB-T CPT: FAB-T	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	0.000	
• RDTE 07 FAB-T FET:	-	67.793	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing	
Minimum Essential Emergency Communications Network (MEECN)												
• APAF 05 CVR000: FAB-T FET	-	79.836	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing	
Remarks												
D. Acquisition Strategy												
PNVC Acquisition Strategy: On May 15, 2015 the Deputy Secretary of Defense assigned the PNVC End-to-End Integration responsibility to the DAF; effective May 16, 2015, SAF/AQ designated the AFPEO/SP. In March 2019 the AFPEO/NC3 declared the PNVC Integrator an ACAT II Program based on updated approved budget												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203001SF / <i>Family of Advanced BLoS Terminals (FAB-T)</i>	Project (Number/Name) 673035 / <i>Presidential and National Voice Conferencing</i>
request. The PNVC End-to-End Integrator program is responsible for requirements traceability, End-to-End system testing, site configuration activities, training and technical manuals, network transition support, identifying deficiencies in the PNVC capability, and enterprise and life cycle support for all PNVC components. Starting in December 2018 PNVC Integration is responsible for all program elements' requests for funding related to the Defense Information Systems and Agency (DISA) components of the PNVC System in accordance with FY 2018 National Defense Authorization Act, Sec. 1661. PNVC will continue to support component fielding, conduct site integration and checkout, and prepare for and execute integrated developmental test activities in advance of the PNVC system Full Operating Capability. Beginning in FY2020, all PNVC funds were transferred from DISA to Project 673035, for execution.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026					
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203001SF / Family of Advanced BLoS Terminals (FAB-T)						Project (Number/Name) 673035 / Presidential and National Voice Conferencing					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract		
PNVC Prime Contract	Various	Raytheon : Largo, FL	-	1.478	Oct 2024	-		-		-		-	Continuing	Continuing	-		
PNVC Technical Mission Analysis	Various	Various : Various	-	-		-		-		-		-	Continuing	Continuing	-		
PNVC Enterprise SE&I	Various	Various : Various	-	-		-		-		-		-	Continuing	Continuing	-		
Subtotal			-	1.478		-		-		-		-	Continuing	Continuing	N/A		
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total					
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract		
PNVC FFRDC	Various	Various : Various	-	-		-		0.000	Oct 2026	-		0.000	Continuing	Continuing	-		
PNVC A&AS	Various	Various : Various	-	0.500	Nov 2024	0.303	Nov 2025	0.000	Nov 2026	-		0.000	Continuing	Continuing	-		
PNVC Other Support	Various	Various : Various	-	-		-		-		-		-	Continuing	Continuing	-		
Subtotal			-	0.500		0.303		0.000		-		0.000	Continuing	Continuing	N/A		
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract		
Cost Category Subtotals			-	1.978		0.303		0.000		-		0.000	Continuing	Continuing	N/A		
Other Service Funding Adjustment			-	-		-		0.000		-		0.000			-		
Project Cost Totals			-	1.978		0.303		0.000		-		0.000	Continuing	Continuing	-		
Remarks																	

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 7					PE 1203001SF / Family of Advanced BLoS Terminals (FAB-T)					673035 / Presidential and National Voice Conferencing			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
PNVC Integrator																												
Training/Installation and Checkout																												
Software Maturation																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203001SF / Family of Advanced BLoS Terminals (FAB-T)	Project (Number/Name) 673035 / Presidential and National Voice Conferencing	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>PNVC Integrator</i>				
Training/Installation and Checkout	1	2025	4	2027
Software Maturation	1	2025	4	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203001SF / Family of Advanced BLoS Terminals (FAB-T)				Project (Number/Name) 673040 / Force Element Terminal			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
673040: Force Element Terminal	0.000	0.604	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.604
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
The FAB-T - Force Element Terminal (FAB-T FET) program replaces the Ultra High Frequency (UHF) Milstar terminal and provides secure, protected, and survivable communications for the strategic warfighter through airborne-based Military Satellite Communication (MILSATCOM) terminals. The FAB-T FET will provide worldwide nuclear and non-nuclear, survivable, anti-jam Low Probability of Detect (LPD)/ Low Probability of Intercept (LPI) data and voice communications. The FAB-T FET will be interoperable with Advanced Extremely High Frequency (AEHF), Enhanced Polar Systems - Recapitalization (EPS-R), and satellite constellations utilizing waveforms and will be installed on the B-52 aircraft (threshold). FAB-T FET was designated as a Middle Tier of Acquisition (MTA) in February 2019 and is expected to be designated as Major Capability Acquisition at Milestone C.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: FAB-T FET									0.604	0.000	0.000	
Description: Continue development of FETs. Development activities include, but are not limited to, FAB-T FET design, development, and qualification testing.												
FY 2026 Plans: N/A												
FY 2027 Plans: N/A												
FY 2026 to FY 2027 Increase/Decrease Statement: N/A												
Accomplishments/Planned Programs Subtotals									0.604	0.000	0.000	
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost	
• SPSF 01 FBLOST FAB-T: FAB-T	15.589	13.693	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing	
• SPSF 01 FBLOST PNVC: FAB-T	1.675	1.711	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing	
• SPSF 01 FET000: FAB-T	210.155	0.000	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing	
• RDTE 07 PNVC: FAB-T	2.003	0.303	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing	

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force									Date: April 2026		
Appropriation/Budget Activity 3620F / 7				R-1 Program Element (Number/Name) PE 1203001SF / Family of Advanced BLoS Terminals (FAB-T)				Project (Number/Name) 673040 / Force Element Terminal			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• RDTE 07 FAB-T CPT: FAB-T	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	0.000
• RDTE 07 FAB-T FET: Minimum Essential Emergency Communications Network (MEECN)	-	67.793	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
• APAF 05 CVR000: FAB-T FET	-	79.836	0.000	-	0.000	0.000	0.000	0.000	-	Continuing	Continuing
Remarks											
FY 2026 transfer from Space Force (PE 1203001SF / Project 673040 / Appropriation 3620 / Research, Development, Test, and Evaluation) to Air Force (PE 0303131F, Project 673040 / Appropriation 3600 / Research, Development, Test, and Evaluation) Transfer Memo signed 12 Nov 2024.											
D. Acquisition Strategy											
FAB-T FET Acquisition Strategy: Per the Acquisition Strategy Panel briefed to SAF/AQ on February 7, 2019, FAB-T FET pursued a Rapid Prototyping development Middle Tier Acquisition approach of the National Defense Authorization Act for FY 2016. This Rapid Prototyping program enabled FAB-T FET to accelerate the nominal program development timeline in support of an accelerated USSTRATCOM-requested Initial Operating Capability. FAB-T FET awarded a development effort on January 16, 2020 to develop, build, and test prototypes and test terminals. This Rapid Prototyping effort enabled FAB-T FET to develop, install, and obtain test data from early B-52 FAB-T FET prototypes which will also have residual operations capability. The overall development effort includes system design and build of sufficient test assets to allow for expeditious development, testing, qualification and integration support of the FAB-T FET capability. FAB-T FET will meet B-52 platform requirements to support USSTRATCOM's Strategic Nuclear Command Control and Communication (NC3) mission. On January 4, 2023, SAF/SQ approved the FAB-T FET Milestone C Acquisition Strategy which establishes the plan for the program to transition to the Major Capability Acquisition Pathway at Milestone C. Additionally, the program will begin Low-Rate Initial Production at Milestone C.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)				Project (Number/Name)					
3620F / 7						PE 1203001SF / Family of Advanced BLoS Terminals (FAB-T)				673040 / Force Element Terminal					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FAB-T FET Development Contracts	Various	Raytheon : Marlborough, MA	-	0.401	Dec 2024	-		-		-		-	Continuing	Continuing	-
FAB-T FET Technical Mission Analysis	Various	Various : Various	-	0.103	Dec 2024	-		-		-		-	Continuing	Continuing	-
FAB-T FET Enterprise SE&I	Various	Various : Various	-	-		-		-		-		-	Continuing	Continuing	-
*Reprogrammed Funds	TBD	Not specified. : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Subtotal			-	0.504		-		-		-		-	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FAB-T FET Test & Evaluation and Assets	Various	Various : Various	-	0.100	Dec 2024	-		-		-		-	Continuing	Continuing	-
Subtotal			-	0.100		-		-		-		-	Continuing	Continuing	N/A
			Prior Years	FY 2025	FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			-	0.604		-		-		-		-	Continuing	Continuing	N/A
Remarks															
Beginning in FY 2025, support activities for this program are funded by P-1 Line Item FET000.															
FAB-T FET was transferred from Space Force (PE 1203001SF / WSC FET000 / Appropriation 3022 / PSF) to Air Force (PE 0303131F / WSC CVR000 / Appropriation 3010 / APAF), Transfer Memo signed 12 Nov 2024.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026																			
Appropriation/Budget Activity 3620F / 7										R-1 Program Element (Number/Name) PE 1203001SF / Family of Advanced BLoS Terminals (FAB-T)										Project (Number/Name) 673040 / Force Element Terminal									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
FET																												
FAB-T FET Development																												
FAB-T FET Prototype and Test Asset Testing																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203001SF / Family of Advanced BLoS Terminals (FAB-T)	Project (Number/Name) 673040 / Force Element Terminal

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
FET				
FAB-T FET Development	1	2025	4	2025
FAB-T FET Prototype and Test Asset Testing	1	2025	4	2025

Note
FAB-T FET was transferred from Space Force (PE 1203001SF / WSC FET000 / Appropriation 3022 / PSF) to Air Force (PE 0303131F / WSC CVR000 / Appropriation 3010 / APAF), Transfer Memo signed 12 Nov 2024. FAB-T FET Terminal Production projected to begin Q2 FY 2026.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					PE 1203040SF I DCO-Space							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	101.374	97.997	481.251	0.000	481.251	492.777	511.136	532.079	544.499	Continuing	Continuing
673070: Defensive Cyber Ops - Space	0.000	101.374	97.997	481.251	0.000	481.251	492.777	511.136	532.079	544.499	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The 6th Sustainment Squadron is developing, prototyping, deploying, sustaining and operating Defensive Cyber Operations - Space (DCO-S) (Project 673070) for Guardians across Combat Power, Enterprise Management and Information Technology, Space Domain Awareness, Launch, Position Navigation and Timing, Satellite Communications, Weather, and Science & Technology and Test & Evaluation. As a result, the Service will deter, neutralize, defeat and/or destroy counterspace threats, improve readiness and operational reach of existing force structure, integrate Allies, partners, and commercial space to USSF units which will result in resilient Infrastructure, equipment, and personnel.

The Defensive Cyberspace Operations Space (DCO-S) program delivers advanced defensive cyber capabilities to safeguard United States Space Force (USSF) mission systems, including their computer systems, software applications, spacecraft and sensitive operational data against unauthorized access, corruption, or destruction. The program develops and deploys defensive cyberspace capabilities, network security, damage assessment and recovery, cyber threat detection and mitigation, and active response strategies to address evolving threats and changes in the cyber environment. The program is transitioning Space Vehicle Defense from demonstration and development to deployment. These objectives are achieved through research, development, testing, and acquisition in areas such as proactive defense, defensive counter cyberspace, cyberspace intelligence, surveillance and reconnaissance (ISR), command and control situational awareness, persistent network operations, decision support, recovery, and digital forensics. In addition, this program element supports the integration, testing and sustainment of classified efforts to enable advanced USSF cyberspace warfare operations. The program is managed by the 6th Sustainment Squadron (6 STS) under Mission Delta 6.

The FY 2027 request increases significantly to more than double planned DCO-S deployments, including the added responsibility for mission system integration efforts, fully funds the Space Vehicle Defense project to pivot from development to deployment, and integration, testing and sustainment of classified efforts to enable advanced USSF cyberspace warfare operations.

DCO-S employs a Development/Security/Operations (DEVSECOPS) framework for ground segment tool development, leveraging the Software Acquisition Pathway (SWP) Adaptive Acquisition Framework. This approach integrates security best practices into modern development workflows and toolchains. The program focuses on two primary product lines: Manticore(Detect & Identify) and Kraken(Protect & Respond). These tools aim to establish shared platform, infrastructure, and data layer solutions to support open frameworks and architectures across the enterprise ground portfolio. Both Manticore and Kraken utilize open-source and commercial tools, customized to address space-specific requirements such as protocol analytics. Due to the unique nature of USSF systems, tailored solutions are necessary to address threats effectively, as no commercial off-the-shelf products meet these specialized needs.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203040SF / <i>DCO-Space</i>
DCO-S enables Mission Delta 6, cyberspace squadrons, and Joint Force personnel to conduct cyber-integrated space operations that detect, identify, protect against, respond to, and recover from malicious threats targeting space mission systems. The program deploys out-of-band (Manticore) and in-band (Kraken) cyber defense tool suites to safeguard mission systems supporting critical operations, including Protected Communications, Missile Warning, Military Strategic Communications (MILSATCOM), Position Navigation and Timing (PNT), Ballistic Missile Command and Control, Space Domain Awareness (SDA), Nuclear Command Control and Communications (NC3), Orbital Warfare, Electronic Warfare, and Command and Control Satellite Operations (C2 Sat Ops). To address dynamic cyber threats, DCO-S software development must continuously evolve to onboard classified mission systems and integrate new data types beyond the baseline software. Additionally, the program advances Wide Area Network development to meet security, sustainment, and reach-back requirements for the USSF Cybersecurity Service Provider, ensuring robust and adaptive cyber defense capabilities for the Space Force. This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D. This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 1206392SF, 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. This program falls within the Multi-Mission mission area which provides the systems and efforts that evenly contribute to multiple mission areas across the space enterprise. Space Force investment program interdependencies include: RDT&E Budget Line Items: Rapid Resilient Command and Control (1206772SF); Satellite Control Network (1203110SF); Space and Missile Test and Evaluation (1203173SF; Space Force IT, Data Analytics, Digital (1203010SF); and elements of Procurement Budget Line Items: AF Satellite Comm System (AFSCOM); Spaceborne Equip (Comsec) (MC0MSE); Spares and Repair Parts (SSPARE); Space Digital Integrated Network (SDN000) This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203040SF I DCO-Space				
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	
Previous President's Budget	104.088	102.439	0.000	0.000	0.000	
Current President's Budget	101.374	97.997	481.251	0.000	481.251	
Total Adjustments	-2.714	-4.442	481.251	0.000	481.251	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	0.000	-4.442				
• Congressional Rescissions	0.000	0.000				
• Congressional Adds	0.000	0.000				
• Congressional Directed Transfers	0.000	0.000				
• Reprogrammings	0.000	0.000				
• SBIR/STTR Transfer	-2.714	0.000				
• Other Adjustments	0.000	0.000	481.251	0.000	481.251	
Change Summary Explanation						
Strategic:						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
Technical:						
FY 2026: -3M Congressional Direct Reduction for product line integration previously funded						
FY 2026: - 1.442M Section 8151 SBIR reduction						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Defensive Cyberspace Operations - Space (DCO-S)				101.374	97.997	481.251
Description: Funding supports cyber hardening DCO-S activities for the space enterprise. Provides space enterprise defensive cyber solutions to counter advanced persistence cyber threats, through rapid fielding of combat-ready capabilities using an agile methodology.						
FY 2026 Plans:						
Continue to expand the development, deployment, tuning, and capability of DCO-S and field to an additional 25 mission area locations (14 Manticore and 11 Kraken product lines) based on operational/user priorities; build, test, and deliver valuable features at a faster pace to meet growing demands of cyber defenders. Continue to scale development and deployment teams to increase emphasis on cyber threat recognition, information sharing, and active response methodologies to combat evolving threats and prepare for inevitable changes to the cyber domain. Augment platform, upgrade databases for all product-line documentation, grow infrastructure support of existing codebase, and operationally accept the DCO-S cloud environment to facilitate support to						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203040SF / DCO-Space		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Joint Cyber Warfare Architecture (JCWA). Achieve multi-year Authority to Operate for the DCO-S MVP, measure performance against the Operational Capability Needs Statement, and obtain Operational Acceptance. Continue to develop technical documentation, perform integration activities and tuning support, and finalize plans for product support and sustainment. Increase deployment activities to on-board additional mission systems at a faster pace to ensure complex classified systems are protected sooner. Support cyber exercises and training to help reduce vulnerabilities within existing product lines. Fund efforts to allow independent security researchers to report security exploits, issues, and hardware flaws which increases the chances that bugs are found and reported before malicious attacks occur. Maintain systems engineering, development infrastructure, and accreditation support to provide internal test and accreditation plans for security hardening and risk assessments to ensure product line software has optimum security features, countermeasures, and safeguards in place. Maintain modern and automated testing methodologies based on industry best practices. FFRDCs and other management services will continue to provide mission assurance to identify Tactics, Techniques, and Procedures (TTPs) and provide users with space-based training while future proofing systems with the latest technology. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Continue to expand the development, deployment, tuning, and capability of DCO-S and field to an additional 60 mission area locations (29 Manticore and 31 Kraken product lines) based on operational/user priorities; build, test, and deliver valuable features at a faster pace to meet growing demands of cyber defenders. Continue to scale development and deployment teams to increase emphasis on cyber threat recognition, information sharing, and active response methodologies to combat evolving threats and prepare for inevitable changes to the cyber domain. Augment platform, upgrade databases for all product-line documentation, grow infrastructure support of existing codebase, and operationally accept the DCO-S cloud environment to facilitate support to Joint Cyber Warfare Architecture (JCWA). Achieve multi-year Authority to Operate for the DCO-S Minimum Viable Capability Release (MVCR), and measure performance against the Operational Capability Needs Statement.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force / BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203040SF / DCO-Space		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Continue to develop technical documentation, perform integration activities and tuning support, and finalize plans for product support and sustainment. Increase deployment activities to on-board additional mission systems at a faster pace to ensure complex classified systems are protected sooner. Support cyber exercises, training, and independent testing to help reduce vulnerabilities within existing product lines. Fund efforts to allow independent security researchers to report security exploits, issues, and hardware flaws which increases security posture software solution DCO-S MVCR. Transform the Manticore platform by adopting a modular architecture, enabling the rapid assembly of tailored solutions that meet the precise needs of the end user, and positioning the organization for success in a rapidly changing cyber threat environment. Develop technical documentation, obtain ATO, perform integration and tuning support, and finalize plans for product support and sustainment for space vehicle cyber defense (SVD). Support the integration of SVD products on-board space vehicles, requiring continuous development to meet the mission specific environment as well as adapt to evolving threat environments. Provide on-going systems engineering support. Maintain systems engineering, development infrastructure, and accreditation support to provide internal test and accreditation plans for security hardening and risk assessments to ensure product line software has optimum security features, countermeasures, and safeguards in place. Maintain modern and automated testing methodologies based on industry best practices. FFRDCs and other management services will continue to provide advanced mission expertise through the development of advanced analytics and machine learning to augment the identification of adversarial tactics, techniques, and procedures and provide Guardians with space-based training while future proofing systems with the latest technology. Conduct integration, testing, and sustainment of classified USSF cyberspace warfare capabilities. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase due to additional DCO-S deployments, added responsibility for mission system integration efforts, Space Vehicle Defense pivoting from development to deployment, and integration, testing and sustainment of classified efforts to enable advanced USSF cyberspace warfare operations.				
Accomplishments/Planned Programs Subtotals		101.374	97.997	481.251

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1203040SF I DCO-Space	
D. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
E. Acquisition Strategy The approved DCO-S acquisition strategy is committed to using a modular contracting strategy for fast, agile, and adaptable approaches to successfully develop and deploy DCO-S. Efforts implement a combined DEVSECOPS framework which incorporates methodologies, technologies, and tools to deeply embed security best practices into the modern development workflow and tool-chain. USSF plans to leverage new DCO-S prototyping techniques, previous Government investments in FFRDC efforts, Industry best practices and capability offerings, and Government labs as part of the DCO-S development activities.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203040SF / DCO-Space				Project (Number/Name) 673070 / Defensive Cyber Ops - Space					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DCO-S Suite Development	SS/T&M	MTSI : Colorado Springs, CO	-	23.788	Oct 2024	22.833	Oct 2025	37.298	Oct 2026	-		37.298	Continuing	Continuing	-
Cloud Hosting	Various	Various : TBD	-	1.455	Nov 2024	5.290	Nov 2025	12.258	Nov 2026	-		12.258	Continuing	Continuing	-
Product Line Integration	Various	Various : Various	-	41.420	Nov 2024	48.904	Nov 2025	119.839	Nov 2026	-		119.839	Continuing	Continuing	-
Mission Integration	Various	Various : Various	-	-		-		107.500	Nov 2026	-		107.500	Continuing	Continuing	-
Systems Engineering/ Accreditation	SS/T&M	MTSI : Colorado Springs, CO	-	7.943	Oct 2024	3.566	Oct 2025	3.700	Oct 2026	-		3.700	Continuing	Continuing	-
Special Programs	Various	Various : TBD	-	0.000	Nov 2024	3.170	Nov 2025	139.800	Nov 2026	-		139.800	Continuing	Continuing	-
Technical Mission Analysis	Various	Various : Various	-	0.600	Oct 2024	1.580	Oct 2025	5.300	Oct 2026	-		5.300	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000	Oct 2024	0.000	Oct 2025	17.586	Oct 2026	-		17.586	Continuing	Continuing	-
Subtotal			-	75.206		85.343		443.281		-		443.281	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test	PO	Astrion : San Antonio, TX	-	1.379	Oct 2024	2.995	Oct 2025	7.436	Oct 2026	-		7.436	Continuing	Continuing	-
Subtotal			-	1.379		2.995		7.436		-		7.436	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Various : El Segundo, CA	-	12.807	Nov 2024	1.746	Nov 2025	1.930	Nov 2026	-		1.930	Continuing	Continuing	-
A&AS	Various	Various : Various	-	11.904	Nov 2024	7.603	Nov 2025	27.798	Nov 2026	-		27.798	Continuing	Continuing	-
Other	Various	Various : Various	-	0.078	Oct 2024	0.310	Oct 2025	0.806	Oct 2026	-		0.806	Continuing	Continuing	-
Subtotal			-	24.789		9.659		30.534		-		30.534	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026			
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203040SF / DCO-Space					Project (Number/Name) 673070 / Defensive Cyber Ops - Space				
		Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		-	101.374		97.997		481.251		-		481.251	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity
3620F / 7

R-1 Program Element (Number/Name)
PE 1203040SF / DCO-Space

Project (Number/Name)
673070 / Defensive Cyber Ops - Space

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
DCO-S																												
DCO-S Product Line Development and Integration																												
DCO-S Continuous Test and Deployments																												
DCO-S System Integration																												
DCO-S Software Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203040SF / DCO-Space	Project (Number/Name) 673070 / Defensive Cyber Ops - Space

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
DCO-S				
DCO-S Product Line Development and Integration	1	2025	4	2031
DCO-S Continuous Test and Deployments	1	2025	4	2031
DCO-S System Integration	1	2025	4	2031
DCO-S Software Integration	1	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203109SF I Narrowband Satellite Communications							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	365.213	194.808	415.402	855.860	0.000	855.860	683.782	555.484	321.067	203.204	Continuing	Continuing
673109: SATCOM MUOS	365.213	194.808	415.402	855.860	0.000	855.860	683.782	555.484	321.067	203.204	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Program MDAP/MAIS Code: 345												
A. Mission Description and Budget Item Justification												
The Narrowband Satellite Communications (SATCOM) Program office is developing Narrowband Satellite Communications (Project 1203109SF) for Guardians across the SATCOM mission area. As a result, the Service will improve readiness and operational reach of existing force structure, and deliver resilient Infrastructure, equipment, and personnel. Narrowband Satellite Communications provides a worldwide, multi-service population of mobile and fixed-site terminal users with Ultra High Frequency (UHF) Narrowband, beyond line of sight satellite communications (SATCOM). Mobile User Objective System (MUOS) significantly increases performance and capacity in support of critical Combatant Command SATCOM priorities. MUOS is the replacement system for the UHF Follow-on (UFO) system, which is currently beyond its design life. MUOS is comprised of Space, Ground, and User Entry Segments. The Space Segment consists of five geosynchronous satellites to support a four satellite constellation over the intended service life. Each satellite provides a legacy UHF payload that is backward compatible with UFO, and a Wideband Code Division Multiple Access (WCDMA) payload that provides cellular-like capability. MUOS reached full operational capability in October 2019. The Ground Segment consists of four world-wide Radio Access Facilities (RAFTs) and two satellite control facilities. Each RAF includes three 60 ft. antennas and numerous equipment racks. The RAFTs in Hawaii and Virginia each include a Switching Facility (SF), and the RAF in Hawaii includes a Network Management Facility (NMF). The User Entry Segment consists of the MUOS waveform that is ultimately integrated into MUOS-capable terminals which are fielded by the services. In addition to providing UHF SATCOM for the Department of War (DoW), the USSF has the overall responsibility to deliver the End-to-End (E2E) MUOS capability to the warfighter. This responsibility involves systems engineering, integration, network management, and test management of all MUOS system-of-system components. A Department of War Chief Information Officer assessment of anticipated narrowband satellite communication availability led to the Office of Under Secretary of War (OUSW) Acquisitions & Sustainment recommendation to initiate MUOS Service Life Extension (SLE) to acquire and launch two additional MUOS satellites (without legacy payloads). MUOS SLE is projected to extend worldwide WCDMA constellation availability to at least FY 2035 and the supporting ground segment service life to at least FY 2040. This PE funds systems optimization and modernization to address the dynamic, worldwide electromagnetic and cybersecurity environment in which MUOS operates and MUOS SLE. The PE includes a MUOS Baseline effort, and a MUOS SLE effort. Cost to complete is "Continuing" in the cost table, as the USSF is in the process to determine the cost estimate for this post Milestone C program.												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203109SF I Narrowband Satellite Communications				
This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Space Force investment program interdependencies include: RDT&E Budget Line Items: Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); Narrowband Satellite Communications (1203109SF); Protected Tactical Enterprise Service (1206760SF); Protected Tactical Service (1206761SF; Space Tech Development & Prototyping (1206410SF); Tech Transition (Space) (1206458SF); Wideband Global SATCOM (SPACE) (1206433SF); Data Transport and Networking (1203156SF); Space Data Network (1203636SF); and elements of Procurement Budget Line Items: Family of Beyond Line-of-Sight Terminals (FBLOST); Mobile User Objective System (MUOS00); MILSATCOM (MILSAT); Wideband SATCOM Operational Management Systems (WSOMS0); Auxiliary Payloads (AUX000); Proliferated Low Earth Orbit SATCOM (PLEO00); PTES HUB (PTES00); ESS (ESS000) This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		201.654	421.847	0.000	0.000	0.000
Current President's Budget		194.808	415.402	855.860	0.000	855.860
Total Adjustments		-6.846	-6.445	855.860	0.000	855.860
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-6.846	-6.445			
• Other Adjustments		0.000	0.000	855.860	0.000	855.860
Change Summary Explanation						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203109SF / <i>Narrowband Satellite Communications</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Mobile User Objective System (MUOS) Baseline Upgrade Description: System optimization and modernization to address the dynamic, worldwide electromagnetic and cybersecurity environment in which MUOS operates. FY 2026 Plans: Continue systems engineering, system optimization, cybersecurity updates, and electromagnetic interference (EMI) mitigation efforts to ensure capacity is available to the end user, including the development and fielding of EMI mitigation solutions and inclination control and eclipse contingency studies for the space segment. Continue E2E MUOS usability enhancements including terminal certification, integration, and test. Continue development of alternative IBS solution to mitigate Legacy UHF communications shortfalls and integration and interoperability efforts with other DoW and commercial systems. Field Digital Earth Terminal Interface (D-ETI) at remaining RAFs. FY 2027 Plans: Complete baseline systems engineering, system optimization, cybersecurity updates, and EMI mitigation efforts to ensure capacity is available to the end user, including the development and fielding of EMI mitigation solutions and inclination control and eclipse contingency studies for the space segment. Complete baseline E2E MUOS usability enhancements including terminal certification, integration, and test. Complete development of alternative IBS solution to mitigate Legacy UHF communications shortfalls and integration and interoperability efforts with other DoW and commercial systems and prepare for fielding. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased as ground segment updates will be replaced and modernized under the MUOS Service Life Extension activity.		21.714	26.653	20.550
Title: Mobile User Objective System (MUOS) Service Life Extension (SLE) Description: MUOS SLE to acquire and launch two additional MUOS satellites without legacy payloads and modernize the ground segment to extend service life from 2030 to 2040. FY 2026 Plans: Award contract to one vendor to complete MUOS SLE satellite final design, production, and integration activities. Begin acquiring long-lead materials for production. Conduct and complete the Early Design Review (EDR) for MUOS Space Vehicle (SV) 6 and 7. Retrofit technologies to be interoperable with the Baseline Space MUOS (1-5) system while modernizing satellite functionality to maintain global communications. Continue ground system modernization across all four RAFs, with associated laboratory equipment and associated program office support, through migration to an extensible digital processing architecture. Ground activities include interface testing & verification, and architecture upgrades. Continue Narrowband Analysis of Alternatives (AoA) follow-on studies. Continue incremental recapitalization of obsolete third generation cellular network equipment at RAFs.		173.094	388.749	835.310

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203109SF / <i>Narrowband Satellite Communications</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Continue architecture updates for network resiliency that include commercial SATCOM augmentation of terrestrial inter-RAF links and replication of critical network management functions in a secure cloud network or alternate site. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Conduct and complete the Final Design Review (FDR) for MUOS Space Vehicle (SV) 6 and 7. Continue acquiring long-lead materials for MUOS SV 6 and 7. Conduct Manufacturing Readiness Review for MUOS SV 6. Start production of MUOS SV 6. Retrofit technologies to be interoperable with the Baseline Space MUOS (1-5) system while modernizing satellite functionality to maintain global communications. Continue ground system modernization across all four RAFs, with associated laboratory equipment and associated program office support, through migration to an extensible digital processing architecture. Ground activities include interface testing & verification, and architecture upgrades. Complete installation of D-ETI at Niscemi (Sicily, Italy) RAF. Continue incremental recapitalization of obsolete third generation cellular network equipment at RAFs. Continue architecture updates for network resiliency that include commercial SATCOM augmentation of terrestrial inter-RAF links and replication of critical network management functions in a secure cloud network or alternate site. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increase is driven by the SLE Phase II contract. This increase supports a ramp-up of non-recurring engineering hours in support of the Early Design Review (EDR), Final Design Review (FDR) and production initiation for Space Vehicles (SV) 6 and 7, and secures vital long-lead materials. This funding is critical to maintain the program schedule and achieve the December 2031 operational need date for warfighter capability.				
Accomplishments/Planned Programs Subtotals		194.808	415.402	855.860

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026	
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>					R-1 Program Element (Number/Name) PE 1203109SF / <i>Narrowband Satellite Communications</i>						
D. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2027</u>	<u>FY 2027</u>	<u>FY 2027</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2025</u>	<u>FY 2026</u>	<u>Base</u>	<u>OOC</u>	<u>Total</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>FY 2030</u>	<u>FY 2031</u>	<u>Complete</u>	<u>Total Cost</u>
• SPSF 01 BA01 MUOS00: <i>Mobile User Objective System</i>	64.665	48.977	50.640	-	50.640	51.622	52.529	53.685	54.761	0.000	376.879
Remarks											
E. Acquisition Strategy											
Space Force will use existing MUOS Capability Production Document (CPD) requirements when developing two operationally similar SLE satellites. On 14 Apr 2022 the program competitively awarded technical and trade studies contracts to three vendors to inform program plans and understanding of required engineering design changes and potential trades. The Service Acquisition Executive approved the program's acquisition strategy on 14 Sep 2022 as a Major Capability Acquisition pathway, post-Milestone C program, and the program is executing to plan. On 2 Feb 2024, the program competitively awarded contracts to two vendors for early design and risk reduction for MUOS SVs 6 and 7. On 26 Nov 2024, the program awarded a follow-on Indefinite-Delivery Indefinite-Quantity (IDIQ) contract to General Dynamics Mission Systems for ground modernization including the design, production, fielding, and testing of ground updates to ensure availability of the ground segment to 2040. On 31 Jul 2025, the program awarded contract modifications for the two SLE Space Early Design and Risk Reduction vendors, extending the period of performance through Jan 2026, plus an additional six, one-month options to further satellite design maturity and implement additional risk reduction measures prior to the start of production. The approved acquisition strategy includes a competitive award between limited sources for the satellite final design and production contract to one vendor in FY 2026.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203109SF / Narrowband Satellite Com munications				Project (Number/Name) 673109 / SATCOM MUOS					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Service Life Extension (SLE) Ground Engineering Contract	SS/ Various	General Dynamics : Scottsdale, AZ	56.132	60.245	Nov 2024	64.654	Nov 2025	144.288	Oct 2026	-		144.288	Continuing	Continuing	-
SLE Associated Product Development	MIPR	Various : Various	16.508	13.684	Nov 2024	7.877	Nov 2025	10.422	Oct 2026	-		10.422	Continuing	Continuing	-
SLE Technical and Trade Studies	C/FP	Various : Various	13.273	-		-		-		-		-	0.000	13.273	-
SLE Crypto Replacement Plans and Interfaces	MIPR	NSA : Fort Meade, MD	0.553	-		-		-		-		-	0.000	0.553	-
SLE Satellite Design and Risk Reduction Activities	C/FP	Lockheed Martin/ Boeing : Various, CA	77.999	53.171	Dec 2024	-		-		-		-	0.000	131.170	-
SLE Satellite Design and Risk Reduction Activities Extension	C/FP	Lockheed Martin/ Boeing : Various, CA	0.000	20.000	Jul 2025	24.238	Nov 2025	-		-		-	0.000	44.238	-
SLE Final Design and Production	C/FP	TBD : TBD	0.000	-		245.821	Jun 2026	594.466	Oct 2026	-		594.466	Continuing	Continuing	-
SLE Technical Mission Analysis	RO	Aerospace : El Segundo, CA	3.226	1.936	Nov 2024	1.974	Nov 2025	4.501	Oct 2026	-		4.501	Continuing	Continuing	-
SLE Space and Ground Enterprise Sys Eng & Integration	C/CPFF	Various : Various	6.860	12.223	Dec 2024	15.203	Dec 2025	21.199	Oct 2026	-		21.199	Continuing	Continuing	-
Baseline Ground Engineering Contracts	SS/ Various	Various : Various	120.268	13.366	Nov 2024	23.353	Nov 2025	20.550	Oct 2026	-		20.550	0.000	177.537	-
Baseline Associated Product Development	MIPR	Various : Various	1.677	1.671	Nov 2024	0.970	Nov 2025	-		-		-	0.000	4.318	-
Baseline Space Engineering Contract	SS/ Various	Lockheed Martin : Sunnyvale, CA	6.504	3.920	Nov 2024	2.330	Nov 2025	-		-		-	0.000	12.754	-
Baseline Electromagnetic Interference	SS/TBD	Adaptive Dynamics Inc : San Diego, CA	5.509	-		-		-		-		-	0.000	5.509	-
Baseline Enterprise Sys Eng & Integration	C/CPFF	Various : Various	0.000	1.436	Dec 2024	-		-		-		-	0.000	1.436	-
L-Band Communications	C/FFP	CesiumAstro : Austin, TX	3.000	-		-		-		-		-	0.000	3.000	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203109SF / Narrowband Satellite Com munications				Project (Number/Name) 673109 / SATCOM MUOS					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Baseline SBIR/STTR	Various	Not specified. : TBD	0.000	-		-		-		-		-	0.000	0.000	-
SLE SBIR/STTR	Various	Not specified. : TBD	0.000	0.000	Apr 2025	7.721	Apr 2026	31.667	Apr 2027	-		31.667	Continuing	Continuing	-
Narrowband Analysis of Alternatives (AoA)	TBD	Various : Various	5.970	-		-		-		-		-	0.000	5.970	-
Follow-on AoA Studies	TBD	TBD : TBD	0.000	-		5.000	Mar 2026	5.000	Nov 2026	-		5.000	0.000	10.000	-
Subtotal			317.479	181.652		399.141		832.093		-		832.093	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SLE FFRDC	RO	Aerospace : El Segundo, CA	11.552	6.014	Oct 2024	4.630	Oct 2025	6.375	Oct 2026	-		6.375	Continuing	Continuing	-
SLE A&AS	C/CPFF	Various : Various	23.387	5.651	Nov 2024	11.031	Nov 2025	16.345	Oct 2026	-		16.345	Continuing	Continuing	-
SLE Other Support	Various	Various : Various	5.708	0.170	Oct 2024	0.600	Oct 2025	1.047	Oct 2026	-		1.047	Continuing	Continuing	-
Baseline A&AS	C/CPFF	Various : Various	1.990	1.321	Nov 2024	-		-		-		-	Continuing	Continuing	-
Baseline Other Support	Various	Not specified. : TBD	5.097	0.000	Nov 2024	-		-		-		-	0.000	5.097	-
Subtotal			47.734	13.156		16.261		23.767		-		23.767	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			365.213	194.808		415.402		855.860		-		855.860	Continuing	Continuing	N/A
Remarks															
A portion of "SLE Other Support" has been moved to "Associated Product Development" starting in FY 2026 because this support is aligned to the end item product as opposed to management services.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203109SF / <i>Narrowband Satellite Com</i> <i>munications</i>		Project (Number/Name) 673109 / <i>SATCOM MUOS</i>	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Baseline Upgrade																												
Ground System Updates (Cybersecurity / Electromagnetic Interference Mitigation / etc.)																												
Systems Engineering																												
Space Segment Enhancements																												
Service Life Extension (MUOS 6&7 and Ground Modernization)																												
Ground System Studies and Modernization																												
Systems Engineering																												
Satellite Design and Risk Reduction Activities																												
Ground Modernization Follow-on Contract Award																												
Narrowband Follow-on AoA Studies																												
Satellite Final Design, Production, Assembly, Integration and Test Activities																												
Final Design Review																												
Launch MUOS Space Vehicle (SV) 6																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203109SF / <i>Narrowband Satellite Communications</i>	Project (Number/Name) 673109 / <i>SATCOM MUOS</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Baseline Upgrade</i>				
Ground System Updates (Cybersecurity / Electromagnetic Interference Mitigation / etc.)	1	2025	4	2027
Systems Engineering	1	2025	4	2027
Space Segment Enhancements	1	2025	4	2027
<i>Service Life Extension (MUOS 6&7 and Ground Modernization)</i>				
Ground System Studies and Modernization	1	2025	3	2031
Systems Engineering	1	2025	3	2031
Satellite Design and Risk Reduction Activities	1	2025	2	2026
Ground Modernization Follow-on Contract Award	1	2025	1	2025
Narrowband Follow-on AoA Studies	2	2026	4	2027
Satellite Final Design, Production, Assembly, Integration and Test Activities	3	2026	4	2031
Final Design Review	3	2027	3	2027
Launch MUOS Space Vehicle (SV) 6	4	2031	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203110SF I Satellite Control Network (SPACE)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	78.966	92.459	92.537	0.000	92.537	114.565	128.557	130.498	130.922	Continuing	Continuing
673276: Satellite Control Network	0.000	78.966	92.459	92.537	0.000	92.537	114.565	128.557	130.498	130.922	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Systems Delta 85 is developing and prototyping the Satellite Control Network (SCN) (Project 673276) for Guardians performing satellite operations across Combat Power, Space Domain Awareness, Launch, Position Navigation and Timing, Satellite Communications, Weather, and Science & Technology and Test & Evaluation. As a result, the Service will improve readiness and operational reach of existing force structure as well as integrate Allies, partners, and commercial space to USSF units which will result in resilient Infrastructure, equipment, and personnel.

The Satellite Control Network (SCN) is a satellite ground terminal network comprised of two communication nodes (Schriever SFB & Vandenberg SFB) and 15 antenna systems. The antennas are distributed around the globe at seven locations -- Vandenberg Tracking Station (VTS), Diego Garcia Station (DGS), Guam Tracking Station (GTS), Hawaii Tracking Station (HTS), New Hampshire Tracking Station (NHS), Thule Tracking Station (TTS) at Pituffik Space Base in Greenland and Telemetry and Commanding Station (TCS) at RAF Oakhanger, England -- to ensure global coverage for over 170 satellites in various orbits operating in a congested and contested environment. The SCN conducts an average of 450+ satellite contacts per day supporting Positioning, Navigation and Timing (PNT), Intelligence, Surveillance and Reconnaissance (ISR), Missile Warning and Missile Defense, Communications, Weather, Launch Vehicle Support, and Research and Development (R&D) for Department of War (DoW), Intelligence Community (IC), and National Aeronautics and Space Administration (NASA) operations. While most of the 450+ daily satellite contacts are routine command and control (C2) activities, the SCN is also used during satellite emergencies (e.g. a tumbling satellite) because its high-power antennas are often the only terrestrial assets that can re-establish contact with a non-responsive satellite. During each Fiscal Year, the SCN typically supports multiple space vehicle emergencies, resulting in the preservation of over 4B worth of satellites. In addition to routine and emergency satellite operations C2, the SCN provides support to launch and early orbit operations, ensuring worldwide telemetry during launch vehicle ascent, staging, and orbital insertion, and data transmit and receive for new satellites completing early orbit checkout. During each Fiscal Year, the SCN supports multiple launches delivering an average of 14B worth of satellites to their operational orbits. Finally, the SCN provides Factory Compatibility Testing (FCT) to ensure satellites and launch vehicles can communicate via the SCN before the satellite is launched.

These funds are utilized to meet evolving future space demands for the Data Transmit Receive Network (DTRN) to ensure capabilities are available to support Department of War (DoW), Intelligence Community (IC), and civil users. This includes efforts to provide more capable ground-based antennas, augment the existing Satellite Control Network (SCN) with Federal and commercial antennas to both diversify space-ground link resources and increase capacity for spacecraft communication, and modernize satellite contact scheduling for Space Force and other DoW missions. Other activities include identifying shared/common platform, infrastructure and data layer solutions to support open frameworks and architectures across the enterprise ground portfolio. Funds are also used for requirements

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203110SF I Satellite Control Network (SPACE)				
management, system planning, enterprise analysis and architecture support, Systems Engineering and Integration (SE&I), cyber security, test, system enhancement and deficiency resolution, and system resiliency.						
The FY 2026 spend plan amount for RDT&E includes 92,500 thousand of discretionary and 18,000 thousand of mandatory (reconciliation) for a total of 111,500 thousand.						
The 18,000 thousand in mandatory funding is being used to improve Tracking Telemetry and Commanding capacity in support of INDOPACOM operations.						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver SCN weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
In FY 2027, Cyber Secure Mission Data Transport (meshONE-T) efforts were transferred to PE 1203156SF, Data Transport & Networking, Project 673944, meshONE-T, in order to consolidate data transport and networking efforts to provide greater transparency and alignment of common functions.						
This program falls within the Multi-Mission mission area which provides the systems and efforts that evenly contribute to multiple mission areas across the space enterprise. Space Force investment program interdependencies include: RDT&E Budget Line Items: Defensive Cyber Operations - Space (1203040SF); Rapid Resilient Command and Control (1206772SF); Space and Missile Test and Evaluation (1203173SF; Space Force IT, Data Analytics, Digital (1203010SF); and elements of Procurement Budget Line Items: AF Satellite Comm System (AFSCOM); Spaceborne Equip (Comsec) (MC0MSE); Spares and Repair Parts (SSPARE); Space Digital Integrated Network (SDN000)						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		81.572	93.780	0.000	0.000	0.000
Current President's Budget		78.966	92.459	92.537	0.000	92.537
Total Adjustments		-2.606	-1.321	92.537	0.000	92.537
• Congressional General Reductions		0.000	-1.321			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-2.606	0.000			
• Other Adjustments		0.000	0.000	92.537	0.000	92.537

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203110SF I Satellite Control Network (SPACE)		
<u>Change Summary Explanation</u> Strategic: FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner. Technical: FY 2025: -2.606M decrease for SBIR/STTR FY 2026: -1.321M Section 8151 SBIR reduction				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: Assured Satellite TT&C and Data Services		-	0.000	92.537
Description: To streamline efforts within this program element, the Assured Satellite TT&C and Data Services mission thrust consolidates funds previously captured under 'Satellite Operations Transmit and Receive', 'Satellite C2 Augmentation Services', and 'Enterprise Systems Engineering and Integration.' This is not a new start.				
Assured Satellite TT&C and Data Services provides comprehensive Data Transmit and Receive Network (DTRN) solutions to enable assured satellite C2 operations for the enterprise, across benign, contested, degraded, and operationally-denied environments. Modernizes and automates scheduling and resource management, develops new services , integrates cyber enhancements, and increases resiliency. Provides additional Government and commercial capacity to reduce congestion on existing networks, address launch projections and growing operational contact demands, and reduce operational risk through diversified DTRN offerings. Facilitates antenna integration, to include antenna modification or development, when necessary, to meet mission demands. Integrates capabilities across the DTRN and supports mission operations.				
FY 2026 Plans: The efforts described in the description are funded in the 'Satellite Operations Transmit and Receive', 'Satellite C2 Augmentation Services', and 'Enterprise Systems Engineering and Integration' major thrusts within this program element in FY 2026, and will transfer to 'Assured Satellite TT&C and Data Services' in FY 2027.				
FY 2027 Plans: Continue the incremental modernization of capabilities supporting the Data Transmit and Receive Network (DTRN) to meet current and future demand, address user priorities, close capability gaps, and responsively support mission needs. Focus on expanding contact capacity via modern, automated solutions for Government and commercial antenna network access. Continue collaborative Enterprise Resource Manager (ERM), Joint Antenna Marketplace (JAM), and Antenna Development efforts, to include automated scheduling and deconfliction and cross-domain solutioning. Complete the initial JAM prototype efforts and				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203110SF / <i>Satellite Control Network (SPACE)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
initiate the Follow-on JAM development. Integrate Government and commercial antenna resources, and expand antenna offerings (e.g., additional frequency bands) as necessary to support mission requirements. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.				
FY 2026 to FY 2027 Increase/Decrease Statement: Consolidation of Satellite Operations Transmit and Receive major thrust and Satellite C2 Augmentation major thrust within this program and project into the new Assured Satellite TT&C Data Services major thrust.				
Title: Satellite Operations Transmit and Receive Description: Provides enterprise transmit, receive and resource management solutions to enable continuous satellite operations (SATOPS) from benign to contested, degraded and operationally-denied environments as part of Data Transport Receive Network (DTRN) efforts. Provides updates to SCN legacy system capability shortfalls. These updates include modernization of current scheduling, resource management, and development execution for future integrated and automated resource management and scheduling services. Additionally, the SCN will integrate with multiple enterprise cyber defense tools as part of the baseline.		34.480	20.801	-
FY 2026 Plans: Continue the phased modernization of capabilities supporting satellite operations transmit and receive for both the current and evolving future demand. Adapt as necessary to address user priorities to responsively support mission needs. Support development of phased array, mobile, or other antenna/site improvements. Continue development of ERM interfaces for commercial apertures access and machine-to-machine data transfers, Deliver an ERM interface control document (ICD) for Satellite Operations Centers (SOCs), an automated scheduler with Radio Frequency Interference (RFI) deconfliction, and complete development of the interface which is a key function for supporting scheduling of Satellite Communication Augmentation Resource (SCAR) phased array antennas. Continue to deliver enhancements and deficiency resolution for Satellite Operations Transmit and Receive efforts.				
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 plans are documented in the new major thrust "Assured Satellite TT&C and Data Services"				
Title: Satellite C2 Augmentation Services Description: Provides both Federal and commercial satellite command and control (C2) services to augment SCN capabilities. Augmented services are planned to be deployed in a phased approach to address early integration and security concerns while providing increased C2 diversity and capacity to reduce the risk of congestion on the SCN.		12.215	15.006	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203110SF / <i>Satellite Control Network (SPACE)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
FY 2026 Plans: Continue development of augmentation services, including integration of these services into ERM. Continue pursuit of operationalized commercial antenna access solutions, to include cyber-secure antenna network brokering via prototype Joint Antenna Marketplace (JAM) development. Demonstrate operational feasibility for contact operations for at least two Satellite Operations Centers (SOCs) and at least two commercial antenna provider networks. Continue to deliver enhancements and deficiency resolution for Satellite C2 Augmentation Services efforts.				
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 plans are documented in the new major thrust "Assured Satellite TT&C and Data Services"				
Title: Cyber-secure Mission Data Transport Description: Provides a scalable, resilient, cyber-secure network communications architecture and infrastructure delivering intelligent, enterprise data and information transport for execution of warfighting functions. Supports worldwide ground communications transport for USSF, other DoW Services, Intelligence Community, and Joint All-Domain Command and Control by fielding an industry standards-based mission data network featuring interoperability, cyber security (to include Zero Trust networking), cloud connectivity and multidomain facilitation. Addresses identified "Kill Chain" gaps, legacy system obsolescence, bandwidth constraints, stovepipes and cost inefficiency.		26.048	48.913	-
FY 2026 Plans: Continue expansion and development of the meshONE-Terrestrial (meshONE-T) system to deliver a modern, scalable, resilient, cyber-secure network communications architecture for mission data transport. Continue deployment of new capabilities and upgrades to include but not limited to satellite communications (SATCOM), additional Zero Trust architecture enhancements, and delivery of initial Rapid Deployable capabilities. Deploy additional network nodes and communication to support warfighter-prioritized mission partners and locations, completing a significant portion of the global mesh buildout. Continue to deliver enhancements and deficiency resolution. Perform pre-operations support for the growing meshONE-T network mission partners and users. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.				
FY 2026 to FY 2027 Increase/Decrease Statement:				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203110SF I Satellite Control Network (SPACE)							
C. Accomplishments/Planned Programs (\$ in Millions)										FY 2025	FY 2026	FY 2027
FY 2027 decreased due to transfer of effort to new Data Transport and Networking Program (1203156SF), meshONE-T Project (673994). This transfers the Cyber-secure Mission Data Transport effort into a consolidated program for USSF data transport for FY 2027 and subsequent years.												
Title: Enterprise Systems Engineering and Integration (SE&I) Description: SE&I manages the government-controlled system and subsystem level baseline requirements including analysis of future changes to the fielded baseline. SE&I provides "government as the integrator" engineering support to ensure multiple separate modernizations and the sustainment baselines are synchronized. SE&I will develop and recommend investment strategies to keep the Satellite Control Network (SCN) and Cyber-secure Mission Data Transport operating into the future. FY 2026 Plans: Continue Program Office support and SE&I efforts as required for integration, development and modernization across data transmit, receive and transport capabilities. Provide systems and subsystem level definition, baseline, architecture, integration planning, test, and support for the Satellite Control Network (SCN) and augmentation services. Additionally, SE&I will provide support to Space Systems Command (SSC) initiatives supporting Data Transport Receive Network (DTRN) activities. Continue to support enhancements and deficiency resolution in fielded SCN systems, to include newly-delivered capabilities, and implementation of system resiliency and situational awareness necessary to operate in the contested space domain. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 plans are documented in the new major thrust "Assured Satellite TT&C and Data Services"										6.223	7.739	-
Accomplishments/Planned Programs Subtotals										78.966	92.459	92.537
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost	
• SPAF 01 1203110F: Satellite Control Network (SPACE)	88.836	68.238	54.391	-	54.391	55.415	56.412	57.655	58.811	Continuing	Continuing	
Remarks N/A												
E. Acquisition Strategy Development, Test, & Evaluation (DT&E) efforts focus on completing upgrades as well as future architectures and studies to ensure the best use of investment funding. SCN acquisition strategy will utilize seeks to modernize satellite command and control (C2) network capabilities, Data Transmit Receive Network (DTRN) architecture to increase efficiency and resiliency of satellite operations (SATOPS) and information mobility operations.												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1203110SF I Satellite Control Network (SPACE)	
The program office plans to utilize Software Acquisition Pathway to deliver Enterprise Resource Management (ERM) capability and leverage the Space Enterprise Consortium (SpEC) Other Transaction Authority (OTA) to deliver JAM capabilities. The Systems Engineering & Integration (SE&I) contractor maintains the DoW Architecture Framework (DoWAF) architecture and requirements baseline for Government approval and may perform studies to determine Government options. Limited RDT&E will be applied to Product Support Manager contracts when sustaining engineering expertise is needed to finalize Government-approved architectures. Federally Funded Research and Development Center technical depth and breadth will be leveraged to ensure SCN modernization efforts are compatible with mission rules and do not pose a risk to safe and cost-effective satellite contacts		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203110SF / Satellite Control Network (SPACE)				Project (Number/Name) 673276 / Satellite Control Network					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Enterprise Resource Manager	TBD	TBD : TBD	-	-		-		5.000	Nov 2026	-		5.000	Continuing	Continuing	-
Antenna Services	Various	Various : Colorado Springs, CO	-	-		-		6.000	Jan 2027	-		6.000	Continuing	Continuing	-
JAM	Various	Various : TBD	-	-		-		54.063	Nov 2026	-		54.063	Continuing	Continuing	-
Other	TBD	TBD : TBD	-	-		-		0.463	Jan 2027	-		0.463	Continuing	Continuing	-
Satellite Ops Transmit and Receive - Scheduling	Various	Various : Colorado Springs, CO	-	8.900	Jan 2025	-		-		-		-	0.000	8.900	-
Satellite Ops Transmit and Receive - Enterprise Resource Manager	MIPR	Classified : TBD	-	8.000	Jan 2025	11.150	Jan 2026	-		-		-	0.000	19.150	-
Satellite Ops Transmit and Receive - Antenna Services	Various	Various : Colorado Spirings, CO	-	11.122	May 2025	5.103	Feb 2026	-		-		-	0.000	16.225	-
Satellite C2 Augmentation Services - JAM	Various	Various : TBD	-	8.719	May 2025	11.500	Mar 2026	-		-		-	0.000	20.219	-
Satellite C2 Augmentation Services - Other	Various	Various : TBD	-	0.000	May 2025	0.225	Mar 2026	-		-		-	0.000	0.225	-
Satellite Federal Augmentation Services: AFRL (Blue Halo)	C/CPFF	Blue Halo LLC : Albuquerque, NM	-	1.208	Dec 2024	-		-		-		-	0.000	1.208	-
Cyber-secure Mission Data Transport	SS/ Various	sev1Tech LLC : Denver, CO	-	21.169	Dec 2024	40.623	Jan 2026	-		-		-	Continuing	Continuing	-
Enterprise Systems Engineering and Integration (SE&I)	SS/CPIF	BAH : Colorado Springs, CO	-	6.223	Nov 2024	7.739	Nov 2025	7.815	Nov 2026	-		7.815	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace Corp : El Segundo, CA	-	2.173	Jan 2025	2.984	Jan 2026	2.348	Nov 2026	-		2.348	Continuing	Continuing	-
SBIR/STTR	TBD	TBD : TBD	-	0.000	Jun 2025	1.962	May 2026	3.239	Jan 2027	-		3.239	Continuing	Continuing	-
Subtotal			-	67.514		81.286		78.928		-		78.928	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203110SF / Satellite Control Network (SPACE)						Project (Number/Name) 673276 / Satellite Control Network			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace Corp : El Segundo, CA	-	4.004	Jan 2025	3.199	Jan 2026	3.850	Nov 2026	-		3.850	Continuing	Continuing	-
A&AS	Various	Various : Various	-	7.213	Jan 2025	7.674	Jan 2026	9.459	Nov 2026	-		9.459	Continuing	Continuing	-
Other	Various	Various : Various	-	0.235	Jan 2025	0.300	Jan 2026	0.300	Jan 2027	-		0.300	Continuing	Continuing	-
Subtotal			-	11.452		11.173		13.609		-		13.609	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	78.966		92.459		92.537		-		92.537	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026							
Appropriation/Budget Activity 3620F / 7								R-1 Program Element (Number/Name) PE 1203110SF / <i>Satellite Control Network (SPACE)</i>								Project (Number/Name) 673276 / <i>Satellite Control Network</i>			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Satellite Operations Transmit and Receive																												
Satellite Operations Transmits and Receive																												
Satellite C2 Augmentation Services																												
Satellite C2 Augmentation Services																												
Cyber-secure Mission Data Transport																												
Cyber-secure Mission Data Transport																												
Assured Satellite TT&C and Data Services																												
Joint Antenna Marketplace (JAM)/Enterprise Resource Manager (ERM)																												
Antenna Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203110SF / <i>Satellite Control Network (SPACE)</i>	Project (Number/Name) 673276 / <i>Satellite Control Network</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Satellite Operations Transmit and Receive				
Satellite Operations Transmits and Receive	1	2025	4	2026
Satellite C2 Augmentation Services				
Satellite C2 Augmentation Services	1	2025	4	2026
Cyber-secure Mission Data Transport				
Cyber-secure Mission Data Transport	1	2025	4	2026
Assured Satellite TT&C and Data Services				
Joint Antenna Marketplace (JAM)/Enterprise Resource Manager (ERM)	1	2027	4	2031
Antenna Development	1	2027	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203154SF I Long Range Kill Chains							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	250.210	0.000	1,392.025	0.000	1,392.025	1,398.627	906.723	452.770	461.822	Continuing	Continuing
671113: Auxiliary Payloads	0.000	235.210	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
676601: Golden Dome	0.000	15.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
676602: Space Based Interceptor	0.000	0.000	0.000	1,392.025	0.000	1,392.025	1,398.627	906.723	452.770	461.822	Continuing	Continuing

Note
This program, BA 7, PE 1203154SF, project 676602, Space Based Interceptor, is a new start.

A. Mission Description and Budget Item Justification

This program continues funding for Space Data Network (SDN) in support of United States Space Force (USSF) Space Based Interceptors (SBI), the effort to develop a space-based weapon system to counter-Intercontinental Ballistic Missiles (ICBM) and Counter-hypersonic glide vehicles (HGV).

The Long-Range Kill Chains PE contains activities for the Space Data Network-Space Link (SDN-SL) program. This program leverages the United States Space Force (USSF) multi-vendor Space Data Network - Backbone (SDN-B) program to enhance an integrated constellation to provide the communication layer for the Space Based Interceptors (SBI). This project is incorrectly labeled "Space Based Interceptor".

PE1203154SF previously contained efforts that contributed to the creation of the Space Data Network and associated auxiliary payloads. Some of these efforts have had their funding aligned to the new Space Data Network PE1203636SF, and the remaining related efforts will eventually follow in future budget submissions.

PE1203154SF also previously contained activities to support delivery of Golden Dome for America (GDA).

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1203154SF / <i>Long Range Kill Chains</i>

B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget	244.121	1.916	0.000	0.000	0.000
Current President's Budget	250.210	0.000	1,392.025	0.000	1,392.025
Total Adjustments	6.089	-1.916	1,392.025	0.000	1,392.025
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-8.072	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	15.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	-0.839	-1.916	1,392.025	0.000	1,392.025

Change Summary Explanation

FY 2025 was rescinded -82.000M and is not reflected in this budget documentation.

FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains				Project (Number/Name) 671113 / Auxiliary Payloads			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
671113: Auxiliary Payloads	0.000	235.210	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Auxiliary Payloads project provides the additional communication relay space vehicles required to increase system access and capacity to the levels required to enable warfighters with the capability to rapidly move target data around the globe and execute long range kill chains.

To ensure this system can transmit data to the secure cloud environment within operationally relevant timelines and enable persistent capability to directly downlink data to warfighters and weapon systems, capacity needs to be added to the network through the addition of more relay vehicles. The Department of the Air Force will leverage its existing relationship with the partnered agencies to rapidly acquire the necessary capability to meet warfighter needs.

Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Auxiliary Payloads	235.210	0.000	0.000
Description: Relay satellites supporting DoW and NRO data transport and S-Band communications requirements.			
FY 2026 Plans: N/A			
FY 2027 Plans: FY 2027 funding transitioned to Procurement, Space Force within the AUX000 budget line item in keeping with Congressional direction.			
FY 2026 to FY 2027 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals	235.210	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

N/A

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains	Project (Number/Name) 671113 / Auxiliary Payloads
D. Acquisition Strategy The project partnered with the IC to award Firm Fixed Price contracts that leverage a low-risk approach by leveraging mature commercial technologies. In FY 2025 and beyond, the project plans to leverage the National Security Space Launch to procure launch services.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains				Project (Number/Name) 671113 / Auxiliary Payloads					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Aux Payload	SS/FFP	Various : Various	-	235.210		0.000		0.000		-		0.000	Continuing	Continuing	-
Subtotal			-	235.210		0.000		0.000		-		0.000	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	235.210		0.000		0.000		-		0.000	Continuing	Continuing	N/A
Remarks															
FY 2025 was rescinded -82.000M and is not reflected in this budget documentation.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity
3620F / 7

R-1 Program Element (Number/Name)
PE 1203154SF / Long Range Kill Chains

Project (Number/Name)
671113 / Auxiliary Payloads

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Auxiliary Payload																												
Dev & field Aux PL																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains	Project (Number/Name) 671113 / Auxiliary Payloads

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Auxiliary Payload				
Dev & field Aux PL	1	2025	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains				Project (Number/Name) 676601 / Golden Dome			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
676601: Golden Dome	0.000	15.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.000
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This BPAC was used for the stand-up the Office of Golden Dome for America (GDA), which served as the joint integration office responsible for overseeing strategic planning, program integration, cost estimating, contracting, financial management, internal reviews and audits, and program assessments. These functions are now held under new GDA Program Element(s).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
<i>Title:</i> Office of the Golden Dome for America	15.000	0.000	0.000
<i>Description:</i> The Office of the Golden Dome for America (GDA) is responsible for overseeing strategic planning, program integration, cost estimating, contracting, financial management, internal reviews and audits, and program assessments. These functions are vital to ensure that the GDA initiative operates efficiently and aligns with its mission to protect the U.S. homeland from a broad spectrum of aerial threats.			
<i>FY 2026 Plans:</i> N/A			
<i>FY 2027 Plans:</i> N/A			
<i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> No funds are programmed in FY26 or FY27 for the Office of the Golden Dome for America under PE1203154SF, and this BPAC is expected to sunset.			
Accomplishments/Planned Programs Subtotals	15.000	0.000	0.000

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

TBD

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains				Project (Number/Name) 676601 / Golden Dome					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Golden Dome Integration Office	TBD	Not specified. : TBD	-	15.000	Mar 2025	-		-		-		-	Continuing	Continuing	-
Subtotal			-	15.000		-		-		-		-	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	15.000		-		-		-		-	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity
3620F / 7

R-1 Program Element (Number/Name)
PE 1203154SF / Long Range Kill Chains

Project (Number/Name)
676601 / Golden Dome

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Golden Dome Integration Office																												
1																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains	Project (Number/Name) 676601 / Golden Dome

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Golden Dome Integration Office				
1	3	2025	3	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains				Project (Number/Name) 676602 / Space Based Interceptor			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
676602: Space Based Interceptor	0.000	0.000	0.000	1,392.025	0.000	1,392.025	1,398.627	906.723	452.770	461.822	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
This program continues funding for Space Data Network (SDN) in support of United States Space Force (USSF) Space Based Interceptors (SBI), the effort to develop a space-based weapon system to counter-Intercontinental Ballistic Missiles (ICBM) and Counter-hypersonic glide vehicles (HGV).												
In coordination with Army, Air Force, USNORTHCOM, and USSPACECOM, this funding will support the adoption of a commercially derived Radio Frequency (RF) payload and prototypes for integration onto multiple planes of space vehicles, and launch of the space vehicles. This constellation will be integrated into, and complementary, to the SDN-B. In addition to supporting the SBI program, the Space Data Network - Space Link will augment existing Space Data Network - Backbone users.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: Space Data Network - Space Link									0.000	0.000	1,392.025	
Description: In coordination with Army, Air Force, USNORTHCOM, and USSPACECOM, this funding will support the adoption of a commercially derived Radio Frequency (RF) payload and prototypes for integration onto multiple planes of space vehicles, and launch of the space vehicles. This constellation will be integrated into, and complementary, to the SDN-B creating a new mission enclave. In addition to supporting the SBI program, the Space Data Network - Space Link will augment existing Space Data Network - Backbone users.												
FY 2026 Plans: 2026 efforts initiated within the mandatory Golden Dome for America account.												
FY 2027 Plans: Funds support the acceleration of the build-out of the Space Data Network to support the communication needs of the Space-Based Interceptor missile defense system.												
FY 2026 to FY 2027 Increase/Decrease Statement: FY 27 funding increase reflects the initial request of discretionary funds. FY 26 mandatory funds initiated this effort within the Golden Dome for America account.												
Accomplishments/Planned Programs Subtotals									0.000	0.000	1,392.025	

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains	Project (Number/Name) 676602 / Space Based Interceptor
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks This funding was intended to be aligned to PE 1203636SF, but was placed in this PE instead.		
D. Acquisition Strategy For FY27, and in coordination with Army, Air Force, USNORTHCOM, and USSPACECOM, this funding will support the adoption of a commercially derived Radio Frequency (RF) payload and prototypes for integration onto multiple planes of space vehicles, and launch of the space vehicles.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains				Project (Number/Name) 676602 / Space Based Interceptor					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SDN-SL	C/TBD	Space Data Network : TBD	-	0.000		0.000		1,392.025	Jan 2027	-		1,392.025	Continuing	Continuing	-
Subtotal			-	0.000		0.000		1,392.025		-		1,392.025	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	0.000		0.000		1,392.025		-		1,392.025	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity
3620F / 7

R-1 Program Element (Number/Name)
PE 1203154SF / Long Range Kill Chains

Project (Number/Name)
676602 / Space Based Interceptor

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SDN-SL																												
Competitive award of space vehicles,																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains	Project (Number/Name) 676602 / Space Based Interceptor

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SDN-SL				
Competitive award of space vehicles,	2	2027	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203155SF I Space-Based Moving Target Indicator							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	256.000	719.384	253.355	0.000	253.355	883.710	519.953	484.288	1,032.319	Continuing	Continuing
671120: Ground Moving Target Indicator	0.000	256.000	719.384	253.355	0.000	253.355	883.710	519.953	484.288	1,032.319	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The program office is developing the space-based Ground Moving Target Indicator (Project 671120) for Guardians across Global Mission Operations. As a result, the Service will improve battle management of all weapon systems and deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland while providing principled public servants, space-minded warfighters, and bold and collaborative problem solvers.

The space-based Ground Moving Target Indicator (GMTI) project provides resources to acquire the next generation radar satellite system, providing resilient day-night, all weather detection, tracking, and imagery of ground and maritime targets. The GMTI project focuses on improving target detection, custody, and sensor-to-shooter timelines necessary for dynamic targeting and long-range strike within highly contested and non-permissive environments. The Space Force is working collaboratively with the military services, Combatant Commands, and the Intelligence Community to deliver and field the GMTI project.

The FY 2027 budget for Space-Based Moving Target Indicator includes \$803,000 thousand of mandatory and \$0 of discretionary for a total of 803,000 thousands for Airborne Moving Target Indicator requirements.

The FY 2026 value for ground moving target indicator includes 135,000 thousand of mandatory (reconciliation) funds and 719,384 thousand of discretionary for a total of 854,384 thousand.

Additional details are located in the classified exhibits.

This program falls within the Combat Power mission area which provides the systems required to protect and defend space-based capabilities and ensure space superiority by enabling and executing combat operations in space. Space Force investment program interdependencies include:
RDT&E Budget Line Items: Counterspace Systems (1206421SF); Space-Based Moving Target Indicator (1203155SF); Long Range Kill Chains (1203154SF); Space Control Technology (1206438SF); Space Superiority ISR (1203330SF) and elements of Procurement Budget Line Items: Space Mods (SPCMOD); Space Based Air Moving Target Indicator (AMTI00); Ground Moving Target Indicator (GMTI00); Counterspace Systems (CTRSPC)

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203155SF I Space-Based Moving Target Indicator				
B. Program Change Summary (\$ in Millions)	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	
Previous President's Budget	256.000	1,063.384	0.000	0.000	0.000	
Current President's Budget	256.000	719.384	253.355	0.000	253.355	
Total Adjustments	0.000	-344.000	253.355	0.000	253.355	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	0.000	-154.500				
• Congressional Rescissions	0.000	0.000				
• Congressional Adds	0.000	0.000				
• Congressional Directed Transfers	0.000	-189.500				
• Reprogrammings	0.000	0.000				
• SBIR/STTR Transfer	0.000	0.000				
• Other Adjustments	0.000	0.000	253.355	0.000	253.355	
Change Summary Explanation						
Strategic Change:						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
Technical Change:						
FY 2026: -\$154.500M Congressional Directed Transfer to P, SF line 9A						
FY 2026: -\$35.000M Congressional Directed Transfer to P, SF line 9B						
FY 2026: -\$154.500M Congressional Directed Reduction for Classified adjustment						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: GMTI				256.000	719.384	253.355
Description: Design, development, production, integration, test, on-orbit initialization, and mission execution for GMTI space vehicles and vehicle-unique ground. Additional details are located in the classified exhibits.						
FY 2026 Plans:						
Continue partnership to develop and field the GMTI system. Additional details are located in the classified exhibits.						
FY 2027 Plans:						
Continue partnership to develop and field the GMTI system. Additional details are located in the classified exhibits.						
FY 2026 to FY 2027 Increase/Decrease Statement:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203155SF I Space-Based Moving Target Indicator		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Decrease due to breakout of RDT&E and Procurement funds, consistent with Congressional direction in FY26. Additional details are located in the classified exhibits.				
Accomplishments/Planned Programs Subtotals		256.000	719.384	253.355
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy GMTI is a Major Defense Acquisition Program, Acquisition Category 1B. In August 2024, the USSF Service Acquisition Executive approved the program at Milestone B to enter the Engineering Manufacturing and Development Phase and proceed to the Deployment and Operations and Support phases. The Space Force will present the GMTI system and forces to the Combatant Commands under Title 10 authority to enable kill chain closure and battle management functions. Additional details are available at a higher classification level. The FY 2024 budget for GMTI was transferred from USAF to USSF in the FY 2024 Defense Appropriations Act.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203155SF / Space-Based Moving Target Indicator						Project (Number/Name) 671120 / Ground Moving Target Indicator			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GMTI	MIPR	Various : Various	-	190.433	Nov 2024	649.643	Nov 2025	191.516	Nov 2026	-		191.516	Continuing	Continuing	718.645
Subtotal			-	190.433		649.643		191.516		-		191.516	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Enterprise Support	MIPR	Various : Various	-	55.000	Nov 2024	59.000	Nov 2025	51.000	Nov 2026	-		51.000	Continuing	Continuing	-
Subtotal			-	55.000		59.000		51.000		-		51.000	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SETA	MIPR	Various : Various	-	6.967	Nov 2024	7.141	Nov 2025	7.239	Nov 2026	-		7.239	Continuing	Continuing	-
FFRDC	MIPR	Aerospace Corp. : El Segundo, CA	-	3.600	Nov 2024	3.600	Nov 2025	3.600	Nov 2026	-		3.600	Continuing	Continuing	-
Subtotal			-	10.567		10.741		10.839		-		10.839	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	256.000		719.384		253.355		-		253.355	Continuing	Continuing	N/A
Remarks The FY 2024 budget for GMTI was transferred from USAF to USSF in the FY 2024 Defense Appropriations Act.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203155SF / Space-Based Moving Target Indicator		Project (Number/Name) 671120 / Ground Moving Target Indicator	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
GMTI																												
Develop and field GMTI																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203155SF / Space-Based Moving Target Indicator	Project (Number/Name) 671120 / Ground Moving Target Indicator

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
GMTI				
Develop and field GMTI	1	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force	Date: April 2026

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>					PE 1203156SF / <i>Data Transport and Networking</i>							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	164.974	0.000	164.974	133.158	135.260	137.825	140.633	Continuing	Continuing
673941: <i>Unified Data Library (UDL)</i>	0.000	0.000	0.000	74.275	0.000	74.275	75.823	77.108	78.553	80.176	Continuing	Continuing
673944: <i>meshONE-T (M1T)</i>	0.000	0.000	0.000	55.877	0.000	55.877	57.335	58.152	59.272	60.457	Continuing	Continuing
673945: <i>Integrated Operations Networking (ION)</i>	0.000	0.000	0.000	34.822	0.000	34.822	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Space Systems Command is developing the Unified Data Library (UDL), meshOne-Terrestrial (M1T), and Integrated Operations Networking (ION) projects for Guardians across warfighting, operations commands, combat support, and combat service support units. As a result, the Service will improve battle management of all weapon systems; deliver space domain awareness capabilities; improve readiness and operational reach of existing force structure; deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland; augment, supplement, and/or integrate Allies, partners, and commercial space to USSF units; continue to advance all near term effects; and achieve resilient infrastructure, equipment, and personnel.

This program falls within the Satellite Communications (SATCOM) mission area which provides the space and dedicated ground architecture required to securely transport wideband, narrowband, tactical, and strategic satellite communications, including USSF-funded SATCOM terminals and commercial SATCOM activities. Space Force investment program interdependencies include: RDT&E Budget Line Items: Advanced EHF MILSATCOM (1206431SF); Commercial SATCOM Integration (1206445SF); Evolved Strategic SATCOM (ESS) (1206855SF); Family of Adv BLoS Terminals (FAB-T) (1203001SF); Narrowband Satellite Communications (1203109SF); Protected Tactical Enterprise Service (1206760SF); Protected Tactical Service (1206761SF); Space Tech Development & Prototyping (1206410SF); Tech Transition (Space) (1206458SF); Wideband Global SATCOM (SPACE) (1206433SF); Space Data Network (1203636SF); and elements of Procurement Budget Line Items: Family of Beyond Line-of-Sight Terminals (FBLOST); Mobile User Objective System (MUOS00); MILSATCOM (MILSAT); Wideband SATCOM Operational Management Systems (WSOMS0); Auxiliary Payloads (AUX000); Proliferated Low Earth Orbit SATCOM (PLEO00); PTES HUB (PTES00); and ESS (ESS000).

In FY 2027, the USSF transferred the following projects into PE 1203156SF (Data Transport and Networking) in order to consolidate the management and execution of similar enterprise solutions. This is not a new start. PE 1203940SF (Space Situation Awareness Operations) Project 673941 (Unified Data Library) effort transferred to Project 673941 (Unified Data Library). PE 1203310SF (Satellite Control Network (SPACE), Project 673276 (Satellite Control Network major thrust MeshONE-T (M1T) effort transferred to Project 673944 (MeshONE-T (M1T)). PE 1203010SF (Space Force IT, Data Analytics, Digital Solutions) Project 646602 (Integrated Operation Networking) effort transferred to Project 673945 (Integrated Operations Networking).

The distinct data service projects in this PE -- UDL, M1T, and ION -- serve as the enterprise backbone solutions to the USSF's system of systems data and networking architecture. Each project plays a part in the global mission data ecosystem from data networking to data distribution to machine-to-machine solutions to modernize currently fielded systems, support incorporation of new systems, or improve data access and security through cloud-based and hybrid environments.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203156SF I Data Transport and Networking				
This system of systems guarantees the flow of trusted, battle-ready data from any sensor to any warfighter by way of connectivity, transport, and data federation The Data Transport and Networking (DTN) program operationalizes data as a decisive weapon system for USSF, fusing critical infrastructure into combat capabilities. To meet mission effects, data must be available, discoverable, and trusted. Data transport is a critical function to make data available between space sensors, major operation centers, and Guardians at the tactical edge—even in contested, degraded, and operationally limited environments where options to move data are paramount. A continuity of solutions shared across the enterprise backbone drives efficient approaches to how DTN leverages its resources to meet mission requirements. The DTN will focus on developing more scalable, machine-to-machine advancements that enable further modernization of currently fielded weapon systems, incorporating them into the meshed network and federated data solutions. Use of secure, cloud-based environments enables seamless data transfer across all classification levels, facilitating enhanced collaboration and decision-making for warfighting units. This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		0.000	0.000	0.000	0.000	0.000
Current President's Budget		0.000	0.000	164.974	0.000	164.974
Total Adjustments		0.000	0.000	164.974	0.000	164.974
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	164.974	0.000	164.974

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Networking				Project (Number/Name) 673941 / Unified Data Library (UDL)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
673941: Unified Data Library (UDL)	0.000	0.000	0.000	74.275	0.000	74.275	75.823	77.108	78.553	80.176	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This is not a New Start. FY 2025-2026 UDL funds are allocated in the Space Situation Awareness Operations (SSAO) Program Element (PE) 1203940SF and in FY2027+ UDL funds transferred to a new Program Element (PE) 1203156SF, Project 673941, Unified Data Library (UDL).

The UDL project (673941) supports integration, exploitation, and delivery of Space Domain Awareness (SDA) and other space-related data sources for C2 and battle management of space forces. It focuses on enabling data sharing, establishing the data architecture required to aggregate multi-sensor data for broader use at different classification levels, transforming any-source data into normalized, usable information via data exploitation tools, followed by data handoff to Battle Management Command and Control mission systems to support actual space operations. The UDL will directly connect to dedicated USSF collateral, contributing and non-traditional sensors and systems with modernized interfaces and transport options to broadly expose data. The UDL will be the single source for accessing and managing all data in support of the USSF, providing a central location to find and access data, enabling superior analytics.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Unified Data Library (UDL)	-	-	74.275
Description: UDL capabilities support integration, exploitation, and delivery of data sources for C2 and battle management of space forces. UDL will continue to develop the library by on-boarding new data sets, directly connecting to SDA sensors, expanding data services, expanding defensive cyber operations capabilities, adding non-metric data to the global data marketplace, continuing to expand local area network capability to share Space Surveillance Network (SSN) data in a cyber-secure manner, allowing optimized data flow for use of existing SDA capability, and providing access to new commercial SDA innovations that will enable the broader SDA mission. The UDL enables analysis across the global space enterprise, as well as for Space Force related exercise support, cross-domain solution services, and integration of the legacy communications architecture with the UDL.			
FY 2027 Plans: Modernize the UDL to support a truly federated data architecture that offers enhanced scalability and flexibility for the Joint Force and allies. This modern architecture will enable the UDL to increase the data volume and number of data sources as new commercial sensors and systems are integrated into the SDA ecosystem. This architecture will improve data governance and access management and enhance key cross-domain solutions with increased resiliency, while also reducing platform cloud infrastructure, operations, and maintenance costs. A key to the new architecture is to ensure that the application interfaces			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203156SF / <i>Data Transport and Networking</i>		Project (Number/Name) 673941 / <i>Unified Data Library (UDL)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
currently in use by data providers and consumers are maintained and supported in the federated data architecture as the programs transition to the Enterprise data Integration Space Operation Node (EDISON) follow-on contract.					
The UDL program will enhance data integration, allied interoperability, and overall performance through the following key initiatives: expanding integration with C2 and SDA systems; implementing bi-directional data sharing with Combined Space Operations (CSpO) Initiative allies while enhancing the Allied Exchange Environment (AxE); and accelerating the Universal Translator (UT) deployment to remove data formatting barriers, improving legacy data onboarding.					
To support kill chain closure, the program will prioritize the following initiatives in FY27: (1) integration of kill chain-centric data sets at all classification levels and (2) integration of allied sensors to close gaps and improve SDA accuracy (including Deep space Advanced Radar Capability (DARC) Site 2 and other critical classified data sets).					
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.					
<i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 funding increased due to UDL funds transferring into this new Program Element 1203156SF, Project 673941 in FY 2027 to consolidate data transport and networking efforts to provide greater transparency and alignment of common functions. This is not a new start.					
Accomplishments/Planned Programs Subtotals			-	-	74.275
C. Other Program Funding Summary (\$ in Millions) N/A					
Remarks					
D. Acquisition Strategy In FY 2027 the UDL program plans to execute a follow-on contract that will offer enhanced scalability, flexibility, data discovery and data federation in support of emerging mission requirements. This contract will allow for development of components with different vendors to promote contractor diversity and competition while still maintaining the existing application interfaces that data providers and consumers use today. The program also plans to continue leveraging the Space Enterprise Consortium (SpEC) Other Transaction Authority (OTA) vehicle and other contract vehicles to continue strengthening the USSF data and digital infrastructure.					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking				Project (Number/Name) 673941 / Unified Data Library (UDL)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
UDL Cloud Hosting	Various	Various : Various	-	-		-		9.940	Mar 2027	-		9.940	Continuing	Continuing	-
UDL Development/Data On-boarding	Various	Various : Various	-	-		-		49.251	Dec 2026	-		49.251	Continuing	Continuing	-
UDL Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	-		-		2.471	Oct 2026	-		2.471	Continuing	Continuing	-
SBIR/STTR	Allot	TBD : TBD	-	-		-		2.719	Oct 2026	-		2.719	Continuing	Continuing	-
Subtotal			-	-		-		64.381		-		64.381	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	Various	Various : Colorado Springs, CO	-	-		-		1.155	Nov 2026	-		1.155	Continuing	Continuing	-
Subtotal			-	-		-		1.155		-		1.155	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	Various	Various : Colorado Springs, CO	-	-		-		2.244	Dec 2026	-		2.244	Continuing	Continuing	-
A&AS	Various	Various : Colorado Springs, CO	-	-		-		6.195	Dec 2026	-		6.195	Continuing	Continuing	-
Other Support	Various	Various : Colorado Springs, CO	-	-		-		0.300	Dec 2026	-		0.300	Continuing	Continuing	-
Subtotal			-	-		-		8.739		-		8.739	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking				Project (Number/Name) 673941 / Unified Data Library (UDL)				
	Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		-		74.275		-		74.275	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026																			
Appropriation/Budget Activity 3620F / 7										R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Networking										Project (Number/Name) 673941 / Unified Data Library (UDL)									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Unified Data Library (UDL)																												
UDL Cloud Hosting																												
UDL Platform Dev/Space On-boarding Component																												
UDL Cloud Component Development																												
Cross Functional UDL Integration																												
UDL Component Integration																												
UDL Cross Domain Solution Support																												
UDL AI/ML Support																												
UDL Test and Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking	Project (Number/Name) 673941 / Unified Data Library (UDL)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Unified Data Library (UDL)				
UDL Cloud Hosting	1	2027	4	2031
UDL Platform Dev/Space On-boarding Component	1	2027	4	2031
UDL Cloud Component Development	1	2027	4	2031
Cross Functional UDL Integration	1	2027	4	2031
UDL Component Integration	1	2027	4	2031
UDL Cross Domain Solution Support	1	2027	4	2031
UDL AI/ML Support	1	2027	4	2031
UDL Test and Integration	1	2027	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking				Project (Number/Name) 673944 / meshONE-T (M1T)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
673944: meshONE-T (M1T)	0.000	0.000	0.000	55.877	0.000	55.877	57.335	58.152	59.272	60.457	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This is not a new start. In FY 2027, Cyber Secure Mission Data Transport, known as meshONE-Terrestrial or meshONE-T, efforts were transferred from PE 1203110SF, Satellite Control Network (SPACE), Project 673276, to PE 1203156SF, Data Transport & Networking, Project 673944, meshONE-T, in order to consolidate data transport and networking efforts to provide greater transparency and alignment of common functions.

The meshONE-T (M1T) system provides an enterprise networking capability for USSF and other customers through proliferation of nodes utilizing diversified long-haul communication circuits to provide high speed, scalable, resilient, cyber-secure transport services for mission data producers and consumers. These services are operated and managed via Enterprise Service Desk (ESD) / Network Operation Center (NOC) sites. The multi-tenant, mission-agnostic system uses Commercial Off The Shelf (COTS)-based solutions and industry standard protocols to move data traffic quickly, efficiently, and securely across the Internet Protocol (IP)-based network architecture. M1T meets the needs of the Combatant Commands—with specific focus on USINDOPACOM and USEUCOM. Modern mission data transport services will support Next-Gen and Future Operationally Resilient Ground Evolution (FORGE) Overhead Persistent Infrared (OPIR), Advanced Battle Management System (ABMS), Missile Track Custody (MTC), Space Domain Awareness (SDA), SCN, USSF Integrated Operations Networking (ION), Launch and Test Range System (LTRS), and other mission partners. Supplementary/backup NOCs, communication links, bandwidth upgrades, and system improvements increase global operational reach, resiliency, and responsiveness to support warfighter operations through all phases of conflict. Software defined networking capabilities accelerate onboarding of new mission partners and the delivery of transport services, providing the agility necessary to counter emerging threats. M1T resolves current space mission network shortfalls including antiquated protocols, bandwidth constraints, lack of resiliency, cyber vulnerability, and excessive fielding times. All mission partners using M1T will become part of the USSF ground network enterprise, with access to every node and network-provided cyber-secure services.

Other activities include identifying shared/common platform, infrastructure and data layer solutions to support open frameworks and architectures across the enterprise ground portfolio. Funds are also used for requirements management, system planning, enterprise analysis and architecture support, Systems Engineering and Integration (SE&I), cyber security, test, system enhancement and deficiency resolution, and system resiliency.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Cyber-secure Mission Data Transport	-	-	55.877
Description: Provides a scalable, resilient, cyber-secure network communications architecture and infrastructure delivering intelligent, enterprise data and information transport for execution of warfighting functions. Supports worldwide ground communications transport for USSF, other DoW Services, Intelligence Community, and Joint All-Domain Command and Control by fielding an industry standards-based mission data network featuring interoperability, cyber security (to include Zero Trust			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203156SF / <i>Data Transport and Networking</i>	Project (Number/Name) 673944 / <i>meshONE-T (M1T)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
networking), cloud connectivity and multidomain facilitation. Addresses identified "Kill Chain" gaps, legacy system obsolescence, bandwidth constraints, stovepipes and cost inefficiency.			
FY 2027 Plans: Continue to enhance and expand the meshONE-T network to provide secure, scalable, and reliable communication for mission data transport. Continue deploying nodes, network upgrades, and capabilities in key theaters (INDOPACOM, NORTHCOM, EUCOM, and CENTCOM) to improve kill-chain effectiveness and ground resilience. Finalize the Rapid Deployable capability, including proliferated Low Earth Orbit (pLEO) SATCOM integration. Deliver system enhancements, cybersecurity, data availability, and improve user experience. Incorporate digital engineering and automation to improve service delivery, introduce machine learning for modeling and simulation in Primary, Alternate, Contingency, and Emergency (PACE)/wargaming scenarios, and implement solutions for system resilience and situational awareness in contested environments. Provide pre-operations support to meshONE-T mission partners. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.			
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increased due to M1T funds transferring into this new Program Element 1203156SF, Project 673944 in FY 2027 to consolidate data transport and networking efforts to provide greater transparency and alignment of common functions. This is not a new start.			
Accomplishments/Planned Programs Subtotals		-	55.877
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
N/A			
D. Acquisition Strategy			
The meshONE-T acquisition strategy seeks to implement new, tailored mission data transport services for USSF and other DoW mission partners. The approach addresses warfighter needs for a cyber-secure network presence at key operational locations around the globe to enable inter- and intra-mission, producer-to consumer, and sensor-to-shooter data flows. This strategy continued the prototype M1T effort to establish an Enterprise USSF mission data transport capability beyond the			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking	Project (Number/Name) 673944 / meshONE-T (M1T)
(purposeful) limitations of the prototype effort through a a non-competitive, 5-year follow-on development and deployment Other Transaction Agreement (OTA) awarded in FY 2024 using a combination of Cost and Fixed Price contract strategies. Development, Test, & Evaluation (DT&E) efforts focus on completing upgrades as well as future architectures and studies to ensure the best use of investment funding. In FY 2027, Space Systems Command will continue to execute the existing meshONE-T OTA to continue development of the mesh network. RDT&E will be applied for program office contractor support, cybersecurity support, test organization support, and FFRDC support.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203156SF / <i>Data Transport and Networking</i>				Project (Number/Name) 673944 / <i>meshONE-T (M1T)</i>					

Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Cyber Secure Mission Data Transport	SS/ Various	sev1Tech LLC : Denver, CO	-	-		-		42.959	Jan 2027	-		42.959	Continuing	Continuing	-
Enterprise Systems Engineering and Integration (SE&I)	C/CPIF	Booze Allen Hamilton : Colorado Springs, CO	-	-		-		4.223	Jan 2027	-		4.223	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace Corp : El Segundo, CA	-	-		-		0.828	Oct 2026	-		0.828	Continuing	Continuing	-
SBIR/STTR	C/TBD	TBD : TBD	-	-		-		1.956	Oct 2026	-		1.956	Continuing	Continuing	-
Subtotal			-	-		-		49.966		-		49.966	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	Various	Not specified. : El Segundo, CA	-	-		-		0.828	Nov 2026	-		0.828	Continuing	Continuing	-
A&AS	Various	Not specified. : TBD	-	-		-		4.983	Nov 2026	-		4.983	Continuing	Continuing	-
Other	Various	Not specified. : TBD	-	-		-		0.100	Jan 2027	-		0.100	Continuing	Continuing	-
Subtotal			-	-		-		5.911		-		5.911	Continuing	Continuing	N/A

			Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-	-	55.877	-	55.877	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking		Project (Number/Name) 673944 / meshONE-T (M1T)	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Cyber-secure Mission Data Transport																												
Cyber-secure Mission Data Transport																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking	Project (Number/Name) 673944 / meshONE-T (M1T)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Cyber-secure Mission Data Transport				
Cyber-secure Mission Data Transport	1	2027	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking				Project (Number/Name) 673945 / Integrated Operations Networking (ION)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
673945: Integrated Operations Networking (ION)	0.000	0.000	0.000	34.822	0.000	34.822	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This is not a New Start. In FY 2027, funds for Integrated Operations Networking (ION) are transferred from PE 1203010SF, Project 646602 to PE 1203156SF, Project 673945.

The USSF's Integrated Operations Networking (ION) effort is a critical component of the Space Force's mission to enable the Battle Management, Command, Control, and Communications (BMC3) warfighter missions. ION will integrate commercially available information technology (IT) capabilities to address urgent operational needs and close networking gaps tied to kill chain gaps identified by Space Forces - Space operating in support of USSPACECOM. ION aims to improve tactical and operational timelines within the kill-chain to enable USSF's ability to deliver credible combat power effects in support of the Joint Force.

The program will focus on developing a secure, reliable, and multi-classification transport layer to support space missions, with an emphasis on direct connection between all elements of force packages, establishing a special access program (SAP)-level network with overlays, and developing high-speed connectivity and high resilience to Commercial Cloud Services (C2S). The ION program will also pursue opportunities to leverage existing efforts, such as meshONE-T, to support the development of ION.

Funding in FY 2027 will enable the program to maintain a steady pace of execution throughout the year, ensuring that the Space Force can leverage the ION capability to enhance its mission effectiveness. The ION program will provide a critical capability to the Space Force, enabling the service to operate in a contested environment and to defend against adversary operations. The program will be executed in a manner that is consistent with the Space Force's priorities, including the development of a digital engineering ecosystem, the implementation of zero trust capabilities, and the modernization of cryptography and supply chain risk management.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: USSF Integrated Operations Networking (ION)	-	-	34.822
Description: ION will provide a secure, reliable, multi-classification transport layer to support space missions. ION will be a dynamic cloud-based software-defined mission networking gap filler that integrates Space Force capabilities providing high bandwidth and low latency for essential capabilities including support to Artificial Intelligence (AI) and the Unified Data Library (UDL). Space Force initiated ION to address significant mission network infrastructure technology debt and to better prepare for a new threat environment. ION will continue to deploy a special and compartmented access program (SAP/CAP) capable Unified Data Library within an accredited government cloud that will enable mission partners to access timely, high resolution data at all			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Networking		Project (Number/Name) 673945 / Integrated Operations Networking (ION)	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
classification levels. The expansion of cloud infrastructure and resilient movement of data are solutions to gaps in USSPACECOM Offensive Counter Space, Defensive Counter-Space and Integrated Fires Capabilities.					
FY 2027 Plans: FY 2027 efforts will focus on scaling and accelerating the expansion of classified cloud and networking infrastructure to support secure data transport in alignment with projected threat timelines. This includes building upon the existing pathfinder implementation to connect disparate classified space capabilities into integrated, resilient data transport network. ION will continue to support the terrestrial network, advancing the integration of a secure, reliable, multi-classification transport layer. This includes the incorporation of Command and Control (C2) nodes into the existing classified kill web, directly enhancing the National Space Test and Training Complex (NSTTC). These improvements will increase classified communication resiliency, align development activities, and expand opportunities for advanced training and testing- leveraging test and training data sources into UDL to strengthen USSF's ability to protect and defend high-priority space missions. ION enables rapid response capabilities by enhancing system resiliency and situational awareness—key to operating in a contested space domain. Planned activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, and prototyping. Efforts may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.					
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increased due to ION funds transferring into this new Program Element 1203156SF, Project 673945 in FY 2027 to consolidate data transport and networking efforts to provide greater transparency and alignment of common functions. This is not a new start.					
Accomplishments/Planned Programs Subtotals			-	-	34.822
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
D. Acquisition Strategy					
ION will leverage a series of existing contracts to modernize classified network infrastructure and onboard industry partners to develop, deploy, and maintain ION elements. In parallel, ION will define the acquisition strategy for FY27-FY28 supporting emerging mission requirements and utilize the most practical vehicle(s) and methods available within Federal Acquisition Regulation (FAR) and non-FAR contracts, agreements and solicitation methods.					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking				Project (Number/Name) 673945 / Integrated Operations Networking (ION)					
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ION Development - Orbital Warfare	Various	Various: TBD : TBD : TBD	-	-		-		6.840	Jul 2027	-		6.840	Continuing	Continuing	-
ION Development - Electromagnetic Warfare	Various	Various: TBD : TBD : TBD	-	-		-		13.322	Jul 2027	-		13.322	Continuing	Continuing	-
ION Development - Missile Warning/ Track	Various	Various: TBD : TBD : TBD	-	-		-		3.722	Jul 2027	-		3.722	Continuing	Continuing	-
SE&I	TBD	Not specified: TBD : TBD : TBD	-	-		-		2.123	Jun 2027	-		2.123	Continuing	Continuing	-
Technical Mission Analysis	RO	El Segundo, CA : TBD : TBD	-	-		-		2.056	May 2027	-		2.056	Continuing	Continuing	-
CGR/SBIR	TBD	Not specified: TBD : TBD : TBD	-	-		-		1.274	Mar 2027	-		1.274	Continuing	Continuing	-
Subtotal			-	-		-		29.337		-		29.337	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	Various	Various: TBD : TBD : TBD	-	-		-		1.972	Jul 2027	-		1.972	Continuing	Continuing	-
A&AS	Various	Various: TBD : TBD : TBD	-	-		-		3.463	May 2027	-		3.463	Continuing	Continuing	-
Other	Various	Not specified: TBD : TBD : TBD	-	-		-		0.050	Oct 2026	-		0.050	Continuing	Continuing	-
Subtotal			-	-		-		5.485		-		5.485	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		34.822		-		34.822	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026																			
Appropriation/Budget Activity 3620F / 7										R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking										Project (Number/Name) 673945 / Integrated Operations Networking (ION)									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
USSF ION																												
ION Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203156SF / Data Transport and Netwo rking	Project (Number/Name) 673945 / Integrated Operations Networking (ION)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
USSF ION				
ION Development	1	2027	2	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203165SF I NAVSTAR Global Positioning System (Space and Control Segments)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	115.000	0.000	115.000	379.500	690.000	460.000	345.000	Continuing	Continuing
673030: Global Positioning System Generation 4	0.000	0.000	0.000	115.000	0.000	115.000	379.500	690.000	460.000	345.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
This program, BA 7, PE 1203165SF, project 673030, Architecture Development, is a new start.

A. Mission Description and Budget Item Justification

System Delta 831 is developing the Global Positioning System (GPS) for Guardians across Position, Navigation, and Timing. As a result, the Service will improve readiness and operational reach of existing force structure.

The Global Positioning System (GPS) is a space based Positioning, Navigation and Timing (PNT) distribution system which operates through all weather. GPS supports both civil and military users in air, space, sea and land operations. GPS is a satellite-based radio navigation system that serves military and civil users worldwide. GPS users process satellite signals to determine accurate position, velocity and time. GPS must comply with Title 10 United States Code (USC) Sec 2281 which requires that the Secretary of War (SECWAR) ensures the continued sustainment and operation of GPS for military and civilian purposes, and 51 USC Sec 50112, which requires that GPS complies with certain standards and facilitates international cooperation. GPS also includes the Nuclear Detonation (NUDET) Detection System (NDS). The Government is responsible for the integration of the GPS Segments such that they provide worldwide GPS capability to support the warfighter and over four billion national security, civil, Allied, and commercial GPS users.

The Department of War's Positioning, Navigation, and Timing (PNT) Next Generation Architecture Program is a multi-domain, multi-echelon enterprise initiative to design, develop, field, and sustain a resilient, assured, and layered PNT capability. The PNT enterprise carries three primary tasks: providing and protecting the effective use of military GPS and other PNT services by U.S. and allied forces globally; preventing the effective use of PNT services by adversaries in areas of military operations; and preserving civil GPS services to non-combatants outside areas of military operations.

The GPS Generation 4 (Gen4) program prioritizes modernizing the existing GPS constellation as the foundational layer of the PNT architecture. Key program actions include developing and productizing promising technology for use in future systems, as well as policy actions to identify mission-specific PNT needs and prepare warfighters for challenging environments. This includes the accelerated fielding of Military Code (M-Code) encrypted GPS receivers across ground, aviation, and munitions domains.

The program will also assess the application of Modular Open Systems Approaches (MOSA) and the integration of commercial capabilities and technologies. Program activities will include risk reduction efforts, analysis, trade studies, modeling (MBSE), simulation, and prototyping to evaluate the feasibility, benefits, and risks of various

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026				
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203165SF I NAVSTAR Global Positioning System (Space and Control Segments)					
architectural constructs for both space and ground. The primary objective is to produce requirements definition, future investment, and development strategies for the PNT enterprise. This approach will ensure the program remains agile enough to pursue the most promising technologies and counter emerging threats.							
This program falls within the Positioning, Navigation, and Timing (PNT) mission area which provides the space and dedicated ground architecture and associated user equipment required to provide PNT services to civil and military users. Space Force investment program interdependencies include: RDT&E Budget Line Items: GPS III - Operational (1206423SF); GPS III Follow-on (1203269SF); NAVSTAR GPS (User Equipment) (1203164SF); and elements of Procurement Budget Line Items: Space Mods (SPCMOD); GPS III Space Segment (GPSIII); GPSIII Follow On (GPS03C); Global Positioning (Space) (GPSSPC)							
This program may include necessary civilian pay expenses required to manage, execute, and deliver NAVSTAR weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.							
This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.							
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.							
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	
Previous President's Budget		0.000	0.000	0.000	0.000	0.000	
Current President's Budget		0.000	0.000	115.000	0.000	115.000	
Total Adjustments		0.000	0.000	115.000	0.000	115.000	
• Congressional General Reductions		0.000	0.000				
• Congressional Directed Reductions		0.000	0.000				
• Congressional Rescissions		0.000	0.000				
• Congressional Adds		0.000	0.000				
• Congressional Directed Transfers		0.000	0.000				
• Reprogrammings		0.000	0.000				
• SBIR/STTR Transfer		0.000	0.000				
• Other Adjustments		0.000	0.000	115.000	0.000	115.000	
C. Accomplishments/Planned Programs (\$ in Millions)					FY 2025	FY 2026	FY 2027
Title: Architecture Development					0.000	0.000	115.000
Description: Develop future PNT Control Segment Architecture. Examine potential to use/re-use Modular Open Systems Approach (MOSA), open-interface software framework/applications and multi-developer environments. Conduct risk reduction activities to support new GPS Control Segment which meets the modern threat environment and capitalizes on significant commercial capabilities. Develop software and infrastructure to enable Control Segment viability. In addition this program will							

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203165SF / <i>NAVSTAR Global Positioning System (Space and Control Segments)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
begin developing the pathway to rapidly manufacture, integrate, and make available for launch navigation payloads that are interoperable with existing and future GPS User Equipment. FY 2026 Plans: N/A. FY 2027 Plans: Initiate technology maturation and risk reduction efforts for new PNT Control segment in order to meet the modern threat environment and capitalize on advances in commercial technology; develop technical baseline to utilize open interfaces and MOSA to enable enduring, multi-vendor competition and plug-and-play development; achieve contract ATP; manage cost, schedule, and performance of numerous vendors for control segment development. Initiate efforts to mature technology for increased resiliency and availability across future GPS Segments (Ground, Space, and User Equipment). Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY27 funding increased due to FY27 being first year of funding.				
Accomplishments/Planned Programs Subtotals		0.000	0.000	115.000
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy Program will conduct a competitive acquisition for risk reduction. An Acquisition Strategy Panel (ASP)/Acquisition Decision Memorandum (ADM) milestone is planned for Q2 2027.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203165SF / NAVSTAR Global Positioning System (Space and Control Segments)						Project (Number/Name) 673030 / Global Positioning System Generation 4			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Infrastructure and Software Development	TBD	Not specified. : TBD	-	-		-		31.800		-		31.800	Continuing	Continuing	-
Ground Development	TBD	Not specified. : TBD	-	-		-		61.600		-		61.600	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		-		4.100		-		4.100	Continuing	Continuing	-
Associated Product Development	TBD	Not specified. : TBD	-	-		-		2.000		-		2.000	Continuing	Continuing	-
Technical Mission Analysis	RO	Not specified. : TBD	-	-		-		3.000		-		3.000	Continuing	Continuing	-
Enterprise SE&I	C/CPAF	Not specified. : TBD	-	-		-		6.700		-		6.700	Continuing	Continuing	-
Subtotal			-	-		-		109.200		-		109.200	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Not specified. : TBD	-	-		-		0.800		-		0.800	Continuing	Continuing	-
A&AS	Various	Not specified. : TBD	-	-		-		4.700		-		4.700	Continuing	Continuing	-
Other Support	Various	Not specified. : TBD	-	-		-		0.300		-		0.300	Continuing	Continuing	-
Subtotal			-	-		-		5.800		-		5.800	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		115.000		-		115.000	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																Date: April 2026							
Appropriation/Budget Activity								R-1 Program Element (Number/Name)								Project (Number/Name)							
3620F / 7								PE 1203165SF / NAVSTAR Global Positioning System (Space and Control Segments)								673030 / Global Positioning System Generation 4							

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203165SF / NAVSTAR Global Positioning System (Space and Control Segments)	Project (Number/Name) 673030 / Global Positioning System Generation 4	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Gen4				
Risk Reduction	2	2027	2	2028
Development Activities	2	2028	4	2031
Integration/Test	2	2029	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203173SF I Space and Missile Test and Evaluation Center							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	20.433	21.862	22.487	0.000	22.487	23.032	23.352	23.770	24.246	Continuing	Continuing
67A014: R&D Space & Missile Operations	0.000	20.433	21.862	22.487	0.000	22.487	23.032	23.352	23.770	24.246	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Research and Development Space and Missile Operations (RDSMO) program, executed by the Acquisition Delta - Innovation and Prototyping, Space Systems Command at Kirtland Air Force Base (KAFB), NM, conducts Space Vehicle and Ground technology transition, prototype development, Developmental Test and Evaluation (DT&E) and Initial Operational Test and Evaluation (IOT&E). RDSMO develops and evaluates ground systems for prototype experimental, demonstration, and operational satellites within the RDT&E Support Complex (RSC) at KAFB, NM and at Schriever Space Force Base (SSFB), CO. Additionally, this program augments the Space Force Satellite Control Network (SCN) with the Mobile Range Flight (MRF) while prototyping new antenna systems and networking technologies worldwide. The RDSMO program develops, acquires, delivers, integrates, tests, operates and continuously develop the Multi-Mission Satellite Operations Center (MMSOC) satellite command and control (C2) ground systems for existing experimental and new prototype missions. RDSMO develops, acquires, delivers, integrates, tests, and operates new tactical space C2 architectures from ground stations (including government, commercial, and a local Kirtland station) through their networks to the RSC. RDSMO then ensures users receive the highest quality data at the required latency in support of USSF (United States Space Force), Department of War (DoW), and other government mission partners. This program also leads the transfer of approved on-orbit missions to operational command organizations such as Combat Forces Command (CFC). It performs prototype and technology evaluation for multiple USSF missions to include the Rapid Resilient Command and Control (R2C2), Space Domain Awareness, and other mission areas as required.

The objective of the RDSMO Program is to innovate, prototype, and evaluate USSF ground systems to support USSF, DoW, and other government mission partners while speeding transition of war-winning capabilities. The program is centered at the RSC in KAFB, but is developing, testing and evaluating architectures with distributed cloud-based operations, integration in existing and future USSF data distribution networks as well as evaluating resiliency and availability to meet future warfighter needs. RDSMO develops and integrates new space technologies to maximize operator usability, such as refining software operator interfaces and developing and evaluating novel Tactics, Techniques and Procedures (TTP). The RDSMO program provides beneficial ground and space vehicle technology directly to the warfighting organizations, for continued experimentation or operations. RDSMO uses a combination of commercial hardware and software to:

- (1) perform satellite C2 in support of launch and on-orbit requirements;
- (2) develop TTPs to conduct satellite operations;
- (3) provide a modern satellite C2 ground resource for RDT&E of new satellite and C2 systems and concepts;
- (4) develop automation of ground systems operations to enhance efficiency and consistency
- (5) deliver operational flexibility for new and legacy satellite missions designed to out-pace adversary on-orbit systems;.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203173SF I Space and Missile Test and Evaluation Center				
(6) maximize flexible satellite operations to support multi-mission prototype operations to move to cloud-based systems; (7) explore and implement innovative ground automation, C2, and data dissemination in concert with experimental, demonstration and prototype space missions; (8) ensure a stable and reliable C2 and ground baseline as necessary for experiment and prototype space missions; (9) provide an environment to mature technology for developmental satellites and payloads; (10) transition and provide best practices for satellites and ground systems to operational squadrons if necessary. This program falls within the Multi-Mission mission area which provides the systems and efforts that evenly contribute to multiple mission areas across the space enterprise. Space Force investment program interdependencies include: RDT&E Budget Line Items: Defensive Cyber Operations - Space (1203040SF); Rapid Resilient Command and Control (1206772SF); Satellite Control Network (1203110SF); Space Force IT, Data Analytics, Digital (1203010SF); and elements of Procurement Budget Line Items: AF Satellite Comm System (AFSCOM); Spaceborne Equip (Comsec) (MC0MSE); Spares and Repair Parts (SSPARE); and Space Digital Integrated Network (SDN000). Space Systems Command (SSC) System Delta (SYD) 85 is developing and operating the RDSMO program for Guardians across multiple mission areas. As a result, the Service will deliver space domain awareness capabilities and resilient infrastructure, equipment, and personnel. This program element may include necessary civilian pay expenses required to manage, execute, and deliver RDSMO weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		20.844	22.128	0.000	0.000	0.000
Current President's Budget		20.433	21.862	22.487	0.000	22.487
Total Adjustments		-0.411	-0.266	22.487	0.000	22.487
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-0.266			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		-0.411	0.000	22.487	0.000	22.487
Change Summary Explanation						
Strategic Changes:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203173SF I Space and Missile Test and Evaluation Center		
FY 2027-2030: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.				
Technical Changes: FY 2026: -0.266 million for Section 8151 SBIR reduction.				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: MMSOC Development		2.886	3.025	3.700
Description: Evolution of the Ground Services Architecture (GSA) through the on-premises hardware-based Multi-Mission Satellite Operations Center (MMSOC). Development, integration, and test of common services for space vehicle prototype and operational capabilities, including shared orbital analysis and mission planning tools, data distribution and dissemination, cyber defense, on-premises cloud computing, multi-security level operations, and enhanced ground entry points for prototype-operations. This primarily includes development and evaluation of local hardware solutions as required for space experiment and prototype requirements including both security, resiliency and availability where other cloud-based solutions will not work.				
FY 2026 Plans: Continue to evolve a smaller set of on-premises based architectures for full cybersecurity compliance and ensure reliable and resilient development and evaluation to meet "on-premises" requirements. Continue to improve the operation of existing and planned prototype missions that will inform new acquisitions and improve USSF's ground systems transition for the most cyber-secure posture possible. Continue to develop cyber resiliency strategies and evaluate effects and trades between on-premises vs cloud-based architectures. Partner with AFRL and others to speed technology transition of ground system capabilities from experimental to prototype phases. Continue to develop and deliver ground solutions and support for prototype, demonstration, and experimental missions. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities.				
FY 2027 Plans: Continue to evolve a smaller set of on-premises based architectures for full cybersecurity compliance and ensure reliable and resilient development and evaluation to meet "on-premises" requirements. Continue to investigate then develop a separate enclave that provides data separation, encryption and logical segregation, with minimal hardware separation as required by the experiment and prototype space mission needs. Continue to improve the operation of existing and planned prototype missions that will inform new acquisitions and improve USSF's ground systems transition for the most cyber-secure posture possible.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203173SF / <i>Space and Missile Test and Evaluation Center</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Continue to develop cyber resiliency strategies and evaluate effects and trades between on-premises vs cloud-based architectures. Partner with AFRL and others to speed technology transition of ground system capabilities from experimental to prototype phases. Continue to develop and deliver ground solutions and support for prototype, demonstration, and experimental missions through the RSC. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to expanded focus of on-premise architecture resiliency and also expanding RTD&E Support Complex systems and support, including defensive cyber operations and resiliency.				
Title: Cloud-Enabled Ground System Development Description: Evaluate, develop, integrate, test and operate cloud-based space C2 capability that will transform the RSC into a more modular solution for space prototype missions, by enabling the handling and distributing mission data at multiple security levels, resolving a current capability gap on payload mission data. Primary goals of this effort will be to measure cost-effectiveness, reliability, cyber resiliency, and mission-effectiveness for upcoming technology transitions. Coordinating with mission partners and AFRL to ensure technology transition evaluation is performed as efficiently as possible. Fully transition existing and future space experiment and prototype missions to an off-premises architecture while ensuring minimal risk to space mission support. FY 2026 Plans: Continue to develop, field, and evaluate cloud-based space mission operations using commercially available architectures (Nebula) to increase system reliability, data distribution, and decrease system life cycle costs for future missions consistent with the GSA by fully transitioning 2 legacy on-premises MMSOC GSA to hybrid cloud systems. Continue to assist in developing, fielding, and evaluating Space Rapid Capabilities Office (SpRCO) R2C2 FOC capabilities, to include critical technology maturation of new mission on-boarding solutions, validation of an integration, test and production environments, enabling of data distribution at multiple security levels, transition to a cloud service provider, and stand-up of shared R2C2 architecture. Continuously develop the prototype operations center with R2C2 by developing, integrating, and testing the common services for space vehicle operational capabilities, including shared orbital analysis and mission planning tools, data distribution and dissemination for each of the prototype missions including but not limited to the ROOSTER-4, ROOSTER-5 and Tetra 3, 4, & 5 missions.		9.552	10.044	9.900

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203173SF / <i>Space and Missile Test and Evaluation Center</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Begin prototype of R2C2 FOC capability deployment into SZI cloud-hosted environment to validate integration of common services for prototype missions outside the scope of R2C2. Validate cyber reciprocity of R2C2 GSA to space AO and validate a separate enclave that prototypes space mission needs. FY 2027 Plans: Continue to develop, field, and evaluate cloud-based space mission operations using commercially available architectures to increase system reliability, data distribution, and decrease system life cycle costs for future missions consistent with the GSA. Continue to assist in developing, fielding, and evaluating Space Rapid Capabilities Office (SpRCO) R2C2 capabilities, to include critical technology maturation of new mission on-boarding solutions, validation of an integration, test and production environments, enabling of data distribution at multiple security levels, transition to a cloud service provider, and stand-up of shared R2C2 architecture. Continuously develop the prototype operations center with R2C2 by developing, integrating, and testing the common services for space vehicle operational capabilities, including shared orbital analysis and mission planning tools, data distribution and dissemination for each of the prototype missions including but not limited to the ROOSTER-4, ROOSTER-5 and Tetra 3, 4, & 5 missions. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased due to reduced non-recurring engineering for cloud-native ground system development and transition of missions from legacy hardware-based MMSOC ground systems.				
Title: Prototype Baseline Support Description: Develops expanded use of automated mission planning tools, data distribution and dissemination and cyber-defense. Purchase hardware and software as needed to maintain and advance experiment and prototype operations including: mission planning, ground equipment configuration, real-time satellite commanding, telemetry processing, mission data & cyber-defense. FY 2026 Plans: Continue to develop automated ground systems and mission planning tools to decrease the requirement for additional manpower to fly the satellites, thereby decreasing the total cost to operate the anticipated 20+ experimental and prototype satellite missions. Use FFRDC, SETA, and/or UARC support to develop and evaluate TTP procedures, support cyber security assessments, and provide subject matter expertise across on- and off-premises systems.		7.995	8.793	8.887

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1203173SF / <i>Space and Missile Test and Evaluation Center</i>			
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Monitor, develop, and mitigate cyber risks. Ensure cyber accreditations to receive approval to operate (ATO) and coordinate cyber-defense capabilities. Develop and integrate ground antenna system capabilities for USSF mission needs. Integrate a cloud-based antenna as a service (AaaS) capability. Update and include full networked integration of KAFB antenna assets, enhance energy sustainability and portability of ground system support, and develop, integrate and evaluate cost-effective sustainment methodologies for hardware-based systems. Develop and integrate ground antenna system capabilities at the Mobile Range Flight (MRF). Continue to develop and deliver TTPs for next-generation USSF satellites. <i>FY 2027 Plans:</i> Continue to develop automated ground systems and mission planning tools to decrease the requirement for additional manpower to fly the satellites, thereby decreasing the total cost to operate the anticipated 20+ experimental and prototype satellite missions. Use FFRDC, SETA, and/or UARC support to develop and evaluate TTP procedures, support cyber security assessments, and provide subject matter expertise across on- and off-premises systems. Monitor, develop, and mitigate cyber risks. Ensure cyber accreditations to receive approval to operate (ATO) and coordinate cyber-defense capabilities. Develop and integrate ground antenna system capabilities for USSF mission needs. Integrate a cloud-based antenna as a service (AaaS) capability. Update and include full networked integration of KAFB antenna assets, enhance energy sustainability and portability of ground system support, and develop, integrate and evaluate cost-effective sustainment methodologies for hardware based systems. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 funding increased slightly with no significant change in scope.				
Accomplishments/Planned Programs Subtotals		20.433	21.862	22.487
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy RDSMO will award Hybrid Architecture and Development for Experimental Systems (HADES) contract (Jan 2027) to support the development and evaluation of ground systems for prototype, experimental, demonstration, and operational satellites. RDSMO will continue to use the competitively awarded Prototype Operations (POPS)-I contract (awarded May 2022) for prototype operations support and concept development activities. RDSMO will use existing mission partner contracts to leverage				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1203173SF <i>I Space and Missile Test and Evaluation Center</i>	
cost savings or technological efficiencies, including SpRCO/R2C2 contracts, partnerships with AFRL (including UARC support through the Space & Nuclear Advanced Prototypes/Experiments/Tech (SNAPET) contract), and other mission partners.		
Acquisition strategies will be developed to determine the need for additional contracts to meet the full system requirements, and new contracts may be required as development plans evolve. Additionally, RDSMO uses an SSC Advisory & Assistance Support (A&AS) contract (SSC Acquisition and Finance Support (SAFS)-III), and an AFRL SE&I support contract for Systems engineering assistance, as well as FFRDC support through Aerospace.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203173SF / Space and Missile Test and Evaluation Center				Project (Number/Name) 67A014 / R&D Space & Missile Operations					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Ground Services R&D Engineering, Development, Integration, and Sustainment	C/CPFF	SAIC : Albuquerque, NM	-	9.710	Nov 2024	10.430	Nov 2025	1.234	Nov 2026	-		1.234	Continuing	Continuing	-
Hybrid Architecture and Development for Experimental Systems	C/CPFF	TBD : Albuquerque, NM	-	-		-		8.621	Jan 2027	-		8.621	Continuing	Continuing	-
Mission Partner Integration Support	Various	Various : TBD	-	1.760	Feb 2025	0.672		0.198		-		0.198	0.000	2.630	-
Ground System Integration	C/CPFF	a.i. solutions, Inc. : Kirtland, NM	-	-		1.880	Oct 2025	3.003	Oct 2026	-		3.003	Continuing	Continuing	-
UARC - Space & Nuclear Advanced Prototypes/ Experiments/Tech (SNAPET) Contract (through AFRL)	SS/CPFF	Space Dynamics Laboratory : Logan, UT	-	1.334	Feb 2025	1.127		1.340		-		1.340	0.000	3.801	-
Enterprise SE&I	C/CPFF	Linquest : Kirtland, NM	-	-		0.000	Nov 2025	-		-		-	0.000	0.000	-
SBIR/STTR	Allot	TBD : TBD	-	0.000	Oct 2024	0.440	Apr 2026	0.712	Apr 2027	-		0.712	Continuing	Continuing	-
Subtotal			-	12.804		14.549		15.108		-		15.108	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Prototype Operations-I (POPS-I)	C/CPFF	a.i. solutions, Inc. : Kirtland AFB, NM	-	1.608	May 2025	1.006	Nov 2025	0.924	Oct 2026	-		0.924	Continuing	Continuing	-
Subtotal			-	1.608		1.006		0.924		-		0.924	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203173SF / Space and Missile Test and Evaluation Center				Project (Number/Name) 67A014 / R&D Space & Missile Operations					
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC - Aerospace	RO	Aerospace : El Segundo, CA	-	3.528	Nov 2024	3.432	Oct 2025	3.528	Oct 2026	-		3.528	Continuing	Continuing	-
AFRL SE&I	C/CPFF	Linquest : Kirtland AFB, NM	-	0.425	Nov 2024	0.455	Oct 2025	0.458		-		0.458	0.000	1.338	-
A&AS - SAFS-II/SAFS-III	C/FFP	Tecolote : Kirtland AFB, NM	-	1.051	Nov 2024	1.107	Nov 2025	1.142	Nov 2026	-		1.142	Continuing	Continuing	-
Other Support	TBD	TBD : TBD	-	1.017	Nov 2024	1.313	Oct 2025	1.327	Oct 2026	-		1.327	Continuing	Continuing	-
Subtotal			-	6.021		6.307		6.455		-		6.455	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	20.433		21.862		22.487		-		22.487	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203173SF / <i>Space and Missile Test and Evaluation Center</i>			Project (Number/Name) 67A014 / <i>R&D Space & Missile Operations</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
MMSOC Development																												
Ground Services Architecture (GSA) Evolution (On-Premise Cloud)																												
RSC SOC																												
Off Premises Cloud-Enabled Ground Systems Development																												
Off Premises Cloud-Enabled Ground System Development																												
Analysis of On- vs. Off- Premises Cloud Ground Systems																												
Integration of Off-Premises Cloud Enabled Ground Systems																												
Prototype and continuously develop R2C2 ACME software with prototype vehicle																												
Prototype and continuously develop R2C2 ACME software in SZI hosted GSA																												
Prototype Baseline Support																												
Monitor and coordinate cyber defense capabilities																												
Develop, evaluate, and test ground system TTPs, technologies and automation																												
Develop and integrate ground antenna system capabilities at the Mobile Range Flight (MRF)																												
Prototype and continuously develop AaaS through R2C2 Software Factory																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203173SF / Space and Missile Test and Evaluation Center	Project (Number/Name) 67A014 / R&D Space & Missile Operations	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
MMSOC Development				
Ground Services Architecture (GSA) Evolution (On-Premise Cloud)	1	2025	4	2029
RSC SOC	1	2025	4	2029
Off Premises Cloud-Enabled Ground Systems Development				
Off Premises Cloud-Enabled Ground System Development	1	2025	4	2029
Analysis of On- vs. Off- Premises Cloud Ground Systems	1	2025	4	2026
Integration of Off-Premises Cloud Enabled Ground Systems	1	2025	4	2031
Prototype and continuously develop R2C2 ACME software with prototype vehicle	2	2025	4	2031
Prototype and continuously develop R2C2 ACME software in SZI hosted GSA	1	2026	4	2031
Prototype Baseline Support				
Monitor and coordinate cyber defense capabilities	1	2025	4	2031
Develop, evaluate, and test ground system TTPs, technologies and automation	1	2025	4	2031
Develop and integrate ground antenna system capabilities at the Mobile Range Flight (MRF)	1	2025	4	2026
Prototype and continuously develop AaaS through R2C2 Software Factory	1	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203174SF I Space Innovation, Integration and Rapid Technology Development							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	47.216	81.046	10.538	0.000	10.538	10.908	11.112	11.318	11.544	Continuing	Continuing
674671: Enterprise Training Services Development	0.000	37.475	70.979	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
67A011: Space Analysis and Application Development	0.000	9.741	10.067	10.538	0.000	10.538	10.908	11.112	11.318	11.544	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Space Innovation, Integration, and Rapid Technology Development (SIIRTD) program element delivers enterprise capabilities and solutions to field combat-ready forces and ensure space domain superiority in an evolving threat environment.

Enterprise Training Services Development (ETSD) delivers operationally realistic space combat training capabilities via a system-of-systems architecture to generate, assess, and sustain Guardian lethality. Capabilities developed are in accordance with the USSF Operational Test and Training Infrastructure (OTTI) Strategic Requirements Document (SRD) and Space Training and Readiness Command and Space Operations Command requirements and priorities. ETSD capabilities are delivered as multi-mission collaborative training systems and platforms; networks; models; and modeling and simulation tools.

Space Analysis and Application Development (SA&AD) develops and modifies modeling and simulation tools that USSF/Space Operations Command uses for operational analysis and assessment. Provides operational assessments using analytic rigor to tackle senior leader questions associated with the joint all-domain fight using Combatant Command OPORDS. Leads assessments on space operations, security cooperation activities, and the COMSPACEFOR component space plans while also performing strategic analysis to develop digital HQ data standards and tools. Analyzes and assesses USSF's current and future SDA systems for data accuracy. Provides analyses and develops tools for USSF tactical units, operations centers, and mission partners to solve short-duration mission-related problems on tactically relevant timescales. SA&AD projects respond to changes - both existing and projected - in space operations, technology, and threats to ensure space operators are provided accurate and relevant data and capabilities. SA&AD operationalizes the state of the art in digital tools, modeling, simulation, and analysis. These efforts increase readiness and lethality at each level of operations.

This program falls within the Science and Technology (S&T) and Test & Evaluation (T&E) mission area which provides the S&T initiatives, demonstrations, experiments, and studies towards developing next-generation space capabilities. The T&E mission area provides all efforts required to establish and operate the test infrastructure for USSF capabilities. Space Force investment program interdependencies include:

RDT&E Budget Line Items: Defense Research Sciences (0601102SF); Major T&E Investments - Space (1206759SF); Small Business Innovation Research (1205502SF); Space Advanced Tech Dev / Demo (1206616SF); Space Rapid Capabilities Office (1206857SF); Space Science and Technology (1206310SF); Space Systems Prototype Transition (1206427SF); Space Technology (1206601SF); Space Test and Evaluation (1202051SF); Space Test Program (1206864SF); University Research Initiatives (0601103SF); Operational Test & Training Infrastructure (1206617SF) and elements of Procurement Budget Line Item: General Information Tech - Space (GNRLIT)

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203174SF I Space Innovation, Integration and Rapid Technology Development				
Beginning in FY 2027, project 674671, Enterprise Training Services Development, funding has been moved to new PE 1206617SF, Operational Test & Training Infrastructure, project 644441, Operational Test & Training Infrastructure.						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver ETSD and SA&AD training system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		48.900	82.399	0.000	0.000	0.000
Current President's Budget		47.216	81.046	10.538	0.000	10.538
Total Adjustments		-1.684	-1.353	10.538	0.000	10.538
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-1.353			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-1.684	0.000			
• Other Adjustments		0.000	0.000	10.538	0.000	10.538
Change Summary Explanation						
FY 2026: +42.069 million to accelerate OTTI Distributed Training Capability development; enhances, extends and scales advanced and combat training capabilities for Service-level combat exercises and Guardian lethality.						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
Beginning in FY 2027, project 674671 (72.509 million) is moved to new PE 1206617SF, project 644441, Operational Test & Training Infrastructure, including all out-year FYDP funding.						

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203174SF / <i>Space Innovation, Integration and Rapid Technology Development</i>				Project (Number/Name) 674671 / <i>Enterprise Training Services Development</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
674671: <i>Enterprise Training Services Development</i>	0.000	37.475	70.979	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Enterprise Training Services Development (ETSD) builds combat-ready forces by delivering enterprise training capabilities in alignment with the OTTI SRD. ETSD capabilities enable Guardians to train and develop tactics in an operationally relevant synthetic environment. Capabilities are delivered via technology such as:

- mission-specific simulators for weapons system operations training and threat/scenario-driven training and tactics development
- threat-representative models of adversary capabilities
- synthetic, physics-based digital environments capable of conducting multi-mission and multi-user full-force distributed combat training and exercises
- artificial intelligence to augment Guardians playing aggressor roles in training and exercise scenarios
- synthetic environment visualizations and friendly/adversary/integrated operational pictures
- networks and computer hardware required to deliver the above capabilities and interoperate with other joint acquisition, test, training, exercise, and exercise platforms and tools

Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.

Beginning in FY 2027, Project 674671, Enterprise Training Services Development, is moved into new Program Element 1206617SF, Operational Test & Training Infrastructure, Project 644441, Operational Test & Training Infrastructure.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Enterprise Training Services Development	37.475	70.979	0.000
Description: Enterprise Training Services Development (ETSD) capabilities enable Guardians to train and develop tactics in an operationally relevant environment to achieve and sustain combat readiness against real-world and emerging/potential threats.			
FY 2026 Plans:			
- Leverage Commercial Solutions Openings (CSO) to enhance, extend and scale existing fielded distributed training capabilities and associated tools; enables Guardians to attain combat skills mastery against realistic threats at the mission-specific level and collaboratively in Service-level exercises from home stations - Continue to modify and integrate mission simulator software into synthetic space environment to expand			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203174SF / <i>Space Innovation, Integration and Rapid Technology Development</i>	Project (Number/Name) 674671 / <i>Enterprise Training Services Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
multi-mission training and exercise capability - Continue aggressor augmentation AI development for quarterly software releases, providing a force multiplier for Space Flag exercises - Deliver mission simulator for Orbital Warfare Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, computer network infrastructure provisioning, and activities that leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: N/A. Beginning in FY 2027, funding is moved into new Program Element 1206617SF, Project 644441, Operational Test & Training Infrastructure. FY 2026 to FY 2027 Increase/Decrease Statement: N/A. Beginning in FY 2027, funding is moved into new Program Element 1206617SF, Project 644441, Operational Test & Training Infrastructure.			
Accomplishments/Planned Programs Subtotals		37.475	70.979
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
FY26 and 27 activities are executed via existing contracts and Interagency Agreements. Contracts are both competitively awarded and sole sourced (in accordance with Small Business Innovative Research Policy Directive, May 2023). These contracts and Interagency Agreements allow for immediate execution of all FY26 and 27 funds with minimal contracting actions required to ensure continuity of effort across the FYs.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203174SF / Space Innovation, Integration and Rapid Technology Development				Project (Number/Name) 674671 / Enterprise Training Services Development					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Distributed Training (IDIQ)	TBD	TBD : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Distributed Training (CSO)	C/FFP	Various : Various	-	-		27.515	Jan 2026	-		-		-	Continuing	Continuing	-
Electronic Warfare Tool Modifications and Integration	TBD	TBD : TBD	-	-		4.200	Jan 2026	-		-		-	Continuing	Continuing	-
Distributed Training Cloud Infrastructure	Various	Various : TBD	-	-		7.100	Dec 2025	-		-		-	Continuing	Continuing	-
Standard Space Trainer (SBIR Phase III)	C/CPFF	Sonalysts : Waterford, CT	-	18.334	Nov 2024	10.500	Jan 2026	-		-		-	Continuing	Continuing	-
Aggressor Augmentation AI & Threat Visualization	C/FFP	Slingshot Aerospace, Inc : El Segundo, CA	-	7.868	Nov 2024	15.000	Jan 2026	-		-		-	Continuing	Continuing	-
Red Model Development	MIPR	Dept of Energy : Various	-	-		-		-		-		-	Continuing	Continuing	-
Global Positioning System Environment Simulation	C/CPFF	Parsons, Inc : Colorado Springs, CO	-	7.005	Dec 2024	2.000		-		-		-	Continuing	Continuing	-
Systems Engineering & Integration (SE&I)	SS/CPIF	ENSCO : Colorado Springs, CO	-	2.463	Nov 2024	-		-		-		-	Continuing	Continuing	-
Technical Mission Analysis	RO	Space Dynamics Lab/AFRL : TBD	-	0.988	Nov 2024	2.066		-		-		-	Continuing	Continuing	-
SBIR/STTR	Allot	TBD : TBD	-	0.000	Oct 2024	2.598	Oct 2025	-		-		-	Continuing	Continuing	-
Subtotal			-	36.658		70.979		-		-		-	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Various : TBD	-	0.817	Jan 2025	-		-		-		-	Continuing	Continuing	-
A&AS	Various	TBD : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Other	Various	TBD : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Subtotal			-	0.817		-		-		-		-	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026						
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203174SF / Space Innovation, Integration and Rapid Technology Development					Project (Number/Name) 674671 / Enterprise Training Services Development							
					Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals					-	37.475		70.979		-		-		-	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026									
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
3620F / 7					PE 1203174SF / Space Innovation, Integration and Rapid Technology Development					674671 / Enterprise Training Services Development									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SIIRTD																												
Mission Simulators																												
Adversary Capabilities																												
Space Effects for Joint Support																												
Distributed Training																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203174SF / Space Innovation, Integration and Rapid Technology Development	Project (Number/Name) 674671 / Enterprise Training Services Development

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SIIRTD				
Mission Simulators	1	2025	4	2026
Adversary Capabilities	1	2025	4	2026
Space Effects for Joint Support	1	2025	4	2026
Distributed Training	2	2026	4	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203174SF / Space Innovation, Integration and Rapid Technology Development				Project (Number/Name) 67A011 / Space Analysis and Application Development			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
67A011: Space Analysis and Application Development	0.000	9.741	10.067	10.538	0.000	10.538	10.908	11.112	11.318	11.544	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Located at Peterson SFB, Colorado, the Space Innovation, Integration, and Rapid Technology Development (SIIRTD) program develops and modifies modeling and simulation tools that USSF/Space Operations Command uses for operations research, military utility analyses, tradeoff studies, verification and validation, and other assessments of space mission areas to guide SPAFORGEN, Space Domain Awareness (SDA), readiness, and other activities. SIIRTD projects respond to changes - both existing and projected - in space operations, technology, and threats to ensure space operators are provided accurate and relevant data and capabilities. SIIRTD tools and analyses enable USSF and joint warfighters to execute their missions more efficiently.

Efforts within the space warfighting enterprise are evaluating ways to increase innovation and resiliency, aiming to reduce risk, repurpose existing capabilities, integrate new capabilities, and prototype and field combat efficiencies and automations via all appropriate acquisition authorities and contract mechanisms.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Model/Tool Development and Capability Upgrades	9.741	10.067	10.538
Description: Develops, verifies, and validates models and other software for space mission areas and modifies existing models to portray new capabilities that meet senior leader intent. Advances Modeling & Simulation (M&S) tools to include impacts to the warfighter as space-delivered capabilities are degraded, incorporate space effects at the campaign, mission, and engagement levels with the goal of enhancing decision support, visualization, exercise, and wargaming. Rapidly meets leadership's guidance to implement the system resiliency and situational awareness necessary to win in the contested space domain. Activities may include, but are not limited to, performance assessments of operational units, developing combat analysis and tools supporting operational C2, providing data science solutions supporting and accelerating data-driven decisions within staff functions. Enhancing space operations and enabling a more lethal force supporting OSW, Joint Staff, Headquarters Air Force, Headquarters United States Space Force, USSF Field Commands, Space Component Field Commands, and Combatant Commands.			
FY 2026 Plans: Continue supporting the SpOC field command to provide data-driven recommendations and solutions that drive assessment strategy development and analysis for contingency planned force structure for the USSF. The funds will also support space capability development and increase strategic responsiveness with quick-turn senior leader ops assessment. Specifically, funds will support: - Deploying campaign and mission area tools.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203174SF / <i>Space Innovation, Integration and Rapid Technology Development</i>		Project (Number/Name) 67A011 / <i>Space Analysis and Application Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
- Integrating into major theater exercise and operations to provide SpOC/CC, C-FLDCOMS, and CCMDs with the status of space forces in near real-time. - Building SAP/SAR standalone infrastructure to support fully articulated space effects in AFSIM (mission-level) and STORM (campaign-level) models. - Continuing SPAFORGEN assessment across 22 tactical units collecting, distilling, and analyzing after action reports and mission reports from committed ops crews. Analysis will inform sustainment and programming efforts across the mission areas. - Continuing to support MD 2, DEL 9 and other SpOC units with analyses and tool development provided on tactically relevant timelines, enabling SpOC operators to execute their mission. - Deliver SpOC/CC's automated SPAFORGEN Assessments Dashboard. - Execute analysis of Delta 4's network infrastructure to identify critical points of failure that may force or impact Continuity of Operation plans. As able, expand to include Delta 8 with remaining deltas to follow in subsequent years. - Execute min-cut analysis of Delta 4's network infrastructure to identify critical points of failure that may force or impact Continuity of Operation plans. As able, expand to include Delta 8 with remaining deltas to follow in subsequent years. - Initiate annual look-back analysis of Operational Capability/System Capability rates and impacts to mission. Correlate findings with relevant OPLANs to identify hidden risks and/or update relevant campaign analyses. - Develop rules-based automated decision support categories of impact of OPSCAP/SYSCAP statuses to mission risk/performance. - Enhance FY25 work on automated topic extraction to include sentiment analysis. Deliberately collect, categorize, and train model on human-derived sentiments for Defense Readiness Reporting System and end-of-commit crew survey responses. Post validation, apply sentiment analysis to various text-based responses to accelerate assessment-related activities. - Support senior leadership requests for operational analysis and assessments as needed. FY 2027 Plans: Continue supporting the SpOC field command to provide data-driven recommendations and solutions that drive assessment strategy development and analysis for contingency planned force structure for the USSF. The funds will also support space capability development and increase strategic responsiveness with quick-turn senior leader ops assessment. Specifically, funds will support: - Deploying campaign and mission area tools. - Integrating into major theater exercise and operations to provide SpOC/CC, C-FLDCOMS, and CCMDs with the status of space forces in near real-time. - Expand SAP/SAR standalone infrastructure to support fully articulated space effects in AFSIM (mission-level) and STORM (campaign-level) models. - Continuing SPAFORGEN assessment across 22 tactical units collecting, distilling, and analyzing after action reports and mission reports from committed ops crews. Analysis will inform sustainment and programming efforts across the mission areas.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force							Date: April 2026				
Appropriation/Budget Activity 3620F / 7			R-1 Program Element (Number/Name) PE 1203174SF / Space Innovation, Integration and Rapid Technology Development			Project (Number/Name) 67A011 / Space Analysis and Application Development					
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2025	FY 2026	FY 2027		
- Continue equipping Guardians in MD 2, DEL 9 and other SpOC units with analyses and tool development provided on tactically relevant timelines, enabling SpOC operators to execute their mission. These analyses and tools focus on Space Domain Awareness (SDA), including detecting, characterizing, attributing, predicting, and targeting activities in the space domain to inform decision making across Missile Warning (MW), Command and Control (C2), Space Control, Orbital Warfare (OW), and other mission areas. - Continue to ensure that our current and future Space Domain Awareness (SDA) systems are providing accurate data through evaluation of operational SDA sensors data and validation of SDA & C2 programs of record. - Provide interoperable astrodynamics software for the entire SDA enterprise via the Astrodynamics Standards (AstroStds). The AstroStds are a suite of verified and validated algorithms, designed to function like the operational Space Domain Awareness (SDA) algorithms used by Mission Delta 2 (SPADOC, ASW, CAVENet/SMP, & ATLAS) and built for easy integration with practically any programming language. The AstroStds libraries are currently released as no cost Government Off The Shelf (GOTS) products to qualified DOW contractors and U.S. Government users and support a wide variety of efforts, including: DARC (Deep Space Advanced Radar Capability), GEODSS (Ground-Based Electro-Optical Deep Space Surveillance), Space Fence, ISSA (Integrated Solutions for Situational Awareness), projects within AFRL (Air Force Research Laboratories), and many others. - Deliver SpOC/CC's automated SPAFORGEN Assessments Dashboard. - Initiate annual look-back analysis of Operational Capability/System Capability rates and impacts to mission. Correlate findings with relevant OPLANs to identify hidden risks and/or update relevant campaign analyses. - Develop rules-based automated decision support categories of impact of OPSCAP/SYSCAP statuses to mission risk/performance. - Enhance FY25 work on automated topic extraction to include sentiment analysis. Deliberately collect, categorize, and train model on human-derived sentiments for Defense Readiness Reporting System and end-of-commit crew survey responses. Post validation, apply sentiment analysis to various text-based responses to accelerate assessment-related activities. - Support senior leadership requests for operational analysis and assessments as needed. FY 2026 to FY 2027 Increase/Decrease Statement: Increase due to inflation rate adjustment.											
Accomplishments/Planned Programs Subtotals							9.741	10.067	10.538		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPAF 01 GNRLIT: General Information Tech - Space	0.000	0.000	-	-	-	-	-	-	-	Continuing	Continuing

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203174SF / Space Innovation, Integration and Rapid Technology Development	Project (Number/Name) 67A011 / Space Analysis and Application Development	

C. Other Program Funding Summary (\$ in Millions)

Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPSF 01 GNRLIT: General Information Tech - Space	0.441	0.450	0.462	-	0.462	0.471	-	-	-	Continuing	Continuing

Remarks
Funding and content procures equipment for the SIIRTD USSF Virtual Analysis Capability system. Supports space and cyber modeling & analysis using a variety of Linux and Windows based hardware and software suites. Also procures Information Technology (IT) hardware and software infrastructure for the Distributed Communications Architecture for HQ ACC.

D. Acquisition Strategy

Any new project funded in this program will be awarded using competitive procedures to the maximum extent possible.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203174SF / Space Innovation, Integration and Rapid Technology Development						Project (Number/Name) 67A011 / Space Analysis and Application Development			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Model/Tool Development, Verification & Validation	C/CPAF	KBR Wyle Services : Chantilly, VA	-	9.741	Dec 2025	10.067	Dec 2026	10.538	Dec 2027	-		10.538	Continuing	Continuing	-
Subtotal			-	9.741		10.067		10.538		-		10.538	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	9.741		10.067		10.538		-		10.538	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																Date: April 2026			
Appropriation/Budget Activity 3620F / 7								R-1 Program Element (Number/Name) PE 1203174SF / <i>Space Innovation, Integration and Rapid Technology Development</i>								Project (Number/Name) 67A011 / <i>Space Analysis and Application Development</i>			

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203174SF / Space Innovation, Integration and Rapid Technology Development	Project (Number/Name) 67A011 / Space Analysis and Application Development	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SIIRTD				
Model Development/Modification, verification & validation	1	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203182SF I Spacelift Range System (SPACE)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	43.933	54.300	56.781	0.000	56.781	58.342	59.391	60.467	61.676	Continuing	Continuing
674137: Launch and Test Range System (LTRS) Modernization	0.000	43.933	54.300	56.781	0.000	56.781	58.342	59.391	60.467	61.676	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

System Delta 80 is developing and executing the Launch and Test Range System (LTRS) Modernization (aka Spacelift Range System) (Project 674157) for Guardians across Space Access, Command and Control, Operations, and Ops Commands. As a result, the Service will deliver space domain awareness capabilities, improve readiness and operational reach of existing force structure, deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland, continue to advance all near term effects, and ensure resilient infrastructure, equipment, and personnel.

The Spacelift Range System (SLRS), also known as the Launch and Test Range System (LTRS), provides public safety and assured access to space. LTRS operates at the Eastern Range (ER) at Patrick SFB/Cape Canaveral SFS, FL and the Western Range (WR) at Vandenberg SFB, CA. LTRS provides tracking, telemetry, communications, flight safety, and other capabilities to support launch of national security space (NSS), civil and commercial space payloads, Intercontinental and Sea Launched ballistic missile and missile defense evaluations, and aeronautical and guided weapon tests. LTRS ensures ability to meet the national launch requirement, safely supports the launch cadence of ER/WR launch requirement holders and provides assured access to space for the nation. The ER and WR are designated as Department of War Major Range and Test Facility Bases (MRTFB).

To meet evolving technological requirements and Spaceport of the Future guidance, LTRS rebalanced funding from a predominantly Procurement focused appropriation to a balanced appropriation mix of Procurement and RDT&E funding through a Zero Baseline Transfer FY 2025 and beyond. This realignment of appropriations ensures requirements expend against the appropriation most suited for the type of development work required for mission fulfillment. No requirements planned for Procurement obligations were sacrificed to achieve this shift in funding profile, but a large subset of these requirements to modernize Range Instrumentation and associated services were moved to the software acquisition pathway effort as core capabilities.

LTRS is comprised of 12 subsystems that together provide this capability to the ranges. The Range Safety, Command Destruct, and Positive Control subsystems provide the capability to destroy an errant rocket, if necessary to protect public safety. These subsystems rely on Telemetry, Radar, and Optics subsystems to provide tracking data. The Weather and Surveillance subsystems allow range operators and customers to determine if conditions are safe for launch. The Communications, Data Handling, and Timing & Sequencing subsystems ensure critical data is expeditiously routed from remote sensors (e.g., radars, optics) to range operators and customers. Finally, the Planning and Scheduling subsystem ensures all assets are available when needed for a launch or test operation. The shift from the LTRS program into the Spaceports of the Future (SOTF) will be accomplished over the coming years through capability transformation.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203182SF I Spacelift Range System (SPACE)				
The Space Force requires RDT&E funds to conduct LTRS Digital Transformation studies, prototype experimentation, and developmental test activities to meet evolving technological requirements. These activities will constitute the shift from Range systems alone, to integrated Spaceports while remaining operational. The Commander's SOTF vision supports the increased launch tempo and volume, while meeting technological demands of the Spaceport customer base. The transformation will entail data capability pathfinding, integrating existing systems into emerging technologies through prototype activities, and development of unique-fit solutions. Specifically, funds will provide engineering analyses for insertion of promising technology, provide opportunity to test Cloud infrastructure and software development strategies to drive state-of-the-art applications into LTRS development, validate pathfinder concepts to meet an accelerating launch capacity and cadence, improve system cyber survivability and resilience, and continue to evaluate promising technology beyond current industry standards. Digital Transformation drives automation and system autonomy into LTRS operations for seamless launch and return operations and accelerates capability to Range users through adoption of modern systems, platforms and processes.						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver LTRS Critical Space Operations capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This program falls within the Space Access mission area which provides the launch systems and corresponding ground architecture required to provide assured access to space, the movement of payloads to and from the space domain, and provision a safe and secure range for space launch operations. Program interdependencies include: EELVP (Space) - EMD (1206853SF); National Security Space Launch Program (1203953SF); Rocket System Launch Program (1206860SF); SDA Launch Procurement (1203954SF); Space Access, Mobility & Logistics (1203955SF); Tactically Responsive Space (1206862SF).						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		45.506	54.996	0.000	0.000	0.000
Current President's Budget		43.933	54.300	56.781	0.000	56.781
Total Adjustments		-1.573	-0.696	56.781	0.000	56.781
• Congressional General Reductions		0.000	-0.696			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-1.573	0.000			
• Other Adjustments		0.000	0.000	56.781	0.000	56.781
Change Summary Explanation						
Strategic:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026				
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203182SF I Spacelift Range System (SPACE)				
The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner. Technical: FY 2025: -1.573M decrease for SBIR/STTR FY 2026: -0.696M Section 8151 SBIR reduction						
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027		
Title: Delta-V		26.170	25.941	35.972		
Description: Continuation of a permanent modification to the Launch and Test Range System (LTRS) ACAT II program baseline, the ACAT III equivalent Delta-V program will execute the USSFs spaceport & test range software and IT infrastructure modernization portfolio. The program will service software and infrastructure requirements for both the Eastern Range (Cape Canaveral SFS, FL) and the Western Range (Vandenberg SFB, CA). "Delta-V", is a reference to a concept in spacecraft flight dynamics symbolizing a change (Delta, symbolized by a Greek letter in engineering and aerodynamics) in speed and direction (Velocity, symbolized by "V") from the current state. As its name suggests, Delta-V aims to continuously improve the quality and rate of software capability delivery to space launch and test range operations. The two primary thrusts of the program will be to (1) enable the modernization of existing range software & IT infrastructure and (2) to establish and operate a software factory to build/buy and operationally maintain and sustain spaceport and test range software systems. The Delta-V program entered the execution phase of the Software Acquisition Pathway in July 2024.						
FY 2026 Plans:						
Delta-V will continue to build upon developmental capabilities initiated in FY25 such as the Cloud-based Infrastructure, Continuous Integration/Continuous Delivery (CI/CD) platform, SW development and test environments, Zero Trust pilot program, Spaceport agile software projects and prototypes and mature DevSecOps processes and virtualize legacy LTRS hardware. New efforts in FY26 will include initial development of spaceport data infrastructure and expansion of spaceport situational awareness tools. Delta-V will utilize CI/CD platforms and processes to provide engineering solutions, test, and deliver enhanced operational systems to meet evolving technological requirements and Spaceport of the Future guidance on National launch capacity and cadence requirements.						
Key capability deliveries planned for FY26 include Planning and Scheduling subsystem Enterprise cloud hosted dashboard updates that track and display key metrics related to real-time range asset usage, health and readiness and a Day of Launch						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203182SF / <i>Spacelift Range System (SPACE)</i>		
C. Accomplishments/Planned Programs (\$ in Millions) operations training environment. The Range Safety subsystem will see the first MVP of a Cloud Platform hosted version of a critical legacy safety capability. FY 2027 Plans: Delta-V will continue to build upon developmental capabilities initiated in prior years such as the Cloud-based Infrastructure, Continuous Integration/Continuous Delivery (CI/CD) platform, software development and test environments, Zero Trust pilot program and work to mature agile and DevSecOps processes across LTRS. Delta-V will also continue multiple Spaceport agile software projects and prototypes, virtualization of legacy LTRS hardware, development of spaceport data infrastructure including an accessible common data layer and expansion of spaceport situational awareness tools. Delta-V will utilize CI/CD platforms and processes to provide engineering solutions, test, and deliver enhanced operational systems to meet evolving technological requirements and Spaceport of the Future guidance on National launch capacity and cadence requirements. FY27 plans include a Minimum Viable Capability Release for planning launch operations with Launch Service Providers and Minimum Viable Products of Off-Premises IL-6 cloud capability and hybrid cloud offerings to Western Range. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: The FY27 funding increased due to increased support for data architecture and optimization.		FY 2025	FY 2026	FY 2027
Title: Enterprise Systems Engineering and Integration to Support Government-Controlled Baseline Description: SE&I manages the government-controlled system and subsystem level baseline requirements including analysis of future changes to the fielded baseline. SE&I provides "government as the integrator" engineering support to ensure multiple separate modernizations and the sustainment baseline are synchronized. SE&I will develop and recommend investment strategies to keep the Eastern and Western Ranges operating well beyond the FYDP. FY 2026 Plans: N/A FY 2027 Plans: N/A FY 2026 to FY 2027 Increase/Decrease Statement:		9.527	0.000	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203182SF / <i>Spacelift Range System (SPACE)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
N/A				
Title: LTRS Range Technology Integration		8.236	28.359	20.809
Description: Provides Systems Engineering and Integration (SE&I) and Advisory and Assistance Services (A&AS) support of the operational baseline (all twelve subsystems) to include engineering and integration, configuration management of all range assets, requirements analyses, and special studies. Provides enterprise support for Delta-V SWP and Systems Program Office operations, Systems Engineering and Technical Assistance (SETA), and Federally Funded Research and Development Centers (FFRDC). Strategically executes experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose capabilities.				
FY 2026 Plans: Provide engineering and integration support to both sustainment and development projects aimed at increasing spaceport capacity, responsiveness and agility including the Delta-V SWP, data transport and handling improvements, and sensor edge modernization. Adopt modern systems, infrastructure, platforms, and processes to increasingly rely on Cloud-based infrastructure with Cloud-native data governance regimes to sustain future operational data needs. Facilitating the shift of commercial launch customers to AFSS systems and the continued shift for government launch customers away from the FTS system towards AFSS configuration. Continue efforts to analyze, engineer, and prototype SOTF envisioned agility and resiliency through a Digital Transformation strategy while upgrading rapid data delivery for decision-support in an increasingly contested operational environment. Transforming Range resiliency and launch customer responsiveness with data and predictive modeling for real-time decision support. Development teams and digital support services will facilitate prototypes and data-driven test applications to accelerate delivery of capabilities to range users. Progress against goals such as agile Range situational awareness and LTRS equipment automation to facilitate rapid range reconfiguration and continued expansion of capability to conduct simultaneous launch operations. Harness proven Delta-V SWP Dev/Sec/Ops approach for deploying LTRS system applications and transitioning legacy data transport for accelerated analysis and mission support. Implement system resiliency and situational awareness necessary to operate in a contested space and cyber domain, while improving operational efficacy through testing and prototyping throughout increased operational use. Activities include, but are not limited to, project support, program office strategy advisement on advanced technology adoption, studies, technical analyses, experimentation, prototyping, etc. Decision-support delivered to senior leaders for progress against SOTF objectives.				
FY 2027 Plans: Maintaining capability while modernizing and accelerating engineering innovation to the Ranges and Spaceports. Adopt modern systems, infrastructure, platforms, and processes to increasingly rely on Cloud-based infrastructure with Cloud-native data governance regimes to sustain future operational data needs. Facilitating the shift of commercial launch customers to AFSS systems and the continued shift for government launch customers away from the FTS system towards AFSS configuration. Continue efforts to analyze, engineer, and prototype SOTF envisioned agility and resiliency through a Digital Transformation				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force								Date: April 2026				
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203182SF I Spacelift Range System (SPACE)							
C. Accomplishments/Planned Programs (\$ in Millions)								FY 2025	FY 2026	FY 2027		
strategy while upgrading rapid data delivery for decision-support in an increasingly contested operational environment. Transforming Range resiliency and launch customer responsiveness with data and AI-enabled predictive modeling for real-time decision support. Development teams and digital support services will facilitate prototypes and data-driven test applications to accelerate delivery of capabilities to range users. Progress against goals such as agile Range situational awareness and LTRS equipment automation to facilitate rapid range reconfiguration and continued expansion of capability to conduct simultaneous launch operations. Harness proven LTRS CI/CD pipeline and established Dev/Sec/Ops approach for deploying LTRS system applications and transitioning legacy data transport for accelerated analysis and mission support. Implement system resiliency and situational awareness necessary to operate in a contested space and cyber domains, while improving operational efficacy through customer-responsive iteration, testing, prototyping, and releases throughout increased operational use. Activities include, but are not limited to, program office strategy advisement on advanced technology adoption, studies, technical analyses, experimentation, prototyping, etc. Decision-support delivered to senior leaders for progress against SOTF objectives.												
FY 2026 to FY 2027 Increase/Decrease Statement: A minor decrease in funds from FY 2026 to FY 2027 still enables the integration of sensor edge data and range system data to meet current technology demands via a hybrid cloud environment with AI-enabled data handling capabilities, ensuring secure data handling and transmission for spacelift mission support.												
Accomplishments/Planned Programs Subtotals								43.933	54.300	56.781		
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost	
• SPSF 01 1203182SF: Spacelift Range System (Space)	63.798	64.321	64.885	-	64.885	64.356	65.240	66.672	68.008	Continuing	Continuing	
Remarks												
E. Acquisition Strategy												
The Launch and Test Range System (LTRS) program acquisition strategy is Incremental System Modernization and Digital Transformation to ensure continued enablement of the accelerating National launch cadence executing on the Eastern Range (ER) and Western Range (WR). This strategy addresses the US Space Force (USSF) Spaceport of the Future (SOTF) objectives, formerly known as Range of the Future (ROTF), envisioned by Range instrumentation architecture—one of multiple SOTF lines of effort. The LTRS program is focused on developing a scalable system capable of responding to the demands of National Security Space objectives and DoW test and evaluation needs as well as assuring the Nation's ability to access space. Innovative development and employment of the Delta-V Software Acquisition Pathway (SWP) Cloud infrastructure, software factory and software development services, and cyber security strategies to facilitate data-driven Spaceport activities, digital processing, and data distribution capability is targeted as the enabling strategy for the SOTF Architectural line of effort. Promising prototypes and technology will be accelerated into the LTRS architecture via investments aimed at inserting on-demand increased operational capacity and state-of-the-practice data formatting and												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force / BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1203182SF / Spacelift Range System (SPACE)	
transport to launch operations. Contracted engineering and integration services innovate promising technology into the system technical baseline and manage the LTRS specifications and technical requirements on behalf of the government. Additionally, engineering services act as integrator for completed LTRS modernization projects. Federally Funded Research and Development Center (FFRDC) provides critical mission technical and cyber security analysis capability to ensure LTRS assets meet operational needs.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203182SF / Spacelift Range System (S PACE)					Project (Number/Name) 674137 / Launch and Test Range System (LTRS) Modernization				
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Launch and Test Range System (LTRS) Software Modernization, called Delta-V	C/Various	Various : Various	-	26.170	Jan 2025	25.941	Jan 2026	35.972	Jan 2027	-		35.972	Continuing	Continuing	-
Enterprise Systems Engineering and Integration	C/FPIF	ENSCO INC : Falls Church, VA	-	9.527	Oct 2024	0.000	Oct 2025	0.000		-		0.000	0.000	9.527	-
LTRS Range Technology Integration	C/Various	Various : Various	-	6.091	May 2025	26.322	May 2026	16.342	Oct 2026	-		16.342	Continuing	Continuing	-
SBIR/STTR	Allot	Not Specified: TBD : TBD	-	0.000	May 2025	0.000	May 2026	1.987	May 2027	-		1.987	Continuing	Continuing	-
Subtotal			-	41.788		52.263		54.301		-		54.301	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace : El Segundo, CA	-	0.581	Nov 2024	0.937	Nov 2025	1.344	Oct 2026	-		1.344	Continuing	Continuing	-
OTHER SUPPORT	PO	Various : El Segundo, CA	-	1.564	Nov 2024	1.100	Nov 2025	1.136	Oct 2026	-		1.136	Continuing	Continuing	-
Subtotal			-	2.145		2.037		2.480		-		2.480	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	43.933		54.300		56.781		-		56.781	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 7					PE 1203182SF / <i>Spacelift Range System (SPACE)</i>					674137 / <i>Launch and Test Range System (LTRS) Modernization</i>			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
LTRS																												
LTRS Software Modernization, Delta-V																												
Range Technology Integration																												
Enterprise SE&I																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203182SF / <i>Spacelift Range System (SPACE)</i>	Project (Number/Name) 674137 / <i>Launch and Test Range System (LTRS) Modernization</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
LTRS				
LTRS Software Modernization, Delta-V	1	2025	4	2031
Range Technology Integration	1	2025	4	2031
Enterprise SE&I	1	2025	4	2025

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203330SF I Space Superiority ISR							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	28.227	24.411	64.290	0.000	64.290	59.757	51.767	48.022	46.028	Continuing	Continuing
67A051: Space Superiority - Advanced Intelligence Systems	0.000	28.227	24.411	64.290	0.000	64.290	59.757	51.767	48.022	46.028	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Combat Forces Command (CFC)/Intelligence Directorate (S2) is developing, operating, prototyping and executing terrestrially-based Space Superiority Intelligence collection, processing, exploitation, analysis and production capabilities in support of Combatant Commands (CCMD) and Combat Forces Command (CFC) requirements within the Combat Power mission to ensure space superiority over near-peer adversaries, enabling space combat operations and capability development. As a result, the Service will contribute to space domain awareness.

The Space Superiority Intelligence, Surveillance and Reconnaissance (SSI) program provides intelligence for key find, fix, track, target, engage, and assess (F2T2EA) requirements supporting Space Superiority activities meeting Combatant Command (CCMD) and Combat Forces Command (CFC) needs. SSI develops intelligence capabilities supporting Space Force operations and space superiority capability acquisition and development. Funds development of intelligence Planning and direction, Collection, Processing and exploitation, Analysis and production, Dissemination and integration (PCPAD) capabilities providing Battlespace Awareness and Space Domain Awareness (SDA) in support of Space Superiority and Space Control. This includes funding for fixed-site and transportable intelligence collection; Processing, Exploitation and Dissemination (PED); analysis and production capabilities; and targeting capabilities; while meeting Risk Management Framework (RMF) accreditation requirements in order keep pace with technological advances and emerging threats. It provides intelligence support systems for SDA activities that provide the requisite current and predictive knowledge of space events, threat conditions, and networks. It also supports specialized/tailored, phased threat system analysis and studies (A&S), test support, lab equipment, and Material Acquisition and Exploitation (MAE) for system development, vulnerability, susceptibility assessments to support tactics, techniques and procedures (TTP) development, and future threat technology studies necessary for mission area success, achievement of space superiority, and to preserve the US space advantage across all domains. Funding expands three 73 ISRS collection sites in three Areas of Responsibility (AORs) to eight collection sites in five AORs, with the full complement of sites being called Orion's Belt. Orion's Belt will be supplemented by five deployable 72 ISRS UTCs of small form factor capabilities constituting its CONUS-based Deployable ISR Support Cells (DISCs) to meet USSF Service-retained and CCMD intelligence collection requirements.

Funding initiates USSF continuation of Congressional adds to fully develop a Space Joint Munitions Effectiveness Manual (JMEM) in support of targeting-related Tactics, Techniques, and Procedures (TTPs) which will drive operational engagement. CFC will partner with Space Systems Command, OSW DOT&E's Joint Technical Coordination Group for Munitions Effectiveness (JTCEG-ME), National Laboratories, and FFRDCs to develop all required models, simulations, and advanced user tools.

Space acquisition must respond with speed and agility to the proliferation of emerging space adversary threats and new technologies. In support of these nascent, cutting-edge space acquisition capabilities, Space Superiority Intelligence provides exquisite, crucial cryptologic and other intelligence through transformational collection and production activities through the rapid development and fielding of fixed and transportable intelligence architectures capable of front-end collection and analysis

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203330SF I Space Superiority ISR				
of new technologies in near real time. Space Superiority and Space Control is only realized through Space Superiority Intelligence support on the front end of space acquisition, allowing increased innovation and resiliency in support of changing program/project priorities to respond and to operate in the contested space domain, as well as supporting lifecycle experimentation, prototyping, and risk reduction. Supports USSPACECOM Space Domain Awareness Initial Capabilities Document (ICD), February 2022. Fulfills USSPACECOM FY26-30 Integrated Priorities List (IPLs) regarding Persistent and Resilient ISR and Operational Intelligence.						
This program falls within the Combat Power mission area which provides the systems required to protect and defend space-based capabilities and ensure space superiority by enabling and executing combat operations in space. Space Force investment program interdependencies include: RDT&E Budget Line Items: Counterspace Systems (1206421SF); Space-Based Moving Target Indicator (1203155SF); Long Range Kill Chains (1203154SF); Space Control Technology (1206438SF); and elements of Procurement Budget Line Items: Space Mods (SPCMOD); Space Based Air Moving Target Indicator (AMTI00); Ground Moving Target Indicator (GMTI00); Counterspace Systems (CTRSPC)						
The FY 2027 request for RDT&E includes \$64,290 thousand of discretionary and \$0 thousand of mandatory (reconciliation) for a total of \$64,290 thousand.						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		28.227	24.411	0.000	0.000	0.000
Current President's Budget		28.227	24.411	64.290	0.000	64.290
Total Adjustments		0.000	0.000	64.290	0.000	64.290
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	64.290	0.000	64.290
Change Summary Explanation						
FY 2027: The FY 2026 President's Budget submittal did not reflect the FY 2027 through FY 2030 funding. Therefore, an explanation of the changes between the two budget positions for FY 2027 cannot be made in a relevant manner.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Advanced Intelligence Systems for Space Superiority				28.227	24.411	64.290

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203330SF / <i>Space Superiority ISR</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Description: Develops & delivers fixed & mobile PCPAD capabilities. FY 2026 Plans: Completes refurbishment of two large apertures to increase collection capacity and data veracity in support of INDOPACOM requirements. Continues prototype development of contractor "fly-off" winner for best small form-factor, easily transportable, technical intelligence data processors. This project will deliver two systems for 72 ISRS employment, using the latest hardware/software technology, digital processing, and automation. Continues full recapitalization of two technical intelligence processors to replace systems originally fielded in 2019 which are no longer functional. These two systems enable 72 ISRS to sustain its UTCs for satisfying requirements to deploy collection and processing systems to meet USSF and CCMD requirements. Continues full recapitalization of two fixed-site intelligence data processing systems to current Intelligence Community hardware/software baselines in order to accelerate the establishment of new unmanned, remotely-operated 73 ISRS Orion's Belt sites. Continues second year of three-year effort to modernize eight mid-sized apertures at OCONUS and CONUS locations. Continues modernization of digital architecture to fully enable automated intelligence collection and processing operations across multiple AORs to maximize collection and processing efficiency. Begins recapitalization and upgrades of analysis and production systems, network capabilities, and associated operating system. Sets the stage to expand these capabilities beyond 73 ISRS to all Delta 7 squadrons. Initiates the development of a small form-factor, easily transportable, technical intelligence data processor capable of processing two uniquely different types of technical intelligence data/formats in a single data processing system. Continues cybersecurity assessments and Risk Management Framework (RMF) documentation to sustain current and attain new Authority to Operate (ATO) approvals and certifications for mission systems and software applications. Continues funding for updates to analytic exploitation, vulnerability and susceptibility analysis, contributing to development of operational tactics, techniques, and procedures (TTPs). Continues efforts to conduct the Space Force's Intelligence Capabilities Based Assessment (CBA), including needs, gaps, solutions analysis, requirements development, and analysis of alternatives for fielding Space Intelligence capabilities, across multiple Field Commands and the National Space Intelligence Center. FY 2027 Plans: Begins the first of five years to develop, integrate and establish five new unmanned, remotely operated Space Intelligence Enterprise sites in 4 AORs, called Orion's Belt. Each Orion's Belt site, one per year over the FYDP, establishes a minimum footprint of two small/medium-sized antennas, cutting edge processors, high-speed Radio Frequency (RF) data transport, a new RF over Internet Protocol (RFoIP) capability, integrated commonality with existing Space ISR Enterprise sites and infrastructure, and worldwide high-speed connectivity for all sites to enhance data sharing and collaboration. Begins Targeting Enhancements via Space Joint Munitions Effectiveness Manual (JMEM), Modeling, Simulation, and Applications Development: In response to the Military Target Committee's Action Item #24-10 "Space Advanced Target Development				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203330SF / <i>Space Superiority ISR</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
(ATD)", FY27 funding will support "Defense of the Homeland" and "Prevailing in Conflict" priorities in the National Defense Strategy by developing methodologies and tools for conduction effective targeting in the space warfighting domain. Efforts will support advanced, physics-based Space systems modeling and simulation of red and blue capabilities, enabling effectiveness assessments to drive planning for and execution of space operations. Combat Forces Command (CFC) will leverage technical expertise across a variety of National Laboratories and DoW mission partners to generate data supporting the development of information, tools, and end-user applications for Space Force Intelligence and Operations personnel, and other users, to provide effectiveness assessments, enabling Combatant Commanders to make strategic and operational risk estimations corresponding to engagement decisions in the congested and contested pace warfighting domain. Continues development of small form-factor, easily transportable, technical intelligence data processor capable of processing two uniquely different types/formats of technical intelligence data in a single data processing system. This project will deliver enough systems in FY27 and FY28 to equip 72 ISRS's five UTCs. Continues modernization of digital architecture to fully enable automated intelligence collection and processing operations across multiple AORs to maximize collection and processing efficiency. Completes recapitalization and upgrades of analysis and production systems, network capabilities, and associated operating system, and initiates the expansion of this capability beyond 73 ISRS to all Delta 7 squadrons. Continues cybersecurity assessments and Risk Management Framework (RMF) documentation to sustain current and attain new Authority to Operate (ATO) approvals and certifications for mission systems and software applications. Continues funding for updates to analytic exploitation, vulnerability and susceptibility analysis, contributing to development of operational tactics, techniques, and procedures (TTPs). Completes efforts to conduct the Space Force's Intelligence Capabilities Based Assessment (CBA), including needs, gaps, solutions analysis, requirements development, and analysis of alternatives for fielding Space Intelligence capabilities, across multiple Field Commands and the National Space Intelligence Center. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increase due to: (1) Enhancing Architecture Upgrades and Integration efforts that modernize digital architecture to fully enable "Sun Synchronous" intelligence collection and processing operations across multiple AORs to maximize collection and processing efficiency; Complete recapitalization and upgrades of analysis and production systems, network capabilities, and associated operating systems, and initiates the expansion of this capability beyond 73 ISRS to all Delta 7 squadrons; (2) Beginning Orion's Belt 5-Site Expansion that begins the first of five years to develop, integrate and establish five new unmanned, remotely operated Space Intelligence Enterprise sites in 4 AORs; and (3) Beginning Targeting Enhancements via Space JMEM, Modeling, Simulation, and Applications Development to generate data supporting the development of information, tools, and end-user applications for Space Force Intelligence and Operations personnel.				
Accomplishments/Planned Programs Subtotals		28.227	24.411	64.290

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1203330SF / <i>Space Superiority ISR</i>	
D. Other Program Funding Summary (\$ in Millions) N/A		
Remarks N/A		
E. Acquisition Strategy All contracts funded in this program will be awarded using competitive procedures to the maximum extent possible. Space Superiority and R&D Intelligence Development: Single Delivery, Cost-Plus-Fixed-Fee (CPFF), advisory and assistance contractor supporting development and implementation efforts, such as engineering architectural development and planning. Prime contractors are Cherokee LLC and SPA LLC. Architecture upgrades to support SDA and Space Superiority: Multiple Delivery, CPFF integration contract for acquiring, integration, installation and testing of ISR collection assets, as well as Requirements Management Framework (RMF) certifications to operate. Prime contractor is CACI or competitively selected successor. Data Analysis, Production Development, Test Support for R&D: Multiple Delivery, CPFF production contract supporting vulnerabilities analysis of ISR collected material. Prime Contractor is Booz Allen Hamilton. Orion's Belt 5-Site Expansion: Multiple Delivery, CPFF integration contract for acquiring, integration, installation and testing of ISR collection assets, as well as Requirements Management Framework (RMF) certifications to operate. Prime contractor is CACI or competitively selected successor. Targeting Enhancements via Space JMEM, Modeling, Simulation, and Applications Development: Combat Forces Command (CFC) will leverage technical expertise across a variety of National Laboratories, DoW mission partners, and contractors (Classified, available upon request).		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203330SF / <i>Space Superiority ISR</i>				Project (Number/Name) 67A051 / <i>Space Superiority - Advanced Intelligence Systems</i>					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Space Superiority and R&D Intelligence Development	C/CPFF	Cherokee LLC, SPA, MITRE : Peterson SFB, CO	-	3.419	Nov 2024	3.452	Nov 2025	3.091	Nov 2026	-		3.091	Continuing	Continuing	-
Architecture Upgrades to SDA and Space Superiority	C/CPFF	CACI : Dulles, VA	-	19.967	Dec 2024	16.140	Dec 2025	21.417	Dec 2026	-		21.417	Continuing	Continuing	-
Data Analysis, Product Development & Test Support for R&D	C/CPFF	Booz Allen Hamilton : WPAFB, OH	-	4.611	Nov 2024	4.579	Dec 2025	4.675	Dec 2026	-		4.675	Continuing	Continuing	-
Targeting: Space JMEM, Modeling, Simulation, and Applications Development	C/CPAF	Natl Labs, Msn Partners : Various, DC	-	0.000		0.000		24.225	Oct 2026	-		24.225	Continuing	Continuing	-
Orion's Belt 5-Site Expansion	C/CPAF	CACI : Dulles, VA	-	0.000		0.000		9.973	Dec 2026	-		9.973	Continuing	Continuing	-
Subtotal			-	27.997		24.171		63.381		-		63.381	Continuing	Continuing	N/A
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Mission Support	C/Various	TBD : TBD	-	0.230	Oct 2024	0.240	Oct 2025	0.909	Oct 2026	-		0.909	Continuing	Continuing	-
Subtotal			-	0.230		0.240		0.909		-		0.909	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	28.227		24.411		64.290		-		64.290	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026					
Appropriation/Budget Activity 3620F / 7								R-1 Program Element (Number/Name) PE 1203330SF / <i>Space Superiority ISR</i>						Project (Number/Name) 67A051 / <i>Space Superiority - Advanced Intelligence Systems</i>			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Space Superiority ISR																												
Space Superiority and R&D Intelligence Development																												
Architecture Upgrades to SDA and Space Superiority																												
Data Analysis, Production Development and Test Support for R&D																												
Targeting Enhancements: Space JMEM, Modeling, Simulations, and Applications																												
Orion's Belt 5-Site Expansion																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203330SF / <i>Space Superiority ISR</i>	Project (Number/Name) 67A051 / <i>Space Superiority - Advanced Intelligence Systems</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Space Superiority ISR</i>				
Space Superiority and R&D Intelligence Development	1	2025	4	2031
Architecture Upgrades to SDA and Space Superiority	1	2025	4	2031
Data Analysis, Production Development and Test Support for R&D	1	2025	4	2031
Targeting Enhancements: Space JMEM, Modeling, Simulations, and Applications	1	2027	4	2031
Orion's Belt 5-Site Expansion	1	2027	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					PE 1203873SF I Ballistic Missile Defense Radars							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	11.620	5.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16.620
674820: Sensor Development	0.000	11.620	5.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	16.620
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

COBRA DANE (CD) radar is located 200 miles from Russia, at Eareckson AS, AK (Shemya Island, AK). CD is the most powerful, sensitive, and accurate Ground-based Mid-course Defense (GMD) radar and the premier Ballistic Missile Defense (BMD) radar. At the same time, it is the most accurate and capable phased array available to the Space Surveillance Network (SSN) for cataloging hazardous and difficult-to-track satellites and space debris objects that clutter the near-earth orbital regime that cannot be detected by most other SSN tracking assets. CD detects Intercontinental Ballistic Missiles (ICBMs) and Sea-Launched Ballistic Missiles (SLBMs), classifies reentry vehicles (RVs) and other missile objects, provides real-time information to the GMD Fire Control (GFC), and provides tracking of threat ballistic missiles with sufficient accuracy to commit the launch of interceptors and to update the target tracks to the interceptor while the interceptor is in flight. CD's other primary mission is to support US Space Command's (USSPACECOM) Space Domain Awareness (SDA) mission by detecting, tracking, correlating, and characterizing man-made resident space objects, primarily in the Low-Earth Orbit (LEO) regime, including space debris and early observation of New Foreign Launches (NFLs). It operates as part of the larger SSN and provides metric observation data to its command and control nodes: the Combined Space Operations Center (CSpOC) and the Distributed Space Command and Control - Dahlgren (DSC2-D). CD also supports USSPACECOM's Space Object Identification (SOI) mission by providing narrow-band radar data of man-made resident space objects in the LEO regime. SOI information is used to ascertain the mission and operational status of various payloads and aids in forecasting maneuvers or deorbits.

CD will acquire a modern architecture through design, development, integration, and test. This architecture enhances mission capability, providing warfighter and stakeholder customers direct operational benefit. CD utilizes Federally Funded Research and Development Centers (FFRDC), Systems Engineering and Integration (SE&I), University Affiliated Research Center (UARC), and Assistance and Advisory Services (A&AS) contractors to support programmatic and technical activities. Activities include studies and analysis to support both current program planning and execution and future program planning. Specifically, the Automated Data Processing Equipment (ADPE) Rehost program upgrades the CD system's radar back-end mission data processing, radar management and control, and signal processing capabilities to a modern architecture that facilitates long-term mission resiliency, cyber security, system viability, high operational availability, and rapid hardware and software development and deployment capability. RDT&E funds were provided to the Missile Defense Agency (MDA) to accelerate the joint Department of the Air Force and MDA modernization program of the CD radar. In addition to funds being used to modernize this back end of the radar, these funds will also be used for out-year planning of front-end component modernization including enhancement of communication elements.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Ballistic Missile Defense Radars weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

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PE 1203873SF: *Ballistic Missile Defense Radars*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203873SF I Ballistic Missile Defense Radars	

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2025	FY 2026	FY 2027
N/A			
FY 2026 to FY 2027 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals	11.620	0.000	0.000

	FY 2025	FY 2026
Congressional Add: PARCS Radar Digitization Upgrade Study	0.000	5.000
FY 2025 Accomplishments: N/A		
FY 2026 Plans: FY 2026 Plans: The \$5 million FY26 RDT&E increase for PARCS will be used to fund critical risk reduction and prototyping activities directly supporting the GBRD effort. Specific allocations include contractor support for requirements definition, MBSE modeling of the existing PARCS architecture, and initial design work for the common back-end interface, ensuring PARCS is ready for the larger modernization effort.		
Congressional Adds Subtotals	0.000	5.000

D. Other Program Funding Summary (\$ in Millions)
N/A
Remarks
E. Acquisition Strategy
The ADPE Rehost acquisition strategy has transitioned to traditional acquisition delivery orders under a University Affiliated Research Center (UARC), sole-source, cost-plus fixed fee contract. This approach will provide a phased extension of system service life to ensure warfighter capability through at least 2030. This evolutionary migration to a modernized open system approach provides the foundation for adaptable system sustainment and addition of future capabilities.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203873SF / Ballistic Missile Defense Radars				Project (Number/Name) 674820 / Sensor Development					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ADPE Phase II, Mission Computer Replacement	SS/CPAF	Various : Colorado Springs, CO	-	9.508	Oct 2024	-		-		-		-	0.000	9.508	-
Signal Processor, Radar Controller, Receiver-Exciter Replacement	SS/CPAF	Various : Colorado Springs, CO	-	0.000	Oct 2024	-		-		-		-	0.000	0.000	-
PARCS Radar Digitization	SS/CPFF	Georgia Tech : Atlanta, GA	-	-		1.000	Apr 2026	-		-		-	0.000	1.000	-
SBIR/STTR	Allot	TBD : TBD	-	-		-		-		-		-	0.000	0.000	-
Subtotal			-	9.508		1.000		-		-		-	0.000	10.508	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	Various	Space Readiness Delta : Colorado Springs, CO	-	0.617	Jan 2025	-		-		-		-	0.000	0.617	-
Subtotal			-	0.617		-		-		-		-	0.000	0.617	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : Colorado Springs, CO	-	1.033	Jan 2025	3.900	Jul 2026	-		-		-	0.000	4.933	-
Other Support	Various	Various : Colorado Springs, CO	-	0.462	Mar 2025	0.100	Apr 2026	-		-		-	0.000	0.562	-
Subtotal			-	1.495		4.000		-		-		-	0.000	5.495	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026			
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203873SF / Ballistic Missile Defense Radars					Project (Number/Name) 674820 / Sensor Development				
		Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		-	11.620		5.000		-		-		-	0.000	16.620	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7								R-1 Program Element (Number/Name) PE 1203873SF / <i>Ballistic Missile Defense Radars</i>				Project (Number/Name) 674820 / <i>Sensor Development</i>			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
ADPE Rehost Phase II, Part II Mission Computer Replacement																												
Phase II, Part II Hardware/Software Development																												
Phase II, Part II Systems Integration & Test																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203873SF / <i>Ballistic Missile Defense Radars</i>	Project (Number/Name) 674820 / <i>Sensor Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>ADPE Rehost Phase II, Part II Mission Computer Replacement</i>				
Phase II, Part II Hardware/Software Development	1	2025	4	2025
Phase II, Part II Systems Integration & Test	3	2025	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					PE 1203906SF I NCMC - ITW/AA System							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	23.962	33.060	25.092	0.000	25.092	25.591	25.948	26.414	26.941	0.000	187.008
67A051: Space Superiority - Advanced Intelligence Systems	0.000	23.962	33.060	25.092	0.000	25.092	25.591	25.948	26.414	26.941	0.000	187.008
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Systems Command (SSC) Systems Delta (SYD)/85 Battle Management (BMN) Program Office is developing the Missile Warning/Missile Track Enhancement Program (MW/MT) (Project 67A051) for Guardians across the Command-and-Control Enterprise Mission Area, Operations Service Institutional Function, and Operations Commands Unit Force Structure. As a result, the Service will experience improved readiness and operational reach of the Existing Force Structure and reinforce the Enduring Effect of resilient infrastructure, equipment, and personnel.

SYD 85/S9/10 is executing AN/USQ-249 Integrated Tactical Warning/Attack Assessment (ITW/AA) System of Systems Integration for Guardians and Joint Warfighters across the Global Mission Operations and ITW/AA Enterprise Command and Control functions and in support of Space Domain Awareness. As a result, the Service will streamline capabilities development through institutional processes and deliver ITW/AA capabilities to defend the homeland. Efforts will advance all near term effects and provide principled public servants and space-minded warfighters as bold and collaborative problem solvers in support of Service and National goals.

This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Program interdependencies include:

Ballistic Missile Defense Radars (1203873SF); Ballistic Missile EW Systems (1203909SF); Joint Tactical Ground System (1208053SF); Cheyenne Mountain Complex (NCMC) - TW/AA System (1203906SF); Next - Generation OPIR (1206442SF); Next - Generation - GEO (1206443SF); Next - Generation - Ground (1206440SF); Next - Generation - Polar (1206444SF); NUDET Detection System (1203913SF); Resilient MW / MT - LEO (1206446SF); Resilient MW / MT - MEO (1206447SF); Resilient MW / MT - Ground (1206448SF); Shared Early Warning (1203699SF); SLBM Radar Warning System (1203912SF); Space Based Infrared System (1203915SF); TW/AA Interface Network (1203908SF).

This program element supports development activities for the North American Aerospace Defense Command (NORAD) Cheyenne Mountain Complex (NCMC) - ITW/AA system that provides timely, unambiguous, and continuous warning and attack assessment of air, missile and space threats to North America, and geographical theaters. This system integrates and correlates missile launch and air surveillance information from certified sources to assess the nature of an enemy launch/attack and issue warnings to the President of the United States, Canadian National Leadership, United States Secretary of War, National Military Command Center and war-fighting Combatant Commanders. NCMC-ITW/AA and Legacy Space Command and Control (C2) systems provide NORAD/US Northern Command (USNORTHCOM), US Strategic Command (USSTRATCOM), and US Space Command (USSPACECOM) command structures with the information management, decision aids, and connectivity required to monitor, assess, plan, and execute assigned strategic, space operations, and missile defense missions. It provides Nuclear C2 (NC2) and detonation detection.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203906SF I NCMC - ITW/AA System				
The Combatant Commanders Integrated Command and Control System (CCIC2S) is a unique, integrated NC2 and Air and Space C2 "system of systems," providing data communication between external sensors and end users, mission processing for air and missile warning mission, and space operations functions. The system supports national strategic objectives with ITW/AA and provides missile, space, and air warning, cueing, and engagement information to strategic and theater combatant commanders. The system consists of terrestrial and space-based sensor outputs, NC2 and Air and Space C2 nodes, and communications and dissemination links, connecting the US and Canadian defense information networks. The ITW/AA System of Systems Integration provides critical systems engineering support for ITW/AA interface verification, system deployment, change control management, monitoring and testing. It also supports risk reduction activities for evolving ITW/AA capabilities. This effort includes the development of an ITW/AA Assessment Management System (AMS) for planning configuration control and interoperability. It also includes development of an Emerging Threat Lab (ETL) using modern technology, agile processes, and automation to consolidate ITW/AA-related intelligence on current missile threats, integrate strategic and theater missile warning data, and consolidate algorithms to identify and characterize threats. Efforts support the SYD 85 Office of the Chief Scientist in building algorithms and models providing the capability for warfighters to determine timely and unambiguous missile warning for the National Command Authorities. This effort also includes Project Tombstone to improve the quality of test assessments and exercises, providing for a greater understanding of how our systems will respond in today's wartime environment. These System of Systems Integration efforts combine to ensure the attack assessments covering air, missile, and space threats continue to be accurate, timely, unambiguous and continuous, providing key leaders the information and time they need to make decisions in case of attacks against the homeland. This program element may include necessary civilian pay expenses required to manage, execute, and deliver NCMC-ITW/AA weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		25.656	25.839	0.000	0.000	0.000
Current President's Budget		23.962	33.060	25.092	0.000	25.092
Total Adjustments		-1.694	7.221	25.092	0.000	25.092
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-2.450			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	10.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		-1.000	0.000			
• SBIR/STTR Transfer		-0.694	-0.329			
• Other Adjustments		0.000	0.000	25.092	0.000	25.092

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203906SF I NCMC - ITW/AA System		
Change Summary Explanation Strategic Changes: FY 2027-2030: The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner. Technical Changes: FY 2025: -1.000 million for reductions and -0.700 million for SBIR/STTR. FY 2026: -2.450 million reduction for program carryover and -0.300 million for Section 8151 SBIR reduction. FY 2026: +10.000 million Single Integrated Space Picture (SISP) modernization				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Title: ITW/AA System of Systems Integration Description: The ITW/AA System of Systems Integration coordinates and facilitates between multiple ITW/AA System Program Offices within the USSF and USAF to ensure these systems are integrated and the overarching ITW/AA Weapon System is providing timely, unambiguous, accurate, and continuous warning, assessment, and characterization information on atmospheric, ballistic missile, and space attacks to the President of the United States, Secretary of War, Allies, Joint Staff, combatant commands, and other users through all levels of conflict. Ensure the ITW/AA requirements receive the necessary level of ITW/AA change control management related to interface analyses, integration issues, and collaboration with key stakeholders for continued mission data integrity and accuracy. FY 2026 Plans: Continue coordination across ITW/AA community for configuration change control, architecture management, and future initiative integration requiring additional effort to facilitate standardized review, assessment, coordination, control, planning, and baseline management of interface requirements to meet new United States Space Command Instruction 3422.01. Continue Project Tombstone to further develop agile scenario development capabilities, specializing in creating and maintaining test/training scenarios for MW, MD, SDA sensors and supporting systems/infrastructure. Tombstone will maintain the existing scenarios with the most up-to-date information, building new developmental and operational test scenarios and supporting updates to scenario building tools and test analysis tools to further increase warfighter effectiveness in MD/MW/SDA domains. Continue to Test and integrate additional data feeds into the ETL and analyze these feeds to improve or develop models/ algorithms increasing the effectiveness of multiple MW threat estimates and attack assessments.		10.727	20.277	11.770

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203906SF / NCMC - ITW/AA System		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Continue Assessment Management System development and initial fielding across USSF/USAF Missile Warning (MW), Missile Defense (MD), and Air Warning (AW) systems. Effort requires modernization of antiquated health system requirements alignment across multiple organizations and includes modernization of Single Integrated Space Picture (SISP) capabilities. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Continue coordination across ITW/AA community for configuration change control, architecture management, and future initiative integration requiring additional effort to facilitate standardized review, assessment, coordination, control, planning, and baseline management of interface requirements to meet new United States Space Command Instruction 3422.01. Continue Project Tombstone to further develop agile scenario development capabilities, specializing in creating and maintaining test/training scenarios for MW, MD, SDA sensors and supporting systems/infrastructure. Tombstone will maintain the existing scenarios with the most up-to-date information, building new developmental and operational test scenarios and supporting updates to scenario building tools and test analysis tools to further increase warfighter effectiveness in MD/MW/SDA domains. Continue to Test and integrate additional data feeds into the ETL and analyze these feeds to improve or develop models/ algorithms to increase effectiveness of multiple MW threat estimates and attack assessments. Continue Assessment Management System development and initial fielding across USSF/USAF Missile Warning (MW), Missile Defense (MD), and Air Warning (AW) systems. Effort requires modernization of antiquated health system requirements alignment across multiple organizations and includes modernization of Single Integrated Space Picture capabilities. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement:				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203906SF / NCMC - ITW/AA System		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
FY27 decrease is due to an FY26 program carryover and a one-time FY26 10 million plus-up for Single Integrated Space Picture (SISP) modernization.				
Title: MW/MT Enhancement Description: Integrate new data source to include Ballistic Missile Defense Communication Node (BCN) and Ground-Based Midcourse Defense (GMD) Communications Network (GCN) of the Missile Defense Agency (MDA) C2BMC integration element of the Ballistic Missile Defense System (BMDS). Enhance existing displays by incorporating new sensor with existing data, modernize database content with additional multi-domain meta-data to improve threat assessment, attack characterizations to address new sensor data. Improves source data accuracy for missile warning mission and translate for integration into the Combatant Commanders Integrated Command and Control System (CCIC2S) that will enhance mission displays and improve impact prediction. Creates multiple display options for the operator and reduces ambiguity between missile defense and missile warning displays. FY 2026 Plans: Complete integration of first non-traditional data source to provide event-tracking and common operating picture. Conduct formal developmental test and evaluation. Start integration of one new (space message) data source from the Ballistic Missile Defense Communication Node (BCN) and Ground-Based Midcourse Defense (GMD) Communications Network (GCN) of the Missile Defense Agency (MDA) Command and Control, Battle Management, and Communications (C2BMC) integration element of the Ballistic Missile Defense System (BMDS). Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Plans: Complete integration of one new (space message) data source from the Ballistic Missile Defense Communication Node (BCN) and Ground-Based Midcourse Defense (GMD) Communications Network (GCN) of the Missile Defense Agency (MDA) Command and Control, Battle Management, and Communications (C2BMC) integration element of the Ballistic Missile Defense System (BMDS). Conduct formal developmental test and evaluation on first space message data source.		13.235	12.783	13.322

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1203906SF / NCMC - ITW/AA System			
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Begin combined formal operational test and evaluation on first non-traditional data source and first space message data source.				
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.				
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to combined formal operational test and evaluation on non-traditional and space message data sources.				
Accomplishments/Planned Programs Subtotals		23.962	33.060	25.092
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy MW/MT Enhancement effort is a competitive single task order awarded in 4th Quarter FY 2024 and projected to award additional options between 4th Quarter FY 2025 and 2nd Quarter FY 2028 when appropriate for the next phases of integration, testing, and deployment.				
ITW/AA System of Systems Integration will utilize existing contract vehicles including Integrated Tactical Warning & Attack Assessment (ITW/AA) Systems Engineering & Integration (SE&I) Contractor Logistics Support (CLS), USAF Intelligence Surveillance and Reconnaissance (ISR) Operational DevSecOps for ISR NexGen (ODIN), Massachusetts Institute of Technology Research and Engineering (MITRE), Engineering, Professional and Administrative Support Services (EPASS), General Services Administration (GSA) Federal Supply Schedules, and Air Force Research Laboratory (AFRL). Assessment Management System utilizes agile software best practices which enables continuous integration and delivery of software capability at the speed of relevance, utilizing Bringing Responsive Operation through Novel Computing On-Demand II (BRONCO II) contract. The ITW/AA System of Systems program office also intends to utilize the commercial contracting community as well as partnerships through Space Systems Command (SSC), Space Sensing Directorate, Strategic Missile Warning Acquisition Delta, Data Exploitation/Tools Applications and Processing Lab (TAP Lab) to lead the Development, Test and Integration of future missile warning capabilities. The use of multiple-award contractual vehicles will provide a wide range of commercially available products and services that should be able to meet many requirements related to the Integrated Tactical Warning Attack Assessment (ITW/AA) mission.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203906SF / NCMC - ITW/AA System				Project (Number/Name) 67A051 / Space Superiority - Advanced Intelligence Systems					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development of Missile Warning/Missile Track Enhancement	C/CPIF	Leidos : Colorado Springs, CO	-	10.979	Dec 2024	9.434	Nov 2025	8.986	Oct 2026	-		8.986	Continuing	Continuing	-
Product Development of Missile Warning/Missile Track Enhancement - Equipment	C/CPFF	Amentum : Colorado Springs, CO	-	0.422	Feb 2025	-		1.500	Oct 2026	-		1.500	Continuing	Continuing	-
Product Development of Missile Warning/Missile Track Enhancement - MDA Integration Support	C/CPFF	Lockheed Martin : Colorado Springs, CO	-	0.960	Sep 2025	1.439	Dec 2025	0.854	Oct 2026	-		0.854	Continuing	Continuing	-
Product Development of ITW/AA System of Systems Integration	Various	Multiple : Multiple	-	5.960	Nov 2024	1.100	Jan 2026	1.258	Jan 2027	-		1.258	Continuing	Continuing	-
Product Development of ITW/AA System of Systems Integration - SE&I	C/CPFF	ADDx : Colorado Springs, CO	-	-		3.331	Jan 2026	3.331	Mar 2027	-		3.331	Continuing	Continuing	-
Product Development of ITW/AA System of Systems Integration - AMS SpaceCAMP	SS/CPFF	AFRL : Colorado Springs, CO	-	-		14.100	Dec 2025	4.400	Dec 2026	-		4.400	Continuing	Continuing	-
Product Development of Emerging Threat Lab	Various	Multiple : Multiple	-	1.129	Jun 2025	0.500	Feb 2026	1.522	Jan 2027	-		1.522	Continuing	Continuing	-
SBIR/STTR	Allot	TBD : TBD	-	-		0.732	Mar 2026	0.874	Oct 2026	-		0.874	Continuing	Continuing	-
Subtotal			-	19.450		30.636		22.725		-		22.725	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DT&E	PO	45th Test Squadron : Colorado Springs, CO	-	0.116	May 2025	0.053	Jan 2026	-		-		-	0.000	0.169	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203906SF / NCMC - ITW/AA System				Project (Number/Name) 67A051 / Space Superiority - Advanced Intelligence Systems					
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
OT&E	PO	45th Test Squadron : Colorado Springs, CO	-	-		-		0.126	Jan 2027	-		0.126	Continuing	Continuing	-
Subtotal			-	0.116		0.053		0.126		-		0.126	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	C/CPIF	Various : Colorado Springs, CO	-	4.362	Feb 2025	2.307	Jan 2026	2.177	Feb 2027	-		2.177	Continuing	Continuing	-
Other Support	Various	Various : Multiple	-	0.034	Jan 2025	0.064	Jan 2026	0.064	Jan 2027	-		0.064	Continuing	Continuing	-
Subtotal			-	4.396		2.371		2.241		-		2.241	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	23.962		33.060		25.092		-		25.092	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203906SF / NCMC - ITW/AA System			Project (Number/Name) 67A051 / Space Superiority - Advanced Intelligence Systems

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
<i>MW/MT Enhancement</i>																												
MW/MT Enhancement Prime Contract																												
- Integrate first non-traditional data source into CCIC2S																												
- Conduct development test and evaluation																												
- Integrate new (space message) data source into CCIC2S																												
- Conduct developmental test and evaluation																												
- Combined operational test and evaluation of both data sources																												
<i>ITW/AA System of Systems Integration</i>																												
ITW/AA System of Systems Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203906SF / NCMC - ITW/AA System	Project (Number/Name) 67A051 / Space Superiority - Advanced Intelligence Systems	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>MW/MT Enhancement</i>				
MW/MT Enhancement Prime Contract	1	2025	4	2031
- Integrate first non-traditional data source into CCIC2S	1	2025	1	2026
- Conduct development test and evaluation	1	2026	3	2026
- Integrate new (space message) data source into CCIC2S	3	2026	2	2027
- Conduct developmental test and evaluation	2	2027	3	2027
- Combined operational test and evaluation of both data sources	4	2027	2	2028
<i>ITW/AA System of Systems Integration</i>				
ITW/AA System of Systems Integration	3	2025	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					PE 1203909SF I Ballistic Missile Early Warning System (BMEWS)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	128.630	0.000	128.630	253.408	193.481	102.775	104.830	0.000	783.124
677825: Radar SLEP	0.000	0.000	0.000	128.630	0.000	128.630	253.408	193.481	102.775	104.830	0.000	783.124
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This is not a new start. FY 2026 mandatory (reconciliation) funding established this program.

This program element (PE 1203909SF) modernizes existing Ground Based Radars (GBR), which includes five Upgraded Early Warning Radars (UEWR), one Perimeter Acquisition Radar Characterization System (PARCS), Cobra Dane (AN/FPS-108) and the AN/FPS-85 Phased Array Radar (Eglin). The Upgraded Early Warning Radars (UEWR) are a critical component of the United States' missile defense strategy. These systems currently have a mixture of three missions (Missile Warning/Missile Track (MW/MT), Missile Defense (MD), and Space Domain Awareness (SDA)) involving two activities. The first mission MW/MT, provides early warning and attack assessment of Ballistic Missile attack, enables accurate, timely, continuous, unambiguous Integrated Tactical Warning/Attack Assessment (ITW/AA) to correlation centers for combatant command integrated C2. The second mission is MD, performing Ballistic Missile midcourse detection, acquisition, tracking and classification. The third mission is the SDA Mission, detecting, identifying, and tracking man-made objects in earth orbit.

The USSF, jointly with Missile Defense Agency (MDA), is modernizing eight (8) critical GBRs, including five UEWRs, PARCS, COBRA DANE, and Eglin AFB Site C-6 Radar through the Ground-Based Radar Digitization (GBRD) Program. GBRD will digitize these radars for enhanced battlespace awareness, reduced sustainment costs, and resolution of sustainment challenges. These aging systems are nearing obsolescence, necessitating technological upgrades to meet the modern requirement and threat. GBRD will modernize the entirety of the radar system from behind the physical antennas to the communications out.

Space Domain Awareness (SDA) is one of five core competencies of the Space Force and includes the effective identification, characterization, and understanding of any factor, passive or active, associated with the space domain that could affect space operations and thereby impact the security, safety, economy, or environment of our nation. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. These radar systems are necessary for the national SDA capability and said capability will be improved under this effort. These improvements are necessary for the modern space domain.

Modernization includes digitization of radar processing hardware, modern software/firmware, improved information integration capabilities, and improved data transfer systems. Activities funded in this program element also support efforts such as engineering studies and analyses, architectural engineering studies, trade studies, Technology needs forecasting, modernization initiatives, systems engineering, system development, test & evaluation, and may include prototyping and technology demonstration. Funding will be used to improve SDA capabilities and address Diminishing Manufacturing Sources (DMS) issues through a whole system modernization. SDA improvements will enable closure of multiple kill chains at speed and scale.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203909SF / <i>Ballistic Missile Early Warning System (BMEWS)</i>
UEWR consists of ground based, AN/FPS-132 UEWRs located at Pituffik Space Base, Greenland; Clear Space Force Station (SFS), AK; and Royal Air Force (RAF) Fylingdales, UK, Beale AFB, CA and Cape Cod SFS, MA. Additionally, there is a site for testing located in the Centralized Integration Support Facility (CISF) at Peterson Space Force Base (SFB), CO. These systems provide Missile Defense, Missile Warning, and SDA data to multiple users. The radar system provides USSTRATCOM with credible Integrated Tactical Warning and Attack Assessment (ITW/AA) data on all Intercontinental Ballistic Missiles (ICBMs) penetrating the coverage area including Launch and Predicted Impact (L&PI) data for attack assessment and response determination. The radar system also supports the Space Surveillance Network (SSN) providing near-earth satellite surveillance and tracking, reporting observational (metric), Space Operations and Integrations (SOI) on man-made satellites and maintenance of the space catalog as required by the Combined Space Operations Center, Alternate Space Operations Center, and the National Air and Space Intelligence Center mitigating the significantly increasing potential for collisions with national assets, including manned space platforms. The UEWR mission equipment and associated sustainment suites consist of a mix of unique, custom-built components that are increasingly more difficult to maintain due to availability of replacement parts and obsolete Commercial-off-the-Shelf (COTS)- based subsystems that are no longer supported by the original equipment manufacturers. In addition, radar transmit and receive components, processing equipment, power distribution elements, and other radar front-end equipment are 30+ years old, highly inefficient, and require replacement. Without these replacements, there is a high risk that equipment failures will cause unacceptable mission downtime in order to troubleshoot and repair. The primary mission of the AN/FPQ-16 PARCS, located at Cavalier SFS, ND, provides USSTRATCOM with credible ITW/AA data on all Surface Launched Ballistic Missiles penetrating the coverage area. This data includes an estimation of L&PI locations and times. The secondary mission is to provide Cheyenne Mountain Space Force Station, CO (CMSFS) and other users with ITW/AA data on ICBMs penetrating the coverage area. Additionally, PARCS supports the SDA mission by providing near-earth satellite surveillance, tracking, and identification as required by the Space Control Center, Alternate Space Control Center, and the Joint Intelligence Center. Additionally, there is a site for testing located in the CISF at Peterson SFB, CO. The PARCS mission equipment and associated sustainment suites consist of a mix of unique, custom-built components that are increasingly more difficult to maintain due to availability of replacement parts and obsolete COTS-based subsystems that are no longer supported by the original equipment manufacturers. In addition, radar transmit & receive components, processing equipment, and power distribution elements, and other radar front-end equipment are 30+ years old, highly inefficient, and require replacement. Without these replacements, there is a high risk that equipment failures will cause unacceptable mission downtime in order to troubleshoot and repair. The Cobra Dane radar system is a large, powerful, L-Band, phased-array radar located at Eareckson Air Station on Shemya Island, Alaska. It's primary mission is strategic arms treaty verification, providing critical intelligence data to USSTRATCOM. In addition to this vital treaty monitoring role, Cobra Dane provides missile defense early warning and contributes essential data to the Space Domain Awareness mission. Due to its remote location in the Aleutian Islands, it offers unparalleled surveillance coverage of foreign missile test ranges, making it an irreplaceable national asset for intelligence gathering and strategic warning. The AN/FPS-85 Phased Array Radar, located at Eglin Air Force Base, Florida, is the United States Space Force's dedicated space surveillance radar and was the first large, phased array built for this purpose. As one of the most powerful radars in the world, its primary mission is to detect, track, and identify thousands of satellite and debris objects in low Earth orbit daily. It provides a significant percentage of all observations for the Space Surveillance Network, contributing directly to the maintenance		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1203909SF I Ballistic Missile Early Warning System (BMEWS)	
of the unified space catalog. Architecturally unique, it features a large, separate transmit face and an even larger receive face, allowing for immense sensitivity and tracking capacity. This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Program interdependencies include: Ballistic Missile Defense Radars (1203873SF) This program falls within the Space Domain Awareness (SDA) mission area which provides the space-based and ground-based architecture required to detect, track, catalogue, and identify objects and activities in the space domain. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. Program interdependencies include: Space Situational Awareness Systems (1206425SF) This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF. This program element may expand to include additional ground-based radar sites for inclusion in the modernization effort as additional funds become available. This program element may include necessary contractor support, FFRDC support, and civilian pay expenses required to manage, execute, and deliver required capability. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full-rate production and anticipate production funding in the current or subsequent fiscal year. The FY 2026 spend plan amount for Research, Development, Test & Evaluation, Space Force includes [0] thousand of discretionary and [73,700] thousands of mandatory (reconciliation) for a total of [73,700] thousand. This program is not a new start. This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203909SF I Ballistic Missile Early Warning System (BMEWS)					
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	
Previous President's Budget		0.000	0.000	0.000	0.000	0.000	
Current President's Budget		0.000	0.000	128.630	0.000	128.630	
Total Adjustments		0.000	0.000	128.630	0.000	128.630	
• Congressional General Reductions		0.000	0.000				
• Congressional Directed Reductions		0.000	0.000				
• Congressional Rescissions		0.000	0.000				
• Congressional Adds		0.000	0.000				
• Congressional Directed Transfers		0.000	0.000				
• Reprogrammings		0.000	0.000				
• SBIR/STTR Transfer		0.000	0.000				
• Other Adjustments		0.000	0.000	128.630	0.000	128.630	
C. Accomplishments/Planned Programs (\$ in Millions)					FY 2025	FY 2026	FY 2027
Title: Ground Based Radar (GBR) digitization					0.000	0.000	128.630
Description: Updates eight (8) GBRs to address critical capability sustainment issues, greatly reduces obsolescence issues, and improves Space Domain awareness performance. Will include a complete redesign and replacement of the entire radar processing and commanding stream, utilizing the existing front-end high-energy equipment.							
FY 2026 Plans: Complete System Requirements Review and begin initial design efforts. Stand up digital simulation laboratory. Begin purchasing of required hardware for digital receiver and prototype elements.							
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain while continuing to perform missile warning/missile track/missile defense missions. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.							
Collaborate with Government stakeholders to solidify expectations, user needs, and areas for improvement on current operational systems.							
FY 2027 Plans:							

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1203909SF I Ballistic Missile Early Warning System (BMEWS)			
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Complete Preliminary Design Review and begin work on Critical Design review. Purchase long lead hardware and begin prototyping and hardware test efforts. In addition, work will begin on the software and firmware for the hardware design that is chosen and being matured. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain while continuing to perform missile warning/missile track/missile defense missions. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. Collaborate with Government stakeholders to solidify expectations, user needs, and areas for improvement on current operational systems. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 program increase is due to FY2026 mandatory funding (Reconciliation Bill) and not included in the previous budget document. Additionally, FY 2027 will procure long lead hardware items and begin prototype testing. Furthermore, design reviews are planned for FY 2027.				
Accomplishments/Planned Programs Subtotals		0.000	0.000	128.630
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy Using a Middle Tier Acquisition (MTA), in accordance with DoDI 5000.80, Rapid Prototyping (RP) acquisition pathway approach, GBRD will create a common baseline for all eight (8) GBRs, and first prototype solutions at four sites before proceeding with Rapid Fielding production for the remaining GBR sites. This strategy enables agile development and rapid deployment of modernized capabilities. This modernization improves radar weapon system effectiveness and efficiency through increased commonality, sustainable support, and optimized human interaction, including a digital ecosystem, modular design, and a common baseline.				
The GBRD program will utilize a Fixed Price OTA to execute a gated award process. Gates 1 and 2 will be Firm Fixed Price (FFP) and Gate 3 will be Fixed Price Incentive Fee (FPIF). This approach ensures competition, fosters innovation, and provides flexibility to manage risks while delivering critical capabilities. The gated process will allow the Government to evaluate Offeror performance and technical maturity through execution, ensuring alignment with program objectives and requirements. The following sections provide an overview of the envisioned activities in each Gate and describe the overall framework. Participation in subsequent gates				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1203909SF I Ballistic Missile Early Warning System (BMEWS)	
will be limited to only Offerors (including subcontractors and Offerors) participating in the previous gate(s). Offerors may update teaming arrangements and cost volume for Gate 3 proposal. Teaming to maximize speed and performance and leverage unique skillsets and expertise is highly encouraged. The RP phase will encompass up to four GBR sites. There will be an additional proposal after successful completion of Gate 2 for Gate 3's performance. Each successful Gate 2 Offeror must propose to all RP sites. RP sites will be awarded to one or more Offerors based on cost, schedule, and performance against program requirements. For estimating purposes, Offerors shall assume Gate 3 includes 2x UEWRs (Cape Cod and Clear), PARCS, and COBRA DANE.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203909SF / Ballistic Missile Early Warning System (BMEWS)						Project (Number/Name) 677825 / Radar SLEP			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Ground Based Radar Digitization (GBRD)	TBD	Not specified. : TBD	-	-		-		106.137	Apr 2027	-		106.137	Continuing	Continuing	-
GBRD Technical Mission Analysis	C/Various	Not specified. : TBD	-	-		-		5.200	Apr 2027	-		5.200	Continuing	Continuing	-
SBIR/STTR	C/TBD	Not specified. : TBD	-	-		-		4.675	Mar 2027	-		4.675	Continuing	Continuing	-
Subtotal			-	-		-		116.012		-		116.012	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GBRD Test Support	TBD	Not specified. : TBD	-	-		-		0.400	Nov 2026	-		0.400	Continuing	Continuing	-
Subtotal			-	-		-		0.400		-		0.400	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	TBD	Not specified. : TBD	-	-		-		4.980	Nov 2026	-		4.980	Continuing	Continuing	-
FFRDC	TBD	Not specified. : TBD	-	-		-		4.460	Nov 2026	-		4.460	Continuing	Continuing	-
Other Support	TBD	Not specified. : TBD	-	-		-		2.778	Nov 2026	-		2.778	Continuing	Continuing	-
Subtotal			-	-		-		12.218		-		12.218	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		128.630		-		128.630	Continuing	Continuing	N/A
Remarks FY 2026 info as the funding was mandatory and not listed on the R-Doc															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force							Date: April 2026			
Appropriation/Budget Activity			R-1 Program Element (Number/Name)			Project (Number/Name)				
3620F / 7			PE 1203909SF / Ballistic Missile Early Warning System (BMEWS)			677825 / Radar SLEP				
	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract	
Product Development Ground Based Radar Digitization (GBRD) 64.028M SBIR/STTR 2.579M Test and Evaluation GBRD Test Support .400 Management Services A&AS 4.422M FFRDC 2.211 Other Support .060										

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026					
Appropriation/Budget Activity 3620F / 7								R-1 Program Element (Number/Name) PE 1203909SF / Ballistic Missile Early Warning System (BMEWS)						Project (Number/Name) 677825 / Radar SLEP			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Ground Based Radar Digitization																												
Pre-Acquisition Activities																												
Rapid Prototyping																												
System Prototype Development (Sites 1-4)																												
Rapid Fielding (Sites 5-8)																												
Interim Contractor Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203909SF / Ballistic Missile Early Warning System (BMEWS)	Project (Number/Name) 677825 / Radar SLEP	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Ground Based Radar Digitization				
Pre-Acquisition Activities	1	2025	2	2026
Rapid Prototyping	3	2026	4	2028
System Prototype Development (Sites 1-4)	4	2028	1	2030
Rapid Fielding (Sites 5-8)	1	2030	2	2031
Interim Contractor Support	3	2029	2	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203913SF I NUDET Detection System (SPACE)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	83.426	96.836	114.004	0.000	114.004	99.892	71.910	9.271	9.750	Continuing	Continuing
672808: Nuc Detonation Det Sys (sensors)	0.000	83.426	96.836	114.004	0.000	114.004	99.892	71.910	9.271	9.750	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Program Office is developing the Universal Ground NUDET Detection System (NDS) Terminal (UGNT) 7 modernization effort (Project 672808) for Guardians across Missile Warning and Missile Tracking (MW/MT) mission area. As a result, the Service will improve readiness and operational reach of existing force structure.

The UGNT 7 modernization effort is the Survivable/Endurable (S/E) system capable of processing United States Nuclear Detonation (NUDET) data from the next-gen NDS payloads on Global Positioning System (GPS) IIIF. The receiver development portion is included as part of the Integrated Correlation and Display Systems (ICADS) 7 strategy. Portions of hardware and software will be replaced within the UGNT trailers. ICADS 7 software baseline will require updates and to be installed in UGNTs, enabling them to be Fully Mission Capable. These updates are required to download nuclear detonation data from GPS IIIF satellites enabling Department of War (DoW) and Combatant Command decision makers to have near-real time decision quality data for nuclear force management in support of the Nuclear Command, Control and Communication (NC3) mission set.

The United States NUDET Detection System (USNDS) provides a near real-time worldwide, highly survivable/endurable capability to detect, locate, and report any nuclear detonation in the earth's atmosphere or in near space. USNDS supports NUDET detection requirements across five mission areas: Integrated Tactical Warning and Attack Assessment (ITW/AA), Nuclear Force Management (NFM), Space Control, Treaty Monitoring, and a classified mission.

The USNDS program is jointly sponsored and funded by the DoW, through the Space Force, and the Department of Energy (DOE), through the National Nuclear Security Administration (NNSA) and its Nuclear Detonation Detection office (NA-22), respectively. NNSA/NA-22 supplies USNDS space sensors as Government Furnished Equipment to the Space Force's USNDS Program Office, which is responsible for all acquisition and Systems Engineering, Integration and Test activities on Space Vehicles (SVs), to include GPS and additional hosts, and their supporting ground control segments. The USSF directly funds the development of the USNDS ground segment (described below).

DoW funds their contribution to the USNDS program in Program Element 1203913SF, Research, Development, Test and Evaluation, Space Force (RDT&E, SF), Procurement, Space Force, and Operations and Maintenance.

USNDS consists of space sensors and complex ground segments. The space segment sensors, funded by DOE, consists of three nuclear detection sensor payloads: the Radiation Detection Capability (RADEC) payload for Defense Support Program (DSP) satellites, the Global Burst Detection (GBD) payload for Medium Earth Orbit platforms (GPS satellites), and the Space Atmospheric Burst Reporting System (SABRS) payload for Geosynchronous Earth Orbit (GEO) platforms (classified GEO

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203913SF / <i>NUDET Detection System (SPACE)</i>
host), and Space Test Platform 3. Together, these sensors and associated communications capability provided by the host satellites comprise the global NUDET space segment detection capability for the USNDS. Space sensors communicate NUDET indications to the fixed ground segment, the RADEC Data Processor, and the ICADS, the five deployable mobile ground segment survivable Ground Nuclear Detonation Detection System Terminals (GNTs), and the survivable/endurable UGNTs. The ground segment provides ground receiving analysis and reporting capabilities to national authorities, commands, and forward users as well as Department of State for the Treaty Monitoring and Verification mission. The ground control segment is being modernized and continuously improved through an incremental, evolutionary acquisition approach. The upgrades to the GNTs are the survivable/endurable UGNT which are funded with RDT&E in this portfolio. The UGNT provides NUDET Detection Reports to end users through survivable/endurable USNDS communications via MilStar/Future Communication Systems (FCS)/Advanced Extremely High Frequency (AEHF) circuits. The GNT supports ITW/AA and NFM missions. The UGNT program modifies the baseline of the GNT subsystem and deploys as an integral part of the Space Based Infrared System (SBIRS) Survivable / Endurable Evolution (S2E2) Mobile Ground System (MGS) (SMGS) units also in support of ITW/AA and NFM. The UGNT, when integrated with the SMGS, will perform NUDET event processing with fused NDS data from GPS and DSP. SMGS capability refers to the result of the S2E2 upgrade program for the MGS mission processing capability, including the integration of UGNT. The intended end state of UGNT integration is delivery of enhanced NUDET detection capabilities which meet survivable/endurable attack assessment requirements directed by the President, Secretary of War, Joint Staff, USSPACECOM, and USSTRATCOM, delivering long-term, cost effective, multi-role, multi-mission space effects to warfighters across the range of military operations. ICADS 7 upgrades the ICADS 6 baseline necessary to process future GPS IIIF satellites GBD USNDS messages, address technology obsolescence, and meet updated cybersecurity requirements for system resiliency. UGNT 7 is a component of the S2E2 Force Package (FPAK). UGNT 7 upgrades will be part of the S2E2 system. The UGNT hardware and software (ICADS 6) requires an upgrade to be compatible with GPS IIIF satellites. USNDS detect, identify, locate, and report nuclear detonations in earth's atmosphere or near-space in near real time from peacetime through nuclear conflict. UGNTs provide mobile S/E NUDET reporting capability. USNDS has five missions per operational requirement document (ORD); ITW/AA, Space Control, Nuclear Force Management, Treaty Monitoring & Classified Mission. UGNT 7 is dependent on firm CONOPS being established. This budget line includes systems engineering, research and development, on-orbit and field testing and end-to-end verification of USNDS space sensors, ground analysis and reporting systems in support of the five USNDS mission areas. Sensor integration for GPS III and GPS III Follow-on (IIIF) are funded in their respective programs. This program may include necessary civilian pay expenses required to manage, execute, and deliver NUDET Detection System (SPACE) weapon system capability. The use of such program funds is in addition to the civilian pay expenses budgeted in programs 1206392SF and 1206398SF. This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Space Force investment program interdependencies include:		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203913SF I NUDET Detection System (SPACE)				
RDT&E Budget Line Items: Missile Defense Radars (1203873SF); Ballistic Missile EW Systems (1203909SF); Joint Tactical Ground System (1208053SF); NCMC - TW/AA System (1203906SF); Next - Generation OPIR (1206442SF); Next - Generation - GEO (1206443SF); Next - Generation - Ground (1206440SF); Next - Generation - Polar (1206444SF); Resilient MW / MT - LEO (1206446SF); Resilient MW / MT - MEO (1206447SF) and elements of Procurement Budget Line Item: Space Mods (SPCMOD)						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		83.426	96.836	0.000	0.000	0.000
Current President's Budget		83.426	96.836	114.004	0.000	114.004
Total Adjustments		0.000	0.000	114.004	0.000	114.004
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	114.004	0.000	114.004
Change Summary Explanation						
Strategic Changes:						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Integration with SBIRS S2E2 Mobile Ground Terminals (SMGTs)				0.672	23.000	29.530
Description: Support the Integration and test activities between Universal Ground NDS Terminals (UGNTs) and the SMGTs, which together provide NUDET Detection Reports and missile warning data to end users through survivable/endurable USNDS communications via MilStar/FCS/AEHF circuits. The UGNTs deploy as an integral part of the SMGS units and also in support of ITW/AA and NFM. Support program scope analyzation for USNDS receiver and NUDET Decryption Unit (NDU) components.						
Additional costs include activities such as: integration of new receivers, hardware and software design needed for processing/reporting, check-out/support, testing, and system engineering. Support upgrades to UGNT for GPS IIIF NDS payloads and						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203913SF / <i>NUDET Detection System (SPACE)</i>		
C. Accomplishments/Planned Programs (\$ in Millions) address hardware obsolescence with current receiver supportability, specifically line replaceable units such as down converters. UGNT 7 development will align with the Resilient Ground Architecture. FY 2026 Plans: Finalize acquisition planning and award contract to work first phase of this effort. Begin development and modernization of specific components needed for UGNT based on classified requirements. FY 2027 Plans: Continue UGNT 7 receiver work to support satellite mission downlink that will support both fixed sites and mobile assets. Key updates address obsolescence issues of the existing receiver component, to process USNDS mission payload data. Perform initial design for hardware and software development upgrades for the UGNT. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to continued receiver development work, increase in UGNT software development and required hardware purchases.		FY 2025	FY 2026	FY 2027
Title: ICADS 7 Description: ICADS 7 consists of satellite ground data processing systems that accommodate the new NDS payload on GPS IIIF SVs and is an upgrade to the current ICADS 6 system. ICADS 7 includes new software, hardware and cybersecurity capabilities and NDS Analysis Package Ground Station (NAPGS) ground systems. The effort includes, but not limited to, the upgrade of two new ICADS 7 test beds, the replacement of the NDU, Enhanced Receiver Subsystems (ERS), and Automated Data Processors (ADP). A non-recurring Engineering effort is required to design the replacements for the NDUs, ERSs and ADPs currently on USNDS tests beds and fielded systems. The ICADS upgrade includes data processing changes to support the new USNDS optical sensor, known as Spectral Imaging Geolocation Hyper-Temporal Sensor (SIGHTS), that will be hosted on the GPS IIIF SVs. FY 2026 Plans: Continue ICADS 7 development during the EMD phase, including closeout of CDR action items. Maintain development of new cryptographic NDU along with preparation for certification of the devices. Program will focus on completing software development and begin efforts towards integration and preliminary system level testing. Deliver hardware to support the USNDS payloads on GPS IIIF SVs, continued systems engineering and test planning for GPS IIIF Mission Readiness Campaign, GPS IIIF Early Integration to include signal verification/data processing, on-orbit USNDS sensor integration, and Functional Configuration Audit/Physical Configuration Audit. Ensure commonality across ICADS testbeds and planned ICADS 7 operational systems, ground modifications to USNDS sensor payload command plans for GPS IIIF. Rapidly respond to implement system resiliency		82.754	73.836	84.474

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203913SF / <i>NUDET Detection System (SPACE)</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities.				
FY 2027 Plans: Continue software development work for ICADS 7, finalize test planning, and start formal test campaign. The development activities are a continuation of planned contractor iteration reviews and deliveries of hardware and software. Additional system integration and checkout is also planned during this time in order to support testing and ensure final system delivery is operationally ready. This period includes any remaining test planning work needed to support upcoming activities. Formal Government test will also start in FY 2027 for Developmental Test (DT).				
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to required development, incremental delivery of hardware and software, defensive cyber integration, and commencement of test campaign.				
Accomplishments/Planned Programs Subtotals		83.426	96.836	114.004
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy The USNDS Acquisition Strategy is to develop, integrate, field and sustain USNDS satellite sensors and USNDS ground data processing and distribution hardware and software as well as mission operational and technical program support to sustain the USNDS capability on GPS, DSP, Alternate Host, and SBIRS; funding is sent by Military Interdepartmental Purchase Request (MIPR) from DoW and DOE to Sandia, Los Alamos National Laboratories and other agencies on existing DOE/NNSA contracts. The ICADS 7 Acquisition Strategy was approved in September 2021 and the sole source prime contract awarded in June 2022. USNDS ICS funding for Ground Technology Program System of Systems will continue until UGNT is ready for delivery in Q3 FY 2025. USNDS requirements are defined in the Operational Requirements Document dated January 21, 2004 and the 2018 GPS IIIF Capabilities Development Document (CDD).				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203913SF / NUDET Detection System (SPACE)				Project (Number/Name) 672808 / Nuc Detonation Det Sys (sensors)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
USNDS ICADS, GNT/UGNT, and Integration Support	MIPR	Sandia National Laboratory : Albuquerque, NM	-	0.731	Nov 2024	23.000	Nov 2025	29.530	Nov 2026	-		29.530	Continuing	Continuing	-
USNDS Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	0.000	Nov 2024	0.000	Nov 2025	1.435	Nov 2026	-		1.435	Continuing	Continuing	-
USNDS Enterprise SE&I	Various	TASC : El Segundo, CA	-	1.691	Nov 2024	2.800	Nov 2025	3.336	Nov 2026	-		3.336	Continuing	Continuing	-
ICADS 7	MIPR	Sandia National Laboratory : Albuquerque, NM	-	68.766	Nov 2024	61.759	Nov 2025	67.216	Nov 2026	-		67.216	Continuing	Continuing	-
Subtotal			-	71.188		87.559		101.517		-		101.517	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
USNDS Testing	Various	Various : Various	-	4.436	Nov 2024	2.855	Nov 2025	4.941	Nov 2026	-		4.941	Continuing	Continuing	-
Subtotal			-	4.436		2.855		4.941		-		4.941	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
USNDS FFRDC	RO	Aerospace, MITRE : El Segundo, CA	-	2.885	Nov 2024	3.042	Nov 2025	2.969	Nov 2026	-		2.969	Continuing	Continuing	-
USNDS A&AS	Various	Various : Various	-	4.886	Nov 2024	3.300	Nov 2025	4.497	Nov 2026	-		4.497	Continuing	Continuing	-
USNDS Other Support	Various	Various : Various	-	0.031	Nov 2024	0.080	Nov 2025	0.080	Nov 2026	-		0.080	Continuing	Continuing	-
Subtotal			-	7.802		6.422		7.546		-		7.546	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203913SF / NUDET Detection System (SPACE)				Project (Number/Name) 672808 / Nuc Detonation Det Sys (sensors)				
	Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	83.426		96.836		114.004		-		114.004	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026					
Appropriation/Budget Activity 3620F / 7								R-1 Program Element (Number/Name) PE 1203913SF / NUDET Detection System (SPACE)						Project (Number/Name) 672808 / Nuc Detonation Det Sys (sensors)			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
UGNT																												
Integration between UGNT and the S2E2 SMGTs																												
ICADS7																												
ICADS 7 Development																												
Milestone B																												
Critical Design Review (CDR)																												
Developmental Test (DT) and Operational Test (OT)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203913SF / NUDET Detection System (SPACE)	Project (Number/Name) 672808 / Nuc Detonation Det Sys (sensors)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
UGNT				
Integration between UGNT and the S2E2 SMGTs	2	2026	2	2031
ICADS7				
ICADS 7 Development	1	2025	4	2029
Milestone B	1	2025	1	2026
Critical Design Review (CDR)	1	2026	1	2026
Developmental Test (DT) and Operational Test (OT)	4	2027	2	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203940SF I Space Situation Awareness Operations							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	111.855	179.365	294.902	0.000	294.902	227.570	219.699	227.521	233.889	Continuing	Continuing
673940: Space Data Fusion	0.000	72.180	53.067	39.247	0.000	39.247	41.159	38.284	39.247	40.169	Continuing	Continuing
673941: Unified Data Library (UDL)	0.000	34.760	42.236	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
673942: Joint Commercial Operations (JCO)	0.000	0.000	33.688	145.412	0.000	145.412	128.766	132.146	135.439	139.602	Continuing	Continuing
673943: Space Domain Awareness Mesh Network (SDANet)	0.000	0.000	47.330	89.025	0.000	89.025	39.663	32.427	33.290	33.955	Continuing	Continuing
67A018: SF Weather Services Research	0.000	4.915	3.044	21.218	0.000	21.218	17.982	16.842	19.545	20.163	0.000	103.709

A. Mission Description and Budget Item Justification

Space Domain Awareness (SDA) is one of four U.S. Space Force Enterprise Functions and is defined as the ability to detect, characterize, attribute, predict, and target activities in the space domain to inform decision making. SDA is comprised of the following Enterprise Activities: Reconnaissance, Surveillance, Conjunction Assessment, Collision on Launch Assessment, Breakups, and Rendezvous and Proximity Operations Support. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command and control (C2), communications, processing, analysis, dissemination, and archiving activities.

Space Situation Awareness Operations (SSAO, 1203940SF) fields, upgrades, operationalizes, operates, and maintains Space Force sensors and information/data integration capabilities within the SDA network while companion program element Space Situational Awareness Systems (1206425SF) develops new network sensors and associated information integration capabilities across the network. Activities funded in this program (1203940SF) focus on surveillance of objects in earth orbit and beyond to aid tasks including satellite tracking; space object identification; tracking and cataloging; satellite attack warning; notification of satellite flyovers to U.S. forces; space treaty monitoring; and technical intelligence gathering. As a whole, this program upgrades, modifies, modernizes, operationalizes, fields, operates, and maintains sensors and information integration capabilities for an integrated, end-to-end SDA architecture that provides critical national security space solutions on tactical operational timelines.

The Space Data Fusion (SDF) project (673940) includes the Global Sensor Watch (GSW) program, which develops and/or upgrades SDA data collection and exploitation capabilities, including artificial intelligence/machine learning (AI/ML), as modernization and improvement efforts to operational SDA capability. GSW prototypes and provides initial operational capabilities enabling an integrated, end-to-end, SDA tip and cue capability that implements a resilient architecture providing overlapping, assured, and viable surveillance options for executing event response; SDA data processing at multiple classification levels; and automated, worldwide,

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1203940SF I Space Situation Awareness Operations	
cross-sensor tipping and cueing. Battlespace Intelligence integrates with this capability to provide enhanced autonomous and semi-autonomous collection and assessment capabilities to rapidly deliver decision-quality information to the warfighter within operational timelines. The SCU Lighthouse project is a partnership effort with the Missile Defense Agency (MDA) for targeted sensor upgrades providing dynamic tasking integration and tactical data exposure to MDA systems focused on closure of specific near-earth SDA kill chains. The Space Domain Awareness Network (SDANet) project (673943) was declared a Middle Tier Acquisition (MTA) rapid fielding program of record in FY 2024. It is deploying a modern end-to-end data delivery capability via resilient, distributed mesh network capability for the Space Surveillance Network (SSN) and other associated sensor, Command and Control (C2) and data nodes. SDANet supports existing capabilities through improvements to end-to-end architecture and data delivery efficiency and resiliency to enable modern C2 and AI/ML initiatives. SDANet enables Sensor-to-Sensor, Sensor-to-C2, and Sensor-to-Unified Data Library (UDL) end-to-end data flows revolutionizing the traditional vertical Sensor-to-C2 data flows to incorporate the ability to send and receive data laterally enabling space domain operations. Through a Mission Data Integration (MDI) initiative, SDANet seeks to expand message format capabilities to enhance functionality and provide sensor-agnostic data flows to improve Space Domain Awareness by expanding the available sensor population beyond the existing government-owned SSN. Joint Commercial Operations (JCO) project (673942) rapidly contributes across the full Find, Fix, Track, Target, Engage, and Assess (F2T2EA) kill chain by delivering near-persistent, low-latency commercial sensing, data fusion, and analysis at operational speed. Through a proliferated network of commercial optical, radar, and passive RF sensors, the JCO enables rapid detection, identification, and custody of targets across Orbital Warfare and Electronic Warfare mission sets. JCO-generated state vectors, covariances, and pattern-of-life analysis directly support targeting decisions and engagement planning while significantly compressing decision timelines compared to legacy architectures. During engagement and assessment, JCO capabilities provide combat identification support, maneuver and behavior change detection, and battle damage assessment through optical, radar, and RF monitoring. The Commercial Integration Cell (CIC) is not a new start as it was previously funded in appropriation 3620, RDT&E, Space Force, PE 1206445S, Commercial SATCOM (COMSATCOM) Integration and consolidated within the commercial operations lines under JCO. The Commercial Integration Cell (CIC) project (673942) integrates prominent US industry partners within the Combined Space Operations Center (CSpOC). It focuses on capabilities & TS/SCI threat sharing, day-to-day operations & crisis action planning from competition through conflict, responsive communication & information sharing - increasing transparency and shared understanding & unity of effort. CIC is key in ensuring mission impact mitigation; thereby, addressing friction within the geopolitical landscape by maintaining close relationships with partners. CIC improves information sharing and collaboration in the operational domain, between entities providing space related services to the US Government and ultimately reduce risk to Combatant Command missions. The SDF, SDANet, and JCO projects fall within the Space Domain Awareness (SDA) mission area which provides the space-based and ground-based architecture required to detect, track, catalogue, and identify objects and activities in the space domain. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. Space Force investment program interdependencies include: RDT&E Budget Line Items: Space Domain Awareness/Planning/Tasking SW		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>
(1208248SF); Automate Sat C2 (1207440SF); Space Situational Awareness Systems (1206425SF); and elements of Procurement Budget Line Item: Space Mods (SPCMOD).		
The USSF is executing the SDF, SDANet, and JCO projects for Guardians across warfighting, operational commands, and combat support units. As a result, the Service will deliver SDA capabilities and deter, neutralize, defeat, and/or destroy counterspace threats and defend the homeland. The Unified Data Library project (UDL 673941) supports integration, exploitation, and delivery of data sources for command and control and battle management of space forces. UDL will continue to develop the library by on-boarding new data sets, directly connecting to SDA sensors, expanding data services, expanding defensive cyber operations capabilities, adding non-metric data to the SDA marketplace, continuing to expand local area network capability to share SSN data in a cyber-secure manner, allowing optimized data flow for use of existing SDA capability and providing access to new commercial SDA innovations that will enable the broader SDA mission. The SF Weather Services Research project (67A018) funds the operational development necessary to acquire, sustain, and modernize Air Force Weather Service (AFWS) capabilities in support of the 2022 National Defense Strategy. AFWS provides timely, accurate, resilient, and relevant environmental information to enable global battlespace situational awareness for Air Force (AF), Army, Special Operations Forces (SOF), Space Force (USSF), combatant commands, the Intelligence Community (IC), and other government agencies. AFWS provides climate impacts and assessments, as well as space and terrestrial weather sensing, forecasting, and weather analytic capabilities, at home station and deployed, in order to deliver critical environmental intelligence in support of decision makers to gain the asymmetric advantage during the full spectrum of air and space combat operations. The SF Weather Services Research project falls within the Weather mission area which provides mission-critical environmental intelligence to support global military operations and delivers essential meteorological and oceanographic data to joint forces across all domains and detects space-based environmental threats to protect vital U.S. and allied space assets. Space Force investment program interdependencies include: RDT&E Budget Line Items: EO/IR Weather Systems (1203710SF); Space Force Weather Services Research (0604002SF); Weather Satellite Follow-on (1206422SF); elements of Space Situation Awareness Operations (1203940SF); elements of Space Control Technology (1206438SF); and elements of Procurement Budget Line Item: Space Mods (SPCMOD) The FY 2026 spend plan amount for RDT&E includes 179,365 thousand of discretionary and 31,100 thousand of mandatory (reconciliation) for a total of 210,465 thousand. In FY26, a sum total of 3.446M was erroneously programmed between the five projects in this program element. This includes Congressional marks of -5.353M for "Space Data Fusion previously funded" and -5.622M for "Space Domain Awareness mesh network insufficient justification" as well as Congressional adds for 3.0M "AI satellite health monitoring" and 7.50M for "Collaborative sensor network." In the year of execution, funding will be realigned internally to properly represent the Congressional marks, adds and SBIR/STTR reductions in their correct projects. Project 673940, Space Data Fusion will be increased by 4.095M to total 57.162M; project 673941, Unified Data Library will be decreased by 0.703M to total 41.533M; Project 673942, JCO will be decreased by 0.438M to total 33.250M; and Project 67A018, Space Based Environmental Monitoring will be decreased by 0.052M to total 2.992M.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203940SF I Space Situation Awareness Operations				
This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This program falls within the Space Domain Awareness (SDA) mission area which provides the space-based and ground-based architecture required to detect, track, catalogue, and identify objects and activities in the space domain. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. Program interdependencies include: SC&C Software Pilot Program (1208248SF); Space Defense Interface Network (1203904SF); Space Situational Awareness Operations (1203940SF); Space Situational Awareness Systems (1206425SF)”						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		115.660	182.377	0.000	0.000	0.000
Current President's Budget		111.855	179.365	294.902	0.000	294.902
Total Adjustments		-3.805	-3.012	294.902	0.000	294.902
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-13.512			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	10.500			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-3.805	0.000			
• Other Adjustments		0.000	0.000	294.902	0.000	294.902
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 673940: Space Data Fusion						
Congressional Add: Commercial Collaborative Sensor Network						
Congressional Add Subtotals for Project: 673940						
Congressional Add Totals for all Projects						

FY 2025	FY 2026
2.500	-
2.500	-
2.500	-

FY 2025	FY 2026
2.500	-
2.500	-
2.500	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1203940SF I Space Situation Awareness Operations	
Change Summary Explanation Strategic Changes: FY 2027 - 2030: The FY2026 President's Budget submittal did not reflect the FY2027 through FY2030 funding. Therefore, an explanation of the changes between the two budget positions for FY2027 cannot be made in a relevant manner. Technical Changes: FY 2025: -3.805 million SBIR/STTR Transfer FY 2026: - 13.512 million for Congressional Directed Reductions -5.622 million for Space Domain Awareness mesh network insufficient justification -5.353 million for Space Data Fusion previously funded -2.537 million for Section 8151 SBIR reduction FY 2026: +10.500 million Congressional Add +7.5 million for Commercial Collaborative Sensor Network +3.0 million for AI Satellite Health Monitoring		

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations				Project (Number/Name) 673940 / Space Data Fusion			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
673940: Space Data Fusion	0.000	72.180	53.067	39.247	0.000	39.247	41.159	38.284	39.247	40.169	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
Space Domain Awareness (SDA) is one of four U.S. Space Force Enterprise Functions and is defined as the ability to detect, characterize, attribute, predict, and target activities in the space domain to inform decision making. SDA is comprised of the following Enterprise Activities: Reconnaissance, Surveillance, Conjunction Assessment, Collision on Launch Assessment, Breakups, and Rendezvous and Proximity Operations Support. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command and control (C2), communications, processing, analysis, dissemination, and archiving activities.												
Space Situation Awareness Operations (SSAO, 1203940SF) fields, upgrades, operationalizes, operates, and maintains Space Force sensors and information/data integration capabilities within the SDA network while companion program element Space Situational Awareness Systems (SSAS, 1206425SF) develops new network sensors and associated information integration capabilities across the network. Activities funded in this program (1203940SF) focus on surveillance of objects in earth orbit and beyond to aid tasks including satellite tracking; space object identification; tracking and cataloging; satellite attack warning; notification of satellite flyovers to U.S. forces; space treaty monitoring; and technical intelligence gathering. As a whole, this program upgrades, modifies, modernizes, operationalizes, fields, operates, and maintains sensors and information integration capabilities for an integrated, end-to-end SDA architecture that provides critical national security space solutions on tactical operational timelines.												
The Space Data Fusion (SDF) effort (673940) includes the Global Sensor Watch (GSW) program, which develops and/or upgrades SDA data collection and exploitation capabilities, including artificial intelligence/machine learning (AI/ML), as modernization and improvement efforts to operational SDA capability. GSW prototypes and provides initial operational capabilities enabling an integrated, end-to-end, SDA tip and cue capability that implements a resilient architecture providing overlapping, assured, and viable surveillance options for executing event response; SDA data processing at multiple classification levels; and automated, worldwide, cross-sensor tipping and cueing. Battlespace Intelligence integrates with this capability to provide enhanced autonomous and semi-autonomous collection and assessment capabilities to rapidly deliver decision-quality information to the warfighter within operational timelines. The Sensor Communications Upgrades (SCU) Lighthouse project is a partnership effort with the Missile Defense Agency (MDA) for targeted sensor upgrades providing dynamic tasking integration and tactical data exposure to MDA systems focused on closure of specific near-earth SDA kill chains. TAPOUT is a successful proof of concept that is directly addressing critical operational gaps by integrating government and commercial systems into a hybrid SDA architecture. TAPOUT will transition to a formal program of record with the new name Wolf Alpha in FY 2027 to separate it as an operational capability. The transition to a POR will ensure long-term operational stability and forge long-term government and commercial partnerships to provide timely, relevant, and actionable understanding of threat in space.												
This program may include necessary civilian pay expenses required to manage, execute, and deliver the weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.												

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673940 / <i>Space Data Fusion</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Title: Global Sensor Watch (GSW) Description: GSW provides an integrated Space Domain Awareness (SDA) architecture to deliver a resilient, high capacity, sensitive, timely, and comprehensive global ground and space-based network of sensors that cover the geocentric and cislunar orbital regimes. GSW is a resilient, automated cross-sensor tip and cue capability that provides overlapping, assured, and viable surveillance options for executing event response, and SDA data processing at multiple classification levels. To ensure the successful implementation of a resilient, overlapping, assured, and viable architecture, GSW includes the necessary sensor communication upgrades to ensure data transport/throughput, compatibility, and effects-based tactical tasking/response functionality. This is accomplished by utilizing machine-to-machine (M2M) autonomy and artificial intelligence/machine learning (AI/ML) and other emerging technologies. GSW enables highly available, non-stovepiped sensor planning, tasking, response, and data collection, as well as processed information/products/results to be stored, shared, and integrated for warfighting and analysis. FY 2026 Plans: Complete investments in GSW Sensor Communication Upgrades (SCU) and Missile Defense Agency (MDA) integration for the remaining assets and capabilities, in support of the USSPACECOM funded Project Lighthouse (LH1 & LH2) including: -Complete investment for integration of radar sites: Eglin Radar, 2 Upgraded Early Warning Radars (UEWR), Millstone Radar Site Massachusetts; and Reagan Test Site assets (Space Fence, Millimeter Wave (MMW) Radar, ARPA Lincoln C-Band Observables Radar (ALCOR), Haystack Ultrawideband Satellite Imaging Radar (HUSIR), and the Haystack Auxiliary (HAX) Radar with other characterization and operational intelligence capabilities. -Complete Ground Based Radar-Kwajalein radome work and sensor array development. -Continue efforts toward 5 sites: DARC Site 1, COBRA DANE, GEODSS, Ascension, and REDLAN, as sites are available. -Vet new SDA capability deliveries and concepts of operations for optimizing legacy SDA sensor operations via other USSPACECOM operations and test activities. -Expand to additional SSN sites, mesh network for essential SCU communications and resilient data transport capability. -Expand deployment of AI-prototype MACHINA integration with commercial, allied, and DoW SDA capabilities for automated sensor orchestration and integration with operational C2 (Space C2, Integrated Sensor Support Services (IS3), MDA, etc). -Mature prototyping and initial operationalization of Optical Cued Radar Search (OCRS) and automated radar imagery exposure and exploitation, tracked as part of the USSPACECOM "Zulu Wookie" needs. -Continue tip-and-cue software and launch custody and high-rate revisit capabilities at Millimeter Wave (MMW) Radar, ARPA Lincoln C-Band Observables Radar (ALCOR), Haystack Ultrawideband Satellite Imaging Radar (HUSIR), Haystack Auxiliary (HAX) and ALTAIR radars. Continue Global Sensor Watch (GSW) efforts including:		40.005	53.067
			39.247

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673940 / <i>Space Data Fusion</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
-Development and operational test and evaluation of MACHINA to autonomously close time-dominant sensing gaps in support of the co-orbital and direct ascent Geosynchronous (GEO) Anti-Satellite (ASAT) Kill Chains. Complete integration with Space C2 systems Integrated Sensor Support Services (IS3) and Advanced Tracking and Launch Analysis System (ATLAS). -Field MACHINA to SpOC Delta 2 operators, conduct experimentation to enable tactics, techniques, and procedures (TTP) development, and initiate Operational Acceptance testing. -Develop and field new responsive SDA capabilities to support dynamic space vehicle operations. -Expand non-traditional, allied, and commercial sensor integration, including high-to-low sensor task offloading to release operational SDA assets for space warfighting missions. -Develop, integrate, and field new sensing concepts to close geographic or phenomenological gaps in the Space Surveillance Network (SSN). Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. In FY26, a sum total of 3.446M was erroneously programmed between the five projects in this program element. This includes Congressional marks of -5.353M for "Space Data Fusion previously funded" and -5.622M for "Space Domain Awareness mesh network insufficient justification" as well as Congressional adds for 3.0M "AI satellite health monitoring" and 7.50M for "Collaborative sensor network." In the year of execution, funding will be realigned internally to properly represent the Congressional marks, adds and SBIR/STTR reductions in their correct projects. Project 673940, Space Data Fusion will be increased by 4.095M to total 57.162M; project 673941, Unified Data Library will be decreased by 0.703M to total 41.533M; Project 673942, JCO will be decreased by 0.438M to total 33.250M; and Project 67A018, Space Based Environmental Monitoring will be decreased by 0.052M to total 2.992M. FY 2027 Plans: Continue Global Sensor Watch (GSW) efforts including: -Expand development and deployment of MACHINA delivering operator-on-the-loop capability and user restrictions with commercial, allied, and DoW SDA capabilities for automated sensor orchestration and integration with operational C2 (Space C2, Integrated Sensor Support Services (IS3), MDA, etc). -Continue development and fielding of new responsive SDA capabilities to support dynamic space vehicle operations. -Mature, continue to integrate, and field new sensing concepts to close geographic or phenomenological gaps in the Space Surveillance Network (SSN)			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673940 / <i>Space Data Fusion</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
-Begin transition of TAPOUT from a developmental network to a program of record called Wolf Alpha for a government-owned mission application layer and provide a permanent government cloud service network. This will include cyber accreditation for an authority to operate (ATO) to support cross-domain solutions to improve DoW data flows. -Battlespace Intelligence (BI) will identify opportunities or alternatives to provide a USSF-centric Distributed Common Ground System to serve as the force's primary space intelligence, targeting, collection, processing, exploitation, and dissemination system. Initiate pre-acquisition activities for future PoR (Space Intelligence Enterprise Systems (SplES)). -BI will assess and improve opportunities regarding current space intelligence architecture, data flows, and data platforms to include sensor data integration for IC, SSN, commercial and allied sensors in providing enhanced decision-making capabilities and kill-chain closures. -Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding decreased due to draw-down of Sensor Comm Upgrade tasks.			
Title: Space Domain Awareness Network (SDANet) Description: The Space Domain Awareness Network (SDANet) effort was declared a Middle Tier Acquisition rapid fielding program of record in FY 2024. SDANet funding has been transferred into a new major thrust for transparency; it is not a new start. SDANet is fielding a modern end-to-end data delivery capability via a resilient, distributed mesh network for the Space Surveillance Network and other associated Space Force nodes. SDANet supports existing capabilities through improvements to end-to-end architecture and data delivery efficiency and resiliency to enable modern Command and Control and AI/ML initiatives. SDANet enables Sensor-to-Sensor, Sensor-to-C2, and Sensor-to-UDL end-to-end data flows revolutionizing the traditional vertical Sensor-to-C2 data flows to incorporate the ability to send and receive data laterally enabling space domain operations. SDANet will continue to incorporate new sensors and capabilities to deliver a modern end-to-end mesh data fabric that extends to the entire Space Surveillance Network and other associated nodes. Capitalizing on the Fiscal Year 2024 Initial Operational Capability (IOC) which delivered an end-to-end data delivery mesh solution to all three GEODSS Electro Optical Systems (Maui, Socorro, and Diego Garcia), the Eglin Radar, the Dahlgren Command and Control (C2) Center, and the Vandenberg C2 Center, SDANet will continue to incorporate new sensors and data types. FY 2026 Plans:		21.250	0.000
			0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations	Project (Number/Name) 673940 / Space Data Fusion		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
N/A					
FY 2027 Plans: N/A					
FY 2026 to FY 2027 Increase/Decrease Statement: N/A					
Title: Commercial Data Buys Beyond Protect and Defend			8.425	0.000	0.000
Description: The mission of the current Joint Commercial Operations (JCO) is to provide persistent and rapid Space Domain Awareness (SDA) coverage to maximize decision making space and reduce reaction time in support of Protect & Defend missions. The JCO augments military tracking data, real-time visual magnitude, and real-time passive radio frequency (RF) using commercial capabilities for US Space Forces - Space, USSPACECOM, National Space Defense Center, and other combatant commands (i.e., USSOUTHCOM). JCO provides space domain awareness data sets that are applicable to every function of the "kill chain": find, fix, track, target, engage, and assess. JCO executes 24-hour Allied operations, as directed by the USSPACECOM Commander; operations provides support to initial Protect & Defend capabilities; reviews, adjudicates, and integrates capabilities with multiple commercial providers, supports existing capabilities through improvements to architecture and system efficiency, cybersecurity, migration to cloud computing, building on artificial intelligence and machine learning (AI/ML) initiatives, and maintains software integration and delivery via agile practices. This funding will be used to support a variety of other commercial mission sets beyond the protect and defend capabilities.					
FY 2026 Plans: N/A					
FY 2027 Plans: N/A					
FY 2026 to FY 2027 Increase/Decrease Statement: N/A					
Accomplishments/Planned Programs Subtotals			69.680	53.067	39.247
			FY 2025	FY 2026	
Congressional Add: Commercial Collaborative Sensor Network			2.500	-	
FY 2025 Accomplishments: This is a continuation of efforts to develop a product line of globally transportable telescopes assembled using entirely Commercial off the Shelf (COTS) components, to be controlled by a					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673940 / <i>Space Data Fusion</i>
	FY 2025	FY 2026
software that uses AI to autonomously task the sensors. These systems will augment the Space Force fixed site telescope network and are aimed to address Space Domain Awareness (SDA) gaps that commercial telescope network operators may not be able to satisfy.		
Congressional Adds Subtotals	2.500	-

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

The SDF acquisition strategy includes Task Orders on the existing SDANet Firm Fixed Price (FFP) Indefinite Delivery/Indefinite Quantity (IDIQ) contract vehicle, Military Interdepartmental Purchase Requests (MIPR) to Air Force Research Lab (AFRL) for contracts on existing partnerships, and engineering change orders to existing Space Surveillance Network (SSN) sensor management contracts such as Maintenance of Space Situational Awareness Integrated Capability (MOSSAIC), Ground Based Radar Maintenance and Sustainment (GMASS), etc.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations				Project (Number/Name) 673940 / Space Data Fusion					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GSW Integration (Dev, Sensor, C2)	Various	Various : Various	-	12.073	Nov 2024	17.799	Nov 2025	12.561	Nov 2026	-		12.561	Continuing	Continuing	-
GSW Sensor Comm Upgrades	Various	Various : Various	-	2.451	Nov 2024	15.608	Nov 2025	-		-		-	0.000	18.059	-
SDANet	Various	Various : Various	-	2.939	Nov 2024	-		-		-		-	0.000	2.939	-
GSW Commercial Data Buys Beyond Protect and Defend	Various	Various : Colorado Springs, CO	-	8.425	Oct 2024	-		-		-		-	Continuing	Continuing	-
Lighthouse	Various	Various : Various	-	24.129	Dec 2024	10.500	Feb 2026	-		-		-	0.000	34.629	-
Wolf Alpha	Various	Various : Various	-	0.650	Dec 2025	-		8.270	Nov 2026	-		8.270	Continuing	Continuing	-
Battlespace Intelligence	TBD	Various : Various	-	2.570	Aug 2025	2.000	Feb 2026	12.450	Nov 2026	-		12.450	0.000	17.020	-
SWOOP	C/FFP	Anduril : Costa Mesa, CA	-	7.675	Mar 2026	-		-		-		-	Continuing	Continuing	-
Commercial Collaborative Sensor Network	C/CPAF	EO Solutions : Las Vegas, NV	-	2.417	Aug 2025	-		-		-		-	Continuing	Continuing	-
Technical Mission Analysis	Various	Not specified. : TBD	-	1.712	Nov 2024	0.706	Dec 2025	0.694	Nov 2026	-		0.694	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000	Jun 2025	0.000	Oct 2025	1.436	Oct 2026	-		1.436	Continuing	Continuing	-
Subtotal			-	65.041		46.613		35.411		-		35.411	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : Colorado Springs, CO	-	4.795	Nov 2024	3.766	Nov 2025	2.631	Nov 2026	-		2.631	Continuing	Continuing	-
FFRDC	RO	Various : Colorado Springs, CO	-	2.291	Nov 2024	2.558	Nov 2025	1.145	Nov 2026	-		1.145	Continuing	Continuing	-
Other Support	Various	Various : Colorado Springs, CO	-	0.053	Nov 2024	0.130	Nov 2025	0.060	Nov 2026	-		0.060	Continuing	Continuing	-
Subtotal			-	7.139		6.454		3.836		-		3.836	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>				Project (Number/Name) 673940 / <i>Space Data Fusion</i>				
	Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	72.180		53.067		39.247		-		39.247	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>		Project (Number/Name) 673940 / <i>Space Data Fusion</i>	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Global Sensor Watch (GSW)																												
GSW Operationalization																												
GSW Sensor Comm Upgrades - Operationalize LH2 Sites (5-10)																												
GSW Sensor Comm Upgrades - Operationalize LH2 Sites (11-17)																												
GSW Prototypes/Integration																												
TAPOUT FOC																												
TAPOUT MSN Application Layer Transition to Wolf Alpha Program of Record																												
Battlespace Intelligence: As-is Infrastructure Study																												
Battlespace Intelligence: Space Intel Enterprise Analysis and use-case development																												
SDANet																												
Space Domain Awareness Network (SDANet) - Tranche 2 - Nodes 7-12																												
Commercial Data Buys Beyond Protect and Defend																												
Americas-Only Developmental Support																												
Meridian Expansion Support																												
Pacific Expansion Support																												
Global Development Support for Command and Control																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																								Date: April 2026													
Appropriation/Budget Activity 3620F / 7										R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations										Project (Number/Name) 673940 / Space Data Fusion																	
										FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
New Capability Experimentation and Integration																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673940 / <i>Space Data Fusion</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Global Sensor Watch (GSW)				
GSW Operationalization	1	2025	4	2031
GSW Sensor Comm Upgrades - Operationalize LH2 Sites (5-10)	1	2025	2	2026
GSW Sensor Comm Upgrades - Operationalize LH2 Sites (11-17)	2	2026	4	2028
GSW Prototypes/Integration	1	2025	4	2031
TAPOUT FOC	4	2026	4	2026
TAPOUT MSN Application Layer Transition to Wolf Alpha Program of Record	1	2027	4	2028
Battlespace Intelligence: As-is Infrastructure Study	1	2027	2	2027
Battlespace Intelligence: Space Intel Enterprise Analysis and use-case development	1	2027	4	2027
SDANet				
Space Domain Awareness Network (SDANet) - Tranche 2 - Nodes 7-12	2	2025	4	2025
Commercial Data Buys Beyond Protect and Defend				
Americas-Only Developmental Support	1	2025	4	2025
Meridian Expansion Support	1	2025	4	2025
Pacific Expansion Support	1	2025	4	2025
Global Development Support for Command and Control	1	2025	4	2025
New Capability Experimentation and Integration	1	2025	4	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>				Project (Number/Name) 673941 / <i>Unified Data Library (UDL)</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
673941: <i>Unified Data Library (UDL)</i>	0.000	34.760	42.236	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

NOTE: In FY2027+ UDL funds have transferred to a new Program Element (PE) 1203156SF, Project (673941), Unified Data Library (UDL).

The Unified Data Library project (673941) supports integration, exploitation, and delivery of Space Domain Awareness (SDA) data sources for Command and Control (C2) and battle management of space forces. It focuses on enabling data sharing, establishing the data architecture required to aggregate multi-sensor data for broader use at different classification levels, transforming any-source data into normalized, usable information via data exploitation tools, followed by data hand off to Battle Management Command and Control mission systems to support actual space operations. The UDL will directly connect to dedicated USSF collateral, contributing and non-traditional sensors and systems with modernized interfaces and transport options to broadly expose data. The UDL will be the single source for accessing and managing all data in support of the USSF, providing a central location to find and access data, enabling superior analytics.

This program may include necessary civilian pay expenses required to manage, execute, and deliver the weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Unified Data Library (UDL)	34.760	42.236	0.000
Description: UDL capabilities support integration, exploitation, and delivery of data sources for command and control and battle management of space forces. UDL will continue to develop the library by on-boarding new data sets, directly connecting to SDA sensors, expanding data services, expanding defensive cyber operations capabilities, adding non-metric data to the SDA marketplace, continuing to expand local area network capability to share Space Surveillance Network (SSN) data in a cyber-secure manner, allowing optimized data flow for use of existing SDA capability, and providing access to new commercial SDA innovations that will enable the broader SDA mission. The UDL enables analysis across the global space enterprise, as well as for Space Force related exercise support, cross-domain solution services and integration of the legacy communications architecture with the UDL.			
FY 2026 Plans: Upgrade the UDL Platform Architecture to boost ingestion, storage, and exposure of data to meet warfighter needs. In support of kill chain closure, the UDL has prioritized the following systems for ingestion into the UDL in FY 2026: Bounty Hunter, Deep Space Advanced Radar Capability (DARC), SILENTBARKER, Joint Commercial Operations, Ground-Based Electro-Optical Deep Space			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673941 / <i>Unified Data Library (UDL)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Surveillance (GEODSS), Space Surveillance Telescope, C-Band Space Surveillance Radar System, Geosynchronous Space Situational Awareness, and Eglin Radar. Continue to expand UDL infrastructure to maintain digital superiority, support an increased number of providers and consumers and operations across multiple security environments. Begin the development of the UDL Special Access Program (SAP) environment. Continue to incorporate commercial Space Domain Awareness (SDA) related data and information to close Space Surveillance Network collection gaps. Continue to expand cybersecurity efforts to include persistent red team analysis of the broader UDL architecture and ensure zero trust. Specific initiatives as prioritized by our operational sponsor will include improvements to UDL's Cross Domain Solutions, support of additional security markings upgrades to critical feed notifications for improved troubleshooting, and enhancements to Space System Command's Front Door to support faster data onboarding. Operationalize the API Gateway that provides translation services for native and legacy formats which will increase the number of data providers and consumers use/adoption of the UDL. Continue the direct connection to additional SSN and non-traditional SDA sensors with modernized interfaces and transport options replacing connections to legacy processing systems and networks, improving SDA data resiliency and decreasing enterprise latency. Continue to expand bi-directional data sharing capabilities between C2 Centers and SDA systems, implement bi-directional data sharing with coalition and allied partners focusing on FVEYs, and implement edge computing platform strategies to enhance the situational awareness necessary to operate in a congested space domain. As data ingress and egress grows, a portion of the funds will cover cloud-hosting costs, data service development, security, system administration, data onboarding, data as a service platform retention, processing, and normalization, cross domain solutions and integration of the legacy communications architecture with the UDL through translation services. Support the analysis of space warfighting data across the global space enterprise to include Space Force related exercises. In FY26, a sum total of 3.446M was erroneously programmed between the five projects in this program element. This includes Congressional marks of -5.353M for "Space Data Fusion previously funded" and -5.622M for "Space Domain Awareness mesh network insufficient justification" as well as Congressional adds for 3.0M "AI satellite health monitoring" and 7.50M for "Collaborative sensor network." In the year of execution, funding will be realigned internally to properly represent the Congressional marks, adds and SBIR/STTR reductions in their correct projects. Project 673940, Space Data Fusion will be increased by 4.095M to total 57.162M; project 673941, Unified Data Library will be decreased by 0.703M to total 41.533M; Project 673942, JCO will be decreased by 0.438M to total 33.250M; and Project 67A018, Space Based Environmental Monitoring will be decreased by 0.052M to total 2.992M. FY 2027 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673941 / <i>Unified Data Library (UDL)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
FY 2027 plans are under the new Data Transport and Networking Program (1203156SF).			
FY 2026 to FY 2027 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals		34.760	42.236
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy In FY 2027 the UDL program plans to execute a follow-on contract for UDL enhancements that offer enhanced scalability and flexibility in support of emerging mission requirements. The program also plans to continue leveraging the Space Enterprise Consortium (SpEC), Other Transaction Authority (OTA) and other contract vehicles to continue strengthening the USSF data and digital infrastructure.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations						Project (Number/Name) 673941 / Unified Data Library (UDL)			
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
UDL Development/Data Onboarding	Various	Various : Various	-	23.742	Dec 2024	26.456	Dec 2025	-		-		-	Continuing	Continuing	-
UDL Cloud Hosting	Various	Various : Various	-	3.185	Mar 2025	5.900	Mar 2026	-		-		-	Continuing	Continuing	-
UDL Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	1.932	Nov 2024	1.999	Nov 2025	-		-		-	Continuing	Continuing	-
SBIR/STTR	Allot	TBD : TBD	-	0.000	Oct 2024	0.795	Oct 2025	-		-		-	Continuing	Continuing	-
Subtotal			-	28.859		35.150		-		-		-	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test & Evaluation	Various	Various : Colorado Springs, CO	-	1.097	Nov 2024	1.125	Nov 2025	-		-		-	Continuing	Continuing	-
Subtotal			-	1.097		1.125		-		-		-	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : Colorado Springs, CO	-	2.557	Apr 2025	3.970	Apr 2026	-		-		-	Continuing	Continuing	-
FFRDC	Various	Various : Colorado Springs, CO	-	2.139	Nov 2024	1.553	Dec 2025	-		-		-	Continuing	Continuing	-
Other Support	C/Various	Various : Colorado Springs, CO	-	0.108	Dec 2024	0.438	Dec 2025	-		-		-	Continuing	Continuing	-
Subtotal			-	4.804		5.961		-		-		-	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026				
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>					Project (Number/Name) 673941 / <i>Unified Data Library (UDL)</i>					
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	34.760		42.236		-		-		-	Continuing	Continuing	N/A

Remarks
The UDL costs for FY2027 have transferred to a new Program Element (PE) 1203156SF, Project 673941, Unified Data Library (UDL).

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026																			
Appropriation/Budget Activity 3620F / 7										R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations										Project (Number/Name) 673941 / Unified Data Library (UDL)									

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Unified Data Library (UDL)																												
UDL Cloud Hosting																												
UDL Platform Dev / Space Onboarding Component																												
UDL Cloud Component Development																												
Cross Functional UDL Integration																												
UDL Component Integration																												
UDL Cross Domain Solution Support																												
UDL AI/ML Support																												
UDL Test and Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations	Project (Number/Name) 673941 / Unified Data Library (UDL)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Unified Data Library (UDL)				
UDL Cloud Hosting	1	2025	4	2026
UDL Platform Dev / Space Onboarding Component	1	2025	4	2026
UDL Cloud Component Development	1	2025	4	2026
Cross Functional UDL Integration	1	2025	4	2026
UDL Component Integration	2	2025	4	2026
UDL Cross Domain Solution Support	1	2025	4	2026
UDL AI/ML Support	1	2025	4	2026
UDL Test and Integration	2	2025	4	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations				Project (Number/Name) 673942 / Joint Commercial Operations (JCO)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
673942: Joint Commercial Operations (JCO)	0.000	0.000	33.688	145.412	0.000	145.412	128.766	132.146	135.439	139.602	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Joint Commercial Operations (JCO) rapidly contributes across the full Find, Fix, Track, Target, Engage, and Assess (F2T2EA) kill chain by delivering near-persistent, low-latency commercial sensing, data fusion, and analysis at operational speed. Through a proliferated network of commercial optical, radar, and passive RF sensors, the JCO enables rapid detection, identification, and custody of targets across Orbital Warfare and Electronic Warfare mission sets. JCO-generated state vectors, covariances, and pattern-of-life analysis directly support targeting decisions and engagement planning while significantly compressing decision timelines compared to legacy architectures. During engagement and assessment, JCO capabilities provide combat identification support, maneuver and behavior change detection, and battle damage assessment through optical, radar, and RF monitoring.

The Commercial Integration Cell (CIC) integrates prominent US industry partners such as SpaceX within the Combined Space Operations Center (CSpOC). It focuses on capabilities & TS/SCI threat sharing, day-to-day operations & crisis action planning from competition through conflict, responsive communication & information sharing - increasing transparency and shared understanding & unity of effort. CIC is key in ensuring mission impact mitigation; thereby, addressing friction within the geopolitical landscape by maintaining close relationships with partners. CIC improves information sharing and collaboration in the operational domain, between entities providing space related services to the US Government and ultimately reduce risk to Combatant Command missions.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Commercial Data Buys Beyond Protect and Defend	0.000	33.688	140.571
Description: Joint Commercial Operations (JCO) Joint Commercial Operations (JCO) rapidly contributes to Find, Fix, Track, Target, Engage, and Assess (F2T2EA) kill chain by delivering near-persistent, low-latency commercial sensing, data fusion, and analysis at operational speed. Through a proliferated network of commercial sensors, including detection of indicators across proliferated LEO and GEO satellites in optical and RF bands as well as characterization sensors, the JCO enables rapid detection, identification, and custody of targets across Electronic Warfare and Orbital Warfare mission sets. JCO-generated EMI detection and geolocation is increasing across all space-enabled spectrum, including PNT-SA L5 bands and SATCOM-SA C, Ku, Ka, S, and X bands and growing to global coverage with tactical follow-up. Characterization sensors include commercial narrow-band and wideband space object identification (SOI) class collection as well, all of which enables change detection and pattern of life analysis directly supporting targeting decisions and engagement planning while significantly compressing decision timelines compared to legacy architectures.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>		Project (Number/Name) 673942 / <i>Joint Commercial Operations (JCO)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
JCO will sustain persistent and rapid SDA coverage in support of both Protect & Defend and broader SDA mission areas, in direct alignment with National Defense Strategy imperatives to deter aggression and compete in a contested space environment. Key efforts include: Continued operational integration of SpaceWATCH LEO data to enhance tracking and maneuver detection in low Earth orbit; EMI detection and geolocation for PNT assurance; improvements to architecture and system efficiency; strengthened cybersecurity and secure cloud migration; expansion of AI/ML-enabled SDA operations; increased use of agile software development, delivery, and integration. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. These initiatives directly support Department of War reform goals to speed capability delivery, leverage private sector innovation, and ensure a defensible, mission-ready space architecture. In FY26, a sum total of 3.446M was erroneously programmed between the five projects in this program element. This includes Congressional marks of -5.353M for "Space Data Fusion previously funded" and -5.622M for "Space Domain Awareness mesh network insufficient justification" as well as Congressional adds for 3.0M "AI satellite health monitoring" and 7.50M for "Collaborative sensor network." In the year of execution, funding will be realigned internally to properly represent the Congressional marks, adds and SBIR/STTR reductions in their correct projects. Project 673940, Space Data Fusion will be increased by 4.095M to total 57.162M; project 673941, Unified Data Library will be decreased by 0.703M to total 41.533M; Project 673942, JCO will be decreased by 0.438M to total 33.250M; and Project 67A018, Space Based Environmental Monitoring will be decreased by 0.052M to total 2.992M. FY 2027 Plans: FY27 funding advances space domain awareness (SDA) in low Earth orbit through operational integration of SpaceWATCH LEO data and expansion of sensing architectures, improving object custody, correlation, and detection of maneuver and non-cooperative behaviors in increasingly congested environments. Investments expand proliferated, multi-modal space-based sensing, including enhanced capability for tracking and detection in the Earth's shadow (dark side), enabling persistent, all-condition global coverage and reducing reliance on geographically constrained ground systems. Commercial Capability Integration initiatives are integrated into operation floors to deliver responsive, on-demand operational support through improved tasking agility and significantly reduce collection-to-dissemination timelines. Expanded commercial partnerships accelerate capability delivery, increase resilience, and strengthen the space industrial base through incorporation of emerging sensing and data solutions. Concurrently, integration of artificial intelligence and machine learning (AI/ML) automates data processing,					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673942 / <i>Joint Commercial Operations (JCO)</i>		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
improves multi-source fusion, and enables advanced analytics for anomaly detection and predictive characterization of object behavior. Collectively, these efforts improve decision speed, scalability, and operational effectiveness, ensuring continued advantage in all contested and dynamic space domains. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: The FY27 budget increase reflects a required shift from limited, prototyping commercial capabilities to operational, scalable, tested commercial capabilities; thereby, address accelerating adversary activity and persistent coverage gaps in LEO, including the Earth's shadow. Moreover, FY 2027 funding enables rapid integration of SpaceWATCH data, expansion of proliferated space-based sensing, and growth and stability of Commercial Capability Integration initiatives to close a critical gap in responsive, on-demand space-based operational support, directly meeting Combatant Command requirements for timely, fully releasable, and decision-quality operational planning products.					
Title: Commercial Integration Cell (CIC) Description: The Commercial Integration Cell (CIC) is not a new start as it was previously funded in appropriation 3620, RDT&E, Space Force, PE 1206445S, Commercial SATCOM (COMSTATCOM) Integration and consolidated within the commercial operations lines under JCO. The CIC enables information sharing and is the foundation of how the USSF conducts activity in space. Space related threats and operational information sharing with the US Government, private sector, and Allies and partners, which is imperative for day-to-day operations. The USSF is developing the structure to manage, enforce, correct, and continually improve on threat Indications and Warnings (I&W) as it impacts the operational environment. As USSF's Commercial Augmentation Space Reserve (CASR) program continues to develop formal processes for threat information sharing as an incentive for commercial participation, the U.S. Space Forces- Space (S4S) Commercial Integration Cell (CIC) remains a force multiplier and a catalyst for real- time information sharing with the commercial sector across security classifications. To enhance and build onto the asymmetrical advantage CIC provides, and as the method by which the US can execute the CASR program, SSC's Commercial Space Office (COMSO) seeks to enable the enhancement of the CIC's operationally relevant information sharing capability through CASR's contractual framework, offering the USG surge capacity beyond the currently limited CIC construct. This includes providing and sustaining facility and network access for CIC partners to enable real-time communications up to TS/SCI. Aids resolution for			-	0.000	4.841

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations	Project (Number/Name) 673942 / Joint Commercial Operations (JCO)		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
mission impacts, including EMI, directed energy, and anomalous events and improves response timeline and substance for indications and warning notifications.					
FY 2026 Plans: N/A					
FY 2027 Plans: Begin fully efficient operational use of CIC among partners in multiple mission areas (SDA, SATCOM, PNT, MW/MD, Cyber). Develop day-to-day and contingency plans and orders integration. Mitigate mission risk mitigation through 24/7 CIC operations coverage, increase mission specific and domain specific commercial expertise, and provide additional real-time intelligence and information sharing to partners. Increase Tier 1 exercise and wargame participation with partners. Expand commercial integration into vulnerable mission areas to increase resiliency and begin to decrease risk.					
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.					
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase due to addition of CIC funds.					
Accomplishments/Planned Programs Subtotals			0.000	33.688	145.412
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
D. Acquisition Strategy					
The USSF, through the JCO, is provisioning and expanding this support to USSPACECOM and other combatant commands by adding commercial SDA sensors and analytics for these missions. This enables allied/partner nations contribution to mission-share and burden-share in support of 24/7 operations globally, providing alerts and notifications to all.					
The JCO plans to execute funding using multiple already awarded and potential future contract vehicles and types. Agencies include: GSA and AFRL to pursue low-cost, fast-to-field solutions that leverage commercial capabilities to address the requirement to maintain SDA. This includes, but is not limited to the following: ACCESS/GSA, EDIL/ARCADE (follow-on)/GSA, BOLD VENTURE/GSA, OPIR TAP Lab/AFRL, SHERPA/GSA, REDI TOO SOC/AFRL, BRONCO II/AFRL, STAR DMAC/AFRL.					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673942 / <i>Joint Commercial Operations (JCO)</i>

Similarly, CIC provides an advantage to USSPACECOM through its ability to leverage DD254s to share CLASSIFIED indications, warnings, threats, potential adversary COAs, and other relevant intelligence information to CIC partners. In turn, these partners support operations and plan development having full insight into the operational environment. In order to do this, the CIC executes or relies on multiple contract vehicles to sustain its mission and expand its capability.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations				Project (Number/Name) 673942 / Joint Commercial Operations (JCO)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Commercial Data Buys Beyond Protect and Defend	Various	Various : Various	-	-		33.223	Nov 2025	133.242	Nov 2026	-		133.242	Continuing	Continuing	-
Commercial Integration Cell (CIC)	Various	Various : Various	-	-		-		4.841	Nov 2026	-		4.841	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		0.000	Oct 2025	5.322	Oct 2026	-		5.322	Continuing	Continuing	-
Subtotal			-	-		33.223		143.405		-		143.405	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	Various	Various : Colorado Springs, CO	-	-		0.465	Nov 2025	2.007	Nov 2026	-		2.007	Continuing	Continuing	-
Subtotal			-	-		0.465		2.007		-		2.007	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		33.688		145.412		-		145.412	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 7					PE 1203940SF / Space Situation Awareness Operations					673942 / Joint Commercial Operations (JCO)			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Commercial Data Buys Beyond Protect and Defend																												
Americas-Only Developmental Support																												
Meridian Expansion Support																												
Pacific Expansion Support																												
Global Development Support for Command and Control																												
New Capability Experimentation and Integration																												
Commercial Integration Cell (CIC)																												
Sustainment Support Secure Comms																												
Partner Expansion Support																												
CIC Follow the Sun Model (Global Expansion)																												
SATCOM SA /Other Commercial Visualization Tools																												
New TTP Development and Experimentation (new mission areas)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673942 / <i>Joint Commercial Operations (JCO)</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Commercial Data Buys Beyond Protect and Defend</i>				
Americas-Only Developmental Support	1	2026	4	2031
Meridian Expansion Support	1	2026	4	2031
Pacific Expansion Support	1	2026	4	2031
Global Development Support for Command and Control	1	2026	4	2031
New Capability Experimentation and Integration	1	2026	4	2031
<i>Commercial Integration Cell (CIC)</i>				
Sustainment Support Secure Comms	2	2027	4	2031
Partner Expansion Support	2	2027	4	2031
CIC Follow the Sun Model (Global Expansion)	2	2027	4	2031
SATCOM SA /Other Commercial Visualization Tools	2	2027	4	2031
New TTP Development and Experimentation (new mission areas)	2	2027	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations				Project (Number/Name) 673943 / Space Domain Awareness Mesh Network (SDANet)			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
673943: Space Domain Awareness Mesh Network (SDANet)	0.000	0.000	47.330	89.025	0.000	89.025	39.663	32.427	33.290	33.955	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Domain Awareness Network effort is a Middle Tier Acquisition rapid fielding (MTF-RF) program of record. It is deploying a modern end-to-end data delivery capability via resilient, distributed mesh network capability for the Space Surveillance Network (SSN) and other associated sensor, C2 and data nodes. SDANet supports existing capabilities through improvements to end-to-end architecture and data delivery efficiency and resiliency to enable modern C2 and Artificial Intelligence/Machine Learning (AI/ML) initiatives. SDANet enables Sensor-to-Sensor, Sensor-to-C2 systems, and Sensor-to-Unified Data Library (UDL) end-to-end data flows revolutionizing the traditional vertical Sensor-to-C2 data flows to incorporate the ability to send and receive data laterally enabling space domain operations. Through a Mission Data Integration (MDI) initiative (Project Lighthouse), SDANet seeks to enable command-and-control (C2) through machine-to-machine interface between the Missile Defense Agency (MDA) and SDA sensors to allow USSPACECOM to deter aggression, defend national assets, and when necessary, defeat threats.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Space Domain Awareness Network (SDANet)	0.000	47.330	89.025
Description: SDANet is fielding a modern end-to-end data delivery capability via a resilient, distributed mesh network for the Space Surveillance Network (SSN) and other associated Space Force nodes. SDANet supports existing capabilities through improvements to end-to-end architecture and data delivery efficiency and resiliency to enable modern Command and Control and AI/ML initiatives. SDANet enables Sensor-to-Sensor, Sensor-to-C2 systems, and Sensor-to-UDL end-to-end data flows revolutionizing the traditional vertical Sensor-to-C2 data flows to incorporate the ability to send and receive data laterally enabling space domain operations. Through a MDI initiative, SDANet seeks to expand message format capabilities to enhance functionality and provide sensor-agnostic data flows to improve Space Domain Awareness by expanding the available sensor population beyond the existing government-owned SSN. SDANet will continue to incorporate new sensors and capabilities to deliver a modern end-to-end mesh data fabric that extends to the entire SSN and other associated nodes. Capitalizing on the Initial Operational Capability (IOC) delivery of an end-to-end data delivery mesh solution to two GEODSS Electro Optical Systems (Maui and Diego Garcia), the Eglin Radar, the Dahlgren			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 673943 / <i>Space Domain Awareness Mesh Network (SDANet)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
Command and Control (C2) Center, and the Vandenberg C2 Center, SDANet will continue to incorporate new sensors and data types. SDANet will transition continued Project Lighthouse requirements from Sensor Comm Upgrade (SCU) under project 673940 to Mission Data Integration (MDI) to better align programs and take advantage of synergies. SDANet will provide an interim connection between SDA sensors and MDA's C2 until all Ballistic Missile Defense Communication Network (BCN) nodes are installed and operational. In conjunction with the MDI line of effort, SDANet will integrate machine-to-machine (M2M) tasking capabilities to support SDA sensor orchestration and improve system responsiveness. FY 2026 Plans: Continue SDANet integration and fielding efforts: -Upgrade end-to-end SSN sensor communications at additional sites which facilitate tip and cue sensor operations. -Modernize legacy sensor message formats and protocols for greater accuracy via non-traditional data sources. -Continue SDANet integration with: COBRA DANE, 5 Upgraded Early Warning Radars (UEWR), Classified SIL, Globus II, Reagan Test Site (RTS) Kwajalein. -Continue operating and continuously developing new data capabilities for sensors delivered during Initial Operational Capability (IOC). New data capabilities include message types beyond legacy Integrated Weapon System Data (IWSD) messages, rich data observations, and other information required for modern Command and Control (C2) and SDA data analytics. -Incorporate new network nodes for the Lexington Space Surveillance Center, Space Fence, Missile Defense Agency (MDA), MIT-Lincoln Labs Lexington, C-Band Australia, Space Surveillance Telescope, and PARCS. In FY26, a sum total of 3.446M was erroneously programmed between the five projects in this program element. This includes Congressional marks of -5.353M for "Space Data Fusion previously funded" and -5.622M for "Space Domain Awareness mesh network insufficient justification" as well as Congressional adds for 3.0M "AI satellite health monitoring" and 7.50M for "Collaborative sensor network." In the year of execution, funding will be realigned internally to properly represent the Congressional marks, adds and SBIR/STTR reductions in their correct projects. Project 673940, Space Data Fusion will be increased by 4.095M to total 57.162M; project 673941, Unified Data Library will be decreased by 0.703M to total 41.533M; Project 673942, JCO will be decreased by 0.438M to total 33.250M; and Project 67A018, Space Based Environmental Monitoring will be decreased by 0.052M to total 2.992M. FY 2027 Plans: -Implement machine-to-machine tasking to improve Space Surveillance Network (SSN) responsiveness and close kill chains. -Ingest and disseminate new Space messages to provide rich data, observations and other data sets required for modern C2 functionality.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>		Project (Number/Name) 673943 / <i>Space Domain Awareness Mesh Network (SDANet)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027
-Deploy Cloud based nodes to provide a secondary direct path to Unified Data Library (UDL) and other cloud-based systems to reduce latency and provide redundancy and resiliency. -Interconnect with DoW networks for greater resiliency and speed of data exchanges. -Continue integration with machine learning enclaves to further speed and efficiency of the SSN -Continue SDANet expansion to incorporate new network nodes with Operational Test and Training Infrastructure (OTTI), Nellis AFB, NRO, Cheyenne Mountain Space Force Station (CMSFS), and Deep Space Advanced Radar Concept (DARC) Sites 1-2 and begin planning for DARC Site 3 deployment. - The Mission Data Integration (MDI) line of effort integrates at the sensor edge to support sensor agnostic machine-to-machine semi-autonomous and autonomous C2 capabilities. It will serve as the primary focal point for any future USSC-sponsored Project Lighthouse integration efforts, including integration with MDA's Command and Control, Battle Management and Communications-Global (C2BMC-G) network. - MDI will mature operationalization of Optic Cued Radar Search (OCRS) and automatic radar imagery exposure and exploitation in support to USSC's Zulu Wookie program requirements. This will include continued development of tip-and-cue software for launch custody and high-revisit capabilities at Millimeter Wave (MMW) Radar, ARPA Lincoln C-Band Observables Radar (ALCOR), Haystack Ultrawideband Satellite Imaging Radar (HUSIR), Haystack Auxiliary (HAX) and ALTAIR radars. - MDI will resolve gaps for integration of 2 UEWRs, Millstone Radar Site Massachusetts. It will resolve gaps for MMW radar, ALCOR, HUSIR, and the HAX radar regarding other characterization and operational intelligence capabilities. - MDI will resolve gaps identified in the study from initial upgrade to Space Fence radar software such as adding machine to machine tasking capability from MDA to Space Fence radar. -Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to, program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. <i>FY 2026 to FY 2027 Increase/Decrease Statement:</i> FY 2027 funding increased due to addition of MDI funding.					
Accomplishments/Planned Programs Subtotals			0.000	47.330	89.025
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations	Project (Number/Name) 673943 / Space Domain Awareness Mesh Network (SDANet)
D. Acquisition Strategy The acquisition strategy includes Task Orders on the existing SDANet Firm Fixed Price (FFP) Indefinite Delivery/Indefinite Quantity (IDIQ) contract vehicle, Military Interdepartmental Purchase Requests (MIPR) to Air Force Research Lab (AFRL) for contracts on existing partnerships, and engineering change orders to existing Space Surveillance Network (SSN) and associated SDA sensor management contracts as required to ensure prototyping and fielding of required integrated sensors and capabilities to meet warfighter requirements related to SDA kill chains.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations				Project (Number/Name) 673943 / Space Domain Awareness Mesh Network (SDANet)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SDANet Expansion	C/FFP	Anduril : Costa Mesa, CA	-	-		21.846	Nov 2025	21.123	Nov 2026	-		21.123	Continuing	Continuing	-
SDANET Sensor Integration	C/CPAF	Various : Various	-	-		11.569	Nov 2025	7.000	Nov 2026	-		7.000	Continuing	Continuing	-
SDANet Comms	C/CPAF	Starshield : Various	-	-		3.000	Nov 2025	3.645	Nov 2026	-		3.645	Continuing	Continuing	-
SDANet Cyber Support	C/CPAF	Booz Allen Hamilton : Various	-	-		0.700	Nov 2025	0.700	Nov 2026	-		0.700	Continuing	Continuing	-
Lighthouse	Various	Various : Various	-	-		6.000	Dec 2025	-		-		-	0.000	6.000	-
Mission Data Integreation (MDI)	Various	Various : Various	-	-		-		37.783	Nov 2026	-		37.783	Continuing	Continuing	-
Network Ops and Remote Monitoring	C/FFP	Anduril : Costa Mesa, CA	-	-		-		10.125	Dec 2026	-		10.125	Continuing	Continuing	-
Technical Mission Analysis	Various	Various : Various	-	-		0.093	Dec 2025	0.284	Dec 2026	-		0.284	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		1.757	Oct 2025	3.258	Oct 2026	-		3.258	Continuing	Continuing	-
Subtotal			-	-		44.965		83.918		-		83.918	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	C/Various	Various : Colorado Springs, CO	-	-		1.909	Nov 2025	4.752	Nov 2026	-		4.752	Continuing	Continuing	-
FFRDC	C/Various	Aerospace : Colorado Springs, CO	-	-		0.356	Nov 2025	0.255	Nov 2026	-		0.255	Continuing	Continuing	-
Other Support	C/Various	Various : Colorado Springs, CO	-	-		0.100	Nov 2025	0.100	Nov 2026	-		0.100	Continuing	Continuing	-
Subtotal			-	-		2.365		5.107		-		5.107	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations				Project (Number/Name) 673943 / Space Domain Awareness Mesh Network (SDANet)				
	Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-		47.330		89.025		-		89.025	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations						Project (Number/Name) 673943 / Space Domain Awareness Mesh Network (SDANet)			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
SDANet																												
SDANet - Tranche 2 - Nodes 7-12																												
SDANet - Tranche 2 - Nodes 13-29																												
SDANet - Tranche 2 - Nodes 30-35																												
Mission Data Integration (MDI)																												
MDI Imaging Radar Integration																												
MDI Space Surveillance Network (SSN) Machine to Machine (M2M) Integration (Ph I)																												
MDI SSN M2M Integration (Ph II)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations	Project (Number/Name) 673943 / Space Domain Awareness Mesh Network (SDANet)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SDANet				
SDANet - Tranche 2 - Nodes 7-12	1	2026	1	2026
SDANet - Tranche 2 - Nodes 13-29	1	2026	4	2026
SDANet - Tranche 2 - Nodes 30-35	1	2027	4	2028
Mission Data Integration (MDI)				
MDI Imaging Radar Integration	1	2027	4	2028
MDI Space Surveillance Network (SSN) Machine to Machine (M2M) Integration (Ph I)	1	2027	4	2028
MDI SSN M2M Integration (Ph II)	3	2028	4	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>				Project (Number/Name) 67A018 / <i>SF Weather Services Research</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
67A018: <i>SF Weather Services Research</i>	0.000	4.915	3.044	21.218	0.000	21.218	17.982	16.842	19.545	20.163	0.000	103.709
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This budget activity funds the operational development necessary to acquire, sustain, and modernize SF Weather Services Research capabilities in support of three lines of effort: build a more lethal force, strengthen alliances and attract new partners, and change the way we do business.

To improve readiness for a more lethal force, SF Weather Services Research provides timely, accurate, resilient, and relevant environmental information to enable global battlespace situational awareness for Air Force (AF), Army, Special Operations Forces (SOF), Space Force (USSF), combatant commands, the Intelligence Community (IC), and other government agencies. SF Weather Services Research provides climate impacts and assessments, as well as space and terrestrial weather sensing, forecasting, and weather analytic capabilities, at home station and deployed, in order to deliver critical environmental intelligence in support of warfighters to gain the asymmetric advantage during the full spectrum of air and space combat operations. SF Weather Services Research decreases the risk to mission and risk to force by increasing the lethality, effectiveness, and survivability of Department of War (DoW) weapon systems.

To strengthen alliances and partnerships, SF Weather Services Research development efforts integrate DoW, government agency, commercial, and international partner environmental data with AFWS information system equipment for processing, storing, exploiting, and disseminating multi-domain weather information for analysis, forecasting, mission integration, and greater interoperability.

To ensure greater performance and affordability for the Department of the AF, SF Weather Services Research sensors and information systems are being modernized through improvements to architecture and system efficiency, cybersecurity, joint all-domain command and control (JADC2) and sensing grid integration, migration to cloud computing, artificial intelligence and machine learning (AI/ML) initiatives, and expanding agile software development, delivery, and integration practices. The AF Weather Enterprise digital transformation and cloud migration effort modernizes key capabilities providing the military advantage to accurately predict environmental impacts optimizing mission planning, targeting, weaponeering, mission execution, battle damage assessment, and space systems operations.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: Space Weather Analysis and Forecast System (SWAFS)	4.915	3.044	21.218
Description: The SWAFS legacy baseline is currently being redesigned and upgraded under the Space Domain Awareness Environmental Toolkit for Defense (SET4D) effort to satisfy Space Domain Awareness goals for a modern cloud hosted infrastructure that is cyber resilient and integrated with the Unified Data Library. The Energetic Charged Particle Hazard Assessment System (ECP HAS) is one of several models and applications within the SET4D environment designed to			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 67A018 / <i>SF Weather Services Research</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
inform satellite operators of hazards and the impacts of those hazards to their spacecraft that will provide warfighters with the environmental awareness to safely sustain their respective orbits and missions. FY 2026 Plans: Continue capability upgrades for the Space Weather Analysis and Forecast System (SWAFS) version 2.x baseline that supports the deployment of the Satellite Anomaly Assessment tool, which includes Solar Indices Forecasting Tool (SIFT) and ECP-HAS forecast model integration analysis tool. Incorporate prototyping efforts provided from the Space Force Weather Services Research, RDT&E, BA 04, PE 0604002S, Project 645353, for transition into the SWAFS future code baseline utilizing the Continuous Improvement/Continuous Development (CI/CD) process to rapidly integrate environmental impact codes. Complete integration of tools such as Solar Indices Forecasting Tool (SIFT), Air Force Data Assimilative Photospheric Flux Transport (ADAPT), Solar Radio Burst (SRB) forecast as one of the Models in the EMI/HAS forecast Model integration, complete JHU-APL IDA-4D Model Integration, and begin integrating the Long-term Environment and Anomaly Forecast (LEAF-HQ+ and LEAF-PACE) forecasting models. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. In FY26, a sum total of 3.446M was erroneously programmed between the five projects in this program element. This includes Congressional marks of -5.353M for "Space Data Fusion previously funded" and -5.622M for "Space Domain Awareness mesh network insufficient justification" as well as Congressional adds for 3.0M "AI satellite health monitoring" and 7.50M for "Collaborative sensor network." In the year of execution, funding will be realigned internally to properly represent the Congressional marks, adds and SBIR/STTR reductions in their correct projects. Project 673940, Space Data Fusion will be increased by 4.095M to total 57.162M; project 673941, Unified Data Library will be decreased by 0.703M to total 41.533M; Project 673942, JCO will be decreased by 0.438M to total 33.250M; and Project 67A018, Space Based Environmental Monitoring will be decreased by 0.052M to total 2.992M. FY 2027 Plans: -Continue capability upgrades for the SWAFS v2.x baseline that supports the deployment of the Satellite Anomaly Assessment tool, which includes the ECP-HAS forecast model integration analysis tool. -Complete integration of tools such as the EMI-HAS forecast model upgrade integration, complete JHU-APL IDA-4D model integration, and continue integrating the LEAF-HQ+ and LEAF-PACE forecasting models.			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force							Date: April 2026				
Appropriation/Budget Activity 3620F / 7			R-1 Program Element (Number/Name) PE 1203940SF / Space Situation Awareness Operations			Project (Number/Name) 67A018 / SF Weather Services Research					
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2025	FY 2026	FY 2027		
- Incorporate prototyping efforts provided from the Space Force Weather Services Research, RDT&E, BA 04, PE 0604002S, for transition into the SWAFS future code baseline utilizing the Continuous Improvement/Continuous Development (CI/CD) process to rapidly integrate environmental impact codes. - Develop requirements for the Radio Solar Telescope Network (RSTN) Software Defined Radio (SDR) based on identified capability gaps and evaluate opportunities to utilize or modify commercially available solutions to address the existing capability gaps regarding remote operations, wideband solar observations, and on-demand observations of an expanded range of frequencies. This will upgrade the legacy RSTN sites. - Conduct/finalize development of the next generation Ground-based solar Observing Network (ngGONG), which will be the replacement for the legacy Solar Observing Optical Network (SOON).											
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increased due to additional funding for RSTN SDR and ngGONG.											
Accomplishments/Planned Programs Subtotals							4.915	3.044	21.218		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPAF 01 SPCMOD: Space Mods	3.883	3.997	-	-	-	-	-	-	-	0.000	7.880
• 0604002SF: Space Force Weather Services Research	0.867	0.888	-	-	-	-	-	-	-	0.000	1.755
Remarks											
D. Acquisition Strategy											
SF Weather Services Research uses CI/CD approach to rapidly deliver capabilities using multiple contracts to support a family of systems through development, fielding and sustainment.											
Cost Plus contracts are utilized for software development and Firm Fixed Price contracts for sustainment/Contract Logistics Support (CLS) efforts and Commercial-off-the-shelf (COTS) systems.											
- SWAFS will utilize a Space Systems Command contract with Cost Plus for development and Firm Fixed Price for sustainment and program management.											
- RSTN SDR design will be competitively procured on a Space Systems Command Cost Plus contract.											
- ngGONG development will be continued and finalized by the National Science Foundation's National Solar Observatory (NSO) in Boulder, CO.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force

Date: April 2026

Appropriation/Budget Activity

3620F / 7

R-1 Program Element (Number/Name)

PE 1203940SF / Space Situation Awareness Operations

Project (Number/Name)

67A018 / SF Weather Services Research

Product Development (\$ in Millions)

				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
SWAFS Space Environment Orbital/ Communications Impacts	SS/CPFF	Peraton : Herndon, VA	-	4.900	Feb 2025	3.030	Feb 2026	7.151	Feb 2027	-		7.151	Continuing	Continuing	-
Radio Solar Telescope Network (RSTN) Software Defined Radio (SDR)	MIPR	TBD : TBD	-	-		-		3.522	Feb 2027	-		3.522	Continuing	Continuing	-
Next generation Ground-based solar Observing Network (ngGONG)	C/CPFF	National Solar : Boulder, CO	-	-		-		8.000	Feb 2027	-		8.000	Continuing	Continuing	-
Space Weather Model Development	Various	JHU/APL : Laurel, MD	-	-		-		0.150	Feb 2027	-		0.150	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000	Oct 2024	0.000	Oct 2025	0.777	Oct 2026	-		0.777	Continuing	Continuing	-
Subtotal			-	4.900		3.030		19.600		-		19.600	Continuing	Continuing	N/A

Management Services (\$ in Millions)

				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
A&AS	C/CPAF	Odyssey Systems : Colorado Springs, CO	-	-		-		0.595	Nov 2026	-		0.595	Continuing	Continuing	-
FFRDC	RO	Aerospace : Various	-	-		-		0.983	Nov 2026	-		0.983	Continuing	Continuing	-
Other	TBD	Not specified. : TBD	-	0.015		0.014		0.040	Nov 2026	-		0.040	Continuing	Continuing	-
Subtotal			-	0.015		0.014		1.618		-		1.618	Continuing	Continuing	N/A

			Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	4.915	3.044	21.218	-	21.218	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>			Project (Number/Name) 67A018 / <i>SF Weather Services Research</i>

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Weather Service																												
Solar Indices Forecasting Ionospheric Scintillation (SIFT)																												
Air Force Data Assimilative Photospheric Flux Transport (ADAPT)																												
Metrics development & integration for all models, data and apps																												
ECP-HAS Forecast Model Integration																												
EMI-HAS Forecast Model Integration																												
JHU-APL IDA-4D Model Integration																												
LEAF-HQ+ Forecast Model Integration																												
LEAF-PACE Forecast Model Integration																												
RSTN SDR Requirements Development/ Solution Identification																												
ngGONG Development Completion																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203940SF / <i>Space Situation Awareness Operations</i>	Project (Number/Name) 67A018 / <i>SF Weather Services Research</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Weather Service</i>				
Solar Indices Forecasting Ionospheric Scintillation (SIFT)	1	2025	4	2025
Air Force Data Assimilative Photospheric Flux Transport (ADAPT)	1	2025	4	2025
Metrics development & integration for all models, data and apps	3	2025	4	2031
ECP-HAS Forecast Model Integration	1	2025	4	2030
EMI-HAS Forecast Model Integration	1	2025	4	2030
JHU-APL IDA-4D Model Integration	2	2025	4	2027
LEAF-HQ+ Forecast Model Integration	1	2026	4	2027
LEAF-PACE Forecast Model Integration	1	2026	4	2027
RSTN SDR Requirements Development/Solution Identification	1	2027	4	2029
ngGONG Development Completion	1	2027	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force **Date:** April 2026

Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development	R-1 Program Element (Number/Name) PE 1206423SF I Global Positioning System III - Operational Control Segment

COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	1,322.916	263.380	260.168	332.313	0.000	332.313	73.675	29.606	16.927	7.030	0.000	2,306.015
67A021: OCX	1,186.126	184.128	190.329	222.243	0.000	222.243	0.000	0.000	0.000	0.000	0.000	1,782.826
67A023: OCX Block 3F	136.790	79.252	69.839	110.070	0.000	110.070	73.675	29.606	16.927	7.030	0.000	523.189

A. Mission Description and Budget Item Justification

Mission Delta 31 is developing the Next Generation Operational Control System (OCX) and OCX 3F (Project 67A021, 67A023) for Guardians across Position, Navigation, and Timing. As a result, the Service will improve readiness and operational reach of existing force structure.

Program Element (PE) 1206423SF funds Research, Development, Test and Evaluation (RDT&E) for the Next Generation Operational Control System (OCX), which includes OCX Blocks 0, 1, and 2, and the upgrade to OCX called OCX Block 3F (OCX 3F), which incorporates Regional Military Protection (RMP) and command and control functionality for GPS III Follow-on (GPS IIIF) satellites.

OCX acquisition was established to 1) provide command and control of legacy and GPS III satellites, 2) incorporate situational awareness to support Navigation Warfare (NAVWAR) and signal monitoring, 3) enable mission capability upgrades to support a warfighter effects-based approach to operations, and 4) integrate Department of War (DoW) information assurance and cybersecurity controls and capabilities. OCX 3F will upgrade OCX to provide RMP, a high-powered military signal which strengthens U.S. and allied forces' GPS resiliency in contested on tested environments to mitigate future jamming threats. OCX 3F also provides the ability to rapidly reconfigure GPS IIIF satellites to create time-critical warfighter effects.

OCX and OCX 3F funds support efforts such as engineering studies and analyses, architectural engineering studies, trade studies, technology needs forecasting, modernization initiatives, systems engineering, system development, resolving obsolescence issues, test and evaluation efforts, pre-operational support activities, and interim contractor support. These activities support upgrades and product improvements for military and civil applications necessary to enable efforts to protect the United States Military and Allies' use of GPS. Additionally, funds ensure OCX and OCX Block 3F efforts meet Joint Requirements Oversight Council (JROC) approved required capabilities.

Develop upgrades to modernize the current operational Architecture Evolution Plan (AEP) ground control segment system to deliver OCX Capability Development Document (CDD) requirements. Upgrades include GPS IIIF Launch and GPS IIIF Command and Control (C2). Additional upgrades to system interface tools are planned to support development and fielding of Civil Navigation (CNAV) signal monitoring to meet CDD requirements and other projects to ensure uninterrupted monitoring for all Signals in Space. Other modernization projects include changes to the hardware or software of the operational baseline by removing or adding a capability or function.

OCX 3F, which achieved Milestone B May 2022, is required to launch and operationally command and control GPS IIIF space vehicles. OCX 3F will deliver with new capabilities to synchronize with GPS IIIF Space Segment and Military GPS User Equipment (MGUE) Increment 2 capabilities. This includes master control station development, GPS system simulator modification, launch and mission planning development, training simulators, integrated logistics support products, test resources,

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1206423SF I Global Positioning System III - Operational Control Segment				
systems engineering required to meet the Government's obligations to the international, military and civil communities, and system requirements verification. OCX 3F will maintain backward compatibility to support the legacy constellation develop solutions necessary to command, control and monitor GPS IIIF, to include integration of RMP (Regional Military Protection) high power regional M-code signals, rapid warfighter effects and support to GPS auxiliary payloads.						
This program falls within the Positioning, Navigation, and Timing (PNT) mission area which provides the space and dedicated ground architecture and associated user equipment required to provide PNT services to civil and military users. Program interdependencies include: GPS III - Operational (1206423SF); GPS III Follow-on (1203269SF); GPS III Space Segment (1203265SF); GPS Ops Control Segment - Next (1203365SF); NAVSTAR GPS (Space & Control Seg) (1203165SF); NAVSTAR GPS (User Equipment) (1203164SF)						
This PE may include necessary civilian pay expenses required to manage, execute, and deliver OCX and OCX 3F weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in PEs 1206392SF and 1206398SF.						
This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		272.224	190.484	0.000	0.000	0.000
Current President's Budget		263.380	260.168	332.313	0.000	332.313
Total Adjustments		-8.844	69.684	332.313	0.000	332.313
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	72.500			
• SBIR/STTR Transfer		-8.844	-2.816			
• Other Adjustments		0.000	0.000	332.313	0.000	332.313
Change Summary Explanation						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment				Project (Number/Name) 67A021 / OCX			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
67A021: OCX	1,186.126	184.128	190.329	222.243	0.000	222.243	0.000	0.000	0.000	0.000	0.000	1,782.826
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Prior Years Funding \$4,366.725M was executed in PE 1206423F.												
A. Mission Description and Budget Item Justification Mission Delta 31 is developing the Next Generation Operational Control System (OCX) (Project 67A021) for Guardians across Position, Navigation, and Timing. As a result, the Service will improve readiness and operational reach of existing force structure. OCX acquisition was established to: 1) provide command and control of legacy and GPS III satellites; 2) incorporate situational awareness to support Navigation Warfare (NAVWAR) and signal monitoring; 3) enable mission capability upgrades to support a warfighter effects-based approach to operations; and 4) integrate DoW information assurance and cybersecurity controls and capabilities. OCX funds will support efforts such as engineering studies and analyses, architectural engineering studies, trade studies, technology needs forecasting, technology development, systems engineering, system development, test and evaluation efforts, pre-operational support activities, and interim contractor support, in support of upgrades and product improvements for military and civil applications necessary to support efforts to protect the United States military and Allies' use of GPS. Additionally, funds will ensure efforts to meet Joint Requirements Oversight Council (JROC) approved required capabilities. OCX Block 0 is the Launch and Checkout System (LCS) intended to conduct Launch and Early Orbit (LEO) operations and the on-orbit checkout of all GPS III satellites. The 2nd Space Operations Squadron (2SOPS) can also call upon OCX Block 0 capabilities at any time to support GPS III anomaly resolution activities. OCX Block 0 is a subset of OCX Block 1. OCX Block 1 fields the operational capability to control all legacy satellites, the legacy civil signal (L1C/A), the legacy military signals (L1P(Y), L2P(Y)) as well as the GPS III satellites and the modernized civil signal (L2C) and the aviation safety-of-flight signal (L5). In addition, Block 1 will field the basic operational capability to control the modernized military signals (L1M and L2M M-Code), and the globally compatible signal (L1C). OCX Block 2 fields the advanced operational capability to control the advanced features of the modernized military signals (L1M and L2M M-Code). Architecture Evolution Plan (AEP), also known as Operational Control Segment (OCS), is the legacy operational control segment for GPS. AEP Modernization (AEP-M) is an effort to upgrade AEP to deliver OCX requirements in place of OCX.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027	
Title: OCX Development									180.230	112.253	-	

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment	Project (Number/Name) 67A021 / OCX		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Description: Development of OCX system to launch GPS III, operate a mixed GPS II and GPS III constellation, and provide for a robust Information Assurance system. FY 2026 Plans: Block 0 continues support for the launch checkout and anomaly resolution of GPS III satellites. Continue to perform maintenance activities for Blocks 1 and 2, provide contractor staff to support government activities, and conduct pre-planned system updates to align ground capabilities with GPS enterprise changes involving the space and user segments. Support Integrated System Test (IST), Transition Events, and Operational Readiness Exercises. Execute the Discover, Demonstration and Test (DDT) campaign to efficiently accelerate Deficiency Reports (DR) discovery and resolution. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased due to reprioritization of funds for AEP-M. Upgrades to modernize the Architecture Evolution Plan (AEP) legacy ground control segment system are being done to deliver OCX CDD requirements in place of OCX.				
Title: Technical Support Description: Development of the Standardized Space Trainer (SST) to provide GPS III operator training. Development of Enterprise Mission Planning Systems. Facilities upgrades for Control Stations and associated equipment and servers. Systems Engineering (SE) including Technical Mission Analysis (TMA), Modernization SE and Technical Support, and Test and Evaluation (T&E). FY 2026 Plans: Continue data collection and tuning of the monitoring stations equipment as needed. Continue Systems Engineering and technical support and analysis for Government led testing, and operational demonstrations, exercises, and training. Assist with transition events and provide technical support. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 decreased due to reprioritization of funds for AEP-M.		3.898	5.576	-
Title: Architecture Evolution Plan Modernization Description: Develop upgrades to modernize the Architecture Evolution Plan (AEP) legacy ground control segment system to deliver OCX CDD requirements in place of OCX. This is not a New Start and has been broken out for transparency.		-	72.500	222.243

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force									Date: April 2026		
Appropriation/Budget Activity 3620F / 7				R-1 Program Element (Number/Name) PE 1206423SF / <i>Global Positioning System III - Operational Control Segment</i>				Project (Number/Name) 67A021 / OCX			
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2025	FY 2026	FY 2027
FY 2026 Plans: Develop upgrades to modernize the AEP legacy ground control segment system to deliver OCX Capability Development Document (CDD) requirements in place of OCX. Upgrades include GPS IIIF Launch, GPS IIIF Command & Control (C2), Selective Availability Anti-Spoofing Module (SAASM) and National Geospatial-Intelligence Agency (NGA) Receiver Integration. Additional upgrades to system interface tools are planned to support development and fielding of Civil Navigation (CNAV) monitoring CDD requirements. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.											
FY 2027 Plans: Continue upgrades to modernize the AEP legacy ground control segment system to deliver OCX CDD requirements in place of OCX. Upgrades include GPS IIIF Launch, GPS IIIF C2, SAASM and NGA Receiver Integration. Additional upgrades to system interface tools are planned to support development and fielding of CNAV monitoring CDD requirements. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.											
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increases due to on-going AEP modernization efforts.											
Accomplishments/Planned Programs Subtotals									184.128	190.329	222.243
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• RDTE 05 1203269SF: GPS III Follow-on	176.551	179.249	123.793	-	123.793	105.056	90.488	72.290	70.658	Continuing	Continuing
• SPSF 01 GPSIII: GPS III Space Segment	54.805	29.274	0.000	-	0.000	0.000	0.000	0.000	-	0.000	84.079
• SPSF 01 GPS03C: GPSIII Follow On	647.165	109.944	680.875	-	680.875	666.783	488.549	442.597	450.165	716.088	4,202.166
Remarks											

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1206423SF / <i>Global Positioning System III - Operational Control Segment</i>	Project (Number/Name) 67A021 / OCX

D. Acquisition Strategy

AEP-M: The Architecture Evolution Program (AEP) is the currently operational GPS ground system today. Proven to be extensible through 10+ years of successful upgrades, the AEP Modernization (AEP-M) effort will build upon the current system to deliver capabilities previously planned under the OCX and OCX 3F programs.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment				Project (Number/Name) 67A021 / OCX					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GPS OCX Phase B OCX Block 1 & 2 Development	C/CPAF	Raytheon : Aurora, CO	842.801	109.118	Oct 2024	-		-		-		-	0.000	951.919	4,415.794
GPS OCX Pre Operational and Interim Contractor Support	SS/CPIF	Raytheon : Aurora, CO	76.365	59.417	Nov 2024	93.990	Oct 2025	-		-		-	0.000	229.772	-
GPS Architecture Evolution Plan Modernization	Various	Various : Auora, CO	0.000	-		72.500	May 2026	222.243	Oct 2026	-		222.243	0.000	294.743	-
GPS OCX SBIR/STTR	Allot	Not Specified; TBD : Washington, DC	0.000	-		2.657		-		-		-	0.000	2.657	-
GPS OCX Block 3F Development	Various	Various : Various	131.019	-		-		-		-		-	0.000	131.019	-
GPS OCX Technical Mission Analysis	Various	Various : Various	30.360	3.371	Nov 2024	3.192	Oct 2025	-		-		-	0.000	36.923	-
GPS OCX Enterprise SE&I	C/CPAF	TASC : El Segundo, CA	15.660	3.080	Nov 2024	7.462	Nov 2025	-		-		-	0.000	26.202	-
GPS OCX Modernization/ SE & Tech Support	Various	Various : Various	22.985	0.526	Nov 2024	2.384	Oct 2025	-		-		-	0.000	25.895	-
GPS OCX Standardized Space Trainer (SST)	C/CPAF	Sonalyt, Inc. : Waterford, CT	6.316	-		0.000	May 2026	-		-		-	0.000	6.316	-
GPS OCX Enterprise Mission Planning	MIPR	Various : Various	11.700	-		-		-		-		-	0.000	11.700	-
Subtotal			1,137.206	175.512		182.185		222.243		-		222.243	0.000	1,717.146	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GPS OCX T&E	C/Various	Various : Various	5.065	-		-		-		-		-	0.000	5.065	-
Subtotal			5.065	-		-		-		-		-	0.000	5.065	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment						Project (Number/Name) 67A021 / OCX			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
GPS OCX FFRDC	Various	Various : Various	7.573	1.956	Nov 2024	1.684	Oct 2025	-		-		-	0.000	11.213	-
GPS OCX A&AS	Various	Various : Various	34.785	6.516	Nov 2024	6.280	Oct 2025	-		-		-	0.000	47.581	-
GPS OCX Other Support	Various	Various : Various	1.497	0.144	Oct 2024	0.180	Oct 2025	-		-		-	0.000	1.821	-
Subtotal			43.855	8.616		8.144		-		-		-	0.000	60.615	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1,186.126	184.128		190.329		222.243		-		222.243	0.000	1,782.826	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment						Project (Number/Name) 67A021 / OCX			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
OCX																												
Block 0 / 1 / 2 Pre-operational Support and Interim Contractor Support																												
DD250																												
System Acceptance Test (SAT)																												
OCX Block 1 Ready to Transition to Operations (RTO)																												
Operational Acceptance (OA)																												
Architecture Evolution Plan Modernization																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment	Project (Number/Name) 67A021 / OCX	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
OCX				
Block 0 / 1 / 2 Pre-operational Support and Interim Contractor Support	1	2025	2	2028
DD250	4	2025	4	2025
System Acceptance Test (SAT)	1	2025	3	2025
OCX Block 1 Ready to Transition to Operations (RTO)	4	2027	4	2027
Operational Acceptance (OA)	2	2028	2	2028
Architecture Evolution Plan Modernization	3	2026	1	2030

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment				Project (Number/Name) 67A023 / OCX Block 3F			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
67A023: OCX Block 3F	136.790	79.252	69.839	110.070	0.000	110.070	73.675	29.606	16.927	7.030	0.000	523.189
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Mission Delta 31 is developing the Next Generation Operational Control System 3 Follow-on (OCX 3F) (Project 67A023) for Guardians across Position, Navigation, and Timing. As a result, the Service will improve readiness and operational reach of existing force structure.

OCX Block 3 Follow-on (OCX 3F) will modify OCX Command and Control (C2) for new Global Positioning System (GPS) III Follow-On (GPS IIIF) satellites and Military GPS User Equipment (MGUE) system capabilities, including Regional Military Protection (RMP) high-powered military signal to strengthen U.S. and allied forces' GPS resiliency in contested environments to mitigate future threats, and the ability to rapidly reconfigure GPS IIIF satellites to create time-critical warfighter effects. OCX 3F will maintain backward compatibility with the existing OCX capabilities to support the legacy GPS constellation as well as GPS IIIF. OCX 3F includes critical functions necessary to launch, command, control, and monitor GPS IIIF spacecraft, collect and integrate RMP high-power regional Military Code (M-Code) signals for rapid warfighter effects, and support GPS IIIF auxiliary payloads, including Search and Rescue (SAR) and Nuclear Detonation (NUDET) Detection System (NDS).

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027
Title: OCX Block 3F	79.252	69.839	110.070
Description: OCX Block 3F upgrades OCX Block 1 & 2 with new capabilities in support of GPS IIIF and incorporate RMP to handle future threats. OCX 3F will maintain backward compatibility to support the legacy constellation develop solutions necessary to command, control and monitor GPS IIIF, to include advance collection and integration of RMP high power regional M-code signals, rapid warfighter effects and support to GPS auxiliary payloads.			
FY 2026 Plans: Continue software development to enable Global PNT C2, RMP checkout and RWE initial operations. Continue integration activities that support the validation of requirements with use of the OCX 3F GPS System Simulator. Continue functional and physical control audits for delivery of OCX 3F baseline. Prepare and begin coordination for System Integration Testing (SIT) of OCX 3F launch capabilities into the Operationally Accepted (OA) OCX baseline. Continue to support early GPS Enterprise integration testing in support of MRC for GPS IIIF to include early development and testing specific to the evolved bus. Continue to incorporate Enterprise Mission Planning Systems capability into OCX 3F baseline. Continue development of Cadre Training and Technical Orders. The Enterprise Mission Planning Systems enable Over the Air Rekey capability and other navigation warfare effects taskings. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis,			

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force								Date: April 2026			
Appropriation/Budget Activity 3620F / 7				R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment				Project (Number/Name) 67A023 / OCX Block 3F			
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2025	FY 2026	FY 2027	
experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.											
FY 2027 Plans: Complete software development to enable Global PNT C2 and continue software development for RMP checkout and Rapid Warfighter Effects (RWE) initial operations. Continue integration activities that support the validation of requirements with use of the OCX 3F GPS System Simulator. Deploy GPS IIIF Launch and Checkout System hardware. Prepare and continue coordination for System Integration Testing (SIT) of OCX 3F launch capabilities into the Operationally Accepted (OA) OCX baseline. Continue to support early GPS Enterprise integration testing in support of Mission Readiness Campaign (MRC) for GPS IIIF to include early development and testing specific to the evolved bus. Continue to incorporate Enterprise Mission Planning Systems capability into OCX 3F baseline. The Enterprise Mission Planning Systems enable Over the Air Rekey capability and other navigation warfare effects taskings. Additionally, initiate OCX 3F development for launching SV-13 Extended Bus (eBus) to the ground C2 systems for Launch and Checkout and PNT capabilities.											
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.											
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 funding increases due to software development phasing adjustments to include development of evolved Bus updates to OCX 3F baseline.											
Accomplishments/Planned Programs Subtotals								79.252	69.839	110.070	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
• SPSF 01 GPSIII: GPS III Space Segment	54.805	29.274	0.000	-	0.000	0.000	0.000	0.000	-	0.000	84.079
• SPSF 01 GPS03C: GPSIII Follow On	647.165	109.944	680.875	-	680.875	666.783	488.549	442.597	450.165	716.088	4,202.166
• RDTE 05 1203269SF: GPS III Follow-On (GPS IIIF)	176.551	179.249	123.793	-	123.793	105.056	90.488	72.290	70.658	Continuing	Continuing
Remarks											

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1206423SF / <i>Global Positioning System III - Operational Control Segment</i>	Project (Number/Name) 67A023 / <i>OCX Block 3F</i>
D. Acquisition Strategy OCX Block 3F is a separate Acquisition Category (ACAT) II program tailored to enhance and integrate with the OCX baseline. It is part of the overall GPS Enterprise Modernization effort. The OCX 3F development contract was awarded sole source to Raytheon Intelligence and Space on 29 Apr 21. The OCX 3F program uses an agile software development approach to upgrade the OCX system to support the first GPS IIIF satellite launch, while also maintaining backwards compatibility for C2 of the existing GPS satellite constellation. The program formally entered the Over-Target Baseline / Over-Target Schedule (OTB/OTS) re-baselining process on 30 May 24. The program submitted a Program Deviation Report (PDR) to the Milestone Decision Authority, the Program Executive Officer (PEO), on 9 Jul 24 concerning the deviation to the program's final APB schedule milestone, System Integration Test (SIT). Updated APB cost and schedule milestones will be finalized in FY26.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment				Project (Number/Name) 67A023 / OCX Block 3F					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
OCX 3F Development	C/CPAF	Raytheon : Aurora, CO	98.192	60.797	Oct 2024	54.250	Oct 2025	88.907	Oct 2026	-		88.907	0.000	302.146	-
OCX 3F SBIR/STTR	Allot	Not Specified; TBD : Washington, DC	0.000	0.000		1.281		4.073		-		4.073	0.000	5.354	-
OCX 3F Technical Mission Analysis	Various	Various : Various	7.079	2.864	Nov 2024	3.052	Oct 2025	2.324	Oct 2026	-		2.324	0.000	15.319	-
OCX 3F Enterprise SE&I	C/CPAF	TASC : El Segundo, CA	2.897	3.920	Nov 2024	2.945	Nov 2025	3.818	Nov 2026	-		3.818	0.000	13.580	-
OCX 3F Enterprise Mission Planning	MIPR	Various : Various	7.700	2.000	Jan 2025	1.400	Jan 2026	5.000	Jan 2027	-		5.000	0.000	16.100	-
OCX 3F Modernization/SE & Tech Support	Various	Various : Various	3.225	1.561	Nov 2024	1.606	Nov 2025	0.828	Nov 2026	-		0.828	0.000	7.220	-
OCX 3F Standardized Space Trainer (SST)	C/CPAF	Sonalyt, Inc : Waterford, CT	1.520	2.280	Nov 2024	1.050	Nov 2025	0.000	Nov 2026	-		0.000	0.000	4.850	-
Subtotal			120.613	73.422		65.584		104.950		-		104.950	0.000	364.569	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
OCX 3F FFRDC	Various	Various : Various	1.860	1.717	Nov 2024	1.812	Oct 2025	1.368	Oct 2026	-		1.368	0.000	6.757	-
OCX 3F A&AS	Various	Various : Various	14.174	3.988	Nov 2024	2.243	Oct 2025	3.552	Oct 2026	-		3.552	0.000	23.957	-
OCX 3F Other Support	Various	Various : Various	0.143	0.125	Oct 2024	0.200	Oct 2025	0.200	Oct 2026	-		0.200	0.000	0.668	-
Subtotal			16.177	5.830		4.255		5.120		-		5.120	0.000	31.382	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			136.790	79.252		69.839		110.070		-		110.070	0.000	395.951	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment						Project (Number/Name) 67A023 / OCX Block 3F			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
OCX Block 3F																												
OCX 3F GPS System Simulator																												
OCX 3F Core Software Development																												
OCX 3F Support GPS IIIF Integration Exercises																												
OCX 3F Deploy to Master Control Station (MCS) Operations																												
OCX 3F Satellite Integration Launch Readiness																												
OCX 3F Satellite Integration Ops Test																												
OCX 3F Contract Closeout																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1206423SF / Global Positioning System III - Operational Control Segment	Project (Number/Name) 67A023 / OCX Block 3F	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
OCX Block 3F				
OCX 3F GPS System Simulator	1	2025	4	2027
OCX 3F Core Software Development	1	2025	4	2027
OCX 3F Support GPS IIIF Integration Exercises	1	2025	3	2027
OCX 3F Deploy to Master Control Station (MCS) Operations	1	2027	1	2028
OCX 3F Satellite Integration Launch Readiness	2	2026	3	2029
OCX 3F Satellite Integration Ops Test	3	2027	4	2029
OCX 3F Contract Closeout	4	2028	1	2031

Note

Schedule pending due to Over-Target Baseline / Over-Target Schedule (OTB/OTS) re-baselining process. The program submitted a Program Deviation Report (PDR) to the Milestone Decision Authority (PEO) on 9 Jul 24 concerning the deviation to the program's final APB schedule milestone, System Integration Test (SIT). Updated schedule and APB milestones will be finalized in FY26.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1206772SF I Rapid Resilient Command and Control (R2C2)							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	118.034	109.190	0.000	109.190	114.134	116.741	118.937	121.315	Continuing	Continuing
67A001: Rapid Resilient Command and Control (R2C2)	0.000	0.000	118.034	109.190	0.000	109.190	114.134	116.741	118.937	121.315	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

TRANSFERS: In FY 2026, PE 1206770SF, Enterprise Ground Services (EGS), efforts transferred to PE 1206772SF, Rapid Resilient Command and Control (R2C2), to consolidate functions for efficiency and improve transparency. There was a one-time technical adjustment in FY 2025 approved by Congress that moved EGS funding from PE 1206770SF to PE 1206857SF, Space Rapid Capabilities Office, which improved funding execution in FY 2025.

A. Mission Description and Budget Item Justification

The Space Rapid Capabilities Office (Space RCO) Rapid Resilient Command and Control (R2C2) Combined Program Office (CPO) is developing and demonstrating SatOps command and control (C2) services and infrastructure for Guardians across the space enterprise. As a result, the Service will improve and prepare infrastructure, improve battle management of weapon systems, and be able to deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland.

This program falls within the Multi-Mission Support mission area which provides the systems and efforts that evenly contribute to multiple mission areas across the space enterprise. Space Force Investment program interdependencies include: RDT&E Budget Line Items: Defensive Cyber Operations - Space (1203040SF); Rapid Resilient Command and Control (1206772SF); Satellite Control Network (1203110SF); Space and Missile Test and Evaluation (1203173SF); Space Force IT, Data Analytics, Digital (1203010SF); and elements of Procurement Budget Line Items: AF Satellite Comm System (AFSCOM); Spaceborne Equip (Comsec) (MC0MSE); Spares and Repair Parts (SSPARE); and Space Digital Integrated Network (SDN000).

The Assistant Secretary of the Air Force for Space Acquisition and Integration directed the formation of a CPO by merging Enterprise Ground Services (EGS) from Space Systems Command (SSC) and Ground Command, Control, and Communications (GC3) from Space RCO. This CPO was named the R2C2 CPO and utilizes the Space RCO acquisition authorities under the Space RCO Program Executive Officer to execute funding in the EGS and GC3 program elements to develop an extensible, scalable, modular ground segment solution capable of supporting protect and defend missions of the United States Space Force. Combined EGS and GC3 funding will be used wholly and directly to support CPO activities. R2C2 will continue development and integration of the satellite operations ground segment solution (SatOps) to support the orbital warfare mission set, including, but not limited to, capabilities and services needed to perform mission control.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1206772SF I Rapid Resilient Command and Control (R2C2)				
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		0.000	106.220	0.000	0.000	0.000
Current President's Budget		0.000	118.034	109.190	0.000	109.190
Total Adjustments		0.000	11.814	109.190	0.000	109.190
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-8.186			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	20.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	109.190	0.000	109.190
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 67A001: Rapid Resilient Command and Control (R2C2)						
Congressional Add: Commercial Space Domain Awareness						
Congressional Add Subtotals for Project: 67A001						
Congressional Add Totals for all Projects						
Change Summary Explanation						
Strategic Changes:						
FY 2027: The FY 2026 President's Budget submittal did not reflect the FY 2027 through FY 2030 funding. Therefore, an explanation of the changes between the two budget positions for FY 2027 cannot be made in a relevant manner.						
Technical Changes:						
FY 2026: Net increase of 11.814 million; increase of 20 million due to Commercial Space Domain Awareness Congressional Add, decrease of 6.875 million due to management services carryover, and 1.311 million due to Section 8151 SBIR reduction.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Rapid Resilient Command and Control (R2C2) Satellite Command and Control Services				0.000	48.084	50.489
Description: Mature and integrate common satellite operations ground segment solution (SatOps) command and control (C2) services in cloud environments for protect and defend missions. Refine, mature, and integrate standards and interfaces,						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1206772SF I <i>Rapid Resilient Command and Control (R2C2)</i>		
C. Accomplishments/Planned Programs (\$ in Millions) cybersecurity, training, Zero Trust, antenna network services and connectivity capabilities for the enterprise. Support orbital warfare demonstrations, integration, and tests of mission partners' end-to-end activities. FY 2026 Plans: Continue development, integration, and deployment of enterprise SatOps C2 services for protect and defend missions, including science and technology, prototype, and operational mission partners in advancement of protect and defend activities. Continue deployment of cybersecurity, cryptography, and security architectures to support protect and defend capabilities. Continue integration and testing with mission-partner developed unique software to meet end-to-end satellite mission control requirements. Continue growing infrastructure, network, and data system connectivity to support mission partners to improve resiliency, to include ground entry points and enabling operational C2 in support of satellite C2 for protect and defend activities. Continue maturing cloud architecture in support of protect and defend missions. Continue development of antenna networking services and test assets to enable mission planning and scheduling for commercial and government antennas. Continue risk reduction demos as test assets became available. Begin developing, integrating, testing, and evaluating automation technologies to enhance mission control and engineering management capabilities for protect and defend missions. Support external agencies with test and checkout (TACO) space vehicles to facilitate test and checkout activities to ensure software quality and performance in support of protect and defend missions. FY 2027 Plans: Will continue development, integration, and deployment of enterprise satellite operations ground segment solution (SatOps) command and control (C2) services for protect and defend missions, including science and technology, prototype, and operational mission partners in advancement of protect and defend activities, leveraging a systems integrator to aid the government in acquiring, designing, testing, and integrating key segments and interfaces. Will continue development and support of antenna networking services, to include the development of ground control automation and antenna scheduling capabilities, to enable mission planning and scheduling for commercial and government antennas. Will continue software integration of cybersecurity, cryptography, and security architectures to mature cloud architecture in support of protect and defend missions. Will continue integration and testing with mission-partner developed unique software to meet end-to-end satellite mission control requirements. Will continue growing infrastructure, network, and data system connectivity to support mission partners to improve resiliency, system diagnostic and characterization capability, ground entry points, data transport architecture, and enabling operational C2 in support of satellite C2 for protect and defend activities. Will continue, with the systems integrator, developing, integrating, testing, and evaluating automation technologies to mature the technical baseline and interface requirements for the system and enhance mission control and engineering management capabilities for protect and defend missions. Will continue software release demos with external agencies' TACO space vehicles to ensure software quality and performance in support of protect and		FY 2025	FY 2026	FY 2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1206772SF I Rapid Resilient Command and Control (R2C2)		
C. Accomplishments/Planned Programs (\$ in Millions) defend missions. Will continue life cycle sustainment activities for R2C2 SatOps C2 services in support of ongoing protect and defend missions. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 Satellite Command and Control Services funding increased by \$2.405 million due to expanding cyber security efforts and integration support.		FY 2025	FY 2026	FY 2027
Title: Rapid Resilient Command and Control (R2C2) Cloud Infrastructure and Platform/Antenna Services Description: Maintain hardware and software baselines and licenses, integrate cybersecurity, and provide helpdesk operations with associated training, to enable cloud-hosted software development, cryptography solutions, data transport, external network integration, and antenna ground point connectivity for command and control (C2) for protect and defend missions. FY 2026 Plans: Continue support activities and facilities for enterprise satellite operations ground segment solution (SatOps) C2 services for protect and defend mission partners, including science and technology, prototype, and operational mission partners. Continue using R2C2 SatOps ground segment services and antenna networking services, to include maintaining software baselines, expanding and supporting cloud environments, updating software licenses, facilitating user engagements, continuing 24x7 help desk operations, associated training, and cybersecurity support. Continue service center capabilities to support mission partners developing, integrating, testing, and operating R2C2 SatOps services. Accomplish necessary infrastructure technical refresh, patching, and cybersecurity updates. Continue support of antenna networking services. Initiate life cycle sustainment activities for R2C2 SatOps C2 services in support of ongoing protect and defend missions. FY 2027 Plans: Will continue support of activities and facilities for enterprise SatOps C2 services for protect and defend mission partners, including science and technology, prototype, and operational mission partners, leveraging a systems integrator to aid the government in acquiring, designing, testing, and integrating key segments and interfaces. Will continue maintaining software baselines, expanding and supporting cloud environments, updating software licenses, continuing 24x7 help desk operations, associated training, and cybersecurity support for SatOps ground segment services and antenna networking services. Will continue deployment of cybersecurity, cryptography, cross-domain solutions, and security architectures to support protect and defend capabilities. Will continue growing infrastructure, network, and data system connectivity to support mission partners to improve resiliency, system diagnostic and characterization capability, ground entry points, data transport architecture, and enabling operational C2 in support of maturation of cloud architecture in support of satellite C2 for protect and defend activities. Will continue to support antenna networking services, to include infrastructure connectivity and development of external government and commercial antenna network connections. Will continue service center capabilities to support mission partners		0.000	49.950	58.701

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026	
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1206772SF / <i>Rapid Resilient Command and Control (R2C2)</i>	
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026
developing, integrating, testing, and operating R2C2 SatOps services. Will continue life cycle sustainment activities for R2C2 cloud infrastructure, platform, and antenna services in support of ongoing protect and defend missions.			
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 Cloud Infrastructure and Platform/Antenna Services funding increased by \$8.751 million due to expanding and supporting cloud environments and antenna connectivity for mission partners.			
Accomplishments/Planned Programs Subtotals		0.000	98.034
		FY 2025	FY 2026
Congressional Add: Commercial Space Domain Awareness		-	20.000
FY 2026 Plans: The Space RCO will execute the Commercial Space Domain Awareness (SDA) project as a product development effort. The congressional add will provide commercial SDA and improve real-time tracking and response to threats in space. It will allow work towards establishing Space Force's operational framework to enable the warfighter to protect and defend vital space assets which are essential to military victory. It will enable and strengthen the security and resilience of national space systems allowing the Space Force to leverage private sector investments in this vital domain. Furthermore, the congressional add will build a federated, low-latency architecture that combines commercial and government capabilities for the real-time tracking and analysis of objects in space.			
Congressional Adds Subtotals		-	20.000
D. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
N/A			
E. Acquisition Strategy			
The R2C2 Combined Program Office (CPO) has an approved acquisition strategy, leveraging Department of War (DoW)- and Department of the Air Force (DAF)- level contracts for commercial cloud capabilities, Other Transaction Agreements, contracts awarded under a small business, multiple award Indefinite Delivery / Indefinite Quantity, and a systems integrator to aid the government to operationalize the satellite operations ground segment solution and providing support for protect and defend mission partners.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1206772SF / Rapid Resilient Command and Control (R2C2)				Project (Number/Name) 67A001 / Rapid Resilient Command and Control (R2C2)					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
R2C2 Satellite Command & Control Services	Various	Various : Various	-	-		39.304	Nov 2025	50.489	Oct 2026	-		50.489	Continuing	Continuing	-
R2C2 Cloud Infrastructure & Platform/Antenna Services	Various	Various : Various	-	-		33.489	Nov 2025	48.189	Oct 2026	-		48.189	Continuing	Continuing	-
SE&I	Various	Various : Various	-	-		8.292	Oct 2025	0.000	Oct 2026	-		0.000	0.000	8.292	-
SBIR/STTR	Allot	TBD : TBD	-	-		2.913	Oct 2025	0.000	May 2027	-		0.000	Continuing	Continuing	-
Commercial Space Domain Awareness	Various	TBD : TBD	-	-		20.000	Jun 2026	-		-		-	0.000	20.000	-
Subtotal			-	-		103.998		98.678		-		98.678	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Various : Various	-	-		10.302	Oct 2025	6.812	Oct 2026	-		6.812	Continuing	Continuing	-
A&AS Support	Various	Various : Various	-	-		3.698	Dec 2025	3.650	Oct 2026	-		3.650	Continuing	Continuing	-
Other Support	Various	Various : Various	-	-		0.036	Oct 2025	0.050	Oct 2026	-		0.050	Continuing	Continuing	-
Subtotal			-	-		14.036		10.512		-		10.512	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		118.034		109.190		-		109.190	Continuing	Continuing	N/A
Remarks															
FY 2027 Product Development and Management Services requirements may vary during year of execution due to integration and cybersecurity necessary to complete delivery of Satellite Operations ground segment services for protect and defend mission partners.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																Date: April 2026			
Appropriation/Budget Activity 3620F / 7								R-1 Program Element (Number/Name) PE 1206772SF / Rapid Resilient Command and Control (R2C2)								Project (Number/Name) 67A001 / Rapid Resilient Command and Control (R2C2)			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Rapid Resilient Command and Control (R2C2) Satellite Command & Control Services																												
Continuous Satellite Operations Development & Integration																												
R2C2 Cloud Infrastructure & Platform/Antenna Services																												
Cloud Infrastructure & Platform/Antenna Services																												
Commercial Space Domain Awareness																												
Commercial Space Domain Awareness																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1206772SF / <i>Rapid Resilient Command and Control (R2C2)</i>	Project (Number/Name) 67A001 / <i>Rapid Resilient Command and Control (R2C2)</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Rapid Resilient Command and Control (R2C2) Satellite Command & Control Services</i>				
Continuous Satellite Operations Development & Integration	1	2026	4	2031
<i>R2C2 Cloud Infrastructure & Platform/Antenna Services</i>				
Cloud Infrastructure & Platform/Antenna Services	1	2026	4	2031
<i>Commercial Space Domain Awareness</i>				
Commercial Space Domain Awareness	3	2026	4	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					PE 1207440SF I Automate Sat C2							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	1,524.300	0.000	1,524.300	1,554.000	1,493.600	1,368.700	918.000	Continuing	Continuing
676772: Autonomous Tactical Fabric	0.000	0.000	0.000	1,524.300	0.000	1,524.300	1,554.000	1,493.600	1,368.700	918.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
 This program, BA 7, PE 1207440SF, project 676772, Infrastructure Modernization, is a new start.
 This program, BA 7, PE 1207440SF, project 676772, Fabric, is a new start.
 This program, BA 7, PE 1207440SF, project 676772, Mission Operations, is a new start.
 This program, BA 7, PE 1207440SF, project 676772, Integration, is a new start.

A. Mission Description and Budget Item Justification

Autonomous Tactical Fabric (ATF) delivers "Space Operations of the Future" by fundamentally changing how Guardians interact with the battlespace. ATF consists of transformational Infrastructure Modernization to create a deliberate, resilient architecture where physical location does not limit space operations, Fabric to enable cross-mission data accessibility for autonomy and analytics, and Mission Operations where health and status data integrates with the Fabric along with path-independent communication for Fleet Operations and Artificial Intelligence (AI)/Machine Learning (ML) is applied to reduce repetitive functions and data overload while implementing. Additionally, Integration will perform the technical, hands-on integration needed to connect intra-program technical areas as well as USSF and DAF stakeholders to the Infrastructure and Fabric. ATF will enable future Space Force operations to be conducted from diverse locations, using any sensor or system, while also autonomously harmonizing data across various echelons at speed and scale. ATF will increase resilience, automation, and connectivity to operate throughout the conflict spectrum by creating an ecosystem for weapon systems to connect in order to share data needed to elevate decisions. The program will implement autonomous sensor orchestration, path-agnostic meshed networking, and a common, shared, distributed data plane to fundamentally pivot space operations with next generation of software to accelerate decision making. ATF is not replacing existing programs or projects, but building the underlying ecosystem and framework needed to interconnect systems and data.

USSF Space Systems Command is developing the Autonomous Tactical Fabric for Guardians across warfighting, ops commands, and combat support organizations. As a result, the Service will improve battle management of all weapon systems; deliver SDA capabilities; and deter, neutralize, defeat and/or destroy counterspace threats and defend the homeland; and continue to advance all near term effects.

This program falls within the Space Domain Awareness (SDA) mission area which provides the space-based and ground-based architecture required to detect, track, catalogue, and identify objects and activities in the space domain. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. Space

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1207440SF I Automate Sat C2				
Force investment program interdependencies include: RDT&E Budget Line Items: Space Domain Awareness/Planning/Tasking SW (1208248SF); Space Situational Awareness Operations (1203940SF); Space Situational Awareness Systems (1206425SF); and elements of Procurement Budget Line Item: Space Mods (SPCMOD).						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		0.000	0.000	0.000	0.000	0.000
Current President's Budget		0.000	0.000	1,524.300	0.000	1,524.300
Total Adjustments		0.000	0.000	1,524.300	0.000	1,524.300
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	1,524.300	0.000	1,524.300
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027
Title: Infrastructure Modernization				-	-	932.680
Description: Infrastructure Modernization is the foundation to enable speed and scale and capitalize on commercial advancements, such as AI/ML technologies. It will enable multiple systems together to achieve autonomy at various levels of operations. It will address critical gaps in infrastructure, fund the compute and storage environment needed to transition USSF Weapon Systems to a cognitive mission fabric for automation and cross-mission data sharing, and create a resilient architecture where physical location does not limit space operations.						
FY 2027 Plans: Initiate infrastructure work (i.e., physical infrastructure, power, cooling, etc.) needed to establish an ecosystem for distributed, resilient operations. Buy hardware as needed to support the initialization of the infrastructure. Begin assessment of workload						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1207440SF / <i>Automate Sat C2</i>		
C. Accomplishments/Planned Programs (\$ in Millions) requirements (i.e., compute and storage) needed by mission areas and to host a cognitive mission fabric to synchronize USSF weapon systems at various echelons. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase of 932.680 million due to being a new start.		FY 2025	FY 2026	FY 2027
Title: Fabric Description: The Fabric creates a common, defined, consistent operating system to maximize data sharing by unifying and integrating any sensor to any effector via any transport. A key component of the Fabric is the cognitive mission fabric, where mission system data is abstracted and sent to a distributed software component to expose data needed to enable decision-making with human in/on the loop leveraging advanced Human Machine Interfaces/Human Machine Teaming. This is imperative to capitalize on AI/ML to offload data curation/assessment and data overload and allow human operators to focus on situational understanding of the battlespace and develop Courses of Action. Edge nodes will be used for forward data processing, while space ops edge nodes will be used to implement a "Follow the Sun" operational construct to share the cognitive load and operational burden across the globe. The Fabric will include multiple network types and nodes, such as terrestrial and space-based, for data transport to ultimately connect any weapon systems at any classification levels to the Fabric and Infrastructure to significantly increase resiliency and redundancy. It will also serve as the foundation for cyber defense and optimize sharing of critical wartime data by integrating commercial systems and data from Allies and Partners. FY 2027 Plans: Award the cognitive mission fabric contract and begin integration with the infrastructure. Operationalize initial interface abstraction prototype capabilities for the SDA mission. Purchase and install long lead hardware items for the network nodes to connect the Infrastructure and Fabric and enable a cross-mission communication and data sharing. FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase of 369.600 million due to being a new start.		-	-	369.600
Title: Mission Operations Description: Mission Operations integrates mission specific health and status data with the Fabric and applies AI/ML to reduce repetitive functions and data overload, while increasing situational understanding of kill chain execution. Provides access to additional antenna capacity and path-independent communication for Fleet Operations. It will mature and integrate AI/ML tools and technologies that are compatible with mission specific software to optimize alerting and cross-mission information sharing, with the goal of automating routine tasks and allowing the operators to focus on the battlespace. FY 2027 Plans:		-	-	113.300

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1207440SF / <i>Automate Sat C2</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027
Prototype tool and technologies to expedite integration of mission specific operations data onto the Fabric, which includes satellite and payload health and status information as well as ground-based sensor data. Demonstrate operational function of AI/ML technologies to reduce repetitive functions needed to eliminate data overload. Modify antenna interfaces to integrate with the USSF antenna orchestrator.				
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase of 113.300 million due to being a new start				
Title: Integration Description: Performs the technical, hands-on integration needed to connect the program's systems and link USSF and Department of the Air Force stakeholders to the Infrastructure and Fabric. It will integrate the cognitive mission fabric onto the Infrastructure (i.e. cloud) as well as any additional network connectivity needed to enable the distributed cognitive mission fabric and data exposure across the Department. This thrust is also responsible for identifying the unique interfaces needed to expose key information from each Space Force mission area needed to expedite decisions and performing the technical analysis and integration to make the data available to the Fabric.		-	-	108.720
FY 2027 Plans: Begin integration of networks with the infrastructure. Begin integration of initial interface abstraction prototype capabilities into the Fabric. Begin technical planning and integration for mission specific data fortwo mission areas.				
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increase of 108.730 million due to being a new start.				
Accomplishments/Planned Programs Subtotals		-	-	1,524.300
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy The Automated Tactical Fabric program will prioritize commercial integration over development and initiate major development activities as a last resort to meeting noncommercially-available needs. The program is planning to execute a hybrid acquisition strategy leveraging Middle Tier of Acquisition (MTA) authority for Rapid Prototyping and Fielding, a Public/Private Partnership, and Commercial Solutions Opening.				
To support this acquisition strategy, the program is pursuing a rapid prototyping approach founded primarily on the integration of commercial software, a private/public partnership for the storage and compute solution, and expanding and iterating existing acquisitions to include existing contracts where necessary, while maximizing the				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force / BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1207440SF / <i>Automate Sat C2</i>	

use of two solutions in the architecture where possible. For the Infrastructure Modernization thrust, the ATF program plans to use a Commercial Solutions Opening with a private/public partnership to acquire storage and compute solutions needed for large scale modernization. For the Fabric and Mission Operations thrusts, ATF will use a combination of Commercial Solutions Openings and existing contracts, leveraging incentive mechanisms appropriate to the contract. Integration of ATF will be performed by a Lead System Integrator who will perform technical integration, working across USSF to integrate systems and data with the Fabric.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force													Date: April 2026		
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1207440SF / Automate Sat C2				Project (Number/Name) 676772 / Autonomous Tactical Fabric					

Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Infrastructure	Various	TBD : TBD	-	-		-		858.700	Jan 2027	-		858.700	Continuing	Continuing	-
Fabric	Various	TBD : TBD	-	-		-		338.600	Jan 2027	-		338.600	Continuing	Continuing	-
Mission Operations	Various	TBD : TBD	-	-		-		103.800	Apr 2027	-		103.800	Continuing	Continuing	-
Integration	C/CPFF	TBD : TBD	-	-		-		99.700	Mar 2027	-		99.700	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		-		53.300		-		53.300	Continuing	Continuing	-
Subtotal			-	-		-		1,454.100		-		1,454.100	Continuing	Continuing	N/A

Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Not specified. : TBD	-	-		-		5.900	Nov 2026	-		5.900	Continuing	Continuing	-
A&AS	C/FP	Not specified. : TBD	-	-		-		63.600	Nov 2026	-		63.600	Continuing	Continuing	-
Other Support	Various	Not specified. : TBD	-	-		-		0.700	Oct 2026	-		0.700	Continuing	Continuing	-
Subtotal			-	-		-		70.200		-		70.200	Continuing	Continuing	N/A

			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		1,524.300		-		1,524.300	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force																Date: April 2026			
Appropriation/Budget Activity								R-1 Program Element (Number/Name)								Project (Number/Name)			
3620F / 7								PE 1207440SF / Automate Sat C2								676772 / Autonomous Tactical Fabric			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
ATF																												
Infrastructure																												
Fabric																												
Mission Ops																												
Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1207440SF / Automate Sat C2	Project (Number/Name) 676772 / Autonomous Tactical Fabric

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ATF				
Infrastructure	2	2027	4	2031
Fabric	2	2027	4	2031
Mission Ops	3	2027	4	2031
Integration	2	2027	4	2031

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1208053SF I Joint Tactical Ground System							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	6.937	6.698	92.731	0.000	92.731	147.700	115.640	57.821	38.750	Continuing	Continuing
676760: Joint Tactical Ground Station	0.000	6.937	6.698	92.731	0.000	92.731	147.700	115.640	57.821	38.750	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 7, PE 1208053SF, project 676760, Resilient Ground Architecture (RGA), is a new start.

A. Mission Description and Budget Item Justification

Detachments 1 through 4 are operating the Joint Tactical Ground Station (JTAGS) (Project 676760) WT-5 systems for Guardians across Missile Warning and Missile Tracking (MW/MT) mission area. As a result, the Service will improve readiness and operational reach of existing force structure.

JTAGS is a post-production, Acquisition Category (ACAT) III program. The weapon system designator for JTAGS is WT-5. JTAGS provides missile warning message data for the Air and Missile Defense (AMD) architecture. JTAGS disseminates near real time warning, alerting, and cueing information on ballistic missile launches and events of interest throughout the theater using existing communication networks, providing critical support to Combatant Commanders in their Areas of Responsibility (AOR). Additionally, JTAGS supports the Strategic Missile Warning architecture. JTAGS consist of two sheltered operation rooms, one equipment room, and three antennas. Four outside contiguous United States (OCONUS) deployed JTAGS units, which are deployed in three theaters (United States Pacific Command (PACOM), United States Central Command (CENTCOM), United States European Command (EUCOM)), constitute Department of War's (DoW) in-theater system providing space-based missile warning. The fifth contiguous United States (CONUS) system is used as an institutional trainer but is available as a deployable asset. JTAGS is designated as the in-theater element of the United States Strategic Command's Theater Event System (TES), supporting all Theater Missile Defense pillars, affording the shortest sensor-to-shooter connectivity. The JTAGS Block II P3I program based on the 2009 JTAGS ORD is on contract as a two-phase development effort. Joint Requirements Oversight Council (JROC) Memos 197-12, 113-13, and 042-19 and PL 111-383 support the requirements to develop and field JTAGS Block II capabilities as soon as possible.

Continued JTAGS Block II CDD addresses evolving User-driven needs such as emerging threats, resiliency, modernization, and expanding interfaces that were not known at the time the JTAGS ORD was validated. Developmental efforts to achieve JTAGS Block II CDD threshold requirements continue through FY 2032.

Resilient Ground Architecture establishes a proliferated missile warning processing & data distribution ground architecture that holistically creates a robust day-to-day operation with predictable and graceful degradation to a Survivable & Endurable mission—providing increased resilience through all phases of conflict and threat spectrum. Fielding RGA capabilities meets/aligns with JROC-M 059-23, PPD-35/40, and CJCSI 3296. Resilient Ground Architecture is a new start with efforts beginning in FY 2027.

Note that Resilient Ground Architecture funding is split between PE 1208053SF and PE 1206440SF.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1208053SF I Joint Tactical Ground System				
This program element may include necessary civilian pay expenses required to manage, execute, and deliver the Joint Tactical Ground Stations (JTAGS) system capability. The sum of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This program falls within the Missile Warning and Missile Tracking (MW/MT) mission area which provides the multi-orbit space and ground architecture required to detect and track missiles and hypersonic glide vehicles worldwide. Space Force investment program interdependencies include:						
RDT&E Budget Line Items: Missile Defense Radars (1203873SF); Ballistic Missile EW Systems (1203909SF); NCMC - TW/AA System (1203906SF); Next - Generation OPIR (1206442SF); Next - Generation - GEO (1206443SF); Next - Generation - Ground (1206440SF); Next - Generation - Polar (1206444SF); NUDET Detection System (1203913SF); Resilient MW / MT - LEO (1206446SF); Resilient MW / MT - MEO (1206447SF) and elements of Procurement Budget Line Item: Space Mods (SPCMOD)						
This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		6.937	6.698	0.000	0.000	0.000
Current President's Budget		6.937	6.698	92.731	0.000	92.731
Total Adjustments		0.000	0.000	92.731	0.000	92.731
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	92.731	0.000	92.731
Change Summary Explanation						
Strategic Changes:						
FY 2027: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner.						
FY 2027 increase due to new start Resilient Ground Architecture efforts beginning in FY 2027.						
Note that Resilient Ground Architecture funding is split between PE 1208053SF and PE 1206440SF.						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1208053SF I Joint Tactical Ground System				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Title: Development and Test of Block II Capability Development Document (CDD) requirements Description: JTAGS Block II program continues to focus on development/integration of evolving cyber hardening advances, defense against emerging threats, and JTAGS CDD threshold requirements. Joint Requirements Oversight Council - Memorandums (JROC-M) 197-12, 113-13, and 042-19 and PL 111-383 (Ike Skelton National Defense Authorization Act for FY2011) require fielding of these capabilities as soon as possible. FY 2026 Plans: FY 2026 will address obsolete hardware/software upgrades, and research and develop prototypes for various system modifications for Red Hat Linux, the next generation Joint Tactical Terminals and capability integration across missile warning architecture. Development of cybersecurity risk reduction efforts through upgrading/ updating obsolete equipment will address a multitude of high-risk factors and ultimately reduce the risk posture of the program. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Base Plans: FY 2027 will address obsolete hardware/software upgrades and research and develop proof of concepts/ prototypes for various system resilience and modernization modifications for the next generation Joint Tactical Terminals and capability integration across missile warning architecture (M-Code, APNT, modernized crypto, communication resiliency). Development of cybersecurity risk reduction efforts through upgrading/updating obsolete equipment will address a multitude of high-risk factors and ultimately reduce the risk posture of the program. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S.		6.937	6.698	6.825	0.000	6.825

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1208053SF I Joint Tactical Ground System				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 OOC Plans: N/A FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased due to inflation in support of steady state development activities						
Title: Resilient Ground Architecture (RGA) Description: Resilient Ground Architecture (RGA) establishes a proliferated missile warning processing & data distribution ground architecture that holistically creates a robust day-to-day operation with predictable and graceful degradation to a Survivable & Endurable mission—providing increased resilience through all phases of conflict and threat spectrum. RGA efforts Enhance JTAGS HW for cross-command Theatre Missile Warning (TMW) failover and enables JTAGS sites to perform Strategic Missile Warning (SMW) mission. FY 2026 Plans: N/A FY 2027 Base Plans: Begin upgrade of the current JTAGS infrastructure. These upgrades both increase today’s JTAGS site resiliency against jamming and cyber threats above and beyond Block II compliance activities, and lay the foundation for future capabilities such as next gen/ Resilient MWT Medium Earth Orbit (MEO) sensor processing, SMW mission failover from Mission Control Station(MCS), and cross-command TMW. The projects increase data pub/sub between JTAGS and RTS, begin replacement of SAGE with FORGE, and begin upgrade of the JTAGS DDL comms architecture. Additional upgrades include beginning connection of JTAGS sites to SMW- supporting Ground Entry Point (GEP) infrastructure (Relay Ground Stations (RGS) for Space Based Infrared System/Next Gen Geosynchronous (SBIRS/NGG), Medium Earth Orbit (MEO) GEPs), beginning upgrade of JTAGS front-end processing hardware to ingest data from new sources, and beginning integration of new back-end comms to push SMW messages to strategic users. Also, begin the mesh network connectivity between MCS, JTAGS, and existing GEP infrastructure to ensure high availability of SMW mission data at OCONUS failover locations. FY 2026 to FY 2027 Increase/Decrease Statement:		0.000	0.000	85.906	-	85.906

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development</i>		R-1 Program Element (Number/Name) PE 1208053SF <i>I Joint Tactical Ground System</i>				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
FY 2027 increase due to new start Resilient Ground Architecture efforts beginning in FY 2027 Note that Resilient Ground Architecture funding is split between PE 1208053SF and PE 1206440SF.						
Accomplishments/Planned Programs Subtotals		6.937	6.698	92.731	0.000	92.731
D. Other Program Funding Summary (\$ in Millions) N/A						
Remarks The Joint Tactical Ground Station (JTAGS) transitioned to US Space Force in FY2024.						
E. Acquisition Strategy This program element develops critical software intensive improvements, while continuing to make maximum use of Non-Developmental Items (NDI)/Commercial Off-The-Shelf (COTS) components and Government Furnished Equipment (GFE). After design and integration, the system will be subject to thorough developmental and validation/verification testing to verify performance, operational effectiveness and suitability. The JTAGS Block II Pre-planned Product Improvement (P3I) program was initiated based on a 2009 JTAGS Operational Requirements Document (ORD) and upgrades JTAGS to a Block II configuration for operation with the next generation of Space Based Infrared System (SBIRS) satellites, improving warning tactical parameters and timeliness. The JTAGS Block II P3I contract was a full and open competition, but only the incumbent JTAGS contractor submitted a proposal, resulting in a sole-source contract on 26 Aug 2012. The contract's development options are Cost Plus Incentive Fee; its production options are Firm Fixed Price, and its Sustainment options are Cost Plus Fixed Fee. The JTAGS Block II contract's period of performance is from 1 October 2012 through 30 September 2021 with a contract extension to March 2022. As threats continued to evolve and change as well as new satellite sensors became available, the JTAGS Users in conjunction with the Army Capabilities Manager developed a JTAGS Block II Capability Development Document (CDD), requiring JTAGS to address new/changing threats that were not addressed in the 2009 JTAGS ORD. The acquisition of the continued JTAGS Block II efforts based on the JTAGS Block II CDD was performed under a sole source follow-on contract awarded May 2022 to the current JTAGS contractor with an expiration of Dec 2024. The JTAGS Block II P3I contract was extended by 6 months to allow for a new contract to be put in place with a period of performance expiring 30 June 2030. This new contract accommodates continuity of support as JTAGS undergoes resiliency and modernization upgrades. The scope of work will continue to focus on Block II Capability Development, addressing new/changing threats, research and develop prototypes/proof of concepts and the incorporation of resiliency/next generation capabilities into the weapon system architecture. Resilient Ground Architecture establishes a proliferated missile warning processing & data distribution ground architecture that will have a robust day-to- day operation with predictable and graceful degradation to a Survivable & Endurable mission; providing increased resilience through all phases of conflict and threat spectrum. Fielding RGA capabilities meets/aligns with JROC-M 059-23, PPD-35/40, and CJCSI 3296. RGA will heavily leverage the existing JTAGS contracts for JTAGS RGA efforts.						

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1208053SF / Joint Tactical Ground System				Project (Number/Name) 676760 / Joint Tactical Ground Station					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development and Test Block II Capability Development Document (CDD) requirements	SS/ Various	Northrup-Grumman : Colorado springs, CO	-	6.443	Jan 2025	6.053	Dec 2025	6.212	Dec 2026	-		6.212	Continuing	Continuing	-
Resilient Ground Architecture (RGA)	TBD	Not specified. : TBD	-	-		-		72.533	Oct 2026	-		72.533	Continuing	Continuing	-
SE&I	TBD	Not specified. : TBD	-	-		-		5.348	Oct 2026	-		5.348	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace Corporation : El Segundo, CA	-	-		-		2.520	Oct 2026	-		2.520	Continuing	Continuing	-
Subtotal			-	6.443		6.053		86.613		-		86.613	Continuing	Continuing	N/A
Remarks															
Continues development of the Joint Tactical Ground Stations (JTGS) Block II capabilities based on the JTGS Block II CDD. RGA effort is new for FY27 with funding split between PE 1208053SF and PE 1206440SF.															
Support (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
System Engineering Technical Assistance	C/CPFF	Intrepid : Huntsville, AL	-	0.279	Jun 2025	0.236	Feb 2026	0.223	Feb 2027	-		0.223	Continuing	Continuing	-
Subtotal			-	0.279		0.236		0.223		-		0.223	Continuing	Continuing	N/A
Remarks															
Provides technical assistance in implementing the JTGS Block II CDD															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1208053SF / Joint Tactical Ground System						Project (Number/Name) 676760 / Joint Tactical Ground Station			
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Aerospace Corporation : El Segundo, CA	-	-		-		1.080	Oct 2026	-		1.080	Continuing	Continuing	-
A&AS	Various	Various : Various	-	0.200	Jun 2025	0.168	Jan 2026	4.061	Oct 2026	-		4.061	Continuing	Continuing	-
Other Support	Various	Various : Various	-	0.015	Oct 2024	0.241	Oct 2025	0.754	Oct 2026	-		0.754	Continuing	Continuing	-
Subtotal			-	0.215		0.409		5.895		-		5.895	Continuing	Continuing	N/A
Remarks FY 2027 include utilities and custodial costs.															
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	6.937		6.698		92.731		-		92.731	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)		Project (Number/Name)	
3620F / 7		PE 1208053SF / Joint Tactical Ground System		676760 / Joint Tactical Ground Station	

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Joint Tactical Ground Station (JTACS) - Preplanned Product Improvements (P3I)																												
Red Hat Linux (RHEL) 7 Development																												
Purchase Joint Tactical Terminals - Next Generation (JTT-NG) equipment																												
JTT-NG																												
Integration of JTT-NG equipment into baseline																												
Red Hat Linux (RHEL) 7 Fielding																												
Resilient Ground Architecture																												
Strategic Warning Proliferation																												
Virtualization & Edge Node Deployment																												
S/E Infrastructure																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1208053SF / Joint Tactical Ground System	Project (Number/Name) 676760 / Joint Tactical Ground Station	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Joint Tactical Ground Station (JTACS) - Preplanned Product Improvements (P3I)				
Red Hat Linux (RHEL) 7 Development	1	2025	2	2026
Purchase Joint Tactical Terminals - Next Generation (JTT-NG) equipment	1	2027	2	2028
JTT-NG	2	2029	4	2029
Integration of JTT-NG equipment into baseline	2	2026	4	2027
Red Hat Linux (RHEL) 7 Fielding	2	2026	1	2027
Resilient Ground Architecture				
Strategic Warning Proliferation	1	2027	4	2030
Virtualization & Edge Node Deployment	1	2027	3	2031
S/E Infrastructure	1	2027	4	2031

Note
The JTACS transitioned to US Space Force in FY 2024.
Note that Resilient Ground Architecture funding is split between PE 1208053SF and PE 1206440SF.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 8: Software and Digital Technology Pilot Programs					R-1 Program Element (Number/Name) PE 1208248SF I Space Domain Awareness/Planning/Tasking SW							
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
Total Program Element	0.000	140.938	201.991	617.062	0.000	617.062	628.329	621.701	643.829	659.818	Continuing	Continuing
681018: Software & Digital Technology Pilot Program	0.000	0.000	0.000	260.441	0.000	260.441	274.311	288.743	303.818	314.461	Continuing	Continuing
68A035: SSA/BMC2	0.000	140.938	201.991	356.621	0.000	356.621	354.018	332.958	340.011	345.357	Continuing	Continuing

A. Mission Description and Budget Item Justification

This program falls within the Space Domain Awareness (SDA) mission area which provides the space-based and ground-based architecture required to detect, track, catalogue, and identify objects and activities in the space domain. As the foundation for space control, SDA encompasses surveillance of all space objects and activities; detailed surveillance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering indications and warning on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. Space Force investment program interdependencies include: RDT&E Budget Line Items: Space Domain Awareness/Planning/Tasking SW (1208248SF); Automate Sat C2 (1207440SF); Space Situational Awareness Operations (1203940SF); Space Situational Awareness Systems (1206425SF); and elements of Procurement Budget Line Item: Space Mods (SPCMOD). This is not a new start.

Space Systems Command (SSC) System Delta (SYD) 85 and the Kronos Program Office are continuing to develop the Kronos Family of Systems for Guardians across Warfighting, Operational Command, and Combat Support units. As a result, the Service will improve battle management of all weapon systems and adjust force structure as required. Combat Forces Command (CFC) Mission Delta 2 (MD2) is developing, sustaining and modernizing SDA for Guardians across MD2, USSF and other users. As a result, the Service will deliver SDA capabilities, improve readiness and operational reach of the existing force structure, and integrate Allies, partners, and commercial space to USSF units.

The Space Domain Awareness (SDA)/ Planning/ Tasking software program is an Office of the Secretary of War (OSW) pilot initiative in which all lifecycle funding is tracked under Budget Activity 8 (BA 8), Software and Digital Technology Pilot Programs, beginning in FY 2021. This pilot program enables the execution of modern software development practices encompassing development, procurement, sustainment, modification, and maintenance activities within a single Research, Development, Test and Evaluation (RDT&E) appropriation in this Program Element (PE).

SDA/Planning/Tasking functions support United States Space Force (USSF) and U.S. Indo-Pacific Command (USINDOPACOM). Capabilities will initially be delivered to Combat Forces Command (CFC) and U.S. Space Forces - Space (S4S). The SDA/Planning/Tasking software program provides a collaborative environment that will enhance and modernize SDA and Battle Management Command and Control (BMC2) capabilities; create decision-relevant views of the space and multi-domain environment; rapidly detect, track, and characterize objects of interest; identify / exploit traditional and non-traditional sources; perform space threat analysis; and enable efficient distribution of data across the Space Surveillance Network (SSN). The program maintains enterprise infrastructure, platform, and data services, and develops mission applications to enable responsive, resilient operational-level SDA/Planning/Tasking capabilities for the National Space Defense Center (NSDC), Combined Space Operations Center (CSpOC), Mission Delta 2 (MD 2), other Command and Control (C2) centers, and Space Force Components within Combatant

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 8: Software and Digital Technology Pilot Programs		PE 1208248SF I Space Domain Awareness/Planning/Tasking SW				
Commands. The employment of an agile-based Rapid Delivery Framework (RDF) with a 120 day Program Increment (PI) construct fosters a collaborative and integrated environment for the community to effectively plan and deliver C2 capabilities. The enterprise-wide system provides a common government infrastructure and processes to allow C2 capabilities at USSF Mission and Combat Deltas to rapidly address the evolving and dynamic threat. The program also identifies shared/common platform, infrastructure, and data layer solutions to support open frameworks and architectures across the enterprise ground portfolio. Funding includes technical studies, development, experimentation, integration, and related support costs.						
For FY 2027, the Space Domain Awareness/Planning/Tasking SW Program Element increased \$415.071 million from the FY 2026 funding level. For Project 68A035, FY 2027 funding reflects a significant increase to fully fund enterprise SDA development and sustainment, driven by USSPACECOM priorities and transfer of O&M funding for current SDA systems from PE 1203940SF to BA 8 RDT&E project 68A035 to support agile software development. Activities in Project 68A035 are continuing from FY 2026 and are not a new start. For Project 681018, funding was transferred from Project 68A035 to this project (also known as Kronos) and substantially increased for a total of \$260.441 million in FY 2027 to expand development of BM and C2 scope previously in SDA. Activities in Project 681018 are not a new start. This is consistent with the direction and intent of the Under Secretary of War for Acquisition and Sustainment in splitting the Space Domain Awareness (SDA) and BMC2 programs out of the Space C2 program as documented in a 12 May 2025 Acquisition Decision Memorandum.						
This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
This program is in Budget Activity 8, Software and Digital Technology Pilot Program because this budget activity includes funding provided for expenses necessary for agile development, test and evaluation, procurement, production and modification, and the operation and maintenance of these programs.						
B. Program Change Summary (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Previous President's Budget		145.665	200.968	0.000	0.000	0.000
Current President's Budget		140.938	201.991	617.062	0.000	617.062
Total Adjustments		-4.727	1.023	617.062	0.000	617.062
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	-2.977			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	4.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-4.727	0.000			
• Other Adjustments		0.000	0.000	617.062	0.000	617.062
Change Summary Explanation						
Strategic Changes:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2027 Air Force		Date: April 2026
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force</i> / BA 8: <i>Software and Digital Technology Pilot Programs</i>	R-1 Program Element (Number/Name) PE 1208248SF / <i>Space Domain Awareness/Planning/Tasking SW</i>	
FY 2027-2030: The FY 2026 President's Budget submission did not reflect FY 2027 through FY 2030 funding. Therefore, an explanation of the change between the two budget positions for FY 2027 cannot be made in a relevant manner. Technical Changes: FY 2026: +4.000 million congressional add for "commercial space domain awareness battlespace" and -2.977 million for Sec 8151 SBIR reduction.		

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 8					R-1 Program Element (Number/Name) PE 1208248SF / Space Domain Awareness /Planning/Tasking SW				Project (Number/Name) 681018 / Software & Digital Technology Pilot Program			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
681018: Software & Digital Technology Pilot Program	0.000	0.000	0.000	260.441	0.000	260.441	274.311	288.743	303.818	314.461	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This is not a new start. Funding was transferred from the Space Domain Awareness (SDA) C2 in Project 68A035 of this Program Element to the Kronos Project 681018 and substantially enhanced for a total of 260.441 million in FY 2027 to expand development of Battle Management and C2 scope previously in SDA. This is consistent with the direction and intent of the Under Secretary of War for Acquisition and Sustainment in splitting the Space Domain Awareness (SDA) and BMC2 programs out of the Space C2 program as documented in a 12 May 2025 Acquisition Decision Memorandum.

The Kronos program (Project 681018) is developing the U.S. Space Force's modern software suite for space operations command and control (C2), battle management, and space intelligence integration. It replaces legacy tools with a modular, data-driven, and integrated family of systems that helps operators plan, task, deconflict, execute, and assess space operations in a contested and dynamic environment. Kronos provides capabilities across the BMC2 family of systems to exercise the authority and direction by a commander over assigned/attached forces to accomplish the mission. The four major activities include: planning, preparing, executing, and assessing. Continuing efforts support Space Planning by matching combat resources to effects to improve the ability to synthesize guidance, effects, and priorities with available resources to plan, generate, coordinate and execute combined fires between operational and tactical units. Lastly, these capabilities enable decision advantage for joint and coalition forces by integrating space intelligence throughout BMC2 processes to enable space superiority. This is the USSF BMC2 program that directly supports the Department of the Air Force (DAF) Portfolio Acquisition Executive (PAE) for Command, Control, Communications and Battle Management (C3BM) to enable joint all-domain operations.

Space Systems Command (SSC) System Delta (SYD) 85 and the Kronos Program Office are continuing to develop the Kronos Family of Systems for Guardians across Warfighting, Operational Command, and Combat Support units. As a result, the Service will improve battle management of all weapon systems and adjust force structure as required.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Title: Battle Management Command and Control (BMC2)	-	0.000	260.441	0.000	260.441
Description: This program provides a comprehensive suite of BMC2 integrated capabilities to space operations. Fields a Global and Regional C2 software to provide end-to-end command and control, managing the entire workflow from planning and tasking to execution and assessment of space operations. Delivers an integrated Battle Management toolkit for planning, executing, and managing responses to threats in the space domain. Provides Space Intel Integration capability that provides a complete and actionable picture of the battlespace by					

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026				
Appropriation/Budget Activity 3620F / 8		R-1 Program Element (Number/Name) PE 1208248SF / Space Domain Awareness /Planning/Tasking SW	Project (Number/Name) 681018 / Software & Digital Technology Pilot Program				
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
integrating environmental characterization, collection operations, and targeting support. A common Data-as-a-Service (DaaS) layer underpins all BMC2 capabilities, providing the critical information flow for mission success. This directly supports the DAF C3BM PAE's vision for Joint All-Domain Operations, integrating with the broader C3BM enterprise through this foundational data layer. FY 2026 Plans: N/A FY 2027 Base Plans: Continue delivering software capabilities across the BMC2 family of systems by consolidating multiple disparate applications into a select few BMC2 systems (FY26 funded efforts continue from overall 68A035 Project). This involves migrating applications from Theater Support, launch characterization, and intel integration into a modern cloud architecture with data connections to core BMC2 systems. Global & Regional C2: Continue to deliver streamlined planning and orders generation, global laser and electronic warfare deconfliction, processing of space support requests across the DoW, and reliable enterprise-wide capability reporting. Battle Management: Continue to deliver an integrated toolkit for threat response. This includes integrating tactical C2 assessment tools to enable rapid course of action development, feasibility modeling, probability of success analysis, and collateral impact assessment. Space Intel Integration: Continue to deliver an integrated intelligence solution that enhances decision advantage. This will be achieved by unifying three core capabilities: battlespace characterization, collection operations, and targeting. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 OOC Plans: N/A FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased by 260.441 million to continue C2 Decision support applications and transfer unclassified scope into Project 681018. This is not a new start. Funding was transferred from the Space Domain Awareness (SDA) C2 in Project 68A035 of this Program Element to the Kronos Project 681018 and substantially enhanced							

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026		
Appropriation/Budget Activity 3620F / 8	R-1 Program Element (Number/Name) PE 1208248SF / <i>Space Domain Awareness /Planning/Tasking SW</i>	Project (Number/Name) 681018 / <i>Software & Digital Technology Pilot Program</i>			
B. Accomplishments/Planned Programs (\$ in Millions)					
	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
for a total of 260.441 million in FY 2027 to expand development of Battle Management and C2 scope previously in SDA. This is consistent with the direction and intent of the Under Secretary of War for Acquisition and Sustainment in splitting the Space Domain Awareness (SDA) and BMC2 programs out of the Space C2 program as documented in a 12 May 2025 Acquisition Decision Memorandum.					
Accomplishments/Planned Programs Subtotals	-	0.000	260.441	0.000	260.441
C. Other Program Funding Summary (\$ in Millions) N/A					
Remarks					
D. Acquisition Strategy The Battle Management and Command and Control software program is employing agile software development practices in the Software Acquisition Pathway (SWP) Planning Phase effective May 2025, in accordance with direction from the Undersecretary of War for Acquisition and Sustainment, with plans to enter the Execution Phase in FY 2026. The program adheres to multiple Capability Needs Statements as well as a Software Initial Capabilities Document. BMC2 maintains cradle-to-grave research, development, and operational support for software baselines predominantly using agile software development methods, as software development is continuous and never enters a discrete sustainment phase. BMC2 is leveraging Department of War guidance by maximizing the use of Commercial Solutions Opening (CSO) and Other Transaction business approaches to quickly leverage commercial solutions with minimal tailored development to the maximum extent practical. Similar to Enterprise Space Domain Awareness, this program also generally acquires tools and capabilities through an agile-based Rapid Delivery Framework that delivers and sustains new features and capabilities through a Continuous Improvement/Continuous Deployment (CI/CD) pipeline with 90-day Program Increments; however, there are several current systems and/or new commercial applications that may not follow this model. The acquisition strategy emphasizes modular contracting, commercial innovation, and continuous delivery, leveraging flexible mechanisms like Commercial Solutions Openings (CSOs) and Other Transaction Agreements (OTA) to engage both traditional and non-traditional vendors. The program maintains a strong Intellectual Property (IP) strategy to secure sufficient data rights while balancing cost realities of commercial solutions and licensing. The program positions itself in the role of the integration manager, employing multiple contractors working together to deliver a single architecture without relying on a government or contractor as the integrator approach.					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 8						R-1 Program Element (Number/Name) PE 1208248SF / Space Domain Awareness /Planning/Tasking SW				Project (Number/Name) 681018 / Software & Digital Technology Pilot Program					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
BMC2 Global and Regional C2	Various	Various : Various	-	-		-		117.197	Nov 2026	0.000		117.197	Continuing	Continuing	-
BMC2 Data as a Service	Various	Various : Palo Alto, Ca	-	-		-		45.323	Nov 2026	-		45.323	Continuing	Continuing	-
BMC2 Battle Management	Various	Various : Various	-	-		-		36.718	Nov 2026	0.000		36.718	Continuing	Continuing	-
BMC2 Space Intelligence Integration	Various	Various : Various	-	-		-		26.062	Dec 2026	0.000		26.062	Continuing	Continuing	-
SBIR/STTR	Allot	TBD : TBD	-	-		-		9.115	Mar 2027	0.000		9.115	Continuing	Continuing	-
Subtotal			-	-		-		234.415		0.000		234.415	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Various : Various	-	-		-		3.276	Nov 2026	-		3.276	Continuing	Continuing	-
A&AS	Various	Various : Various	-	-		-		22.450	Nov 2026	-		22.450	Continuing	Continuing	-
Other	Various	Various : Various	-	-		-		0.300	Oct 2026	-		0.300	Continuing	Continuing	-
Subtotal			-	-		-		26.026		-		26.026	Continuing	Continuing	N/A
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		260.441		0.000		260.441	Continuing	Continuing	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 8					PE 1208248SF / Space Domain Awareness /Planning/Tasking SW					681018 / Software & Digital Technology Pilot Program			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
BMC2																												
BMC2 Global and Regional C2																												
BMC2 Data as a Service																												
BMC2 Battle Management																												
BMC2 Space Intelligence Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 8	R-1 Program Element (Number/Name) PE 1208248SF / Space Domain Awareness /Planning/Tasking SW	Project (Number/Name) 681018 / Software & Digital Technology Pilot Program	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
BMC2				
BMC2 Global and Regional C2	1	2027	4	2031
BMC2 Data as a Service	1	2027	4	2031
BMC2 Battle Management	1	2027	4	2031
BMC2 Space Intelligence Integration	1	2027	4	2031

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force										Date: April 2026		
Appropriation/Budget Activity 3620F / 8					R-1 Program Element (Number/Name) PE 1208248SF / <i>Space Domain Awareness /Planning/Tasking SW</i>				Project (Number/Name) 68A035 / <i>SSA/BMC2</i>			
COST (\$ in Millions)	Prior Years	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total	FY 2028	FY 2029	FY 2030	FY 2031	Cost To Complete	Total Cost
68A035: <i>SSA/BMC2</i>	0.000	140.938	201.991	356.621	0.000	356.621	354.018	332.958	340.011	345.357	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Mission Delta 2 (MD2) 2nd Sustainment Squadron is maintaining, sustaining, developing, and modernizing SDA for Guardians across MD2, USSF and other users. As a result, the Service will deliver SDA capabilities, improve readiness and operational reach of the existing force structure, and integrate Allies, partners, and commercial space to USSF units.

Space Domain Awareness (SDA)/Planning/Tasking functions support the United States Space Force (USSF) and U.S. Indo-Pacific Command (USINDOPACOM). Capabilities will initially be delivered to USSF Combat Forces Command (CFC) and U.S. Space Forces - Space (S4S). The SDA/Planning/Tasking software program provides a collaborative environment that will enhance and modernize SDA and Battle Management Command and Control (BMC2) capabilities; create decision-relevant views of the space and multi-domain environment; rapidly detect, track, and characterize objects of interest; identify/exploit traditional and non-traditional sources; perform space threat analysis; and enable efficient distribution of data across the Space Surveillance Network (SSN). The program maintains enterprise infrastructure, platform, and data services, and develops mission applications to enable responsive, resilient operational-level SDA/Planning/Tasking capabilities for Mission Delta 2 (MD 2), the National Space Defense Center (NSDC), Combined Space Operations Center (CSpOC), and other Command and Control (C2) centers. Employing an agile-based Rapid Delivery Framework (RDF) with a 90-day Program Increment (PI) construct, fosters a collaborative and integrated environment for the community to effectively plan and deliver C2 capabilities. The enterprise-wide system provides a common government infrastructure and processes to allow C2 capabilities at USSF operational Deltas to rapidly address the evolving and dynamic threat. The program also identifies shared/common platform, infrastructure, and data layer solutions to support open frameworks and architectures across the enterprise ground portfolio. Funding includes technical studies, development, experimentation, integration, and related support costs.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Title: Enterprise SDA Mission Software	66.947	104.390	212.205	0.000	212.205
Description: This program delivers a robust and responsive Space Domain Awareness (SDA) and Battle Management Command and Control (BMC2) capability to meet emerging threats. The program will deliver capability for decision makers trying to prevent a conflict from extending to space or winning it if it does. Capabilities and associated infrastructure include, but are not limited to, the following: SDA processing and exploitation, Indications & Warning (I&W), Planning & Tasking, Theater & Coalition Support, Transmit/Receive, Dynamic even processing in support of Space Control, Tactical Operations, Commercial Data Integration and Common Data Management Layer, Platforms and Infrastructure; and Cyber and Threat Warning. The program maintains foundational Development, Security, and Operations (DevSecOps) enablers such as, but not					

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Appropriation/Budget Activity 3620F / 8		R-1 Program Element (Number/Name) PE 1208248SF / Space Domain Awareness /Planning/Tasking SW		Project (Number/Name) 68A035 / SSA/BMC2				
B. Accomplishments/Planned Programs (\$ in Millions)				FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
limited to, Data as a Service, Zero Trust Architecture, Platform Support, Continuous Improvement/Continuous Deployment (CI/CD) toolchain, and infrastructure and inherent sustainment efforts that are an integral part of the agile software development process. Other activities include dedicated Systems Engineering & Integration (SE&I), Test & Evaluation (T&E), Model Based Systems Engineering (MBSE) and prototype Validation & Verification to support these efforts. FY 2026 Plans: Plan and develop a message standard compliant open architecture to support both the Space Domain Awareness (SDA) and Theater Support missions to meet dynamic emerging threats. Develop product support and enhancements for operationally accepted applications, workflows, and capabilities, and SDA collection processing software (observation processing, orbit determination and propagation) necessary to publish the satellite catalog. Establish machine-to-machine interfaces for common and dynamic SDA event processing (Satellite Conjunction Assessment, Rendezvous & Proximity Operations, and Space Threat Processing). Evaluate and implement necessary upgrades to legacy SDA systems to allow integration into the modern SDA suite. Continuously improve integrated messaging and sensor support/tasking capabilities. Scale product support and enhance Theater Support software applications to include Intelligence, Integration, Priorities, and Objectives, tasking and Orders Generation, Status of Forces, Space Effect Coordination, Theater Situational Awareness, and Operational Support. Carry out development, system engineering and contracting efforts to integrate commercial, contractor, and government applications through the release of multiple incremental software capability in FY 2026. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility. FY 2027 Base Plans: Develop software and enabling infrastructure for: Automation and Advanced Processing: Increasing automation in observation processing, orbit determination, uncorrelated track processing, and other key areas to improve efficiency and accuracy in detecting, tracking, and identifying space objects, including closely spaced objects and those in cis-lunar space.								

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force				Date: April 2026		
Appropriation/Budget Activity 3620F / 8		R-1 Program Element (Number/Name) PE 1208248SF / Space Domain Awareness /Planning/Tasking SW		Project (Number/Name) 68A035 / SSA/BMC2		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Software Development & Integration: Continued development of the Advanced Tracking and Launch Analysis System (ATLAS) software to support a broader range of users (FVEY, non-FVEY, and those requiring higher security levels), along with modernization of current systems and development of new tools such as test, training, and exercise software; launch scenario builder; and maneuver processing. Integration of commercial, contractor, and government applications through incremental software releases.						
Improved Data Exchange and Messaging: Establishing machine-to-machine interfaces for common Space Domain Awareness (SDA) events (conjunction assessment, rendezvous operations, threat processing), improving integrated messaging and sensor support/tasking/orchestration, and developing a message standard compliant open architecture to support SDA mission.						
Enhanced Situational Awareness and Resiliency: Implementing system resiliency measures and situational awareness tools to operate in a contested space domain, including integration of commercial capabilities and partnerships. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.						
Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, risk reduction, prototyping, and activities that may leverage commercial, U.S. Government partnership, and international opportunities to respond to existing and emerging adversarial threats with speed and agility.						
FY 2027 OOC Plans: N/A						
FY 2026 to FY 2027 Increase/Decrease Statement: FY 2027 increased by \$107.815M due to accelerated development of core SDA applications, ensuring the United States maintains decision superiority by automating threat detection and response in the increasingly congested and contested modern space environment.						
Title: Enterprise SDA Digital Infrastructure		73.991	97.601	144.416	0.000	144.416

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F / 8		R-1 Program Element (Number/Name) PE 1208248SF / Space Domain Awareness /Planning/Tasking SW		Project (Number/Name) 68A035 / SSA/BMC2		
B. Accomplishments/Planned Programs (\$ in Millions)						
		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
Description: The program maintains existing capability for Mission Delta 2, CSpOC, NSDC and other C2 centers. These tasks include maintaining and combining the COTS software database, removing and canceling decommissioned systems and unused tools, adding new tools required for ongoing support of the system, maintaining data support systems, and maintaining day-to-day software operations which continuously ensures and optimizes reliability, security, resiliency, availability, flexibility and scalability of the warfighter tools. FY 2026 Plans: Fund government software centers, laboratories, contractors for supporting the update, maintenance and modification, integration, configuration management and cybersecurity requirements of infrastructure, legacy software, associated hardware, operationally accepted software applications, capabilities, and workflows associated with SDA/Planning/Tasking program. Expand fielding of Platform, Infrastructure, and Data as a Service to operations sites. This includes associated connectivity, enhancements, on-site manpower, and training required to enable simultaneous operations across all nodes. Transition infrastructure to a hardware as a service model, enhance reliability and scale and expand to other classification levels. Maintain foundational Development, Security, and Operations (DevSecOps) enablers such as, but not limited to, Data as a Service, Platform Support, continuous Improvement/Continuous Deployment (CI/CD) toolchain, and infrastructure and inherent sustainment efforts that are an integral part of the agile software development process. FY 2027 Base Plans: Continue to fund government software centers, laboratories, contractors for supporting the update, maintenance and modification, integration, configuration management and cybersecurity requirements of infrastructure, current system software, associated hardware, operationally accepted software applications, capabilities, and workflows associated with Space Domain Awareness (SDA) Planning and Tasking programs. Expand fielding of Platform, Infrastructure, and Data as a Service to operations sites. This includes associated connectivity, enhancements, on-site manpower, and training required to enable simultaneous operations across all nodes. Enhance reliability and scale and expand to other classification levels. Maintain foundational Development, Security, and Operations (DevSecOps) enablers such as, but not limited to, Data as a Service (DaaS), Platform Support, Continuous Improvement/Continuous Deployment (CI/CD) toolchain, and infrastructure and inherent sustainment efforts that are an integral part of the agile software development process. FY 2027 OOC Plans: N/A FY 2026 to FY 2027 Increase/Decrease Statement:						

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Exhibit R-2A, RDT&E Project Justification: PB 2027 Air Force			Date: April 2026			
Appropriation/Budget Activity 3620F / 8		R-1 Program Element (Number/Name) PE 1208248SF / Space Domain Awareness /Planning/Tasking SW		Project (Number/Name) 68A035 / SSA/BMC2		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2025	FY 2026	FY 2027 Base	FY 2027 OOC	FY 2027 Total
FY 2027 increased by 46.815M due to combining the Distributive Space Command and Control (DSC2) sustainment funding into a unified operational mission baseline and a single acquisition baseline for the enterprise SDA mission area.						
Accomplishments/Planned Programs Subtotals		140.938	201.991	356.621	0.000	356.621
C. Other Program Funding Summary (\$ in Millions) N/A						
Remarks						
D. Acquisition Strategy The Space Domain Awareness (SDA) Atlas software program is employing agile software development practices in the Software Acquisition Pathway (SWP), in accordance with the approved June 2024 Acquisition Strategy Document. In FY 2025 the Atlas program began performing in the Execution phase of the SWP. A Software Initial Capabilities Document (SW ICD) provides requirements which serve as a top-level Work Breakdown Structure (WBS) for the program. The program acquires tools and capabilities through an agile-based Rapid Delivery Framework that delivers and sustains new features and capabilities through a Continuous Integration / Continuous Delivery pipeline with 120-day Program Increments. The program's acquisition strategy gains efficiencies as a Software and Digital Technology Pilot as it develops and sustains platform and data services and software applications. This strategy focuses on rapidly delivering capability to warfighters and leveraging commercial, industry and government partners. Currently there are multiple contractors performing on competitively awarded and sole-source contracts with no single prime contractor responsible for the entire ecosystem.						

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force												Date: April 2026			
Appropriation/Budget Activity 3620F / 8						R-1 Program Element (Number/Name) PE 1208248SF / Space Domain Awareness /Planning/Tasking SW				Project (Number/Name) 68A035 / SSA/BMC2					
Product Development (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Mission Applications	Various	Various : Various	-	40.793	Nov 2024	71.695	Nov 2025	138.352	Nov 2026	-		138.352	Continuing	Continuing	-
Platform as a Service	Various	Various : Various	-	35.185	Nov 2024	38.926	Nov 2025	45.794	Nov 2026	-		45.794	Continuing	Continuing	-
Platform Sustainment	Various	Various : Various	-	17.081	Dec 2024	7.283	Dec 2025	70.346	Dec 2026	-		70.346	Continuing	Continuing	-
Infrastructure as a Service	Various	Various : Various	-	1.404	Nov 2024	15.534	Nov 2025	17.000	Nov 2026	-		17.000	Continuing	Continuing	-
Enterprise Systems Engineering & Integration	Various	Various : Various	-	4.795	Nov 2024	12.596	Nov 2025	23.872	Nov 2026	-		23.872	Continuing	Continuing	-
Data as a Service	Various	Various : Various	-	20.077	Nov 2024	32.076	Nov 2025	11.276	Nov 2026	-		11.276	Continuing	Continuing	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	1.000	Jan 2025	3.000	Jan 2026	3.107	Jan 2027	-		3.107	Continuing	Continuing	-
SBIR/STTR	Allot	TBD : TBD	-	0.000	Oct 2024	3.637	Oct 2025	12.482	Oct 2026	-		12.482	Continuing	Continuing	-
Subtotal			-	120.335		184.747		322.229		-		322.229	Continuing	Continuing	N/A
Test and Evaluation (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Test	Various	Various : Various	-	1.029	Dec 2025	2.174	Dec 2025	2.258	Dec 2026	-		2.258	Continuing	Continuing	-
Subtotal			-	1.029		2.174		2.258		-		2.258	Continuing	Continuing	N/A
Management Services (\$ in Millions)				FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
FFRDC	RO	Various : Various	-	4.583	Dec 2024	2.039	Dec 2025	6.082	Dec 2026	-		6.082	Continuing	Continuing	-
A&AS	Various	Various : Various	-	14.551	Dec 2024	12.531	Dec 2025	25.552	Dec 2026	-		25.552	Continuing	Continuing	-
Other	Various	Various : Various	-	0.440	Oct 2024	0.500	Oct 2025	0.500	Dec 2026	-		0.500	Continuing	Continuing	-
Subtotal			-	19.574		15.070		32.134		-		32.134	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2027 Air Force											Date: April 2026				
Appropriation/Budget Activity 3620F / 8					R-1 Program Element (Number/Name) PE 1208248SF / Space Domain Awareness /Planning/Tasking SW					Project (Number/Name) 68A035 / SSA/BMC2					
			Prior Years	FY 2025		FY 2026		FY 2027 Base		FY 2027 OOC		FY 2027 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	140.938		201.991		356.621		-		356.621	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2027 Air Force										Date: April 2026			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 8					PE 1208248SF / Space Domain Awareness /Planning/Tasking SW					68A035 / SSA/BMC2			

	FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030				FY 2031			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Enterprise SDA																												
Mission Applications																												
Platform & Infrastructure as a Service																												
Platform Sustainment																												
Program Increment 20-23																												
Program Increment 24-27																												
Program Increment 28-31																												
Program Increment 32-35																												
Program Increment 36-39																												
Program Increment 40-43																												
Program Increment 44-47																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2027 Air Force			Date: April 2026
Appropriation/Budget Activity 3620F / 8	R-1 Program Element (Number/Name) PE 1208248SF / <i>Space Domain Awareness</i> /Planning/Tasking SW	Project (Number/Name) 68A035 / SSA/BMC2	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Enterprise SDA				
Mission Applications	1	2025	4	2031
Platform & Infrastructure as a Service	1	2025	4	2031
Platform Sustainment	1	2025	4	2031
Program Increment 20-23	1	2025	4	2025
Program Increment 24-27	1	2026	4	2026
Program Increment 28-31	1	2027	4	2027
Program Increment 32-35	1	2028	4	2028
Program Increment 36-39	1	2029	4	2029
Program Increment 40-43	1	2030	4	2030
Program Increment 44-47	1	2031	4	2031