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**Department of Defense
Fiscal Year (FY) 2026 Budget Estimates**

June 2025



Air Force

Justification Book Volume 1 of 1

Research, Development, Test & Evaluation, Space Force
Vol 1

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Fiscal Year (FY) 2026 Budget Estimate Submission RDT&E Descriptive Summaries Budget Activities

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 FY26 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 2026 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 Volumes I, II, and III 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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Exhibit R-1 FY 2026 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Jun 2025

<u>Appropriation</u>	FY 2024	FY 2025	FY 2025	FY 2025	FY 2026	FY 2026	FY 2026
	Actuals	Enacted	Supplemental	Total	Disc Request	Reconciliation Request	Total
Research, Development, Test, and Evaluation, Space Force	18,532,358	18,553,363		18,553,363	15,486,466	13,547,914	29,034,380
Total Research, Development, Test, & Evaluation	18,532,358	18,553,363		18,553,363	15,486,466	13,547,914	29,034,380

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	FY 2024 Actuals	FY 2025 Enacted	FY 2025 Supplemental	FY 2025 Total	FY 2026 Disc Request	FY 2026 Reconciliation Request	FY 2026 Total
<u>Summary Recap of Budget Activities</u>							
Basic Research	33,458	36,080		36,080	36,839		36,839
Applied Research	353,565	255,964		255,964	248,088		248,088
Advanced Technology Development	671,254	750,390		750,390	588,577		588,577
Advanced Component Development & Prototypes	3,701,624	4,196,334		4,196,334	4,248,254	135,000	4,383,254
System Development & Demonstration	5,514,941	5,432,656		5,432,656	3,892,483	8,636,300	12,528,783
Management Support	939,627	571,233		571,233	632,843		632,843
Operational Systems Development	7,187,704	7,165,041		7,165,041	5,638,414	4,776,614	10,415,028
Software And Digital Technology Pilot Programs	130,185	145,665		145,665	200,968		200,968
Total Research, Development, Test, & Evaluation	18,532,358	18,553,363		18,553,363	15,486,466	13,547,914	29,034,380
<u>Summary Recap of FYDP Programs</u>							
Research and Development	34,276	36,947		36,947	37,696		37,696
Administration and Associated Activities	199						
Space	12,804,419	12,900,821		12,900,821	12,582,271	10,205,000	22,787,271
Classified Programs	5,693,464	5,615,595		5,615,595	2,866,499	3,342,914	6,209,413
Total Research, Development, Test, & Evaluation	18,532,358	18,553,363		18,553,363	15,486,466	13,547,914	29,034,380

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Applied Research	353,565	255,964		255,964	248,088		248,088
Advanced Technology Development	671,254	750,390		750,390	588,577		588,577
Advanced Component Development & Prototypes	3,701,624	4,196,334		4,196,334	4,248,254	135,000	4,383,254
System Development & Demonstration	5,514,941	5,432,656		5,432,656	3,892,483	8,636,300	12,528,783
Management Support	939,627	571,233		571,233	632,843		632,843
Operational Systems Development	7,187,704	7,165,041		7,165,041	5,638,414	4,776,614	10,415,028
Software And Digital Technology Pilot Programs	130,185	145,665		145,665	200,968		200,968
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Space	12,804,419	12,900,821		12,900,821	12,582,271	10,205,000	22,787,271
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Appropriation: 3620F Research, Development, Test, and Evaluation, Space Force

Line No	Program Element Number	Item	Act	Sec	FY 2024 Actuals	FY 2025 Enacted	FY 2025 Supplemental	FY 2025 Total	FY 2026 Disc Request	FY 2026 Reconciliation Request	FY 2026 Total
1	0601102SF	Defense Research Sciences	01	U	19,585	21,349		21,349	22,270		22,270
2	0601103SF	University Research Initiatives	01	U	13,873	14,731		14,731	14,569		14,569
	Basic Research				33,458	36,080		36,080	36,839		36,839
3	1202212SF	Defense Laboratories R&D Projects	02	U	17,454						
4	1206601SF	Space Technology	02	U	336,111	255,964		255,964	245,497		245,497
5	1206616SF	Space Advanced Technology Development/Demo	02	U					2,591		2,591
	Applied Research				353,565	255,964		255,964	248,088		248,088
6	1206310SF	Space Science and Technology Research and Development	03	U	450,599	488,916		488,916	459,989		459,989
7	1206616SF	Space Advanced Technology Development/Demo	03	U	220,655	261,474		261,474	128,588		128,588
	Advanced Technology Development				671,254	750,390		750,390	588,577		588,577
8	0604002SF	Space Force Weather Services Research	04	U	818	867		867	857		857
9	1203010SF	Space Force IT, Data Analytics, Digital Solutions	04	U	49,944	86,247		86,247	88,606		88,606
10	1203164SF	NAVSTAR Global Positioning System (User Equipment) (SPACE)	04	U	323,080	282,325		282,325	175,304		175,304
11	1203622SF	Space Warfighting Analysis	04	U	97,686	121,409		121,409	125,982		125,982
12	1203710SF	EO/IR Weather Systems	04	U	77,794	69,391		69,391	77,135		77,135
13	1203955SF	Space Access, Mobility & Logistics (SAML)	04	U		24,000		24,000	14,478		14,478
14	1206410SF	Space Technology Development and Prototyping	04	U	1,982,182	1,607,685		1,607,685	1,307,970		1,307,970

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Line No	Program Element Number	Item	Act	Sec	FY 2024 Actuals	FY 2025 Enacted	FY 2025 Supplemental	FY 2025 Total	FY 2026 Disc Request	FY 2026 Reconciliation Request	FY 2026 Total
15	1206427SF	Space Systems Prototype Transitions (SSPT)	04	U	78,336	115,739		115,739	67,246		67,246
16	1206438SF	Space Control Technology	04	U	62,099	62,195		62,195	60,106		60,106
17	1206458SF	Tech Transition (Space)	04	U	144,169	209,247		209,247	326,144		326,144
18	1206730SF	Space Security and Defense Program	04	U	63,784	53,199		53,199	45,200		45,200
19	1206760SF	Protected Tactical Enterprise Service (PTES)	04	U	70,270	77,509		77,509	114,430		114,430
20	1206761SF	Protected Tactical Service (PTS)	04	U	210,727	419,996		419,996	571,921		571,921
21	1206855SF	Evolved Strategic SATCOM (ESS)	04	U	473,622	918,581		918,581	1,229,929		1,229,929
22	1206857SF	Space Rapid Capabilities Office	04	U	18,850	107,892		107,892	9,664		9,664
23	1206862SF	Tactically Responsive Space	04	U	48,263	40,052		40,052	33,282	135,000	168,282
Advanced Component Development & Prototypes					3,701,624	4,196,334		4,196,334	4,248,254	135,000	4,383,254
24	1203154SF	Long Range Kill Chains	05	U						6,440,000	6,440,000
25	1203269SF	GPS III Follow-On (GPS IIIF)	05	U	237,970	240,246		240,246	179,249		179,249
26	1206421SF	Counterspace Systems	05	U	30,243	34,978		34,978	31,298		31,298
27	1206422SF	Weather System Follow-on	05	U	72,660	49,207		49,207	38,501		38,501
28	1206425SF	Space Situation Awareness Systems	05	U	375,020	455,605		455,605	992	455,000	455,992
29	1206431SF	Advanced EHF MILSATCOM (SPACE)	05	U	3,930	1,020		1,020	13,825		13,825
30	1206432SF	Polar MILSATCOM (SPACE)	05	U	74,683						
31	1206433SF	Wideband Global SATCOM (SPACE)	05	U	34,368				29,609		29,609
32	1206440SF	Next-Gen OPIR -- Ground	05	U	495,875	500,395		500,395	358,330	194,600	552,930
33	1206442SF	Next Generation OPIR	05	U	177,166	190,951		190,951	189,621		189,621
34	1206443SF	Next-Gen OPIR -- GEO	05	U	691,069	458,727		458,727	432,073		432,073

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35	1206444SF	Next-Gen OPIR -- Polar	05	U	866,813	769,478		769,478		723,700	723,700
36	1206445SF	Commercial SATCOM (COMSATCOM) Integration	05	U	68,983	134,487		134,487	132,060		132,060
37	1206446SF	Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)	05	U	1,481,222	1,697,821		1,697,821	1,757,354	823,000	2,580,354
38	1206447SF	Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)	05	U	699,675	756,349		756,349	686,348		686,348
39	1206771SF	Commercial Services	05	U	48,296	40,000		40,000	36,628		36,628
40	1206853SF	National Security Space Launch Program (SPACE) - EMD	05	U	156,968	103,392		103,392	6,595		6,595
System Development & Demonstration					5,514,941	5,432,656		5,432,656	3,892,483	8,636,300	12,528,783
41	0909999SF	Financing for Cancelled Account Adjustments	06	U	199						
42	1203622SF	Space Warfighting Analysis	06	U	3,568						
43	1205502SF	Small Business Innovation Research	06	U	455,430						
44	1206392SF	ACQ Workforce - Space & Missile Systems	06	U	253,786	263,288		263,288	269,162		269,162
45	1206398SF	Space & Missile Systems Center - MHA	06	U	15,053	12,867		12,867	15,356		15,356
46	1206399SF	SSC Enterprise Engineering & Integration	06	U					110,598		110,598
47	1206759SF	Major T&E Investment - Space	06	U	139,894	229,665		229,665	189,083		189,083
48	1206860SF	Rocket Systems Launch Program (SPACE)	06	U	42,576	35,134		35,134	19,857		19,857
49	1206864SF	Space Test Program (STP)	06	U	29,121	30,279		30,279	28,787		28,787

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	Management Support				939,627	571,233		571,233	632,843		632,843
51	1201212SF	Service-Wide Support (Not Otherwise Accounted For)	07	U					18,451		18,451
52	1203001SF	Family of Advanced BLoS Terminals (FAB-T)	07	U	100,126	2,607		2,607	303		303
53	1203040SF	DCO-Space	07	U	73,364	104,088		104,088	102,439		102,439
54	1203109SF	Narrowband Satellite Communications	07	U	160,351	201,654		201,654	421,847		421,847
55	1203110SF	Satellite Control Network (SPACE)	07	U	77,079	81,572		81,572	93,780		93,780
56	1203154SF	Long Range Kill Chains	07	U	185,970	244,121		244,121	1,916	1,255,000	1,256,916
57	1203155SF	Ground Moving Target Indicator (GMTI)	07	U		256,000		256,000	1,063,384		1,063,384
58	1203173SF	Space and Missile Test and Evaluation Center	07	U	21,329	20,844		20,844	22,128		22,128
59	1203174SF	Space Innovation, Integration and Rapid Technology Development	07	U	37,649	48,900		48,900	82,399		82,399
60	1203182SF	Spacelift Range System (SPACE)	07	U	10,778	45,506		45,506	54,996		54,996
61	1203330SF	Space Superiority ISR	07	U	28,730	28,227		28,227	24,411		24,411
62	1203609SF	pLEO SATCOM (MILNET)	07	U					277,407		277,407
63	1203873SF	Ballistic Missile Defense Radars	07	U	30,885	12,024		12,024			
64	1203906SF	NCMC - ITW/AA System	07	U	21,757	25,656		25,656	25,839		25,839
65	1203909SF	Ballistic Missile Early Warning System (BMEWS)	07	U						73,700	73,700
66	1203913SF	NUDET Detection System (SPACE)	07	U	83,591	83,426		83,426	96,836		96,836
67	1203940SF	Space Situation Awareness Operations	07	U	259,417	115,660		115,660	182,377		182,377

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68	1206423SF	Global Positioning System III - Operational Control Segment	07	U	238,821	272,224		272,224	190,484		190,484
72	1206770SF	Enterprise Ground Services	07	U	149,825						
73	1206772SF	Rapid Resilient Command and Control (R2C2)	07	U					106,220		106,220
74	1207408SF	Electromagnetic Spectrum Operations	07	U						105,000	105,000
75	1208053SF	Joint Tactical Ground System	07	U	14,568	6,937		6,937	6,698		6,698
999	999999999	Classified Programs	07	U	5,693,464	5,615,595		5,615,595	2,866,499	3,342,914	6,209,413
		Operational Systems Development			7,187,704	7,165,041		7,165,041	5,638,414	4,776,614	10,415,028
76	1208248SF	Space Domain Awareness/Planning/Tasking SW	08	U	130,185	145,665		145,665	200,968		200,968
		Software And Digital Technology Pilot Programs			130,185	145,665		145,665	200,968		200,968
Total Research, Development, Test, and Evaluation, Space Force					18,532,358	18,553,363		18,553,363	15,486,466	13,547,914	29,034,380

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Air Force • Budget Estimates FY 2026 • RDT&E Program

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Date: June 2025

Department of the Air Force
TOTAL CIVILIAN PERSONNEL COSTS
OP-8B: OP-8 (PB)
FY 2026 President's Budget Submission
(FY 2024)

	(\$ in Thousands)											d/c	i/c	Rates	h/d	j/d
	a	b	c	d	e	f	g	e + f + g	d + h	i	i + j	l	m	n	o	p
	Begin	End	FTEs	Basic	Overtime	Holiday	Other	Total	Comp	Benefits	Comp	Basic	Total	Comp	% BC	% BC
	Strength	Strength		Comp	Pay	Pay	O.C.11	Variables	O.C.11	O.C.12/13	& Benefits	Comp	Comp	& Benefits	Variables	Benefits
Direct Funded Personnel (includes OC 13)	1,949	2,283	2,066	274,000	0	0	0	0	274,000	95,128	369,128	\$132,623	\$132,623	\$178,668	0.0%	34.7%
D1. US Direct Hire (USDH)	1,949	2,283	2,066	274,000	-	-	-	-	274,000	95,128	369,128	\$132,623	\$132,623	\$178,668	0.0%	34.7%
D1a. Senior Executive Schedule	6	8	8	1,272	-	-	-	-	1,272	-	1,272	\$159,000	\$159,000	\$159,000	0.0%	0.0%
D1b. General Schedule	1,943	2,275	2,058	272,728	-	-	-	-	272,728	95,128	367,856	\$132,521	\$132,521	\$178,744	0.0%	34.9%
D1c. Special Schedule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D1d. Wage System	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D1e. Highly Qualified Experts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D1f. Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D2. Direct Hire Program Foreign Nationals (DHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D3. Total Direct Hire	1,949	2,283	2,066	274,000	-	-	-	-	274,000	95,128	369,128	\$132,623	\$132,623	\$178,668	0.0%	34.7%
D4. Indirect Hire Foreign Nationals (IHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal - Direct Funded (excludes OC 13)	1,949	2,283	2,066	274,000	-	-	-	-	274,000	95,128	369,128	\$132,623	\$132,623	\$178,668	0.0%	34.7%
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)	84	37	37	9,065	0	0	0	0	9,065	0	9,065	\$245,000	\$245,000	\$245,000	0.0%	0.0%
R1. US Direct Hire (USDH)	84	37	37	9,065	-	-	-	-	9,065	-	9,065	\$245,000	\$245,000	\$245,000	0.0%	0.0%
R1a. Senior Executive Schedule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1b. General Schedule	84	37	37	9,065	-	-	-	-	9,065	-	9,065	\$245,000	\$245,000	\$245,000	0.0%	0.0%
R1c. Special Schedule	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1d. Wage System	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1e. Highly Qualified Experts	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R1f. Other	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R2. Direct Hire Program Foreign Nationals (DHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
R3. Total Direct Hire	84	37	37	9,065	-	-	-	-	9,065	-	9,065	\$245,000	\$245,000	\$245,000	0.0%	0.0%
R4. Indirect Hire Foreign Nationals (IHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal - Reimbursable Funded (excludes OC 13)	84	37	37	9,065	-	-	-	-	9,065	-	9,065	\$245,000	\$245,000	\$245,000	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)	2,033	2,320	2,103	283,065	0	0	0	0	283,065	95,128	378,193	\$134,601	\$134,601	\$179,835	0.0%	33.6%
T1. US Direct Hire (USDH)	2,033	2,320	2,103	283,065	-	-	-	-	283,065	95,128	378,193	\$134,601	\$134,601	\$179,835	0.0%	33.6%
T1a. Senior Executive Schedule	6	8	8	1,272	0	0	0	0	1,272	0	1,272	\$159,000	\$159,000	\$159,000	0.0%	0.0%
T1b. General Schedule	2,027	2,312	2,095	281,793	0	0	0	0	281,793	95,128	376,921	\$134,507	\$134,507	\$179,915	0.0%	33.8%
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	-	-	-	-	-
T1f. Other	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	2,033	2,320	2,103	283,065	-	-	-	-	283,065	95,128	378,193	\$134,601	\$134,601	\$179,835	0.0%	33.6%
T4. Indirect Hire Foreign Nationals (IHFN)	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
Subtotal - Total Funded (excludes OC 13)	2,033	2,320	2,103	283,065	-	-	-	-	283,065	95,128	378,193	\$134,601	\$134,601	\$179,835	0.0%	33.6%
T5. Other Object Class 13 Benefits	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
T5a. USDH - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0
T5b. DHFN - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0
T5c. Voluntary Separation Incentive Pay (VSIP)	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0
T5d. Foreign National Separation Liability Accrual	-	-	-	-	-	-	-	-	-	-	-	0	0	0	0	0

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Department of the Air Force
TOTAL CIVILIAN PERSONNEL COSTS
OP-8B: OP-8 (PB)
FY 2026 President's Budget Submission
(FY 2025)

	(\$ in Thousands)												Rates				
	a	b	c	d	e	f	g	e + f + g	d + h	i	i + j	d/c	i/c	k/c	h/d	j/d	
	Begin	End		Basic	Overtime	Holiday	Other	Total	Comp	Benefits	Comp	Basic	Total	Comp	% BC	% BC	
	Strength	Strength	FTEs	Comp	Pav	Pav	O.C.11	Variables	O.C.11	O.C.12/13	& Benefits	Comp	Comp	& Benefits	Variables	Benefits	
Direct Funded Personnel (includes OC 13)	2,283	2,280	2,165	279,794	0	0	0	0	279,794	100,334	380,128	\$129,235	\$129,235	\$175,579	0.0%	35.9%	
D1. US Direct Hire (USDH)	2,283	2,280	2,165	279,794	-	-	-	-	279,794	100,334	380,128	\$129,235	\$129,235	\$175,579	0.0%	35.9%	
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	278,354				-	278,354	99,816	378,170	\$129,047	\$129,047	\$175,322	0.0%	35.9%	
D1c. Special Schedule	-							-	-		-	-	-	-	-	-	
D1d. Wage System	-							-	-		-	-	-	-	-	-	
D1e. Highly Qualified Experts	-							-	-		-	-	-	-	-	-	
D1f. Other	-							-	-		-	-	-	-	-	-	
D2. Direct Hire Program Foreign Nationals (DHFN)	-							-	-		-	-	-	-	-	-	
D3. Total Direct Hire	2,283	2,280	2,165	279,794	-	-	-	-	279,794	100,334	380,128	\$129,235	\$129,235	\$175,579	0.0%	35.9%	
D4. Indirect Hire Foreign Nationals (IHFN)	-							-	-		-	-	-	-	-	-	
Subtotal - Direct Funded (excludes OC 13)	2,283	2,280	2,165	279,794	-	-	-	-	279,794	100,334	380,128	\$129,235	\$129,235	\$175,579	0.0%	35.9%	
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	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	-							-	-		-	-	-	-	-	-	
R1f. Other	-							-	-		-	-	-	-	-	-	
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	289,054	0	0	0	0	289,054	100,334	389,388	\$131,269	\$131,269	\$176,834	0.0%	34.7%	
T1. US Direct Hire (USDH)	2,320	2,317	2,202	289,054	-	-	-	-	289,054	100,334	389,388	\$131,269	\$131,269	\$176,834	0.0%	34.7%	
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	287,614	0	0	0	0	287,614	99,816	387,430	\$131,091	\$131,091	\$176,586	0.0%	34.7%	
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	-	-	-	-	-	
T1f. Other	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	289,054	-	-	-	-	289,054	100,334	389,388	\$131,269	\$131,269	\$176,834	0.0%	34.7%	
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	289,054	-	-	-	-	289,054	100,334	389,388	\$131,269	\$131,269	\$176,834	0.0%	34.7%	
T5. Other Object Class 13 Benefits											-						
T5a. USDH - Benefits for Former Employees											0	0	0	0	0	0	
T5b. DHFN - Benefits for Former Employees											0	0	0	0	0	0	
T5c. Voluntary Separation Incentive Pay (VSIP)											0	0	0	0	0	0	
T5d. Foreign National Separation Liability Accrual											0	0	0	0	0	0	

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

	(\$ in Thousands)											d/c	i/c	Rates	h/d	j/d
	a	b	c	d	e	f	g	e + f + g	d + h	i	i	i + j		k/c		
	Begin	End	FTEs	Basic	Overtime	Holiday	Other	h	i	i	Benefits	k	l	m	n	o
	Strength	Strength		Comp	Pay	Pav	O.C.11	Total	Comp	O.C.11	O.C.12/13	Comp	Basic	Total	Comp	% BC
								Variables				& Benefits			& Benefits	Variables
Direct Funded Personnel (includes OC 13)	2,280	2,129	2,129	302,721	0	0	0	0	302,721	106,363	409,084		\$142,189	\$142,189	\$192,148	0.0%
D1. US Direct Hire (USDH)	2,280	2,129	2,129	302,721	-	-	-	-	302,721	106,363	409,084		\$142,189	\$142,189	\$192,148	0.0%
D1a. Senior Executive Schedule	8	8	8	1,440	-	-	-	-	1,440	518	1,958		\$180,000	\$180,000	\$244,750	0.0%
D1b. General Schedule	2,272	2,121	2,121	301,281	-	-	-	-	301,281	105,845	407,126		\$142,047	\$142,047	\$191,950	0.0%
D1c. Special Schedule	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
D1d. Wage System	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
D1e. Highly Qualified Experts	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
D1f. Other	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
D2. Direct Hire Program Foreign Nationals (DHFN)	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
D3. Total Direct Hire	2,280	2,129	2,129	302,721	-	-	-	-	302,721	106,363	409,084		\$142,189	\$142,189	\$192,148	0.0%
D4. Indirect Hire Foreign Nationals (IHFN)	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
Subtotal - Direct Funded (excludes OC 13)	2,280	2,129	2,129	302,721	-	-	-	-	302,721	106,363	409,084		\$142,189	\$142,189	\$192,148	0.0%
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	37	37	9,451	0	0	0	0	9,451	0	9,451		\$255,432	\$255,432	\$255,432	0.0%
R1. US Direct Hire (USDH)	37	37	37	9,451	-	-	-	-	9,451	-	9,451		\$255,432	\$255,432	\$255,432	0.0%
R1a. Senior Executive Schedule	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
R1b. General Schedule	37	37	37	9,451	-	-	-	-	9,451	-	9,451		\$255,432	\$255,432	\$255,432	0.0%
R1c. Special Schedule	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
R1d. Wage System	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
R1e. Highly Qualified Experts	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
R1f. Other	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
R2. Direct Hire Program Foreign Nationals (DHFN)	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
R3. Total Direct Hire	37	37	37	9,451	-	-	-	-	9,451	-	9,451		\$255,432	\$255,432	\$255,432	0.0%
R4. Indirect Hire Foreign Nationals (IHFN)	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
Subtotal - Reimbursable Funded (excludes OC 13)	37	37	37	9,451	-	-	-	-	9,451	-	9,451		\$255,432	\$255,432	\$255,432	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	2,166	2,166	312,172	0	0	0	0	312,172	106,363	418,535		\$144,124	\$144,124	\$193,229	0.0%
T1. US Direct Hire (USDH)	2,317	2,166	2,166	312,172	-	-	-	-	312,172	106,363	418,535		\$144,124	\$144,124	\$193,229	0.0%
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%
T1b. General Schedule	2,309	2,158	2,158	310,732	0	0	0	0	310,732	105,845	416,577		\$143,991	\$143,991	\$193,038	0.0%
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		-	-	-	-
T1f. Other	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	2,166	2,166	312,172	-	-	-	-	312,172	106,363	418,535		\$144,124	\$144,124	\$193,229	0.0%
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	2,166	2,166	312,172	-	-	-	-	312,172	106,363	418,535		\$144,124	\$144,124	\$193,229	0.0%
T5. Other Object Class 13 Benefits	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
T5a. USDH - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
T5b. DHFN - Benefits for Former Employees	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
T5c. Voluntary Separation Incentive Pay (VSIP)	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-
T5d. Foreign National Separation Liability Accrual	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-

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*All figures in this exhibit are for the FY 2026 discretionary appropriations
President's Budget request unless otherwise noted.*

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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
OSD	- Office of the Secretary of Defense
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 2026 Air Force **Date:** June 2025

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research</i>					PE 0601102SF / <i>Defense Research Sciences</i>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	19.585	21.349	22.270	0.000	22.270	-	-	-	-	-	-
610001: <i>Defense Research Sciences - Space</i>	0.000	19.585	21.349	22.270	0.000	22.270	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

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, 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. Efforts in this program have been coordinated through the Department of Defense (DoD) Science and Technology (S&T) Executive Committee process to harmonize efforts and eliminate duplication.

This program is executed by the Air Force Research Laboratory (AFRL). AFRL is focused on high-impact, multi-domain science and technology (S&T) solutions that propel innovation today and support the Air and Space Force in securing dominance in future operational environments. AFRL effectively aligns the Department of the Air Force (DAF) S&T enterprise and workforce towards the most consequential DAF priorities to accelerate the delivery of game-changing S&T.

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.

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.

The FY 2026 request was increased by 0.921 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.

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 without regard to any limitation on appointments, positions, or funding in a manner consistent with the budget.

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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research		PE 0601102SF I Defense Research Sciences			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	0.000	21.349	22.820	0.000	22.820
Current President's Budget	19.585	21.349	22.270	0.000	22.270
Total Adjustments	19.585	0.000	-0.550	0.000	-0.550
• 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	20.100	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.515	0.000			
• Other Adjustments	0.000	0.000	-0.550	0.000	-0.550
Change Summary Explanation					
In FY 2024, the budget increased by 19.585 million due to a Congressional directed transfer from RDT&E, AF, PE 0601102F, Defense Research Sciences, for space unique S&T.					
Current change statement represents the decrease from FY2025 in the value of 0.550K from the previous PB.					
The FY 2026 request was reduced by 0.019 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."					
C. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Title: Space-focused Basic Research	18.785	20.533	21.438	0.000	21.438
Description: Foster basic research discovery in physical and biological sciences that enhance U.S. Space Force's ability to conduct global space operations.					
FY 2025 Plans:					
- Current basic research efforts include, but are not limited to, Space Physics, Astrodynamics, Space Biosciences, and Propulsion and Power.					
- Seek to further 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.					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force			Date: June 2025			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research		R-1 Program Element (Number/Name) PE 0601102SF I Defense Research Sciences				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
- 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. - Science discovered in this effort will have a profound impact on future long-term, large-scale military operations in space as well as applications to other emerging DAF mission needs such as missions to remote regions in Antarctica and very high-altitude air missions. - Explore novel ideas that may bridge these major efforts and enhance global space operations. FY 2026 Base Plans: - Current basic research efforts include, but are not limited to, Space Physics, Astrodynamics, Space Biosciences, and Propulsion and Power. - 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 OOC Plans:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research		R-1 Program Element (Number/Name) PE 0601102SF I Defense Research Sciences				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Not Applicable						
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased compared to FY 2025 by \$0.905 million due to increased emphasis on Space-focused basic research. Specifically, this increase was driven by a greater focus on the exploration of Space Physics, Astrodynamics, Space Biosciences, and Propulsion and Power.						
Title: Leveraging International S&T for DAF Advantage 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. FY 2025 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 DoD fundamental science delegations, providing primary interface to coordinate international science and technology participation among DoD organizations. FY 2026 Base 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 DoD fundamental science delegations, providing primary interface to coordinate international science and technology participation among DoD organizations. FY 2026 OOC Plans:		0.800	0.816	0.832	0.000	0.832

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025	
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research					R-1 Program Element (Number/Name) PE 0601102SF I Defense Research Sciences						
C. Accomplishments/Planned Programs (\$ in Millions)											
					FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total		
Not Applicable											
FY 2025 to FY 2026 Increase/Decrease Statement: Increase due to inflation.											
Accomplishments/Planned Programs Subtotals					19.585	21.349	22.270	0.000	22.270		
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• RDTE 01 0601102F: Defense Research Sciences	347.393	361.930	317.205	-	317.205	-	-	-	-	-	-
Remarks Operating under the two labs one service construct both Air Force and Space Force service Departments are included within this PE.											
E. Acquisition Strategy Not Applicable											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	13.873	14.731	14.569	0.000	14.569	-	-	-	-	-	-
610002: <i>University Research Initiatives - Space</i>	0.000	13.873	14.731	14.569	0.000	14.569	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

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. Efforts in this program have been coordinated through the Department of Defense Science and Technology Executive Committee process to harmonize efforts and eliminate duplication.

This program is executed by the Air Force Research Laboratory (AFRL). AFRL is focused on high-impact, multi domain science and technology (S&T) solutions that propel innovation today and support the Air and Space Force in securing dominance in future operational environments. AFRL effectively aligns the Department of the Air Force (DAF) S&T enterprise and workforce towards the most consequential DAF priorities to accelerate the delivery of game-changing S&T.

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.

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.

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 without regard to any limitation on appointments, positions, or funding in a manner consistent with the budget.

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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025			
Appropriation/Budget Activity		R-1 Program Element (Number/Name)					
3620F: Research, Development, Test & Evaluation, Space Force I BA 1: Basic Research		PE 0601103SF I University Research Initiatives					
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total		
Previous President's Budget	0.000	14.731	14.916	0.000	14.916		
Current President's Budget	13.873	14.731	14.569	0.000	14.569		
Total Adjustments	13.873	0.000	-0.347	0.000	-0.347		
• 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	14.400	0.000					
• Reprogrammings	0.000	0.000					
• SBIR/STTR Transfer	-0.527	0.000					
• Other Adjustments	0.000	0.000	-0.347	0.000	-0.347		
Change Summary Explanation							
In FY 2024, the budget increased by 13.873 million due to a Congressional directed transfer from RDT&E, AF, PE 0601103F for space unique S&T.							
In FY 2026, the budget decreased by 0.162 million due to programmatic adjustments within the Science and Technology portfolio. This reduction reflects a strategic realignment to optimize core research areas and improve resource efficiency.							
C. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Title: Multidisciplinary University Research Initiative			11.098	11.791	11.586	0.000	11.586
Description: Promote fundamental, multi- and interdisciplinary science and engineering research projects involving multiple principal investigators.							
FY 2025 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 2026 Base Plans:							
- 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.							

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force								Date: June 2025			
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
- Continue to focus on complex research efforts not normally achievable in smaller funded, single investigator awards. FY 2026 OOC Plans: Not Applicable FY 2025 to FY 2026 Increase/Decrease Statement: Budget decreased by 0.162 million due to programmatic adjustments within the Science and Technology portfolio.											
Title: Research Instrumentation Description: Enhance scientific and engineering research through advanced education infrastructure and instrumentation at U.S. universities. FY 2025 Plans: - Award grants on a competitive basis under the Defense University Research Instrumentation Program 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 Base 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 OOC Plans: Not Applicable FY 2025 to FY 2026 Increase/Decrease Statement: Increased due to inflation.						2.775	2.940	2.983	0.000	2.983	
Accomplishments/Planned Programs Subtotals						13.873	14.731	14.569	0.000	14.569	
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• RDTE 01 0601103F: University Research Initiatives	172.154	146.372	98.091	-	98.091	-	-	-	-	-	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025	
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						
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Remarks Operating under the two labs one service construct both Air Force and Space Force service Departments are included within this PE.											
E. Acquisition Strategy Not Applicable											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	336.111	255.964	245.497	0.000	245.497	-	-	-	-	-	-
620200: <i>Enterprise Transformational Appld Research</i>	0.000	0.000	9.193	7.005	0.000	7.005	-	-	-	-	-	-
621010: <i>Space Survivability & Surveillance</i>	0.000	66.898	36.002	47.111	0.000	47.111	-	-	-	-	-	-
624846: <i>Spacecraft Payload Technologies</i>	0.000	85.776	49.938	36.197	0.000	36.197	-	-	-	-	-	-
624847: <i>Rocket Propulsion Technology</i>	0.000	25.399	27.759	27.291	0.000	27.291	-	-	-	-	-	-
624866: <i>Lasers & Imaging Technology</i>	0.000	31.299	30.298	36.956	0.000	36.956	-	-	-	-	-	-
625018: <i>Spacecraft Protection Technology</i>	0.000	38.869	52.029	45.637	0.000	45.637	-	-	-	-	-	-
628809: <i>Spacecraft Vehicle Technologies</i>	0.000	87.870	50.745	45.300	0.000	45.300	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

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. Efforts in this program have been coordinated through the Department of Defense Science and Technology Executive Committee process to harmonize efforts and eliminate duplication. 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. 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, focuses on spacecraft platform and control technologies, operator effectiveness, and human-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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 2: Applied Research		R-1 Program Element (Number/Name) PE 1206601SF I Space Technology				
This program is executed by the Air Force Research Laboratory (AFRL). AFRL is focused on high-impact, multi-domain science and technology (S&T) solutions that propel innovation today and support the Air and Space Force in securing dominance in future operational environments. AFRL effectively aligns the Department of the Air Force (DAF) S&T enterprise and workforce towards the most consequential DAF priorities to accelerate the delivery of game-changing S&T.						
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 2026, \$90.095 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 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.						
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		206.196	244.964	251.303	0.000	251.303
Current President's Budget		336.111	255.964	245.497	0.000	245.497
Total Adjustments		129.915	11.000	-5.806	0.000	-5.806
• Congressional General Reductions		-0.010	0.000			
• Congressional Directed Reductions		-2.765	-10.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		69.000	21.000			
• Congressional Directed Transfers		80.161	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-5.017	0.000			
• Other Adjustments		-11.454	0.000	-5.806	0.000	-5.806
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						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025	
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>	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2024	FY 2025
Project: 624847: <i>Rocket Propulsion Technology</i>			
Congressional Add: <i>Program increase: On-orbit bi-propellant propulsion</i>		1.965	0.000
Congressional Add Subtotals for Project: 624847		1.965	0.000
Project: 625018: <i>Spacecraft Protection Technology</i>			
Congressional Add: <i>Program increase - space situational awareness ground infrastructure</i>		4.913	0.000
Congressional Add: <i>Program increase - software development for RPO to support space domain awareness</i>		1.965	0.000
Congressional Add: <i>Program increase - university consortium for space technology</i>		0.982	0.000
Congressional Add: <i>Program increase - Lunar surface space domain awareness</i>		0.000	3.000
Congressional Add: <i>Program increase - Optical interferometer</i>		0.000	4.000
Congressional Add: <i>Program increase - Space threat attribution and recovery</i>		0.000	3.000
Congressional Add Subtotals for Project: 625018		7.860	10.000
Project: 628809: <i>Spacecraft Vehicle Technologies</i>			
Congressional Add: <i>Program increase - autonomous RPOD</i>		9.827	0.000
Congressional Add: <i>Program increase - hybrid space architecture</i>		4.913	0.000
Congressional Add: <i>Program increase - high-efficiency solar chiplet arrays for LEO satellites</i>		4.913	0.000
Congressional Add: <i>Program increase - space qualified solar cell manufacturing</i>		3.931	4.000
Congressional Add: <i>Program increase - L-Band active phased array demonstration</i>		2.948	0.000
Congressional Add: <i>Program increase - sub-zero volt lithium-ion battery</i>		2.456	0.000
Congressional Add: <i>Program increase - advanced analog microelectronics</i>		2.948	0.000
Congressional Add: <i>Program increase - thin film tandem solar cells</i>		2.948	0.000
Congressional Add: <i>Program increase - isotope power systems</i>		2.948	0.000
Congressional Add: <i>Program increase - small satellite chemical propulsion</i>		2.948	0.000
Congressional Add: <i>Program increase - Advanced Isotope Power System</i>		4.817	0.000
Congressional Add: <i>Program increase - Radiation-Hardened, trusted, assured microelectronics</i>		4.817	0.000
Congressional Add Subtotals for Project: 628809		50.414	4.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025	
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>	
Congressional Add Details (\$ in Millions, and Includes General Reductions)		FY 2024	FY 2025
Congressional Add Totals for all Projects		67.609	21.000
<u>Change Summary Explanation</u> In FY 2024, Other Adjustment decrease of 11.454 million was for realignment of funds to PE 1202212SF, Defense Laboratories R&D Projects, to implement the Department of Defense (DoD) Funding Laboratory Enhancements Across Four Categories (FLEX-4) authority under 10 U.S.C. Section 4123. In FY 2024, Congressional Directed Reduction of 2.765 million was for prior year underexecution. In FY 2024, 80.161 million in Congressional Directed Transfers were for a 72.888 million DAF requested transfer for civilian personnel and 7.273 million transfer from RDT&E, AF, PE 0602020F, Future AF Capabilities Applied Research, for space unique S&T. In FY 2025, Congressional Directed Reduction of 10.000 million is due to Civilian workforce overestimation. The FY 2026 budget request decreased by 5.806 million as a result of programmatic adjustments within the Science and Technology portfolio. This reduction supports a strategic realignment aimed at optimizing core research areas and enhancing resource efficiency. Details of the adjustments are as follows: -- The FY 2026 request was reduced by 5.733 million for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative" and to correct AFRL Space civilian authorizations. -- The FY 2026 request was reduced by 0.456 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." -- The FY 2026 request was reduced by 5.543 million for programmatic adjustments within the Science and Technology portfolio. This reduction reflects a strategic realignment to optimize core research areas and improve resource efficiency. -- The FY 2026 request was increased because 10.000M was programmed into PE 1206601SF erroneously; this funding will be realigned for proper execution following enactment. -- The FY 2026 request was reduced by 4.074 million due to corrections between Projects within PE 1206601SF for civilian positions and associated funding.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
620200: <i>Enterprise Transformational Appld Research</i>	0.000	0.000	9.193	7.005	0.000	7.005	-	-	-	-	-	-
Note In FY 2025, Project 620200, Enterprise Transformational Appld Research, was created to realign Space unique S&T funding in FY 2025+ for the Seedlings for Disruptive Capabilities effort and the Explore effort from RDT&E, AF, PE 0602020F, Future Capabilities Applied Research.												
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 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 2024	FY 2025	FY 2026	
Title: Explore									0.000	3.500	3.500	
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												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
input. Explore informs future areas of research and aids in identifying emerging technologies which could enable larger advanced technology development capability investments.			
FY 2025 Plans: Initiate efforts which support technology development to enable key space capabilities for DAF priority missions. Continue development of space technologies investment framework and identification of key space capability needs for the future force.			
FY 2026 Plans: - Continue 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 DOD military utility and enable the use of a wide range of commercial medium-class launch vehicles).			
FY 2025 to FY 2026 Increase/Decrease Statement: Not applicable			
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, & 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.		0.000	5.693
FY 2025 Plans: Complete building infrastructure for trusted satellite autonomy that can enable quick reaction, planning and decision making in contested operations.			
FY 2026 Plans: Continue the disruptive seedlings program focused on space efforts that may include communications, cost-effective satellites, small-cubed satellites, or navigation.			
FY 2025 to FY 2026 Increase/Decrease Statement:			
			3.505

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2026 funding decreased \$2.188 million compared to FY 2025 due to completion of infrastructure development for satellite autonomy.				
Accomplishments/Planned Programs Subtotals		0.000	9.193	7.005
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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
621010: <i>Space Survivability & Surveillance</i>	0.000	66.898	36.002	47.111	0.000	47.111	-	-	-	-	-	-
A. Mission Description and Budget Item Justification This project develops technologies to understand and control the space environment for warfighter's future capabilities. 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 2024	FY 2025	FY 2026	
Title: Space Environment Research									44.666	17.225	33.778	
Description: Develop techniques, forecasting tools, sensors, and technologies for specifying, monitoring, predicting, and controlling space environmental conditions hazardous to Department of Defense (DoD) operational space and radar systems.												
FY 2025 Plans: Continue to expand and refine space environment modeling capabilities to facilitate precise specification and forecasting of the space environment's conditions and its implications on Department of Defense and national systems. Increase our ability to drive down granularity of space environment specification through increased space based environmental monitoring capabilities. Continue to increase support for the North American Aerospace Defense Command (NORAD) Homeland Defense Modernization and the techniques to enhance data analysis, decision-making processes, and improve our ability to understand faster, decide faster, and act faster in the Electromagnetic Operating Environment. Continue to develop plasma generation systems for improved operational impacts. Provide comprehensive support for space experiments and demonstrations. Continue comprehensive research and analysis of the space environment to establish accurate regional environment specifications for effective operational system simulation experiments. Increase research efforts to investigate the impacts of the space environment beyond geosynchronous orbits on national systems. Continue to explore and study space environment interactions and effects to improve space domain awareness and technologies in operational environments including space and terrestrial sensor development. Continue to evaluate foundational research in solar and space environment physics to determine its suitability for application in practical research initiatives and exploratory work on developing technologies for space protection and exploitation. Complete space based environmental monitoring sensor development.												
FY 2026 Plans: Continue: -Executing joint roadmap with the Military Application of the Space Environment (MASE) program at Space Systems Command.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
-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 Defense mission. -Foundational work and support for national roadmaps related to Space Environment capabilities, i.e. National Space Weather Strategy and Action Plan, Space Operations 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 Defense 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased compared to FY 2025 by \$16.553 million due to multiple actions. \$10.000M was programmed into PE 1206601SF erroneously; this funding will be realigned for proper execution following enactment. \$6.553 million increase is due to corrections between Projects within PE 1206601SF for civilian positions and associated funding.				
Title: Strategic Radiation Hardened Electronics		22.232	18.777	13.333

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Description: Design, develop, produce and qualify strategic radiation hardened (SRH) non-volatile memory (NVM) that does not exist today and is suitable to support DoD strategic missile, missile defense, and space system needs and to address a more diverse & advanced nuclear threat. FY 2025 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. Complete Design Review (DR) for up to two vendors, initiate down select to 1 vendor that will proceed to further mature the technology. During down select phase, begin initial 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, then produce a space qualification strategy. Continue efforts to ensure durability of a domestic source of readout integrated circuits (ROIC) and focal plane array (FPA) technologies. Continue efforts to enable maturation of large format, high- dynamic range FPAs. Continue feasibility assessment to port radiation hardened ROIC technology from current State-of-the-Art to a more advanced processing node. 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 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2026 decreased compared to FY 2025 by \$5.444 million due to completing the Design Review which included material purchases.				
Accomplishments/Planned Programs Subtotals		66.898	36.002	47.111
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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
624846: <i>Spacecraft Payload Technologies</i>	0.000	85.776	49.938	36.197	0.000	36.197	-	-	-	-	-	-
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. The project focuses on development of advanced space data generation and exploitation technologies, including infrared sensors; and development of high-fidelity space simulation models that support space-based surveillance and space asset protection research and development for the warfighter.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Missile Warning and Tactical Sensing									12.084	15.197	14.144	
Description: Develop advanced infrared device technologies that enable hardened space detector arrays with improved detection to perform acquisition, tracking, and discrimination of space objects and missile warning. Develop advanced target detection techniques, spectral signature libraries, and decision aids for space-based sensors and surveillance systems.												
FY 2025 Plans: Initiate testing of noise properties of smaller mixed signal nodes. Initiate identification of transition opportunities for Event Based Sensors (EBS) based on results from FY 2024 testing. Continue development of next generation infrared detector materials that have the potential of offering higher performance. Continue build of focal plane arrays using novel detector material and obtain statistically significant performance characterization data product.												
Continue development of novel sensing concepts for space-based moving target engagement at scale in time sensitive, highly contested environments. Initiate design and laboratory testing of concepts for space-based sensing payloads. Continue development and design of space-based sensors for resilient target custody by target tracking space architectures. Continue development of data analytics and data mobility solutions for edge processing, information networking, and human-machine learning in support of tactical sensing and targeting. Continue development of trusted artificial intelligence and machine learning models for autonomous classification and identification of moving targets in support of multi- domain battlefield operations. Continue study of sensing system networking optimized for space-based autonomous tasking and moving target indication from multi-tiered hybrid space architectures.												
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.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
-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. -Development of dedicated space-based sensors and sensemaking data analytics for trusted, real-time, multi-domain (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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased compared to FY 2025 by \$1.053 million due to programmatic adjustments within the Science and Technology portfolio. This reduction reflects a strategic realignment to optimize core research areas and improve resource efficiency.			
Title: Space Communication/ Positioning, Navigation & Timing Technologies Description: Identify and develop technologies that enable new, or enhance existing, United States (US) communication, positioning, navigation, and timing satellite capabilities. Technology solutions should improve performance, increase robustness and/or resilience, and/or increase the affordability of providing current capabilities. Develop technologies to meet identified US Space Command/Space Systems Command communication, positioning, navigation, and timing space payload technology needs. Develop new technologies based on cold atom physics and photonics that provide autonomous jam-proof precision inertial navigation to augment Global Positioning System (GPS) in case of Global Positioning System-denial. Develop atomic clocks and methods to disseminate time based on new technologies to replace legacy Global Positioning System atomic clocks and networks. FY 2025 Plans:		23.977	27.741
			22.053

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Initiate development of low probability of intersect and low probably of detection (LPI/LPD), high bandwidth, multi-domain communications for contested and denied environments to include GPS-free Positioning, Navigation, & Timing (PNT) dissemination. Develop lasercom interoperability laboratory capabilities (both indoor and outdoor). Explore research and development of Artificial Intelligence/Machine Learning (AI/ML) enhancements to PNT architecture to reduce the time required to react to a PNT-based threat. Continue to support 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. Continue to develop enabling technologies and demonstration units to enhance the transition path for advanced clocks and time dissemination. Continue to explore and utilize opportunities to accelerate the fielding of quantum-based technologies and testing in relevant environments. Continue collaboration with international partners in the development of Quantum-based technologies to leverage allied funding and capabilities and ensure US leadership in these areas. Continue lab development of quantum-based technologies and component miniaturization efforts. Complete Quantum Rim of the Pacific (RIMPAC) exercise support. 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. -Exploration of AI/ML to enable dynamic switching for comms between any/all existing communication frequencies, partnering with Air Force Research Laboratory (AFRL) entities for software defined radio (SDR) and user equipment (UE) development. FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
FY 2026 decrease compared to FY 2025 by \$5.688 million due to realignment of civilian positions and associated funding between the various Projects within PE 1206601SF to optimize Space S&T manpower.			
Title: Resilient Satellite Navigation Description: *Formerly Resilient Positioning, Navigation, and Timing Solutions Advance and evaluate technologies contributing diversity to satellite positioning, navigation and timing (PNT) information delivery, creating models of performance, scalability and resiliency needed to anchor USSF's Space Warfighting Analysis Center (SWAC) Force Design analytics. Pursue signals and user equipment concepts targeting low size, weight and power (SWAP) users. Promote and characterize commercial PNT capabilities potentially suitable for Department of Defense use. Conduct laboratory and on-orbit experimentation to capture representative integrated system performance and feed back key parameters to SWAC analyses and forward into future requirements definition. FY 2025 Plans: Effort completed in FY 2024. FY 2026 Plans: Not applicable FY 2025 to FY 2026 Increase/Decrease Statement: Not applicable		42.345	0.000
Accomplishments/Planned Programs Subtotals		78.406	42.938
		FY 2024	FY 2025
Congressional Add: Program increase - space modeling, simulation, and analysis hub		7.370	7.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.			
FY 2025 Plans: Conduct Congressionally directed efforts.			
Congressional Adds Subtotals		7.370	7.000
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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
624847: <i>Rocket Propulsion Technology</i>	0.000	25.399	27.759	27.291	0.000	27.291	-	-	-	-	-	-

Note

In FY 2026, the Rocket Combustion Technologies effort was renamed to Rocket Engine Technology Development to more accurately capture its focus.

A. Mission Description and Budget Item Justification

This project develops and demonstrates rocket 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 Defense (DoD). Technologies under this project enable capabilities of interest to DoD, 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 DoD level steering committee yearly for relevance to DoD missions, and the associated support costs.

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

Title: Rocket Engine Technology Development	FY 2024	FY 2025	FY 2026
Description: In FY 2026, the effort title changes from "Rocket Combustion Technologies" to "Rocket Engine Technology Development" to more accurately capture its focus.	10.088	12.146	14.281
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 2025 Plans: - Continue the employment of new fuel and material operating limitations, manufacturing processes, and launch goals in cycle analysis to identify trade space for future engines. - Continue to develop, demonstrate, and evaluate advanced material solutions for high temperature components in rocket propulsion.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
- Continue development and payoff determination of rotating detonation rocket engine technologies. - Continue technologies and material studies supporting rapid launch capabilities emphasizing digital design capabilities. 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 - Technologies and material studies supporting rapid launch capabilities including demonstration of mobile modular payload processing operations FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased compared to FY 2025 by \$2.135 million due to increased emphasis in research to develop Rotating Detonation Rocket Engines as the technology graduates into ground testing.			
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 2025 Plans: - Continue sub-scale risk mitigation and technology maturation activities to incorporate into next generation engine concepts. - Continue modular component integration and interaction research activities supporting next generation engine concepts and operational capabilities. - Continue technologies and processes supporting modeling and analysis for rapid launch capabilities. 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.		4.995	5.558
			1.840

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
- 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased compared to FY 2025 by \$3.718 million due to completion of modular component integration activities.			
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 2025 Plans: - Continue advanced chemical propellants development focusing on flight-weight systems to assist in transition to industry partners. - Continue to support the maturation of advanced diagnostics for both chemical and electric propulsion thruster plumes with potential for integrated state-of-health application. - Continue to expand the validation and verification programs (both experimental and flight) to quantify accuracy of modeling and simulation tools developed to support thruster-spacecraft integration. - Continue transition and support of thruster/plume modeling framework to spacecraft industry to propulsion community. - Continue expanding exploration of advanced integrated electric propulsion and chemical thruster concepts and assess new spacecraft propulsion requirements. FY 2026 Plans: Continue: - Advanced chemical propellants development focusing on molecular propellants for electric propulsion including thermal management demonstrations and catalyst life cycle studies - 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)		8.351	10.055
			11.170

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased compared to FY 2025 by \$1.115 million due to rising expenses in fuels and testing supplies for spacecraft thrusters.			
Accomplishments/Planned Programs Subtotals		23.434	27.759
		FY 2024	FY 2025
Congressional Add: Program increase: On-orbit bi-propellant propulsion		1.965	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.			
FY 2025 Plans: Not applicable			
Congressional Adds Subtotals		1.965	0.000
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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
624866: <i>Lasers & Imaging Technology</i>	0.000	31.299	30.298	36.956	0.000	36.956	-	-	-	-	-	-
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 2024	FY 2025	FY 2026	
Title: Electro-Optic Space Domain Awareness and Satellite Security									31.299	30.298	36.956	
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 2025 Plans: Complete research and development (R&D) of laser-enabled real-time space domain awareness (SDA) focused on imaging of satellites when in Earth's shadow. Transition this capability to Space Operations Command (SPoC)/DEL2/Det2. Continue to mature component technologies for 24/7 optical and infrared imaging of near-earth and geosynchronous objects enabling characterization of tactical timelines, especially technology enabling detection of small satellites in very close proximity to large high-value space assets. Continue investigation through measurement, modeling, and simulation of the susceptibility of satellite components to laser and other-directed energy threats to inform practical designs for protective equipment and for employing protection methods on tactically relevant timelines. When demonstrated, transition to Space Systems Command (SSC) the simulation tools necessary to enable laser-satellite deconfliction. Continue to mature daylight detection of satellites enabling custody and imaging through daytime hours when satellites cannot normally be detected by ground-based optical systems. Continue 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. Continue development of long-range secure optical network technology leveraging quantum science, especially for free space laser communication channels during daylight. Complete efforts to train artificial intelligence to identify space objects in non-imaging observations, such as spectra and speckle. Continue development of artificial intelligence to estimate the position and orientation of uncooperative space objects. Continue research into maintaining custody of space craft in three-body-gravitational pseudo-orbits from ground-based measurements, such as in cis-lunar space and Earth-Sun equilibrium zones. Continue to maintain the Starfire Optical Range												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
(SOR) facilities and experimental equipment in a mission-ready state for both R&D and for use by Space Operations Command (SPoC)/DEL2/Det2. 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 Space Operations 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 USSPACECOMMAND's Laser Clearing House of the potential vulnerability of satellites to laser and other directed energy illumination arising from tests conducted by Department of Defense (DoD) components to include conduct of periodic meetings hosted jointly with DoD 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 cis-lunar 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 laser-enabled, real-time imaging of satellites that are in Earth's shadow to Space Operations Command, including joint experimentation to develop a concept of operations for Space Operations 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 Space Operations Command (begin installation of fast-failover generators to produce electrical power resilience at top of Mount Fugate). 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 Space Operations Command (SPoC)/DEL2/Det2. - Prototype version of software tools that accurately predict in less than 8-hour runtime potential hazards to spacecraft from Department of Defense laser tests (conduct verification and validation tests of performance to demonstrate). FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased compared to FY 2025 by \$6.658 million due to costs associated with installation and certification of electrical power resilience upgrades that will prevent utility-power outages from ruining research activity and ops missions, in addition to			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
corrections between various Projects within PE 1206601SF to realign civilian positions and associated funding to optimize Space S&T manpower.				
Accomplishments/Planned Programs Subtotals		31.299	30.298	36.956
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 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F / 2					R-1 Program Element (Number/Name) PE 1206601SF / Space Technology				Project (Number/Name) 625018 / Spacecraft Protection Technology			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
625018: Spacecraft Protection Technology	0.000	38.869	52.029	45.637	0.000	45.637	-	-	-	-	-	-
Note In FY 2024, the Further Consolidated Appropriations Act, 2024 (H.R.2882) transferred funds for "space unique S&T" in the amount of \$5.548 million into this Project for "Seedlings for Disruptive Capabilities" work. In FY 2025, a separate Project, 620200, Enterprise Transformational Appld Research, was created for this work and funding was realigned from USAF to USSF.												
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 USSF.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Space Control									24.783	25.609	23.656	
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 2025 Plans: Continue to develop techniques to detect, identify, track, characterize, and catalog satellites using multi-phenomenology techniques with particular focus on space situational awareness in the cislunar environment; provide technical expertise towards flight experiments that will demonstrate utility of cislunar situational awareness for establishing and transferring custody, tracking, and deterring threats from deep space. Continue studies to inform potential upgrades to operational tools used in space situational awareness. Continue development of on-orbit threat warning sensing and assessment with emphasis on spectrum awareness and inherent, on-board satellite sensors. Continue research on cyber vulnerability and cyber hardening methods of space assets with laboratory testbeds, developing standards and techniques. Continue collaboration and demonstration of cyber hardening techniques aboard on-orbit experiments through established transitional pipeline of flight experiments, growing pipeline for future demonstrations. Continue to develop 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, defining success criteria for many-to-many engagements, plan for next generation flight experiments. Continue experimentation and exercises with DoD ground architectures, operations centers, commercial and international partners. Initiate studies,												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
assessments, and engineering trades to support spectrum resilience via radio frequency sensing to support multi-satellite, multi-domain spectrum dominance. Complete integration and testing of multiple cyber resilience, reactive protection, and autonomous sensing capabilities into on-orbit demonstrations and initiate on-orbit experimentation with those capabilities. <i>FY 2026 Plans:</i> 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. -Experimentation and exercises with Department of Defense ground architectures, operations centers, commercial and international partners. -Transitioning high-interest spacecraft signature models to Space Operations Command (SPoC). -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. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i>			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
FY 2026 decreased compared to FY 2025 by \$1.953 million due to programmatic adjustments within the Science and Technology portfolio to optimize core research areas and improve resource efficiency.			
Title: University Consortium for Space Research		6.226	16.420
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 2025 Plans: Continue to expand the number of Technology Institutes to be comprised of network of universities, non-profits and industry partnerships with a high emphasis to include workforce development and research areas, prioritized under USSF challenges.			
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			
Initiate: - SSTI 5 Cyber Mission Assurance and Data Trust and recompete for the second iteration award of SSTI 1 Beyond Geostationary Earth Orbit (xGEO) Operations and Space Domain Awareness.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased compared to FY 2025 by \$5.561 million due to award of Space Strategic Technology Institute 5.			
Accomplishments/Planned Programs Subtotals		31.009	42.029
		FY 2024	FY 2025
Congressional Add: Program increase - space situational awareness ground infrastructure		4.913	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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>	
		FY 2024	FY 2025
FY 2024 Accomplishments: Conducted Congressionally directed efforts.			
FY 2025 Plans: Not applicable			
Congressional Add: Program increase - software development for RPO to support space domain awareness		1.965	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.			
FY 2025 Plans: Not applicable			
Congressional Add: Program increase - university consortium for space technology		0.982	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.			
FY 2025 Plans: Not applicable			
Congressional Add: Program increase - Lunar surface space domain awareness		0.000	3.000
FY 2024 Accomplishments: Not applicable			
FY 2025 Plans: Conduct Congressionally direct efforts.			
Congressional Add: Program increase - Optical interferometer		0.000	4.000
FY 2024 Accomplishments: Not applicable			
FY 2025 Plans: Conduct Congressional directed efforts.			
Congressional Add: Program increase - Space threat attribution and recovery		0.000	3.000
FY 2024 Accomplishments: Not applicable			
FY 2025 Plans: Conduct Congressionally directed efforts.			
Congressional Adds Subtotals		7.860	10.000
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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
628809: <i>Spacecraft Vehicle Technologies</i>	0.000	87.870	50.745	45.300	0.000	45.300	-	-	-	-	-	-
Note In FY 2024, the Further Consolidated Appropriations Act, 2024 (H.R.2882) transferred funds for "space unique S&T" in the amount of \$1.725 million into this Project for the "Explore" activity. In FY 2025, a separate Project, 620200, Enterprise Transformational Appld Research, was created for this work and funding was realigned from USAF to USSF.												
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, and robotics/logistics modules. 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 2024	FY 2025	FY 2026	
Title: Spacecraft Component Technologies									37.456	46.745	45.300	
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 DoD missions in the terrestrial domain in addition to their primary space mission.												
FY 2025 Plans: Continue to develop high-power resilient satellite technology, including deployable solar arrays scalable to all missions. Transition modular self-stiffening array to industry. Continue efforts for landmark 40% efficiency solar cells and develop alternative power generation and storage sources. Complete tech maturation of robotic test capabilities for high-fidelity ground testing of microgravity deployment and 3-dimensional attitude control systems testing. Continue transitioning research enabling space logistics concepts including autonomous rendezvous, proximity operations, and docking; guidance and navigation algorithms for novel orbits; scalable autonomy and multi-agent behavior; and high degrees of freedom robotics for spacecraft operations including on-orbit refueling, spacecraft upgrade, assembly, and manufacturing. Continue development for functional materials, metrology, power and thermal management for space-based sensing missions in contested environments.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
Continue leadership role in OUSD(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. Continue 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. Continue development of strategic radiation hardened microprocessor. Continue 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. Continue research into heterogeneous on-orbit processing capabilities in support of future on-orbit servicing objectives. Initiate effort on Hyper-Converged edge computing for space systems. 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 Defense for Research and Engineering (OUSD(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. - 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 2025 to FY 2026 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025			
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 2024	FY 2025	FY 2026
FY 2026 decreased compared to FY 2025 by \$1.445 million due to programmatic adjustments within the Science and Technology portfolio. This reduction reflects a strategic realignment to optimize core research areas and improve resource efficiency						
Accomplishments/Planned Programs Subtotals				37.456	46.745	45.300
				FY 2024	FY 2025	
Congressional Add: Program increase - autonomous RPOD				9.827	0.000	
FY 2024 Accomplishments: Conducted Congressionally directed efforts.						
FY 2025 Plans: N/A						
Congressional Add: Program increase - hybrid space architecture				4.913	0.000	
FY 2024 Accomplishments: Conducted Congressionally directed efforts.						
FY 2025 Plans: N/A						
Congressional Add: Program increase - high-efficiency solar chiplet arrays for LEO satellites				4.913	0.000	
FY 2024 Accomplishments: Conducted Congressionally directed efforts.						
FY 2025 Plans: Not applicable						
Congressional Add: Program increase - space qualified solar cell manufacturing				3.931	4.000	
FY 2024 Accomplishments: Conducted Congressionally directed efforts.						
FY 2025 Plans: Conduct Congressional directed efforts.						
Congressional Add: Program increase - L-Band active phased array demonstration				2.948	0.000	
FY 2024 Accomplishments: Conducted Congressionally directed efforts.						
FY 2025 Plans: Not applicable						
Congressional Add: Program increase - sub-zero volt lithium-ion battery				2.456	0.000	
FY 2024 Accomplishments: Conducted Congressionally directed efforts.						
FY 2025 Plans: Not applicable						
Congressional Add: Program increase - advanced analog microelectronics				2.948	0.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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 2024	FY 2025
FY 2024 Accomplishments: Conducted Congressionally directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Add: Program increase - thin film tandem solar cells	2.948	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Add: Program increase - isotope power systems	2.948	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Add: Program increase - small satellite chemical propulsion	2.948	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Add: Program increase - Advanced Isotope Power System	4.817	0.000
FY 2024 Accomplishments: Conducted Congressional directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Add: Program increase - Radiation-Hardened, trusted, assured microelectronics	4.817	0.000
FY 2024 Accomplishments: Conducted Congressional directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Adds Subtotals	50.414	4.000

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 2026 Air Force **Date:** June 2025

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 2: Applied Research</i>					R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	2.591	0.000	2.591	-	-	-	-	-	-
621010: <i>Space Survivability & Surveillance</i>	0.000	0.000	0.000	2.591	0.000	2.591	-	-	-	-	-	-

Note

\$2.591 million was erroneously programmed into Budget Activity (BA) 02, PE 1206616SF (Space Advanced Technology Development/Demo), Project 621010 (Space Survivability and Surveillance). This funding will be realigned USSF RDT&E Budget Activity (BA) 03, PE 1206616SF, (Space Advanced Technology Development/Demo), Project 634868, (Maui Space Surveillance System) for proper execution following enactment.

A. Mission Description and Budget Item Justification

\$2.591 million was erroneously programmed into Budget Activity (BA) 02, PE 1206616SF (Space Advanced Technology Development/Demo), Project 621010 (Space Survivability and Surveillance). This funding will be realigned USSF RDT&E Budget Activity (BA) 03, PE 1206616SF, (Space Advanced Technology Development/Demo), Project 634868, (Maui Space Surveillance System) for proper execution following enactment.

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.

B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	2.591	0.000	2.591
Total Adjustments	0.000	0.000	2.591	0.000	2.591
• 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	2.591	0.000	2.591

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 2: Applied Research</i>		R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technology Development/Demo</i>				
Change Summary Explanation \$2.591 million was erroneously programmed into Budget Activity (BA) 02, PE 1206616SF (Space Advanced Technology Development/Demo), Project 621010 (Space Survivability and Surveillance). This funding will be realigned USSF RDT&E Budget Activity (BA) 03, PE 1206616SF, (Space Advanced Technology Development/Demo), Project 634868, (Maui Space Surveillance System) for proper execution following enactment.						
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Title: Maui Civilian Pay Description: Maui Civilian Pay FY 2025 Plans: N/A FY 2026 Base Plans: \$2.591 million was erroneously programmed into Budget Activity (BA) 02, PE 1206616SF (Space Advanced Technology Development/Demo), Project 621010 (Space Survivability and Surveillance). This funding will be realigned USSF RDT&E Budget Activity (BA) 03, PE 1206616SF, (Space Advanced Technology Development/Demo), Project 634868, (Maui Space Surveillance System) for proper execution following enactment. FY 2026 OOC Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: N/A		0.000	0.000	2.591	0.000	2.591
Accomplishments/Planned Programs Subtotals		0.000	0.000	2.591	0.000	2.591
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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	450.599	488.916	459.989	0.000	459.989	-	-	-	-	-	-
634869: Space Science and Technology Research and Development	0.000	450.599	488.916	459.989	0.000	459.989	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Development Agency (SDA) is developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites and a new acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including low-latency tactical communication, beyond line of sight targeting, and advanced missile tracking. Specifically, 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 DoD Space stakeholders, SDA will drive the development of space capabilities to achieve the DoD Space Vision and reduce overlap and inefficiency. SDA will expand the DoD's space warfighting capability and foster growth in the U.S. space industrial base, by developing enhanced government-commercial relationships and international collaborations with key allies and partners.

While SDA is not responsible for building and fielding all capabilities within the PWSA, the Agency is responsible for orchestrating and architecting the PWSA and ensuring capability delivery to the warfighter following a spiral development approach. As part of the PWSA, SDA is building and fielding the Transport Layer, a proliferated constellation of satellites to provide low-latency, beyond line of sight (BLOS), high-volume data transport for the warfighter. This Transport Layer will provide the space-based connectivity backbone for Joint All-Domain Command and Control (JADC2).

The establishment of a proliferated data Transport Layer is essential to developing 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.

This program element funds the research and development activity to deliver 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.

This program element may include necessary civilian pay expenses and contractor support required to facilitate delivery of the PWSA capability.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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				
The FY 2026 cost of the Tranche 1 (T1) Transport Layer Middle Tier of Acquisition effort is reflected in the budget request, including RDT&E and procurement of prototype units. The Department will certify Future Years Defense Program funding in a future budget submission.						
The FY 2026 cost of the Tranche 2 (T2) Transport Layer Middle Tier of Acquisition effort is included in the budget request, including RDT&E and procurement of prototype units. The Department will certify Future Years Defense Program funding in a future budget submission.						
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		472.493	425.166	477.878	0.000	477.878
Current President's Budget		450.599	488.916	459.989	0.000	459.989
Total Adjustments		-21.894	63.750	-17.889	0.000	-17.889
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		-25.300	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		20.000	63.750			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-16.497	0.000			
• Other Adjustments		-0.097	0.000	-17.889	0.000	-17.889
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: Space Sensor Fusion						
Congressional Add: PWSA Integrated Targeting Solution						
Congressional Add: Transport Layer Software Architecture						
Congressional Add: VHF Payload Satellite Demonstration						
Congressional Add Subtotals for Project: 634869						
Congressional Add Totals for all Projects						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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		
Change Summary Explanation The decrease in FY 2024 from the Previous President's Budget to the Current President's Budget is due to a combination of Congressional marks that included a reduction for prior year carryover and inadequate justification and Congressional Adds for Space Sensor Fusion, Defense of Low Earth Orbit (LEO) Satellites, and Defense in Depth as Mission Assurance Spacecraft Multi-Level Security (DiDaMAS-MLS), and realignment for SBIR/STTR. The increase in FY 2025 from the Previous President's Budget to the Current President's Budget is due to Congressional Adds of Defense of LEO Satellites, DiDaMAS-MLS, Proliferated Warfighter Space Architecture (PWSA) Integrated Targeting Solution, Transport Layer Software Architecture, and Very High Frequency (VHF) Payload Satellite Demonstration. The decrease in FY 2026 from the Previous President's Budget to the Current President's Budget is due to adjustments for other United States Space Force priorities. The FY 2026 request was reduced by \$6.781 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."				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Title: Space Development Agency R&E		431.332	425.166	459.989
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, multi-INT 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 2025 Plans:				
Tranche 0				
- Continue to conduct post-Capstone demonstrations and experimentations with warfighters.				
- Continue tracking on-orbit operations background data collection and target of opportunity observation.				
- Continue testing the developed algorithms for integrated Battle Management Command, Control and Communications (BMC3) applications on-orbit.				
Tranche 1				
- Support risk reduction of Tranche 1 (T1) Transport satellites, ground systems, and integration.				
- Continue interoperability and compatibility testing for key T1 interfaces including optical communications, space-to-ground radio frequency (RF), Link 16 and Networking and Encryption.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
- 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). - Conduct integration and test activities with Transport user segment mission partners. - Fund mission unique hardware and integration of the Tranche 1 space vehicles on the National Security Space Launch (NSSL) Launch vehicles.				
Tranche 2 - Complete Tranche 2 Transport Layer (T2TL)-Alpha system and mission design. - Complete T2TL-Beta system and mission design. - Complete Proliferated Warfighter Space Architecture (PWSA) Ground Segment architecture design. - Fund mission unique hardware and integration of the Tranche 2 space vehicles on the National Security Space Launch (NSSL) Launch vehicles.				
Proliferated Warfighter Space Architecture (PWSA) Futures Program (PFP) NExT Experimental System (NExT) - Start Assembly, Integration, and Test (AI&T) activities, and completed the backup TT&C testing. - Coordinated with payload partners in support of a bus provider change and follow-on efforts for assessment of capabilities.				
Tranche x Demonstration and Experimentation System (TxDES) - Complete assembly, integration, and test of T1DES space vehicles and finalize demonstration plans. - Finalize development of additional tactical data link, waveform, and/or APNT signal planned for demonstration in Tranche 2 (T2) (i.e., T2DES). - Establish the Hybrid Acquisition for Proliferated Low Earth Orbit, or HALO, pool, an acquisition approach to solicit and rapidly award prototype demonstrations and experimentation to support future tranches of the Proliferated Warfighter Space Architecture. - Award prototype order for T2DES projects, which will reduce risk and demonstrate feasibility of proliferation for future tactical data links and optical communication missions and include demonstrating technology to connect the PWSA enclaves.				
Advanced Fire Control - Complete facility and network design for the Demonstration Operations Center (DOC) to support demonstrations. - 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).				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
- Complete Tranche 2 Transport Layer (T2TL)-Gamma system and mission design. - Continue execution of other advanced fire control efforts including Warlock and Strauss. - Complete facility design for the minimum viable capability for the Operational AFC Operations Center within the Technology Acceleration Center (TAC). Other activities in this line may include, but are not limited to program office support, studies, technical analysis, and experimentation. FY 2026 Plans: Tranche 0 - Continue to conduct post-Capstone demonstrations and experimentations with warfighters. 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 Tranche 2 (T2) Transport satellites, ground systems, and integration. - 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. Risk Reduction Activities				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) - 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. PWSA Futures Program (PFP) Tranche x Demonstration and Experimentation System (TxDES) - Complete launch integration activities and launch the T1DES space vehicles. - Complete T1DES on-orbit acceptance testing and conduct demonstrations of the tactical data link, waveform, and/or Assured Positioning Navigation and Timing (APNT) signal. - Continue to reduce risk and demonstrate feasibility of proliferation for future tactical data links, optical communication missions, and emerging sensor technology and processing with awarding prototype orders for future TxDES projects (e.g., T2DES) that include next generation technology and connectivity. Advanced Fire Control (AFC) - 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 (AF CGI) 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 Strauss. - 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 2025 to FY 2026 Increase/Decrease Statement: The increase between FY 2025 to FY 2026 of \$34.823 million reflects concurrent support of the Tranche 1 Demonstration and Experimentation System (T1DES), Tranche 2 Demonstration and Experimentation System (T2DES), and future Tranche x Demonstration and Experimentation System (TxDES) efforts.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		431.332	425.166	459.989
		FY 2024	FY 2025	
Congressional Add: Defense of Low-Earth Orbit Satellites		10.115	11.250	

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
FY 2024 Accomplishments: Rapidly prototyped, evaluated, and iterated on a product that provided 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. Refined machine learning (ML) models created to monitor satellite telemetry data for threat induced anomaly detection in bus and mission payload systems. Integrated these capabilities into operational systems providing actionable information for comprehensive triage and response management by space operators.			
FY 2025 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. 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.			
Congressional Add: Defense-in-Depth as Mission Assurance Spacecraft Multi-Level Security		2.890	20.000
FY 2024 Accomplishments: Researched and recommended a multi-level security (MLS) solution that securely shares information across data sources on space vehicles with different classification levels to improve the warfighter's ability to seize and maintain the initiative on the battlefield. Provided the USSF and other Service tactical forces with the situational awareness required to recognize, coordinate, and exploit fleeting battlespace opportunities that propagate from confined engagements into operational and strategic level effects. Work included comparative advantage assessment of use of on-orbit MLS over ground-based solutions, researching most mature solutions available from industry and determining their suitability for incorporation in the Proliferated Warfighter Space Architecture (PWSA), and developing requirements specifications and a reference architecture defining the most viable near-term approach for capability procurement and integration.			
FY 2025 Plans: 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 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: Space Sensor Fusion		6.262	-
FY 2024 Accomplishments: Defined an onboard space vehicle multi-intelligence sensor fusion capability, to derive target nominations and disseminate targeting solutions to close the sensor-to-shooter kill chain on			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025	
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		FY 2024	FY 2025
operationally relevant timescales. Decreased the time associated with target nominations, increase the lethality of kinetic weapons, and optimize SDA's command-and-control functionality associated with these efforts for United States Space Force (USSF) support missions to the joint warfighter. Work included researching potential and desired data sources, existing industry solutions, and current on-orbit processing capabilities to recommend requirements defining viable and proven solutions for near-term integration. Developed methods to identify communications & processing gaps withing a distributed architecture. Performed market research to identify hardware and software solutions to enhance sensor fusion performance. Crafted scenarios to validate mission capabilities and potential architectural gaps.			
Congressional Add: PWSA Integrated Targeting Solution FY 2025 Plans: 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.		-	6.000
Congressional Add: Transport Layer Software Architecture FY 2025 Plans: Expand and augment data management concepts supporting ongoing ground and space vehicle 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.		-	4.000
Congressional Add: VHF Payload Satellite Demonstration FY 2025 Plans: 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.		-	22.500
Congressional Adds Subtotals		19.267	63.750
D. Other Program Funding Summary (\$ in Millions) N/A Remarks			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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	
E. Acquisition Strategy Partners for these activities include DoD 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.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	220.655	261.474	128.588	0.000	128.588	-	-	-	-	-	-
630321: Space Warfighter Technologist Capabilities	0.000	0.000	0.000	35.961	0.000	35.961	-	-	-	-	-	-
633834: Integrated Space Technology Demonstrations	0.000	145.427	220.298	41.626	0.000	41.626	-	-	-	-	-	-
634868: Maui Space Surveillance System	0.000	20.146	20.925	29.108	0.000	29.108	-	-	-	-	-	-
634922: Space & Missile Rocket Propulsion	0.000	50.285	15.250	16.914	0.000	16.914	-	-	-	-	-	-
63682J: Spacecraft Vehicles	0.000	4.797	5.001	4.979	0.000	4.979	-	-	-	-	-	-
Note Project 630321, Space Warfighter Technologist Capabilities, is not a new start. In FY 2026, the associated work and funding for the Transformational Technology Development effort, the Rocket Cargo effort, and the Navigation Technology Satellite 3 (NTS-3) effort within PE 1206616SF, Space Advanced Technology Development/Demo, were transferred 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. 2.591 million was erroneously programmed into Budget Activity (BA) 02, PE 1206616SF (Space Advanced Technology Development/Demo), Project 621010 (Space Survivability and Surveillance). This funding will be realigned USSF RDT&E Budget Activity (BA) 03, PE 1206616SF, (Space Advanced Technology Development/Demo), Project 634868, (Maui Space Surveillance System) for proper execution following enactment.												
A. Mission Description and Budget Item Justification This program focuses on five major areas. First, Space Warfighter Technologist Capabilities, practices to accelerate moving emerging technologies into the hands of the warfighter. Second, the integrated space technology demonstrations project 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 project 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 program 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 program 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												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force			Date: June 2025			
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				
technologies for next-generation space communications terminals and equipment. Efforts in this program have been coordinated through the Department of Defense Science and Technology Executive Committee process to harmonize efforts and eliminate duplication.						
This program is executed by the Air Force Research Laboratory (AFRL). AFRL is focused on high-impact, multi-domain science and technology (S&T) solutions that propel innovation today and support the Air and Space Force in securing dominance in future operational environments. AFRL effectively aligns the Department of the Air Force (DAF) S&T enterprise and workforce towards the most consequential DAF priorities to accelerate the delivery of game-changing S&T.						
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 2026, \$5.328 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.						
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 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		110.033	138.270	112.407	0.000	112.407
Current President's Budget		220.655	261.474	128.588	0.000	128.588
Total Adjustments		110.622	123.204	16.181	0.000	16.181
• Congressional General Reductions		-0.023	0.000			
• Congressional Directed Reductions		-9.800	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		38.500	65.000			
• Congressional Directed Transfers		94.173	58.204			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-6.228	0.000			
• Other Adjustments		-6.000	0.000	16.181	0.000	16.181
Congressional Add Details (\$ in Millions, and Includes General Reductions)					FY 2024	FY 2025
Project: 633834: Integrated Space Technology Demonstrations						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Congressional Add: <i>Program increase - Nuclear propulsion technologies for cislunar flight</i>		0.000	15.000
Congressional Add: <i>Program increase - Nuclear electric propulsion</i>		0.000	50.000
Congressional Add Subtotals for Project: 633834		0.000	65.000
Project: 634868: Maui Space Surveillance System			
Congressional Add: <i>Program increase - EO and LADAR for early threat detection</i>		4.866	0.000
Congressional Add Subtotals for Project: 634868		4.866	0.000
Project: 634922: Space & Missile Rocket Propulsion			
Congressional Add: <i>Program increase - Modular multi-mode propulsion system</i>		7.786	0.000
Congressional Add: <i>Program Increase - Commercial space access improvements</i>		4.866	0.000
Congressional Add: <i>Program Increase - Responsive launch infrastructure upgrade</i>		4.866	0.000
Congressional Add: <i>Program Increase - Additive manufacturing of energetics</i>		4.866	0.000
Congressional Add: <i>Program increase - Hydrocarbon Boost Engine</i>		4.866	0.000
Congressional Add: <i>Program Increase - Adaptive medium-lift engine architecture</i>		3.406	0.000
Congressional Add: <i>Program increase - advanced spacecraft non-toxic multi-mode propulsion</i>		1.946	0.000
Congressional Add Subtotals for Project: 634922		32.602	0.000
Congressional Add Totals for all Projects		37.468	65.000
<u>Change Summary Explanation</u>			
In FY 2024, the Other Adjustment decrease of 6.000 million was for realignment of funds to PE 1202212SF, Defense Laboratories R&D Projects, to implement the Department of Defense (DoD) Funding Laboratory Enhancements Across Four Categories (FLEX-4) authority under 10 U.S.C. Section 4123.			
In FY 2024, the Congressional Directed Reduction of 9.800 million was for underexecution.			
In FY 2024, the Congressional Directed Transfers of 94.173 million were for a 40.000 million DAF requested transfer for a space solar power project, and a 54.173 million transfer from RDT&E, AF Program Elements: 0603032F, 0603112F, 0603456F, and 0603680F, for space unique S&T.			
In FY 2025, the Congressional Directed Transfer of 58.204 million is for a transfer of space unique S&T from RDT&E, AF, PE 0603032F, Future AF Integrated Technology Demos, for Rocket Cargo and Navigation Technology Satellite-3 activities.			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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	
The FY 2026 budget request increased by a net 16.181 million due to programmatic adjustments within the Science and Technology portfolio. The net increase is primarily driven by a USAF to USSF transfer and funding for the Maui Cyber Hardening Dome replacement. Details of the adjustments are as follows: -- The FY 2026 request was increased by 13.347 million due to the transfer of remaining Rocket Cargo and Navigation Technology Satellite-3 activities from RDT&E, AF, PE 0603032F, Future AF Integrated Technology Demos. -- The FY 2026 request was increased by 6.656 million for Maui site activities -- The FY 2026 request was reduced by 3.395 million programmatic adjustments within the Science and Technology portfolio. This reduction reflects a strategic realignment to optimize core research areas and improve resource efficiency. -- The FY 2026 request was reduced by 0.427 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." 2.591 million was erroneously programmed into Budget Activity (BA) 02, PE 1206616SF (Space Advanced Technology Development/Demo), Project 621010 (Space Survivability and Surveillance). This funding will be realigned USSF RDT&E Budget Activity (BA) 03, PE 1206616SF, (Space Advanced Technology Development/Demo), Project 634868, (Maui Space Surveillance System) for proper execution following enactment.		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
630321: Space Warfighter Technologist Capabilities	0.000	0.000	0.000	35.961	0.000	35.961	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Project 630321, Space Warfighter Technologist Capabilities, is not a new start. In FY 2026, within PE 1206616SF, Space Advanced Technology Development/Demo, all USSF S&T Vanguard & WARTECH efforts and activities (Transformational Technology Development effort, Payload Delivery System effort, Rocket Cargo effort, and Navigation Technology Satellite 3 (NTS-3) effort) previously reported and funded in Project 633834, Integrated Space Technology Demonstrations, were transferred to Project 630321, Space Warfighter Technologist Capabilities, to provide Congress increased transparency and traceability. 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 2024	FY 2025	FY 2026	
Title: Rocket Cargo									0.000	0.000	8.747	
Description: This effort is not a new start. 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 DOD 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												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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 2025 Plans: In the FY 2024 and FY 2025, the Rocket Cargo effort and funding were reported in PE 1206616SF/Space Advanced Technology Development/Demo, Project 633834/Integrated Space Technology Demonstrations. FY 2024 funding was \$42.200 million and FY 2025 funding is \$54.200 million. FY 2026 Plans: Continue: - And complete tasks for flight readiness and delivery site 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 DOD 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding increased by \$8.747 million due to: 1) the transfer of the Rocket Cargo effort and associated funding within this Program Element from Project 633834, Integrated Space Technology Demonstrations to Project 630321, Space Warfighter Technologist Capabilities, and 2) realignment of remaining FY 2026 Rocket Cargo funding from AF, RDT&E, PE 603032F, Future			
		FY 2026	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
AF Integrated Technology Demos. However, the overall funding for the Rocket Cargo effort decreased from FY 2025 by \$45.453 million due to completion of high-cost tasks associated with multi-disciplinary rocket S&T and flight demonstration.			
Title: Navigation Technology Satellite 3 (NTS-3)		0.000	0.000
Description: This effort is not a new start. 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. FY 2025 Plans: In the FY 2024 and FY 2025, the Navigation Technology Satellite 3 (NTS-3) effort and funding were reported in PE 1206616SF/ Space Advanced Technology Development/Demo, Project 633834/Integrated Space Technology Demonstrations. FY 2024 funding was \$6.173 million and FY 2025 funding is \$4.004 million. FY 2026 Plans: 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. - Transition of the system for residual use. - Experimental data analysis and composition of final report. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding increased by \$4.600 million due to: 1) the transfer of the Navigation Technology Satellite 3 (NTS-3) effort and associated funding within this Program Element from Project 633834, Integrated Space Technology Demonstrations to Project 630321, Space Warfighter Technologist Capabilities, and 2) realignment of remaining FY 2026 NTS-3 funding from AF, RDT&E, PE 603032F, Future AF Integrated Technology Demos. However, the overall funding for the NTS-3 effort decreased from FY 2025 by \$1.757 million due to completion of on-orbit experimentation and transitions of the system for residual use.			4.600
Title: Payload Delivery System		0.000	0.000
			21.176

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Description: This effort is not a new start. 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 DOD 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 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 2025 Plans: In FY 2025, the Payload Delivery System effort and funding were reported as an sub-effort under the Transformational Technology Development effort in PE 1206616SF/Space Advanced Technology Development/Demo, Project 633834/Integrated Space Technology Demonstrations. FY 2025 funding was \$18.824 million. 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. Expand: - Studies of capsule payload environments and survivability, from spacedrop to payload delivery. - Analyses of re-entry communications and plasma black-out. FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2026 funding increased by \$21.176 million due to the transfer of the Payload Delivery System effort and associated funding within this Program Element from Project 633834, Integrated Space Technology Demonstrations to Project 630321, Space Warfighter Technologist Capabilities. However, the overall funding for the Payload Delivery System effort increased from FY 2025 by \$2.352 million due to initiation of studies in analyses for payload environments and re-entry communications.					
Title: Transformational Technology Development			0.000	0.000	1.438
Description: This effort is not a new start. 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 2025 Plans: In the FY 2024 and FY 2025, the Transformational Technology Development effort and funding were reported in PE 1206616SF/ Space Advanced Technology Development/Demo, Project 633834/Integrated Space Technology Demonstrations. FY 2024 funding was \$41.326 million and FY 2025 funding is \$5.383 million (not including \$18.824 million Payload Delivery System work under that effort). 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.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
- Development of space data layer technologies and processing techniques to maximize use of new and existing on-orbit assets.				
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased by \$1.438 million compared to FY 2025 due to the transfer of the Transformational Technology Development effort and associated funding within this Program Element from Project 633834, Integrated Space Technology Demonstrations to Project 630321, Space Warfighter Technologist Capabilities. However, the overall funding for the Transformational Technology Development effort decreased from FY 2025 by \$3.945 million due to strategic realignment to optimize Space S&T research areas and improve resource efficiency.				
Accomplishments/Planned Programs Subtotals		0.000	0.000	35.961
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 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F / 3					R-1 Program Element (Number/Name) PE 1206616SF / <i>Space Advanced Technol ogy Development/Demo</i>				Project (Number/Name) 633834 / <i>Integrated Space Technology Demonstrations</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
633834: <i>Integrated Space Technology Demonstrations</i>	0.000	145.427	220.298	41.626	0.000	41.626	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

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) efforts, 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 associated work and funding for the Transformational Technology Development effort, the Rocket Cargo effort, and the Navigation Technology Satellite 3 (NTS-3) effort within PE 1206616SF, Space Advanced Technology Development/Demo, were transferred from Project 633834, Integrated Space Technology Demonstrations, to 630321, Space Warfighter Technologist Capabilities, to provide increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities.

In FY 2026, \$3.297 million for civilian pay was transferred within PE 1206616SF, Space Advanced Technology Development/Demo, from Project 633834, Integrated Space Technology Demonstrations, to Project 634868, Maui Space Surveillance System to properly align associated civilian pay funding for Maui personnel.

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 and provides technologies for transformational future force capabilities. Transformational efforts will be identified through a competitive process and be responsive to DAF design priorities. Selected efforts will be designated as transformational, indicating enterprise-level priority.

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

	FY 2024	FY 2025	FY 2026
Title: Integrated Satellite Demonstrations	36.432	18.956	18.624
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 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			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
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 2025 Plans: Continue development of integrated satellite demonstrations of key space technologies across multi-domain mission areas. Complete on orbit demonstration of command and control (C2) networks. Initiate effort to demonstrate traditional large architecture through small satellite employment. Continue 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 C2 of a hybrid space architecture. Initiate development of space flight experiments focused to increase the resiliency of space missions to emerging threats. Resiliency includes system-level hardening of satellites, rapid manufacturing of payloads, autonomous systems, and hybrid architecture tests that maintain continuity of DOD missions using satellites in various orbits. Using advanced rapid manufacturing methods, individual technologies will be integrated together to experiment with individual satellite resiliency. New technologies include advanced autonomous algorithms to reduce satellite operator burden, novel space cyber flight software (FSW) hardening methods, advanced materials, advanced image processing techniques and advanced satellite communication technologies to enable hybrid orbit architectures that have minimal impacts to user equipment. Evaluate studies to further development and maturation of space technologies to incorporate into future flight demonstrations. 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. Build-on: -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 2025 to FY 2026 Increase/Decrease Statement:			
		FY 2026	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
FY 2026 decreased compared to FY 2025 by \$0.332 million due to programmatic adjustments within the Science and Technology portfolio. This reduction reflects a strategic realignment to optimize core research areas and improve resource efficiency.			
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 2025 Plans: Complete integrated spacecraft testing, perform launch vehicle integration, launch, and early operations for advanced space domain awareness and multi-agent satellite inspection demonstrating advanced rendezvous, proximity operations, and docking capabilities. Continue development of concept flight experiment for multi-domain space operations supporting the joint warfighter base on USSF technology needs. Build-on efforts to de-risk the maturation of resilient space architectures, components, and systems. Leverage design and development of space-systems focused modeling and simulation, live virtual constructs, and test and evaluation capabilities. Accelerate efforts to increase space-systems autonomy and improve processing and exploitation of space-based data sources. Advance Payload Delivery System modeling and simulation of payload capsule and design and development of the prototype. 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		41.326	24.207
			0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Technology effort. These transfers provide Congress increased transparency and traceability of USSF S&T Vanguard and WARTECH efforts and activities.			
<i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 decreased compared to FY 2025 by \$24.207 million due to the following: 1) transfer of work and associated funding to Project 630321, Space Warfighter Technologist Capabilities, "Transformational Technology Development" effort (\$1.438 million) and the "Payload Delivery System" effort (\$21.176 million) to provide increased traceability and transparency of WARTECH activities to Congress, and 2) \$1.593 million reduction for strategic realignments to optimize core research areas and improve resource efficiency.			
<i>Title:</i> Rocket Cargo		42.200	54.200
<i>Description:</i> 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.			0.000
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 DOD 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.			
<i>FY 2025 Plans:</i> - Continue multi-disciplinary S&T to expand commercial rocket capabilities for DOD global cargo delivery on tactical timelines - Continue 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			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
- Complete leveraging of commercial full-scale rocket engine tests on concrete and other terrains to update computational simulations and predict landing surface degradation for DOD operations - Complete airdrop S&T on the high-speed separation physics for airdrop container ejection from the rocket, including wind tunnel capabilities - Leverage airdrop S&T on the payload mid-air system deployment capabilities from an airdropped container - Continue to leverage commercial rocket ground testing and commercial rocket flights to determine rocket cargo environments and performance, specifically to include 2nd stage rocket reentry and landing maneuvers that are unique to rocket delivery of 30 to 100 tons cargo - Complete design tasks for a scheduled FY25 demonstration launch to transport 30 to 100 tons of cargo to an austere site - Initiate tasks for flight readiness and delivery site CONOPS for a demonstration launch to transport 30 to 100 tons of cargo to an austere site - Continue experiments of in-flight communications to the rocket during all phases of flight, including hypersonic reentry - Continue 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. - Continue development of mission planning tools for tactical cargo delivery timelines 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased compared to FY 2025 by \$54.200 million due to transfer of work and associated funding to Project 630321, Space Warfighter Technologist Capabilities, Rocket Cargo effort to provide increased traceability and transparency of USSF S&T Vanguard and WARTECH activities to Congress.					
Title: Navigation Technology Satellite 3 (NTS-3) 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.			6.173	4.004	0.000

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
FY 2025 Plans: - Continue on-orbit experimentation, including multiple simulated operational test events through both receivers in the field and on orbit transmitted signals - Continue experimentation of defined mission objectives - Continue supporting transition of the overall system for conduct of residual use activities - Initiate transition of the system for residual use - Initiate experimental data analysis and composition of final report 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased compared to FY 2025 by \$4.004 million due to transfer of work and associated funding to Project 630321, Space Warfighter Technologist Capabilities, Navigation Technology Satellite 3 (NTS-3) effort, to provide increased traceability and transparency of USSF S&T Vanguard and WARTECH activities to Congress.				
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 2025 Plans: Continue mission-level military utility analyses of technology and associated architectures and employment concepts across multidomain mission areas. Continue refining guidelines and checkpoints for concept maturation evaluations in context of emerging space technologies. Continue to evolve processes for applying model-based systems engineering into technology decision making and flight experiment design. 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.		7.893	9.050	3.406

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
-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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased compared to FY 2025 by \$5.644 million due to programmatic adjustments within the Science and Technology portfolio. This reduction reflects a strategic realignment to optimize core research areas specifically in cislunar space situational awareness.					
Title: Agile Space Operations Technology Description: Develop, provide, and leverage agile software development platforms and pipelines that support pain point identification and rapid software application prototyping, operational evaluation, operator/Guardian effectiveness, and certification in support of USSF operators in collaboration with commercial partners. FY 2025 Plans: Continue to focus on tactical level exploratory development and transition of emerging technologies to operators, refine an agile software development environment in collaboration with CTIO to perform agile software development and delivery through user focused collaboration and commercial partnerships, and to work with USSF Field Commands and SAF to develop and field a variety of software applications to the USSF Space Delta Units and improve Guardian performance. 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased compared to FY 2025 by \$1.340 million due to programmatic adjustments within the Science and Technology portfolio. This reduction reflects a strategic realignment to optimize core research areas specifically in cislunar space situational awareness.			2.481	3.585	2.245
Title: Orbital Prime Description: SpaceWERX Orbital Prime will transition agile, affordable, and accelerated space capabilities, reducing risk to the global commons to rapidly field In-space Servicing, Assembly, Manufacturing (ISAM) capabilities.			4.485	0.000	0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
FY 2025 Plans: Effort ended in FY 2024.					
FY 2026 Plans: Not applicable					
FY 2025 to FY 2026 Increase/Decrease Statement: Not applicable					
Title: Cislunar Space Situational Awareness			0.000	36.000	12.789
Description: Develops and delivers technologies that increase space situational awareness (SSA) capabilities in cislunar space, 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 2025 Plans: Initiate assembly integration and testing (AI&T) of the Oracle cislunar spacecraft, delivering increased space situational awareness (SSA) capabilities beyond 10X Geosynchronous Orbit, capable of detecting, tracking and maintaining custody of objects transiting in the Earth-Moon corridor. Continue procurement of remaining payload and spacecraft materials required to complete AI&T. Continue 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. This was previously funded in the Transformational Technology Development thrust and is not a FY 2025 new start.					
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:					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
- Remaining open design work for a cislunar space-based space situational awareness sensor and satellite system.					
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased compared to FY 2025 by \$23.211 million due to completion of design and major long lead material purchases made in FY 2025.					
Title: Manufacturing for Space Systems			1.740	2.194	1.537
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 2025 Plans: Develop 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. Initiate identification of Department of the Air Force needs for in-space assembly and manufacturing.					
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. Initiate: - 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 2025 to FY 2026 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
Appropriation/Budget Activity 3620F / 3		R-1 Program Element (Number/Name) PE 1206616SF / Space Advanced Technol ogy Development/Demo	Project (Number/Name) 633834 / Integrated Space Technology Demonstrations		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
FY 2026 decreased compared to FY 2025 by \$0.657 million due to forecasted completion of the manufacturing technologies for large format focal plane effort.					
Title: Advanced Materials for Spacecraft Resilience			2.697	3.102	3.025
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 2025 Plans: Continue development of resilient materials for spacecraft structures. Investigate environmental compatibility of materials at low earth orbit and other orbital regimes.					
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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased compared to FY 2025 by \$0.077 million due to programmatic adjustments within the Science and Technology portfolio. This reduction reflects a strategic realignment to optimize core research areas and improve resource efficiency.					
Accomplishments/Planned Programs Subtotals			145.427	155.298	41.626
			FY 2024	FY 2025	
Congressional Add: Program increase - Nuclear propulsion technologies for cislunar flight			0.000	15.000	
FY 2024 Accomplishments: Not applicable					
FY 2025 Plans: Conduct Congressionally directed efforts.					
Congressional Add: Program increase - Nuclear electric propulsion			0.000	50.000	
FY 2024 Accomplishments: Not applicable					
FY 2025 Plans: Conduct Congressionally directed efforts.					
Congressional Adds Subtotals			0.000	65.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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
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 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F / 3					R-1 Program Element (Number/Name) PE 1206616SF / Space Advanced Technol ogy Development/Demo				Project (Number/Name) 634868 / Maui Space Surveillance System			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
634868: Maui Space Surveillance System	0.000	20.146	20.925	29.108	0.000	29.108	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note In FY 2026, Maui civilian pay associated costs were transferred within PE 1206616SF, Space Advanced Technology Development/Demo, from Project 633834, Integrated Space Technology Demonstrations, to Project 634868, Maui Space Surveillance System, for proper execution.												
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 Defense Science and Technology Executive Committee process to harmonize efforts and eliminate duplication.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Operate and Upgrade Maui Space Surveillance System									15.280	20.925	29.108	
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 Space Operations Command DELTA 2/15 Space Surveillance Squadron (SPoC/DEL2/15SPSS).												
FY 2025 Plans: Continue to maintain the Maui Space Surveillance System (MSSS) research and development (R&D) facilities and experimental equipment in a mission-ready state, including needed upgrades and modernization to keep the R&D facilities and equipment in good working order to perform efficiently and reliably. MSSS R&D facilities for development and demonstration of ground-based space domain awareness capabilities in conjunction with customer programs and to contribute to the Space Operations Command (SPoC)/DEL2/15SPSS's operational Space Domain Awareness mission as needed. Continue to collect observations of satellites as requested by mission partners. Continue to operate the prototype regional wide-area-search of the geosynchronous belt in the Pacific Area of Responsibility (AOR) until the (Ground-Based Electro-Optical Deep Space Surveillance) GEODSS-Maui installation reaches initial operating capability (IOC) for its search-based surveillance capability.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Continue expert assistance to 15 SPSS in R&D design requirements during the construction of the new Air Force Maui Optical and Supercomputing (AMOS) facility funded under military communication (MILCON) authority.			
Complete expert assistance to 15 SPSS in R&D design requirements and environmental assessment as a lead up to re-construction of the Small Telescope Advanced Research site.			
Continue to host missions in the Pacific AOR for DoD components and other government agencies.			
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 Space Operations Command (SPoC)'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 Defense 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:			
- 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.			
Initiate:			
- 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, the only such sensor in the DoD.			
FY 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
FY 2026 increased compared to FY 2025 by \$8.183 million for Maui cyber hardening and dome replacement and the transfer of Maui civilian pay funding within PE 1206616SF, Space Advanced Technology Development/Demo, from Project 633834, Integrated Space Technology Demonstrations, to Project 634868, Maui Space Surveillance System for proper execution.			
Accomplishments/Planned Programs Subtotals		15.280	20.925
		FY 2024	FY 2025
Congressional Add: Program increase - EO and LADAR for early threat detection		4.866	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.			
FY 2025 Plans: Not applicable			
Congressional Adds Subtotals		4.866	0.000
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 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F / 3					R-1 Program Element (Number/Name) PE 1206616SF / Space Advanced Technol ogy Development/Demo				Project (Number/Name) 634922 / Space & Missile Rocket Propulsion			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
634922: Space & Missile Rocket Propulsion	0.000	50.285	15.250	16.914	0.000	16.914	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Administrative changes were implemented to enhance the communication of mission descriptions, accomplishments, plans, and realign work in Program 1206616SF/ Space Advanced Technology Development/Demo, Project 634922/Space & Missile Rocket Propulsion, Thrust Propulsion Integration and Demonstration for Space Power and Resilience

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 Defense (DoD). Technologies under this project enable capabilities of interest to DoD, National Aeronautics and Space Administration (NASA), and growing Space community. The efforts in this project are reviewed by a DoD level steering committee annually for relevance to DoD missions, and the associated support costs.

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

	FY 2024	FY 2025	FY 2026
Title: Space Access Propulsion Technologies	7.680	2.703	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 2025 Plans: - Complete evaluation of launch capability with commercial partners and demonstration opportunities.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
- Complete coordination of technology transition opportunities for space access to manage technology insertion and evaluate capabilities for rocket engine hardware and related systems. FY 2026 Plans: Effort ended in FY 2025. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased compared to FY 2025 by \$2.703 million due to completion of Space Access activities.			
Title: Propulsion Integration and Demonstration Description: In FY 2026, this effort title changed from "Advanced On-Orbit Propulsion Technologies" to "Propulsion Integration and Demonstration" to better reflect its focus. 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 2025 Plans: - Continue to develop, demonstrate and transition experimental, modeling and simulation, and theoretical efforts geared towards advanced thruster development with emphasis on understanding thrust scale-up. - Continue analysis and development of multimode propulsion opportunities to combine high efficiency and high thrust capabilities on a common propellant. - Continue thrust scale- up effort for advanced non-toxic propellant for use in monopropellant thrusters and electric propulsion thrusters for a multimode propulsion capability. - Continue flight-weight design and development of multimode propulsion flight system combining capabilities of chemical thrusters and electric propulsion thrusters and utilizing a single common propellant for greater operational capability. - Continue design and development of high power electric propulsion thrusters for enhanced maneuver capability. - Initiate development of modular propulsion architectures that allow for rapid integration & transition of new propulsion technology. 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		10.003	12.547
			16.914

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
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. Initiate: - 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased compared to FY 2025 by \$4.367 million due to purchase of flight hardware for on-orbit demonstrations to enable faster technology transitions to USSF.					
Accomplishments/Planned Programs Subtotals			17.683	15.250	16.914
			FY 2024	FY 2025	
Congressional Add: Program increase - Modular multi-mode propulsion system			7.786	0.000	
FY 2024 Accomplishments: Conducted Congressionally directed efforts.					
FY 2025 Plans: Not applicable					
Congressional Add: Program Increase - Commercial space access improvements			4.866	0.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>

	FY 2024	FY 2025
FY 2024 Accomplishments: Conducted Congressionally directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Add: Program Increase - Responsive launch infrastructure upgrade	4.866	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Add: Program Increase - Additive manufacturing of energetics	4.866	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Add: Program increase - Hydrocarbon Boost Engine	4.866	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Add: Program Increase - Adaptive medium-lift engine architecture	3.406	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Add: Program increase - advanced spacecraft non-toxic multi-mode propulsion	1.946	0.000
FY 2024 Accomplishments: Conducted Congressionally directed efforts.		
FY 2025 Plans: Not applicable		
Congressional Adds Subtotals	32.602	0.000

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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
63682J: Spacecraft Vehicles	0.000	4.797	5.001	4.979	0.000	4.979	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
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 2024	FY 2025	FY 2026	
Title: Space Communication Technologies									4.797	5.001	4.979	
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 2025 Plans: Continue on-orbit W/V-band beacon experiment, including mission support, transmission of test signals, operation of ground receiver terminals, collection and archiving of data, monitoring of environmental conditions, and analysis of environmental impacts on W/V propagation. Initiate 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). Initiate studies and analysis for joint all-domain utilization of W/V band spectrum and other spectral bands to support assured command and control in highly contested areas.												
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 2025 to FY 2026 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025			
Appropriation/Budget Activity 3620F / 3		R-1 Program Element (Number/Name) PE 1206616SF / Space Advanced Technology Development/Demo		Project (Number/Name) 63682J / Spacecraft Vehicles	
B. Accomplishments/Planned Programs (\$ in Millions)					
FY 2026 decreased compared to FY 2025 by \$0.022 million due to programmatic adjustments within the Science and Technology portfolio. This reduction reflects a strategic realignment to optimize core research areas and improve resource efficiency.		FY 2024	FY 2025	FY 2026	
Accomplishments/Planned Programs Subtotals		4.797	5.001	4.979	
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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	0.818	0.867	0.857	0.000	0.857	-	-	-	-	-	-
645353: SF Weather Services Research	0.000	0.818	0.867	0.857	0.000	0.857	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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 Defense (DoD), 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.

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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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				
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		0.849	0.867	0.888	0.000	0.888
Current President's Budget		0.818	0.867	0.857	0.000	0.857
Total Adjustments		-0.031	0.000	-0.031	0.000	-0.031
• 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		-0.031	0.000			
• Other Adjustments		0.000	0.000	-0.031	0.000	-0.031
Change Summary Explanation						
FY 2026: -0.008M; Advisory and Assistance Services (A&AS) reduction to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative.						
FY 2026: -0.020M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Space Weather Analysis and Forecast System (SWAFS) Radio Frequency Ionospheric Scintillation Application (RISA version 2) software upgrade				0.818	0.867	0.857
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 2025 Plans:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Continue development of upgrade to the Space Weather High Frequency Model, in conjunction with the AFRL development of the Scintillation Nowcast Forecast Model Update, that identifies space environment impacts to DoD and Intelligence Community communications to and through space. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain, leveraging commercial and international opportunities, if appropriate. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc. <i>FY 2026 Plans:</i> 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 DoD 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. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 decrease due to reductions to promote efficiencies.				
Accomplishments/Planned Programs Subtotals		0.818	0.867	0.857
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.818	Jan 2024	0.835	Jan 2025	0.826	Jan 2026	-		0.826	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000		0.032	Oct 2024	0.031	Oct 2025	-		0.031	-	-	-
Subtotal			-	0.818		0.867		0.857		-		0.857	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	0.818		0.867		0.857		-		0.857	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025											
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Develop RISA v2.0																												
JHU/Ovation prime and IDA4D Modernization																												
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 2026 Air Force			Date: June 2025
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				
Develop RISA v2.0	1	2024	4	2025
JHU/Ovation prime and IDA4D Modernization	2	2024	4	2025
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	2027	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force **Date:** June 2025

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	49.944	86.247	88.606	0.000	88.606	-	-	-	-	-	-
645620: <i>Digital Engineering</i>	0.000	30.036	42.242	32.527	0.000	32.527	-	-	-	-	-	-
646017: <i>SSC Developmental IT Infrastructure</i>	0.000	19.908	44.005	20.966	0.000	20.966	-	-	-	-	-	-
646602: <i>Integrated Operations Networking</i>	0.000	0.000	0.000	35.113	0.000	35.113	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

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." 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 Defense's (DoD) 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 virtual machines 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.

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 three distinct projects, 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force			Date: June 2025			
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 1203010SF I Space Force IT, Data Analytics, Digital Solutions				
Project 646017, Developmental Information Technology Infrastructure (DITI), delivers the tools, policies, and processes that program offices across SSC utilize to design their systems to meet cybersecurity requirements and then earn cyber certification.						
Project 646602, Integrated Operations Networking (ION), leverages existing network infrastructure, connecting it and enhancing its capability when needed, to meet the needs of critical kill webs.						
The FY 2026 request was reduced by \$0.804M 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 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.						
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		61.723	88.610	108.027	0.000	108.027
Current President's Budget		49.944	86.247	88.606	0.000	88.606
Total Adjustments		-11.779	-2.363	-19.421	0.000	-19.421
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		-10.000	-2.363			
• 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		-1.779	0.000			
• Other Adjustments		0.000	0.000	-19.421	0.000	-19.421
Change Summary Explanation						
FY 2024: -\$10M for unjustified requirements.						
FY 2025: -\$2.363M reduction for underexecution.						
FY 2026: -\$0.804M; Advisory and Assistance Services (A&AS) reduction to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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 1203010SF I Space Force IT, Data Analytics, Digital Solutions	
FY 2026: -\$1.065M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.		
FY 2026: -\$17M reduction for higher USSF priorities.		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
645620: Digital Engineering	0.000	30.036	42.242	32.527	0.000	32.527	-	-	-	-	-	-
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.

DEE provides a unified enterprise environment for Space Systems Command (SSC) 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 Space Operations Command (SpOC) 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 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 integrate 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 collectively 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

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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		
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 enduring solution based on their achieved capabilities.					
Additionally, this project 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 Defense 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.					
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Title: Digital Engineering Integration			25.214	36.204	25.455
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 2025 Plans:					
Continue to incrementally build Digital Engineering and Integration prototype infrastructure to develop specific capability solutions and assess their suitability for the long-term DEE solution. Do this by leveraging existing contract vehicles to award Other Transaction Authority (OTA) agreements, Small Business Innovation Research (SBIR) Phase III contracts, and Information Technology (IT) integration service contracts. Continue to prototype, develop, test, and establish a USSF DEE hosted on a hybrid cloud platform for cloud-computing and database storage.					
Develop and test a minimum viable product (MVP) DEE capability tailored to the needs of a small set of "early adopter" program offices, containing prototype/demo digital engineering tools and collaboration workspaces. Work with those program offices' system architects and systems engineers to refine the tools and environment to improve the user experience and grow the DEE for broader use.					
Establish and accredit new network connections to Special Access Program Platform-as-a-Service (PaaS) that will leverage enterprise data availability and host digital tools and Model Based Systems Engineering (MBSE) tools in support of Kill Chain analysis, digital acquisition source selection, rapid threat/intelligence integration, and budget support planning.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
Continue development, integration and testing of the USSF DEE with Integration Execution activities and MLS/cross-domain solution (CDS) prototypes. These prototypes will update the Government Reference Architecture (GRA) for USSF DEE to begin integration between acquisition and operational databases, and add additional programs into USSF DEE from across SSC.					
Implement continuous system monitoring and security procedures to maintain Continuous Authority to Operate (cATO) cybersecurity accreditation for MLS infrastructure.					
Begin to scale DEE MVP access for a subset of 3000 users across the USSF. This includes increasing the capacity of user access to each of the designated environments associated with each Impact Level (IL) (i.e., CUI, Secret, TS/SCI, and SAP). This slow and deliberate scaling is a necessary step toward USSF-wide adoption.					
Develop and initiate training roadmaps and curriculum for the acquisition force and capability development partners that will increase overall enterprise digital proficiency. This training is key to decreasing the time it takes for acquisition professionals to become accustomed to standardized workflows and processes and software toolsets across different program offices and organizations within the USSF.					
FY 2026 Plans:					
Mature and complete development of four discrete MVP efforts and transition prototypes into a single enduring DEE architecture. Mature MVP capabilities at multiple classification levels and scale from a user set of 2,000 to 10,000 across the space enterprise. Continue integration with USAF Joint Simulation Environment (JSE) and leveraging of 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 Containerized Facility, networks and systems, tools, and DEE hosted on Hybrid cloud platform for cloud-computing and database storage.					
Establish new contracts and funding to continue both existing and new 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.					
Provide critical security elements across all domains to include facility, networks, DEE, systems, and tools. Security involves physical security, information technology, and information assurance.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	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, prototyping, and activities that may leverage commercial and international opportunities. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased by \$9.705M due to FY 2025 development of four initial, separate MVP efforts that will be integrated into a single effort to produce a DEE enduring solution. The DEE enduring solution acquisition and development persists into FY 2026 and beyond.				
Title: Science, Technology, and Research Studies 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. FY 2025 Plans: Continue partnership with Massachusetts Institute of Technology (MIT) Artificial Intelligence (AI) Accelerator to fund six graduate scholars and one support contractor at MIT to advance the use of AI in the Space Domain Awareness (SDA) mission area. Further, additional technical studies and research investigations will be accomplished based on findings from Space Futures workshops, Center for Naval Analysis reports, MIT Lincoln Lab research (MIT LL), and other sources that drive competition between government and Federally Funded Research and Development Center (FFRDC) organizations to provide additional insights into resilient and assured space capabilities. Fund studies related to emerging technologies. Support interagency S&T partnerships focused on key space technology categories of overlapping interest among the partnership organizations. These efforts support continual development of space-based capabilities among the partnership organizations. This includes technology assessments as well as research coordination across multiple agencies operating in the space domain. Advance space capability modeling in the Bilateral Enterprise Analysis Model (BEAM) to support wargaming and analysis. Continue development of the USSF Space Enterprise Architecture Modeling to assess the ability of current and planned Space architectures to meet Combatant Command (COCOM) Joint mission threads against current and future threats. 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		4.822	6.038	7.072

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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) 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 Defense (OSD), 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 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 increased by \$1.034M due to new partnership between the DAF and Stanford University Artificial Intelligence Studio.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		30.036	42.242	32.527
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. §4022 and maximize use of Commercial Solutions Openings (CSOs) and Other Transactions Authority (OTA) as default solicitation and award approaches for acquiring DEE capabilities. The DEE program office will utilize the Space Enterprise Consortium (SpEC) OTA.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	10.825	Feb 2024	-		-		-		-	-	-	-
Digital Engineering Integration and Test (Digital Environment)	Various	Various : Various	-	10.872	Dec 2023	12.556	Jan 2025	-		-		-	-	-	-
Enduring USSF Digital Engineering Ecosystem (DEE)	TBD	TBD : TBD	-	-		-		16.891	Jun 2026	-		16.891	-	-	-
Science, Technology, and Research Studies	Various	Various : Various	-	4.656	Jun 2024	6.038	Jan 2025	7.072	Jan 2026	-		7.072	-	-	-
Security Accreditation	Various	Various : Various	-	0.225	Feb 2024	-		-		-		-	-	-	-
SAP & Physical Environment MLS	C/CPFF	SAIC : Los Angeles, CA	-	-		5.401	Jan 2025	2.600	Dec 2025	-		2.600	-	-	-
SAP & Digital Environment MLS	C/CPFF	MTSI : Los Angeles, CA	-	-		6.863	Jan 2025	2.000	Jan 2026	-		2.000	-	-	-
SAP Security	C/CPFF	ManTech; VA : TBD	-	-		4.975	Jan 2025	2.000	Dec 2025	-		2.000	-	-	-
SAP & Digital Tools Integration MLS	C/FFP	Knackworks & AFS/ AWS : Boston,MA; Chant.,VA	-	-		2.589	Jan 2026	0.600	Jan 2026	-		0.600	-	-	-
SBIR/STTR	Allot	Not specified : TBD	-	0.779	May 2024	1.294	Jan 2025	1.212	Mar 2026	-		1.212	-	-	-
Subtotal			-	27.357		39.716		32.375		-		32.375	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-		-		-	-	-	-
FFRDC	Various	Various : Various	-	2.679	Nov 2023	0.869	Oct 2024	-		-		-	-	-	-
Other Support	Various	Various : El Segundo, CA	-	-		-		0.152	Oct 2025	-		0.152	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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			-	2.679		2.526		0.152		-		0.152	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	30.036		42.242		32.527		-		32.527	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025							
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			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Contract Awards																												
Enduring USSF DEE																												
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 2026 Air Force			Date: June 2025
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	2024	4	2025
SAP DEE Digital & Physical MLS MVP	1	2024	2	2026
Contract Awards	2	2025	2	2026
Enduring USSF DEE	3	2026	4	2030
DEE Security Accreditation	2	2024	2	2030
Science, Technology, and Research Studies				
Science, Technology, and Research Studies	1	2024	4	2030

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
646017: <i>SSC Developmental IT Infrastructure</i>	0.000	19.908	44.005	20.966	0.000	20.966	-	-	-	-	-	-
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 their Authorizing Official (AO) and Risk Management Framework (RMF) cyber assessment team, Zero Trust (ZT), cryptography program alignment, data and information availability, supply chain risk management capabilities, and software management. Until FY 2026 when it transitions to a separate project, DITI also supported United States Space Force (USSF) operational needs with the Integrated Operations Networking (ION) effort. The USSF's 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 provide a secure, reliable, multi-classification data transport backbone across critical kill webs designed to defend against adversary operations.

DITI develops and implements cybersecurity tools and processes and alignment of cybersecurity policies and guidance through several efforts. The DITI project Directorate provides support to cybersecurity AOs and RMF cyber assessment teams for Authorization to Operate (ATO) decisions. DITI develops ZT strategies and architectures, executing a ZT pilot program to address legacy and future space systems that establish and mitigate threats against infrastructure. The Cryptography Modernization effort builds a central repository to track all crypto requirements to identify gaps, program risks, mitigation plans, and status tracking across SSC, per Department of the Air Force Manual (DAFMAN) 17-1302.

This 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 DoD cybersecurity policies and guidance such as DoD'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 and modernizes 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).

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>
DITI's Program Protection effort develops databases, tools, and processes to organize information, reduce program-level redundancies, and 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. DITI 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. DITI also contains the function of the SSC Command Data and AI Officer (CDAO). The CDAO explores pilots for the use of AI applications to provide decision aids, automation, and computer decision support to make effective decisions in a complicated environment and reduce cognitive load. DITI will test artificial intelligence (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 DITI Cryptography Modernization effort advocates for crypto requirements across SSC. The Crypto Modernization effort centralizes and streamlines crypto processes for SSC program offices through creating policy and guidance, strategy, and development to meet future program requirements and expand to meet cryptography requirements at an enterprise level. SSC program offices are required to provide cryptographic requirements to the Crypto Modernization Office per 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). DITI is 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 on 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 DITI Developmental Cybersecurity effort also furnishes internal management of requirements, funding, contract actions, and PM support/training relating to the SSC S6. Lastly, DITI hosts the Cyber Halo Innovation Research Program (CHIRP). This program provides prospective students across various educational partners a two- year guided opportunity that leads them directly to critical cybersecurity careers that include infrastructure, the military sector, and various levels of government.		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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		
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
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 Plans: Develop a prototype hybrid agnostic transport and data interoperability to deliver software-defined mission architecture based on Space Force kill webs addressing potential adversary operations. FY 2026 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased by \$24.985M due to ION funding transferring to Project 646602.			0.000	24.985	0.000
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 2025 Plans: Continue prior year developmental efforts, to include development of SSC Cybersecurity policies and guidance, capability deployment, and pilot programs. After initial RDT&E efforts of Zero Trust (ZT) in FY 2024, further operational testing with various PEOs such as Battle Management Command Control Communications (BMC3) and Space Domain Awareness and Combat Power (SDA & CP) will be conducted with the Space Control Network (SCN) and mesh-ONE Terrestrial. SCRM capabilities will be deployed to more USSF program offices and can monitor the entire USSF Industrial base with an estimated 20,000-30,000 suppliers. The Infrastructure Asset Pre-Approval (IA-Pre) program will continue development and commercial partnerships with the satellite communication industry to ensure spectrum sharing will be secured and documented. Maintain support of SSC's Approving Official and RMF capabilities, cybersecurity integration, and other vulnerability management and program protection efforts. Furnish internal management of requirements, funding, contract actions, and PM support/training. FY 2026 Plans: Further expand ZT efforts to implement and test into more PEOs to demonstrate applicability to legacy and modernized systems.			19.908	19.020	20.966

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
Develop ZT efforts, plans, and architecture strategy to have programs adhere and work toward applicable ZT pillars and ZT directives.					
Develop Program Protection databases, query tools, and relevant contract language to standardize and aggregate the gathering, implementation, and utilization of Program Protection Information across SSC. Program protection efforts will provide enterprise level view of SSC supply chain and mitigation efforts, to enable more efficient, integrated resource allocation, threat visualization, and targeted policy actions at all echelons.					
Continue SCRM capabilities to address one of many aspects of program protection and will provide more tailored data, illumination of the Space Force industrial base, and detail risks specific to the Space Force program office users. Supply Chain Risk Management will create a more aggregate program level data and highlight enterprise level risks to identify relationship, criticality, and risk posture across multiple capabilities as it relates to the Supply Chain.					
Continue SSC's Approving Official and ATO/RMF capabilities to support systems and program offices. ATO/RMF capabilities will be further developed and include process improvements to deliver effective security assessments and continuous monitoring for policy and system change. Improve and streamline RMF Assessments & Authorization workflows adding Continuous Monitoring frameworks to simplify AO risk decisions.					
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 build a 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 PEO 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 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 for DevSecOps, accelerating					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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) 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. Furnish internal management of requirements, funding, contract actions, and PM support/training. 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 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 increased by \$1.946M to support an increase of systems authorizations and submissions through the ATO and RMF process.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		19.908	44.005	20.966
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 ZT, a pre-existing Sequential SBIR Phase II is active and a follow-on SBIR Phase III for commercialization and operational deployment is anticipated. 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		24.985	Jan 2025	-		-		-	-	-	-
SSC Developmental IT Infrastructure	Various	Various : TBD	-	3.347	Jan 2024	0.096	Jan 2025	-		-		-	-	-	-
Technical Mission Analysis	Various	Various : TBD	-	-		1.576	Jan 2025	0.276	Jan 2026	-		0.276	-	-	-
SBIR/STTR	Various	TBD : TBD	-	-		0.541	May 2025	0.747	Jan 2026	-		0.747	-	-	-
Subtotal			-	3.347		27.198		1.023		-		1.023	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	6.791	Jan 2024	8.773	Jan 2025	11.031	Jan 2026	-		11.031	-	-	-
FFRDC	Various	Aerospace, PNNL, MITRE : El Segundo, CA	-	9.770	Jan 2024	8.034	Oct 2024	8.912	Oct 2025	-		8.912	-	-	-
Other Support	TBD	Not specified. : TBD	-	-		-		0.000	Oct 2025	-		0.000	-	-	-
Subtotal			-	16.561		16.807		19.943		-		19.943	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	19.908		44.005		20.966		-		20.966	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025	
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	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Add Requirements to Ongoing Contract Efforts																												
Technical Evaluation Assessment																												
Contract Award																												
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																												
Digital Mobility Expansion and Development																												
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																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force																				Date: June 2025																	
Appropriation/Budget Activity										R-1 Program Element (Number/Name)										Project (Number/Name)																	
3620F / 4										PE 1203010SF / Space Force IT, Data Analytics, Digital Solutions										646017 / SSC Developmental IT Infrastructure																	
										FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Centralized Software Management Platform																																					
USSF ION																																					
Initiate ION development (pathfinder)																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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				
Add Requirements to Ongoing Contract Efforts	1	2024	4	2024
Technical Evaluation Assessment	1	2024	2	2024
Contract Award	3	2024	4	2024
Cryptography Management Plan Development	2	2025	4	2025
Cryptography Management Plan Implementation and Reporting	1	2026	1	2027
SCRM Capability Scaled Deployment	3	2024	4	2025
SCRM SBIR Phase III Contract Effort	4	2024	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	3	2029
SCRM SBIR Phase III Vendor Illumination and Continuous Monitoring	3	2025	3	2029
Digital Mobility Pilot	1	2026	4	2030
Digital Mobility Expansion and Development	1	2027	4	2030
Enterprise AI Infrastructure	1	2026	4	2030
GPU Command MVP	1	2026	4	2026
Zero Trust Infrastructure Integration Execution	3	2024	4	2028
Zero Trust Operational Proof of Concept	1	2025	4	2028
Zero Trust Network and Hardware Operational Test and Deployment	1	2025	4	2028
Centralized Software Management Platform	1	2026	4	2030
USSF ION				
Initiate ION development (pathfinder)	2	2025	4	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
646602: Integrated Operations Networking	0.000	0.000	0.000	35.113	0.000	35.113	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In FY 2026, all funds for Integrated Operations Networking (ION) are transferred from Project 646017 to 646602.

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 provide a secure, reliable, multi-classification data transport backbone across critical kill webs designed to defend against adversary operations. This ION communications backbone will provide high bandwidth with low latency for essential capabilities, connecting with the data platform, Unified Data Library, to ensure data exposure and dissemination occur using ION's resilient connectivity from sensors to C2 centers and tactical units. ION will integrate commercially available information technology (IT) capabilities to minimize government-unique tools, reducing technology debt and increasing agility against cyber threats.

The ION program will prioritize the closure of priority kill-web gaps, as identified in the Space Force's Digital Services Ecosystem Strategic Requirements Document. The program will focus on developing a secure, reliable, and multi-classification transport layer to support space missions, with a 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 C2S. The ION program will also investigate opportunities to leverage existing efforts, such as MeshONE-T to support the development of ION.

The ION program will be executed in accordance with the DoD's Cyber Strategy and the Space Force's cyber security policies and guidance. The program will implement Zero Trust (ZT) capabilities, cryptography modernization, and supply chain risk management (SCRM) to ensure the security and resilience of the ION network. The program will also explore the use of Artificial Intelligence (AI) applications to provide decision aids, automation, and computer decision support to make effective decisions in a complicated environment and reduce cognitive load.

The increased funding in FY 2026 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 2024	FY 2025	FY 2026
Title: USSF Integrated Operations Networking (ION)	-	-	35.113

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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. 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding reflects transfer of \$35.113M from project 646017 to 646602 and supports the full-scale execution of the ION program as the program transitions from refinement of requirements and identifying critical mission kill gaps to initial development.			
Accomplishments/Planned Programs Subtotals		-	-
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 FY26-FY27 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 (data transport, data access, & data integration)	Various	Various: TBD : TBD	-	-		-		23.746	Jan 2026	-		23.746	-	-	-
SE&I	TBD	Not specified: TBD : TBD	-	-		-		2.600	Nov 2025	-		2.600	-	-	-
Technical Mission Analysis	RO	El Segundo, CA : TBD	-	-		-		1.996	Nov 2025	-		1.996	-	-	-
CGR/SBIR	TBD	Not specified: TBD : TBD	-	-		-		1.229	Mar 2026	-		1.229	-	-	-
Subtotal			-	-		-		29.571		-		29.571	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		-		1.267	Nov 2025	-		1.267	-	-	-
A&AS	Various	Various: TBD : TBD	-	-		-		4.225	Nov 2025	-		4.225	-	-	-
Other	TBD	Not specified: TBD : TBD	-	-		-		0.050	Oct 2026	-		0.050	-	-	-
Subtotal			-	-		-		5.542		-		5.542	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		35.113		-		35.113	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force		Date: June 2025
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	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 / NAVSTAR Global Positioning System (User Equipment) (SPACE)							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	1,158.922	323.080	282.325	175.304	0.000	175.304	-	-	-	-	-	-
643833: MILITARY GLOBAL POSITIONING SYSTEM USER EQUIP	1,158.922	323.080	282.325	175.304	0.000	175.304	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Program MDAP/MAIS Code: 447												
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 Defense (DoD). 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 transition to a SWP following completion of MSI MTA 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.												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force			Date: June 2025				
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)					
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget		353.807	300.025	134.068	0.000	134.068	
Current President's Budget		323.080	282.325	175.304	0.000	175.304	
Total Adjustments		-30.727	-17.700	41.236	0.000	41.236	
• Congressional General Reductions		0.000	0.000				
• Congressional Directed Reductions		-20.560	-17.700				
• 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		-10.167	0.000				
• Other Adjustments		0.000	0.000	41.236	0.000	41.236	
Change Summary Explanation							
FY 2024: -\$20.560M: Congressional reduction due to Inc 2 Handheld delay and excess to need.							
FY 2025: -\$17.700M: FY25 Enactment reduction to meet Congressional intent.							
FY 2026: +\$46.090M: to complete MGUE Inc 2 development and initiate aviation/maritime receiver program using Inc 2 chip.							
FY 2026: -\$2.956M: to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.							
FY 2026: -\$1.272M Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative.							
C. Accomplishments/Planned Programs (\$ in Millions)					FY 2024	FY 2025	FY 2026
Title: Military Global Positioning System (GPS) User Equipment (MGUE) Increment (Inc) 1 Product Development					27.554	16.784	0.000
Description: The MGUE Inc 1 program develops standard modernized receiver form factors for lead platforms in accordance with the MGUE Inc 1 CDD.							
FY 2025 Plans:							

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) Complete contractor engineering support of Gray Eagle Developmental and Operational Testing. Continue planning for DDG Platform OT&E. Complete Program Executive Officer (PEO) Certification of Readiness for the Gray Eagle Platform for Operational Test and Evaluation (OT&E). Continue deficiency resolution activities of lead platform test results. 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 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to receiver form factor development completion using FY 2025 funds.		FY 2024	FY 2025	FY 2026
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 2025 Plans: Continue with the integration of Modernized Protection Device (MoPD) software into a Multi Global Navigation Satellite System (MGNSS) software defined radio platform. Support MGNSS receiver security certification activities, specifically related to Regional Military Protection (RMP) and extended PRN codes added capabilities. Build on FY 2024 multi-GNSS advancements in resilience and assurance algorithms by developing standard metrics and test methodologies that enable unique implementations to be compared / measured. Utilize algorithms implemented on Global Navigation Satellite System Test Architecture (GNSSTA) as well as Open Service receivers for international partners to validate standard metrics and test methodologies. In coordination with international partners, perform platform integration and Anti-Jam (AJ) performance demonstration of IMAS on a Unmanned Aerial Vehicles (UAV) and/or Unmanned ground vehicles (UGV). Support evaluation of the Modernized Underwater Navigation System-M-Code (MUNS-M) with US and allied stakeholders. Investigate developing a hardware implementation to complement the MoPD software capable of meeting existing program protection profiles. 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		7.916	13.985	6.946

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
under the GPS Navigation Warfare (NAVWAR) Research, Development, Test, and Evaluation (RDT&E) Memorandum of Understanding (MOU) to develop resilient and assured Positioning, Navigation and Timing (PNT) technologies to reduce Pulse Per Second (PPS) receiver development cost. FY 2025 to FY 2026 Increase/Decrease Statement: FY26 decreased due to the completion of the development, integration and lab testing of the Integrated M-Code Anti-jam System (IMAS) and the Modernized Underwater Navigation System (MUNS) in FY25.				
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 2025 Plans: Continue lead platform integration and equipment installation to support Development Testing (DT) and Operational Testing (OT) events. Continue lead platforms' DT and OT efforts for aviation/maritime form factors. Complete test data analysis and final reports for Gray Eagle and for Arleigh Burke-class Guided Missile Destroyer (DDG) lead platforms. FY 2026 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to FY2025 is the last year of funding for the program, no additional funds are programed to be received in FY2026 to continue platform integration.		57.282	19.493	0.000
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 2025 Plans: Continue to conduct initial and delta security certification activities for all M-Code receivers, as required. Continue modernized security evaluations/tests for Selected Availability Anti-Spoofing Module (SAASM) and other legacy GPS receiver equipment. Review, approve, and track SAASM, M-Code receivers, and certified legacy receiver certified platforms and integrated applications for all of DoD. Continue technical support to develop, validate and process engineering changes. Continue SAASM and modernize KLIF effort. The KLIF facilitates the programming of black key (cryptographic) algorithms into the SAASM to		15.992	17.970	11.851

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
provide accurate positioning solutions for GPS users using secure equipment. Continue providing mobile Crypto Initialization Capability for SAASM receivers and develop mobile initialization capability for M-code receivers. Continue Military Standard Order certification for GPS Precise Positioning Service receivers for integration into aviation platforms. Military Standard Order program provides equivalent Federal Aviation Administration certification for GPS Precise Positioning Service receivers. Continue GPS Enterprise IST activities for MGUE program. Continue integration and testing of MGUE Inc 2 MSI ASIC. Conduct MGUE Inc 2 HH ASIC early Integration and Testing. Continue to provide Military Standard Order support to portfolio of airborne GPS receiving programs. 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 DoD. 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to reduced and deferred Test and Evaluation requirements associated with completion of the Middle Tier Acquisition (MTA) effort and transition to Software Acquisition Pathway.				
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. 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 2025 Plans: Continue two development contracts for new low size/power MSI receiver card to include Next Gen ASIC, hardware, and software. Continue efforts related to the prototypes including, but not limited to, ordering of components for early integrated testing, long-		197.451	199.595	98.515

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) lead parts planning and purchase, procurement of test equipment and articles, manufacturing prototypes, and manpower. Complete First Test Article (FTA) and Proof of Design (POD) for all vendors. 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. Continue MSI rapid prototyping through intellectual property maturation. 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 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to ramp down of the hardware development from the completion of the first test article, ASIC first pass success, and intellectual property maturation.		FY 2024	FY 2025	FY 2026
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.		16.885	14.498	11.902

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2025 Plans: Continue the Handheld (HH) Middle Tier Acquisition (MTA) Rapid Prototyping effort in line with the 2018 Service Acquisition Executive (SAE)-approved MGUE Inc 2 Acquisition Strategy. Continue to develop the Ground Application Technical Requirement Document (TRD)-compliant prototype that will be M-Code capable and ready for security approval. Continue to conduct Joint service demonstration events to inform HH development, burning down user acceptance risk. Continue to integrate MSI technology into the HH advanced prototype via testing hardware/software, proprietary message sets, key loading, zeroization, etc.; continue to perform limited operational testing, security testing and power model analysis. Continue to support Technology Advancement Group (TAG) as they conduct testing activities. Analyze prototype manufacturing, hardware, software, and critical component completeness in support of the initial product baseline. 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 Plans: 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to completion of major prototype hardware requirements and critical components in support of the initial product baseline.				
Title: MGUE Inc 2 Aviation/Maritime Receiver Card		0.000	0.000	46.090
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				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force							Date: June 2025				
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 Global Positioning System (User Equipment) (SPACE)							
C. Accomplishments/Planned Programs (\$ in Millions)							FY 2024	FY 2025	FY 2026		
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 2025 Plans: N/A											
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, 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increase due to new start of Inc-2 based Aviation/Maritime Card.											
Accomplishments/Planned Programs Subtotals							323.080	282.325	175.304		
D. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u> <u>Base</u>	<u>FY 2026</u> <u>OOC</u>	<u>FY 2026</u> <u>Total</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>FY 2030</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• SPSF 01 GPSSPC: <i>Global Positioning (Space)</i>	0.893	0.835	0.883	-	0.883	-	-	-	-	-	-
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											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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)	
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 DoD 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. 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 projected to execute in two parts: 1) risk reduction activities (FY2026) and 2) Aviation/Maritime Receiver Card Middle Tier Acquisition rapid prototyping effort (FY2027 and beyond). 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-		-		-		-		-	-	-	-
MGUE Inc 1 Technology Development (2)	C/CPIF	Raytheon : El Segundo, CA	137.047	13.185	Nov 2023	5.845	Mar 2025	-		-		-	-	-	-
MGUE Inc 1 Technology Development (3)	C/CPIF	L3 Harris : Anaheim, CA	1.089	-		-		-		-		-	-	-	-
MGUE Inc 1 Platform Integration	Various	Various : Various	50.774	60.352	Nov 2023	22.622	Nov 2024	-		-		-	-	-	-
MGUE Inc 1 Information Assurance	Various	Various : Various	2.707	-		-		-		-		-	-	-	-
MGUE Inc 1 Technical Mission Analysis	Various	Aerospace/MITRE : Various	10.310	1.056	Nov 2023	1.400	Nov 2024	-		-		-	-	-	-
MGUE Inc 1 Enterprise SE&I	C/CPAF	SAIC : El Segundo, CA	6.259	0.884	Dec 2023	-		-		-		-	-	-	-
MGUE Advanced Technology/Pre-Tech	Various	Various : Various	18.410	7.633	Jan 2024	13.590	Jan 2025	6.539	Jan 2026	-		6.539	-	-	-
MGUE Inc 2 MSI Receiver Card Rapid Prototyping	Various	Various : Various	132.444	14.765	Dec 2023	58.390	Dec 2024	4.652	Dec 2025	-		4.652	-	-	-
MGUE Security Certification	Various	Various : Various	22.441	7.641	Nov 2023	8.354	Nov 2024	6.130	Nov 2025	-		6.130	-	-	-
MGUE Inc 2 Technology Development (1)	C/CPIF	BAE Systems : Cedar Rapids, IA	184.332	95.475	Nov 2023	54.648	Nov 2024	43.884	Nov 2025	-		43.884	-	-	-
MGUE Inc 2 Technology Development (2)	C/CPIF	L3 Harris : Anaheim, CA	137.002	44.165	Nov 2023	41.753	Nov 2024	25.765	Nov 2025	-		25.765	-	-	-
MGUE Inc 2 Technology Development (3)	C/CPIF	Raytheon : El Segundo, CA	191.360	0.000	Nov 2023	-		-		-		-	-	-	-
MGUE Inc 2 Risk Reduction	Various	Various : Various	78.385	-		-		-		-		-	-	-	-
MGUE Inc 2 Information Assurance	Various	Various : Various	5.990	4.060	Nov 2023	3.673	Nov 2024	4.307	Nov 2025	-		4.307	-	-	-
MGUE Inc 2 Handheld	C/FFP	Technology Adv. Group : Ashburn, VA	5.318	16.885	Nov 2023	10.863	Nov 2024	9.919	Nov 2025	-		9.919	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-		-		43.002	Nov 2025	-		43.002	-	-	-
MGUE Inc 2 Technical Mission Analysis	Various	Aerospace/MITRE : El Segundo, CA	32.987	10.968	Nov 2023	11.114	Nov 2024	9.022	Nov 2025	-		9.022	-	-	-
MGUE Inc 2 Enterprise SE&I	C/CPAF	SAIC : El Segundo, CA	9.975	5.279	Jan 2024	2.477	Jan 2025	3.981	Jan 2026	-		3.981	-	-	-
MGUE Inc 1 and Inc 2 SBIR/STTR	Allot	TBD : TBD	0.000	0.000		8.784		6.486		-		6.486	-	-	-
Subtotal			1,035.437	282.348		243.513		163.687		-		163.687	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	1.313	1.500	Jan 2024	0.372	Apr 2025	-		-		-	-	-	-
MGUE Inc 2 Test and Evaluation	Various	Various : Various	9.992	4.291	Jan 2024	4.641	Jan 2025	0.419	Jan 2026	-		0.419	-	-	-
Subtotal			11.305	5.791		5.013		0.419		-		0.419	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	13.138	2.015	Dec 2023	1.771	Dec 2024	-		-		-	-	-	-
MGUE Inc 2 FFRDC	RO	Aerospace/MITRE : El Segundo, CA	19.514	10.076	Dec 2023	9.273	Dec 2024	6.490	Dec 2025	-		6.490	-	-	-
MGUE Inc 1 A&AS	Various	Various : Various	49.017	5.769	Dec 2023	2.828	Dec 2024	-		-		-	-	-	-
MGUE Inc 2 A&AS	Various	Various : Various	29.419	16.795	Dec 2023	19.539	Dec 2024	4.452	Dec 2025	-		4.452	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	1.092	0.286	Oct 2023	0.388	Oct 2024	0.256	Oct 2025	-		0.256	-	-	-
Subtotal			112.180	34.941		33.799		11.198		-		11.198	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1,158.922	323.080		282.325		175.304		-		175.304	-	-	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.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force																Date: June 2025									
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							

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force																		Date: June 2025										
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 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 Base																												
MGUE Inc 2 Handheld Objective C Extension																												
MGUE Inc 2 Aviation/Maritime Receiver Obsolescence Replacement																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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 Prime - Technology Development	1	2024	4	2025
MGUE Inc 1 DDG Card level PEO Certification	1	2024	4	2024
MGUE Inc 1 Gray Eagle Card level PEO Certification	1	2024	4	2025
MGUE Inc 1 Lead Platform Integration and Test	1	2024	4	2025
Advanced Technology/Pre-Tech				
ADV/Pre-Tech MoPD Security Certification Testing, Implement RFCs, and Integration into M-GNSS SDR Platforms	1	2024	3	2025
ADV/Pre-Tech IMAS TRD System fabrication and conduct design validation testing	1	2024	2	2025
ADV/Pre-Tech MUNS-M software and displays maturation	1	2024	3	2025
ADV/Pre-Tech IMAS Transition opportunities / Evaluation	1	2024	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
MGUE Increment 2				
MGUE Inc 2 MSI Receiver Card w/Next Gen ASIC Rapid Prototyping	1	2024	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	2024	4	2026
MGUE Inc 2 Modernized Handheld Receiver	1	2024	3	2026
MGUE Inc 2 Handheld Objective C Base	1	2024	3	2025
MGUE Inc 2 Handheld Objective C Extension	3	2025	4	2026
MGUE Inc 2 Aviation/Maritime Receiver Obsolescence Replacement	2	2026	4	2030

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force		Date: June 2025
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
Note MGUE Inc 1 PEO Certification and Operational Testing will go beyond FY 2025. MGUE Inc 1 Complete test data analysis and final reports for Gray Eagle in FY2025/2026 and for DDG in FY2027. MGUE Inc 2 Aviation Receiver card schedule pending acquisition decision memorandum approval.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	97.686	121.409	125.982	0.000	125.982	-	-	-	-	-	-
646021: <i>Space Warfighting Analysis Center (SWAC)</i>	0.000	97.686	121.409	125.982	0.000	125.982	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Program Element (PE) 1203622, 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025	
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			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	95.541	121.409	119.523	0.000	119.523
Current President's Budget	97.686	121.409	125.982	0.000	125.982
Total Adjustments	2.145	0.000	6.459	0.000	6.459
• 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	2.145	0.000	6.459	0.000	6.459
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025
					FY 2026
Title: Space Warfighting Analysis Center (SWAC)				97.686	121.409
Description: Space Warfighting Analysis Center is the foundational element to develop and provide authoritative Force Design recommendations for the United States Space Force (USSF).					125.982
FY 2025 Plans: Expand research studies, system design analysis, and wargaming integration prototyping demonstrations across a variety of domains and mission areas to inform USSF force designs. The Multi-Domain Sensing Program will update MTI analysis findings and initiate an MTI ground system study; expand the Kill Chain analysis to address additional joint needs; assess emerging MWTD targets, threats, and enhanced sensing concepts; and begin a Space Based Environmental Monitoring Force Design study. The Spectrum Warfare focus areas will continue developing the Government Reference Architectures and Capability Area designs for Broadband, Narrowband, and Space to Space Force Designs, and will work on moving into space-based Position, Navigation, and Timing (PNT) Force Designs with deeper inclusion into kill-webs. Additionally, Spectrum Warfare will continue to study Ground Entry Point architecture for space network and Data Transmit and Receive Network support of high-altitude mesh for Ground Data Network Force Designs, and begin developing a blueprint and Force Designing for Nuclear Command, Control, and Communications. The Joint Sensitive Space Staff (JS3) will continue to conduct modeling, simulation and analysis of satellite signatures to include sensing, communications and offensive and defensive space operations. The JS3 will also analyze thresholds of detectability and provide concept of operations and tactics recommendations to inform future capabilities. Funds will also enable execution of mission support areas that are required for daily operations.					
FY 2026 Plans:					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) (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 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 2025 to FY 2026 Increase/Decrease Statement: The FY 2026 request was reduced by 3.630 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." FY2025 to FY2026 funding increased due to work force optimization adjustments.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		97.686	121.409	125.982
D. Other Program Funding Summary (\$ in Millions) N/A 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 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1203622SF / Space Warfighting Analysis						Project (Number/Name) 646021 / Space Warfighting Analysis Center (SWAC)			
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	97.686	Sep 2024	121.409	Sep 2025	125.982	Sep 2026	-		125.982	-	-	-
Subtotal			-	97.686		121.409		125.982		-		125.982	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	97.686		121.409		125.982		-		125.982	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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)	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 - Integrated Modeling & Analysis																												
(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																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1203622SF / Space Warfighting Analysis	Project (Number/Name) 646021 / Space Warfighting Analysis Center (SWAC)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space Warfighting Analysis Center (SWAC)				
(U) Integration - Force Design Integration	1	2024	4	2030
(U) Integration - Mission Support (IT and Infrastructure)	1	2024	4	2030
(U) Integration - Planning, Programming & Costing	1	2024	4	2030
(U) Integration - Integrated Modeling & Analysis	1	2024	4	2030
(U) Multi-Domain Sensing Program (MDSP) - Missile Warning/Missile Tracking	1	2024	4	2030
(U) MDSP - Adversary Assessments	1	2024	4	2030
(U) MDSP - Surveillance Reconnaissance and Target Tracking	1	2024	4	2030
(U) Spectrum Warfare Program (SWP) - Space Data Network	1	2024	4	2030
(U) SWP - Ground Data Network	1	2024	4	2030
(U) SWP - Navigation Warfare	1	2024	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	77.794	69.391	77.135	0.000	77.135	-	-	-	-	-	-
643730: EO/IR Weather System Dev	0.000	77.794	69.391	77.135	0.000	77.135	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In compliance with the 2015, 2016, 2017, and 2020 National Defense Authorization Act (NDAA) and Joint Requirements Oversight Council (JROC) Memos 092-14, 062-17, and 031-22, EWS will provide global 24/7 persistent coverage to meet Space-Based Environmental Monitoring (SBEM) Electro-Optical/Infrared (EO/IR) Gaps 1) Cloud Characterization (CC) and 2) Theatre Weather Imagery (TWI). This capability will operationally replace the obsolete and aging Defense Meteorological Satellite Program (DMSP) projected end-of-life Sep 2026 due to insufficient ops and sustainment funding for continued operations, and the EWS-Geostationary (EWS-G) projected end-of-life Sep 2030. 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 DoD responsibility of maintaining the SBEM civil/international partnership for the Family of Systems architecture without timely delivery of a replacement system.

Based on SBEM Capability Assessment and Strategy Review (CASR) in April 2019, the current EWS acquisition strategy focuses on a distributed LEO architecture, for scalability and increased operational resilience. The Space Force will pursue prototyping of latest industry capabilities for simplified sensor designs, while meeting CC and TWI requirements and data latencies in a distributed architecture.

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.

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.

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 2026 Air Force				Date: June 2025		
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 1203710SF I EO/IR Weather Systems				
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget	95.615	76.391	80.322	0.000	80.322	
Current President's Budget	77.794	69.391	77.135	0.000	77.135	
Total Adjustments	-17.821	-7.000	-3.187	0.000	-3.187	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	-15.000	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	-2.821	0.000				
• Other Adjustments	0.000	-7.000	-3.187	0.000	-3.187	
Change Summary Explanation						
FY 2024: -15.000M for Demo 2 acquisition strategy.						
FY 2025: -7.000M for Golden Dome Source - Transfer from EO/IR Weather Systems to Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO)						
FY 2026: -0.259M for the inflation adjustment						
FY 2026: -0.762M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance policies of the Administration in alignment EO 14222, "Implementation the President's Department of Government Efficiency Cost Efficiency Initiative"						
FY 2026: -0.373M; Federally Funded Research and Development Center (FFRDC) reduction						
FY 2026: -1.771M; to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Electro-Optical/Infrared Weather System (EWS)				77.794	69.391	77.135
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 Defense (DoD) operations. Primary effort 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 CC and TWI data in a viable commercial service business, hosted on a proliferated LEO mesh network. Program will minimize technology maturity risks by evaluating multiple, competitive 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 DMSP constellation and EWS-G in a timely manner. Per the approved EWS Acquisition Strategy, the Program Office will continue to competitively prototype sensor and bus designs for a proliferated-LEO architecture while leveraging the existing SBEM Family of Systems (Phase II), and on-ramp to an operational system (Phase III) based on the success of Phase II in time to operationally replace DMSP and EWS-G at their end of life. Leveraging the						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
success of these efforts, the Program Office intends to field an affordable and highly capable operational replacement system in Phase III. FY 2025 Plans: For Increment 0 Operational Demonstrations: Continue demonstration #1 build, Integration & Test (I&T). Initiate launch preparation activities, including launch-base processing and integrated crew exercises. Continue demonstration #2. Conduct delta design activities and begin build, integration and test. Progress will inform SBEM acquisition strategy. Develop SBEM acquisition strategy to include future EO/IR acquisition, supported by SBEM architectural analysis, and informed by previous Phase II prototype efforts and latest commercial industry investments to determine the most optimal solution to field full operational systems to meet operational need dates. 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 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 SBEM 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 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increase due to Ops Demo #1 launch preparations/ramp up, build, and test activities; Ops Demo #2 launch funding.				
Accomplishments/Planned Programs Subtotals		77.794	69.391	77.135

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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	
D. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
E. Acquisition Strategy In accordance with the approved SBEM Acquisition Strategy (Sep 2020), the Space Force will continue to address Joint SBEM gaps with a combination of DoD materiel and non-materiel solutions, partnerships, and commercial, civil, and allied data. EWS 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 purpose of Phase II is to explore various technology projects and partnerships to determine the most technically acceptable, resilient, and affordable option to support SBEM acquisition strategy. Informed by Phase II, the SBEM acquisition strategy will include future EO/IR operational systems in FY26 and will consider modern architectures such as proliferated-LEO, hosted-payload, or other commercial capabilities.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	50.522	Dec 2023	31.411	Dec 2024	33.125	Dec 2025	-		33.125	-	-	-
Phase II Demo 2	C/FFP	General Atomics : San Diego, CA	-	19.080	Jul 2024	-		-		-		-	-	-	-
Phase II Demo 2 Launch Vehicle	C/Various	TBD : TBD	-	-		-		18.000	Apr 2026	-		18.000	-	-	-
Commercial EO/IR	C/Various	TBD : TBD	-	-		23.067	Jul 2025	11.500	Jun 2026	-		11.500	-	-	-
Technical Mission Analysis	RO	Aerospace Corp : El Segundo, CA	-	2.178	Jan 2024	5.605	Jan 2025	5.773	Oct 2025	-		5.773	-	-	-
Enterprise Systems Engineering & Integration	C/CPIF	Booz Allen Hamilton : McLean, VA	-	0.600	Jan 2024	1.098	Jan 2025	1.070	Jan 2026	-		1.070	-	-	-
SBIR/STTR	C/Various	TBD : TBD	-	0.000	Mar 2024	2.429	Mar 2025	2.749	Mar 2026	-		2.749	-	-	-
Subtotal			-	72.380		63.610		72.217		-		72.217	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	3.487	Jan 2024	2.402	Jan 2025	2.101	Oct 2025	-		2.101	-	-	-
A&AS	Various	Various : Various	-	1.836	Jan 2024	3.285	Jan 2025	2.731	Jan 2026	-		2.731	-	-	-
Other Support	Various	Various : Various	-	0.091	Oct 2023	0.094	Oct 2024	0.086	Oct 2025	-		0.086	-	-	-
Subtotal			-	5.414		5.781		4.918		-		4.918	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	77.794		69.391		77.135		-		77.135	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force

Date: June 2025

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

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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
EO/IR Weather Systems (EWS)				
Phase II - Operational Demonstrations	1	2024	4	2030
Phase II Inc 0 Operational Demonstration #1 No Later Than Launch (General Atomics)	3	2026	4	2026
Phase II Demo 2 Launch Vehicle	2	2026	2	2026
Commercial EO/IR	4	2025	2	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 1203955SF / <i>Space Access, Mobility & Logistics (SAML)</i>											
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	24.000	14.478	0.000	14.478	-	-	-	-	-	-
640016: <i>On Orbit Servicing, Mobility, and Logistics (OOSML)</i>	0.000	0.000	20.000	0.000	0.000	0.000	-	-	-	-	-	-
646601: <i>Point to Point Delivery (P2D)</i>	0.000	0.000	4.000	14.478	0.000	14.478	-	-	-	-	-	-

Note

Program 1203955SF's name was changed from Space Access, Mobility, and Logistics to "Servicing, Mobility, and Logistics" to clearly delineate this program and mission from previously established Space Access / Launch program elements within the Assured Access to Space (AATS) portfolio e.g. National Security Space Launch (Space) - EMD (PE 1206853SF) which enable RDT&E in support of spacelift activities within the AATS portfolio.

Project 640016's name was changed to On-Orbit Servicing, Mobility, and Logistics (SML). Prior years' funding for On-Orbit Servicing, Mobility & Logistics was executed within PE 1206853SF (i.e., 16.9M in FY2022 and 30.0M in FY2023, 11.5M in FY2024).

Project 646601's name was changed to Point to Point Delivery (P2D). Prior years' funding for P2D's air drop mission development was executed by AFRL related to the Rocket Cargo Vanguard program within PE 0603032F / Future AF Integrated Technology Demos (i.e., 26.6M in FY2022, 28.9M in FY2023, 42.2M in FY2024).

A. Mission Description and Budget Item Justification

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 integrated mission studies will analyze and assess 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 studies 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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)				
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 DoD 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. 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). The FY 2026 request was reduced by \$0.142 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 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. 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		0.000	20.000	0.000	0.000	0.000
Current President's Budget		0.000	24.000	14.478	0.000	14.478
Total Adjustments		0.000	4.000	14.478	0.000	14.478
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• 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		0.000	0.000			
• Other Adjustments		0.000	0.000	14.478	0.000	14.478
Congressional Add Details (\$ in Millions, and Includes General Reductions)				FY 2024		FY 2025
Project: 640016: On Orbit Servicing, Mobility, and Logistics (OOSML)						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Congressional Add: Small Autonomous On-Orbit Servicing		0.000	4.000
Congressional Add Subtotals for Project: 640016		0.000	4.000
Congressional Add Totals for all Projects		0.000	4.000
Change Summary Explanation FY2025: 4.000M Congressional Add for Project: 640016: On-Orbit Servicing, Mobility, and Logistics Program (OOSML) Small Autonomous On-Orbit Servicing			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
640016: On Orbit Servicing, Mobility, and Logistics (OOSML)	0.000	0.000	20.000	0.000	0.000	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Project 640016's name was changed to On-Orbit Servicing, Mobility, and Logistics (SML). Prior years' funding for On-Orbit SML was executed within PE 1206853SF (e.g., \$16.9M in FY2022, \$30.0M in FY2023, \$11.5M in FY2024)

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 2024	FY 2025	FY 2026
Title: On-Orbit Servicing, Mobility & Logistics (SML)	0.000	16.000	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 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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)			FY 2024	FY 2025	FY 2026
Investments 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. 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: N/A FY 2025 to FY 2026 Increase/Decrease Statement: FY2026 decrease enables continuation of ongoing demonstrations and operationalization of near-term commercial services, sufficiently supported by FY2025 funding.					
Accomplishments/Planned Programs Subtotals			0.000	16.000	0.000
			FY 2024	FY 2025	
Congressional Add: Small Autonomous On-Orbit Servicing			0.000	4.000	
FY 2024 Accomplishments: N/A					
FY 2025 Plans: 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.					
Congressional Adds Subtotals			0.000	4.000	
C. Other Program Funding Summary (\$ in Millions) N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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)
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy		
N/A		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force													Date: June 2025		
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		10.949	Mar 2025	-		-		-	-	-	-
Otter Augmented Maneuver	C/FFP	Starfish Space : Tukwila, WA	-	-		7.156	Jun 2025	-		-		-	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		0.704	Jun 2025	-		-		-	-	-	-
Subtotal			-	-		18.809		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-		-		-	-	-	-
Other Support	Various	Various : Various	-	-		0.668	Jan 2025	-		-		-	-	-	-
Subtotal			-	-		1.191		-		-		-	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		20.000		-		-		-	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025									
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
646601: Point to Point Delivery (P2D)	0.000	0.000	4.000	14.478	0.000	14.478	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note Project 646601's name was changed to Point to Point Delivery (P2D). Prior years' funding for P2D's air drop technology development (study only) was executed by AFRL related to the Rocket Cargo Vanguard program within PE 0603032F / Future AF Integrated Technology Demos (e.g., \$26.6 in FY2022, \$28.9 in FY2023, \$42.2M in FY2024)												
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 study and deliver initial concepts of operation and tactics development recommendations for future operational applications. This project matures 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 study 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 DoD components. Activities include Advanced Integrated Mission Studies (AIMS), system engineering technology maturation, tactics development required for operational integration, prototyping and test and evaluation required for technology transition to enable effective operational employment. 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 and integrate Science & Technology (S&T) innovations into operational capabilities and transition those capabilities to space acquisition 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).												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Point to Point Delivery (P2D)									0.000	4.000	14.478	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Description: Funds Advanced Integrated Mission Studies, Small Business Innovation Research (SBIR) and development of initial Point-to-Point Delivery (P2D) reference missions. Studies are focused on utilizing vehicles that traverse from or through space to transport DoD 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. FY 2025 Plans: FY2025 funding supports the detailed engineering design necessary for a P2D service provider to perform airdrop payload delivery. This work builds on AFRL's previous analysis of the angle-of-attack, door locations, ejection speeds, container sizes, reaction forces and expected actuation authority required to counter those forces, and the aerodynamics of the ejected payload in flight. AFRL has also completed the first phase of wind tunnel testing, analysis, and operational 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, prototyping, and activities that may leverage commercial and international opportunities FY 2026 Plans: FY2026 funding will support the Advanced Integrated Mission Studies necessary to evaluate P2D service provider ability to perform airdrop and/or spacedrop (reentry) delivery to meet operational needs and fund 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, 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 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
FY2026 increase capitalizes on AFRL's Rocket Cargo research findings, enabling advanced Integrated Mission Studies within the mission area.			
Accomplishments/Planned Programs Subtotals		0.000	4.000
C. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
D. Acquisition Strategy Project initially utilizes existing DoD engineering and study contracts and activities as well as new contracts (including but not limited to Small Business Innovation Research (SBIR) and Other Transactional Agreements (OTA), which are competitively awarded, to accomplish advanced integrated mission studies. Preliminary design studies began within the DAF Rocket Cargo Vanguard program in FY 2022. In Dec 2023 the Operational Capability Requirements Directorate (S5R) Space Mobility and Logistics Branch was directed to develop formal P2D requirements via a Rapid Prototype Requirements Document (preliminary step to a Middle Tier Acquisition (MTA) program).			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	Not Specified: TBD : TBD	-	-		3.575	Jun 2025	12.875	Dec 2025	-		12.875	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		0.140	Jun 2025	0.525	Mar 2026	-		0.525	-	-	-
Subtotal			-	-		3.715		13.400		-		13.400	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	Aug 2025	0.538	Nov 2025	-		0.538	-	-	-
Other Support	Various	Not specified. : TBD	-	-		0.180	Jun 2025	0.540	Dec 2025	-		0.540	-	-	-
Subtotal			-	-		0.285		1.078		-		1.078	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		4.000		14.478		-		14.478	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025					
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Infrastructure Planning Contract Award																												
Spaceport Planning Contract																												
Advanced Integrated Mission Studies Contract Award																												
Advanced Integrated Mission Studies																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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
Infrastructure Planning Contract Award	1	2026	3	2026
Spaceport Planning Contract	3	2026	3	2028
Advanced Integrated Mission Studies Contract Award	1	2026	3	2026
Advanced Integrated Mission Studies	3	2026	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	1,982.182	1,607.685	1,307.970	0.000	1,307.970	-	-	-	-	-	-
643729: Integration and Battle Management	0.000	126.661	260.628	175.037	0.000	175.037	-	-	-	-	-	-
643731: Transport	0.000	1,748.819	1,250.633	1,044.112	0.000	1,044.112	-	-	-	-	-	-
643732: Sensing	0.000	106.702	96.424	88.821	0.000	88.821	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

SDA is responsible for 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 Defense (DoD)'s decision to develop and implement a proliferated architecture enabled by lower-cost, mass-produced space vehicles and routine space access; and shift the DoD 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 DoD's Space Vision 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, and
- 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
- Highly-scaled, low-latency, persistent, resilient proliferated Low Earth Orbit (LEO) space data transport.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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 1206410SF I Space Technology Development and Prototyping				
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.						
This program element funds efforts to develop and demonstrate a prototype proliferated Low Earth Orbit (pLEO) communications and data Transport Layer and its sub-constellations in support of the DoD Space Vision.						
This program element may include necessary civilian pay expenses and contractor support required to facilitate delivery of the Transport capability.						
The FY 2026 cost of the Tranche 1 (T1) Transport Layer Middle Tier of Acquisition effort is reflected in the budget request, including RDT&E and procurement of prototype units. The Department will certify Future Years Defense Program funding in a future budget submission.						
The FY 2026 cost of the Tranche 2 (T2) Transport Layer Middle Tier of Acquisition effort is reflected in the budget request, including RDT&E and procurement of prototype units. The Department will certify Future Years Defense Program funding in a future budget submission.						
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		2,081.307	1,701.685	1,799.720	0.000	1,799.720
Current President's Budget		1,982.182	1,607.685	1,307.970	0.000	1,307.970
Total Adjustments		-99.125	-94.000	-491.750	0.000	-491.750
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		-25.000	-50.000			
• 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		-74.125	0.000			
• Other Adjustments		0.000	-44.000	-491.750	0.000	-491.750
Change Summary Explanation						
FY 2024 decreases between the Previous President's Budget and Current President's Budget by \$25.000 million due to a Congressional reduction for inadequate justification - other activities and \$74.125 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 2026 Air Force		Date: June 2025
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	
FY 2025 decreases between the Previous President's Budget and Current President's Budget by \$50.000 million due to a Congressional reduction for Program decrease and \$44.000 million due to adjustments for other United States Space Force (USSF) priorities. FY 2026 decreases from FY 2025 by \$299.715 million to support sustainment of Tranche 1 capabilities and finalize Tranche 2 capabilities for launch. FY 2026 decreases between the Previous President's Budget and Current President's Budget by \$491.750 million due to adjustments for other USSF priorities. The FY 2026 request was reduced by \$0.457 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."		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
643729: Integration and Battle Management	0.000	126.661	260.628	175.037	0.000	175.037	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

SDA is 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 developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including 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 2024	FY 2025	FY 2026
Title: Integration and Battle Management	126.661	260.628	175.037
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.			
FY 2025 Plans: Tranche 0 - Continue to conduct post-Capstone demonstrations and experimentations with warfighters. - Continue tracking on-orbit operations background data collection and target of opportunity observation. - Continue testing the developed algorithms for integrated Battle Management Command, Control and Communications (BMC3) applications on-orbit.			
Tranche 1 - Complete development and testing of ground mission management, network management, enterprise system management capabilities to support Proliferated Warfighter Space Architecture (PWSA) operations. - Conduct integration of space vehicle command and control workstations into two operations centers.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
- Complete site modifications in preparation for Ground Entry Point (GEP) terminal installation and Defense Information Systems Agency (DISA) network connectivity for initial architecture of ground RF sites. - Complete site modifications and DISA network connectivity for the primary Optical GEP. - Complete test and delivery of initial ground antennas and communications equipment to support Tranche 1 (T1) Proliferated Warfighter Space Architecture (PWSA) operations. - Conduct installation and checkout of ground terminal and network equipment for continental U.S. (CONUS) GEP sites and outside the continental U.S. (OCONUS) sites. - Maintain Operation Centers and ground terminal equipment to support T1 test and operations. - Deliver and maintain development, security, and operations (DevSecOps) pipeline to support integrated Operations, Maintenance, and Sustainment from the ground operations centers. - Conduct Transport Layer Ground Readiness Review (GRR) to ensure end-to-end integration of space and ground capabilities. - Begin training space vehicle and ground system operators for PWSA Government Owned, Contractor Operated (GOCO) mission operations. - Conduct PWSA system level integrated test planning and activities. - Establish system connectivity to PWSA users and tasking authorities to support test and early adopter operations. - Establish and maintain the Application Factory that will serve as the foundation of the Battle Management Command, Control, and Communications (BMC3) Layer. - Develop and maintain the BMC3 Ecosystem including the ground and space components. - Continue design and development of BMC3 Applications to provide mission services, system automation, and data fusion capabilities in support of warfighter priorities. Tranche 2 - Build out foundational modeling, simulation, and digital engineering tools to enable dynamic modeling for future architecture growth of the PWSA. - Continue to explore and implement ground communication terminal efficiencies. - Continue development of the PWSA Ground Segment. - Identify and implement extensions and/or additional capabilities required in SDA Operations Centers for ground command and control of Tranche 2 (T2) assets. - Continue development of the Technology Acceleration Center (TAC) and support early PWSA Ground Segment (GS) integration activities to ensure readiness for Tranche 2 (T2) launches. - Begin development of BMC3 Application Factory expansion. - Continue development of interoperability testbed to support T2 capabilities. Advanced Fire Control (AFC)			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
- Complete facility and network design for the Demonstration Operations Center (DOC) to support demonstrations. - 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. 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. - Provide operations support of resilient Transport capabilities to operational forces 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 - 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. - Maintain the Application Factory for the Battle Management Command, Control, and Communications (BMC3) Layer. - Operate and maintain the BMC3 Ecosystem including the ground and space components. - 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.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
- 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) 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. Advanced Fire Control - Complete facility and network construction for the Demonstration Operations Center (DOC) to support demonstrations. - Perform integration testing between Fire-control On Orbit-support-to-the-war Fighter (FOO Fighter) space vehicles and the 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. - Finalize TAC development delivering the Operational AFC Ground Operations Center. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 decreases from FY 2025 by \$85.591 million and the request funds sustainment of Tranche 1 capabilities and development of Tranche 2 capabilities to support launch.			
Accomplishments/Planned Programs Subtotals		126.661	260.628
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), DoD Combatant Commands, DoD 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.571	Dec 2023	1.456	Nov 2024	0.519	Nov 2025	-		0.519	-	-	-
Tranche 1 Integration and Ground Activities	Various	Various : Various	-	109.691	Jan 2024	148.853	Nov 2024	73.496	Nov 2025	-		73.496	-	-	-
Tranche 2 Integration and Ground Activities	Various	Various : Various	-	16.399	Jan 2024	104.101	Nov 2024	75.491	Nov 2025	-		75.491	-	-	-
Other Integration and Ground Activities	Various	Various : Various	-	0.000		0.000		20.508	Nov 2025	-		20.508	-	-	-
Subtotal			-	126.661		254.410		170.014		-		170.014	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	126.661		254.410		170.014		-		170.014	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 4					PE 1206410SF / Space Technology Development and Prototyping					643729 / Integration and Battle Management			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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.																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	2024	4	2027
Conduct Tranche 1 ground support and integration activities.	1	2024	4	2027
Conduct Tranche 2 ground support and integration activities.	1	2024	4	2027

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
643731: Transport	0.000	1,748.819	1,250.633	1,044.112	0.000	1,044.112	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
SDA is 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 developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including low-latency tactical communication enabling beyond line of sight targeting and advanced missile tracking. SDA is orchestrating 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 low-latency data transport and alternate position, navigation, and timing capabilities to U.S. joint warfighting forces in bi-annual tranches, which began in FY 2022.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Transport									1,703.226	1,239.503	1,039.515	
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 2025 Plans:												
Tranche 0												
- Continue to leverage Tranche 0 satellites as a testbed for investigating additional capabilities after Capstone demonstrations.												
Tranche 1												
- Conduct assembly, integration, and test (AI&T) of Transport space vehicles and payloads in preparation for vehicle launches.												
- Conduct Pre-Ship Reviews (PSR) for first three (3) Transport plane launches and shipped space vehicles to launch site.												
- Conduct space vehicle integration onto the multi-vehicle launch dispensers and mated 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.												
- Conduct readiness for launch and early orbit phase operations and transition to nominal operations.												
- Support launch missions for three (3) planes of T1 Transport Layer space vehicles (63 total space vehicles).												
- Conduct on-orbit test and checkout, orbital positioning, and transition operations to the operations centers for each plane of space vehicles.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
- Begin system level verification and Developmental Testing. - Transition to nominal operations and provide continuing space vehicle and enterprise management and sustainment. Tranche 2 - Complete Critical Design Review for the Tranche 2 Transport Layer (T2TL) Alpha and Beta space vehicles. - Begin assembly, integration, and testing of T2TL Alpha and Beta space vehicles. - Support early integration studies for T2TL launches. - Fund mission unique hardware and integration of the T2 space vehicles on the National Security Space Launch (NSSL) Launch vehicles. Follow-on Tranche Activity - Leverage lessons learned and accomplishments from previous Tranches to inform space vehicle, ground, and interoperability design requirements for development of the next set of capabilities. - Determine minimum viable capability for follow-on transport, tactical satellite communications and future tactical data link constellation components. - Receive concurrence from the warfighting community on performance requirements for follow-on tranches. - Initiate follow-on tranche acquisition and source selection processes leading to space vehicle vendor procurement instruments. Proliferated Warfighter Space Architecture (PWSA) Futures Program (PFP) Tranche x Demonstration and Experimentation System (TxDES) - Complete assembly, integration and test of T1DES space vehicles and finalize demonstration plans. - Finalize development of additional tactical data link, waveform, and/or assured positioning navigation and timing (APNT) signal planned for demonstration in T2 (i.e., T2DES) and proliferation beginning with PWSA T3. - Continue to assess and support commercial and mission partners' payloads and satellite constellations to inform capabilities that might be part of the PWSA. Advanced Fire Control (AFC) - Complete System Requirements Review for the T2TL Gamma space vehicles. - Complete Preliminary Design Review for the T2TL Gamma space vehicles. - Complete Critical Design Review for the T2TL Gamma space vehicles. - Begin assembly, integration, and testing of T2TL Gamma space vehicles. - Continue execution of other advanced fire control efforts including Warlock and Strauss. Other			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
- Execute Integrated Broadcast Service - Low Earth Orbit (IBS-L) demonstration activities in support of Blackjack. - Other activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc. FY 2026 Plans: Tranche 0 - Continue to leverage Tranche 0 (T0) satellites as a testbed for investigating additional capabilities after Capstone demonstrations. 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 and early orbit phase operations and transition to nominal operations. - Launch remaining (3) planes of T1 Transport Layer space vehicles. - Complete system level verification and Developmental Testing. - Conduct Operational Testing of Tranche 1 (T1) Transport capabilities. - Conduct space vehicle command and control, enterprise management, and sustainment for all T1 Transport satellites. - Provide continuing support to 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, etc. Tranche 2 - Continue manufacturing, assembly, integration, and test activities for the Tranche 2 Transport Layer (T2TL) Alpha and Beta space vehicles in preparation for T2 launches. - Support integration studies and mission requirements document development for T2TL 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 T2TL Alpha and Beta programs. - Begin shipping space vehicles to launch sites and integration with launch vehicles for multi-manifest missions.			
			FY 2026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
- 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. Proliferated Warfighter Space Architecture (PWSA) Futures Program (PFP) Tranche x Demonstration and Experimentation System (TxDES) - Continue to assess and support commercial and mission partners' payloads and satellite constellations to inform capabilities that may be part of the PWSA. Advanced Fire Control (AFC) - Continue execution of other advanced fire control efforts including Warlock and Strauss. - Continue assembly, integration, and testing of T2TL Gamma space vehicles. Other - Execute Integrated Broadcast Service - Low Earth Orbit (IBS-L) demonstration activities in support of Blackjack. - Develop on-orbit updates testing of IBS-L capability. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreases from FY 2025 by \$199.988 million and the request funds sustainment of Tranche 1 capabilities and continued development of Tranche 2 capabilities to support launch.			
Title: Classified Program Description: Due to the classified nature of this project, specific details are available at a higher classification level. FY 2025 Plans: 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 2025 to FY 2026 Increase/Decrease Statement:		45.593	11.130
			4.597

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Due to the classified nature of this project, specific details are available at a higher classification level.				
Accomplishments/Planned Programs Subtotals		1,748.819	1,250.633	1,044.112
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), DoD Combatant Commands, DoD 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 Transport Layer	Various	Various : Various	-	11.777	Nov 2023	7.080	Nov 2024	7.996	Nov 2025	-		7.996	-	-	-
Tranche 1 Transport Layer	Various	Various : Various	-	745.702	Oct 2023	270.232	Oct 2024	238.049	Nov 2025	-		238.049	-	-	-
Tranche 2 Transport Layer	Various	Various : Various	-	892.677	Oct 2023	890.323	Nov 2024	701.068	Nov 2025	-		701.068	-	-	-
Advanced Fire Control (Tranche 2 Transport Layer Gamma)	Various	Various : Various	-	49.598	Aug 2024	39.052	Nov 2024	0.000		-		0.000	-	-	-
PWSA Futures Program Blackjack	Various	Various : Various	-	0.000		5.351	Jun 2025	10.379	Nov 2025	-		10.379	-	-	-
Classified Project	Various	Various : Various	-	45.593	Jan 2024	11.130	Nov 2024	4.597	Nov 2025	-		4.597	-	-	-
Transport Layer Projects	Various	Various : Various	-	3.472	Feb 2024	7.248	Nov 2024	0.000		-		0.000	-	-	-
PWSA Ground Activities	Various	Various : Various	-	-		20.217	Aug 2025	82.023	Dec 2025	-		82.023	-	-	-
Subtotal			-	1,748.819		1,250.633		1,044.112		-		1,044.112	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	1,748.819		1,250.633		1,044.112		-		1,044.112	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 4								R-1 Program Element (Number/Name) PE 1206410SF / Space Technology Development and Prototyping				Project (Number/Name) 643731 / Transport			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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.																												
Conduct activities for PWSA ground support.																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	2024	4	2027
Launch and operations of Tranche 1 Transport satellites.	4	2025	4	2027
Conduct activities for Tranche 2 capability development.	1	2024	4	2027
Conduct activities for PWSA ground support.	3	2025	4	2027

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
643732: <i>Sensing</i>	0.000	106.702	96.424	88.821	0.000	88.821	-	-	-	-	-	-
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 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 developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including advanced missile tracking and global surveillance enabling beyond-line-of-sight targeting. 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 advanced missile tracking, global surveillance and surface moving target custody, and enhanced space domain awareness and deterrence capabilities to U.S. joint warfighting forces in bi-annual tranches, which began in FY 2022.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Sensing									7.751	24.424	28.821	
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 2025 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.												
PWSA Futures Program (PFP) - Start Assembly, Integration, and Test (AI&T) of the NExT space vehicles and complete the backup Telemetry, Tracking, and Commanding testing.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206410SF / Space Technology Development and Prototyping	Project (Number/Name) 643732 / Sensing		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
- Coordinate with payload partners in support of a bus provider change and path forward after NExT cancellation. 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 2025 to FY 2026 Increase/Decrease Statement: The increase from FY 2025 to FY 2026 of \$4.397 million is due to final Tranche 0 payments.				
Title: Sabre Description: Sabre is a joint partnership executed/managed by Space Development Agency (SDA) and supported by the Office of the Secretary of Defense (OSD) Test Resource Management Center (TRMC) and United States Army Futures Command. This project will support demonstration for space-based monitoring of telemetry data during flight testing, which will greatly enhance range test flexibility and improve test execution operational Security. FY 2025 Plans: - Identified opportunities for technology transition to other mission partners such as Test Resource Management Center. FY 2025 to FY 2026 Increase/Decrease Statement: The decrease from FY 2025 to FY 2026 to \$0.000 is due to no additional funds required for this effort.		61.664	0.000	-
Title: Classified Projects Description: Due to the classified nature of this project, specific details are available at a higher classification level. FY 2025 Plans: 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 2025 to FY 2026 Increase/Decrease Statement: Due to the classified nature of this project, specific details regarding the decrease between FY 2025 to FY 2026 of \$20.000 million are available at a higher classification level.		37.287	72.000	60.000
Accomplishments/Planned Programs Subtotals		106.702	96.424	88.821

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>
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), DoD Combatant Commands, DoD 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	3.201	Apr 2024	24.424	Nov 2024	28.821	Nov 2025	-		28.821	-	-	-
PWSA NExT Experimental Testbed (NExT)	Various	Various : Various	-	4.550	Jan 2025	0.000		0.000		-		0.000	-	-	-
Sabre	Various	Various : Various	-	61.664	Feb 2024	0.000		0.000		-		0.000	-	-	-
Classified Projects	Various	Various : Various	-	37.287	Jan 2024	72.000	Jul 2025	60.000	Nov 2025	-		60.000	-	-	-
Subtotal			-	106.702		96.424		88.821		-		88.821	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	106.702		96.424		88.821		-		88.821	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 4					PE 1206410SF / Space Technology Development and Prototyping					643732 / Sensing			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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.																												
Sabre																												
Identify opportunities for technology transition or other risk reduction efforts.																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	2024	4	2025
Operations of Tranche 0 Tracking satellites.	1	2024	4	2028
Conduct capstone demonstration to validate mission capabilities.	1	2024	4	2028
Sabre				
Identify opportunities for technology transition or other risk reduction efforts.	1	2024	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	78.336	115.739	67.246	0.000	67.246	-	-	-	-	-	-
645601: <i>Space-to-Space Communications</i>	0.000	73.336	115.739	65.246	0.000	65.246	-	-	-	-	-	-
645611: <i>Assault Breaker II</i>	0.000	5.000	0.000	2.000	0.000	2.000	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Space Systems Prototype Transitions (SSPT) 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 (TTPs). This includes developing and prototyping critical technology within the DoD, 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 (ABII), is an all-Service, classified, multi-year effort, led by the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) to analyze, research, and recommend material and non-material solutions to the Joint Requirements Oversight Council (JROC).

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

- 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 (S&T) Innovation and facilitate its transition to military space programs of record

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Space Systems Prototype Transitions (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.

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PE 1206427SF: *Space Systems Prototype Transitions (SSP...*
Air Force

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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-to-Space Communications</i>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
645601: <i>Space-to-Space Communications</i>	0.000	73.336	115.739	65.246	0.000	65.246	-	-	-	-	-	-
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 Long Duration Propulsive Evolved Expendable Launch Vehicle Secondary Payload Adapter (abbreviated LDPE) and Rapid On-Orbit Space Technology Evaluation Ring (ROOSTER) provide 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 LDPE/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. LDPE, consisting of the LDPE-1, -2, and -3A missions, concluded in FY 2024. 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 TTPs, such as on-orbit refueling, for use within the United States Space Force (USSF) 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 Air Force Research Laboratory (AFRL) and other DoD labs. It serves as an additional platform to host prototype and experiment payloads that need to operate in concert with LDPEs or 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 (NSTTC) and USSF Space Training and Readiness Command (STARCOM).

Quasi-Zenith Satellite System-Hosted Payload (QZSS-HP) 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 (GEO) over the Eurasian theater.

Space-to-Space (S2S) Comms (funding transferring to PE 1203609SF in FY 2026) includes 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. It enhances the Defense Advanced Research Projects Agency (DARPA) Space-Based Adaptive Communication Node (SpaceBACN) 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. It also develops and maintains a communications testbed to mature communication waveforms and validate hardware.

In 2024, Congress added funding for GEO SmallSat communications technology.

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206427SF / Space Systems Prototype Transitions (SSPT)	Project (Number/Name) 645601 / Space-to-Space Communications		
This program element may include necessary civilian pay expenses required to manage, execute, and deliver Space Systems Prototype Transitions (SSPT) 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 2026 request was reduced by \$0.647M 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."				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Title: Technology Maturation and Prototype Development		33.385	32.542	26.689
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 (UONs) and Joint Urgent Operational Needs (JUONs). 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 (TTPs) for future use in the 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 2025 Plans:				
- Rapid On-Orbit Space Technology Evaluation Ring (ROOSTER): Support shipment and launch integration efforts for ROOSTER-4 Space Vehicle. Complete ground system integration and end-to-end testing in support of launch and on-orbit operations campaign. Continue prototype development, for the ROOSTER-5 mission, including ground segment and payload integration efforts. Begin Space Vehicle factory test campaign, launch vehicle mission unique integration efforts, and all program security accreditation efforts.				
- Tetra: Continue development of Tetra space vehicles to include development of Tetra-6 and complete Tetra-5. Prepare for storage of Tetra-3, -4 and -5 payloads pending updated launch plans.				
- Quasi-Zenith Satellite System—Hosted Payload (QZSS-HP): Continue the international cooperation with Japan by integrating and testing the two Space Domain Awareness (SDA) payloads with the two Japanese Quasi-Zenith Satellites. Support continuation of ground system and data communication development.				
FY 2026 Plans:				
- 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				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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-to-Space Communications</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
the test campaigns of both integrated space vehicles and launch stacks (United States Space force (USSF)-43 and USSF-70, respectively). Initiate follow-on space vehicle bus and payload development. Award ROOSTER-6 contract. - Tetra: Finish Tetra-5 and continue storage pending updated launch plans. Continue development of Tetra-6. Continue storage Tetra-3 and -4 pending updated launch plans. - 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 ground system and data communication development. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased by 5.853M due to Rapid On-Orbit Space Technology Evaluation Ring (ROOSTER)-4 transitioning from development to Ops and testing.			
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 2025 Plans: - ROOSTER: Support launch of ROOSTER-4 aboard the USSF-43 mission and begin the planned 12-month on-orbit prototype testing and demonstration phase. Conduct on-orbit test and demonstration to enable technology maturation of the platform and prototype/experimental payloads. Begin operations training and testing activities of the second ROOSTER platform to support launch and execution of on-orbit operations of prototype and technology demonstration payloads. Begin early payload integration risk reduction efforts. - Tetra: Continue integration, storage and operations to support future launch of Tetra 3, 4, & 5 space vehicles in mid to late FY 2025 or later. - QZSS-HP: In cooperation with the Japanese government, continue and complete integration and testing of the two Space Domain Awareness (SDA) payloads in support of Quasi-Zenith 6 & 7 launches in FY 2025. Support on-orbit Development Test activities post-launch to enable warfighter capabilities for both hosted payloads. FY 2026 Plans: - 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.		11.326	29.381
			38.557

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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-to-Space Communications</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
- Tetra: Continue integration, storage and operations to support future launch of Tetra 3, 4 & 5 space vehicles in FY 2026, pending updated launch plans. - Quasi-Zenith Satellite System-Hosted Payload (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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased by \$9.176M due to ROOSTER-4 on-orbit test of the space vehicle and payloads, ROOSTER-5 payload integration activities and ground systems development, Tetra integration and ground system development, and QZSS HP-2 integration, launch, and test efforts as driven by the Japanese schedule.			
Title: Space-To-Space Communications Description: Continue Space-to-Space (S2S) 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. Enhance the Defense Advanced Research Projects Agency (DARPA) Space-Based Adaptive Communication Node (Space BACN) modem design to support long-range crosslinks and incorporate emerging optical waveform standards. 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. Develop and maintains a communications testbed to mature communication waveforms and validate hardware. FY 2025 Plans: Continue development of optical communication terminal prototypes through Other Transaction Agreements and fund the Optical Terminal Verification Testbed at Massachusetts Institute of Technology Lincoln Laboratory (MIT/LL). Develop interface controls and integration plans in preparation for a space-based prototype demonstration. Mature networking management of optical crosslinks in partnerships with other organizations. Enhance the DARPA Space-Based Adaptive Communication Node (Space-BACN) modem design to support long-range crosslinks and incorporate emerging optical waveform standards. FY 2026 Plans: Funds were erroneously transferred to PE 1203609SF and will be realigned back for proper execution towards: - the continued development of optical communication terminal prototypes through Other Transaction Agreements and fund 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.		26.207	53.816
			0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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-to-Space Communications</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
- enhancing the DARPA Space-Based Adaptive Communication Node (SpaceBACN) modem design to support long-range crosslinks and incorporate emerging optical waveform standards. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 decreased due to S2S Comms funds erroneously being transferred to PE 1203609SF and \$40.687M will be realigned back for proper execution following enactment.			
Accomplishments/Planned Programs Subtotals		70.918	115.739
		FY 2024	FY 2025
<i>Congressional Add:</i> GEO SmallSat Communications Technology		2.418	0.000
<i>FY 2024 Accomplishments:</i> Congressional add project to be awarded to Astranis Satellite company.			
<i>FY 2025 Plans:</i> N/A			
Congressional Adds Subtotals		2.418	0.000
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) 2Q FY 2026. 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 program office will develop an acquisition strategy for ROOSTER-6 in FY 2025 to support a contract start in late FY 2026. 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. AFRL Tetra-5c has now been re-purposed to fulfill the Tetra-6 mission which was awarded in 3Q FY 2024.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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-to-Space Communications</i>
The Quasi-Zenith Satellite System—Hosted Payload (QZSS-HP) acquisition strategy is is to procure the two prototype payloads from Massachusetts Institute of Technology Lincoln Laboratory (MIT/LL) 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 contributing sensors to Space Surveillance Network (SSN). 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 (SDA) Force Design and architecture. Funding for the Space-to-Space (S2S) Communications effort will move to PE 1203609SF effective FY 2026.		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
645611: <i>Assault Breaker II</i>	0.000	5.000	0.000	2.000	0.000	2.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification
 ABII is an all-Service, classified, multi-year effort, led by the Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) to analyze, research, and recommend material and non-material solutions to the Joint Requirements Oversight Council (JROC).

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: Assault Breaker II (ABII) Description: ABII is an all-Service, classified, multi-year effort, OUSD(R&E)-led effort, to analyze, research, and recommend material and non-material solutions to the JROC. FY 2025 Plans: No FY 2025 funding received for ABII under the SSPT program, PE 1206427SF. FY 2026 Plans: Provide warfighter analysis, experiments, and development of modeling and simulation tools to support warfighting objectives established by OUSD(R&E). FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increase accounts for Space Force's portion to fund ABII joint efforts.	5.000	0.000	2.000
Accomplishments/Planned Programs Subtotals	5.000	0.000	2.000

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

Remarks

D. Acquisition Strategy
 Funds are sent via Military Interdepartmental Purchase Request to Space Security and Defense Program (SSDP) adhering to the ABII memorandum of understanding (MOU) signed by the Vice Chief of Space Operations (VCSO) satisfying the United States Space Force (USSF) continued analysis and development efforts.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206427SF / Space Systems Prototype Transitions (SSPT)						Project (Number/Name) 645611 / Assault Breaker II			
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	5.000	Dec 2023	0.000		2.000	Dec 2025	-		2.000	-	-	-
Subtotal			-	5.000		0.000		2.000		-		2.000	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	5.000		0.000		2.000		-		2.000	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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>	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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
Assault Breaker II																												
Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	2024	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force **Date:** June 2025

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 1206438SF / <i>Space Control Technology</i>							

COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	62.099	62.195	60.106	0.000	60.106	-	-	-	-	-	-
642611: <i>Technology Insertion Planning and Analysis</i>	0.000	36.622	36.187	34.754	0.000	34.754	-	-	-	-	-	-
646438: <i>Joint Space Integration Technology</i>	0.000	25.477	26.008	25.352	0.000	25.352	-	-	-	-	-	-

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 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 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 OCS activities 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 Control 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. As required, necessary funding will be requested through established Joint Urgent Operational Need (JUON) and Overseas Contingency Operations (OCO) processes.

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.

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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 1206438SF / <i>Space Control Technology</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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	58.374	62.195	62.590	0.000	62.590
Current President's Budget	62.099	62.195	60.106	0.000	60.106
Total Adjustments	3.725	0.000	-2.484	0.000	-2.484
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	5.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-1.911	0.000			
• Other Adjustments	0.636	0.000	-2.484	0.000	-2.484

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 642611: *Technology Insertion Planning and Analysis*

Congressional Add: *In-orbit Electric Propulsion*

Congressional Add Subtotals for Project: 642611

Congressional Add Totals for all Projects

FY 2024	FY 2025
5.000	-
5.000	-
5.000	-

Change Summary Explanation

FY 2026: -\$1.380M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and Commercial Space Office industry innovation outreach support respectively.

FY 2026: -\$0.594M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
642611: <i>Technology Insertion Planning and Analysis</i>	0.000	36.622	36.187	34.754	0.000	34.754	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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. As required, necessary funding will be requested through established Joint Urgent Operational Need (JUON) and Overseas Contingency Operations (OCO) processes.

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 2025 \$0.200 million was expended for civilian pay expenses in this program element, and in FY 2026 \$0.200 million is forecasted for civilian pay expenses in this program element.

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

	FY 2024	FY 2025	FY 2026
Title: Rapid Reaction Branch	18.673	22.081	21.165
Description: Develops advanced capabilities for rapid prototyping and integration into space control programs of record and, if requested, to warfighter UONs and JUONs. Conducts prototype capability development, testing, training and rapid transition of technology and techniques to space control systems. Sustains deployed quick reaction capabilities until transition to program of record or mission completion.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
<i>FY 2025 Plans:</i> Develop, test, train, field, transition and sustain advanced rapid reaction capabilities in response to emergent requirements from multiple Combatant Commands. Conduct initial technical development and integration activities against relevant threat systems and technologies in preparation for operational requirements. Develop and test advanced prototypes in support of activities within the Space Control Technology portfolio. Based on technological advances relevant to the mission area, develop, integrate, and evaluate next generation capabilities into Ground Reference Architecture (GRA) Increment 6. Develop, test, train, deliver and sustain urgent/emergent operational needs using Increment 6 GRA technologies for urgent need timelines. Integrate information assurance constructs and controls into developmental platforms and architecture to expedite fielding. Execute remote and field development & test activities using remote 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 2025 funding will allow the program to support Development, Security, and Operations (DevSecOps) activities fully utilizing all three remote development sites located in the United States European Command (USEUCOM), United States Central Command (USCENTCOM), and United States Indo-Pacific Command (USINDOPACOM) Area of Responsibility (AOR) further enabling the program to pace the threat and rapidly deliver critical warfighting capabilities in the contested space domain. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain, leveraging commercial and international opportunities, if appropriate. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc.			
<i>FY 2026 Plans:</i> 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 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			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
opportunities and international relationships, if appropriate. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased by \$0.916 million due to inflation adjustments and A&AS and FFRDC reductions.			
Title: Integration and Technology Futures		12.949	14.106
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 2025 Plans: Conduct IRON JAR space experimentation activities with programs of record and mission partners to demonstrate and evaluate space technologies, mature space operations processes, conduct operator training, develop Tactics, Techniques, and Procedures (TTPs) and validate digital engineering models. Identify and prioritize solution development of new space technologies. FY 2025 funding will allow warfighter test and training activities utilizing an on-orbit asset to refine the DCS mission.			
Conduct systems engineering activities to allow Space Systems Command (SSC) to link its individual space defense programs into one combined "system of systems" capable of fighting a war together.			
Conduct Battle Management Kill Chain (BMKC) modeling, including Campaign or Performance-level analyses for Space Domain Awareness and Combat Power (SDACP). This will allow SSC to conduct BMKC modeling, update threat information, and incorporate Space Domain Awareness (SDA) and Command and Control (C2) updates into the existing BMKC model. Additionally, SSC will be able to model the complete "protect and defend" architecture for the National Security Space Enterprise (NSSE).			
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 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 DCS, OCS, SDA, and C2 capabilities using the Battle Management Kill Chain (BMKC) model and other models available (e.g., FFRDC Aerospace models). The			
			13.589

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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 DCS, OCS, SDA, and C2 enterprise-level system requirements. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 decreased by \$0.517 million due to inflation adjustments and A&AS and FFRDC reductions.			
Accomplishments/Planned Programs Subtotals		31.622	36.187
		FY 2024	FY 2025
<i>Congressional Add:</i> In-orbit Electric Propulsion <i>FY 2024 Accomplishments:</i> Project worked with mission partner to develop gridded ion thruster hardware based on the National Aeronautics and Space Administration (NASA) Evolutionary Xenon Thruster - Commercial (NEXT-C) hardware development contract. The objective for the project is to develop and test key components of a higher Thrust-to-Power (T/P) NEXT derivative for dual commercial and military applications. Development is planned to include the two key components of a propulsion system, including NEXT-C electric propulsion device and the associated higher power processing unit (PPU).		5.000	-
Congressional Adds Subtotals		5.000	-
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	19.068	Oct 2023	21.281	Oct 2024	20.390	Oct 2025	-		20.390	-	-	-
SCT Integration and Technology Futures	Various	Various : Various	-	9.181	Oct 2023	9.891	Oct 2024	9.339	Oct 2025	-		9.339	-	-	-
In-orbit Electric Propulsion	MIPR	NASA Glenn Research Ctr : Cleveland, OH	-	4.836	Nov 2024	-		-		-		-	-	-	-
Civilian Pay	Various	Space Systems Command : El Segundo, CA	-	0.171	Oct 2023	0.175	Oct 2024	0.195	Oct 2025	-		0.195	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000	Oct 2023	1.265	Oct 2024	1.272	Mar 2026	-		1.272	-	-	-
Subtotal			-	33.256		32.612		31.196		-		31.196	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	1.024	Jan 2024	0.725	Jan 2025	1.158	Jan 2026	-		1.158	-	-	-
FFRDC	RO	Aerospace : El Segundo, CA	-	2.213	Jan 2024	2.750		2.300	Oct 2025	-		2.300	-	-	-
Other Support	Various	Various : El Segundo, CA	-	0.129		0.100	Nov 2024	0.100	Nov 2025	-		0.100	-	-	-
Subtotal			-	3.366		3.575		3.558		-		3.558	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	36.622		36.187		34.754		-		34.754	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 x3 Design/ Integrate/Support																												
Signal Processing Lab GRA (dev) Increment 5																												
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																												
Congressional Add																												
NEXT-C Gridded Ion Thruster Development																												
In-Orbit Electric Propulsion Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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
<i>RRB</i>				
Rapid Prototyping/Demo/Testing/Fielding & Transition of UON/JUON/JEON Weapon System Capabilities- Ongoing Tests & DT Planning and Execution	1	2024	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 x3 Design/Integrate/Support	1	2024	4	2029
Signal Processing Lab GRA (dev) Increment 5	1	2024	2	2024
Signal Processing Lab GRA (dev) Increment 6	4	2024	1	2027
Signal Processing Lab GRA (dev) Increment 7	3	2026	1	2030
Signal Processing Lab GRA (dev) Increment 8	3	2029	4	2030
<i>Integration and Technology Futures</i>				
Enterprise Systems Engineering	1	2024	4	2030
IRON JAR	1	2024	1	2025
Space Control Technology Development & Transition	1	2024	4	2030
<i>Congressional Add</i>				
NEXT-C Gridded Ion Thruster Development	1	2024	2	2025
In-Orbit Electric Propulsion Development	1	2025	4	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
646438: <i>Joint Space Integration Technology</i>	0.000	25.477	26.008	25.352	0.000	25.352	-	-	-	-	-	-
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.

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 2024	FY 2025	FY 2026
Title: Military Application of the Space Environment (MASE)	25.477	26.008	25.352
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 2025 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 1.4, and begin development of software for Major Release 1.5 of new capabilities and validate results during campaign planning, exercises, and war games. Expand MASE accessibility to Top Secret networks. Develop, test, and provide training for new or updated tactics, techniques, and procedures enhanced by MASE for operational users. Integrate new traditional and non-			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
traditional 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, prototyping, and activities that may leverage commercial and international opportunities.					
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, 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.					
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased by \$0.656 million due to inflation.					
Accomplishments/Planned Programs Subtotals			25.477	26.008	25.352
C. Other Program Funding Summary (\$ in Millions) N/A					
Remarks					
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					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>

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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	7.617	Oct 2023	6.590	Nov 2024	7.683	Nov 2025	-		7.683	-	-	-
MASE Software Development	Various	DSoft Technologies : Colorado Springs, CO	-	6.386	Oct 2023	5.957	Nov 2024	6.369	Nov 2025	-		6.369	-	-	-
MASE Modeling, Simulation and Demonstration	Various	Various : Various	-	7.159	Oct 2023	7.897	Nov 2024	6.954	Nov 2025	-		6.954	-	-	-
MASE Application Infrastructure/Online Services	Various	Various : Various	-	2.423	Oct 2023	1.606	Oct 2024	1.432	Nov 2025	-		1.432	-	-	-
Technical Mission Analysis	RO	Not specified. : TBD	-	0.248		0.268	Oct 2024	0.277	Nov 2025	-		0.277	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000	Oct 2023	0.952	Oct 2024	0.933	Nov 2025	-		0.933	-	-	-
Subtotal			-	23.833		23.270		23.648		-		23.648	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.100	Dec 2023	0.816	Oct 2024	0.329	Oct 2025	-		0.329	-	-	-
Subtotal			-	0.100		0.816		0.329		-		0.329	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	1.028	Nov 2023	1.390	Mar 2025	0.987	Nov 2025	-		0.987	-	-	-
FFRDC	RO	Aerospace Corp. : El Segundo, CA	-	0.478	Nov 2023	0.506	Jan 2025	0.375	Nov 2025	-		0.375	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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>					
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.038	Oct 2023	0.026	Nov 2024	0.013	Nov 2025	-		0.013	-	-	-
Subtotal			-	1.544		1.922		1.375		-		1.375	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	25.477		26.008		25.352		-		25.352	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force

Date: June 2025

Appropriation/Budget Activity

3620F / 4

R-1 Program Element (Number/Name)

PE 1206438SF / *Space Control Technology*

Project (Number/Name)

646438 / *Joint Space Integration Technology*

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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>																												
Major Release 1.3																												
Major Release 1.4																												
Major Release 1.5																												
Major Release 1.6																												
Major Release 1.7																												
Major Release 1.8																												
Major Release 1.9																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force

Date: June 2025

Appropriation/Budget Activity

3620F / 4

R-1 Program Element (Number/Name)

PE 1206438SF / *Space Control Technology*

Project (Number/Name)

646438 / *Joint Space Integration Technology*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>MASE Integration and Test</i>				
Systems Engineering and Integration	1	2024	4	2030
Application Infrastructure/Online Services	1	2024	4	2030
Developmental/Operational Testing	1	2024	4	2030
<i>MASE Modeling, Simulation and Demonstration</i>				
Modeling and Propagation	1	2024	4	2030
Regional Models	1	2024	4	2030
Sensors and Data	1	2024	4	2030
<i>MASE Software Development</i>				
Major Release 1.3	1	2024	4	2024
Major Release 1.4	1	2024	4	2025
Major Release 1.5	1	2025	4	2026
Major Release 1.6	1	2026	4	2027
Major Release 1.7	1	2027	4	2028
Major Release 1.8	1	2028	4	2030
Major Release 1.9	1	2029	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force **Date:** June 2025

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	144.169	209.247	326.144	0.000	326.144	-	-	-	-	-	-
649493: <i>Resilient Architecture Design and Evaluation</i>	0.000	11.089	60.140	107.472	0.000	107.472	-	-	-	-	-	-
64S444: <i>Experimentation (Space)</i>	0.000	133.080	149.107	218.672	0.000	218.672	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

The Tech Transition (Space) Program addresses the gaps between 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 has institutionalized Experimentation and Prototyping to achieve smarter, faster, and more efficient acquisitions that move technologies rapidly to support the most critical warfighting capabilities. Project 649493 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. 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 Program Element (PE) 0604858F, Tech Transition Program, Project 645350, Experimentation, and continues space-related work executed in that Program in prior fiscal years.

Through FY 2030, 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 DOD. The terminal flexibility will allow rapid incorporation of new commercial SATCOM vendors as they emerge, thus ensuring low-cost SATCOM options for DOD 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 DoD and commercial paths, including broadband, narrowband and other mission services 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 DoD 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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 1206458SF I Tech Transition (Space)				
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.						
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		164.649	228.547	302.399	0.000	302.399
Current President's Budget		144.169	209.247	326.144	0.000	326.144
Total Adjustments		-20.480	-19.300	23.745	0.000	23.745
• 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		-15.900	0.000			
• SBIR/STTR Transfer		-4.580	0.000			
• Other Adjustments		0.000	-19.300	23.745	0.000	23.745
Change Summary Explanation						
In FY 2024, the \$15.900 million decrease in Reprogrammings was to fund higher Department of the Air Force (DAF) requirements in the approved FY 2024 Omnibus Above Threshold Reprogramming (ATR) (FY 24-11 PA).						
In FY 2025, the budget decreased by \$19.300 million in Other Adjustments due to a DAF directed transfer to RDT&E, Space Force, PE 1206447SF, Resilient Missile Warning Missile Tracking - Medium Earth Orbit (MEO).						
The FY 2026 budget request increased by \$23.745 million as a result of programmatic adjustments within the Science and Technology portfolio. This reduction supports a strategic realignment aimed at optimizing core research areas and enhancing resource efficiency. Main adjustments include:						
-- In FY 2026, the budget request increased by \$25.000 million to accelerate Narrowband technologies, specifically 5G for tactical user equipment compatibility with commercial partners and LEO satellite constellations.						
-- The FY 2026 request was reduced by \$0.075 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.						

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
649493: Resilient Architecture Design and Evaluation	0.000	11.089	60.140	107.472	0.000	107.472	-	-	-	-	-	-
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 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 DoD, 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.

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

	FY 2024	FY 2025	FY 2026
Title: Resilient Architecture Design and Evaluation	11.089	60.140	107.472
Description: Prototype and optimize a cyber-secure multi-orbit space-based data transport 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-TRL 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 product is prototypes that are validated with quantitative performance and scalability data suitable to develop USSF requirements and reduce risk to future acquisition.			
FY 2025 Plans: Continue modeling/simulation and operational experimentation activities to advance next-generation resilient network enterprise management and control capabilities, establish scalability to DoD traffic loads, and optimize traffic flow algorithms across the hybrid DoD-commercial SATCOM architecture. Prototype variable trust engine extending DoD zero trust principles across the internetwork to dynamically provide improved availability and security. Construct trusted network device simulators and emulators to support software- and hardware-in-the-loop experimentation with related prototyping and acquisition programs. Continue development and test of network service orchestrator to quantify and improve security and resiliency. Conduct milestone			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
experiment characterizing advanced authentication, authorization and trust factors to inform ongoing and future programs of record. Conduct planning for additional early adopter tests and integration with next-generation terrestrial data transport investments. FY 2026 Plans: Continue: – Operational experimentation and modeling/simulation activities to advance next-generation resilient network enterprise management and control capabilities, establish scalability to DoD traffic loads, and optimize traffic flow algorithms across the hybrid DoD-commercial SATCOM architecture. – Prototyping variable trust engine extending DoD 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased compared to FY 2025 by 47.332 million due to acquisition of prototype network orchestration software, trusted device engineering units, long-lead parts for space-rated trusted device flight units, as well as examining technologies, use cases, and feasibility of leveraging 5G non-terrestrial networks - including both commercial and DoD systems - to support disadvantaged users and critically examine options to improve resiliency, agility, and affordability of UHF narrowband services from space.				
Accomplishments/Planned Programs Subtotals		11.089	60.140	107.472

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 Architecture Design and Evaluation	Various	Various : Various : TBD	-	0.000	Oct 2023	-		-		-		-	-	-	-
Hybrid Space Architecture	C/FP	Various: Various : Arlington, VA	-	2.153		8.065	Oct 2024	6.188	Nov 2025	-		6.188	-	-	-
Commercial Space Data Providers	C/TBD	TBD : TBD	-	1.623		4.205	Dec 2024	5.000	Nov 2025	-		5.000	-	-	-
C2E Cloud Services	SS/FP	Amazon Web Services, Inc : Seattle, WA	-	-		0.675	Jan 2025	1.750	Nov 2025	-		1.750	-	-	-
Network simulation software	Various	Various : Various	-	-		0.500	Jan 2025	1.500	Nov 2025	-		1.500	-	-	-
Hardware/software-in-the-loop	C/CPAF	MTSI : Alexandria, VA	-	0.115		2.085	Jan 2025	4.627	Nov 2025	-		4.627	-	-	-
Prototype Space Data Network Architecture Development	TBD	TBD : TBD	-	-		1.121	Sep 2025	17.203	Nov 2025	-		17.203	-	-	-
Space Exchange Point Prototype	C/CPFF	MIT LL : Boston, MA	-	2.416		27.334	Jun 2025	17.000	Jan 2026	-		17.000	-	-	-
Narrowband Ultra High Frequency Prototype	C/TBD	TBD : TBD	-	-		0.000	Mar 2025	6.874	Nov 2025	-		6.874	-	-	-
Narrowband 5G Acceleration	C/TBD	TBD : TBD	-	-		0.000	Aug 2025	18.500	Nov 2025	-		18.500	-	-	-
Subtotal			-	6.307		43.985		78.642		-		78.642	-	-	N/A
Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 Architecture & Specification	MIPR	FFRDC/Naval Research Lab : TBD	-	3.638	Jan 2024	9.441	Nov 2024	13.675	Nov 2025	-		13.675	-	-	-
Systems Engineering & Assessment	Various	Various : Various	-	0.439		2.466	Apr 2025	4.250	Nov 2025	-		4.250	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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			
Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
Narrowband/5G Architecture & Assessment	Various	Various : Various	-	-		-		3.750	Jan 2026	-		3.750	-	-	-
Subtotal			-	4.077		11.907		21.675		-		21.675	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.705	Nov 2024	4.248	Jul 2025	7.155	Jan 2026	-		7.155	-	-	-
Subtotal			-	0.705		4.248		7.155		-		7.155	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	11.089		60.140		107.472		-		107.472	-	-	N/A
Remarks The FY 2026 request was reduced by \$0.029 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.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 and Evaluation																												
Architectural Performance Assessments																												
Architectural Resilience Evaluations																												
Prototype Integration and Test																												
Operational Experimentation																												
Narrowband Technology Assessment & Evaluation																												
Narrowband Technology Prototype Integration & Test																												
Narrowband Operational Experimentation																												
Narrowband 5G Acceleration																												
Transition to Force Design, PEO, and Ops																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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 and Evaluation				
Architectural Performance Assessments	1	2024	4	2027
Architectural Resilience Evaluations	1	2025	4	2027
Prototype Integration and Test	3	2025	3	2028
Operational Experimentation	1	2026	2	2029
Narrowband Technology Assessment & Evaluation	1	2026	3	2027
Narrowband Technology Prototype Integration & Test	1	2027	2	2030
Narrowband Operational Experimentation	1	2029	4	2030
Narrowband 5G Acceleration	1	2026	4	2028
Transition to Force Design, PEO, and Ops	1	2025	4	2030

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
64S444: Experimentation (Space)	0.000	133.080	149.107	218.672	0.000	218.672	-	-	-	-	-	-
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 2022, this included experimentation for Arctic Communications, leveraging Air Force Research Laboratory (AFRL) Global Lightning efforts. In FY 2024 through FY 2028, the Experimentation (Space) efforts will extend Hybrid SATCOM capabilities to an expanded set of DOD 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 DOD communications.

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

	FY 2024	FY 2025	FY 2026
Title: Experimentation Space	133.080	149.107	218.672
Description: Experimentation Space addresses significant gaps identified by COCOMs, MAJCOMs, and Department Air Force (DAF) Senior Leaders, often by quickly leveraging emerging capability into DOD systems.			
FY 2025 Plans: Continue development on prototypes for the Hybrid SATCOM Terminals that can be integrated on air and ground platforms and perform the required integration assessments. Continue development of customized antennas needed for most challenging platforms. Continue integration assessments on all platforms. Begin integration of prototypes on initial test platforms.			
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 - Integration and flight testing on remaining platforms - Networking and interoperability tests with DAF Battle Network - Flight worthiness for initial platforms			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Complete: - integration assessments on all platforms. - Development of prototypes for the Hybrid SATCOM Terminals that can be integrated on air and ground platforms. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 funding increased compared to FY 2025 by \$69.565 million due to acceleration of integration and test activities for Hybrid SATCOM terminals on additional aircraft platforms.			
Accomplishments/Planned Programs Subtotals		133.080	149.107
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 2026 Air Force **Date:** June 2025

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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	33.525	Jul 2024	45.000	Nov 2024	40.500	Nov 2025	-		40.500	-	-	-
Hybrid SATCOM Terminals Contractor 2	C/CPFF	L3Harris : UT	-	41.000	Jun 2024	25.000	Jan 2025	43.500	Nov 2025	-		43.500	-	-	-
Hybrid SATCOM Terminals Contractor 3	C/CPAF	Intelsat : VA	-	-		1.828	May 2025	-		-		-	-	-	-
Custom Antennas for Key Platforms Contractor 1	C/CPAF	Collins : TX	-	11.384	Sep 2024	3.000	Aug 2025	19.500	Nov 2025	-		19.500	-	-	-
Custom Antennas for Key Platforms Contractor 2	C/CPFF	Northrop Grumman : MD	-	10.000	Nov 2024	1.852	Jun 2025	16.500	Nov 2025	-		16.500	-	-	-
Custom Antennas for Key Platforms Contractor 3	C/CPFF	VIASAT : VA	-	5.500	Sep 2024	2.207	Aug 2025	4.000	Dec 2025	-		4.000	-	-	-
Platform Integration Assessments	Various	Various : TBD	-	2.199	Sep 2024	-		-		-		-	-	-	-
Emerging LEO Constellation Experimentation	C/CPFF	Kuiper Govt Services : VA	-	13.660	May 2024	5.500	Nov 2024	6.070	Nov 2025	-		6.070	-	-	-
LEO Resilience Improvements	C/CPFF	Space X : CA	-	-		5.829	Mar 2025	8.000	Dec 2025	-		8.000	-	-	-
Hybrid Space Architecture/ Commercial Data Providers	Various	Various : TBD	-	3.559	Sep 2024	-		-		-		-	-	-	-
Platform Integration and Experiments	Various	Various : TBD	-	-		34.500	Jan 2025	61.259	Dec 2025	-		61.259	-	-	-
Subtotal			-	120.827		124.716		199.329		-		199.329	-	-	N/A

Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	1.300	Jun 2024	2.677	Mar 2025	2.700	Nov 2025	-		2.700	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	3.117	May 2024	1.338	May 2025	5.122	Nov 2025	-		5.122	-	-	-
Subtotal			-	4.417		4.015		7.822		-		7.822	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	2.604	Jul 2024	5.115	Dec 2024	7.200	Dec 2025	-		7.200	-	-	-
Contractor Flight Test Support 1	C/Various	Northrop Grumman : CA	-	-		2.394	Mar 2025	-		-		-	-	-	-
Contractor Flight Test Support 2	C/Various	Lockheed Martin : TX	-	-		4.578	Nov 2025	-		-		-	-	-	-
Contractor Flight Test Support 3	C/Various	Various : TBD	-	-		2.709	Nov 2025	-		-		-	-	-	-
Subtotal			-	2.604		14.796		7.200		-		7.200	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	3.453	Jul 2024	3.080	Jun 2025	3.121	Mar 2026	-		3.121	-	-	-
FFRDC	MIPR	MIT/LL : Lexington, MA	-	1.779	Jul 2024	2.500	Apr 2025	1.200	Mar 2026	-		1.200	-	-	-
Subtotal			-	5.232		5.580		4.321		-		4.321	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	133.080		149.107		218.672		-		218.672	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force							Date: June 2025			
Appropriation/Budget Activity 3620F / 4				R-1 Program Element (Number/Name) PE 1206458SF / Tech Transition (Space)		Project (Number/Name) 64S444 / Experimentation (Space)				
	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks The FY 2026 request was reduced by \$.046 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.										

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force

Date: June 2025

Appropriation/Budget Activity
3620F / 4

R-1 Program Element (Number/Name)
PE 1206458SF / Tech Transition (Space)

Project (Number/Name)
64S444 / Experimentation (Space)

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
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	2024	4	2025
Terminal & Antenna Development and Prototype	1	2024	4	2026
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 2026 Air Force	Date: June 2025

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 1206730SF / <i>Space Security and Defense Program</i>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	63.784	53.199	45.200	0.000	45.200	-	-	-	-	-	-
64A025: <i>Space Protection Program</i>	0.000	63.784	53.199	45.200	0.000	45.200	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This Program Element (PE) 1206730SF, Space Security and Defense Program (SSDP) funds activities executed by the Joint Department of Defense (DoD) 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 Defense (DEPSECDEF) and Principal Deputy Director of National Intelligence (PDDNI). SSDP's unique position with both the DoD and ODNI, authorities from both the DEPSECDEF 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 DoD, 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 element may include necessary emergent or unanticipated civilian pay expenses required to manage and execute SSDP and/or deliver products for emergent or unanticipated 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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				
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget	59.784	53.199	54.448	0.000	54.448	
Current President's Budget	63.784	53.199	45.200	0.000	45.200	
Total Adjustments	4.000	0.000	-9.248	0.000	-9.248	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	0.000	0.000				
• Congressional Rescissions	0.000	0.000				
• Congressional Adds	4.000	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	-9.248	0.000	-9.248	
Change Summary Explanation						
FY 2024: Increase due to Congressional Add in the amount of 4M for SSDP support.						
The FY 2026 request was reduced by 3.030 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." The remainder of the 9.248M FY 2026 reduced request is due to other Space Force Service priorities.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Space Protection and Survivability				63.784	53.199	45.200
Description: SSDP applies a holistic analytical approach to improve the resilience of NSS space effects for national security missions.						
FY 2025 Plans:						
Fiscal Year 2025 will see continued organizational change, growth, and challenges within the United States Space Force (USSF) and across the National Security Space (NSS) community. As an integral part of the community, the Space Security and Defense Program (SSDP) will adapt to the inevitable changes and continue to provide our stakeholders with creative, informed, and rigorously evaluated solutions for space superiority.						
SSDP's analytical priorities for FY25 focus on the following: Ensuring Resilience of Near-term and Future Space and Space-enabled Missions, Offensive Space Control (OSC) Force Design, Enhancing Space Control Weapon Effectiveness, and Space and the Cross Domain Fight. As part of Ensuring Resilience of Near-term and Future Space and Space-enabled Missions, SSDP will continue to focus on the resiliency of next-generation space missions and support to our stakeholders' development						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 1206730SF / <i>Space Security and Defense Program</i>		
C. Accomplishments/Planned Programs (\$ in Millions) of Government Reference Architectures. Keeping pace with and getting ahead of adversary advances is a critical component of our Offensive Space Control Force Design analysis. Specifying Space Force Design (offense and defense) is only the start of our SSDP responsibilities. The program will also be focused on Enhancing Space Control Weapon Effectiveness; requiring SSDP to collaborate with our stakeholders to ensure 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. In the spirit of our charter, we will address these priorities through materiel and non-materiel solutions, kinetic and non-kinetic options, cross-domain solutions, and policy, doctrine and strategic messaging analyses to support safe, sustainable, and flexible on-orbit operations, and deter adversaries from engaging in space conflict. FY 2026 Plans: (U) 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. (U) 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). (U) 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 2025 to FY 2026 Increase/Decrease Statement: FY 2025 to FY2026 funding decreased due to SSDP \$8M reduction to fund Space Force Service priorities.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		63.784	53.199	45.200

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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		
D. Other Program Funding Summary (\$ in Millions) N/A		
Remarks N/A		
E. 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 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206730SF / Space Security and Defense Program				Project (Number/Name) 64A025 / Space Protection Program					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	56.822	Oct 2023	46.349	Oct 2024	38.947	Oct 2025	-		38.947	-	-	-
Subtotal			-	56.822		46.349		38.947		-		38.947	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	2.493	Oct 2023	2.503	Oct 2024	2.242	Oct 2025	-		2.242	-	-	-
Oversight, Advisory and other Technical Support	Various	Various : TBD	-	4.469	Oct 2023	4.347	Oct 2024	4.011		-		4.011	-	-	-
Subtotal			-	6.962		6.850		6.253		-		6.253	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	63.784		53.199		45.200		-		45.200	-	-	N/A
Remarks N/A															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 4					PE 1206730SF / Space Security and Defense Program					64A025 / Space Protection Program			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Non-Traditional Effects - Multi-Domain Effects																												
Non-Traditional Effects - Electronic Warfare																												
Space Control																												
Space Control - Space Domain Awareness																												
Space Control - Future Technologies																												
Wargaming																												
Intelligence and Policy - Threat Assessment																												
Intelligence and Policy- Policy Assessment																												
Integrated Modeling & Analysis																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force		Date: June 2025
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206730SF / Space Security and Defense Program	Project (Number/Name) 64A025 / Space Protection Program

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space Security and Defense Program				
Non-Traditional Effects - Multi-Domain Effects	1	2024	4	2030
Non-Traditional Effects - Electronic Warfare	1	2024	4	2030
Space Control	1	2024	4	2030
Space Control - Space Domain Awareness	1	2024	4	2030
Space Control - Future Technologies	1	2024	4	2030
Wargaming	1	2024	4	2024
Intelligence and Policy - Threat Assessment	1	2024	4	2030
Intelligence and Policy- Policy Assessment	1	2024	4	2030
Integrated Modeling & Analysis	1	2025	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 1206760SF / <i>Protected Tactical Enterprise Service (PTES)</i>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	70.270	77.509	114.430	0.000	114.430	-	-	-	-	-	-
643726: <i>PTES</i>	0.000	44.439	24.303	66.935	0.000	66.935	-	-	-	-	-	-
643733: <i>PTW Over Commercial</i>	0.000	25.831	53.206	47.495	0.000	47.495	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

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 element may include necessary civilian pay expenses required to manage, execute, and deliver the PTES 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 2026 Air Force			Date: June 2025		
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)			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	76.554	79.709	38.592	0.000	38.592
Current President's Budget	70.270	77.509	114.430	0.000	114.430
Total Adjustments	-6.284	-2.200	75.838	0.000	75.838
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-3.763	-2.200			
• 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	-2.521	0.000			
• Other Adjustments	0.000	0.000	75.838	0.000	75.838
Change Summary Explanation					
FY 2024: -3.763M; FY25 Congressional reduction for underexecution.					
FY 2025: -2.200M; FY25 enacted Congressional intended reduction.					
FY 2026: -1.116M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office capability delivery and industry engagement support respectively.					
FY 2026: -0.868M Advisory and Assistance Services (A&AS) reductions and inflation adjustments to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."					
FY 2026: +78.100M to align with program requirements for Protected Tactical Waveform over Wideband Global SATCOM Full Operational Capability					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F / 4					R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterprise Service (PTES)				Project (Number/Name) 643726 / PTES			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
643726: PTES	0.000	44.439	24.303	66.935	0.000	66.935	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
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.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: PTES Prototype Ground and Software Development									38.668	19.338	42.505	
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 2025 Plans: Continue development of software focused on initial capability delivery and deficiency fixes necessary for Initial Operational Capability (IOC).												
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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to continued software development to deliver the initial prototype, 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									5.771	4.965	24.430	
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												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206760SF / <i>Protected Tactical Enterprise Service (PTES)</i>	Project (Number/Name) 643726 / PTES		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
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 2025 Plans: Continue test verification and validation planning to enable Development Test/Operational Test for Initial Operational Capability (IOC) and for Full Operational Capability (FOC). Continue system-level verification testing and evaluation for Government hardware and software ground element certifications. Perform additional testing and integration activities with other PTW-capable modems necessary to expand PTW capability to other services and user groups. Witness PTES contractor-led factory tests focusing on PTES specification requirements. Support continuous cybersecurity assessments, such as those required to maintain Approvals to Operate (ATO), software qualification testing, regression testing, capability demonstrations, and risk reduction tests. 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. 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 to respond to existing and emerging adversarial threats with speed and agility. FY 2025 to FY 2026 Increase/Decrease Statement: FY2026 increase is due to the continuing subsystem development and test planning and the addition of developmental and operational integration, test, and verification activities.				
Accomplishments/Planned Programs Subtotals		44.439	24.303	66.935

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025	
Appropriation/Budget Activity 3620F / 4				R-1 Program Element (Number/Name) PE 1206760SF / <i>Protected Tactical Enterprise Service (PTES)</i>				Project (Number/Name) 643726 / PTES			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPSF 01 BA01 PTES00: <i>PTES HUB</i>	50.225	56.148	29.949	-	29.949	-	-	-	-	-	-
Remarks											
D. Acquisition Strategy											
USSF is developing the Protected Anti-Jam Tactical System (PATs) 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 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterprise Service (PTES)				Project (Number/Name) 643726 / PTES					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	38.668	Oct 2023	19.338	Oct 2024	42.505	Oct 2025	-		42.505	-	-	-
PTES System Development Baseline, Integration and Test	Various	Various : Various	-	1.413	Nov 2023	1.338	Nov 2024	11.416	Nov 2025	-		11.416	-	-	-
Enterprise SE&I	Various	Various : Various	-	1.128	Nov 2023	2.037	Nov 2024	6.039	Nov 2025	-		6.039	-	-	-
SBIR/STTR	Allot	Not specified. : Washington, DC	-	-		0.837		2.477		-		2.477	-	-	-
Subtotal			-	41.209		23.550		62.437		-		62.437	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	1.673	Nov 2023	0.087	Nov 2024	3.060	Nov 2025	-		3.060	-	-	-
Subtotal			-	1.673		0.087		3.060		-		3.060	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	1.392	Jan 2024	0.501	Jan 2025	1.338	Nov 2025	-		1.338	-	-	-
Other Support	Various	Various : Various	-	0.165	Oct 2023	0.165	Oct 2024	0.100	Oct 2025	-		0.100	-	-	-
Subtotal			-	1.557		0.666		1.438		-		1.438	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	44.439		24.303		66.935		-		66.935	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force							Date: June 2025			
Appropriation/Budget Activity 3620F / 4				R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterpr ise Service (PTES)			Project (Number/Name) 643726 / PTES			
	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks FY26 funding for Technical Mission Analysis, Enterprise SE&I, Federally Funded Research and Development Center (FFRDC), and Advisory and Assistance Services (A&AS) will be realigned from 3022.										

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force											Date: June 2025				
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterprise Service (PTES)						Project (Number/Name) 643726 / PTES			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206760SF / Protected Tactical Enterprise Service (PTES)	Project (Number/Name) 643726 / PTES	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
PTES Ground Development				
PTES Development	1	2024	3	2028
Initial Operational Capability (IOC)	3	2027	3	2027
Full Operational Capability (FOC)	3	2028	3	2028
PTES Software Development				
Software Development Test	4	2024	3	2028
PTES System Development Baseline/Integration/Test				
Hardware Development Build/Test/Installation IOC/FOC Support	1	2024	3	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
643733: PTW Over Commercial	0.000	25.831	53.206	47.495	0.000	47.495	-	-	-	-	-	-
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.

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

	FY 2024	FY 2025	FY 2026
Title: PTW Over Commercial - mPower	18.846	18.997	34.800
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 Defense's partnership with the Luxembourg Ministry of Defense.			
FY 2025 Plans: Continued procurement to acquire two mPOWER GWs under previously awarded NSPA IDIQ Task Orders. Continue and complete remaining three site surveys. Start site preparation for the first of the six sites to enable installation and testing of the first GW.			
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 2026 Air Force									Date: June 2025		
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			
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026
support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities.											
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increase is due to the maintenance cost for the procured gateways and additional site infrastructure and installation efforts.											
Title: PTW Over Commercial - PTES Upgrades									6.985	34.209	12.695
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 DoD 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 2025 Plans: Develop requirements, acquisition strategy, and architecture for enabling PTW over commercial constellations.											
FY 2026 Plans: Continue to develop requirements, acquisition strategy, and architecture for enabling 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decrease is due to finalizing the requirements and acquisition strategies to enable contract actions for developing PTW over commercial satellite constellations.											
Accomplishments/Planned Programs Subtotals									25.831	53.206	47.495
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPSF 01 PTES00: PTES HUB	50.225	56.148	29.949	-	29.949	-	-	-	-	-	-

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force							Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost

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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	18.846	Jan 2024	18.997	Jan 2025	34.800	Jan 2026	-		34.800	-	-	-
PTW Over Commercial - PTES Upgrades	SS/CPIF	Boeing : El Segundo, CA	-	5.310	Apr 2024	31.284	Jun 2025	2.026	Oct 2025	-		2.026	-	-	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	-		-		5.500	Oct 2025	-		5.500	-	-	-
Enterprise SE&I	Various	Not specified. : TBD	-	-		-		2.442	Oct 2025	-		2.442	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		1.830		1.777		-		1.777	-	-	-
Subtotal			-	24.156		52.111		46.545		-		46.545	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	Various : Various	-	0.663	Jul 2024	-		-		-		-	-	-	-
Subtotal			-	0.663		-		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	1.012	Nov 2023	1.095	Nov 2024	0.950	Nov 2025	-		0.950	-	-	-
Subtotal			-	1.012		1.095		0.950		-		0.950	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	25.831		53.206		47.495		-		47.495	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Approvals to Operate Initial Operational Capability																												
Approvals to Operate Full Operational Capability																												
<i>PTW Over Commercial</i>																												
Initial Operational Capability																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force

Date: June 2025

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

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>PTW Over Commercial - mPower</i>				
mPower Gateway Acquisition - Terminal Delivery & Installation	4	2024	4	2026
mPower Gateway Acquisition - Site Prep	3	2025	4	2027
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	2	2027	4	2030
Integration, Testing, Certification, & Approvals to Operate	2	2027	4	2030
Hub Integration with Gateway	3	2028	4	2030
Hub Integration with Gateway Testing	4	2028	4	2030
Approvals to Operate Initial Operational Capability	2	2029	2	2029
Approvals to Operate Full Operational Capability	1	2030	1	2030
<i>PTW Over Commercial</i>				
Initial Operational Capability	2	2029	2	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	210.727	419.996	571.921	0.000	571.921	-	-	-	-	-	-
643722: Protected Tactical SATCOM - Global (PTS_G)	0.000	0.000	100.997	239.639	0.000	239.639	-	-	-	-	-	-
643728: Protected Tactical SATCOM	0.000	210.727	318.999	332.282	0.000	332.282	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

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.

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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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)	
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 DoD 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. PTS-G will consist of two types of space vehicles (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. PTS-G will consist of multiple satellites that can provide either X-band 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		

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

Date: June 2025

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>				
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	360.126	596.996	656.025	0.000	656.025
Current President's Budget	210.727	419.996	571.921	0.000	571.921
Total Adjustments	-149.399	-177.000	-84.104	0.000	-84.104
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-126.530	-177.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-15.247	0.000			
• SBIR/STTR Transfer	-7.622	0.000			
• Other Adjustments	0.000	0.000	-84.104	0.000	-84.104
Change Summary Explanation					
FY 2024: -126.530M Congressional Mark					
FY 2024: -6.665M Congressional Rescission					
FY 2024: -15.247M Higher Space Force priorities					
FY 2025: -177.000M Congressional Intent					
FY 2026: -14.466M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office capability delivery and industry engagement support respectively					
FY 2026: -5.654M Federally Funded Research and Development Center (FFRDC) and Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative					
FY 2026: -58.830M Realignment for higher Space Force priorities					
FY 2026: -1.927M Inflation Rate Adjustment					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
643722: Protected Tactical SATCOM - Global (PTS_G)	0.000	0.000	100.997	239.639	0.000	239.639	-	-	-	-	-	-
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 two types of space vehicles (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 Protected Tactical Enterprise Service (PTES) program.

PTS-G will consist of multiple satellites that can provide either X-band 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 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Title: Protected Tactical SATCOM - Global (PTS-G) 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 2025 Plans: The program office released the PTS-G RFP for design and flatsat demonstration work, resulting in a mature system design review, targeting a new start contract award in 3rd Quarter FY 2025. The program office will also procure Joint Hub modems to enable future ground connectivity, refine financial and schedule considerations, finalize system requirements and designs, and begin design, demo, engineer, manufacture, and test 4 SVs (2 Ka, 2 X). FY 2026 Plans: The Program Office is working towards the first delivery order for up to four contractors for the design and development of PTS-G vehicles (driving competition among vendors to deliver SVs along with X-band and Ka-band payloads). This would be followed by the EMD award, and second delivery order, for four vehicles. The program office will continue to design, demo, engineer, manufacture, and test 4 SVs (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 a Delta Critical Design Review and SV production start for both the bus and payload, and parts buy in preparation for ground 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, prototyping, and activities that may leverage commercial and international opportunities. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased to support the first year of production of four Space Vehicles. These activities include design, engineering, integration, and manufacturing activities.		0.000	100.997
Accomplishments/Planned Programs Subtotals		0.000	100.997
C. Other Program Funding Summary (\$ in Millions)			
N/A			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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)
C. Other Program Funding Summary (\$ in Millions)		
Remarks		
D. Acquisition Strategy		
PTS-G Acquisition strategy was approved by the SAE on 14 August, 2024. The Program Office is working towards a competitive award for an IDIQ contract vehicle and concurrently a first delivery order for up to four contractors for the design and development of PTS-G vehicles (driving competition between vendors along the vehicle type (X-Band and mil-Ka Band) or within a single vehicle type). This would be followed by the EMD award, second delivery order, for four vehicles to achieve IOC in FY 2028. A subsequent third delivery order for four more vehicles would achieve FOC in FY 2030. 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 Space Vehicles and Ground Modernization Ka-band	C/FFP	Not specified. : TBD	-	-		21.500	Jun 2025	92.483	Mar 2026	-		92.483	-	-	-
PTS-G Space Vehicles and Ground Modernization X-band	C/FFP	Not specified. : TBD	-	-		21.500	Jun 2025	92.483	Mar 2026	-		92.483	-	-	-
PTS-G Joint Hubs	SS/FFP	Not specified. : TBD	-	-		37.259	Mar 2026	26.060	Mar 2026	-		26.060	-	-	-
PTS-G Technical Mission Analysis (TMA)	C/Various	Not specified. : TBD	-	-		1.986	Jun 2025	2.750	Oct 2025	-		2.750	-	-	-
PTS-G Enterprise SE&I	C/CPIF	Not specified. : TBD	-	-		5.065	Jun 2025	10.190	Nov 2025	-		10.190	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		3.475		8.867		-		8.867	-	-	-
Subtotal			-	-		90.785		232.833		-		232.833	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		0.297	Jun 2025	0.000	Nov 2025	-		0.000	-	-	-
A&AS	Various	Various : TBD	-	-		9.819	Jun 2025	6.703	Nov 2025	-		6.703	-	-	-
Other Support	Various	Various : TBD	-	-		0.096	Jun 2025	0.103	Oct 2025	-		0.103	-	-	-
Subtotal			-	-		10.212		6.806		-		6.806	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		100.997		239.639		-		239.639	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025			
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
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 2026 Air Force			Date: June 2025
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	3	2025
Design and Demonstration Phase	3	2025	1	2026
DO2 RFP and Contract Award	4	2025	2	2026
X-Band Production, Integration, and Fielding	2	2026	4	2028
Ka-Band Production, Integration, and Fielding	2	2026	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
643728: Protected Tactical SATCOM	0.000	210.727	318.999	332.282	0.000	332.282	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

For the initial Protected Tactical Satellite Communications (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 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-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. 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 systems 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) RP activity for mission and key management planning. The PTS Gateway Segment enables tactical warfighters reach back to global DoD 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.

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

	FY 2024	FY 2025	FY 2026
Title: PTS Prototype Design and Development	143.463	77.310	28.871
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 a bus for free-flyer configuration. Demonstrate prototype payload on-orbit performance. Evaluate PTS concept of operations with user participation and enable potential residual operational capability. Mature and			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
validate user requirements. Support development, risk reduction, and integration efforts to launch two prototype payloads in FY 2026, one as a hosted payload and one as a free flyer.			
FY 2025 Plans: Continue prototyping and risk reduction efforts. Conduct and complete payload-to-space vehicle integration and testing for both prototype payloads. Begin space vehicle to launch vehicle integration activities. Provide pre-launch support activities for the prototype payloads aboard Boeing's WGS-11 and Northrop Grumman Corporation's (NGC's) ESPASat-HP satellite. Continue cybersecurity testing and receive Interim Authorization To Test (IATT).			
FY 2026 Plans: Complete space vehicle to launch vehicle integration activities. Provide launch support activities for the rapid prototype payloads. Initiate and conduct On-Orbit Demonstration and Test (OODT) activities to characterize the systems' anti-jamming capabilities and overall performance. 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.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decrease due to completion of prototype payload development, space vehicle integration, and ground-based testing.			
Title: PTS-P/R Space Hub End Cryptographic Unit (ECU)		6.549	16.161
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.			12.782
FY 2025 Plans: Complete final integration and test activities required for NSA certification. Conduct quick-reaction troubleshooting/deficiency resolution for ECU during PTS-P SV integration and testing. Plan and implement obsolescence replacement to support ECU acquisition for the PTS-R system.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Conduct quick-reaction troubleshooting and deficiency resolution for ECU during on-orbit demonstration and test activities. Continue planning and acquiring PTS-R's ECUs, to include initiating NSA certification processes.				
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to completion of PTS-P ECU development and NSA certification.				
Title: PTS-P/R Ground Development		10.537	3.819	0.000
Description: Develops and incorporates Mission Management System and Key Management System (MMS/KMS) modifications of the Protected Tactical Enterprise Service (PTES) program ground capability to plan and manage PTS, the associated cryptographic material and the SATCOM links they enable. Also develops and incorporates modifications to MMS of the WGS program ground capability (i.e. Common Network Planning Software (CNPS) and Wideband SATCOM Trend Analysis and Anomaly Resolution System (WSTARS).				
FY 2025 Plans: Continue analysis of the WGS CNPS planning system, which provides the overarching management of all sub-systems, providing situational awareness to all users of the Wideband SATCOM Operational Management System.				
FY 2026 Plans: N/A				
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to delay of PTES integration requirements and deferring MMS capability upgrades for PTS P/R efforts.				
Title: PTS-P Gateway Development		6.196	7.816	3.433
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 Protected Tactical Waveform (PTW) modems (i.e. Air Force-Army Anti-Jam Modem and Navy Wideband Anti-Jam Modem System).				
FY 2025 Plans: Continue integration, testing, and demonstrations at contractor facilities of two PGET prototypes with PTW modems ECUs, and payload components to reduce system level risk for each PTS-P space vehicle. Complete relocation and installation of PGET antennas and digital core from contractor facilities to test site locations. Conduct quick-reaction troubleshooting/deficiency resolution for PGET during installation, integration, and pre-launch activities at test sites. Conduct planning and OCONUS site surveys for eventual PGET relocation and installation at final operational location.				
FY 2026 Plans:				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Complete PGET integration and pre-launch systems checkout at test sites. Complete installation of PGETs at final operational locations. Conduct quick-reaction troubleshooting/deficiency resolution for PGET during installation. Support prototype launches and on-orbit demonstration and test activities from test sites.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to completion of hardware installation for PGET efforts at test sites.			
Title: PTS-Resilient		0.000	182.787
Description: The PTS Engineering and Manufacturing Development (EMD) Phase major thrust name has changed to 'PTS-Resilient', since the milestone decision authority directed the program to transition acquisition pathways from MTA to major capability acquisition (MCA) within the Technology, Maturation and Risk Reduction (TMRR) phase. This major thrust includes the development, build, test, and evaluation of the PTS-R space vehicles and payloads to support hosted or free-flyer configurations available for launch in FY 2031. Includes payload and bus control development/upgrades at the operational centers. Includes design, development, test, and integration efforts for the PTS-R Ground Entry Terminal (PGET) segment. Deliver Initial Operational Capability (IOC) for protected communications against threats in FY 2031 with an operational payload. Continue to mature PTS concept of operations with user participation.			273.836
FY 2025 Plans: Award the PTS-R contract for TMRR phase activities of two PTS-R satellites, gateway terminals, and a ground control segment for payload and bus control operations. Conduct an Integrated Baseline Review (IBR) and prepare for System Requirements Review (SRR). Begin systems engineering decomposition activities including requirements analysis and architecture design for key segments such as space vehicle bus, payload, processor firmware, system controller software, and ground segments. Purchase initial PTS-R hardware and software systems.			
FY 2026 Plans: Continue and complete TMRR activities for key segments such as space vehicle bus, payload, processor firmware, systems controller software, and ground segments. Conduct major milestones to include SRR, Preliminary Design Review (PDR), and Milestone-B. Initiate EMD phase to develop, build, test, and evaluate space vehicles buses, on-board processors, system flight controller software, and ground segment software to verify that all operational and implied requirements have been met. Prepare for Critical Design Review (CDR). Continue to purchase PTS-R hardware and software 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 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2026 increased due to costs associated with detailed design and development efforts leading to CDR.					
Title: Protected Tactical Testbed			18.269	17.830	9.351
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 DoD Services and Agencies. The PTW Testbed also supports on-orbit testing, system demonstrations, and operational maturation. FY 2025 Plans: Continue to demonstrate interoperability between PTS and Mission Management System (MMS) simulator, interoperability/ interface and control of the ECU to the PTS payload, and compatibility with tactical SATCOM family of systems user terminals. Continue PTW Lead Service duties to demonstrate that PTW will support the department's Core Waveform program, to include verification of the PTW modem interoperability with the joint force, and validate PTW's role as a core tactical waveform, while leveraging the PTW Testbed for outreach to coalition and emerging partners, demonstrating interoperability with their existing space, ground, and terminal assets. Joint SATCOM Engineering Center (JSEC) executes and enables critical testing activities for PTS contractors. Ensures the development process and impending PTW products adhere to the tenets defined by the established Service requirements. Develop and integrate the PTW Testbed with ground and user terminal modem segments to advance multi-Service integration, testing, and fielding of PTW over Wideband Global SATCOM (WGS) capability and user terminal modems, ensuring early integration with PTS-Prototype program. Deploy and maintain PTW Testbed instances to industry to support development, integration, and testing of the PTS-Prototype system in preparation for launch. Support PTS-Resilient program's TMRR technical design reviews and distribute PTW Testbed software and hardware to industry. 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. Integrate PTW Testbed elements with other segments to support on-orbit demonstrations, testing, and the maturation of the PTS-Prototype. Support PTS-Resilient EMD technical design reviews 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 DoD tactical needs, including verifying PTW modem interoperability					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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 2025 to FY 2026 Increase/Decrease Statement: FY2026 decreased due to realignment of engineering reviews which reduced direct testbed costs to PTS-R.			
Title: Technical Baseline Management, System Integration and Test Support		25.713	13.276
Description: 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 supporting the PTS Rapid Prototyping TMRR/EMD Phases for 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.			4.009
FY 2025 Plans: 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. Continue interface tests between the PTS prototype and emulators/simulators to reduce risk to PATS level integration with Protected Tactical Enterprise Service (PTES). Conduct final launch integration activities to include SV to LV coordination for two PTS prototype payloads. Continue concept of operations development.			
FY 2026 Plans: 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, and Technology Maturation and Risk Reduction/Engineering and Manufacturing Development phase development efforts. Continue interface tests between the PTS prototype and emulators/simulators to reduce risk to protected tactical family of systems level integration with PTES. Conduct final launch integration activities to include SV to LV coordination for two PTS prototype payloads. Continue PTS-R concept of operations development and prototype characterization efforts.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to reduction of Naval Information Warfare Center, Technical Mission Analysis, and Spectrum support as well as completion of WGS Integration studies. The program continues interface tests between the PTS prototype and emulators/simulators to reduce risk to protected tactical family of systems level integration with PTES. Conduct final launch integration activities to include SV to LV coordination for two PTS prototype payloads. Continue PTS-R concept of operations development			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
and prototype characterization efforts. The program also continues to march toward a contract award ensuring proper acquisitions management.			
Accomplishments/Planned Programs Subtotals		210.727	318.999
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
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-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	34.469	Oct 2023	29.696	May 2025	6.650	Jan 2026	-		6.650	-	-	-
PTS-P Development (Free-Flyer)	C/FFP	Northrop Grumman : Redondo Beach, CA	-	65.744	Oct 2023	23.430	May 2025	6.650	Jan 2026	-		6.650	-	-	-
NSA (ECU Support)	MIPR	NSA : Ft. Meade, MD	-	0.821	Oct 2023	0.000	May 2025	-		-		-	-	-	-
PTS-P Ground Segment Development - CNPS/ WSTARS	MIPR	DITCO : Scott AFB,, IL	-	5.014	Nov 2023	3.167	Mar 2025	-		-		-	-	-	-
Space Hub End Cryptographic Unit (ECU)	C/CPIF	L3Harris East : Camden, NJ	-	3.754	Oct 2023	0.000	Oct 2024	-		-		-	-	-	-
PTS-P Gateway Segment Development	Various	Various : Various	-	5.325	Oct 2023	6.480	May 2025	6.320	Dec 2025	-		6.320	-	-	-
PTS-Resilient TMRR/EMD	TBD	TBD : TBD	-	0.000	May 2025	151.557	Jun 2025	241.624	Nov 2025	-		241.624	-	-	-
PTS-R Space Hub End Cryptographic Unit (ECU)	TBD	L3Harris East : Camden, NJ	-	0.000	Sep 2025	13.400	Sep 2025	11.430	Jan 2026	-		11.430	-	-	-
Protected Tactical Testbed	TBD	Various : Various	-	12.800	Nov 2023	11.284	Feb 2025	7.500	Nov 2025	-		7.500	-	-	-
JSEC (Protected Tactical Testbed Support)	MIPR	C5ISR : Aberdeen, MD	-	3.320	Nov 2023	3.500	May 2025	0.862	Nov 2025	-		0.862	-	-	-
Technical Baseline Management and System Integration Test Support	Various	Various : Various	-	17.961	Oct 2023	11.007	Feb 2025	3.584	Nov 2025	-		3.584	-	-	-
Technical Mission Analysis (TMA)	Various	Various : Various	-	22.585	Jan 2024	18.306	Nov 2024	8.438	Nov 2025	-		8.438	-	-	-
Enterprise SE&I	C/CPIF	Linqest : El Segundo, CA	-	25.655	Oct 2023	18.399	Jan 2025	18.959	Nov 2025	-		18.959	-	-	-
SBIR/STTR	Allot	Not Specified: TBD : Washington, DC	-	0.000		10.975		12.517		-		12.517	-	-	-
Subtotal			-	197.448		301.201		324.534		-		324.534	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	3.791	Jan 2024	1.775	Nov 2024	0.823	Nov 2025	-		0.823	-	-	-
A&AS	Various	Various : Various	-	9.338	Nov 2023	15.873	Feb 2025	6.775	Nov 2025	-		6.775	-	-	-
Other Support	Various	Various : Various	-	0.150	Jan 2024	0.150	Dec 2024	0.150	Dec 2025	-		0.150	-	-	-
Subtotal			-	13.279		17.798		7.748		-		7.748	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	210.727		318.999		332.282		-		332.282	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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>	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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>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 Ops support from operational sites																												
<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																												
<i>Technical Baseline Management and Test</i>																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force																								Date: June 2025													
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
System Integration Test Support/Protected Tactical Testbed																																					

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force

Date: June 2025

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	2024	3	2025
PTS-P SV I&T	3	2025	1	2026
PTS-P 1 Available for Launch (Hosted)	1	2026	1	2026
PTS-P 2 Available for Launch (Free-Flyer)	1	2026	2	2026
PTS-P Launch and Operations	2	2026	4	2030
<i>PTS-P/R Space Hub End Cryptographic Unit (ECU)</i>				
PTS-P ECU Design/Certification	1	2024	3	2025
PTS-R ECU Design/Certification	4	2025	1	2029
<i>PTS-P Ground Segment Development</i>				
PTS-P MMS/CNPS Studies	1	2024	4	2025
<i>PTS-P Gateway Segment Development</i>				
PTS-P PGET-P Development	1	2024	1	2025
PTS-P PGET-P I&T at test support sites	2	2025	2	2026
PTS-P PGET-P Ops support from operational sites	2	2026	4	2030
<i>PTS Resilient</i>				
PTS-R Acquisition Planning	1	2024	3	2025
PTS-R ATP (contract award)	3	2025	3	2025
PTS-R Design and Development	3	2025	1	2029
PTS-R SV I&T	2	2029	4	2030
PTS-R Ground Development	3	2025	4	2030
PTS-R Gateway Development	3	2025	4	2030

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025	
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
Technical Baseline Management and Test				
System Integration Test Support/Protected Tactical Testbed		1	2024	4 2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	473.622	918.581	1,229.929	0.000	1,229.929	-	-	-	-	-	-
643725: Evolved Strategic SATCOM (ESS)	0.000	473.622	918.581	1,229.929	0.000	1,229.929	-	-	-	-	-	-
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. It will provide the only arctic DoD 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 converting to a Major Capability Acquisition (MCA) from a Middle-Tier Acquisition (MTA) in FY 2025. 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 best practices and legacy user terminal capability. The GIF/SoSI is leveraging Software Acquisition Pathway Other Transactional Authority for rapid prototyping of ground software. The ESS Ground Framework creates the cybersecure software development, integration, and operational environments utilizing agile Modular Open Systems Approach (MOSA) principles and onboards hosted external mission applications and services. The 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, Strategic Mission Planning, Test, Evaluation, 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) that are 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 on 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 best practices, increase agility, 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 2026 Air Force			Date: June 2025			
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)				
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 Protected 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 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 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		632.833	1,046.161	1,283.922	0.000	1,283.922
Current President's Budget		473.622	918.581	1,229.929	0.000	1,229.929
Total Adjustments		-159.211	-127.580	-53.993	0.000	-53.993
• Congressional General Reductions		0.000	-127.580			
• Congressional Directed Reductions		-127.609	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		-15.000	0.000			
• SBIR/STTR Transfer		-16.602	0.000			
• Other Adjustments		0.000	0.000	-53.993	0.000	-53.993
Change Summary Explanation						
FY 2024: -127.6M Congressional directed reduction[-10.700M] ahead of need, [-28.400M] program reduction, [-24.5M] overestimation, [-64.100M] contract delay						
FY 2024: -53.0M Rescission						
FY 2024: -15.0M Transferred for higher USSF priorities						
FY 2025: -127.6M Congressional intent reduction						
FY 2026: -28.3M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office capability delivery and industry engagement support respectively.						
FY 2026: -12.2M Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						
FY 2026: -4.1M; due to inflation rate adjustments						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Title: Space Segment Prototyping 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 2025 Plans: Continue execution of two rapid prototyping contracts through payload technology development and demonstrations that best align to the new ESS proliferated and resilient architecture. The existing contracts for the rapid prototyping phase will be funded to perform additional nonrecurring engineering activities to further increase the technology readiness levels (TRL) of various space components prior to the Critical Design Review (CDR), mitigate overarching program schedule risk, and reduce development durations to respond to threats from adversaries. Ensure payload cybersecurity designs are aligned with ESS program cybersecurity strategy. Continue to implement system resiliency and situational awareness necessary to operate in the contested space domain. Other activities may include, but are not limited to program office support, studies, technical analysis, experimentation, and prototyping. FY 2026 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: Contracts period of performance ends in FY25.		390.341	125.833	0.000
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 2025 Plans: ESS will finalize source selection, award the Space Development and Production contract, conduct a delta Preliminary Design Review (PDR), and establish a program baseline through an Integrated Baseline Review (IBR). Simultaneously, numerous Non-		-	501.717	795.214

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Recurring Engineering (NRE) activities will begin, covering essential engineering and process documents. Long lead procurement of hardware and software for SVs 1 and 2, including design documents and non-deliverables, will also commence. The program will execute initial NRE for developing and integrating threat-driven resiliency payloads and building the ESS Payload Emulator. The Space Development and Production contract winner will initiate In-Band-C2 application development on the GIF Framework, originally planned as a standalone application on the SpEC OTA. Additionally, the program will support NRE for the System of Systems Integration between ESS system segments (Ground and ECU), all with the goal of setting conditions for a successful CDR in the following year. 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, prototyping, and activities that may leverage commercial and international opportunities. 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.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to major hardware and critical parts purchases needed for SVs 1 and 2, building flight hardware engineering models, integration activities and significant NRE required for the unit level and system level CDRs.				
Title: Ground Resilient Integration & Framework for Operational NC3 (GRIFFON)		63.359	245.106	380.987
Description: GRIFFON is the Ground Segment solution for ESS. It includes ESS Ground Integration and Framework (GIF), 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 joint Combatant Commands (COCOMs).				
FY 2025 Plans: Down-select to one ESS ground framework and integration prototype vendor (GIF/SoSI). Execute multiple GRIFFON prototype demonstration contracts, with multiple prototypes being selected for maturation towards Ground Assembly, Integration, and Test (AI&T) in FY 2027 and System AI&T in FY 2029. Conduct studies and source selection activities for endurance capability, command and control, mission control, and user terminal interface. Fund program office, FFRDC, and UARC support to execute competitions that acquire and integrate a secure software development framework and cyber secure software delivery pipeline, software applications, user interfaces, and ensures ESS alignment with 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. Develop user agreements with operational sites outlining deliveries and key milestones to ensure system functionality by FY 2029, prior to the first ESS space launch. Solidify integration testing and connectivity with Protected SATCOM Key Management Architecture (PKMA) and cryptographic modernization efforts with the NSA. Identify any necessary modifications to legacy terminal programs to ensure entire integrated system functions within modernized cyber architecture. Invest in command and control terminal modernization and acquisition (cryptographic and cybersecurity needs) necessary to support ESS and meet critical ground segment, space segment, and systems integration need dates. Continue development activities in support of the ground segment and system/mission integration schedules. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
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 Plans: The GRIFFON program will transition to the Execution Phase of the Software Acquisition Pathway which will begin a critical year for integration and testing across the entire ESS architecture, to include all Ground software applications, framework, terminals, operating locations, and test sites. Mature ESS ground framework and integration prototype, Ground Integration and Framework (GIF), System of Systems Integration (SoSI). 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 capability 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 for 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 at operational locations 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 consolidate the operational user interface between legacy and resiliency application components, and begin testing in an operationally relevant environment. The In-Band Command and Control (IB-C2) software application will begin testing with the Ground Framework and other mission applications. IB-C2 will begin integration efforts and testing in the operational environment and the selected ESS Command and Control (C2) terminals. The ESS C2 Terminal that completes the IB-C2 architecture will begin integration 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				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) 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. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to technology maturation ramp up of all ground prototypes and interoperability testing as well as conducting Ground AI&T.		FY 2024	FY 2025	FY 2026
Title: End-Cryptographic Unit (ECU) Description: Develop and deliver the NSA-certified ECUs required for secure strategic communications encryption in the ESS payloads, bus, and payload test terminals in accordance with the approved ECU acquisition strategy and schedule. Upon development completion, production ECU units will be delivered as government-furnished equipment (GFE) for integration and testing with the ESS payloads and payload test terminals. FY 2025 Plans: Upon successful System Requirements Review (SRR), System Functional Review (SFR), and Preliminary Design Review (PDR) continue to execute ECU contract through the Engineering and Manufacturing Development (EMD) phase and mature payload and test terminal ECU designs to CDR- level maturity. Fund Cryptologic and Cyber System Division (CCSD), UARC, and FFRDC		19.922	45.925	53.728

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) to provide program office support, planning, GFE, studies, technical analyses and information or resources in conjunction with newly awarded ESS Space Development and Production Contract. 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. Assist with requirements trades, technical design approaches, threat assessment and mitigation approaches, and ESS testing assets to include the test terminal. Continue coordination with NSA through the ECU Certification process and cryptographic key material delivery. Start activities to modify PKMA and Key Management Infrastructure (KMI) to be interoperable to support the ESS constellation. FY 2026 Plans: Continue the development ECUs for the ESS Space Segment and Strategic Test Terminal (ST2). Upon successful completion of the CDRs and development of engineering development models (EDMs) continue to execute 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 and mitigation approaches, and ESS testing assets to include the test terminal. Continue coordination with NSA through the ECU Certification process and cryptographic key material delivery. Continue activities and start work to modify PKMA and Key Management Infrastructure (KMI) to support ESS development and testing, and ramp up of the KMI infrastructure modification work required to be interoperable to support the ESS constellation. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to development and delivery of crypto engineering design models and production representative articles (PRAs) for integration into first ESS space vehicles and development of MIT-LL Strategic Test Terminal. Activities will also increase to modernize Protected SATCOM Key Management Architecture system to support ESS ECUs.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		473.622	918.581	1,229.929

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force									Date: June 2025		
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)						
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPSF 01 1206855SF: Evolved Strategic SATCOM (ESS)	-	-	64.996	-	64.996	-	-	-	-	-	-
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 Defense 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 focus 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 vendor's schedule was further accelerated by executing contract option 3, one year earlier as well as starting contract option 2 three months earlier. The ESS vendor termination was risk informed and required to mature technology readiness levels within available funding. The remaining vendors are being awarded Engineer Change Proposals (ECP) of option 3 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. 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. The RFP and source selection will determine which space prototyping contractor is positioned for the space segment Build, I&T, and Delivery follow-on contract. Competition during space prototyping is energizing the industrial base in strategic SATCOM; injecting diverse technical processes and integration approaches; burning down risks early and identifying/correcting issues as early as possible; and decreasing traditional fielding timelines to support a more resilient, responsive architecture against emerging threats. Success during competitive rapid-prototyping determines and informs follow-on Build, I&T, and Delivery. In June 2022, the Space Force Service Acquisition Executive (SAE) approved the use of Department of Defense Instruction (DoDI) 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. In November 2023, the SAE approved the acquisition strategy for the In-Band C2 software application. In June 2024, the SAE approved the acquisition strategy for the remainder of the Planning Phase for Mission Planning											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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)	
and Command and Control elements, as well as Phase 2 for GIF/SoSI that will culminate at the finalization of Ground AI&T. In Fiscal Year 2025 Evolved Strategic SATCOM (ESS) Space Segment will transition to Milestone B and become a Major Capability Acquisition (MCA) program. 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 (SoSI) 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. 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 Sep '24 for a 6-month software demonstration. In Apr '25, two of the five prototypes were continued into a 14-month Phase-2 competition. The In-Band C2 application was included in the ESS Space RFP and will be completed by the selected contractor(s). The remaining application acquisition strategies will go through Space Force SAE approval prior to the GRIFFON program transitioning 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 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.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 4						R-1 Program Element (Number/Name) PE 1206855SF / Evolved Strategic SATC OM (ESS)				Project (Number/Name) 643725 / Evolved Strategic SATCOM (ESS)					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	TBD : TBD	-	-		373.653	May 2025	679.948	Oct 2025	-		679.948	-	-	-
Space Segment: Prototyping Northrop Grumman	SS/FFP	Northrop Grumman : Redondo Beach, CA	-	165.836	Dec 2023	59.624	Oct 2024	-		-		-	-	-	-
Space Segment: Prototyping Boeing	SS/FFP	Boeing : El Segundo, CA	-	161.949	Dec 2023	62.252	Oct 2024	-		-		-	-	-	-
GRIFFON: GIF and SoSI Demo Ctr 1	C/FFP	Lockheed Martin : El Segundo, CA	-	21.445	Jan 2024	17.317	Oct 2024	-		-		-	-	-	-
GRIFFON: GIF and SoSI Demo Ctr 2	C/FFP	Raytheon : El Segundo, CA	-	7.000	Jan 2024	-		-		-		-	-	-	-
GRIFFON: GIF and SoSI Follow-on	C/FPIF	Lockheed Martin/BAE/ARKA : Valley Forge, PA	-	0.000	Jul 2024	75.420	Jan 2025	159.626	Nov 2025	-		159.626	-	-	-
GRIFFON: Software Applications MP Phase 1 Demos	C/FPIF	Various : Various	-	2.183	Jul 2024	-		-		-		-	-	-	-
GRIFFON: Software Applications MP Demo Sphinx Defense/Boeing	C/FPIF	Sphinx Defense/Boeing : Colorado Springs, CO	-	-		11.750	Apr 2025	8.754	Nov 2025	-		8.754	-	-	-
GRIFFON: Software Applications MP Demo Northrop Grumman/ARKA	C/FPIF	Northrop Grumman/ARKA : Valley Forge, PA	-	-		11.750	Apr 2025	8.754	Nov 2025	-		8.754	-	-	-
GRIFFON : Software Applications MP Follow-on	C/TBD	TBD : TBD	-	-		-		15.000	Jul 2026	-		15.000	-	-	-
GRIFFON: In-Band Study	SS/FFP	Various : Various, CA	-	3.962	Jun 2024	-		-		-		-	-	-	-
GRIFFON: In-Band	C/CPIF	Not specified. : TBD	-	-		15.000	May 2025	40.000	Oct 2025	-		40.000	-	-	-
GRIFFON: Out-of-Band	SS/FFP	Kratos : Colorado Springs, CO	-	-		10.000	Mar 2025	12.000	Nov 2025	-		12.000	-	-	-
GRIFFON: Command and Control (C-2) Terminal Acquisition	SS/FFP	RTX : Marlboro, MA	-	-		50.000	Mar 2025	76.812	Nov 2025	-		76.812	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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: User Terminal Studies	SS/FFP	Raytheon Collins : Marlborough, MA	-	-		2.400	Feb 2025	-		-		-	-	-	-
GRIFFON Software Independent Framework Tester (SWIFT)	SS/CPFF	JHU/APL : Laurel, MD	-	-		3.705	Mar 2025	5.700	Nov 2025	-		5.700	-	-	-
GRIFFON: IT Upgrades to NC3 cybersecurity Follow-On	C/FFP	GDIT : Falls Church, VA	-	5.000	Mar 2024	17.000	Mar 2025	4.000	Nov 2025	-		4.000	-	-	-
CRYPTO: End-Cryptographic Unit (ECU)	C/Various	Viasat : Carlsbad, CA	-	7.941	Dec 2023	32.414	Apr 2025	26.695	Dec 2025	-		26.695	-	-	-
CRYPTO: PKMA /KMI Modifications	TBD	Not specified. : TBD	-	-		6.650	Jun 2025	21.000	Dec 2025	-		21.000	-	-	-
ESS Test Terminal Development and Support	SS/CPFF	MIT/LL : Lexington, MA	-	15.000	Nov 2023	12.110	Feb 2025	13.640	Nov 2025	-		13.640	-	-	-
ESS Acquisition and Mission Planning Support	SS/CPFF	JHU/APL : Laurel, MD	-	4.808	Oct 2023	3.150	Dec 2024	4.000	Dec 2025	-		4.000	-	-	-
ESS Engineering Support	MIPR	BAH : San Antonio, TX	-	6.992	Oct 2023	20.383	Dec 2024	17.531	Dec 2025	-		17.531	-	-	-
ESS Technical Mission Analysis	RO	Various : Various	-	19.512	Nov 2023	18.182	Nov 2024	16.486	Nov 2025	-		16.486	-	-	-
ESS Enterprise SE&I	C/CPIF	Linquest : Los Angeles, CA	-	21.389	Feb 2024	28.813	Dec 2024	41.624	Dec 2025	-		41.624	-	-	-
ESS SBIR/STTR	Allot	TBD : Washington, DC	-	-		30.259		45.507		-		45.507	-	-	-
ESS Associated Product Development	Various	Various : Vatious	-	-		8.596	Dec 2024	2.745	Dec 2025	-		2.745	-	-	-
Subtotal			-	443.017		870.428		1,199.822		-		1,199.822	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	2.797	Nov 2023	2.584	Nov 2024	1.073	Nov 2025	-		1.073	-	-	-
A&AS	Various	Various : Various	-	27.308	Nov 2023	44.261	Nov 2024	27.991	Nov 2025	-		27.991	-	-	-
Other Support	Various	Various : Various	-	0.500	Oct 2023	1.308	Oct 2024	1.043	Oct 2025	-		1.043	-	-	-
Subtotal			-	30.605		48.153		30.107		-		30.107	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	473.622		918.581		1,229.929		-		1,229.929	-	-	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 2026 Air Force			Date: June 2025		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>			Project (Number/Name) 643725 / <i>Evolved Strategic SATCOM (ESS)</i>

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
GIF and SoSI Follow-on - Production OTA																												
Mission Planning Software Application Prototype Demo (5 contractors)																												
Mission Planning Software App Demo - Prototype Completion (2 contractors)																												
Mission Planning Software App Demo Production OTA																												
Mission Planning Software Application Follow-on - Contract Award																												
Mission Planning Software Application Follow-on - Execution																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force																				Date: June 2025								
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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
IT Upgrades to NC3 Cybersecurity																												
Upgrades to NC3 Cybersecurity																												
Upgrades to NC3 Cybersecurity Follow-On																												
End-Cryptographic Unit (ECU)																												
Early Definition & Acquisition Planning																												
Contract Award																												
Development & Delivery																												
PKMA Modifications																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206855SF / <i>Evolved Strategic SATCOM (ESS)</i>	Project (Number/Name) 643725 / <i>Evolved Strategic SATCOM (ESS)</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Space Segment Prototyping</i>				
System and Mission Integration	1	2024	2	2025
Space Segment Prototyping-Execution	1	2024	4	2025
<i>Space Development and Production</i>				
System and Mission Integration	2	2025	4	2030
Space Segment Build, I&T and Delivery Follow-on - Contract Award	3	2025	3	2025
Space Segment Build, I&T and Delivery Follow-on - Execution	3	2025	4	2030
<i>GRIFFON</i>				
Command and Control efforts	1	2024	4	2030
GIF and SoSI Demo - Execution	1	2024	1	2025
GIF and SoSI Follow-on - Contract Award	2	2025	2	2025
GIF and SoSI Follow-on - Prototype Completion	2	2025	4	2027
GIF and SoSI Follow-on - Production OTA	1	2028	4	2030
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 App Demo Production OTA	1	2030	4	2030
Mission Planning Software Application Follow-on - Contract Award	3	2026	4	2026
Mission Planning Software Application Follow-on - Execution	3	2026	4	2030
<i>IT Upgrades to NC3 Cybersecurity</i>				
Upgrades to NC3 Cybersecurity	1	2024	3	2024
Upgrades to NC3 Cybersecurity Follow-On	3	2024	4	2030
<i>End-Cryptographic Unit (ECU)</i>				

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025		
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)	
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Early Definition & Acquisition Planning		1	2024	1	2024
Contract Award		1	2024	1	2024
Development & Delivery		1	2024	2	2028
PKMA Modifications		1	2026	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force **Date:** June 2025

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>							

COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	18.850	107.892	9.664	0.000	9.664	-	-	-	-	-	-
64A020: <i>AF Funded ORSSats</i>	0.000	18.850	107.892	9.664	0.000	9.664	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

TRANSFERS: Starting in FY 2026, PE 1206857SF funding associated with Rapid Resilient Command and Control (R2C2) efforts transfers 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). 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.

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 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force			Date: June 2025			
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				
This program element may include necessary civilian pay expenses required to manage, execute, and deliver Space RCO weapon system capabilities. 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		12.036	11.361	9.794	0.000	9.794
Current President's Budget		18.850	107.892	9.664	0.000	9.664
Total Adjustments		6.814	96.531	-0.130	0.000	-0.130
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		7.500	7.500			
• Congressional Directed Transfers		0.000	89.031			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-0.686	0.000			
• Other Adjustments		0.000	0.000	-0.130	0.000	-0.130
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 64A020: AF Funded ORSSats						
Congressional Add: Deployable SCN Ground Based System Fielding						
Congressional Add: Digital Beamforming Ground-based C2						
Congressional Add Subtotals for Project: 64A020						
Congressional Add Totals for all Projects						
Change Summary Explanation						
FY 2024: Net increase of \$6.814 million; increase of \$7.5 million due to Digital Beamforming Ground-based C2 Congressional Add and decrease of \$0.686 million due to Small Business Innovation Research (SBIR)/Small Business Technology Transfer (STTR).						
FY 2025: Net increase of \$96.531 million; increase of \$89.031 million due to congressional directed transfer from Enterprise Ground Services, R-75, PE 1206770SF and increase of \$7.5 million due to Deployable Satellite Control Network (SCN) Ground Based System Fielding Congressional Add.						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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		
FY 2026: Decrease of \$0.095 million for Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative.				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Title: Space RCO Board of Directors (BoD) Projects, Studies, and Analysis 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 2025 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 2025 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 2026 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 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to inflation adjustment.		8.931	9.557	9.664
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 2025 Plans: Continue developing space-based solar power collection and transmission technology via a series of integrated demos and technology development/maturation efforts: 1) continue space flight demonstration of solar-to-RF panel payload (take delivery of solar-to-RF payload emulator, validate payload for delivery, continue pre-integration of payload-to-bus), 2) deliver thermal integrated demonstration for on-orbit demonstration, 3) initiate structural operational prototype based on results from scaled array payload demonstrations and validated models, 4) update operational prototype concept designs/analysis based on tile, rectenna,		2.671	1.804	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) thermal and structure demonstrations and updated models, and 5) continue functional demonstrations for critical technologies in energy generation, deployable structures, thermal technology, RF transmission, and distributed control. FY 2025 is the last year Solar Power funding will be in this PE due to the funding being continued in AFRL PE 1206458SF. FY 2026 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: FY 2025 is the last year Space Solar Power funding will be in this PE due to the funding being transferred to Space Advanced Technology Development/Demonstration 1206616SF.		FY 2024	FY 2025	FY 2026
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 2025 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 demonstrations as test assets become 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 2025 to FY 2026 Increase/Decrease Statement: FY 2025 is the only year R2C2 Satellite Command and Control Services funding will be in this PE due to the funding being transferred to PE 1206772SF, Rapid Resilient Command and Control.		-	51.357	-
Title: Rapid Resilient Command and Control (R2C2) Cloud Infrastructure and Platform/Antenna Services		-	37.674	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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)		FY 2024	FY 2025	FY 2026
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 2025 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 2025 to FY 2026 Increase/Decrease Statement: FY 2025 is the only year R2C2 Cloud Infrastructure and Platform/Antenna Services funding will be in this PE due to the funding being transferred to PE 1206772SF, Rapid Resilient Command and Control.				
Accomplishments/Planned Programs Subtotals		11.602	100.392	9.664
		FY 2024	FY 2025	
Congressional Add: Deployable SCN Ground Based System Fielding FY 2025 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 Satellite Communication Augmentation Resource (SCAR) program's production software defined antenna tiles, which are the linchpin of the program's phased array technical approach.		-	7.500	
Congressional Add: Digital Beamforming Ground-based C2 FY 2024 Accomplishments: The Space Rapid Capabilities Office executed the Digital Beamforming Ground-based C2 project as a product development effort with emphasis on acquisition of test assets to further develop the Satellite Communications Augmentation Resource (SCAR) program's digital beamforming solution, a key part of the phased array technical approach.		7.248	-	
Congressional Adds Subtotals		7.248	7.500	

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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>
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 Defense (DoD)- 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	4.323	Dec 2023	4.890	Dec 2024	4.972	Dec 2025	-		4.972	-	-	-
Space RCO Solar Power	SS/CPFF	Northrop Grumman : Linthicum, MD	-	2.574	Nov 2023	1.804	Nov 2024	-		-		-	-	-	-
Digital Beamforming Ground-based C2 (Congressional Add)	MIPR	SAF/FMBIB : Washington, DC	-	7.248	Aug 2024	-		-		-		-	-	-	-
R2C2 Satellite Command and Control Services	Various	Various : Various	-	-		41.713	Nov 2024	-		-		-	-	-	-
R2C2 Cloud Infrastructure and Platform/Antenna Services	Various	Various : Various	-	-		27.544	Nov 2024	-		-		-	-	-	-
Systems Engineering and Integration	Various	Various : Various	-	-		6.608	Oct 2024	-		-		-	-	-	-
Deployable SCN Ground Based System Fielding (Congressional Add)	MIPR	SAF/FMBIB : Washington, DC	-	-		7.500	Jul 2025	-		-		-	-	-	-
Subtotal			-	14.145		90.059		4.972		-		4.972	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	4.525	Dec 2023	4.457	Dec 2024	4.507	Dec 2025	-		4.507	-	-	-
R2C2 FFRDC	Various	Various : Various	-	-		10.302	Oct 2024	-		-		-	-	-	-
Space RCO A&AS	C/CPAF	Various : Various	-	0.180	Dec 2023	0.210	Dec 2024	0.185	Dec 2025	-		0.185	-	-	-
R2C2 A&AS	Various	Various : Various	-	-		2.864	Dec 2024	-		-		-	-	-	-
Subtotal			-	4.705		17.833		4.692		-		4.692	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force											Date: June 2025		
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	18.850		107.892		9.664		-		9.664	-	-	N/A

Remarks
N/A.

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
Appropriation/Budget Activity 3620F / 4		R-1 Program Element (Number/Name) PE 1206857SF / Space Rapid Capabilities Office		Project (Number/Name) 64A020 / AF Funded ORSSats	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 Rapid Capabilities Office																												
Space RCO Board of Directors (BoD) Projects, Studies, and Analysis																												
Digital Beamforming Ground-based C2 (Congressional Add)																												
Deployable SCN Ground Based System Fielding (Congressional Add)																												
Space RCO Solar Power																												
Space RCO Solar Power																												
Rapid Resilient Command and Control (R2C2)																												
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 2026 Air Force			Date: June 2025
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	2024	4	2030
Digital Beamforming Ground-based C2 (Congressional Add)	4	2024	4	2025
Deployable SCN Ground Based System Fielding (Congressional Add)	3	2025	3	2026
<i>Space RCO Solar Power</i>				
Space RCO Solar Power	1	2024	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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	48.263	40.052	33.282	0.000	33.282	-	-	-	-	-	-
643835: Tactically Responsive Space (TacRS)	0.000	48.263	40.052	33.282	0.000	33.282	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Tactically Responsive Space (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.

The FY 2026 request for TacRS includes \$33,282 thousands of discretionary and \$135,000 thousands of mandatory (reconciliation) for a total of \$168,282 thousands. The mandatory funds additional TacRS space and launch vehicles 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 Tactically Responsive Space 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 2026 Air Force				Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget	30.000	30.052	0.000	0.000	0.000	
Current President's Budget	48.263	40.052	33.282	0.000	33.282	
Total Adjustments	18.263	10.000	33.282	0.000	33.282	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	0.000	0.000				
• Congressional Rescissions	0.000	0.000				
• Congressional Adds	20.000	10.000				
• Congressional Directed Transfers	0.000	0.000				
• Reprogrammings	0.000	0.000				
• SBIR/STTR Transfer	-1.737	0.000				
• Other Adjustments	0.000	0.000	33.282	0.000	33.282	
Congressional Add Details (\$ in Millions, and Includes General Reductions)				FY 2024	FY 2025	
Project: 643835: Tactically Responsive Space (TacRS)						
Congressional Add: Tactically Responsive Space				19.305	10.000	
Congressional Add Subtotals for Project: 643835				19.305	10.000	
Congressional Add Totals for all Projects				19.305	10.000	
Change Summary Explanation						
FY 2026: increased by \$33.3 million to fund Tactically Responsive Space missions for resilient space warfighting capabilities.						
FY 2026 request was reduced by \$0.327 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."						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: TacRS Initial Operations and Continuous Capability Development				28.958	30.052	33.282
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 2025 Plans:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Support the planned launches and operations of the two VICTUS HAZE missions that will be ready for call-up in the second quarter of FY 2025. Build on the VICTUS SOL satellite vehicle and ground investments made with prior year funding to initiate the associated responsive launch service for VICTUS SOL in FY 2025 that could enable launch in the first half of FY 2026. Begin acquisition planning efforts in FY 2025 for the future fourth VICTUS mission that will leverage lessons learned from previous VICTUS missions and build upon the capabilities demonstrated in VICTUS NOX (launched in 2023), VICTUS SOL, and VICTUS HAZE, where each VICTUS mission furthers the capability to launch within 24 hours of notice, match the orbital plane of a previously unknown object, and conduct rendezvous and proximity operations for inspection and characterization on an operationally relevant timeline. Continue development of an on-orbit pre-positioning demonstration to be able to support a launch in FY 2026 that would evolve response force tasking to meet Combatant Command needs within 24 hours. Support TacRS Range efforts that will provide necessary equipment and personnel to enable a responsive launch capability for all VICTUS class missions. 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. 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 technical analysis, experimentation, risk reduction, prototyping, program office support, studies, 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: 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 complete 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 on tactically relevant timelines. FY 2025 to FY 2026 Increase/Decrease Statement:				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025	
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>	
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
The \$3.23M increase from FY 2025 to FY 2026 will be spent on securing launch vehicles for rapid launch missions and to fund studies to ensure tactically responsive space has the required flexibility and launch diversity for future demands.			
Accomplishments/Planned Programs Subtotals		28.958	30.052
		FY 2024	FY 2025
Congressional Add: Tactically Responsive Space		19.305	10.000
FY 2024 Accomplishments: This Congressional Add funding was used to acquire a space vehicle (SV) for a rendezvous and proximity operations response mission, acquire a prepositioned response SV, and on a commercial development activity that is exploring the utility of employing augmented maneuvering for satellites.			
FY 2025 Plans: This Congressional Add funding is being used to acquire long-lead parts for the second VICTUS SALO pre-positioned fly-by space vehicle (SV), develop and implement operational crew procedures, and establish dedicated operational crews for the VICTUS SOL, VICTUS SURGO, and VICTUS SALO missions, and conduct VICTUS SOL vehicle pre-flight testing and flight dress rehearsals.			
Congressional Adds Subtotals		19.305	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 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	39.208	May 2024	32.111	Jan 2025	25.915	Jan 2026	-		25.915	-	-	-
TacRS Range Support	Various	TBD : TBD	-	1.900	May 2024	-		-		-		-	-	-	-
TacRS Tech Advance & Studies	Various	TBD : TBD	-	1.045	Jun 2024	-		-		-		-	-	-	-
SBIR/STTR	Allot	Not specified : TBD	-	1.050	Jan 2024	1.421	Oct 2024	1.250	Jul 2026	-		1.250	-	-	-
Subtotal			-	43.203		33.532		27.165		-		27.165	-	-	N/A
Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 Transportation of Hardware/Personnel	PO	TMO : El Segundo, CA	-	0.110	Nov 2023	-		-		-		-	-	-	-
Subtotal			-	0.110		-		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 Launch Service Mission Assurance	C/CPIF	ASRC Federal : Albuquerque, NM	-	0.850	May 2024	-		-		-		-	-	-	-
FFRDC	RO	Various : Various	-	1.500	Oct 2024	3.690	Jan 2025	3.221	Jan 2026	-		3.221	-	-	-
A&AS	Various	Various : Various	-	2.500	Aug 2024	2.646	Jan 2025	2.646	Jan 2026	-		2.646	-	-	-
Other Support	Various	Various : El Segundo, CA	-	0.100	Oct 2023	0.184	Jan 2025	0.250	Jan 2026	-		0.250	-	-	-
Subtotal			-	4.950		6.520		6.117		-		6.117	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	48.263		40.052		33.282		-		33.282	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force							Date: June 2025			
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>				
	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks										

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
TacRS Range Support																												
TacRS Tech Advance & Studies																												
SBIR/STTR																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	2024	4	2030
TacRS Range Support	1	2024	4	2024
TacRS Tech Advance & Studies	3	2024	4	2024
SBIR/STTR	3	2024	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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)							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	754.492	237.970	240.246	179.249	0.000	179.249	-	-	-	-	-	-
653170: GPS IIIF	696.676	176.249	176.551	116.829	0.000	116.829	-	-	-	-	-	-
653171: GPS Enterprise Integration	57.816	61.721	63.695	62.420	0.000	62.420	-	-	-	-	-	-
Program MDAP/MAIS Code: 590												
A. Mission Description and Budget Item Justification												
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 Defense (DoD) 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 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,												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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>
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. 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 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.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force			Date: June 2025			
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)				
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.						
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		308.999	244.752	189.659	0.000	189.659
Current President's Budget		237.970	240.246	179.249	0.000	179.249
Total Adjustments		-71.029	-4.506	-10.410	0.000	-10.410
• Congressional General Reductions		-1.474	0.000			
• Congressional Directed Reductions		-16.814	-4.506			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		-43.000	0.000			
• SBIR/STTR Transfer		-9.741	0.000			
• Other Adjustments		0.000	0.000	-10.410	0.000	-10.410
Change Summary Explanation						
FY 2024: -1.474M: General Provision - Federally Funded Research and Development Center (FFRDC) Reduction (Investment)						
FY 2024: -16.814M: Investment Mark						
FY 2024: -43.000M: Omnibus/ATR Source						
FY 2025: -34.506M: Congressional Enactment 3620 RDT&E Adjustment - Underexecution						
FY 2025: +30.000M: Congressional Enactment - Space Force requested realignment from line 20 for R-GPS						
FY 2026: -3.000M: Reduce GPS IIIF ECO						
FY 2026: -1.771M: Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						
FY 2026: -4.116M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office capability delivery and industry engagement support respectively.						

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
653170: GPS IIIF	696.676	176.249	176.551	116.829	0.000	116.829	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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 Defense (DoD) 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 2026 Air Force		Date: June 2025		
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		
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. 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) control systems, 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. The GPS enterprise end state will be a mixture of GPS IIR, GPS IIR-M, GPS IIF, GPS III, and GPS IIIFs. 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.				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Title: GPS III Follow-On (GPS IIIF) Development		176.249	146.551	116.829

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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. FY 2025 Plans: Continue development of GPS IIIF SV11 and SV12. Planned activities for SV11 and SV12 include; initiate and/or complete Thermal Vacuum Test (TVAC), conduct SV Acoustic testing, conduct Passive Inter-Modulation Testing (PIM), Electromagnetic Interference (EMI), and TEMPEST testing. Continue Non-Recurring Engineering (NRE) work to include studying and executing crosslink and Space Domain Awareness (SDA) opportunities. Delivery and acceptance testing of both risk-reducing simulators (GPS Software and Simulator (GSS+1 and GSS+2). Continue on-going technical mission analysis necessary for satellite development and program critical path. Continue support capability insertion research, and support required Software Development. In 2023 SWAC recommended the addition of crosslinks onto GPS III SV09 and 10. In 2025, the first crosslink payload is scheduled to launch on SV10. GPS IIIF will initiate development of a prototype payload for an operational design to use crosslinks on GPS IIIF. Prime Contractor to begin Phase 1 or a multi-phase approach to develop the prototype. Phase 1 will mature the critical elements of the payload to culminate with a functional lab demonstration of the crosslinks. 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 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 development of 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.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force							Date: June 2025				
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 2024	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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding decreased due to delivery of risk-reducing simulators and reduction in costs in late stage development of SVs 11 and 12.											
Title: N/A Description: N/A FY 2025 Plans: N/A FY 2026 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: N/A							0.000	30.000	0.000		
Accomplishments/Planned Programs Subtotals							176.249	176.551	116.829		
C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026</u> <u>Base</u>	<u>FY 2026</u> <u>OOB</u>	<u>FY 2026</u> <u>Total</u>	<u>FY 2027</u>	<u>FY 2028</u>	<u>FY 2029</u>	<u>FY 2030</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• SPSF 01 BA01 GPS03C: GPS III Follow On	53.248	647.165	112.127	-	112.127	-	-	-	-	-	-
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 Feasibility Assessments conducted during FY 2016-2017 provided data and insight into contractors' GPS satellite production designs with emphasis on a mature											

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>
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. 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	582.444	118.322	Oct 2023	63.552	Oct 2024	35.551	Oct 2025	-		35.551	-	-	1,374.851
GPS IIIF Other Contract Actions	C/FPIF	Lockheed Martin : Various, CA	19.077	7.133	Mar 2024	3.092	Mar 2025	6.056	Mar 2026	-		6.056	-	-	-
GPS IIIF Award Fee	C/FFP	Lockheed Martin : Littleton, CO	16.450	5.473	Mar 2025	11.443	Mar 2025	8.720	Mar 2026	-		8.720	-	-	-
Crosslinks	C/FPIF	Lockheed Martin : Littleton, CO	0.000	12.500	Jun 2024	17.705	Jun 2025	34.000	Dec 2025	-		34.000	-	-	-
PNT Timing Study	C/FFP	Space Exploration Tech : Hawthorne, CA	0.000	3.398	Aug 2024	11.602	Aug 2025	-		-		-	-	-	-
NTS-3 Payload and Launch	Various	Various : Various, CA	21.399	2.753	Mar 2024	4.831	Mar 2025	-		-		-	-	-	-
GPS IIIF SBIR/STTR	Allot	Not Specified : Washington, DC	0.000	-		4.989		4.323		-		4.323	-	-	-
GPS IIIF Associated Product Development	Various	Various : Various, CA	5.175	2.385	Nov 2023	5.384	Nov 2024	3.273	Nov 2025	-		3.273	-	-	-
GPS IIIF Technical Mission Analysis	RO	Aerospace : El Segundo, CA	9.704	2.673	Nov 2023	2.790	Nov 2024	2.590	Nov 2025	-		2.590	-	-	-
GPS IIIF Enterprise SE&I	C/CPAF	SAIC : El Segundo, CA	7.845	4.438	Nov 2023	9.669	Nov 2024	8.127	Nov 2025	-		8.127	-	-	-
GPS IIIF Launch Services	Various	Various : Various, CA	0.000	-		0.768	Mar 2025	11.616	Mar 2026	-		11.616	-	-	-
Subtotal			662.094	159.075		135.825		114.256		-		114.256	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-		3.523	Nov 2024	-		-		-	-	-	-
Subtotal			1.000	-		3.523		-		-		-	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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			
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	4.733	1.214	Nov 2023	1.315	Nov 2024	0.754	Nov 2025	-		0.754	-	-	-
GPS IIIF A&AS	Various	Various : Various, CA	27.763	15.679	Nov 2023	5.588	Nov 2024	1.519	Nov 2025	-		1.519	-	-	-
GPS IIIF Other Support	Various	Various : El Segundo, CA	1.086	0.281	Nov 2023	0.300	Nov 2024	0.300	Nov 2025	-		0.300	-	-	-
Subtotal			33.582	17.174		7.203		2.573		-		2.573	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			696.676	176.249		146.551		116.829		-		116.829	-	-	N/A
Remarks															
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 2026 Air Force			Date: June 2025		
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 III F</i>	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 & 2 Integration																												
GSS+ 1 Delivered																												
GSS+ 2 Delivered																												
GPS III F																												
SV 11 System Integration & Test																												
SV 11 Available for Launch																												
SV 11 Launch																												
SV 11 Early Orbit Operations and On Orbit Checkout																												
SV 12 System Integration & Test																												
SV 12 Available for Launch																												
SV 12 Launch																												
SV 12 Early Orbit Operations and on Orbit Checkout																												
GPS III F Advanced Capabilities Development																												
Navigation Technology Satellite-3 (NTS-3)																												
NTS-3 Payload and Launch																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	2024	4	2024
GSS+				
GSS+ 1 & 2 Integration	2	2024	3	2024
GSS+ 1 Delivered	1	2026	1	2026
GSS+ 2 Delivered	2	2026	2	2026
GPS IIIF				
SV 11 System Integration & Test	1	2024	1	2026
SV 11 Available for Launch	1	2027	1	2027
SV 11 Launch	3	2027	3	2027
SV 11 Early Orbit Operations and On Orbit Checkout	3	2027	3	2028
SV 12 System Integration & Test	4	2024	4	2027
SV 12 Available for Launch	3	2027	3	2027
SV 12 Launch	3	2027	3	2027
SV 12 Early Orbit Operations and on Orbit Checkout	3	2027	3	2028
GPS IIIF Advanced Capabilities Development	1	2024	4	2030
Navigation Technology Satellite-3 (NTS-3)				
NTS-3 Payload and Launch	2	2025	2	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
653171: GPS Enterprise Integration	57.816	61.721	63.695	62.420	0.000	62.420	-	-	-	-	-	-
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 Defense (DoD), 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 2026 Air Force		Date: June 2025						
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>						
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 DoD 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.								
B. Accomplishments/Planned Programs (\$ in Millions)								
Title: Enterprise Integration								
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 2025 Plans: Continue integrated, Government-led development and operational testing using operational assets, facilities and resources. Support MGUE Inc 1 completion of Aviation/Maritime lead platform testing. Support MGUE Inc 2 MSI with Next Generation ASIC prototyping, including MGUE Inc 2 first article delivery. Support MGUE Handheld program and requirements review. Support OCX Block 1/2 Ready to transition to Operations (RTO) and Constellation Transfer (CTX) from the OCS to OCX. Continue GPS Enterprise-wide systems engineering, systems integration, and technical baseline management to ensure GPS Programs of Record work effectively together.								
Support FY25 GPS III SV launches. 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								
		<table border="1"> <thead> <tr> <th>FY 2024</th><th>FY 2025</th><th>FY 2026</th></tr> </thead> <tbody> <tr> <td align="center">61.721</td><td align="center">63.695</td><td align="center">62.420</td></tr> </tbody> </table>	FY 2024	FY 2025	FY 2026	61.721	63.695	62.420
FY 2024	FY 2025	FY 2026						
61.721	63.695	62.420						

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
to develop and assess future GPS opportunities to make GPS more resilient for civil users. Support early GPS IV concept development. Provide increased support for Positioning, Navigation, and Timing (PNT) cybersecurity including cyber survivability test and evaluation planning and analysis. 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 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 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,			
		FY 2026	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	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 2025 to FY 2026 Increase/Decrease Statement: FY26 decrease slightly focused on supporting MGUE Inc 2 MSI and Handheld prototype hardware, software, and critical component maturation, ultimately driving toward initial production readiness. Support OCX early operational capabilities. Support the government management team to test and resolve any OCX discrepancies and mission integration efforts. Continue to explore future PNT technology initiatives.												
Accomplishments/Planned Programs Subtotals										61.721	63.695	62.420
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost	
• RDTE 07 1206423F: Global Positioning System III - Operational Control Segment	317.309	169.304	22.830	-	22.830	-	-	-	-	-	-	
• RDTE 04 1203164F: NAVSTAR Global Positioning System (User Equipment) (SPACE)	353.807	299.424	133.805	-	133.805	-	-	-	-	-	-	
• RDTE 05 1203269SF: GPS III Follow-On (GPS IIIF)	247.278	180.694	123.831	-	123.831	-	-	-	-	-	-	
• SPSF 01 GPSIII: GPS III Space Segment	121.770	68.072	29.665	-	29.665	-	-	-	-	-	-	
• SPSF 01 GPS03C: GPSIII Follow On	119.700	665.861	708.862	-	708.862	-	-	-	-	-	-	
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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	28.806	27.615	Nov 2023	31.843	Nov 2024	32.373	Nov 2025	-		32.373	-	-	-
GPS EI Technical Mission Analysis 1	RO	Aerospace : El Segundo, CA	5.559	5.288	Oct 2023	4.000	Oct 2024	2.934	Oct 2025	-		2.934	-	-	-
GPS EI Technical Mission Analysis 2	Various	Mitre : Various	10.470	11.415	Oct 2023	8.672	Oct 2024	6.551	Oct 2025	-		6.551	-	-	-
GPS EI SBIR/STTR	Various	Various : Washington, DC	0.000	-		2.169		2.372		-		2.372	-	-	-
GPS EI Additional Product Development	Various	Various : Various	2.336	3.331	Oct 2023	3.094	Dec 2024	5.296	Dec 2025	-		5.296	-	-	-
Subtotal			47.171	47.649		49.778		49.526		-		49.526	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	4.154	4.522	Dec 2023	6.409	Dec 2024	5.834	Dec 2025	-		5.834	-	-	-
GPS EI GPS Test Asset Program (GTAP)	C/CPAF	Draper Labs : Cambridge, MA	5.800	4.709	Dec 2023	5.310	Dec 2024	5.940	Dec 2025	-		5.940	-	-	-
Subtotal			9.954	9.231		11.719		11.774		-		11.774	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	0.291	4.241	Oct 2023	1.798	Oct 2024	0.720	Nov 2025	-		0.720	-	-	-
GPS EI Other Support	Various	Various : Various	0.400	0.600	Oct 2023	0.400	Oct 2024	0.400	Nov 2025	-		0.400	-	-	-
Subtotal			0.691	4.841		2.198		1.120		-		1.120	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force											Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		57.816	61.721		63.695		62.420		-		62.420	-	-	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 5					PE 1203269SF / GPS III Follow-On (GPS III F)					653171 / GPS Enterprise Integration			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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, L5 and L2C Initial Operational Capability (IOC)																												
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 2026 Air Force

Date: June 2025

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	1	2027	1	2027
GPS IIIF SV12 Available for Launch	3	2027	3	2027
GPS IIIF SV13 Available for Launch	2	2028	2	2028
GPS IIIF SV14 Available for Launch	4	2028	4	2028
GPS IIIF SV15 Available for Launch	1	2029	1	2029
GPS IIIF SV16 Available for Launch	2	2029	2	2029
GPS IIIF SV17 Available for Launch	4	2029	4	2029
GPS IIIF SV18 Available for Launch	1	2030	1	2030
GPS IIIF SV19 Available for Launch	2	2030	2	2030
GPS IIIF SV20 Available for Launch	4	2030	4	2030
Enterprise Integration Support				
Mission Integration and Technical Baseline Management	1	2024	4	2030
OCX Block 1 Ready to Transition to Operations (RTO)	4	2025	1	2026
M-Code, L5 and L2C Initial Operational Capability (IOC)	3	2024	3	2024
M-Code PNT IOC	3	2026	3	2026
OCX 3F Operational Acceptance	1	2028	1	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 2026 Air Force	Date: June 2025

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 1206421SF / <i>Counterspace Systems</i>											
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	30.243	34.978	31.298	0.000	31.298	-	-	-	-	-	-
65A001: <i>Counter Satellite Communications System</i>	0.000	28.162	32.777	29.075	0.000	29.075	-	-	-	-	-	-
65A013: <i>BOUNTY HUNTER</i>	0.000	2.081	2.201	2.223	0.000	2.223	-	-	-	-	-	-

Note

In FY 2025, Project 65A001, Counter Satellite Communications System (CCS) - Meadowlands development delivered and Interim Contractor Support (ICS) remains for sustainment reachback support.

A. Mission Description and Budget Item Justification

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 the new name changed from the CCS Emerging Threat Integration Program (CETIP), and is NOT a new start. 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 program element may include necessary civilian pay expenses required to manage, execute, and deliver CCS 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.

Bounty Hunter (BH) is a ground-based, deployable, tactical space Electronic Warfare Support system (ES) 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 electro-magnetic 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 will be realigned from the United States Air Force to the United States Space Force.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force			Date: June 2025			
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 civilian pay expenses required to manage, execute, and deliver Bounty Hunter weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605829S.						
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		36.537	37.078	37.385	0.000	37.385
Current President's Budget		30.243	34.978	31.298	0.000	31.298
Total Adjustments		-6.294	-2.100	-6.087	0.000	-6.087
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		-4.378	-2.100			
• 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		-1.916	0.000	-6.087	0.000	-6.087
Change Summary Explanation						
FY 2026: -5.010 million for higher Space Force priorities						
FY 2026: -0.300M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						
FY 2026: -0.664M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.						

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
65A001: Counter Satellite Communications System	0.000	28.162	32.777	29.075	0.000	29.075	-	-	-	-	-	-
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 2024	FY 2025	FY 2026	
Title: CCS Pre-planned Product Improvement (P3I) Program									27.962	7.000	4.000	
Description: Develop, integrate, test and field the CCS P3I program. This is an incremental approach to deliver Block 20 CCS capabilities.												
FY 2025 Plans: Complete P3I testing and system delivery of the Block 10 P3I Meadowlands program. Prepare to integrate CCS Block 10.3 Meadowlands into architecture, including forward garrison systems, mission specific emulators, training environment and multi-range integration. Prepare to support integrated testing and transition to operations and Interim Contractor Support (ICS). Funding will allow the program to rapidly respond and implement system resiliency and situational awareness necessary to operate in the contested space domain. Research, Development, Test, & Evaluation (RDT&E) funding is required to support this transformation and enable Space Superiority end-to-end integration activities such as, but not limited to, program office support, studies, technical analysis, experimentation, prototyping, architectural development, systems engineering demonstrations, testing, command and control integration and mission partner integration.												
FY 2026 Plans: Continue ICS.												
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to the projected completion of the CCS Meadowlands development effort and initiation of ICS in FY 2025.												
Title: Electromagnetic Warfare Threat Integration Program (EWTIP) changed from the CCS Emerging Threat Integration Program (CETIP)									0.200	25.777	25.075	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Description: In FY 2024, "Counter Satellite Communications System Emerging Threat Integration Program (CETIP)" effort title was changed to "Electromagnetic Warfare Threat Integration Program (EWTIP)" to capture overall mission and activities. This is NOT a new start. 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 2025 Plans: Begin studies for up to three mission techniques with options for development. Start concentrated stand-alone testing of CCS capabilities to refine space warfighting techniques and prepare for transition into Electronic Warfare (EW) architecture. Begin new antenna band development. Activities may include, but are not limited to, risk reduction studies, technical analysis, experimentation, prototyping, etc. 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 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. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased by \$0.702 million to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise support and for Commercial Space Office industry outreach and innovation support respectively.			
Accomplishments/Planned Programs Subtotals		28.162	32.777
			29.075

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems	Project (Number/Name) 65A001 / Counter Satellite Communications System	

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

Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPAF 01 CTRSPC: Counterspace Systems	50.165	4.277	2.058	-	2.058	-	-	-	-	-	-

Remarks

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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 P3I Development	Various	Various : El Segundo, CA	-	19.450	Feb 2024	7.000	Feb 2025	4.000	Oct 2025	-		4.000	-	-	-
EWTIP Development changed from CETIP Development	Various	TBD : TBD	-	0.200	Sep 2024	14.062	Oct 2024	13.867	Oct 2025	-		13.867	-	-	-
Technical Mission Analysis	RO	Aerospace Corp : El Segundo, CA	-	1.227	Oct 2023	1.296	Oct 2024	1.335	Oct 2025	-		1.335	-	-	-
Enterprise Systems Engineering and Integration	C/FFP	Various : Various, CA	-	1.022	May 2024	1.042	May 2025	1.063	May 2026	-		1.063	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000	Oct 2023	1.253	Oct 2024	1.068	Oct 2025	-		1.068	-	-	-
Counterspace Architecture Development	C/CPFF	NGMS : Redondo Beach, CA	-	1.217	Jan 2024	0.954	Jan 2025	0.971	Jan 2026	-		0.971	-	-	-
Subtotal			-	23.116		25.607		22.304		-		22.304	-	-	N/A
Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	2.334	Nov 2023	2.391	Nov 2024	2.434	Nov 2025	-		2.434	-	-	-
Subtotal			-	2.334		2.391		2.434		-		2.434	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.558	Oct 2023	1.271	Oct 2024	1.309	Oct 2025	-		1.309	-	-	-
A&AS	Various	Various : El Segundo, CA	-	2.053	May 2024	3.405	May 2025	2.923	May 2026	-		2.923	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.101	Oct 2023	0.103	Oct 2024	0.105	Oct 2025	-		0.105	-	-	-
Subtotal			-	2.712		4.779		4.337		-		4.337	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	28.162		32.777		29.075		-		29.075	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems		Project (Number/Name) 65A001 / Counter Satellite Communications System	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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
CCS B10.3																												
10.3 Development																												
Technique Development (2x per year)																												
10.3 Development Test/Operational Test																												
10.3 System Deliveries #1-4																												
EW TIP																												
Risk Reduction Study																												
Mission Technique #1																												
Mission Technique #2																												
New Antenna Band Development																												
Mission Technique #3																												
Alternative SATCOM Antenna Development																												
Mission Technique #4																												
Mission Technique #5																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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
CCS B10.3				
10.3 Development	1	2024	1	2025
Technique Development (2x per year)	1	2024	4	2024
10.3 Development Test/Operational Test	1	2025	2	2025
10.3 System Deliveries #1-4	2	2026	3	2026
EW TIP				
Risk Reduction Study	4	2024	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
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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
65A013: BOUNTY HUNTER	0.000	2.081	2.201	2.223	0.000	2.223	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Bounty Hunter (BH) is a ground-based, deployable, tactical space Electronic 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 electro-magnetic 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 will be realigned 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 element 0605829F. In PY 2024 0.148 million was expended for civilian pay expenses in this program element, and in CY 2025 0.154 million forecasted for civilian pay expenses in this program element.

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

	FY 2024	FY 2025	FY 2026
Title: Bounty Hunter (BH)	2.081	2.201	2.223
Description: Develop new capabilities for the BH program to meet and maintain pace with the operational threat environment. Specific accomplishments are classified.			
FY 2025 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, program office support, studies, technical analysis, experimentation, and prototyping. Further, FY 2025 development focuses on automation of 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. The BH Program Management Office returned an initial and updated small form factor BH system for utilization in the European Command (EUCOM) AOR in May 2024. The system was damaged during the summer of 2023 during initial delivery and deployment utilization.			
FY 2026 Plans: -Continuing to execute the programs RDT&E plan for system upgrades -Focusing efforts towards: -Establishing a potentially unmanned system and/or reducing crew			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force									Date: June 2025		
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 2024	FY 2025	FY 2026
-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 -Other development efforts will be including, but are not limited to, program office support, studies, technical analysis, experimentation, and prototyping. FY 2025 to FY 2026 Increase/Decrease Statement: 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									2.081	2.201	2.223
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPAF 01 CTRSPC: Counterspace Systems	2.100	0.000	0.000	0.000	0.000	-	-	-	-	-	-
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 2025. The PMO will re-compete the contract every five years to ensure continued alignment with program goals and objectives. The BH PMO is currently working to obtain an award for a new Sustainment & Development support vendor for March 2025 thru March 2030.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 Equipment	MIPR	Navy Research Laboratory : TBD	-	-		0.000		-		-		-	-	-	-
Bounty Hunter Developmental Test Support	PO	AFLCMC/HNCP : TBD	-	0.458		0.309		0.315		-		0.315	-	-	-
Bounty Hunter Development	SS/CPFF	COLSA : Huntsville, AL	-	0.968	Mar 2024	1.738	Mar 2025	1.908	Mar 2026	-		1.908	-	-	-
Bounty Hunter Machine Learning (ML)	C/CPFF	COLSA : Huntsville, AL	-	-		0.000		-		-		-	-	-	-
Bounty Hunter EPASS Contract	C/CPFF	Applied Research Solution : Beavercreek, OH	-	0.511	Sep 2024	-		-		-		-	-	-	-
Subtotal			-	1.937		2.047		2.223		-		2.223	-	-	N/A
Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.144	Oct 2023	0.154	Oct 2024	0.000	Oct 2025	-		0.000	-	-	-
Subtotal			-	0.144		0.154		0.000		-		0.000	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	2.081		2.201		2.223		-		2.223	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems	Project (Number/Name) 65A013 / BOUNTY HUNTER	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Bounty Hunter Trainer #1 Operations																												
Bounty Hunter Trainer #2 Operations																												
Bounty Hunter Trainer #3 Production																												
Bounty Hunter Trainer #3 Operations																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206421SF / Counterspace Systems	Project (Number/Name) 65A013 / BOUNTY HUNTER	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Bounty Hunter				
Bounty Hunter Incremental Development	1	2024	4	2029
Bounty Hunter Ops System #1 Operations	1	2024	4	2029
Bounty Hunter Ops System #2 Operations	1	2024	4	2029
Bounty Hunter Ops System #3 Operations	1	2024	4	2029
Bounty Hunter Ops System #4 Operations	1	2024	4	2029
Bounty Hunter Ops System #5 Operations	1	2024	4	2029
Bounty Hunter Trainer #1 Operations	1	2024	4	2029
Bounty Hunter Trainer #2 Operations	1	2024	4	2029
Bounty Hunter Trainer #3 Production	1	2024	3	2024
Bounty Hunter Trainer #3 Operations	4	2024	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 1206422SF / <i>Weather System Follow-on</i>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	193.749	72.660	49.207	38.501	0.000	38.501	-	-	-	-	-	-
65A038: <i>SSA Environmental Monitoring</i>	7.485	0.000	2.042	2.014	0.000	2.014	-	-	-	-	-	-
65A039: <i>WSF-M</i>	186.264	72.660	47.165	36.487	0.000	36.487	-	-	-	-	-	-

Note

\$2.329M FY24 funds were re-aligned to SSAEM due to increased on-orbit support and development of operation improvements of weather sensors.

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.

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 DoD operational numerical weather prediction models.

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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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	
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. 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. 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 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 2026 Air Force				Date: June 2025	
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			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	79.727	49.207	39.901	0.000	39.901
Current President's Budget	72.660	49.207	38.501	0.000	38.501
Total Adjustments	-7.067	0.000	-1.400	0.000	-1.400
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-4.400	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	-2.667	0.000			
• Other Adjustments	0.000	0.000	-1.400	0.000	-1.400
Change Summary Explanation					
FY 2024: -2.329M Project 65A039 WSF-M realignment to +2.329M Project 65A038 SSA Environmental Monitoring.					
FY 2024: -2.800M for SV 1-2 excess to need.					
FY 2024: -1.600M for unjustified increase on management services.					
FY 2026: -0.379M Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."					
FY 2026: -0.880M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.					
FY 2026: -0.011M for higher USSF investments.					
FY 2026: -0.130M for inflation adjustments.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
65A038: SSA Environmental Monitoring	7.485	0.000	2.042	2.014	0.000	2.014	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

\$2.329M FY24 funds were re-aligned to SSAEM due to increased on-orbit support and development of operation improvements of weather sensors.

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 DoD 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 2024	FY 2025	FY 2026
Title: Space Situational Awareness Environment Monitoring (SSAEM)	0.000	2.042	2.014
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 2025 Plans: Implement 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			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206422SF / Weather System Follow-on	Project (Number/Name) 65A038 / SSA Environmental Monitoring		
B. Accomplishments/Planned Programs (\$ in Millions) 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 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 2025 to FY 2026 Increase/Decrease Statement: FY2026 increase compared to FY2025 by \$45,000 due to annual inflationary cost to continue software updates to generate data products.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		0.000	2.042	2.014
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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	2.064	-		0.684	Nov 2024	0.658	Nov 2025	-		0.658	-	-	-
On-Orbit Support (UCAR/JPL)	MIPR	UCAR/JPL : Boulder, CO	3.139	-		0.561	Nov 2024	0.736	Nov 2025	-		0.736	-	-	-
Ground Support	Various	Various : TBD	1.589	-		0.300	Nov 2024	0.100	Nov 2025	-		0.100	-	-	-
Technical Mission Analysis	RO	Aerospace Corp : El Segundo, CA	0.253	-		0.104	Nov 2024	0.113	Nov 2025	-		0.113	-	-	-
SBIR/STTR	Various	TBD : TBD	0.000	-		0.071	Mar 2025	0.071	Mar 2026	-		0.071	-	-	-
Subtotal			7.045	-		1.720		1.678		-		1.678	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	0.438	-		0.226	Nov 2024	0.263	Nov 2025	-		0.263	-	-	-
A&AS	Various	Various : Various	0.000	0.000		0.096	May 2025	0.073	May 2026	-		0.073	-	-	-
Other Support	Various	Various : TBD	0.002	-		-		-		-		-	-	-	-
Subtotal			0.440	0.000		0.322		0.336		-		0.336	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			7.485	0.000		2.042		2.014		-		2.014	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
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	2024	4	2028
Ground Activities	1	2024	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
65A039: WSF-M	186.264	72.660	47.165	36.487	0.000	36.487	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

\$2.329M FY24 funds were re-aligned to SSAEM due to increased on-orbit support and development of operation improvements of weather sensors.

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.

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
Title: WSF Microwave Satellite (SV1-2) 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 2025 Plans: Complete calibration and validation, and Full Operational Capability of WSF-M SV-1. Conduct integration and test of WSF-M SV-2 to prepare for planned storage. 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 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 2025 to FY 2026 Increase/Decrease Statement: FY2026 decrease due to completion of WSF-M SV-1, calibration/validation and full operational capabilities.			71.059	44.517	36.373
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 2025 Plans: Continue operating the sensor and gathering data for inclusion into current weather models. This funding includes but is not limited to payload commanding, data interpretation and dissemination, and other ground operational support. FY 2026 Plans:			1.381	0.352	0.114

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
N/A.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decrease due to completion of on-orbit demonstration.			
Title: ECP		0.220	2.296
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.			0.000
FY 2025 Plans: Integrate ECP payload on WSF-M SV-2.			
FY 2026 Plans: N/A.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decrease due to completion of ECP sensor integration with WSF-M SV-2 spacecraft.			
Accomplishments/Planned Programs Subtotals		72.660	47.165
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 DoD 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 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.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>
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 2026 Air Force

Date: June 2025

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)

				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
WSF COWVR Technology Demonstration	MIPR	JPL : Pasadena, CA	3.226	1.381	Apr 2024	0.352	Apr 2025	0.114	Dec 2025	-		0.114	-	-	-
WSF Microwave System (SV1-2)	C/CPFF	BAE Systems : Boulder, CO	132.817	49.943	Nov 2023	22.605	Nov 2024	15.098	Nov 2025	-		15.098	-	-	531.575
WSF ECP	C/Various	AFRL : Kirtland AFB, NM	3.114	0.220	Jan 2024	2.296	Jan 2025	0.000		-		0.000	-	-	-
WSF Enterprise Systems Engineering & Integration	C/CPAF	Booz Allen Hamilton : McLean, VA	4.304	2.182	Nov 2023	3.125	Nov 2024	2.927	Nov 2025	-		2.927	-	-	-
WSF Technical Mission Analysis	RO	Aerospace Corp. : El Segundo, CA	17.857	4.831	Nov 2023	4.994	Nov 2024	5.494	Nov 2025	-		5.494	-	-	-
WSF Blossom Point Naval Research Laboratory	MIPR	NRL : Welcome, MD	13.127	7.711	Dec 2023	7.867	Dec 2024	7.653	Dec 2025	-		7.653	-	-	-
SBIR/STTR	Various	Not specified. : TBD	0.000	0.000	May 2024	1.652		1.294	Mar 2026	-		1.294	-	-	-
Subtotal			174.445	66.268		42.891		32.580		-		32.580	-	-	N/A

Management Services (\$ in Millions)

				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
WSF FFRDC	RO	Aerospace Corp : El Segundo, CA	7.035	2.071	Nov 2023	2.140	Nov 2024	2.355	Nov 2025	-		2.355	-	-	-
WSF A&AS	Various	Various : El Segundo, CA	4.427	4.036	Feb 2024	1.884	Feb 2025	1.334	Feb 2026	-		1.334	-	-	-
WSF Other Support	Various	Various : El Segundo, CA	0.357	0.285	Nov 2023	0.250	Nov 2024	0.218	Nov 2025	-		0.218	-	-	-
Subtotal			11.819	6.392		4.274		3.907		-		3.907	-	-	N/A

			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			186.264	72.660		47.165		36.487		-		36.487	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force							Date: June 2025			
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract	
Remarks										

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)			Project (Number/Name)				
3620F / 5					PE 1206422SF / <i>Weather System Follow-on</i>			65A039 / <i>WSF-M</i>				

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 Launch Capability																												
WSF SV-1 Initial Operational Capability																												
WSF SV-1 Full Operational Capability																												
WSF ECP Development & Delivery to Prime Contractor for SV-2																												
WSF SV-2 Production/Integration and Test																												
COWVR Technology Demonstration On-Orbit Operations																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)	Project (Number/Name)	
3620F / 5		PE 1206422SF / Weather System Follow-on	65A039 / WSF-M	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Weather System Follow-On				
WSF SV-1 Initial Launch Capability	2	2024	3	2024
WSF SV-1 Initial Operational Capability	3	2024	3	2025
WSF SV-1 Full Operational Capability	2	2025	4	2025
WSF ECP Development & Delivery to Prime Contractor for SV-2	1	2025	4	2025
WSF SV-2 Production/Integration and Test	1	2024	2	2027
COWVR Technology Demonstration On-Orbit Operations	1	2024	4	2025

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	375.020	455.605	0.992	0.000	0.992	-	-	-	-	-	-
656565: <i>Ground Based SDA</i>	0.000	222.363	234.562	0.000	0.000	0.000	-	-	-	-	-	-
65A006: <i>Space Based SDA</i>	0.000	111.664	170.100	0.000	0.000	0.000	-	-	-	-	-	-
65A037: <i>Ground Based Optical Sensor</i>	0.000	40.993	50.943	0.992	0.000	0.992	-	-	-	-	-	-

Note

In FY 2025, Project 656565, Ground Based (SDA), the Deep Space Advanced Radar Capability (DARC) Site 1 Rapid Prototype MTA was completed.
 In FY 2026, Project 65A037, Ground Based Optical Sensor, will be completed.

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 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).

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. On 22 May 2024, the Service Acquisition Executive (SAE) signed an Acquisition Decision Memorandum (ADM) transitioning the program 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. The space-based SDA program activity will develop and deliver a system to continue

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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	
providing space object surveillance. 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. Space Based SDA requirements are based on both the Statement of Capabilities and the current 2022 Space Domain Awareness (SDA) Initial Capabilities Document, which is focused on protecting High Value Assets. Space Based SDA 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 new GEODSS 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 the GEODSS image processing and optical subsystems that will enhance its sensitivity and search rate, and fields new multi-spectral advanced technology sensors supporting extended operations, high- fidelity characterization, enhanced indications and warnings (I&W), and attribution. The FY 2026 request for Space Situational Awareness Systems includes \$992 thousand of discretionary funds and \$455,000 thousand of mandatory (reconciliation) funds for a total of \$455,992 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.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206425SF I Space Situation Awareness Systems			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	372.827	483.605	468.666	0.000	468.666
Current President's Budget	375.020	455.605	0.992	0.000	0.992
Total Adjustments	2.193	-28.000	-467.674	0.000	-467.674
• Congressional General Reductions	0.000	-28.000			
• 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	2.193	0.000			
• Other Adjustments	0.000	0.000	-467.674	0.000	-467.674
Change Summary Explanation					
FY 2025: Decrease of \$20.000M for DARC Site 2 delay/descope					
FY 2025: Decrease of \$8.000M for space based advisory and assistance services overestimation					
FY 2026: Decrease of \$455.000M for Space Situational Awareness Systems will be appropriately offset by funding sourced from the Reconciliation Bill (H.R. 1) upon enactment.					
FY 2026: Decrease of \$10.335M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry innovation outreach support respectively.					
FY 2026: Decrease of \$0.031M; Advisory and Assistance Services (A&AS) reduction to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
656565: <i>Ground Based SDA</i>	0.000	222.363	234.562	0.000	0.000	0.000	-	-	-	-	-	-
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 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). 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 Space Surveillance Network as an additional sensor with increased capacity and capability for deep space object custody, providing full global coverage. DARC Site 1 was initially awarded as a Middle Tier Acquisition (MTA) Rapid Prototype. On 22 May 2024, the Service Acquisition Executive (SAE) approved successful completion of the DARC Site 1 prototype and transitioned the program to be a Major Capability Acquisition (MCA) to complete development and operationally field DARC Sites 1 (Australia), Site 2 (United Kingdom), and Site 3 (United States). The FY 2026 request for DARC includes \$0 thousand discretionary funds and \$281,861 thousand of mandatory (reconciliation) for a total of \$281,861 thousand. The mandatory funds continue construction and integration of Site 1, and development of Site 2. 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 2024	FY 2025	FY 2026	
Title: DARC Site 1 Rapid Prototype									154.932	0.000	0.000	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Description: The DARC Site 1 MTA program was the initial program that rapidly developed a prototype DARC site to support SDA. DARC Site 1 will demonstrate system responsiveness to regularly scheduled and unscheduled tasks to locate, identify, characterize deep space objects and report the results to Battle Management Command and Control locations and SSN. The MTA was transitioned to an MCA which includes the completion of Site 1 and the remaining two sites. This major thrust was retitled from DARC Site 1 Operational Capability to distinguish it from the follow-on effort to complete and field all three DARC sites. It is not a New Start. FY 2025 Plans: Continue Site 1 construction, integration, software development, test activities, and missions operations center. Complete the remainder of construction tasks and integration of all DARC subsystems, such as antennas, server racks and operations consoles. Continue software development. Complete factory testing and demonstrations and begin Developmental Test and Evaluation (DT&E). 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 2026 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: N/A			
Title: DARC Sites 1, 2 and 3 Operational Capability Description: The program will complete development, test, and delivery of DARC Sites 1, 2 and 3 with a current estimated completion date of FY 2032. 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 2025 Plans:		67.431	234.562
			0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Complete Site 1 facilities construction in early 2025. Continue system integration and conduct preliminary Site 1 system test events.			
Begin Site 2 design, environmental, and pre-construction activities. Initiate requirements and design work with the United Kingdom (UK) National Grid electric company for connecting to the host country's power grid. Complete and submit design and environmental plans as part of the UK Towne and Planning package for approval.			
Continue Site 3 preliminary activities. Coordinate with the FAA on restricted airspace and spectrum sharing with commercial industry. Continue preliminary environmental work (e.g., historical commission, cultural heritage, biological).			
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 2025 to FY 2026 Increase/Decrease Statement: Decrease of \$234.562M for DARC Sites 1, 2 and 3 Operational will be appropriately offset by funding sourced from the Reconciliation Bill (H.R. 1) upon enactment.			
Accomplishments/Planned Programs Subtotals		222.363	234.562
			0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>
C. Other Program Funding Summary (\$ in Millions) N/A		
Remarks D. Acquisition Strategy Originally this effort utilized existing DoD 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 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems				Project (Number/Name) 656565 / Ground Based SDA					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	205.717	Nov 2023	149.079	Oct 2024	-		-		-	-	-	-
DARC System Development Site 2	C/CPIF	Northrop Grumman : Colorado Springs, CO	-	0.000	May 2024	56.223	Nov 2024	-		-		-	-	-	-
DARC System Development Site 3	C/CPIF	Northrop Grumman : Colorado Springs, CO	-	0.000		0.000		-		-		-	-	-	-
DARC Technical Mission Analysis	Various	Various : Various	-	9.009	Jan 2024	9.300	Jan 2025	-		-		-	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000	Oct 2023	8.314	Oct 2024	-		-		-	-	-	-
Subtotal			-	214.726		222.916		-		-		-	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.297	Feb 2024	2.197	Feb 2025	-		-		-	-	-	-
Subtotal			-	0.297		2.197		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	5.303	Nov 2023	6.510	Nov 2024	-		-		-	-	-	-
FFRDC	RO	MITRE Corp : Colorado Springs, CO	-	1.900	Nov 2023	2.820	Nov 2024	-		-		-	-	-	-
Other Support	Various	Various : Colorado Springs, CO	-	0.137	Oct 2023	0.119	Oct 2024	-		-		-	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025					
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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			-	7.340		9.449		-		-		-	-	-	N/A		
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract		
Project Cost Totals			-	222.363		234.562		-		-		-	-	-	N/A		
Remarks																	
Product Development																	
DARC System Development Site 1 - \$58.182M																	
DARC System Development Site 2 - \$190.655M																	
DARC System Development Site 3 - \$0.00M																	
Technical Mission Analysis - \$10.063M																	
SBIR/STTR - \$10.316M																	
Test and Evaluation																	
Test Support - \$2.00M																	
Management Services																	
A&AS - \$6.718M																	
FFRDC - \$3.807M																	
Other - \$.116M																	
TOTAL - \$281.857M																	

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 Software Development																												
Site 1 Construction																												
Site 1 Development/Operational Testing																												
Site 1 Completion (Operational Leave Behind Capability)																												
Site 2 Contract Award																												
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 Completion (Operational Leave Behind Capability)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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 Software Development	1	2024	4	2025
Site 1 Construction	1	2024	1	2025
Site 1 Development/Operational Testing	3	2026	1	2027
Site 1 Completion (Operational Leave Behind Capability)	1	2027	1	2027
Site 2 Contract Award	4	2024	4	2024
Site 2 Development	1	2025	4	2029
Site 2 Construction	2	2027	3	2028
Site 2 Development/Operational Testing	2	2029	4	2029
Site 2 Completion (Operational Leave Behind Capability)	4	2029	4	2029
Site 3 Contract Award	1	2028	1	2028
Site 3 Development	2	2028	4	2030
Site 3 Construction	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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
65A006: <i>Space Based SDA</i>	0.000	111.664	170.100	0.000	0.000	0.000	-	-	-	-	-	-
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 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.

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 request for Silentbarker includes \$0 thousand discretionary and \$163,854 thousand of mandatory (reconciliation) for a total of \$163,854 thousand. The mandatory funds support ongoing baseline and expansion capabilities. Further information for this reconciliation request is provided in Section 20009 (INDOPACOM Capabilities) of the Reconciliation Exhibit.

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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. 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.				
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Title: Space-Based Space Domain Awareness (SDA)		111.664	170.100	0.000
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 2025 Plans:				
FY 2025 will continue advancing key space-based SDA initiatives to enhance operational capability, resiliency, and strategic awareness in the contested space domain.				
Key planned efforts include:				
SILENTBARKER Expansion: Continue development toward Full Operational Capability (FOC) for Geosynchronous (GEO)-based SDA. This includes mission data processing, dissemination, and prototyping efforts supporting SILENTBARKER and other SDA initiatives. Technology Enhancements and Prototyping: Advance SDA capabilities through studies, analyses, demonstrations, and experimentation. Focus areas include threat-responsive upgrades, system extensions, and augmentations for enhanced space-based surveillance and reconnaissance. Oculus Hosted Payload Program: Continue preparations for the launch of the first Oculus SDA Hosted Payload (HP) on a commercial platform. FY 2025 will also support initial integration and characterization efforts of the second prototype payload. The Oculus initiative provides a cost-effective gap-filler for GEO-based SDA, expanding capability through commercial, international, or government hosting solutions. Prototype Missions: Support launch, on-orbit experimentation, and operations of key AFRL and SSC partnership programs, including Oracle-Mobility (Oracle-M) and Super-synchronous Small Satellite Space Surveillance System (S6) satellites, which enable critical low-cost space-based experimentation and expand SDA operations into Cislunar and GEO space. Enterprise Support and Resiliency: Enable the integration, testing, and operationalization of SDA systems with a focus on resiliency and situational awareness. Activities may include Command and Control (C2) systems support, technical analysis, integration events, space test/combat range exercises, and mission partner interfaces. Collaboration and Partnerships: Leverage commercial, interagency, and international opportunities to rapidly respond to emerging threats and expand SDA capabilities through innovation and collaboration.				
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.				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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, 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/S6): 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. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Decrease of \$170.100M for Space-Based Space Domain Awareness (SDA) will be appropriately offset by funding sourced from the Reconciliation Bill (H.R. 1) upon enactment.			
Accomplishments/Planned Programs Subtotals		111.664	170.100
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			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems	Project (Number/Name) 65A006 / Space Based SDA
follow-on increments, SILENTBARKER Expansion and SILENTBARKER-B. The SILENTBARKER Expansion contract was awarded Jun 2021 to extend capabilities past initial operational capability (IOC). SILENTBARKER-B contract plans to award in FY 2025.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	105.822	Dec 2023	155.744	Dec 2024	-		-		-	-	-	-
Space Based SDA Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	1.127	Nov 2023	1.200	Nov 2024	-		-		-	-	-	-
Space Based SDA Enterprise SE&I	Various	JHU/APL : Los Angeles, CA	-	1.456	Nov 2023	3.403	Nov 2024	-		-		-	-	-	-
Space Based SDA SBIR/ STTR	Allot	TBD : TBD	-	0.000	Oct 2023	6.029	Oct 2024	-		-		-	-	-	-
Subtotal			-	108.405		166.376		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.450	Nov 2023	0.475	Nov 2024	-		-		-	-	-	-
Space Based SDA A&AS	Various	Various : Various	-	2.666	Jan 2024	3.149	Jan 2025	-		-		-	-	-	-
Space Based SDA Other Support	Various	Various : Various	-	0.143	Mar 2024	0.100	Mar 2025	-		-		-	-	-	-
Subtotal			-	3.259		3.724		-		-		-	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	111.664		170.100		-		-		-	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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>SILENTBARKER Baseline</i>																												
On-orbit Support																												
<i>SILENTBARKER Expansion</i>																												
Technology Development, Engineering and Manufacturing Development, Production																												
Available for Launch																												
On-orbit Support																												
<i>SILENTBARKER-B</i>																												
Technology Development, Engineering and Manufacturing Development, Production																												
Available for Launch																												
<i>SDA Hosted Payloads</i>																												
Oculus Hosted Payload-1 Development																												
Oculus Hosted Payload-1 Launch																												
Oculus Hosted Payload-1 On-orbit Support																												
Oculus Hosted Payload-2 Development																												
Oculus Hosted Payload-2 Storage																												
Oculus Hosted Payload-2 Launch																												
Oculus Hosted Payload-2 On-orbit Support																												
<i>AFRL-SSC Tech Demonstrations</i>																												
AFRL-SSC Tech Demo S6/Oracle Mobility (Oracle-M) Launch																												
S6/Oracle-M On-orbit Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206425SF / Space Situation Awareness Systems	Project (Number/Name) 65A006 / Space Based SDA	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SILENTBARKER Baseline				
On-orbit Support	4	2024	1	2028
SILENTBARKER Expansion				
Technology Development, Engineering and Manufacturing Development, Production	1	2024	2	2026
Available for Launch	3	2026	3	2026
On-orbit Support	4	2026	4	2028
SILENTBARKER-B				
Technology Development, Engineering and Manufacturing Development, Production	3	2025	4	2030
Available for Launch	4	2030	4	2030
SDA Hosted Payloads				
Oculus Hosted Payload-1 Development	2	2024	3	2026
Oculus Hosted Payload-1 Launch	2	2026	3	2026
Oculus Hosted Payload-1 On-orbit Support	2	2026	3	2030
Oculus Hosted Payload-2 Development	3	2024	4	2026
Oculus Hosted Payload-2 Storage	3	2026	4	2028
Oculus Hosted Payload-2 Launch	2	2028	4	2028
Oculus Hosted Payload-2 On-orbit Support	2	2028	4	2030
AFRL-SSC Tech Demonstrations				
AFRL-SSC Tech Demo S6/Oracle Mobility (Oracle-M) Launch	2	2026	2	2026
S6/Oracle-M On-orbit Support	2	2026	2	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
65A037: Ground Based Optical Sensor	0.000	40.993	50.943	0.992	0.000	0.992	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2026, Project 65A037, Ground Based Optical Sensor, will be completed.

A. Mission Description and Budget Item Justification

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 the use of passive RF capabilities to augment its 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 new GEODSS 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 the GEODSS image processing and optical subsystems that will enhance its sensitivity and search rate, and fields new multi-spectral advanced technology sensors supporting extended operations, high- fidelity characterization, enhanced indications and warnings (I&W), and attribution.

The FY 2026 request for GBOSS includes \$992 thousands of discretionary and \$9,285 thousands of mandatory (reconciliation) for a total of \$10,277 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.

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

	FY 2024	FY 2025	FY 2026
Title: Ground Based Optical Sensor System (GBOSS)	40.993	50.943	0.992
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			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 Sensors</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
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 DoD 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 2025 Plans: Completed contractor verification, developmental, and operational testing of the GEODSS Enhanced Tower (GET) upgrade at the WSMR GEODSS site leading to operational acceptance. Packaged and shipped material, and completed installation of GET towers at the GEODSS Maui site. Invested in commercial data to bolster United States Indo-Pacific Command (USINDOPACOM) efforts and to mitigate coverages in the Atlantic gap. 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 2025 to FY 2026 Increase/Decrease Statement: Decrease of \$49.951M for GBOSS reflects program completion and a transfer of funding which will be sourced from the Reconciliation Bill (H.R. 1) upon enactment.			
Accomplishments/Planned Programs Subtotals		40.993	50.943
			0.992

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	32.068	Nov 2023	38.038	Nov 2024	0.000	Nov 2025	-		0.000	-	-	-
GBOSS Testing	Various	Various : Various	-	0.463	Nov 2023	0.750	Nov 2024	0.000	Nov 2025	-		0.000	-	-	-
GBOSS Technical Mission Analysis	Various	Various : Various	-	3.501	Nov 2023	2.985	Nov 2024	0.000	Nov 2025	-		0.000	-	-	-
GBOSS Commercial Data	C/CPFF	Various : Various	-	1.500	Feb 2024	4.000	Jun 2025	0.000	Dec 2025	-		0.000	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	0.000	Oct 2023	1.806	Oct 2024	0.992	Oct 2025	-		0.992	-	-	-
Subtotal			-	37.532		47.579		0.992		-		0.992	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	1.770	Nov 2023	2.551	Nov 2024	0.000	Nov 2025	-		0.000	-	-	-
FFRDC	RO	Various : Various	-	1.682	Nov 2023	0.693	Nov 2024	0.000	Nov 2025	-		0.000	-	-	-
Other Support	C/CPAF	Various : Various	-	0.009	Nov 2023	0.120	Nov 2024	0.000	Nov 2025	-		0.000	-	-	-
Subtotal			-	3.461		3.364		0.000		-		0.000	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	40.993		50.943		0.992		-		0.992	-	-	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 2026 Air Force												Date: June 2025			
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			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
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	2024	3	2026
Installation and Test at White Sands Missile Range	3	2024	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	2024	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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)							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	3.930	1.020	13.825	0.000	13.825	-	-	-	-	-	-
657104: MILSATCOM Space Modernization Initiative (SMI)	0.000	3.930	1.020	13.825	0.000	13.825	-	-	-	-	-	-
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 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 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 2026 Air Force				Date: June 2025		
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)				
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget	4.068	1.020	1.023	0.000	1.023	
Current President's Budget	3.930	1.020	13.825	0.000	13.825	
Total Adjustments	-0.138	0.000	12.802	0.000	12.802	
• 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	-0.138	0.000				
• Other Adjustments	0.000	0.000	12.802	0.000	12.802	
Change Summary Explanation						
FY 2026: +13.300M to complete GBS capability development to provide protected, transmission-secure communications for Joint Special Operations Command (SOCOM) and Ground Mobile Forces. The FY 2026 request was reduced by 0.136 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.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Global Broadcast Service (GBS)				3.930	1.020	13.825
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 2025 Plans:						
Continue A3M software/firmware updates through the selected A3M Development vendors to add GBS legacy DVB-S2 broadcast compatibility for garrisoned, deployed or moving forces with A3M modem and Small Form Factor (SFF) modem. Funding will also integrate A3M with GBS receive suites as part of the SFF development, concentrating on technical baseline updates for physical integration, technical order updates, training package updates, software updates, and other critical technical baseline updates in preparation for GBS user procurements. Continue support of necessary software corrections, address cybersecurity						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force							Date: June 2025				
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)							
C. Accomplishments/Planned Programs (\$ in Millions)							FY 2024	FY 2025	FY 2026		
considerations, and finalize integration efforts. Continuing Satellite Broadcast Manager (SBM) architecture updates through WGS for PATS compatibility. Continue test activities to include planning, acquisition of test assets and test conduct. 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 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. 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased funds are due to the continuation and completion of SFF development in order to meet SECDEF/C3LB directed TRANSEC requirements for GBS.											
Accomplishments/Planned Programs Subtotals							3.930	1.020	13.825		
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPSF 01 MILSAT: MILSATCOM	23.703	17.193	0.000	-	0.000	-	-	-	-	-	-
Remarks											
The MILSATCOM Procurement Space Force (PSF) funds the production costs of the A3M for GBS.											
The above costs reflect the GBS and PTW Modem line item totals (omitting the Air Force Wideband Enterprise Terminal (AFWET) line item costs) of the 3022F: Procurement, Space Force MILSAT / MILSATCOM document.											

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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)	
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 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.953	Mar 2024	-		-		-		-	-	-	-
GBS Receive Suite Integration	C/Various	Various : Various	-	0.380	Aug 2024	-		-		-		-	-	-	-
GBS Small Form Factor	C/CPFF	Various : Various	-	2.597	Dec 2024	1.020	Mar 2025	13.313	Mar 2026	-		13.313	-	-	-
GBS SBIR/STTR	Various	Various : Various	-	-		-		0.512		-		0.512	-	-	-
Subtotal			-	3.930		1.020		13.825		-		13.825	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	3.930		1.020		13.825		-		13.825	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)		Project (Number/Name)	
3620F / 5		PE 1206431SF / Advanced EHF MILSATC OM (SPACE)		657104 / MILSATCOM Space Modernization Initiative (SMI)	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
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)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
MILSATCOM Space Modernization Initiative				
A3M PTW Modem Development	1	2024	1	2025
Global Broadcast System (GBS) -PTW SW/FW design changes (DVB-S2 Mod for TRANSEC)	1	2024	2	2025
GBS-PTW Test Planning and DT/IT/OT	1	2024	4	2029
GBS-PTW SBM and TGRS Integration (Receive Suite Integration)	1	2024	4	2024
GBS PRS Development (Small Form Factor)	4	2024	3	2027
GBS PRS Test and Certification (Small Form Factor)	4	2027	2	2028
GBS PRS Integration (Small Form Factor)	4	2028	4	2030
GBS DR Resolution	3	2025	2	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force											Date: June 2025	
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 1206432SF / <i>Polar MILSATCOM (SPACE)</i>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	250.856	74.683	0.000	0.000	0.000	0.000	-	-	-	-	-	-
654215: <i>EPS Recap</i>	250.856	74.683	0.000	0.000	0.000	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Program MDAP/MAIS Code: 121												
Note PE 1206432SF (Polar MILSATCOM Space)/Project 654215 EPS Recap funding completed in FY 2024. Due to additional launch delays from the payload host, payload on-orbit testing, operational utility evaluation, and operations acceptance will occur in FY 2025. The completion of software modifications and installation for the Family of Advanced Beyond Line-of-Sight Terminals (FAB-Ts) will occur in FY 2027. A. Mission Description and Budget Item Justification This program element acquires the Polar Military Satellite Communications (MILSATCOM) system that provides protected communications (anti-jam and low probability of intercept and detection) for users in the North Polar Region. In FY 2006, the Department of Defense (DoD) began funding Enhanced Polar System (EPS). The host spacecraft and the polar communications packages took advantage of the Advanced Extremely High Frequency (AEHF) technology including the extended Data Rate (XDR) waveform. The EPS Capability Development Document (CDD), approved by the Joint Requirements Oversight Council in September 2006, is based on a two-package, hosted XDR program with operational availability in CY 2015 and CY 2017. EPS is comprised of four segments: Payload, Ground Control, Gateway, and Terminal (acquired by each Service's Terminal Program Office). Milestone B review was completed April 2, 2014. In FY 2019, the United States Air Force (USAF) and Norwegian Ministry of Defense signed the Arctic Memorandum of Agreement (MOA), which enforces the international collaboration with Norway to host two EPS-Recapitalization (EPS-R) payloads on Space Norway-procured spacecraft. EPS-R developed and acquired two Extremely High Frequency (EHF) payloads that are hosted on Space Norway-procured spacecraft and to upgrade/modify the existing EPS Ground Control and Gateway. This program element may include necessary civilian pay expenses required to manage, execute, and deliver Polar MILSATCOM 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.												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025			
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206432SF I Polar MILSATCOM (SPACE)					
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget		73.757	0.000	0.000	0.000	0.000	
Current President's Budget		74.683	0.000	0.000	0.000	0.000	
Total Adjustments		0.926	0.000	0.000	0.000	0.000	
• Congressional General Reductions		0.000	0.000				
• Congressional Directed Reductions		-9.335	0.000				
• Congressional Rescissions		0.000	0.000				
• Congressional Adds		0.000	0.000				
• Congressional Directed Transfers		0.000	0.000				
• Reprogrammings		12.447	0.000				
• SBIR/STTR Transfer		-2.186	0.000				
• Other Adjustments		0.000	0.000	0.000	0.000	0.000	
Change Summary Explanation							
FY 2024: +12.447M Reprogrammed to complete FAB-T Upgrades.							
C. Accomplishments/Planned Programs (\$ in Millions)					FY 2024	FY 2025	FY 2026
Title: Space Segment					25.593	0.000	0.000
Description: Develop and acquire two EHF payloads, using AEHF's XDR waveform, for integration on host spacecraft.							
FY 2025 Plans: N/A							
FY 2026 Plans: N/A							
FY 2025 to FY 2026 Increase/Decrease Statement: N/A							
Title: Ground Updates					44.886	0.000	0.000
Description: Modify and upgrade the existing EPS Control and Planning Segment (CAPS) to provide command and control and XDR mission planning capability for the two new payloads.							
FY 2025 Plans: N/A							
FY 2026 Plans:							

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206432SF I Polar MILSATCOM (SPACE)		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
N/A				
FY 2025 to FY 2026 Increase/Decrease Statement: N/A				
Title: Gateway Updates Description: Modify and upgrade the existing EPS Gateway to support the two new payloads.		4.204	0.000	0.000
FY 2025 Plans: N/A				
FY 2026 Plans: N/A				
FY 2025 to FY 2026 Increase/Decrease Statement: N/A				
Accomplishments/Planned Programs Subtotals		74.683	0.000	0.000
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy Awarded payloads contract to Northrop Grumman Aerospace Systems (NGAS) and initiated fabrication of two EPS functional-equivalent payloads in FY 2018. In FY 2019, the USAF and Norwegian Ministry of Defence signed the Arctic Memorandum of Agreement, which enforces the international collaboration with Norway to host the two EPS-R payloads on the Space Norway-procured spacecraft. Conducted market research to identify industry capabilities and acquisition concepts. Awarded CAPS contract for EPS ground upgrade. Gateway updates were accomplished by Naval Information Warfare Center Pacific, the EPS Gateway Segment developer. The program office initiated the procurement of a replacement terminal for the Telemetry and Command Terminal. This acquisition strategy updates the EPS Ground Segment to accommodate the EPS functional equivalent payloads and extend operations and sustainment beyond CY 2035. The U.S. Government will retain the system integrator role, as it was for EPS program of record.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206432SF / Polar MILSATCOM (SPA CE)				Project (Number/Name) 654215 / EPS Recap					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
EPS-R Tactical Payloads	SS/CPiF	NGAS : Redondo Beach, CA	94.266	23.034	Nov 2023	-		-		-		-	-	-	505.355
EPS-R Control and Planning Segment Upgrades	SS/CPiF	NGMS : Redondo Beach, CA	68.306	40.397	Nov 2023	-		-		-		-	-	-	115.710
EPS-R Gateway Upgrades	Various	Various : Various, CA	28.251	3.784	Nov 2023	-		-		-		-	-	-	68.895
EPS-R SBIR/STTR	Allot	Not Specified/TBD : Not Specified/TBD	0.000	0.000		-		-		-		-	-	-	-
EPS-R Technical Mission Analysis	RO	Aerospace : El Segundo, CA	12.786	1.959	Nov 2023	-		-		-		-	-	-	-
EPS-R Enterprise SE&I	C/CPAF	LinQuest : Los Angeles, CA	38.181	4.859	Nov 2023	-		-		-		-	-	-	-
Subtotal			241.790	74.033		-		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
EPS-R FFRDC	RO	Aerospace : El Segundo, CA	1.544	-		-		-		-		-	-	-	-
EPS-R A&AS	Various	Various : Various	7.198	0.500	Oct 2023	-		-		-		-	-	-	-
EPS-R Other Support	Various	Various : Various	0.324	0.150	Oct 2023	-		-		-		-	-	-	-
Subtotal			9.066	0.650		-		-		-		-	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			250.856	74.683		-		-		-		-	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025					
Appropriation/Budget Activity 3620F / 5								R-1 Program Element (Number/Name) PE 1206432SF / Polar MILSATCOM (SPA CE)						Project (Number/Name) 654215 / EPS Recap			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
International Collaboration w/Norway																												
Space Vehicle Integration/Test/Check-out																												
Ground and Gateway Upgrades/ Modifications																												
Risk Reduction Activities/Studies																												
Acquire Telemetry and Control Terminals																												
Upgrades/Modifications																												
System Level Integration and Test																												
Control Terminal Installation																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206432SF / Polar MILSATCOM (SPA CE)	Project (Number/Name) 654215 / EPS Recap	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space Segment				
International Collaboration w/Norway	1	2024	3	2024
Space Vehicle Integration/Test/Check-out	1	2024	3	2025
Ground and Gateway Upgrades/Modifications				
Risk Reduction Activities/Studies	1	2024	2	2024
Acquire Telemetry and Control Terminals	1	2024	4	2027
Upgrades/Modifications	1	2024	4	2024
System Level Integration and Test	1	2024	4	2027
Control Terminal Installation	1	2024	4	2026

Note
Due to additional launch delays from the payload host, payload on-orbit testing, operational utility evaluation, and operations acceptance will occur in FY 2025. The completion of software modifications and installation for the Family of Advanced Beyond Line-of-Sight Terminals (FAB-Ts) will occur in FY 2027.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	34.368	0.000	29.609	0.000	29.609	-	-	-	-	-	-
657107: WGS Space Systems Resiliency Upgrade	0.000	34.368	0.000	29.609	0.000	29.609	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 5, PE 1206433SF, project 657107, WGS - BOOM - Global SATCOM Configuration Control Element (GSCCE), is a new start.

A. Mission Description and Budget Item Justification

The Wideband Global SATCOM (WGS) System provides the Department of Defense (DoD) 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 DoD'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 DoD'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 addition of WGS-12 to the constellation due to the increase in required capability on the core WGS ground system, Global SATCOM Configuration Control Element (GSCCE), to support both WGS-11 and 12 simultaneously from the same operational site. In May 2024, the DoD 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 to be able to better track and support airborne ISR missions as they move through the theater.

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 DoD has 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, DoD, 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 DoD 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

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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 / Wideband Global SATCOM (SPACE)	
(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 (WMI) 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 will cover 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 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. There is an agreement in coordination via the State Department regarding IP collaboration with WGS-12. Space Systems Command (SSC) provides program management, engineering		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025			
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)					
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.							
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget		49.445	0.000	0.000	0.000	0.000	
Current President's Budget		34.368	0.000	29.609	0.000	29.609	
Total Adjustments		-15.077	0.000	29.609	0.000	29.609	
• Congressional General Reductions		0.000	0.000				
• Congressional Directed Reductions		-13.825	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		-1.252	0.000				
• Other Adjustments		0.000	0.000	29.609	0.000	29.609	
Change Summary Explanation							
FY 2024: -13.825M Congressional Mark							
FY 2026: +29.609M to address minimum viable WGS ground enhancement							
C. Accomplishments/Planned Programs (\$ in Millions)					FY 2024	FY 2025	FY 2026
Title: WGS - Global SATCOM Configuration Control Element (GSCCE) Modernization					34.368	0.000	0.000
Description: WGS-GSCCE Modernization will improve the beam management panning ability for WGS-11 & 12 missions. GSCCE is an existing ground system with Boeing that performs payload commanding at all five of the Wideband SATCOM Operations Centers (WSOCs). WGS-GSCCE 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							

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
plan WGS-11 & 12 missions. In FY 2024, 33.038M of FY 2024 WGS BOOM funding, was re-allocated to GSCCE's core ground modernization architecture to provide the baseline for BOOM enhancement. FY 2025 Plans: N/A FY 2026 Plans: N/A				
Title: WGS - BOOM - Global SATCOM Configuration Control Element (GSCCE) Description: WGS-BOOM-GSCCE is one of three BOOM development efforts to best improve the beam management panning ability for WGS-11 & 12 missions. GSCCE is an existing ground system with Boeing that performs payload commanding at all five of the Wideband SATCOM Operations Centers (WSOCs). WGS-BOOM-GSCCE 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 2025 Plans: NA FY 2026 Plans: Leverage previous BOOM-GSCCE Enhancement deliverables to provide automation functions for payload planning/control in support of WGS-11 & 12. FY26 design and development phase efforts will focus on advanced beam management and ensuring mobile operations with tactically relevant timelines. Refactor GSCCE payload plan commit time, improve WSOC handover times, and improve other GSCCE functionality for faster commanding of beam repoints supporting user movement in theater. Implement risk mitigations, such as modifying legacy code or introducing new code and processes into a legacy system and ensure compatibility. Ensure interfaces like CNPS and WSTARS are compatible with new GSCCE 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increase to begin new start minimum viable WGS ground enhancement BOOM-GSCCE major thrust.		-	0.000	29.609
Accomplishments/Planned Programs Subtotals		34.368	0.000	29.609

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025	
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)						
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPSF 01 GAP000: Wideband Gapfiller Satellites (Space)	-	10.020	-	-	-	-	-	-	-	-	-
Remarks											
E. Acquisition Strategy											
Global SATCOM Configuration Control Element (GSCCE) modernization is a Cost Type contract modification using the engineering services CLIN on the current contract where all versions of GSCCE software will merge to include WGS-1 thru -10 from ops and sustainment, Mitigation Anti-Jam Enhancement (MAJE), WGS-11, and WGS-12 into one baseline version going forward along with studying architecture updates and recommending best approach for implementation in FY 2025-2027. The end result will provide a GSCCE environment that sustains the current WGS 1-10 space vehicles along with an updated cyber posture and then also accounts for the additional data needs required of WGS 11-12 within current operations. GSCCE modernization phase 1 is a special study and was awarded in September 2024 with a study output in FY 2026 to inform phase 2; with a contract award in 4th quarter FY 2025.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 - GSCCE Modernization	C/CPAF	Boeing : El Segundo, CA	-	32.586	Jan 2024	-		-		-		-	-	-	-
Mitigation & Anti-Jam Enhancement (MAJE)	SS/FFP	Boeing : El Segundo, CA	-	1.782	Jan 2024	-		-		-		-	-	-	-
WGS - BOOM - GSCCE	TBD	TBD : TBD, CA	-	-		-		26.900	Jan 2026	-		26.900	-	-	-
SBIR/STTR	Allot	Not Specified: TBD : TBD	-	-		-		1.100		-		1.100	-	-	-
Technical Mission Analysis	Various	Boeing : El Segundo, CA	-	-		-		0.500	Nov 2025	-		0.500	-	-	-
Subtotal			-	34.368		-		28.500		-		28.500	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		-		1.000	Nov 2025	-		1.000	-	-	-
Other Support	Various	Various : El Segundo, CA	-	-		-		0.109	Nov 2025	-		0.109	-	-	-
Subtotal			-	-		-		1.109		-		1.109	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	34.368		-		29.609		-		29.609	-	-	N/A
Remarks In FY 2024, \$31.786M funds have been reallocated from the previous FY 2024 Major Thrusts to GSCCE core ground modernization architecture to provide baseline for enhancement.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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-11 & 12 Beam Planning Development																												
Management/System Integration/Test																												
WGS-GSCCE Modernization																												
GSSCE Modernization																												
WGS-BOOM-GSCCE																												
Design / Development																												
I&T / Fielding																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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-11 & 12 Beam Planning Development				
Management/System Integration/Test	2	2024	4	2024
WGS-GSCCE Modernization				
GSSCE Modernization	4	2024	4	2026
WGS-BOOM-GSCCE				
Design / Development	1	2026	1	2027
I&T / Fielding	2	2027	4	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	495.875	500.395	358.330	0.000	358.330	-	-	-	-	-	-
657106: <i>Next-Gen OPIR-Ground</i>	0.000	495.875	500.395	358.330	0.000	358.330	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Next-Generation Overhead Persistent Infrared (Next-Gen OPIR) Ground (Project 657106): 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 total cost of the FORGE Rapid Prototype Middle Tier of Acquisition (MTA) effort is 2,301.9 million. The RGS development and fielding is not contained in the MTA effort, as it consists of stand-alone Acquisition Category (ACAT) III efforts. The FORGE Rapid Prototype MTA is fully funded across the Future Years Defense Program.

The FY 2026 request for Next-Gen OPIR -- Ground includes 358,330 thousand of discretionary and 194,600 thousand of mandatory (reconciliation) for a total of 552,930. The mandatory funds reinstate Next-Generation Polar (NGP) as part of the overall FORGE development. This ensures a modern, survivable, and enduring architecture that meets USSF's current and future domain needs. Further information for this reconciliation request is provided in Section 20003 (Missile Defense) of the Reconciliation Exhibit.

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 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 2026 Air Force				Date: June 2025		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206440SF I Next-Gen OPIR -- Ground				
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget	661.367	558.013	371.990	0.000	371.990	
Current President's Budget	495.875	500.395	358.330	0.000	358.330	
Total Adjustments	-165.492	-57.618	-13.660	0.000	-13.660	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	-85.492	-57.618				
• Congressional Rescissions	0.000	0.000				
• Congressional Adds	0.000	0.000				
• Congressional Directed Transfers	0.000	0.000				
• Reprogrammings	-80.000	0.000				
• SBIR/STTR Transfer	0.000	0.000				
• Other Adjustments	0.000	0.000	-13.660	0.000	-13.660	
Change Summary Explanation						
FY 2024:-165.492M; -85.492M Overestimation of MDP expenditures, FORGE-C2 acquisition strategy change and RGS-A contract saving.-80.000M for higher priority USSF investments.						
FY 2025:-57.618M Overestimation of MDP and Next Gen Transition expenditures.						
FY 2026: 1.110M Future Operationally Resilient Ground Evolution						
FY 2026:-8.203M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office Industry outreach and innovation support respectively.						
FY 2026:-3.530M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment in alignment EO 14222 "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						
FY 2026: -1.729M; Federally Funded Research and Development Center (FFRDC) reduction						
FY 2026:-1.208M Inflation Rate Adjustments						
FY 2026:-0.100M higher priority USSF investments						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: FORGE Command and Control (FC2)				36.302	57.092	42.472
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) and Next-Gen OPIR Polar (NGP) MUS to Future Operationally Resilient Ground Evolution (FORGE) in order to deliver an integrated Missile Warning C2 ground system. Includes Mission						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 1206440SF / <i>Next-Gen OPIR -- Ground</i>		
C. Accomplishments/Planned Programs (\$ in Millions) Management, Telemetry Command and Control, Ground Resource Management, and user interface software development and the integration of the Flight Dynamics software. FY 2025 Plans: Complete the prototype demonstration to integrate the Mission Management, Ground Resource Control Management, and user interface software to support NGP. Award the final FC2 Phase 2 contract to continue software development of C2 to support NGP launch, which will serve as the baseline foundation to transition SBIRS and NGG to FC2. Begin integration of the NGP MUS with the FC2 system. 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. Finalize the integration of NGP MUS with the FC2 system. 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 2025 to FY 2026 Increase/Decrease Statement: The decrease of \$14.620M is due to completion of competition and award to a single contractor to develop the FORGE Command and Control (FC2) prototype. FY 2026 through 2030 funding for Next-Gen OPIR Polar (NGP) is removed as the Space Force continues to pivot investment in the Resilient Missile Warning/Missile Tracking (MW/MT) architecture.		FY 2024	FY 2025	FY 2026
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 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. FY 2025 Plans: Complete development of the follow-on Mission Data Processing Applications Framework (MDPAF) effort. Continue follow-on development and begin integration of Mission Data Processing Applications Provider (MDPAP) applications onto the FORGE framework for SBIRS ITW/AA data processing. Continue follow-on development for Sensor Specific Processing (SSP) to support		264.855	200.418	200.918

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 1206440SF / <i>Next-Gen OPIR -- Ground</i>		
C. Accomplishments/Planned Programs (\$ in Millions) migration of all SBIRS Highly Elliptical Orbit (HEO) and Geostationary Equatorial Orbit (GEO) assets to FORGE framework. Begin final system level integration and testing of mission data processing thrust area (MDPAF, MDPAP, and SSP) for SBIRS transition to operations on FORGE. Begin the DevSecOps pipeline to be responsive to evolving threats. 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 Plans: Continue follow-on development and complete integration of MDPAP application onto the FORGE Framework for SBIRS ITW/ AA data processing. MDPAP 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 SSP) 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 2025 to FY 2026 Increase/Decrease Statement: Increase of \$0.500M is due to inflation rate adjustment.		FY 2024	FY 2025	FY 2026
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 (SBIRS) Block 20 ground system for fusion and dissemination to the warfighter. FY 2025 Plans:		150.757	166.951	65.360

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 1206440SF / <i>Next-Gen OPIR -- Ground</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Continue development and integration of the mission unique software needed for C2 for Next-Gen OPIR Geosynchronous Earth Orbit (NGG) and Next-Gen OPIR Polar (NGP). Continue integration of multiple mission data processing applications into the framework to support NGG and NGP. FY 2026 Plans: Finalize and integrate the mission unique software needed for C2, NGG and NGP. Continue integration of multiple mission data processing applications into the framework to support NGG and NGP. FY 2025 to FY 2026 Increase/Decrease Statement: Decrease of \$101.591M is due to completion of NGG 5K testing in FY 2025. FY 2026 focuses on C2 integration. FY 2026 through 2030 funding for Next-Gen OPIR Polar (NGP) is removed as the Space Force continues to pivot investment in the Resilient Missile Warning/Missile Tracking (MW/MT) architecture.				
Title: Relay Ground Station - Asia (RGS-A) 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 2025 Plans: Complete final system installation and checkout. 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 2025 to FY 2026 Increase/Decrease Statement: Decrease of \$40.603M is due to all non-recurring engineering, enterprise modem design and delivery, and most facilities and infrastructure work completed in FY 2025.		42.519	65.134	24.531
Title: Relay Ground Stations (RGSs) 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		1.442	10.800	25.049

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		R-1 Program Element (Number/Name) PE 1206440SF I Next-Gen OPIR -- Ground		
C. Accomplishments/Planned Programs (\$ in Millions) 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 2025 Plans: Continue second site, Relay Ground Station South (RGS-S), development and integration activities. Award third RGS site RGS United Kingdom (UK), which includes purchasing ITW/AA-class antenna and associated hardware for the Next-Gen Constellation. Execute site preparations. 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 2025 to FY 2026 Increase/Decrease Statement: Increase of \$14.249M is due to three RGS sites in construction simultaneously.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		495.875	500.395	358.330
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy The Next-Gen Overhead Persistent Infrared (OPIR) Ground program is executing an acquisition strategy using Middle Tier of Acquisition (MTA) authority for Rapid Prototyping approved via Acquisition Decision Memorandum on 5 Dec 19. The program will transition to the software acquisition pathway at the end of the MTA. 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 pursuing a rapid prototyping approach founded primarily on software and infrastructure reuse, partnerships with other programs, limited scope, use of existing contracts where necessary, and maximizing competition where possible. For the Mission Data Processing (MDP) thrust, the FORGE program is using competitive use Other Transaction (OT) authorities to develop the framework and the applications. For the FORGE Command and Control (FC2) thrust, the FORGE team is using competitive use OT authorities to develop the Mission Management, Telemetry Command and Control, Ground Resource Management, and user interface software, while the mission unique software will be provided by the space				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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>	
vehicle contractors. For the Next-Gen Transition effort, the program is using the Next-Gen Geostationary Equatorial Orbit (GEO) and Next-Gen Polar contract with the space vehicle prime contractor to perform the work needed to develop the ground capabilities. The program is executing the MDP, FC2, and Next-Gen OPIR Interim Operations (NIO) thrusts within the scope of its Middle Tier of 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.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	36.302	Apr 2024	57.092	Dec 2024	42.472	Dec 2025	-		42.472	-	-	-
MDP	Various	Various : TBD	-	196.900	Nov 2023	147.510	Nov 2024	140.161	Nov 2025	-		140.161	-	-	-
Next-Gen Transition	Various	Various : TBD	-	150.757	Nov 2023	166.951	Nov 2024	65.360	Nov 2025	-		65.360	-	-	-
RGS-A	Various	NWIC and Northrop Grumman : Boulder, CO	-	42.519	Nov 2023	65.134	Nov 2024	24.531	Nov 2025	-		24.531	-	-	-
RGSs	TBD	Various : TBD	-	1.442	May 2024	10.800	Nov 2024	25.049	Nov 2025	-		25.049	-	-	-
SE&I	TBD	TBD : TBD	-	33.559	Dec 2023	11.220	Dec 2024	32.655	Dec 2025	-		32.655	-	-	-
Technical Mission Analysis	RO	Aerospace Corporation : El Segundo, CA	-	4.834	Jan 2024	5.837	Jan 2025	8.600	Jan 2026	-		8.600	-	-	-
Subtotal			-	466.313		464.544		338.828		-		338.828	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	1.708	Jan 2024	9.021	Jan 2025	6.245	Jan 2026	-		6.245	-	-	-
A&AS	Various	Various : TBD	-	27.573	Nov 2023	26.457	Nov 2024	12.866	Nov 2025	-		12.866	-	-	-
Other Support	Various	Various : TBD	-	0.281	Nov 2023	0.373	Nov 2024	0.391	Nov 2025	-		0.391	-	-	-
Subtotal			-	29.562		35.851		19.502		-		19.502	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	495.875		500.395		358.330		-		358.330	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force	Date: June 2025

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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
GNOME																												
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																												
RGSs Development																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
FC2				
GNOME	1	2024	1	2024
Phase 1 - Prototype Competition	1	2024	2	2025
Phase 2 - Follow-on Effort	2	2025	1	2030
NGP	3	2025	4	2025
NGG	1	2026	4	2029
MDP				
Follow-On Prototype Framework Development	1	2024	4	2030
Follow-On Prototype Applications Provider Development	1	2024	4	2027
Sensor Specific Processing	1	2024	3	2026
Next-Gen Transition				
Next-Gen GEO Development	1	2024	4	2028
Next-Gen Polar Development	1	2024	4	2025
RGS-A				
RGS-A Development	1	2024	4	2026
RGSs				
RGSs Development	2	2024	3	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force **Date:** June 2025

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 1206442SF / <i>Next Generation OPIR</i>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	177.166	190.951	189.621	0.000	189.621	-	-	-	-	-	-
657009: <i>Space Mod Initiative</i>	0.000	146.132	158.717	160.113	0.000	160.113	-	-	-	-	-	-
657123: <i>Integration</i>	0.000	31.034	32.234	29.508	0.000	29.508	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

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 four major thrust areas: Demonstrations/Prototypes, Technology Maturation, Data Exploitation, and Wide Field of View (WFOV) On-Orbit Testbed Mission Integration, each with a flagship investment. Demonstrations 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 Exploitation 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 Exploitation will focus on incorporating 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 Exploitation thrust area includes maintaining the Boulder Ground Innovation Facility (BGIF) as the host location for the OPIR Tool, Applications, and Processing Laboratory (TAP Lab) Information Technology (IT) infrastructure and DevSecOps Continuous Integration/Continuous Delivery (CI/CD) pipeline used by the OPIR TAP Lab to develop and field advanced software applications and algorithms. WFOV On-Orbit Testbed Mission Integration, brings new or enhanced capabilities to the operational community. SMI funds engineering activities to reduce both production and future system costs through manufacturing and producibility enhancements, and

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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				
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), 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 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.						
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		222.178	202.951	204.238	0.000	204.238
Current President's Budget		177.166	190.951	189.621	0.000	189.621
Total Adjustments		-45.012	-12.000	-14.617	0.000	-14.617
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		-29.812	-12.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		0.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		-15.200	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		0.000	0.000	-14.617	0.000	-14.617

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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 1206442SF / <i>Next Generation OPIR</i>
Change Summary Explanation Project: 657009 Space Modernization Initiative (SMI) FY 2024: -\$29.812M; Data Exploitation Carryover FY 2024: -\$15.200M; Higher Priority United States Space Force (USSF) Investments FY 2025: -\$10.000M; Data Exploitation Carryover FY 2025: -\$2.000M; Intelligent Tasking Award Delay FY 2026: -\$26.055M; Higher Priority USSF Investments FY 2026: +\$18.530; Operationalizing Geosynchronous Orbit (GEO) Wide Field of View (WFOV) FY 2026: -\$1.400M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative" FY 2026: -\$0.686M Federally Funded Research and Development Center (FFRDC) reduction FY 2026: -\$3.253M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively. FY 2026: -\$0.540M Inflation Rate Adjustment Project: 657123 Integration FY 2026: -\$0.292M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative" FY 2026: -\$0.143M Federally Funded Research and Development Center (FFRDC) reduction FY 2026: -\$0.678M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively. FY 2026: -\$0.100M Inflation Rate Adjustment		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
657009: Space Mod Initiative	0.000	146.132	158.717	160.113	0.000	160.113	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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 four major thrust areas: Demonstrations/Prototypes, Technology Maturation, Data Exploitation, and Wide Field of View (WFOV) On-Orbit Testbed Mission Integration, 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 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 focuses development on advanced Infrared (IR) sensing optics and electronics, resiliency hardware and software, and on-board processing algorithms and on-board computers. Data Exploitation 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 Exploitation 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 Exploitation includes maintaining the Boulder Ground Innovation Facility (BGIF) and associated Overhead Persistent Infrared (OPIR) Tool, Applications, and Processing (TAP) Lab infrastructure and 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 Wide Field of View (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. 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 Missile Warning/Missile Tracking (MW/MT), Medium-Earth Orbit (MEO).

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

	FY 2024	FY 2025	FY 2026
Title: Demonstrations/Prototypes	30.585	34.966	36.086
Description: Demonstrations and prototypes provide time-critical OPIR technologies, missions, and performance with ground and on-orbit prototypes. They enable transition of improved capabilities to full scale architectures and inform critical decisions for future fielding as well as support maturation of Mission Data Processing (MDP) algorithms for tactical and strategic applications by providing additional sensors and algorithms to advance detection and tracking.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
The 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 2025 Plans: To ready Medium-Earth Orbit (MEO), Resilient Missile Warning/Missile Tracking (MW/MT) mission architecture needs for FY 2026 Epoch 1 launches and FY 2025 Epoch 2 acquisition, continue investment in Government Reference Model Based System Engineering (MBSE) Model (GRMM), secret collateral processing Impact Level 6 (IL6) space, the Overhead Persistent Infrared (OPIR) Modelling and Simulation Center, and invest in contractor secret intra-connectivity to the collateral space. Efforts enable both the infrastructure and licenses required for using classified tools as well as the expertise to run the tools and models and assess end to end system performance and operations. Continue the development and test of Low Size Weight and Power (SWaP), high bandwidth, agile crosslinks for MEO Epoch 2 engineering designs in FY 2026 in order to bolster resilience and communication path diversity of OPIR data and import of MEO data into enterprise networks. MEO Epoch 2 is expected to require expanded crosslink performance to pass and route tracking and warning data for correlation and fusion in multiple locations which will benefit from crosslinks testing in laboratory test beds to validate performance and increase the technology maturity of multiple vendor solutions. FY 2026 Plans: Test and demonstrate Low 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. 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to emerging program requirements to deliver prototypes for on-orbit demonstrations in FY 2027-FY 2028.			
Title: Technology Maturation		31.912	39.055
			23.476

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
Description: 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. FY 2025 Plans: Technology maturation will continue the next generation Focal Plane Array (FPA) development for higher dynamic range and increased resiliency maturing them to approximately Technology Readiness Level 5 in FY 2025. Continue to work with vendors to improve FPA manufacturing capability for larger format focal plane arrays to support the critical needs necessary to deliver the proliferated Missile Warning/Missile Track (MW/MT) systems on threat relevant timelines. Continue development of optimized intelligent tasking management. This effort will enhance the MEO Epoch 1 solution by adding and comparing performance against artificial intelligence-based tasking. Furthermore, technical maturation will continue proving novel methodologies leveraging phenomenology unique to hypersonic weapons. Additionally, funding will continue to support filter technology and manufacturability to improve protection of sensors from ground and on-orbit threats. FY 2025 investments will ensure the MEO Epoch 2 systems will be developed on schedule due to the maturation of key system components. FY 2026 Plans: As the FY 2026 Technology maturation flagship investment, Space Modernization Initiative (SMI) will deliver the final components needed to meet MW/MT Enterprise-wide peak production demands for large format, resilient, high dynamic range FPAs 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.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
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. 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased to shift available funds to support Demonstrations prototype build and delivery for FY 2027-FY 2028 launches.					
Title: Data Exploitation Description: Data exploitation 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). MEO Data exploitation 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 Exploitation 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 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 MEO and 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 MW/MT MEO program office and SDA for early integration and testing using the Future Operationally Resilient Ground Evolution (FORGE) framework. FY 2025 Plans: Process and deliver operationally contributing data via a suite of applications and algorithms to Future Operationally Resilient Ground Evolution (FORGE) framework and other operational consumers. This includes ability to ingest and exploit the WFOV			83.635	84.696	82.083

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
data as well as legacy Space Based Infrared Systems (SBIRS) narrowband/wideband data, detecting and tracking Joint Emergent Operational Need (JEON)/Joint Urgent Operational Needs (JUON) threats as well as other targets within the United States Indo-Pacific Command (USIDNOPACOM) Area of Responsibility (AoR). This activity will support FORGE delivering incremental capabilities to the framework in FY 2025 beyond their Mission Data Processing Application Provider (MDPAP) non-degradation requirements. Re-focus on the 5-10 year challenges associated with proliferated constellations producing large volumes of data and target detections that could potentially overwhelm ground communications, networks, common operation picture, and operators. Continue to prototype solutions such as Artificial Intelligence and Machine Learning (AI/ML). Continue to support innovations for wildland fire tracking capabilities and incorporate applications into national fire tracking solutions. Continue prototyped capability enhancements of a suite of mission data processing applications and algorithms to ingest additional sources to include not only ground radar but intelligence data as well as other available platform data available on Real Time Transfer Service (RTS) to fuse, evolve, and enhance the ability to detect and track missile, air, and other emerging threats. Expand access to prototype applications for operators within the Overhead Persistent Infrared Battlespace Awareness Center (OBAC) to support development of experimental operations, informing future use of innovative technologies. Enhance prototype processes for managing an open framework architecture focused on integration of third-party applications. Support application development, deployment, testing, integration and sustainment into the Future Operationally Resilient Ground Evolution (FORGE) Framework and Mission Data Processing Application Layer framework via a cloud-based continuous integration/continuous delivery (CI/CD) software pipeline. Enhance mission resiliency and data exploitation of Space Based Infrared Systems (SBIRS) and other OPIR data using Broad Agency Announcements (BAAs) and Other Transaction Agreements (OTAs). Continue to collaborate with the Intelligence Community (IC) and Missile Defense Agency (MDA) to enhance Joint OPIR Ground (JOG) study initiatives. Continue to develop and demonstrate the performance of a Government owned open and extensible evolved ground system architecture to support multiple satellites, payloads, and missions, as required. Evolve data processing for infrared payload applications with enhanced net-centric and service-oriented features. For Medium-Earth Orbit (MEO) and Low-Earth Orbit (LEO) sensors, the Tools, Applications and Processing (TAP) Lab will demonstrate a pipeline to on-board sensors into operations by simulating future sensor data enabling Three Dimensional (3D) track correlation and fusion ground capability, which will expedite transition of new sensors into operational systems as they become available. Coordinate with program offices for test, calibration, and tuning routines necessary for MEO and LEO performance validation to ensure downstream warning and defense operations can ingest sensor data. The TAP Lab will improve 3D tracks for observers in hybrid constellations into a Modeling & Simulation (M&S) tool to allow enterprise-level tracking performance prediction against multiple scenarios based on data and analysis from multiple flight demo 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,					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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 Plans:</i> As the Data Exploitation flagship investment, 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 exploitation 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 exploitation 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 exploitation 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 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. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i>			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2026 decreased due to transitioning Wide Field of View (WFOV) program into the WFOV On-Orbit Testbed Mission Integration thrust area.					
Title: Wide Field of View (WFOV) On-Orbit Testbed Mission Integration			-	-	18.468
Description: 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), 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 DoD, 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 Increase due to establishment of WFOV On-Orbit Testbed Mission Integration thrust area. This effort was previously accomplished in the data exploitation thrust area.					
Accomplishments/Planned Programs Subtotals			146.132	158.717	160.113
C. Other Program Funding Summary (\$ in Millions)					
N/A					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>

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

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, and data exploitation initiatives and projects. The program office will collaborate with appropriate contracting agencies to support each individual effort. Data exploitation 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 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 OTAs to conduct data exploitation improvements at the OBAC and OPIR TAP Lab. A local SSC contract is being utilized for services at OBAC and OPIR TAP Lab.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	7.027	Dec 2023	4.498	Dec 2024	4.481	Dec 2025	-		4.481	-	-	-
Demos - OPIR Center of Excellence	Various	Various : Various	-	1.150	Dec 2023	0.000	Dec 2024	-		-		-	-	-	-
Demos - Low Size Weight and Power (SWaP) Crosslink	Various	Various : Various	-	17.081	Dec 2023	15.653	Dec 2024	12.209	Dec 2025	-		12.209	-	-	-
Demos - Cold Target Tracking	Various	Various : Various	-	-		6.574	Jan 2025	8.800	Jan 2026	-		8.800	-	-	-
Demos - Edge Processing	Various	Various : Various	-	-		-		3.300	Jan 2026	-		3.300	-	-	-
Tech Mat - Resilient FPAs	Various	Various : Various	-	20.911	Jan 2024	22.800	Jan 2025	11.630	Jan 2026	-		11.630	-	-	-
Tech Mat - Intelligent Tasking	Various	Various : Various	-	3.093	Jan 2024	2.500	Jan 2025	2.000	Jan 2026	-		2.000	-	-	-
Tech Mat - Filters and Coating	MIPR	Various : Various	-	0.950	Jan 2024	0.900	Jan 2025	1.000	Jan 2026	-		1.000	-	-	-
Tech Mat - Resilient Algorithms	MIPR	Various : Various	-	1.400	Jan 2024	1.650	Jan 2025	0.800	Jan 2026	-		0.800	-	-	-
Tech Mat - Crosslink Enabling Tech	Various	Various : Various	-	-		0.000	Jan 2025	3.300	Jan 2026	-		3.300	-	-	-
Tech Mat - Advanced Optics	MIPR	Leidos : Reston, VA	-	-		2.000	Jun 2025	-		-		-	-	-	-
Data Ex - OPIR Data Exploitation	Various	Various : Various	-	26.332	Jan 2024	28.477	Jan 2025	14.599	Jan 2026	-		14.599	-	-	-
Data Ex - TAP Lab Other Activities	RO	AFRL : Albuquerque, NM	-	4.036	Jan 2024	8.074	Jan 2025	5.785	Jan 2026	-		5.785	-	-	-
Data Ex - TAP Lab and OBAC Support Services (TLOSS)	RO	Parsons : Pasadena, CA	-	15.529	Jan 2024	10.094	Jan 2025	9.692	Jan 2026	-		9.692	-	-	-
Data Ex - Wide Field of View (WFOV) Activities	MIPR	Various : Various	-	23.252	Jan 2024	13.648	Jan 2025	-		-		-	-	-	-
Data Ex - Artificial Intelligence/Machine Learning (AI/ML)	Various	Various : Various	-	-		11.000	Jan 2025	13.611	Jan 2026	-		13.611	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
Data Ex - BGIF and OBAC Support Services (BOSS)	RO	TBD : TBD	-	-		-		22.602	Jan 2026	-		22.602	-	-	-
WFOV On-Orbit Testbed Mission Integration	MIPR	Various : Various	-	-		-		18.468	Jan 2026	-		18.468	-	-	-
Enterprise SE&I	MIPR	Booz Allen Hamilton : El Segundo, CA	-	1.555	Dec 2023	2.343	Dec 2024	2.413	Dec 2025	-		2.413	-	-	-
Technical Mission Analysis	RO	Aerospace Corporation : El Segundo, CA	-	4.928	Jan 2024	9.704	Jan 2025	8.261	Jan 2026	-		8.261	-	-	-
Subtotal			-	127.244		139.915		142.951		-		142.951	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	10.679	Oct 2023	7.618	Oct 2024	7.520	Oct 2025	-		7.520	-	-	-
A&AS	Various	Various : Various	-	8.037	Oct 2023	10.934	Oct 2024	9.392	Oct 2025	-		9.392	-	-	-
Other Support	Various	Various : Various	-	0.172	Oct 2023	0.250	Oct 2024	0.250	Oct 2025	-		0.250	-	-	-
Subtotal			-	18.888		18.802		17.162		-		17.162	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	146.132		158.717		160.113		-		160.113	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force	Date: June 2025

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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
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 Exploitation																												
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 2026 Air Force																			Date: June 2025									
Appropriation/Budget Activity 3620F / 5									R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR								Project (Number/Name) 657009 / Space Mod Initiative											
	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
WFOV 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																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force

Date: June 2025

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
Demonstration/Prototypes				
Rapid Prototyping Studies and additional Design Development	1	2024	4	2030
Digital Engineering Models	1	2024	4	2029
Develop Low SWaP Crosslink	4	2025	4	2027
Cold Target Tracking	1	2025	4	2030
Technology Maturation				
FPA Manufacturability Investments	3	2024	4	2026
Development High Dynamic Range (HDR) FPAs	1	2024	4	2028
Operational HDR (TRL 5-6)	1	2026	1	2026
Develop Manufacturable Filters	1	2024	1	2026
Resilient Algorithm Development & Test Bed	1	2024	4	2025
Intelligent Tasking	1	2025	4	2027
Data Exploitation				
SpEC Characterization and Typing	1	2024	4	2029
BGIF/TAP Lab Facility and Infrastructure	1	2024	4	2030
WFOV MDP and Exploitation	1	2024	4	2026
WFOV Taskings and Mission Planning	1	2024	4	2026
Prototype Integrations & Test (I&T) Current and Future Sensor Data Exploitation, Track & Fusion; Target; Typing and Characterization for AI/ML	1	2024	4	2028
WFOV Data Delivery on FORGE Framework	2	2024	4	2026
WFOV Data Delivery on FORCE Application Layer	4	2024	4	2026
Artificial Intelligence & Machine Learning Development (AI/ML) Infrastructure	4	2024	4	2030
AI/ML #1 SBIR (Four Awards-Toyon/Etegent/RAIC/Jaxon)	1	2025	1	2026

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025	
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206442SF / Next Generation OPIR		Project (Number/Name) 657009 / Space Mod Initiative	
	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
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	2024	4	2030
TAP Lab - Host/Support Next-Gen Ground/Interim Operations Control Center (NICC) GEO C2	1	2024	4	2030
Host/Support Resilient MWMT MEO C2	1	2024	4	2030
WFOV 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

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
657123: Integration	0.000	31.034	32.234	29.508	0.000	29.508	-	-	-	-	-	-
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.

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

	FY 2024	FY 2025	FY 2026
Title: Next-Gen OPIR Space, Integration	31.034	32.234	29.508
Description: The Integration (Project 657123) project includes the efforts associated with the Government's primary role and tasks necessary to accomplish the critical lead system integration function with the OPIR enterprise material segments Next-Generation Geosynchronous Earth Orbit (NGG), Next-Generation Polar (NGP), Future Operationally Resilient Ground Evolution (FORGE) and the Resilient Missile Warning/Missile Track (MW/ MT) architecture). The Next-Gen OPIR Program Manager is responsible for directing the Next-Gen OPIR current Enterprise architecture, 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. FY 2025 Plans: Plan and execute the critical lead system integration function across the Next Gen Missile Warning System of Systems, to include systems engineering, process development and execution, requirements analysis and verification, and vertical and horizontal integration, at the system, ground, space, segment, and element levels. Integration supports across the enterprise Next Gen OPIR, to include NGG SV1 final Space to Ground interface testing, launch base confidence testing, launch planning and NGG SV2 mission payload and bus integration, as well as NGP SV1 & SV2 Bus and mission payload development, and Assembly, Integration and Test (AI&T) activities. It also includes integration, test, and evaluation activities to transition SBIRS HEO and GEO onto the Future Operationally Resilient Ground Evolution (FORGE), as well as the planning, development, and integration efforts associated with the Endurable FORGE (E-FORGE) system, which are required to enable the Next Gen OPIR assets to be part of the survivable and endurable architecture. Rapidly respond to implement system resiliency and situational awareness necessary			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
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.					
<i>FY 2026 Plans:</i> 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. Serve as the Systems Integrator for NGP SV1 & SV2. Supporting early integration and risk reduction activities, NGP Misson 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 C2 and Mission Data Processing. Support the Operational Acceptance campaign and ITW/AA certification of SBIRS HEO, GEO and Next-Gen GEO MW operations on Future Operationally Resilient Ground Evolution (FORGE) Mission Data Processing (MDP), and Relay Ground Station (RGS) site 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.					
<i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 Increase/Decrease Statement: FY 2026 decreased \$1.513M due to reduced cost-share across the Enterprise.					
Accomplishments/Planned Programs Subtotals			31.034	32.234	29.508
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>
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 encompass 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	22.260	Jun 2024	21.916	Jun 2025	16.382		-		16.382	-	-	-
OPIR Modeling & Simulation	Various	Various : Various	-	8.058	Jan 2024	8.731	Jan 2025	11.568		-		11.568	-	-	-
Subtotal			-	30.318		30.647		27.950		-		27.950	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.687	Oct 2023	1.512	Dec 2024	1.483		-		1.483	-	-	-
Other Support	Various	Various : Various	-	0.029	Oct 2023	0.075	Dec 2024	0.075		-		0.075	-	-	-
Subtotal			-	0.716		1.587		1.558		-		1.558	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	31.034		32.234		29.508		-		29.508	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force	Date: June 2025

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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
SV2 Space to Ground Compatibility Test																												
SV1 On-Orbit Calibration & Tuning Test																												
SV2 On-Orbit Calibration & Tuning Test																												
<i>Next-Gen OPIR Polar (NGP)</i>																												
SV1 Assembly, Integration & Test																												
SV2 Assembly, Integration, & Test																												
<i>Future Operationally Resilient Ground Evolution (FORGE)</i>																												
FORGE OBAC Ops: (OA #2) OBAC on FORGE Processing/Framework																												
FORGE Legacy Ops: (OA #3) T1/Legacy on FORGE Processing/Framework																												
<i>Relay Ground Station (RGS) Integration</i>																												
RGS-A OA																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>OPIR Space & Ground Systems</i>				
Systems of Systems Engineering/Technical Baseline Management	3	2024	3	2030
<i>Next-Gen OPIR GEO (NGG)</i>				
SV1 Space to Ground Compatibility Test	2	2024	1	2026
SV2 Space to Ground Compatibility Test	3	2026	4	2027
SV1 On-Orbit Calibration & Tuning Test	3	2026	3	2027
SV2 On-Orbit Calibration & Tuning Test	1	2028	4	2028
<i>Next-Gen OPIR Polar (NGP)</i>				
SV1 Assembly, Integration & Test	4	2025	4	2028
SV2 Assembly, Integration, & Test	2	2027	4	2030
<i>Future Operationally Resilient Ground Evolution (FORGE)</i>				
FORGE OBAC Ops: (OA #2) OBAC on FORGE Processing/Framework	3	2025	3	2025
FORGE Legacy Ops: (OA #3) T1/Legacy on FORGE Processing/Framework	1	2027	1	2027
<i>Relay Ground Station (RGS) Integration</i>				
RGS-A OA	3	2027	3	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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>

COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	2,854.126	691.069	458.727	432.073	0.000	432.073	-	-	-	-	-	-
657120: <i>Next-Gen OPIR Space GEO</i>	2,854.126	691.069	458.727	432.073	0.000	432.073	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206443SF I Next-Gen OPIR -- GEO				
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget	719.731	510.806	449.932	0.000	449.932	
Current President's Budget	691.069	458.727	432.073	0.000	432.073	
Total Adjustments	-28.662	-52.079	-17.859	0.000	-17.859	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	-28.662	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	-52.079	-17.859	0.000	-17.859	
Change Summary Explanation						
FY 2024: -\$28.662M Congressional Directed Reduction for: -\$18.8M incentive fees excess to need; -\$9.8M overestimation of A&AS.						
FY 2025: -\$52.079M for Full-Year CR Agreement: -\$20.0M ECO carryover; -\$6.179M Schedule incentive ahead of need; -\$25.9M Mission payload termination.						
FY 2026: -\$4.269M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative.						
FY 2026: -\$2.092M Federally Funded Research and Development Center (FFRDC) reduction						
FY 2026: -\$9.921M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.						
FY2026: -\$1.456M for inflation rate adjustments.						
FY 2026: -\$0.121M for USSF higher priorities.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Next-Gen OPIR GEO				691.069	458.727	432.073
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. 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 2025 Plans:						
Continue Phase 2 efforts to build and deliver 2 GEO Space Vehicles (SVs). Execute activities to support SV#1 delivery including final space/ground/launch integration, SV testing, and ground test activities. Implement corrective actions for defects and issues discovered during environmental testing. Continue build, integration, and test of SV#2 including system-level assembly and testing						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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)		FY 2024	FY 2025	FY 2026
to enable discovery and correction of defects critical to launch. Finish Mission Payload (MPL)#2 build, assembly, integration, and conduct environmental Thermal Vacuum (TVAC) testing. Continue Enterprise planning and support for launch activities and secure communications including government-furnished cryptologic units, long-haul communications, etc. Rapidly respond to updated intelligence on threats and 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. <i>FY 2026 Plans:</i> FY 2026 funds are required to execute on-orbit testing and interim contractor operations support for 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. Conduct environmental thermal-vacuum testing for the fully assembled 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. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 decreased \$26.654M due to completion of most of the non-recurring engineering and long-lead procurements for the program, delivery of the second mission payload, and completion of a significant portion of the build and integration work for SV#2. This phase of the program entails primarily on-orbit support to SV#1 and integration testing for SV#2 in preparation for a 2027 launch.		691.069	458.727	432.073
Accomplishments/Planned Programs Subtotals		691.069	458.727	432.073
D. Other Program Funding Summary (\$ in Millions) N/A				
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) 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				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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 1206443SF / <i>Next-Gen OPIR -- GEO</i>	
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 first GEO satellite is required by 2025. 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 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 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity						R-1 Program Element (Number/Name)				Project (Number/Name)					
3620F / 5						PE 1206443SF / Next-Gen OPIR -- GEO				657120 / Next-Gen OPIR Space GEO					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	2,658.519	593.560	Oct 2023	387.731	Oct 2024	371.554	Oct 2025	-		371.554	-	-	7,171.192
Enterprise Crypto	Various	General Dynamics; Various : Various	15.969	10.599	Oct 2023	2.621	Oct 2024	0.819	Oct 2025	-		0.819	-	-	-
Comm GFP	C/CPFF	Sev1 Tech : El Segundo, CA	6.424	1.617	Oct 2023	-		-		-		-	-	-	-
Launch Support	Various	Various : Various	0.400	2.969	Oct 2023	3.891	Oct 2024	6.132	Oct 2025	-		6.132	-	-	-
SE&I	Various	Various : Various	17.067	9.964	Nov 2023	13.461	Nov 2024	12.423	Nov 2025	-		12.423	-	-	-
Technical Mission Analysis	RO	Aerospace Corporation : El Segundo, CA	29.894	18.906	Oct 2023	13.800	Oct 2024	14.070	Oct 2025	-		14.070	-	-	-
Subtotal			2,728.273	637.615		421.504		404.998		-		404.998	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	22.084	8.344	Oct 2023	6.000	Oct 2024	4.984	Oct 2025	-		4.984	-	-	-
A&AS	Various	Various : TBD	103.075	44.839	Feb 2024	30.773	Feb 2025	21.630	Feb 2026	-		21.630	-	-	-
Other Support	Various	Various : TBD	0.694	0.271	Oct 2023	0.450	Oct 2024	0.461	Oct 2025	-		0.461	-	-	-
Subtotal			125.853	53.454		37.223		27.075		-		27.075	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			2,854.126	691.069		458.727		432.073		-		432.073	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025				
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)				
3620F / 5					PE 1206443SF / Next-Gen OPIR -- GEO					657120 / Next-Gen OPIR Space GEO				

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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
Next-Gen OPIR GEO Phase 2																												
SV#2 Critical Flight Hardware Purchases																												
SV#2 Mission Payload Integration & Testing																												
SV#1 Bus Build Integration & Testing																												
SV#2 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 Launch Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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#2 Critical Flight Hardware Purchases	1	2024	2	2024
SV#2 Mission Payload Integration & Testing	1	2024	3	2024
SV#1 Bus Build Integration & Testing	1	2024	4	2025
SV#2 Bus Build Integration & Testing	1	2024	3	2027
SV#1 Launch Support	1	2024	4	2025
SV#1 Ready for Launch	1	2026	2	2026
SV#1 On-Orbit Testing	2	2026	3	2027
SV#1 Interim Contractor Operations Support	1	2026	4	2030
SV#2 Launch Support	1	2025	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	1,320.594	866.813	769.478	0.000	0.000	0.000	-	-	-	-	-	-
657121: <i>Next-Gen OPIR Space, Block 0 Polar</i>	1,320.594	866.813	769.478	0.000	0.000	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Next-Generation Overhead Persistent Infrared (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.

The NGP program has been designated as a Major Capability Acquisition.

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.

The FY 2026 request for Next-Gen OPIR Polar (NGP) includes \$0 of discretionary and \$723,700 thousands of mandatory (reconciliation) for a total of \$723,700 thousand. The mandatory funds fully fund NGP. Further information for this reconciliation request is provided in Section 20003 (Missile Defense) of the Reconciliation Exhibit.

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 2026 Air Force				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206444SF I Next-Gen OPIR -- Polar			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	1,013.478	828.878	474.689	0.000	474.689
Current President's Budget	866.813	769.478	0.000	0.000	0.000
Total Adjustments	-146.665	-59.400	-474.689	0.000	-474.689
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-146.665	-59.400			
• 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	-474.689	0.000	-474.689
Change Summary Explanation					
FY 2024: -\$146.665M; -\$143.400M Phase 2 concurrency; -\$3.265M unjustified increase to management services					
FY 2025: -\$59.400M; -\$9.400M Management services excess to need; -\$10.000M Launch support ahead of need; -\$30.000M Incentive fee ahead of need					
C. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Title: Next-Gen OPIR Space, Block 0 Polar	866.813	769.478	0.000	0.000	0.000
Description: Development of the 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 NGP satellites in a resilient architecture, providing real time persistent infrared coverage of the northern hemisphere.					
FY 2025 Plans:					
FY 2025 funds are required to preserve FY 2028 Initial Launch Capability (ILC) for Satellite Vehicle (SV) #1 and FY 2030 ILC for SV #2, as well as perform space/ground integration activities. 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					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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>				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
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 Base Plans: N/A						
FY 2026 OOC Plans: N/A						
FY 2025 to FY 2026 Increase/Decrease Statement: Decrease of \$769.478M for NGP will be appropriately offset by funding sourced from the Reconciliation Bill (H.R. 1) upon enactment.						
Accomplishments/Planned Programs Subtotals		866.813	769.478	0.000	0.000	0.000
D. Other Program Funding Summary (\$ in Millions) N/A						
Remarks						
E. Acquisition Strategy The Space Force intends to rapidly acquire Next-Gen systems 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. NGP 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 program was re-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 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 CDR no later than FY 2024 for NGP SV #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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	1,221.708	776.962	Oct 2023	691.839	Oct 2024	0.000	Oct 2025	-		0.000	-	-	3,753.689
Enterprise Comm and Crypto	Various	Various : Various	34.768	9.887	Dec 2023	7.844	Dec 2024	0.000	Dec 2025	-		0.000	-	-	-
Launch Support	Various	Various : Various	0.000	0.054	Oct 2023	1.331	Oct 2024	0.000	Oct 2025	-		0.000	-	-	-
SE&I	Various	Various : Various	12.591	8.328	Dec 2023	10.295	Dec 2024	0.000	Jan 2026	-		0.000	-	-	-
Technical Mission Analysis	RO	Aerospace Corporation : El Segundo, CA	18.436	13.171	Oct 2023	11.955	Oct 2024	0.000	Jan 2026	-		0.000	-	-	-
Subtotal			1,287.503	808.402		723.264		0.000		-		0.000	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	10.190	8.451	Oct 2023	5.124	Oct 2024	0.000	Oct 2025	-		0.000	-	-	-
A&AS	Various	Various : Various	22.530	49.905	Feb 2024	40.907	Feb 2025	0.000	Feb 2026	-		0.000	-	-	-
Other Support	Various	Various : Various	0.371	0.055	Oct 2023	0.183	Oct 2024	0.000	Oct 2025	-		0.000	-	-	-
Subtotal			33.091	58.411		46.214		0.000		-		0.000	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			1,320.594	866.813		769.478		0.000		-		0.000	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Mission Payload CDR																												
System CDR																												
Phase 2																												
Phase 2 ATP																												
SV 1 Assembly, Integration & Test																												
SV 1 Mission Payload Build, Integration & Test																												
SV 1 Bus Build, Integration & Test																												
SV 2 Assembly, Integration & Test																												
SV 2 Mission Payload Build, Integration & Test																												
SV 2 Bus Build, Integration & Test																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206444SF / <i>Next-Gen OPIR -- Polar</i>	Project (Number/Name) 657121 / <i>Next-Gen OPIR Space, Block 0 Polar</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Phase 1				
Bus Development	1	2024	1	2025
Mission Payload Development	1	2024	1	2025
Mission Payload CDR	2	2024	2	2024
System CDR	3	2024	4	2024
Phase 2				
Phase 2 ATP	3	2024	3	2024
SV 1 Assembly, Integration & Test	3	2024	4	2028
SV 1 Mission Payload Build, Integration & Test	4	2024	4	2026
SV 1 Bus Build, Integration & Test	3	2024	3	2028
SV 2 Assembly, Integration & Test	3	2025	4	2030
SV 2 Mission Payload Build, Integration & Test	4	2025	4	2027
SV 2 Bus Build, Integration & Test	3	2025	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	68.983	134.487	132.060	0.000	132.060	-	-	-	-	-	-
650140: COMSATCOM	0.000	68.983	129.501	132.060	0.000	132.060	-	-	-	-	-	-
651126: COMSATCOM Infrastructure	0.000	0.000	4.986	0.000	0.000	0.000	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

Commercial Satellite Communication (COMSATCOM) Integration develops, prototypes and demonstrates the capabilities required to fully leverage COMSATCOM as part of the Department of Defense's (DoD) 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 Enterprise Management and Control (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 DoD 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 DoD 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. 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 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025	
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			
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	73.501	134.487	137.519	0.000	137.519
Current President's Budget	68.983	134.487	132.060	0.000	132.060
Total Adjustments	-4.518	0.000	-5.459	0.000	-5.459
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-2.088	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	-2.430	0.000			
• Other Adjustments	0.000	0.000	-5.459	0.000	-5.459
Change Summary Explanation					
FY24: -2.088M Congressional Mark					
FY26: -3.033M To realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office capability delivery and industry engagement support respectively.					
FY26: -1.305M Reduces contracts 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."					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
650140: <i>COMSATCOM</i>	0.000	68.983	129.501	132.060	0.000	132.060	-	-	-	-	-	-
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 DoD 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 DoD 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 DoD 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 DoD SATCOM investment and potentially lead to future international partnering opportunities.

Activity priorities are subject to change as determined by the operational user, SpOC, Delta 8.

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

	FY 2024	FY 2025	FY 2026
Title: Enterprise Integration of Fighting SATCOM (EM&C)	12.949	64.662	69.543
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 2026 Air Force		Date: June 2025	
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>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
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 2025 Plans: SATCOM EM&C will continue to leverage the DevSecOps process to rapidly deliver minimal viable products as prioritized by SpOC Delta 8 for user feedback and adoption through a cloud based staging environment accessible at multiple classification levels. While specific priorities will be updated periodically as part of an agile software development methodology, SpOC Delta 8 will provide overall guidance through the Capability Needs Statement and regular meetings to enhance multiple capabilities across the four SATCOM bands (Wideband, Narrowband, Protected, and Commercial). The overarching set of capabilities targeted for FY 2025 will support and/or expand the automation of Delta 8's mission planning/execution processes or allow more efficient usage of Delta 8's manpower. This includes substantial investment in multiple situational awareness capabilities and automating resources, as well as data management. This may support an individual band, some of the four bands, or all four of the bands pending user/stakeholder feedback/prioritization. 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 Plans: SATCOM EM&C continues to deliver software capabilities that align with the strategic vision of the DoD Chief Information Officer's (CIO) Implementation Plan. Through the DISA Encore III contract task order 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. Lastly, the two production OTA contracts awarded continue to operationalize the ten-prototype capability developed under the original SpEC OTAs. 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 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Increase is due to ramp up needed to execute Software Acquisition Pathway Execution Phase activities and contract awards, including software development, operational acceptance, and horizontal and vertical application integration activities.			
Title: Commercial Integration Cell 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 Project 651126. FY 2025 Plans: During the test and evaluation phase, USSF will focus on cooperatively establishing standards and guidance for all commanders to empower them to share appropriate information at the appropriate levels with allies, partners, and private sector, through existing organizations such as CIC. 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 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 2025 to FY 2026 Increase/Decrease Statement:		0.000	5.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
N/A.					
Title: International Medium Earth Orbit (MEO) SATCOM Description: US DoD 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 satellite access, the DoD 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 DoD SATCOM investment and lead to future international partnering opportunities. FY 2025 Plans: Continue to procure and integrate with commercial SATCOM services to prototype and demonstrate the capabilities of International Commercial MEO SATCOM. Commercial SATCOM capacity will support Combatant Command requirements for SATCOM support services and other required commercial support services. Activities include, but are not limited to, program office support, studies, technical analysis, experimentation, prototyping, etc. 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 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 2025 to FY 2026 Increase/Decrease Statement:			56.034	59.839	57.517

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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) The decrease is due to the realignment of funds to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office capability delivery and industry engagement support respectively.		FY 2024	FY 2025
		FY 2026	
Accomplishments/Planned Programs Subtotals		68.983	129.501
		132.060	
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 1st 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 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 DoD 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	4.976	Oct 2023	7.232	Aug 2025	11.471	Jul 2026	-		11.471	-	-	-
Commander Services SA/ COP	C/FFP	RKF : El Segundo, CA	-	-		17.620	Apr 2025	12.024	Mar 2026	-		12.024	-	-	-
Planning Services	C/FFP	NIUSG : El Segundo, CA	-	-		6.952	Mar 2025	4.392	Mar 2026	-		4.392	-	-	-
Hosting Platform Services	C/FFP	KM : El Segundo, CA	-	-		4.271	Apr 2025	3.228	Oct 2025	-		3.228	-	-	-
Software Integrator	TBD	TBD : El Segundo, CA	-	-		3.800	Aug 2025	9.600	Dec 2025	-		9.600	-	-	-
FUSE SA, Automated Resource Allocation, Data mgmt	C/FFP	Rlse8 : El Segundo, CA	-	-		5.219	Apr 2025	8.520	Jan 2026	-		8.520	-	-	-
LUX MEO	Various	Betzdorf : Luxembourg	-	52.949	Apr 2024	54.572	Apr 2025	52.223	Nov 2025	-		52.223	-	-	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	0.500	Sep 2024	2.191	Nov 2024	2.916	Nov 2025	-		2.916	-	-	-
SE&I	C/CPIF	Linquest : El Segundo, CA	-	8.303	Mar 2024	11.626	Dec 2024	12.322	Nov 2025	-		12.322	-	-	-
SBIR/STTR	Allot	Not specified. : Washington, DC	-	-		4.055		4.975		-		4.975	-	-	-
Fund COMSATCOM CIC	TBD	TBD : TBD	-	-		5.000	Jun 2025	5.000	Mar 2026	-		5.000	-	-	-
Subtotal			-	66.728		122.538		126.671		-		126.671	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		0.327	Nov 2024	0.131	Nov 2025	-		0.131	-	-	-
A&AS	Various	Various : TBD	-	2.205	Nov 2023	6.536	Nov 2024	5.158	Nov 2025	-		5.158	-	-	-
Other Support	Various	Various : TBD	-	0.050	Dec 2023	0.100	Jan 2025	0.100	Oct 2025	-		0.100	-	-	-
Subtotal			-	2.255		6.963		5.389		-		5.389	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force											Date: June 2025						
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals					-	68.983		129.501		132.060		-		132.060	-	-	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 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration	Project (Number/Name) 650140 / COMSATCOM	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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>Prototyping and Integration</i>																												
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																												
Commander Services																												
Integrated Alerts																												
EMI Event Messenger																												
EMI Workup																												
On Orbit Watchlist																												
SATCOM Resource Authorization Portal																												
SAA/SAR Mission Work Up (Automating Resource Allocation)																												
Global Viewer																												
Spectral Eye																												
Service Provider Registry																												
Mission Provider Registry																												
COMSATCOM Report																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force																				Date: June 2025																					
Appropriation/Budget Activity 3620F / 5										R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration										Project (Number/Name) 650140 / COMSATCOM																					
										FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030							
										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				
Emerging User Requirements																																									
Requirements defined by USSF Delta 8																																									
Prototype Transition																																									
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 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 5	R-1 Program Element (Number/Name) PE 1206445SF / <i>Commercial SATCOM (COMSATCOM) Integration</i>	Project (Number/Name) 650140 / COMSATCOM	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Prototyping and Integration</i>				
Electromagnetic Interference Work Up	1	2024	3	2025
Fusing Situational Awareness Capabilities (1-7)	3	2025	4	2028
Terminal Orchestration (Automating Resource Allocation)	1	2024	2	2025
Automating Resource Allocation Capabilities (1-2)	4	2024	3	2025
Terminal Registry Service (Data Management)	1	2024	4	2029
Data Management Capabilities (1-2)	2	2025	3	2026
Authoritative Sources of Truth	1	2024	4	2026
Mission Planning Services	1	2024	4	2029
Commander Services	1	2024	4	2024
Integrated Alerts	1	2024	4	2024
EMI Event Messenger	1	2024	4	2029
EMI Workup	4	2024	4	2029
On Orbit Watchlist	1	2024	2	2024
SATCOM Resource Authorization Portal	1	2024	4	2029
SAA/SAR Mission Work Up (Automating Resource Allocation)	1	2024	1	2025
Global Viewer	1	2024	2	2025
Spectral Eye	1	2024	3	2025
Service Provider Registry	2	2025	2	2027
Mission Provider Registry	2	2025	2	2027
COMSATCOM Report	2	2025	2	2026
<i>Emerging User Requirements</i>				

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force		Date: June 2025			
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration	Project (Number/Name) 650140 / COMSATCOM		
		Start		End	
Events by Sub Project		Quarter	Year	Quarter	Year
Requirements defined by USSF Delta 8		1	2024	4	2030
Prototype Transition					
Transition to operational environment		3	2025	4	2025
Mission Support					
Maintain SATCOM EM&C application, environment, data sources, etc. Integrate new capabilities		1	2024	4	2030
COMSO					
Commercial Integration Cell (CIC)		1	2025	4	2026
LUX MEO					
International MEO SATCOM		3	2024	4	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
651126: COMSATCOM Infrastructure	0.000	0.000	4.986	0.000	0.000	0.000	-	-	-	-	-	-
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 DoD CIO, the USSF Commercial Satellite Communications Office (CSCO), serves as the sole authority for the procurement of COMSATCOM services for the DoD; 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 2024	FY 2025	FY 2026
Title: COMSATCOM Enterprise Technology (COMET) System of Systems	0.000	4.986	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 2025 Plans: Continue the development and standup of CBS tool and integration efforts, finalizing the Congressionally directed transition from DISA working capital to USSF. This includes completing development of financial/customer management systems required to transition COMSATCOM customer business processes from DISA to USSF, applications to manage inventory of commercial services from industry and the user interfaces for customers to order/activate services, and processes and capabilities needed to interconnect sub-systems and to facilitate enterprise connectivity.			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025					
Appropriation/Budget Activity 3620F / 5		R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration		Project (Number/Name) 651126 / COMSATCOM Infrastructure			
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024		FY 2025		FY 2026	
N/A							
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased as compared to FY 2025 by \$4.986M due to higher USSF priorities.							
Accomplishments/Planned Programs Subtotals		0.000		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 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 5						R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration						Project (Number/Name) 651126 / COMSATCOM Infrastructure			
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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		-		-		-	-	-	-
CSCO Integration	Various	Not specified. : TBD	-	-		1.735		-		-		-	-	-	-
SBIR/STTR	TBD	Not specified. : TBD	-	-		0.182		-		-		-	-	-	-
Subtotal			-	-		3.586		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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		-		-		-	-	-	-
Subtotal			-	-		1.400		-		-		-	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		4.986		-		-		-	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025					
Appropriation/Budget Activity 3620F / 5								R-1 Program Element (Number/Name) PE 1206445SF / Commercial SATCOM (C OMSATCOM) Integration						Project (Number/Name) 651126 / COMSATCOM Infrastructure			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force		Date: June 2025
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	2024	4	2025
CBS Marketplace/Enterprise	1	2024	4	2025
CSCO Integration	1	2024	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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	1,481.222	1,697.821	1,757.354	0.000	1,757.354	-	-	-	-	-	-
657LEO: Resilient MW/MT - LEO	0.000	1,481.222	1,697.821	1,757.354	0.000	1,757.354	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Development Agency (SDA) is 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 developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including advanced missile tracking and global surveillance enabling beyond-line-of-sight targeting. 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.

This program element may include necessary civilian pay expenses and contractor support required to support delivery of the MW/MT/MD capability.

The FY 2026 cost of the Tranche 1 (T1) Tracking Layer Middle Tier of Acquisition effort is reflected in the budget request, including RDT&E and procurement of prototype units. The Department will certify Future Years Defense Program funding in a future budget submission.

The FY 2026 cost of the Tranche 2 (T2) Tracking Layer Middle Tier of Acquisition effort is reflected in the budget request, including RDT&E and procurement of prototype units. The Department will certify Future Years Defense Program funding in a future budget submission.

The FY 2026 cost of the Tranche 3 (T3) Tracking Layer Middle Tier of Acquisition effort is reflected in the budget request, including RDT&E and procurement of prototype units. The Department will certify Future Years Defense Program funding in a future budget submission.

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 2026 Air Force				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 5: System Development & Demonstration (SDD)		PE 1206446SF I Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	1,266.437	1,730.821	1,887.813	0.000	1,887.813
Current President's Budget	1,481.222	1,697.821	1,757.354	0.000	1,757.354
Total Adjustments	214.785	-33.000	-130.459	0.000	-130.459
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-38.000	-33.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	252.785	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	-130.459	0.000	-130.459
Change Summary Explanation					
The increase in FY 2024 from the Previous President's Budget to the Current President's Budget is due to a \$38.000 million Congressional reduction of inadequate justification and a \$252.785 million increase from the incorporation of funding previously programmed under Appropriation 3620, PE 1206448SF.					
The decrease in FY 2025 from the Previous President's Budget to the Current President's Budget is due to a \$33.000 million Congressional reduction for Management Reserve reduction.					
The decrease in FY 2026 from the Previous President's Budget to the Current President's Budget is due to a decrease to align the SDA Tracking program to the Non-Advocate Cost Assessment (NACA) as well as an adjustment for other United States Space Force priorities.					
The FY 2026 request was reduced by \$0.328 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."					
The FY 2026 request for MW/MT/MD includes \$1,757,354 thousand of discretionary and \$823,000 thousand of mandatory (reconciliation) for a total of \$2,580,354 thousand. The mandatory funds additional capabilities for space-based sensing for hypersonic fire control. Further information for this reconciliation request is provided in Section 20003 (Missile Defense) of the Reconciliation Exhibit.					
The increase in the Current President's Budget between the FY 2025 amount and the FY 2026 amount reflects the continued ramp up of Tranche 3 activities for space vehicle development, delivery, and test after the expected awards of Tranche 3 Tracking Layer Space Vehicle vendors in Quarter 4 FY 2025 / Quarter 1 FY 2026.					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
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 2025 Plans: Tranche 1 - Conduct payload and space bus production and perform qualification testing. - Integrate payloads and buses and conduct final space vehicle system Assembly, Integration and Testing (AI&T). - Support Tracking Ground Readiness Review (GRR) to ensure integration with PWSA Operations Centers - Complete initial integration with Missile Warning/Missile Tracking/Missile Defense (MW/MT/MD) enterprise data interfaces and fusion applications. - Perform Tracking payload ground calibration and complete space vehicle environmental test campaigns. - Fund mission unique hardware and integration of the Tranche 1 (T1) space vehicles on the National Security Space Launch (NSSL) Launch vehicles. - Conduct Pre-Ship Review (PSR) for first Tracking plane launch. - 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 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. - 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 program office support, studies, technical analysis, experimentation, prototyping, etc. Tranche 2 - Complete Tranche 2 Tracking Layer (T2TRK) Preliminary Design Reviews (PDRs) and Critical Design Reviews (CDRs). - Begin Optical Interoperability Testing (OIT) with T2TRK space vehicles to ensure optical connectivity. - Begin payload proto-qual Assembly, Integration and Testing (AI&T). - Begin spacecraft bus proto-qual AI&T. - Initiate production of payloads and space buses. - Support ground activities to ensure integration with Proliferated Warfighter Space Architecture (PWSA) Operations Centers.		1,481.222	1,697.821	1,757.354

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
- Finalize initial phases of Technology Acceleration Center (TAC) development and ensure initial PWSA Ground Segment integration for T2 launches and checkout activities. - Continue Missile Warning/Missile Tracking/Missile Defense (MW/MT/MD) enterprise data integration with networks and fusion applications. - Begin space vehicle FlatSat development. - Initiate Tracking space vehicle component deliveries and vehicle assembly and integration. - Plan for Tracking payload ground calibration and begin space vehicle environmental test campaigns. - 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 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 command and control (C2) challenges, MDP expansion, and interagency integration. Other activities include 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. Tranche 3 - Initiate design requirements for the Tranche 3 Tracking Layer (T3TRK) space vehicles as informed by the MW/MT/MD and Fire Control force design analysis. - Begin drafting acquisition plan and solicitation for T3TRK. - Coordinate Warfighter Working Group advocacy and feedback on T3TRK acquisition and MW/MT/MD enterprise integration plans. - Coordinate T3TRK performance requirements with the warfighter 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 program office support, studies, technical analysis, experimentation, prototyping, etc. - Execute Tranche 3 (T3) acquisition and source selection processes leading to space vehicle vendor procurement instruments. - Award T3 Tracking Layer (T3TRK) to space vehicle vendors. - Execute T3TRK award kick-offs. - Initiate designing the T3TRK space vehicles based on requirements and lessons learned Advanced Fire Control (AFC) - Complete Fire-control On Orbit-support-to-the-war Fighter (FOO Fighter) Critical Design Review (CDR).				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
- Initiate FOO Fighter bus and mission payload build and initial assembly and test. - Complete facility and network design for the Demonstration Operations Center (DOC) to support demonstrations. - 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 (beginning with FOO Fighter). - Execute other advanced fire control efforts including Warlock and Strauss. - Execute Tranche 2 Transport Layer (T2TL) Gamma efforts to include support for advanced tactical links and Fire Control. - Complete TAC Phase 2 for Operational AFC secure facility site development. FY 2026 Plans: Tranche 1 - Complete final space vehicle system Assembly, Integration and Testing (AI&T) for remaining Tranche 1 Tracking Layer (T1TRK) 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 the remaining 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 T1TRK space vehicles (16 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 T1TRK satellites. - Conduct system level verification and Developmental Testing. - Begin Operational Testing of T1TRK capabilities. - Provide continuing support to operational space Tracking capabilities 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.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
- 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 Tranche 2 Transport Layer (T2TL) space vehicles to ensure optical and network connectivity. - 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 T3 Tracking Layer (T3TRK) to additional space vehicle vendors. - Execute T3TRK award kick-offs. - Initiate and continue designing the T3TRK 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 T3TRK System Requirements Reviews (SRRs). - Begin Early Integration Studies to support launch. - Begin T3TRK MW/MT/MD enterprise data integration.				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
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 Tranche 2 Transport Layer (T2TL) Gamma efforts to support demonstration in FY 2027. - Deliver the Operational AFC Ground Operations Center. - Continue execution of other advanced fire control efforts including Warlock and Strauss. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> The increase between the FY 2025 amount and the FY 2026 amount reflects the continued ramp up of Tranche 2 activities for space vehicle development, delivery, and test.				
Accomplishments/Planned Programs Subtotals		1,481.222	1,697.821	1,757.354
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), DoD Combatant Commands, DoD 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 Tranche 1 Tracking Layer and Tranche 2 Tracking 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-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 1 Tracking Layer	Various	Various : Various	-	356.539	Nov 2023	333.788	Nov 2024	171.017	Nov 2025	-		171.017	-	-	-
Tranche 2 Tracking Layer	Various	Various : Various	-	815.578	Jan 2024	820.193	Nov 2024	810.467	Nov 2025	-		810.467	-	-	-
Tranche 3 Tracking Layer	Various	Various : Various	-	0.000		236.731	Oct 2025	535.774	Dec 2025	-		535.774	-	-	-
Advanced Fire Control	Various	Various : Various	-	253.836	Mar 2024	231.500	Nov 2024	167.190	Nov 2025	-		167.190	-	-	-
Advanced Fire Control (Tranche 2 Transport Layer Gamma)	Various	Various : Various	-	41.719	Aug 2024	37.682	Nov 2024	53.165	Nov 2025	-		53.165	-	-	-
Tracking Layer Projects	Various	Various : Various	-	10.177	Sep 2024	0.000		0.000		-		0.000	-	-	-
Subtotal			-	1,477.849		1,659.894		1,737.613		-		1,737.613	-	-	N/A
Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	3.373	Mar 2024	37.927	Dec 2024	19.741	Dec 2025	-		19.741	-	-	-
Subtotal			-	3.373		37.927		19.741		-		19.741	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	1,481.222		1,697.821		1,757.354		-		1,757.354	-	-	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 2026 Air Force			Date: June 2025		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)		Project (Number/Name)	
3620F / 5		PE 1206446SF / Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)		657LEO / Resilient MW/MT - LEO	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 Tranche 1 Tracking Satellites																												
Develop, test, and deliver Tranche 2 Tracking Satellites																												
Develop, test, and deliver Tranche 3 Tracking Satellites																												
Ground integration activities																												
Develop, test, and deliver Tranche 2 Transport Gamma Satellites																												
Develop, test, and delivery FOO Fighter Satellites																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Resilient Missile Warning Missile Tracking - Low Earth Orbit (LEO)				
Develop, test, and deliver Tranche 1 Tracking Satellites	1	2024	4	2026
Develop, test, and deliver Tranche 2 Tracking Satellites	2	2024	4	2027
Develop, test, and deliver Tranche 3 Tracking Satellites	3	2025	4	2028
Ground integration activities	1	2024	4	2028
Develop, test, and deliver Tranche 2 Transport Gamma Satellites	4	2024	4	2028
Develop, test, and delivery FOO Fighter Satellites	3	2024	4	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	699.675	756.349	686.348	0.000	686.348	-	-	-	-	-	-
657MEO: Resilient MW/MT - MEO	0.000	699.675	756.349	686.348	0.000	686.348	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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 Defense 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/Missile 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. Missile Warning, Missile 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, Missile Tracking Medium Earth Orbit, is designed to work cohesively to gain and maintain custody of a spectrum of missile threats.

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, Missile 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 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 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, Missile Tracking and Missile Defense constellations supporting Low Earth Orbit, Medium Earth Orbit, Geosynchronous Orbit and Polar Orbit regimes. Resilient Missile Warning, Missile 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 with the potential delivery of up to twelve space vehicles.
- Delivery includes: design, build, hardware integration, testing, delivery, launch vehicle integration, space vehicle.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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>
-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 Epoch 2. -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 antenna at Clear Space Force Station, Alaska will be modified to support Epoch 1 ground contacts. Additional overseas locations are being considered to ensure Ground Entry Point availability, 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, 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. Additional studies planned with Ballistic Missile Defense Overhead Persistent Infrared Architecture started in FY 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 2026 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 Boulder Ground Innovation Facility 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 management & integration contractor to assist with on boarding space craft and vendor operations into the BGIF. Epoch 2 will expand upon the current Ground Entry Points 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. FY 2024 35.000M Recission is not captured due to a database error. The FY 2026 cost of the Resilient Missile Warning/Missile Track - Medium Earth Orbit (MW/MT - MEO) Epoch 1 Middle Tier of Acquisition effort is reflected in the budget request, including RDT&E and procurement of prototype units. The Department will certify Future Years Defense Program funding in a future budget request. The total cost of the MW/MT - MEO Epoch 2 Middle Tier of Acquisition effort is 3,846.5M, including RDT&E and procurement of prototype units. The MW/MT - MEO Epoch 2 program is fully funded across the Future Years Defense Program.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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)				
This program element may include necessary civilian pay expenses required to manage, execute, and deliver Missile Warning, Missile 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		538.208	846.349	714.718	0.000	714.718
Current President's Budget		699.675	756.349	686.348	0.000	686.348
Total Adjustments		161.467	-90.000	-28.370	0.000	-28.370
• Congressional General Reductions		0.000	-90.000			
• 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		15.000	0.000			
• SBIR/STTR Transfer		0.000	0.000			
• Other Adjustments		146.467	0.000	-28.370	0.000	-28.370
Change Summary Explanation						
FY 2024: +146.467M; transfers funding and effort for the MEO Ground Segment portion of shared PE 1206448SF, Project 657124, to PE 1206447SF, Resilient Missile Warning Missile Tracking, Resilient MW/MT - MEO Project 657MEO to centralize Missile Warning Missile Tracking activities and improve transparency, +15.000M; Epoch 1 Space Vehicles 7-12 Risk Reduction						
FY 2025: -90.000M; Epoch 1 Vendor 1 termination						
FY 2026: -0.193M; for higher priority USSF investments						
FY 2026: -6.781M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative"						
FY 2026: -3.323; Federally Funded Research and Development Center (FFRDC) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative"						
FY 2026: -15.760M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively						
FY 2026: -2.313M; Inflation rate adjustment						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Missile Warning / Missile Tracking - MEO Epoch 1				699.675	448.909	200.701

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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)		FY 2024	FY 2025	FY 2026
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 Warfighting 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 and fusion operational programs such as FORGE (PE 1206440SF), Ballistic Missile Defense Overhead Persistent Infrared Architecture, 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. Additional early integration support and studies are planned with the Ballistic Missile Defense Overhead Persistent Infrared Architecture to start in FY 2024. Additionally in FY 2024, sensor models will begin to be built to support future modeling and simulation activities with the FORGE and Missile Defense program offices. FY 2025 Plans: Space: Begin Crucial Mission Payloads and Bus Assembly, Integration & Test activities. The Epoch 1 vendor intends to deliver at least two flight payloads and satellite buses and start space vehicle level assembly, integration and testing by the end of FY 2025. Complete launch vehicle integration studies and launch vehicle selection for both launches. Initiate Epoch 2 planning activities and award contract(s) to execute space, ground, and integration. Epoch 2 will build out the architecture for global missile tracking with up to four planes of additional capability. FY 2025 marks the start of Epoch 2. Epoch 2 released a Request For Proposal in mid CY 2024 to support a mid FY 2025 contract execution for space, ground, and integration. Epoch 2 will build out the architecture for global missile tracking with up to four planes of additional capability. The USSF began early engagement with industry with Requests for Information in 2023 and has a good understanding on industrial performance capabilities and cost. First vendor awarded 29 May 2025 for two planes of space vehicles. Additional award planned by end of FY 2025. Ground: Completion of space vehicle contractor software builds for both Command and Control and Mission Data Processing and continues ground system integration and test into the Boulder Ground Innovation Facility (BGIF; formerly the Tools,				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Application's, and Processing Lab) in Boulder, Colorado. Continue to outfit the Medium Earth Orbit Space Operations Center at the Boulder Ground Innovation Facility (BGIF), including Ops floor build out allowing separate rooms for proprietary work for each space vehicle vendors. Continue integration of space vehicle vendor ground hardware into the BGIF and establish interfacing connectivity between the space vehicle vendors and Medium Earth Orbit Space Operations Center. The Operation and Integration contractor, Parsons, will facilitate the integration of ground systems into the BGIF and will lead the Medium Earth Orbit Space Operations Center Authority to Operate cyber security package to establish the Medium Earth Orbit Space Operations Center enclave in preparation for initial testing and operations. Delivery of six Hardware In the Loop test beds (developed by the Ground Entry Point Contractor, Northrop Grumman), to the Epoch 1 space vehicle vendor each of the space vehicle vendors and begin supporting early space vehicle integration and launch and early orbit testing on the testbeds. Deliver the 1st Ground Entry Point antenna to Schriever Space Force Base. The contractor plans to deliver one antenna every month until all nine antennas have been delivered to their respective locations. Begin Ground Entry Point Integration, test, validation, and verification in preparation for launch rehearsals and Launch and Early On-Orbit Test campaign. Data Fusion: Finalize sensor model builds and verification & 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 2025, 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. The Ground Preliminary Design Review assessed the maturity of the design for both space vehicles contractors' ground solution and Ground Entry Point antennas. The assessment included a detailed review of the Concept of Operations to in include the interaction between the space vehicle system, subsystems, space vehicle ground, and external factories. The Preliminary Design Review also included a review of the ground hardware design and Cyber Security Controls Traceability Matrix for the ground segment to establish an allocated baseline to proceed to a detailed design in Critical Design Review. 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, prototyping, and activities that may leverage commercial and international opportunities. 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 vehicle's 7-12 to complete two orbital planes of				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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)		FY 2024	FY 2025	FY 2026
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 2Q FY 2027. Ground: Contractor will complete software builds for both command and control and mission data processing; The Medium Earth Orbit Space Operations Center fit up at the Boulder Ground Innovation Facility will be completed and the operations floor will be prepared for launch rehearsals. The Ground Entry Point 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 Boulder Ground Innovation Facility, Schriever Space Force Base, AI Udeid Air Base, Clear Space Force Station, and other associated antennas will be completed in FY 2026. 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, Ballistic Missile Defense Overhead Persistent Infrared Architecture, Persistent Unified Messaging Architecture) to ensure on-orbit data is timely and accurate. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to all hardware purchases and construction being completed for the Ground Entry Points. In addition, Epoch 2 awarded contracts in FY 2025 which included long lead item purchases.				
Title: Missile Warning / Missile Tracking - MEO Epoch 2 Description: This activity funds development of Medium Earth Orbit Epoch 2 space vehicles, up to four launches planned to deliver up to four planes of capability (12-24 space vehicles) by FY 2030 and supporting ground efforts with operations necessary to deliver Initial Warfighting Capability for Medium Earth Orbit architecture. Medium Earth Orbit Epoch 2 builds upon Medium Earth Orbit Epoch 1 to meet Capability Development Document requirements through agile development. The Medium Earth Orbit Epoch 2 acquisition will balance delivery of the Initial Warfighting Capability while establishing a path toward delivering Fully Warfighting Capability in future epochs. The Medium Earth Orbit Epoch 2 prototyping effort will deliver a new global tracking access mission capability to contain raids of advanced hypersonic and ballistic missiles. 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 Ground Evolution (FORGE) framework. Medium Earth Orbit 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		-	307.440	485.647

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) and system engineering, terrestrial communications, integration, test and demonstration efforts with stakeholders and mission partners. FY 2025 Plans: FY2025 plans under E1 Major Thrust 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 Ground Entry Point (GEP) locations needed for Epoch 2. Initiate and award Ground Management and Integration contract to add Epoch 2 capability to the Medium Earth Orbit Space Operations Center (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 Boulder Ground Innovation Facility, 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increase due to continuing execution of MEO Epoch 2 spacecraft and constellation design, build, test, and associated ground activities.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		699.675	756.349	686.348
D. Other Program Funding Summary (\$ in Millions) N/A Remarks E. Acquisition Strategy Space: The Resilient Missile Warning, Missile Tracking Medium Earth Orbit initiative began in FY 2019 as Next Gen Overhead Persistent Infrared "Block 1 Prototype" under the Next Gen Overhead Persistent Infrared Space Modernization Initiative PE1206442SF. Six missile track custody prototype contracts were competitively awarded under this effort which utilized a multi-phased contracting strategy to field an on-orbit Missile Track Custody Demonstration or the Missile Track Custody				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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)	
Demonstration space vehicle. Early efforts also included digital engineering risk reduction which serves as the foundation for current Resilient Missile Warning, Missile Tracking Medium Earth Orbit efforts.		
In FY 2021, following the completion of the Space Warfighting Analysis Center force design for the Missile Warning, Missile Tracking mission area, Missile Track Custody Demonstration efforts were formalized as Resilient Missile Warning, Missile Tracking Medium Earth Orbit Epoch 1. The May 2021 Epoch 1 contract awards were the result of a free, fair, and open competition where five vendors submitted proposals and two were selected to develop the first six vehicles for fielding no later than FY 2027 as Resilient Missile Warning, Missile Tracking Medium Earth Orbit Epoch 1. The Full Missile Warning/Missile Defense Overhead Persistent Infrared Capability Development Document and Technical Requirements Document were included in the request for proposal. The Space Force will field Epoch 1 capability under current contracts that were competitively awarded for the first three vehicles from each contractor (Space Vehicles 1-6). In May 2022, the Space Force Program Executive Officer approved an acquisition strategy for all of Epoch 1 scope: Vehicles 1-6; additional vehicles to meet performance baseline (at least three); Command and Control software; Mission Data processing Software; Operations and Integration; and at least two Ground Entry Point sites (six total ground antennas) for command and telemetry.		
Epoch 1 Space: In January 2023, the Space Force Program Executive Officer approved the acquisition strategy for Epoch 1, nine space vehicles. That strategy has since been amended to include up to twelve Epoch 1 space vehicles as of September 2024. This was due to Raytheon being terminated as an Epoch 1 space vehicle vendor as a result of underperformance, and subsequent pursuit of an additional six space vehicles from Millennium Space Systems. The program delivered an integrated acquisition strategy for all of Epoch 1 to enter the acquisition pathway as a Middle Tier Acquisition and was formally deemed a Middle Tier Acquisition Rapid Prototyping acquisition program by the Office of the Under Secretary of Defense for Acquisition and Sustainment in April 2024. The strategy included acceleration of additional spacecraft as part of the FY 2023 Congressional Add. The Epoch 1 requirements were derived from the Missile Warning and Missile Defense Overhead Persistent Infrared Enterprise Capability Development Document, validated by the Joint Requirement Oversight Council in May 2019. They are now derived from the Rapid Prototyping Requirement Document signed by the Chief Space Requirements Officer in January 2024. Epoch 1 serves as the first delivery of capability targeting regional warning and tracking coverage with launches in 2026 and 2027.		
Ground: The acquisition strategy for mission-unique ground portions of Epoch 1 were approved by the Program Executive Officer in May 2022. The Space Force will deliver Mission Data Processing and Command and Control software development under current contracts that were competitively awarded in FY 2021 under the Next Gen Overhead Persistent Infrared PE 1206442SF. A contract for the Ground Entry Points was awarded via a mission partner in December 2022, and an Operation and Integration contract award in May 2023 under the Missile Warning, Missile Tracking PE 1206447SF. Continuous updates to the Command and Control and Mission Data Processing software will be expected, and ground antenna contracts will continue execution led in collaboration with mission partners. The program office is leveraging a competitively awarded operations center and integration contract with General Services Administration for integrating and testing the ground system. The program developed an acquisition strategy for all of Epoch 1 scope: vehicles 1-6; additional vehicles to meet performance baseline (six additional space vehicles); Command and Control software; Mission Data Processing software; Operation and Integration, and at least six 13.5 meter ground antennas (three per site) for operating the space vehicles. Consideration is being given for additional smaller antennas to support Epoch 1 and future Epoch operations. Acquisition Strategy updates for changes in Ground development to support Epoch 2 were approved by the Service Acquisition Executive in Apr 2025, to include an addition of a backup Medium Earth Orbit Space Operations Center and additional GEP sites.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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)	
Epoch 2 Space: Derives requirements from the Overhead Persistent Infrared Capability Development Document Medium Earth Orbit/Low Earth Orbit Annex, validated by the Joint Requirement Oversight Council in February 2024. This and all future Epochs are planned for competitive awards. The Epoch 2 acquisition strategy was approved by the Assistant Secretary of the Air Force for Space Acquisition in June 2024. This enabled contracts for the program to achieve Initial Warfighting Capabilities. They were granted permission to enter as a Middle Tier Acquisition Rapid Prototyping acquisition program by the Office of the Under Secretary of Defense for Acquisition and Sustainment and reaffirmed with the inclusion of Ground Management and Integration in April 2025.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
MW/MT MEO Epoch 1, Vendor 1 SV 1-3	C/CPAF	Raytheon : El Segundo, CA	-	171.572	Dec 2023	-		0.000	Dec 2025	-		0.000	-	-	-
MW/MT MEO Epoch 1, Vendor 2 SV 1-3	C/FFP	Millennium Space Systems : El Segundo, CA	-	132.418	Dec 2023	111.849	Dec 2024	62.389	Oct 2025	-		62.389	-	-	-
MW/MT MEO Epoch 1, Vendor 2 SV 4-6	C/FFP	Millennium Space Systems : El Segundo, CA	-	61.923	Dec 2023	56.515	Dec 2024	25.199	Dec 2025	-		25.199	-	-	-
MW/MT MEO Epoch 1, Vendor 2 SV 7-12	SS/FFP	Millennium Space Systems : El Segundo, CA	-	96.400	Aug 2024	124.576	Dec 2024	41.959	Nov 2025	-		41.959	-	-	-
MW/MT MEO Epoch 1, Ground Operations & Integration	MIPR	Parsons : Centreville, VA	-	35.482	Jan 2024	35.746	Jan 2025	21.058	Dec 2025	-		21.058	-	-	-
MW/MT MEO Epoch 1 Ground Entry Point (GEP)	MIPR	Northrop Grumman : Fairfax, VA	-	127.000	Jan 2024	60.020	Nov 2024	14.700	Nov 2025	-		14.700	-	-	-
MW/MT MEO Epoch 1 Data Fusion	Various	Various : Various	-	5.217	Jan 2024	21.400	Jan 2025	11.400	Dec 2025	-		11.400	-	-	-
MW/MT MEO Epoch 2, Vendor 1 SV 1-10	C/FFP	BAE : Boulder, CO	-	-		180.000	May 2025	354.534	Oct 2025	-		354.534	-	-	-
MW/MT MEO Epoch 2, Vendor 2	TBD	TBD : TBD	-	-		93.864	Sep 2025	51.219	Jan 2026	-		51.219	-	-	-
MW/MT MEO Ground Management & Integration (GMI)	TBD	TBD : TBD	-	-		-		42.020	Apr 2026	-		42.020	-	-	-
MW/MT MEO Launch Support	Various	Various : Various	-	3.050	Aug 2024	5.228	Jun 2025	8.387	Nov 2025	-		8.387	-	-	-
Enterprise SE&I	Various	Various : Various, CA	-	10.776	Dec 2023	15.084	Dec 2024	7.777	Dec 2025	-		7.777	-	-	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	3.538	Jan 2024	11.149	Oct 2024	11.484	Oct 2025	-		11.484	-	-	-
Subtotal			-	647.376		715.431		652.126		-		652.126	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	11.417	Jan 2024	7.167	Jan 2025	6.151	Oct 2025	-		6.151	-	-	-
A&AS	Various	Various : TBD	-	40.582	Nov 2023	33.426	Nov 2024	27.746	Oct 2025	-		27.746	-	-	-
Other Support	Various	Various : TBD	-	0.300	Nov 2023	0.325	Nov 2024	0.325	Dec 2025	-		0.325	-	-	-
Subtotal			-	52.299		40.918		34.222		-		34.222	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	699.675		756.349		686.348		-		686.348	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 - Space																												
Epoch 1 SV 7-12 Contract Authority to Proceed																												
Epoch 1 Design and Development																												
Epoch 1 System Critical Design Review																												
Epoch 1 Mission Payload Assembly, Integration & Test																												
Epoch 1 Bus Assembly, Integration & Test																												
Epoch 1 SV Assembly, Integration & Test																												
Epoch 2 Vendor 1 Authority to Proceed																												
Epoch 2 Vendor 1 Design & Development																												
Epoch 2 Vendor 1 System Critical Design Review																												
Epoch 2 Vendor 2 Authority to Proceed																												
Epoch 2 Vendor 2 Design & Development																												
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																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force																Date: June 2025																					
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
										1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Build and deploy GEP testbeds to contractor facilities																																					
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																																					
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 2026 Air Force			Date: June 2025
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/Missile Tracking - Space				
Epoch 1 SV 7-12 Contract Authority to Proceed	4	2024	4	2024
Epoch 1 Design and Development	1	2024	1	2026
Epoch 1 System Critical Design Review	4	2024	4	2024
Epoch 1 Mission Payload Assembly, Integration & Test	4	2025	2	2027
Epoch 1 Bus Assembly, Integration & Test	3	2025	3	2027
Epoch 1 SV Assembly, Integration & Test	2	2026	1	2028
Epoch 2 Vendor 1 Authority to Proceed	3	2025	3	2025
Epoch 2 Vendor 1 Design & Development	3	2025	4	2027
Epoch 2 Vendor 1 System Critical Design Review	4	2026	4	2026
Epoch 2 Vendor 2 Authority to Proceed	1	2026	1	2026
Epoch 2 Vendor 2 Design & Development	1	2026	2	2028
Resilient Missile Warning/Missile Tracking - Ground				
Mission Data Processing design, build, integration & test	1	2024	4	2030
Command & Control design, build, integration & test	1	2024	4	2030
Initial Operating Capability for Ground Operations	1	2024	4	2026
GEPs ready for end-to-end testing	1	2025	2	2026
GEP Contract Support	1	2024	4	2030
Build and deploy GEP testbeds to contractor facilities	1	2024	4	2025
MSOC ground network infrastructure design and construction, hardware installation and checkout	1	2024	4	2026
MEO Data Fusion	1	2024	4	2030

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force		Date: June 2025
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
MSOC fit up: Ops room fit up, HVAC and power, furnish workstations	1	2024	4	2026
GEP sites design, development, and integration & test	1	2024	3	2026
GEP site construction	4	2024	2	2026
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
GMI Initial Operating Capability	2	2026	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	48.296	40.000	36.628	0.000	36.628	-	-	-	-	-	-
650008: Commercial Augmentation Space Reserve (CASR)	0.000	0.000	0.000	23.671	0.000	23.671	-	-	-	-	-	-
650009: Commercial Capability Integration	0.000	48.296	40.000	12.957	0.000	12.957	-	-	-	-	-	-

Note

This program, BA 5, PE 1206771SF, project 650008, CASR, is a new start.

A. Mission Description and Budget Item Justification

Commercial Services delivers integrated, effective, efficient, and resilient commercial space capabilities to the warfighter in support of OSD'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 DoD 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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>

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.

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	48.296	40.000	36.628	0.000	36.628
Total Adjustments	48.296	40.000	36.628	0.000	36.628
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	48.296	40.000			
• 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	36.628	0.000	36.628

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 650009: *Commercial Capability Integration*

Congressional Add: *Program Increase - Space-based monitoring over the U.S. Southern Command AOR*

Congressional Add: *Program Increase - CCMD direct commercial surveillance, reconnaissance and tracking services*

Congressional Add: *Commercial Surveillance, Reconnaissance and Tracking*

Congressional Add Subtotals for Project: 650009

Congressional Add Totals for all Projects

FY 2024	FY 2025
9.659	0.000
38.637	0.000
-	40.000
48.296	40.000
48.296	40.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
650008: Commercial Augmentation Space Reserve (CASR)	0.000	0.000	0.000	23.671	0.000	23.671	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 5, PE 1206771SF, project 650008, CASR, is a new start.

A. Mission Description and Budget Item Justification

CASR is a contractually managed framework that ensures DoD 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 2026) supports participation of approximately 10 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

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

Title: CASR	FY 2024	FY 2025	FY 2026
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 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.	-	-	23.671

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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) 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. <i>FY 2026 Plans:</i> 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. 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 2025 to FY 2026 Increase/Decrease Statement:</i> Funds 7.750M in operating costs for CASR baseline program and CASR objectives. This funding continues FY25 Congressional Add initiatives; CASR is not a new start. Also, 15.921M million was erroneously programmed into Project 650008, Commercial Augmentation Space Reserve. During the year of execution, the 15.921M will be internally realigned to the Commercial Capability Integration project within the same PE to support the integration of alternate PNT constellations enabling a more resilient PNT architecture to complement GPS, integration and demonstration of space superiority operations with on-orbit assets, integration and launch of payloads for multi-domain awareness on tactical space assets, and advancing commercial multi-domain awareness and cyber capabilities to support multiple mission areas.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		-	-	23.671
C. Other Program Funding Summary (\$ in Millions) N/A Remarks 				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>

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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		-		7.486		-		7.486	-	-	-
SBIR/STTR	TBD	Not specified. : TBD	-	-		-		0.604		-		0.604	-	-	-
AltPNT	TBD	Not specified. : TBD	-	-		-		7.000		-		7.000	-	-	-
Space Superiority	TBD	Not specified. : TBD	-	-		-		3.000		-		3.000	-	-	-
Responsive Space Sensing	TBD	Not specified. : TBD	-	-		-		3.000		-		3.000	-	-	-
Multi-domain Awareness and Cyberspace	TBD	Not specified. : TBD	-	-		-		2.581		-		2.581	-	-	-
Subtotal			-	-		-		23.671		-		23.671	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		23.671		-		23.671	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 5					PE 1206771SF / Commercial Services					650008 / Commercial Augmentation Space Reserve (CASR)			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
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 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
650009: Commercial Capability Integration	0.000	48.296	40.000	12.957	0.000	12.957	-	-	-	-	-	-
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.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Commercial Integration									-	-	12.957	
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 DoD 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 SSC Front Door, SpaceWERX, the Commercial SATCOM Office (CSCO), Integration and Engineering, and CASR.												
FY 2026 Plans: 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 2025 to FY 2026 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
FY 2026: a total of 12.957M was realigned and consolidated from multiple Space Systems Command (SSC) PEs into this new PE 1206771SF for increased transparency and efficient execution of basic operating costs for the Commercial Space Office. It is not a New Start.			
Accomplishments/Planned Programs Subtotals		-	12.957
	FY 2024	FY 2025	
Congressional Add: Program Increase - Space-based monitoring over the U.S. Southern Command AOR	9.659	0.000	
FY 2024 Accomplishments: Conduct Congressionally directed efforts.			
FY 2025 Plans: Not applicable			
Congressional Add: Program Increase - CCMD direct commercial surveillance, reconnaissance and tracking services	38.637	0.000	
FY 2024 Accomplishments: Conduct Congressionally directed efforts.			
FY 2025 Plans: Not applicable			
Congressional Add: Commercial Surveillance, Reconnaissance and Tracking	-	40.000	
FY 2025 Plans: 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 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 Adds Subtotals	48.296	40.000	
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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	10.424		9.581		-		-		-	-	-	-
CCMD Direct Commercial SRT Exploratory	TBD	Not specified. : TBD	-	2.650		7.697		-		-		-	-	-	-
CCMD Direct Commercial SRT Future Ops Development	TBD	Not specified. : TBD	-	21.102		8.888		-		-		-	-	-	-
USSOUTHCOM Space Based Monitoring Data	TBD	Not specified. : TBD	-	9.659		-		-		-		-	-	-	-
SBIR/STTR	TBD	Not specified. : TBD	-	-		1.301		0.442		-		0.442	-	-	-
Commercial Integration	Various	Various : TBD	-	-		6.750		2.555		-		2.555	-	-	-
Subtotal			-	43.835		34.217		2.997		-		2.997	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	1.405		1.458		0.230		-		0.230	-	-	-
Contractor Support	TBD	Not specified. : TBD	-	3.056		4.325		9.730		-		9.730	-	-	-
Subtotal			-	4.461		5.783		9.960		-		9.960	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	48.296		40.000		12.957		-		12.957	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025				
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)				
3620F / 5					PE 1206771SF / Commercial Services					650009 / Commercial Capability Integration				

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
USSOUTHCOM Space Based Monitoring																												
Commercial Integration																												
Commercial SRT																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force		Date: June 2025
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	3	2024	4	2025
USSOUTHCOM Space Based Monitoring	3	2024	4	2024
Commercial Integration	4	2025	4	2026
Commercial SRT	4	2025	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	156.968	103.392	6.595	0.000	6.595	-	-	-	-	-	-
650006: Next Generation Launch System Investment	0.000	156.968	103.392	6.595	0.000	6.595	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2025, the Space Access, Mobility, and Logistics (SAML) activity transferred to R-1 Line #12, PE 1203955SF, Space Access, Mobility, and Logistics (SAML)

A. Mission Description and Budget Item Justification

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.

The FY 2026 request was reduced by \$0.065 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 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 PY 2.246M was expended for civilian pay expenses in this program element, and in CY 2.650M 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		82.188	23.392	7.289	0.000	7.289
Current President's Budget		156.968	103.392	6.595	0.000	6.595
Total Adjustments		74.780	80.000	-0.694	0.000	-0.694
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		80.000	80.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-5.220	0.000			
• Other Adjustments		0.000	0.000	-0.694	0.000	-0.694
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						
FY2024 80.000M Congressional Add for additional NSSL payload processing facility						
FY2025 80.000 Congressional Add for NSSL payload processing facility (East Coast)						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Launch Service Agreement (LSA)				79.457	23.392	6.595
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 2025 Plans:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Complete the National Security Space Launch (NSSL) Phase 2 public-private partnership investment with United Launch Alliance (ULA) for the development of the Vulcan Centaur launch system. This includes completion of the heavy lift (Category C) capability of the Vulcan Centaur and achieving Full Operation Capability (FOC) of the system. 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 Plans: Complete required supporting analysis and technical evaluations to close Launch Service Agreement (LSA) 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 2025 to FY 2026 Increase/Decrease Statement: FY2026 decrease of \$16M is due to the United launch Alliance (ULA) Launch Service Agreement (LSA) Other Transaction Authority (OTA) completion				
Accomplishments/Planned Programs Subtotals		79.457	23.392	6.595
		FY 2024	FY 2025	
Congressional Add: NSSL Payload Processing Facility		77.511	80.000	
FY 2024 Accomplishments: Funds provide for development of Payload Processing capabilities to support National Security Space Launch (NSSL) Satellite Vehicle (SV) processing requirements at Vandenberg 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.				
FY 2025 Plans: 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.				
Congressional Adds Subtotals		77.511	80.000	

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025	
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						
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPSF 01 NSSL00: National Security Space Launch	2,050.839	1,769.486	1,496.299	-	1,496.299	-	-	-	-	-	-
Remarks											
E. Acquisition Strategy											
Launch Enterprise 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	56.660	Nov 2023	1.470	Jan 2025	-		-		-	-	-	-
SAML Efforts	C/Various	Various : Various	-	11.471	Sep 2024	-		-		-		-	-	-	-
LNG/LOX Characterization Testing	Various	Various : Various	-	0.000	Dec 2023	5.008	Dec 2024	-		-		-	-	-	-
Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	1.304	Dec 2023	3.560	Oct 2024	1.096	Dec 2025	-		1.096	-	-	-
Enterprise System Engineering and Integration (SE&I)	C/CPFF	Various : Various	-	0.979	Nov 2023	3.749	Nov 2024	1.687	Dec 2025	-		1.687	-	-	-
Payload Processing Facility	C/TBD	TBD : TBD	-	77.511	Apr 2025	78.251	Sep 2025	-		-		-	-	-	-
RDT&E SBIR/STTR	Allot	Not Specified:TBD : TBD	-	0.000	Mar 2024	2.261	Jun 2025	0.340	Mar 2026	-		0.340	-	-	-
Subtotal			-	147.925		94.299		3.123		-		3.123	-	-	N/A
Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	DOD : El Segundo, CA	-	1.885	Oct 2023	2.246	Oct 2024	2.650	Oct 2025	-		2.650	-	-	-
Subtotal			-	1.885		2.246		2.650		-		2.650	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.716	Dec 2023	1.007	Oct 2024	0.432	Dec 2025	-		0.432	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
Advisory and Assistance Services	Various	Various : Various	-	1.774	Nov 2023	3.255	Dec 2024	0.094	Jan 2026	-		0.094	-	-	-
Other Support	Various	Various : Various	-	4.668	Nov 2023	2.585	Oct 2024	0.296	Nov 2025	-		0.296	-	-	-
Subtotal			-	7.158		6.847		0.822		-		0.822	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	156.968		103.392		6.595		-		6.595	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
United Launch Alliance (ULA) LSA OTA																												
ULA LSA OTA Vulcan 2nd Certification Flight																												
ULA LSA OTA West Coast Launch Pad Completion																												
Finalize Cat C for Vulcan																												
Payload Processing Facility																												
Release of RFP for Payload Processing Facility (FY24 Cong Add)																												
Award Contracts for Payload Processing Facility (FY24 Cong Add)																												
Release of RFP for Payload Processing Facility (FY25 Cong Add)																												
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 2026 Air Force			Date: June 2025
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				
United Launch Alliance (ULA) LSA OTA	1	2024	4	2025
ULA LSA OTA Vulcan 2nd Certification Flight	4	2024	1	2025
ULA LSA OTA West Coast Launch Pad Completion	3	2025	3	2025
Finalize Cat C for Vulcan	1	2026	4	2026
Payload Processing Facility				
Release of RFP for Payload Processing Facility (FY24 Cong Add)	4	2024	4	2024
Award Contracts for Payload Processing Facility (FY24 Cong Add)	4	2024	4	2024
Release of RFP for Payload Processing Facility (FY25 Cong Add)	3	2025	4	2025
Award Contracts for Payload Processing Facility (FY25 Cong Add)	4	2025	4	2025
Civilian Pay				
Civilian Pay	1	2024	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support					R-1 Program Element (Number/Name) PE 1203622SF I Space Warfighting Analysis							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	3.568	0.000	0.000	0.000	0.000	-	-	-	-	-	-
646021: Space Warfighting Analysis	0.000	3.568	0.000	0.000	0.000	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2025, funds will transition from Program Element 1203622SF, Budget Activity 06 to Program Element 1203622SF, Budget Activity 04 to better align with USSF and SpOC Force Design funding under SWAC's RDT&E baseline.

A. Mission Description and Budget Item Justification

This Program Element (PE) 1203622, 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. 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 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 and funding needs, and interface standards.

This program element includes 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 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 2026 Air Force					Date: June 2025
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1203622SF I Space Warfighting Analysis			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	3.568	0.000	0.000	0.000	0.000
Current President's Budget	3.568	0.000	0.000	0.000	0.000
Total Adjustments	0.000	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	4.970			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	-4.970	0.000	0.000	0.000
Change Summary Explanation FY 2025 funding decrease due to HACD 10.55M cut for reduced growth.					
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025
Title: SWAC Government Workforce				3.568	0.000
Description: Provide professional government civilian acquisition workforce in support of the Space Warfighting Analysis Center. Activities may include, but are not limited to program office support, studies, technical analysis, prototyping, etc. FY 2025 Plans: No funds requested. FY 2026 Plans: No funds requested. FY 2025 to FY 2026 Increase/Decrease Statement: N/A					
Accomplishments/Planned Programs Subtotals				3.568	0.000
D. Other Program Funding Summary (\$ in Millions) N/A Remarks					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force / BA 6: RDT&E Management Support		R-1 Program Element (Number/Name) PE 1203622SF / Space Warfighting Analysis
E. Acquisition Strategy N/A		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force</i> / BA 6: <i>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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	253.786	263.288	269.162	0.000	269.162	-	-	-	-	-	-
664280: <i>SMC Civilian Pay</i>	0.000	253.786	263.288	269.162	0.000	269.162	-	-	-	-	-	-

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 1,611 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.

The FY 2026 request was reduced by 35.694M for civilian personnel to optimize the workforce in compliance with Executive Order 14210, "Implementing the President's Department of Government Efficiency Workforce Optimization Initiative."

This program element includes a transfer of 12.310M and 65 full-time equivalents to SSC to support USSF acquisition workforce realignment objectives.

In FY 2026 269.162M is forecasted to expend for civilian pay expenses in this program element.

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 2026 Air Force				Date: June 2025	
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	258.969	274.424	280.277	0.000	280.277
Current President's Budget	253.786	263.288	269.162	0.000	269.162
Total Adjustments	-5.183	-11.136	-11.115	0.000	-11.115
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-5.183	-11.136			
• 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	-11.115	0.000	-11.115
Change Summary Explanation					
FY 2025: -11.136M Congressional directed reduction due to under execution.					
FY 2026: -35.694M Reduction due to workforce optimization in compliance with Executive Order 14210 Implementing the President's Department of Government Efficiency Workforce Optimization Initiative					
FY 2026: +24.579 Increase due to adjustments in civilian pay raise assumptions, database corrections, and realignment of funding and manpower transferred with the Satellite Operations Mission from the United States Army					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
664280: SMC Civilian Pay	0.000	253.786	263.288	269.162	0.000	269.162	-	-	-	-	-	-
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 1,611 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 2026 projection is 269.162M. The projection is sufficient based on End-Strength, premium pay, performance, awards, and projected hires.

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

	FY 2024	FY 2025	FY 2026
Title: SSC Acquisition Workforce	253.786	263.288	269.162
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 2025 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 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 2025 to FY 2026 Increase/Decrease Statement:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2026: increase due to adjustment in civilian compensation costs were made as a result of detailed execution and cost factor analysis to more accurately forecast budget estimates and apply changes in economic assumptions such as pay raises, awards, and benefits. Includes the transfer of 12.310M and 65 full-time equivalents to SSC to support USSF acquisition workforce realignment objectives. Includes the transfer of 12.310M and 65 full-time equivalents to SSC to support USSF acquisition workforce realignment objectives.				
Accomplishments/Planned Programs Subtotals		253.786	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 2026 Air Force	Date: June 2025

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 / Space & Missile Systems Center - MHA

COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	15.053	12.867	15.356	0.000	15.356	-	-	-	-	-	-
664280: SMC Civilian Pay	0.000	15.053	12.867	15.356	0.000	15.356	-	-	-	-	-	-
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 2026 15.356 is forecasted to expense for civilian pay expenses in this program element.

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.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>FY 2026 Base</u>	<u>FY 2026 OOC</u>	<u>FY 2026 Total</u>
Previous President's Budget	13.694	12.867	13.134	0.000	13.134
Current President's Budget	15.053	12.867	15.356	0.000	15.356
Total Adjustments	1.359	0.000	2.222	0.000	2.222
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	1.359	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	2.222	0.000	2.222

Change Summary Explanation

FY 2024: Congressional DAF requested 1.359M realignment for Space Force Research and Development, Test, and Evaluation Civilian Pay

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025	
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 1206398SF / <i>Space & Missile Systems Center - MHA</i>		
FY 2026: Increase due to Civilian Pay raise assumption adjustments.			
C. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026
Title: SSC - Major Headquarters Activities 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 2025 Plans: Provide professional government civilian acquisition workforce in support of all Space Systems Command Management Headquarters Activities. FY 2026 Plans: Provide professional government civilian acquisition workforce in support of all Space Systems Command Management Headquarters Activities. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026: Increase due to Civ Pay reprice.	15.053	12.867	15.356
Accomplishments/Planned Programs Subtotals	15.053	12.867	15.356
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 2026 Air Force	Date: June 2025

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>											
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	110.598	0.000	110.598	-	-	-	-	-	-
664111: <i>SSC Enterprise Engineering & Integration</i>	0.000	0.000	0.000	110.598	0.000	110.598	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 6, PE 1206399SF, project 664111, Space Futures, is a new start.

FY 2026: a total of 110.598M was realigned and consolidated from multiple Space Systems Command (SSC) PEs into this new PE 1206399SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office (SSIO) enterprise engineering support. It is not a New Start.

A. Mission Description and Budget Item Justification

In 2021, the Space Force stood up Space Systems Command (SSC), including establishing the SSIO. In July 2024, the Assistant Secretary of the Air Force for Space Acquisition and Integration (ASAF) broadened SSIO's mission and designated SSIO as the responsible organization for integration across all Space Force Program Executive Officer (PEO) portfolios to include SSC, Space Development Agency (SDA), and the Space Rapid Capabilities Office (SpRCO). In April 2025, the ASAF also appointed the Senior Advisor to the Service Acquisition Executive, 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 space enterprise system-of-systems engineering across the space acquisition enterprise and is responsible to drive engineering and assess all acquisition efforts under the authority of the ASAF portfolio and applicable mission partner organizations, to include the advisement of the SAE on matters of enforcement needed to enable and drive integrated enterprise capability delivery. The SASC2I is responsible for conducting oversight of all acquisition efforts within the authority of the ASAF 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 conducts systems engineering analysis and integration for space programs and vastly increases collaboration across the entire USSF space enterprise to deliver fully integrated space warfighting capability.

SSIO orchestrates end-to-end capability delivery and warfighter operations across all Space Force PEOs, Space Force Field Commands, Combatant Commands, and mission partners such as Department of the Air Force Rapid Capabilities Office (DAFRCO), the Missile Defense Agency (MDA), and the National Reconnaissance Office (NRO), and advises the ASAF on strategy to optimize 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) program 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 across the USSF and deliver a cohesive warfighting technical baseline for the Nation. The second is Enterprise Technical Governance and Requirements management. The third is Space Futures which will define the future operating environment, prioritize science and technology initiatives, and wargaming required to refine operational concepts.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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				
This program element may include necessary civilian pay expenses required to manage, execute, and deliver SSIO enterprise system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 1206392SF and 1206398SF.						
FY 2026: Reduces contracts 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		0.000	0.000	0.000	0.000	0.000
Current President's Budget		0.000	0.000	110.598	0.000	110.598
Total Adjustments		0.000	0.000	110.598	0.000	110.598
• 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		0.000	0.000			
• Other Adjustments		0.000	0.000	110.598	0.000	110.598
Change Summary Explanation						
FY 2026: a total of 110.598M was realigned and consolidated from multiple Space Systems Command (SSC) PEs into this new PE 1206399SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office (SSIO) enterprise engineering support. It is not a New Start.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Enterprise Mission Integration and Analysis				-	-	85.571
Description: Enterprise Mission Integration and Analysis assesses and validates the USSF's ability to close on 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 4+ operational scenarios needed for mission effects as identified in Combatant Commanders' Operational Plans using 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 PEO acquisitions to meet warfighter needs. This synchronizes the USSF's existing, programmed, and objective architectures to provide combat capabilities. It includes modeling and simulation tools, multi-level security data						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) architecture, and subject matter expertise for analysis, communication, and collaboration across the space enterprise. This includes 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. 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. It also identifies and advocates for critical technologies, industrial base capabilities, and active supply chain risk management. This effort provides requirements and governance to maintain an integrated USSF Digital Ecosystem (interoperable and networked cloud, tools, data, machines, and users) in partnership with USSF programs, which is essential to execute the above activities. 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 enterprise integration of these systems also require 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, DoD Architecture Framework (DoDAF) 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 C5ISRT, 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 a t the		FY 2024	FY 2025	FY 2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) Combined Space Operations Center (CSpOC) to enable timely and effectively delivery 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 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased by 107.546M due to consolidation of funding from multiple Space Systems Command (SSC) PEs into a new PE 1206399SF for increased transparency and efficient execution of the Space Systems Integration Office (SSIO). FY 2026: -17.939M; Federally Funded Research and Development Center (FFRDC) and Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."		FY 2024	FY 2025	FY 2026
Title: Enterprise Technical Governance and Requirements Description: SSIO is the integrator of the space warfighting enterprise, in order to increase resiliency, interoperability, and affordability. Enterprise Technical Governance and Requirements coordinates and executes Configuration Control Boards using a SoSE process to set and enforce enterprise standards, system-to-system interfaces, and requirements to efficiently and effectively integrate the USSF space and ground architectures and enable rapid integration of innovative commercial, international, and allied technologies and capabilities into an open systems architecture. This includes integrating the space component of the C3BM program. This also includes end-to-end testing, assessment and evaluation. This process demands a continuous cycle of developing and refining requirements—spanning individual missions to cross-cutting programs—informed by mission thread analysis findings and the evolving needs of warfighters facing emerging threats. 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		-	-	20.274

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased 25.480 M due to consolidation of funding from multiple Space Systems Command (SSC) PEs into a new PE 1206399SF for increased transparency and efficient execution of the Space Systems Integration Office (SSIO). FY 2026: -17.939M; Federally Funded Research and Development Center (FFRDC) and Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."				
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 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.		-	-	4.753
FY 2026 Plans: 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.				
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased 5.974M due to consolidation of funding from multiple Space Systems Command (SSC) PEs into a new PE 1206399SF for increased transparency and efficient execution of the Space Systems Integration Office (SSIO). FY 2026: -17.939M; Federally Funded Research and Development Center (FFRDC) and Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."				
Accomplishments/Planned Programs Subtotals		-	-	110.598

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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		
D. Other Program Funding Summary (\$ in Millions) N/A		
Remarks		
E. Acquisition Strategy SSIO will leverage existing SSC competitive Advisory & Assistance Services contracts, Federally Funded Research and Development Centers, and University Applied Research Centers. If an existing contract period of performance ends, SSIO intends to award future work using competitive contracts as much as possible or leverage other existing contracts, when applicable.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	139.894	229.665	189.083	0.000	189.083	-	-	-	-	-	-
660191: <i>660191 - Space Systems Operational Test & Eval</i>	0.000	9.535	27.051	42.374	0.000	42.374	-	-	-	-	-	-
664597: <i>664597 - Professional Test Workforce</i>	0.000	108.532	5.912	4.874	0.000	4.874	-	-	-	-	-	-
664598: <i>664598 - National Space Test and Training Complex (NSTTC)</i>	0.000	21.827	196.702	141.835	0.000	141.835	-	-	-	-	-	-

Note

Project 664598 - In FY 2025, this project was re-characterized as a standalone NSTTC project for funding traceability purposes and consolidation of all NSTTC investments.

A. Mission Description and Budget Item Justification

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, acquisitions, and operations of the National Space Test and Training Complex (NSTTC).

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 Defense (DoD) 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, acquisitions, operations, and associated activities as part of the NSTTC to develop, integrate, operate, and sustain the minimum technical capabilities required to test and evaluate the performance and survivability of critical DoD 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.

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 2026 Air Force				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		PE 1206759SF I Major T&E Investment - Space			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	146.797	229.665	217.859	0.000	217.859
Current President's Budget	139.894	229.665	189.083	0.000	189.083
Total Adjustments	-6.903	0.000	-28.776	0.000	-28.776
• Congressional General Reductions	-0.030	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	-1.500	0.000			
• SBIR/STTR Transfer	-5.373	0.000			
• Economic Assumptions	0.000	0.000	-28.776	0.000	-28.776
• Program Adjustments	0.000	0.000	0.000	0.000	0.000
Change Summary Explanation					
FY 2024 reprogramming of -1.500M to support Family of Advanced BLoS Terminals (FAB-T) C1203100SF.					
FY 2026 funding decrease of -16.585M reduces contracts for Advisory 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." FY 2026 funding decrease of -2.121M reduces Federally Funded Research Development Centers. Funding decrease of -637K is due Economic Assumptions. Funding is also reduced by -9.433M to fund higher priority efforts.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
660191: 660191 - Space Systems Operational Test & Eval	0.000	9.535	27.051	42.374	0.000	42.374	-	-	-	-	-	-
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 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 the 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, 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 2024	FY 2025	FY 2026	
Title: Space Systems Operational Test and Evaluation (OT&E)									9.535	27.051	42.374	
Description: Plan, execute and report OT&E for Space Systems												
FY 2025 Plans: Continue FY 24 Activities namely: Advanced Tracking Launch Analysis System: Conduct IOT&E, Conduct Space C2 Cyber Test (Adversarial Assessment) COBRA DANE: Complete FOT&E Deep Space Advanced Radar Capability (DARC): Conduct Cyber Test (Cooperative Vulnerability Penetration Assessment) Enhanced Polar System - Recapitalization: Conduct IOT&E Evolved Strategic SATCOM (ESS): Conduct early influence Family of Beyond Line-of-Site Terminals (FAB-T): Conduct IOT&E												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Force Element Terminal: Conduct OA-2 Future Operational Resilient Ground Evolution - Conduct MTA Geosynchronous Space Surveillance Awareness Program 7/8: Conduct FOT&E, Conduct Cyber OT (Adversarial Assessment) GPS IIIF - Conduct early influence Iris: Conduct IOT&E Joint Tactical Ground Station (JTAGS): Prepare for FOT&E Military GPS User Equipment (GPS MGUE): Conduct IOT&E Mobile AEHF Terminal: Conduct early influence Missile Defense System - Conduct MOT&E GPS Next Generation Control Segment (GPS OCX): Conduct MOT&E Proliferated Warfighter Satellite Architecture: Complete IOT&E Long-Range Discrimination Radar (LRDR): Conduct FOT&E Next-Generation Overhead Persistent Infrared (Next-Gen OPIR): Conduct Cyber Test (Cooperative Vulnerability Penetration Assessment) Presidential and National Voice Conferencing: Complete MOT&E Protected Tactical SATCOM - Conduct MTA Space Based Infrared System (SBIRS): Conduct OUE SBIRS Survivable Endurable Evolution (S2E2): Conduct FDE, Conduct Cyber Test (Adversarial Assessment) SureFire: Conduct IOT&E Space Fence: Conduct early influence Weather Satellite Follow-on Microwave - Complete MOT&E Conduct other planning and Operational testing for new Space System programs as the requirement becomes known to USSF. 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 Future Operational Resilient Ground Evolution (FORGE): Conduct MTA GPS IIIF: Conduct early influence Mobile AEHF Terminal: Conduct operations demonstration			
		FY 2026	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 increase of 15.323M caused by reorganization of projects within the program element as well as Program plus-up due to increases in STARCOM test program requirements; additional requirements for survivability testing, integrated system end to end, tactics and training system testing, increased test rigor required for all programs, heightened cyber testing requirements, and expanded management requirements to support the programs at Delta and Headquarters (HQ) levels.			
Accomplishments/Planned Programs Subtotals		9.535	27.051
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 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F / 6					R-1 Program Element (Number/Name) PE 1206759SF / Major T&E Investment - S pace				Project (Number/Name) 664597 / 664597 - Professional Test Workforce			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
664597: 664597 - Professional Test Workforce	0.000	108.532	5.912	4.874	0.000	4.874	-	-	-	-	-	-
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 2024	FY 2025	FY 2026	
Title: Professional Test Workforce									108.532	5.912	4.874	
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 2025 Plans: -In conjunction with USAF TPS, continue to develop a year-long, degree granting, professional STC to produce Guardians with the necessary expertise in robust survivability testing, procedure validation, full-envelope characterization, and system performance validation.												
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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decrease of -1.038M caused by reduction in contracts for Advisory 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."												
Accomplishments/Planned Programs Subtotals									108.532	5.912	4.874	
C. Other Program Funding Summary (\$ in Millions)												
N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
Appropriation/Budget Activity 3620F / 6	R-1 Program Element (Number/Name) PE 1206759SF / Major T&E Investment - S pace	Project (Number/Name) 664597 / 664597 - Professional Test Workforce
C. Other Program Funding Summary (\$ in Millions)		
<u>Remarks</u> Formerly titled Space Force Test Investments		
<u>D. Acquisition Strategy</u> N/A		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
664598: 664598 - National Space Test and Training Complex (NSTTC)	0.000	21.827	196.702	141.835	0.000	141.835	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
Provide space warfighters 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)									FY 2024	FY 2025	FY 2026	
Title: NSTTC									21.827	196.702	141.835	
Description: Supports the development of the 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. Include development, demonstration, and continuous delivery test and training, hardware and software that yield the capabilities required to test, validate, and verify performance of integrated space systems and Guardians that operate and train 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.												
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 Electronic 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.												
Digital Test & Training: In concert with Program Element 1203174SF, Project 674671 (Enterprise Training Services Development Project), delivers digital environments, connectivity, and cradle-to-grave Modeling and Simulation (M&S) to enable operational test, operator training and tactics development in USSF and Joint exercises, and wargaming. Consists of framework, applications, physical hardware, simulation, and data management needed to support operational test and training needs.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
Appropriation/Budget Activity 3620F / 6	R-1 Program Element (Number/Name) PE 1206759SF / <i>Major T&E Investment - Space</i>	Project (Number/Name) 664598 / <i>664598 - National Space Test and Training Complex (NSTTC)</i>
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024
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 the 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 2025 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 C3, terminal, data generation systems - Continue support to warfighting community of 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 - Begin development of digital range operations capabilities via Commercial Solutions Openings (CSOs) 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 C3, terminal, data generation systems - Continue support to warfighting community of 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 DoD 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.		FY 2025
		FY 2026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
- Continue development of digital range operations via CSOs				
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decrease of -54.867M based on planned development and fielding activities in the program baselines within the Maj T&E portfolio, as well as efficiencies in alignment with Executive Order 14222.				
Accomplishments/Planned Programs Subtotals		21.827	196.702	141.835
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 2026 Air Force **Date:** June 2025

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support					PE 1206860SF I Rocket Systems Launch Program (SPACE)							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	42.576	35.134	19.857	0.000	19.857	-	-	-	-	-	-
661023: Rocket System Launch Program (RSLP)	0.000	42.576	35.134	19.857	0.000	19.857	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Rocket Systems Launch Program (RSLP) provides responsive space and Research, Development, Test and Evaluation (RDT&E) launch vehicle support to DoD 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 DoD 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 non-Space Force 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 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. In PY \$0.0M was expended for civilian pay expenses in this program element, and in CY \$0.180M is forecasted for civilian pay expenses in this program element.

The FY 2026 request was reduced by \$0.195 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)				
3620F: Research, Development, Test & Evaluation, Space Force I BA 6: RDT&E Management Support		PE 1206860SF I Rocket Systems Launch Program (SPACE)				
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		18.023	20.134	20.123	0.000	20.123
Current President's Budget		42.576	35.134	19.857	0.000	19.857
Total Adjustments		24.553	15.000	-0.266	0.000	-0.266
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		0.000	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		25.000	15.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-0.447	0.000			
• Other Adjustments		0.000	0.000	-0.266	0.000	-0.266
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						
FY2024: +\$25.0M program increase-state launched range services and capabilities						
FY2025: +\$15.0M program increase-state launched range services and capabilities						
FY2026: -\$0.195M reduction in Advisory and Assistance Services						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Storage/Refurbishment/Flight Readiness/Demil				14.742	16.470	16.044
Description: Storage, refurbishment, inventory control, and demil/disposal of decommissioned Minuteman, Peacekeeper and other missile flight test assets						
FY 2025 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						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) 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 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased to capture cost savings.		FY 2024	FY 2025	FY 2026
Title: Aging Surveillance Description: Perform aging surveillance-related activities on stored motors FY 2025 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 2026 Plans: 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased for additional demil.		2.193	2.700	3.311
Title: Other Launch Support Services Description: Perform Launch Services Activities FY 2025 Plans: Continue launch vehicle acquisition, processing, launch services support including responsive launch, mission assurance, reliability of flight and operations to launch RDT&E payloads.		0.900	0.964	0.502

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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>			
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	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, prototyping, and activities that may leverage commercial and international opportunities. FY 2026 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased to capture cost savings.				
Accomplishments/Planned Programs Subtotals		17.835	20.134	19.857
		FY 2024	FY 2025	
Congressional Add: State Launched Range Services FY 2024 Accomplishments: Improved 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 2025 Plans: 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.		24.741	15.000	
Congressional Adds Subtotals		24.741	15.000	
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 2026 Air Force **Date:** June 2025

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	29.121	30.279	28.787	0.000	28.787	-	-	-	-	-	-
662617: Free-Flyer Spacecraft Missions	0.000	29.121	30.279	28.787	0.000	28.787	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

America secures peace through strength, and that strength is built on an unyielding technological edge in space - an edge forged through strategic investments in the Department of Defense's (DoD) Space Test Program (STP). As the DoD's primary gateway for space experimentation to lead to space superiority, STP is a critical enabler of national security and a direct investment in deterring adversaries like China. The DoD Space Experiments Review Board (SERB) is central to STP's mission, conducting a rigorous annual review to evaluate and prioritize space experiment proposals. After being reviewed by the SERB, STP provides these cutting-edge technologies with rapid access to the demanding environment of space, accelerating their maturation into operational capabilities. This ensures our troops maintain a decisive advantage across all domains by:

- Providing Access for Rigorous Testing and Evaluation: STP enables space access to test technologies, raise Technology Readiness Levels, and validate research.
- Ensuring Warfighter Relevance: Through the DoD SERB prioritization, STP focuses on space technologies with direct military applications, benefiting warfighters across all domains.
- Developing Future Operational Capabilities: STP matures promising space technologies into operational systems, strengthening the United States Space Force and ensuring its advantage.
- Fostering Cross-Service Collaboration and Innovation: STP, DoD's space experimentation hub, fosters cross-service/agency collaboration, aligning tech priorities and minimizing redundancy.
- Maximizing Value Through Collaboration: STP partners with government, commercial, and international entities to maximize taxpayer value, broaden space access, and optimize launch opportunities.

STP adheres to Executive Orders 10521 and 13185, and the requirement from the Office of the Under Secretary of Defense for Research and Engineering (OUSD (R&E)) to support research, per DoD Instruction 3210.1, Administration and Support of Basic Research. In addition, the Deputy Secretary of Defense Space Test Program Management & Funding Policy, issued in July 2002, reaffirmed STP as the primary provider of spaceflight for the DoD space research community. The July 2002 policy statement also reaffirmed STP's role as the single manager for all DoD payloads on the International Space Station (ISS).

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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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)				
The FY 2026 request was reduced by \$0.283M 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		30.192	30.279	29.833	0.000	29.833
Current President's Budget		29.121	30.279	28.787	0.000	28.787
Total Adjustments		-1.071	0.000	-1.046	0.000	-1.046
• 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		-1.071	0.000			
• Other Adjustments		0.000	0.000	-1.046	0.000	-1.046
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Payload Integration				19.957	16.060	16.887
Description: Integrate payloads onto spaceflight missions on the full spectrum of DoD on-orbit R&D (e.g. space vehicle, free-flyer payloads, hosted payloads, etc.). Includes acquisition of associated spacecraft and integration hardware.						
FY 2025 Plans: Manage integration and launch preparations for STP-S29A, to include STPSat-7 delivery, carrying 13 DoD experiments. Begin hardware integration activities for STP-H11 mission. Capitalize on the advanced readiness of the payload and launch vehicle and accelerate the STP-S30 mission to demonstrate military utility in the underutilized Very Low Earth Orbit domain. Leverage new opportunities, such as the Strategic Funding Increase (STRATFI) with K2 Space on their Gravitas demonstration. STP-5 will continue integration in FY 2025. This includes readying a next-gen refuellable propulsion unit, high-energy radiological detection capabilities, space-based power transmittal technologies, and the Rigel payloads. Continue STPSat-8 manifest activities on commercially available spacecraft acquired through the Space Test Experiment Platform (STEP) 2.0 Indefinite Duration/ Indefinite Quantity (ID/IQ) contract vehicle. Begin planning for International Space Station (ISS) transition to commercial space stations. 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,						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities. 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. Continue STPSat-8 manifest and begin integration activities. Begin planning and manifesting activities for STPSat-9. Continue to work with Tetra-6 program to finish integration of payload onto the host vehicle. 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, prototyping, and activities that may leverage commercial and international opportunities. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increase of \$0.827M is driven by the STPSat-8 manifest and beginning integration activities and to begin planning and manifesting activities for STPSat-9.		FY 2024	FY 2025	FY 2026
Title: Launch Vehicle and Launch Services Description: Purchase launch services, launch vehicles, and launch vehicle support for the full spectrum of DoD 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 (SSC) and United States Space Force (USSF) HQ. FY 2025 Plans: Deliver STP-H10 mission for launch to International Space Station (ISS). Support launch of Navigation Technology Satellite (NTS)-3 on USSF-106. Ensure responsible space operations through rigorous mission analysis to meet stringent space-flight worthiness and "Do No Harm" standards, verifying they won't contribute to dangerous space debris or interfere with satellites. Drive launch campaign readiness of Space Test Program (STP) missions through close collaboration and engagement with all stakeholders through rehearsals and exercises, including oversight of payload processing and integration with launch vehicles. Begin acquisition of specialized launch hardware for STP-5. Initiate and execute launch campaigns for commercial rideshare opportunities on accelerated timelines to maximize mission value and responsiveness. FY 2026 Plans: Continue to Support spaceflight worthiness and "Do No Harm" Certification. Execute STP-S29A, STP-S29B, and other small launch initiatives as required. Continue STP-5 medium launch initiative. Plan and complete technical analysis for commercial rideshare launch of DoD Space Experiments Review Board (SERB) experiments and ISARB-approved experiments. Complete		7.164	12.690	9.900

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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)		FY 2024	FY 2025	FY 2026
STPSat-7 (via STP-S29A), STP-30, K2 Gravitas, STP-H10, and STP-H11 launch activities and conduct other launch activities as required.				
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decrease of \$2.790M is due to USSF-106 (NTS-3) and STP-H10 launching in FY 2025.				
Title: On-Orbit Satellite Operations Description: Execute first-year operations and operations support for STP-sponsored missions.		2.000	1.529	2.000
FY 2025 Plans: Ensuring readiness and begin support to Navigation Technology Satellite (NTS)-3 operations. Complete on-orbit operations for experiments on ISS exterior, such as Air Force Research Laboratory's (AFRL) SPIRRAL. Continue on-going operations for ISS payloads and DoD SERB payloads as requested. Complete Mission Operations for STP-H9, Initiate and conduct on-orbit operations for STP-H10, STPSat-7 and STP-S29A. Prepare on-orbit operations for free-flying experiments like Space System Command's EPIC ATHENA & AFRL's Tracker Prime.				
FY 2026 Plans: Continue NTS-3 operations. Continue on-going operations for ISS payloads and DoD SERB payloads as requested. Complete on-orbit operations for STP-H10, STPSat-7 and STP-S29A. Prepare on-orbit operations for STP-5 payloads, such as Naval Research Laboratory's SIRI-III and AFRL's PUMA. Initiate on-orbit operations for K2 Gravitas mission.				
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increase of \$0.471M is tied to the on-orbit operations for NTS-3.				
Accomplishments/Planned Programs Subtotals		29.121	30.279	28.787
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy STP employs a multi-faceted acquisition strategy designed to maximize taxpayer dollars, cultivate a dynamic space industrial base, and leverage the strengths of government, commercial, and academic partners. This includes competitively awarding contracts for essential services and capabilities. For example, STP utilizes the competitively awarded DoD Human-rated Payload Support Task Order (DHSTO) on National Aeronautics and Space Administration's (NASA) Research, Engineering & Mission Integration Services (REMIS) contract to enable access to the International Space Station (ISS) and other NASA programs. Looking ahead, STP will conduct acquisition activities to award a follow-on task order for NASA's REMIS-2 contract. STP will competitively award Delivery Orders on the STEP 2.0 contract				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force / BA 6: RDT&E Management Support	R-1 Program Element (Number/Name) PE 1206864SF / Space Test Program (STP)	
for commercial host spacecraft acquisition, payload integration, and on-orbit support. STP is actively exploring additional innovative contracting mechanisms, such as AFWERX's Strategic Funding Increase (STRATFI), to leverage commercial investment and maximize the impact of government funding. Furthermore, STP actively seeks opportunities to collaborate with partners like the Air Force Research Lab (AFRL), leveraging existing contracts such as the Research and Development Integrated Space Experiments (RISE) and the Defense Innovation Unit (DIU) Other Transition Authority (OTA) contracts to avoid duplication of effort and accelerate technology development. This strategic approach, combining competitive awards with strategic partnerships, ensures STP can efficiently and effectively deliver on its mission of advancing U.S. space capabilities.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	18.451	0.000	18.451	-	-	-	-	-	-
670220: Datalake & UI/UX Development	0.000	0.000	0.000	18.451	0.000	18.451	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note This program, BA 7, PE 1201212SF, project 670220, Datalake and UI/UX Development, is a new start.												
A. Mission Description and Budget Item Justification "This is a new start and 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. In December 2023 the 2024 National Defense Authorization Act established the Space Force Personnel Management Act, a five-year term for USSF to define and implement policy, process, and system actions for a single component USSF that defines all Guardians in one of two statuses: fulltime or parttime. The CSO has directed SF/S1, with the support of SAF/SQ, to undertake the task of researching various pathways and start early development and testing of an optimized platform for use by Guardians across the service. To meet the constrained timeline, SF/S1 has developed a novel solution utilizing existing AF/A1 structures to establish a flexible data layer using an agile approach to limit development cost and allow for a customizable modular solution. In the near term the CSO has expressed concern over the loss of critical human capital as members depart military service in favor of the private sector, with no ability to retain talent within a reserve component. As a solution, the CSO has directed the required mechanisms (policy, procedures, technology) be developed and put in place by 2026 to demonstrate ability to retain guardians in a part time posture with the option to return to full time status at a later date. To meet the intent of this directive, the SF/S1 has built a pilot program to be able to demonstrate a viable solution by overhauling the current Air Force HR data infrastructure to better automate and streamline the critical pathways and deliver the functionality needed to process Reservist into a component less part-time status by Jan 2026. In the out years, additional functionality will be delivered to the system in incremental sprints to solve the problem in an efficient solution space. Agile sprints allow for better accounting for cost schedule and performance metric tracking delivering a critical HR too to the force as quickly as possible. "												
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 2026 Air Force				Date: June 2025	
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)			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	18.451	0.000	18.451
Total Adjustments	0.000	0.000	18.451	0.000	18.451
• 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	18.451	0.000	18.451
C. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Title: Datalake and UI/UX Development	0.000	0.000	18.451	0.000	18.451
Description: Develop and prototype Datalake and UI/UX systems including studies, analyses, risk reduction, and technology maturation of human capital management sytems.					
FY 2025 Plans: N/A					
FY 2026 Base Plans: Conduct market research and evaluate available commercial technology's 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 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 2026 OOC Plans: N/A					
FY 2025 to FY 2026 Increase/Decrease Statement:					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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)				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Program increases to begin market research and integration studies for implementation of the USSF's Personnel Management Act.						
Accomplishments/Planned Programs Subtotals		0.000	0.000	18.451	0.000	18.451
D. Other Program Funding Summary (\$ in Millions) N/A						
Remarks						
E. Acquisition Strategy The acquisition strategy will require SAF/SQ approval.						

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
S1 Data Layer	Various	TBD : TBD	-	-		-		4.100		-		4.100	-	-	-
System Integrator	Various	TBD : TBD	-	-		-		8.151		-		8.151	-	-	-
Guardian Automation Layer	Various	TBD : TBD	-	-		-		6.200		-		6.200	-	-	-
Subtotal			-	-		-		18.451		-		18.451	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		18.451		-		18.451	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025					
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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
S1 Data Layer																												
1																												
Change Requests on Legacy DAF, OSD HR Sys																												
1																												
GAL Fly-Off Effort																												
1																												
Integrator Source Selection																												
1																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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
S1 Data Layer				
1	1	2026	3	2027
Change Requests on Legacy DAF, OSD HR Sys				
1	1	2026	3	2027
GAL Fly-Off Effort				
1	3	2025	1	2027
Integrator Source Selection				
1	1	2026	1	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	100.126	2.607	0.303	0.000	0.303	-	-	-	-	-	-
673035: Presidential and National Voice Conferencing	0.000	35.319	2.003	0.303	0.000	0.303	-	-	-	-	-	-
673040: Force Element Terminal	0.000	64.807	0.604	0.000	0.000	0.000	-	-	-	-	-	-
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.												
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 Defense (DoD) 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.												
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 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.												

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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)				
The FAB-T - Force Element Terminal (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 FY24 \$0.000M was expended for civilian pay expenses in this program element, and in FY25 \$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.						
B. Program Change Summary (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		91.369	2.607	0.307	0.000	0.307
Current President's Budget		100.126	2.607	0.303	0.000	0.303
Total Adjustments		8.757	0.000	-0.004	0.000	-0.004
• 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		11.500	0.000			
• SBIR/STTR Transfer		-2.743	0.000			
• Other Adjustments		0.000	0.000	-0.004	0.000	-0.004
Change Summary Explanation						
FY 2026:\$-0.001M; Inflation Rate Adjustments						
FY 2026:\$-0.003M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment in alignment EO 14222 "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
673035: Presidential and National Voice Conferencing	0.000	35.319	2.003	0.303	0.000	0.303	-	-	-	-	-	-
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Title: PNVC Integrator	35.319	2.003	0.303	0.000	0.303
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 2025 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 2026 Air Force							Date: June 2025				
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
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. Following conclusion of Multi-Service Operational Test and Evaluation (MOT&E), PNVC will conclude software maturation. Software maturation will now extend into FY 2026. FY 2026 Base 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. 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 2026 OOC Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: Activities decrease FY 2025 to FY 2026 as the program prepares for Initial Operational Capability, followed by Full Operational Capability shortly after, and transition to sustainment.											
Accomplishments/Planned Programs Subtotals						35.319	2.003	0.303	0.000	0.303	
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete / Total Cost	
• SPSF 01 FBLOST FAB-T: FAB-T	21.749	15.589	13.693	-	13.693	-	-	-	-	- / -	

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025	
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			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cos
• SPSF 01 FBLOST PNVC: FAB-T	3.308	1.675	1.711	-	1.711	-	-	-	-	-	-
• SPSF 01 FET000: FAB-T	103.184	210.155	0.000	-	0.000	-	-	-	-	-	-
• RDTE 07 FET: FAB-T	64.807	0.604	0.000	-	0.000	-	-	-	-	-	-
• RDTE 07 FAB-T CPT: FAB-T	0.000	0.000	0.000	-	0.000	-	-	-	-	-	-
• RDTE 07 FAB-T FET:	-	-	67.793	-	67.793	-	-	-	-	-	-
Minimum Essential Emergency Communications Network (MEECN)											
• APAF 05 CVR000: FAB-T FET	-	-	79.836	-	79.836	-	-	-	-	-	-
Remarks											
*FY 2024 increase of \$10.692M is due to Below Threshold Reprogramming (BTR) of funding from Space Force (PE 1206759S / Project 664598 / Appropriation 3620 / Research, Development, Test, and Evaluation) and Space Force (PE 1203109SF / Project 6731090 / Appropriation 3620 / Research, Development, Test, and Evaluation) to Space Force (PE 1203001SF / Project 673035 / Appropriation 3620 / Research, Development, Test, and Evaluation) to support the continued Prime Contract Product Development of PNVC and prevent a work stoppage. \$10.692M is incorrectly displayed in FET Space Force (PE 1203001SF / Project 673040 / Appropriation 3620 / Research, Development, Test, and Evaluation)											
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 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	22.569	Oct 2023	1.503	Oct 2024	-		-		-	-	-	-
PNVC Technical Mission Analysis	Various	Various : Various	-	3.000	Oct 2023	-		-		-		-	-	-	-
PNVC Enterprise SE&I	Various	Various : Various	-	3.100	Oct 2023	-		-		-		-	-	-	-
Subtotal			-	28.669		1.503		-		-		-	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 Government Test and LDTO Support	Various	Various : Various	-	0.500	Oct 2023	-		-		-		-	-	-	-
Subtotal			-	0.500		-		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	2.900	Nov 2023	-		-		-		-	-	-	-
PNVC A&AS	Various	Various : Various	-	2.000	Nov 2023	0.500	Nov 2024	0.303	Nov 2025	-		0.303	-	-	-
PNVC Other Support	Various	Various : Various	-	1.250	Nov 2023	-		-		-		-	-	-	-
Subtotal			-	6.150		0.500		0.303		-		0.303	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	35.319		2.003		0.303		-		0.303	-	-	N/A
Remarks															
*FY 2024 increase of \$10.692M is due to Below Threshold Reprogramming (BTR) of funding from Space Force (PE 1206759S / Project 664598 / Appropriation 3620 / Research, Development, Test, and Evaluation) and Space Force (PE 1203109SF / Project 6731090 / Appropriation 3620 / Research, Development, Test, and Evaluation)															

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force							Date: June 2025			
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				
	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract	
to Space Force (PE 1203001SF / Project 673035 / Appropriation 3620 / Research, Development, Test, and Evaluation) to support the continued Prime Contract Product Development of PNVC and prevent a work stoppage. \$10.692M is incorrectly displayed in FET Space Force (PE 1203001SF / Project 673040 / Appropriation 3620 / Research, Development, Test, and Evaluation)										

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Multi-Service Operational Test & Evaluation																												
Training/Installation and Checkout																												
Software Maturation																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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>				
Multi-Service Operational Test & Evaluation	3	2024	3	2025
Training/Installation and Checkout	1	2024	4	2026
Software Maturation	4	2024	4	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
673040: Force Element Terminal	0.000	64.807	0.604	0.000	0.000	0.000	-	-	-	-	-	-
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Title: FAB-T FET								64.807	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 2025 Plans: Funding is for the continued development of FETs. FAB-T FET integration and testing activities will include reliability growth testing and fabrication of test assets; prototype and test terminals will support terminal security, environmental, and functional testing, to include flight testing, and early integration efforts.												
Planning and support activities will continue, including qualification test planning, logistics support planning, risk reduction activities for development and follow-on production, technical analysis and studies, platform integration support, program office support, and mitigations for Diminishing Manufacturing Sources and Material Shortages in preparation for terminal production.												
FY 2026 Base Plans: N/A												
FY 2025 to FY 2026 Increase/Decrease Statement:												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025	
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			
B. Accomplishments/Planned Programs (\$ in Millions)							FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
FAB-T FET was transferred from the Space Force to the Air Force. Space Force funding for FAB-T FET in FY 2026 is zero.											
Accomplishments/Planned Programs Subtotals							64.807	0.604	0.000	-	0.000
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPSF 01 FBLOST FAB-T: FAB-T	21.749	15.589	13.693	-	13.693	-	-	-	-	-	-
• SPSF 01 FBLOST PNVC: FAB-T	3.308	1.675	1.711	-	1.711	-	-	-	-	-	-
• SPSF 01 FET000: FAB-T	103.184	210.155	0.000	-	0.000	-	-	-	-	-	-
• RDTE 07 PNVC: FAB-T	35.319	2.003	0.303	-	0.303	-	-	-	-	-	-
• RDTE 07 FAB-T CPT: FAB-T	0.000	0.000	0.000	-	0.000	-	-	-	-	-	-
• RDTE 07 FAB-T FET:	-	-	67.793	-	67.793	-	-	-	-	-	-
Minimum Essential Emergency Communications Network (MEECN)											
• APAF 05 CVR000: FAB-T FET	-	-	79.836	-	79.836	-	-	-	-	-	-
Remarks											
*FY 2024 increase of \$10.692M is due to Below Threshold Reprogramming (BTR) of funding from Space Force (PE 1206759S / Project 664598 / Appropriation 3620 / Research, Development, Test, and Evaluation) and Space Force (PE 1203109SF / Project 6731090 / Appropriation 3620 / Research, Development, Test, and Evaluation) to Space Force (PE 1203001SF / Project 673035 / Appropriation 3620 / Research, Development, Test, and Evaluation) to support the continued Prime Contract Product Development of PNVC and prevent a work stoppage. \$10.692M is incorrectly displayed in FET Space Force (PE 1203001SF / Project 673040 / Appropriation 3620 / Research, Development, Test, and Evaluation)											
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											

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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
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 2026 Air Force												Date: June 2025			
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					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	36.264	Dec 2023	0.401	Dec 2024	-		-		-	-	-	-
FAB-T FET Technical Mission Analysis	Various	Various : Various	-	1.000	Dec 2023	0.103	Dec 2024	-		-		-	-	-	-
FAB-T FET Enterprise SE&I	Various	Various : Various	-	0.100	Mar 2024	-		-		-		-	-	-	-
*Reprogrammed Funds	TBD	Not specified. : TBD	-	10.692		-		-		-		-	-	-	-
Subtotal			-	48.056		0.504		-		-		-	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	6.500	Dec 2023	0.100	Dec 2024	-		-		-	-	-	-
Subtotal			-	6.500		0.100		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 FFRDC	Various	Various : Various	-	4.250	Dec 2023	-		-		-		-	-	-	-
FAB-T FET Other Support	Various	Various : Various	-	3.501	Dec 2023	-		-		-		-	-	-	-
FAB-T FET A&AS	Various	Various : Various	-	2.500	Jan 2024	-		-		-		-	-	-	-
Subtotal			-	10.251		-		-		-		-	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	64.807		0.604		-		-		-	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force							Date: June 2025		
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			
	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
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. *FY 2024 increase of \$10.692M is due to Below Threshold Reprogramming (BTR) of funding from Space Force (PE 1206759S / Project 664598 / Appropriation 3620 / Research, Development, Test, and Evaluation) and Space Force (PE 1203109SF / Project 6731090 / Appropriation 3620 / Research, Development, Test, and Evaluation) to Space Force (PE 1203001SF / Project 673035 / Appropriation 3620 / Research, Development, Test, and Evaluation) to support the continued Prime Contract Product Development of PNVC and prevent a work stoppage. \$10.692M is incorrectly displayed in FET Space Force (PE 1203001SF / Project 673040 / Appropriation 3620 / Research, Development, Test, and Evaluation)									

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
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			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
FAB-T Force Element Terminal Production																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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
<i>FET</i>				
FAB-T FET Development	1	2024	4	2025
FAB-T FET Prototype and Test Asset Testing	1	2024	4	2025
FAB-T Force Element Terminal Production	4	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 2026 Air Force	Date: June 2025

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							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	73.364	104.088	102.439	0.000	102.439	-	-	-	-	-	-
673070: <i>Defensive Cyber Ops - Space</i>	0.000	73.364	104.088	102.439	0.000	102.439	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Defensive Cyberspace Operations Space (DCO-S) provides defensive cyber capabilities that protect United States Space Force (USSF) mission systems, to include their associated computer systems, software applications and sensitive operational information against unauthorized intrusion, corruption, and/or destruction. The emphasis of the program is directed toward defensive cyberspace capabilities; computer and network systems security; damage assessment and recovery; cyber threat recognition, attribution, and mitigation; and active response methodologies to respond to evolving threats and changes to the cyber environment. These areas of emphasis are realized through research and development, test and acquisition in the areas of proactive defense, defensive counter cyberspace, cyberspace intelligence, surveillance and reconnaissance, command and control situational awareness, persistent network operations, as well as decision support, recovery, and digital forensics.

The development of DCO-S tools for the ground segment implements a combined Development/Security/Operations (DEVSECOPS) framework, using the Software Acquisition Pathway (SWP) Adaptive Acquisition Framework, which incorporates methodologies, technologies, and tools to deeply embed security best practices into the modern development workflow and tool-chain. This effort primarily institutes two product lines: Manticore (Detect & Identify) and Kraken (Protect & Respond). It will endeavor to identify shared/common platform, infrastructure, and data layer solutions to support open frameworks and architectures across the enterprise ground portfolio. Manticore and Kraken make use of open source and commercial tools to create the platform used to defend space mission systems with some of the content customized to address space-unique requirements such as protocol analytics. There are no commercial off-the-shelf solutions that address the threat to unique USSF systems, so tailored content is required to support the DCO-S mission..

DCO-S enables Space Delta (DEL) 6 and the mission Deltas to perform cyber-integrated space operations that identify, detect, protect against, respond to, and recover from malicious threats to space mission systems. These developments deploy both out-of-band (Manticore) and in-band (Kraken) cyber defense tool suites for the ground mission systems to Space Delta 6 (Cyber Ops) protecting the following mission sets: 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), and Command and Control Satellite Operations (C2 Sat Ops).

DCO-S software development must also increase and adapt to support software development to on-board classified mission systems and new data types not in the baseline software to keep pace with the cyber threat. DCO-S evolves Wide Area Network development to meet security, sustainment, and reach-back requirements for the USSF Cybersecurity Service Provider.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force / BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1203040SF / DCO-Space				
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.						
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		76.003	104.088	106.673	0.000	106.673
Current President's Budget		73.364	104.088	102.439	0.000	102.439
Total Adjustments		-2.639	0.000	-4.234	0.000	-4.234
• 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		-2.639	0.000	-4.234	0.000	-4.234
Change Summary Explanation						
FY 2024: -\$2.639M update for actuals						
FY 2026: -\$2.352M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.						
FY 2026: -\$1.012M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						
FY 2026: -\$0.870M; FFRDC reduction						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Defensive Cyberspace Operations - Space (DCO-S)				73.364	104.088	102.439
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 operational prototypes using agile development methods.						
FY 2025 Plans:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Expand deployment, development, tuning, and rapid prototype capabilities of DCO-S and field to 23 mission area locations (11 Manticore and 12 Kraken product lines) based on operational/user priorities; build, test, and deliver features at a faster pace to meet growing demands of cyber defenders. 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, Continuous Integration/Continuous Deployment (CI/CD), and test teams to provision, manage, optimize, and secure infrastructure on premise, begin development of cloud hosting environments, carry out software deployments, and validate the reliability of DCO-S features. Upgrade DCO-S databases, grow infrastructure support of existing codebase. Integrate and deploy required software changes mandated from commercial product suppliers due to baseline changes to functionality, end of manufacturing, end of support, or other necessary system changes. Standing up a service-wide help desk to support deployed locations and users of DCO-S. Transition from SWP Planning Phase into SWP Execution Phase, document and independently verify the DCO-S Minimum Viable Product (MVP) as required in SWP, to be tested and operationally accepted in FY 2026. Increase Systems Engineering & Integration (SE&I) support to ensure seamless data stream integration with each new on-boarded mission system. Through AFRL Cyber Research & Development, increase efforts to develop technical documentation, perform integration activities and tuning support, and develop initial plans for product support and sustainment. Increase overall deployment activities to on-board these additional mission systems, and emerging deployment requirements, at a faster pace to ensure all systems are protected sooner. Additional efforts will focus on implementing machine learning (ML) to increase the speed of threat detection and reduce the overall reaction time for defense of mission systems and identify and deliver automated testing. DCO-S software development efforts during the SWP Planning Phase have resulted in significant accomplishments to include 12 Agile Epics, 44 Features, 321 Stories, and 169 Tests currently underway. We have successfully delivered advanced threat detection systems, automated incident response, enhanced network security monitoring, and are planning to further enhance these on premises capabilities via cloud deployment to bring these capabilities to many users. Establish baseline for global space cybersecurity competition 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. Leverage other agencies' lessons learned and capability as it pertains to defending space systems and expand capability to defending space systems. Expand 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 when operationally tested in FY 2026. Maintain modern testing methodologies based on industry best practices; embed the 47th Test Squadron into the development workflow, toolchain and CI/CD framework and				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) provide cybersecurity test support and assessments of applications and environments. FFRDCs and other management services 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. Investigate space segment DCO-S tools needed for USSF space mission systems. Rapidly respond to threats and 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 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 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.		FY 2024	FY 2025	FY 2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decrease due to deployments in both out-of-band (Manticore) and in-band (Kraken) cyber defense tool suites to Space Delta 6 (Cyber Ops).				
Accomplishments/Planned Programs Subtotals		73.364	104.088	102.439
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 from Government labs as part of the DCO-S development activities.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	Various	Various : Various	-	22.824	Oct 2023	21.085	Oct 2024	25.574	Oct 2025	-		25.574	-	-	-
Cloud Hosting	Various	Various : TBD	-	0.244	Nov 2023	0.902	Nov 2024	1.500	Nov 2025	-		1.500	-	-	-
Product Line Integration	Various	Various : Various	-	26.131	Nov 2023	39.733	Nov 2024	40.168	Nov 2025	-		40.168	-	-	-
Systems Engineering/ Accreditation	Various	Various : Various	-	7.373	Oct 2023	6.344	Oct 2024	5.494	Oct 2025	-		5.494	-	-	-
Special Programs	Various	Various : TBD	-	1.584	Nov 2023	5.420	Nov 2024	4.977	Nov 2025	-		4.977	-	-	-
Technical Mission Analysis	Various	Various : Various	-	0.617	Oct 2023	0.600	Oct 2024	0.795	Oct 2025	-		0.795	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		2.721	Oct 2024	3.617	Oct 2025	-		3.617	-	-	-
Subtotal			-	58.773		76.805		82.125		-		82.125	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.279	Oct 2023	2.440	Oct 2024	2.508	Oct 2025	-		2.508	-	-	-
Subtotal			-	0.279		2.440		2.508		-		2.508	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	8.560	Nov 2023	12.110	Nov 2024	8.601	Nov 2025	-		8.601	-	-	-
A&AS	Various	Various : Various	-	5.517	Nov 2023	12.433	Nov 2024	8.895	Nov 2025	-		8.895	-	-	-
Other	Various	Various : Various	-	0.235	Oct 2023	0.300	Oct 2024	0.310	Oct 2025	-		0.310	-	-	-
Subtotal			-	14.312		24.843		17.806		-		17.806	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force											Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		-	73.364		104.088		102.439		-		102.439	-	-	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)			Project (Number/Name)				
3620F / 7					PE 1203040SF / DCO-Space			673070 / Defensive Cyber Ops - Space				

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
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	2024	4	2030
DCO-S Continuous Test and Deployments	1	2024	4	2030
DCO-S System Integration	1	2024	2	2029
DCO-S Software Integration	1	2024	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	204.862	160.351	201.654	421.847	0.000	421.847	-	-	-	-	-	-
673109: SATCOM MUOS	204.862	160.351	201.654	421.847	0.000	421.847	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Program MDAP/MAIS Code: 345												
A. Mission Description and Budget Item Justification												
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 Defense, 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 Defense Chief Information Officer assessment of anticipated narrowband satellite communication availability led to the Office of Under Secretary of Defense (OUSD) Acquisitions & Sustainment recommendation and OUSD Cost Assessment and Program Evaluation (CAPE) direction 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. This program element may include necessary civilian pay expenses required to manage, execute, and deliver the MUOS 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-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		230.785	228.435	449.286	0.000	449.286
Current President's Budget		160.351	201.654	421.847	0.000	421.847
Total Adjustments		-70.434	-26.781	-27.439	0.000	-27.439
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		-24.416	-26.781			
• 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		-6.508	0.000			
• Other Adjustments		-39.510	0.000	-27.439	0.000	-27.439
Change Summary Explanation						
FY 2024: -\$39.510M; Re-alignment to higher Space Force priorities						
FY 2026: -\$10.121M; Reduced MUOS SLE for fact-of-life under execution and program alignment.						
FY 2026: -\$9.687M; to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office capability delivery and industry engagement support respectively.						
FY 2026: -\$4.168M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Mobile User Objective System (MUOS) Baseline Upgrade				30.972	25.656	20.912
Description: System optimization and modernization to address the dynamic, worldwide electromagnetic and cybersecurity environment in which MUOS operates.						
FY 2025 Plans:						
Award follow-on ground segment modernization contract. Continue systems engineering, system optimization, cybersecurity updates, and Electro-magnetic 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. 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						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) 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. Continue E2E MUOS usability enhancements including terminal certification, integration, and test. Continue development of alternative Integrated Broadcast Service (IBS) solution to mitigate Legacy UHF communications shortfalls and integration and interoperability efforts with other DoD and commercial systems. FY 2026 Plans: Continue 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. 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 DoD and commercial systems. Field Digital Earth Terminal Interface (D-ETI) at remaining RAFs. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to baseline activity decrease, as ground segment updates will be replaced and modernized under the MUOS Service Life Extension activity.		FY 2024	FY 2025	FY 2026
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 2025 Plans: Complete satellite early design and risk reduction activities for up to two vendors. Activities include spacecraft design, interface control document development, and preparing and conducting systems requirements and tailored design reviews. 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 updates. Additional activities may include, but are not limited to program office support, Narrowband Analysis of Alternatives (AoA) follow-on studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities. FY 2026 Plans: Award contract to one vendor to complete MUOS SLE satellite final design, production, and integration activities. Conduct and complete the Preliminary Design Review (PDR) 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,		129.379	175.998	400.935

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025	
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) 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. 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. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 increased due to the contract award and ramp-up of SLE final design and production contract workforce and purchase long-lead items.	FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals	160.351	201.654	421.847

D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPSF 01 BA01 MUOS00: <i>Mobile User Objective System</i>	111.047	64.665	48.977	-	48.977	-	-	-	-	-	-
Remarks											
E. Acquisition Strategy Space Force will use existing MUOS 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. The approved acquisition strategy includes a competitive award between limited sources for the final design and production contract to one vendor in FY 2026. The Service Acquisition Executive approved the Justification and Approval for a follow-on sole source integrated ground contract with General Dynamics Missions Systems. The ground modernization activities will be performed on the existing MUOS Ground contract.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	24.485	31.647	Nov 2023	-		-		-		-	-	-	-
SLE Ground Engineering Follow-on Contract	SS/ Various	General Dynamics : Scottsdale, AZ	0.000	-		40.357	Nov 2024	81.389	Nov 2025	-		81.389	-	-	-
SLE Associated Product Development	MIPR	Various : Various	0.000	16.508		18.451	Nov 2024	7.286	Nov 2025	-		7.286	-	-	-
SLE Technical and Trade Studies	C/FP	Various : Various	13.273	-		-		-		-		-	-	-	-
SLE Crypto Replacement Plans and Interfaces	MIPR	NSA : Fort Meade, MD	0.553	-		-		-		-		-	-	-	-
SLE Satellite Design and Risk Reduction Activities	C/FP	Lockheed Martin/ Boeing : Various, CA	15.500	62.499	Feb 2024	53.942	Dec 2024	-		-		-	-	-	-
SLE Satellite Design and Risk Reduction Activities Extension	C/FP	Lockheed Martin/ Boeing : Various, CA	0.000	-		20.000	Jul 2025	10.000	Nov 2025	-		10.000	-	-	-
SLE Final Design and Production	C/FP	TBD : TBD	0.000	-		-		261.000	Feb 2026	-		261.000	-	-	-
SLE Technical Mission Analysis	RO	Aerospace : El Segundo, CA	1.335	1.891	Nov 2023	1.864	Nov 2024	2.029	Nov 2025	-		2.029	-	-	-
SLE Space and Ground Enterprise Sys Eng & Integration	C/CPFF	Various : Various	0.000	6.860	Dec 2023	8.574	Dec 2024	8.000	Dec 2025	-		8.000	-	-	-
Baseline Ground Engineering Contracts	SS/ Various	Various : Various	93.699	26.569	Nov 2023	30.809	Nov 2024	16.547	Nov 2025	-		16.547	-	-	-
Baseline Associated Product Development	MIPR	Various : Various	0.000	1.677	Nov 2023	0.696	Nov 2024	1.912	Nov 2025	-		1.912	-	-	-
Baseline Space Engineering Contract	SS/ Various	Lockheed Martin : Sunnyvale, CA	4.403	2.101	Nov 2023	3.920	Nov 2024	2.453	Nov 2025	-		2.453	-	-	-
Baseline Electromagnetic Interference	SS/TBD	Adaptive Dynamics Inc : San Diego, CA	4.884	0.625	Nov 2023	-		-		-		-	-	-	-
Baseline Enterprise Sys Eng & Integration	C/CPFF	Various : Various	0.000	-		1.510	Dec 2024	-		-		-	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203109SF / <i>Narrowband Satellite Com munications</i>				Project (Number/Name) 673109 / <i>SATCOM MUOS</i>					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
L-Band Communications	C/FFP	CesiumAstro : Austin, TX	3.000	-		-		-		-		-	-	-	-
Baseline SBIR/STTR	Various	Not specified. : TBD	0.000	-		-		-		-		-	-	-	-
SLE SBIR/STTR	Various	Not specified. : TBD	0.000	-		6.864	Apr 2025	15.891	Apr 2026	-		15.891	-	-	-
Narrowband Analysis of Alternatives (AoA)	TBD	Various : Various	5.970	-		-		-		-		-	-	-	-
Follow-on AoA Studies	TBD	TBD : TBD	0.000	-		-		5.000	Nov 2025	-		5.000	-	-	-
Subtotal			167.102	150.377		186.987		411.507		-		411.507	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	6.452	5.100	Oct 2023	6.097	Oct 2024	4.840	Oct 2025	-		4.840	-	-	-
SLE A&AS	C/CPFF	Various : Various	18.798	4.589	Nov 2023	6.649	Nov 2024	4.900	Nov 2025	-		4.900	-	-	-
SLE Other Support	Various	Various : Various	5.423	0.285	Oct 2023	0.600	Oct 2024	0.600	Oct 2025	-		0.600	-	-	-
Baseline A&AS	C/CPFF	Various : Various	1.990	0.000	Nov 2023	1.321	Nov 2024	0.000	Nov 2025	-		0.000	-	-	-
Baseline Other Support	Various	Not specified. : TBD	5.097	0.000	Oct 2023	0.000	Nov 2024	0.000	Nov 2025	-		0.000	-	-	-
Subtotal			37.760	9.974		14.667		10.340		-		10.340	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			204.862	160.351		201.654		421.847		-		421.847	-	-	N/A
Remarks															
A portion of "SLE A&AS" has been moved to Enterprise SE&I" starting in FY 2024 because this support is aligned to the end item product as opposed to management services. 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 2026 Air Force			Date: June 2025		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203109SF / Narrowband Satellite Com munications		Project (Number/Name) 673109 / SATCOM MUOS	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203109SF / <i>Narrowband Satellite Com munications</i>	Project (Number/Name) 673109 / SATCOM MUOS	

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	2024	4	2027
Systems Engineering	1	2024	4	2027
Space Segment Enhancements	1	2024	4	2027
<i>Service Life Extension (MUOS 6&7 and Ground Modernization)</i>				
Ground System Studies and Modernization	1	2024	4	2029
Systems Engineering	1	2024	4	2029
Satellite Design and Risk Reduction Activities	1	2024	2	2025
Ground Modernization Follow-on Contract Award	1	2025	1	2025
Narrowband Follow-on AoA Studies	1	2025	4	2025
Satellite Final Design, Production, Assembly, Integration and Test Activities	2	2026	4	2030
Final Design Review	2	2027	2	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	77.079	81.572	93.780	0.000	93.780	-	-	-	-	-	-
673276: Satellite Control Network	0.000	77.079	81.572	93.780	0.000	93.780	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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) 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 Defense (DoD), 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.

The meshONE-Terrestrial (meshONE-T) system, like the SCN ground terminal network, provides an enterprise capability for USSF and other customers. meshONE-T nodes, located at USSF and other mission partner military installations (e.g., USSF and USAF bases), remote sensor, operational, and system development locations, utilize 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. The meshONE-T effort proliferates nodes, long-haul communications links, and cloud services connections, to mission partners and locations around the globe, in accordance with warfighter priorities. To meet 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 Network (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

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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)				
threats. meshONE-T resolves current space mission network shortfalls including antiquated protocols, bandwidth constraints, lack of resiliency, cyber vulnerability, and excessive fielding times. All mission partners using meshONE-Terrestrial (meshONE-T) will become part of the USSF ground network enterprise, with access to every node and network-provided cyber-secure services.						
These funds are utilized to meet evolving future space demands for Data Transmit Receive Network (DTRN), to include transmit, receive and data transport to ensure capabilities are available to support Department of Defense (DoD), 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, modernize satellite scheduling, and develop infrastructure network solutions for long-haul terrestrial communications compatible with Air Force and Space Force 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 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.						
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.						
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		86.465	98.572	97.656	0.000	97.656
Current President's Budget		77.079	81.572	93.780	0.000	93.780
Total Adjustments		-9.386	-17.000	-3.876	0.000	-3.876
• Congressional General Reductions		0.000	0.000			
• Congressional Directed Reductions		-6.800	-17.000			
• 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		-2.586	0.000			
• Other Adjustments		0.000	0.000	-3.876	0.000	-3.876
Change Summary Explanation						
FY 2024: -\$6.800M; decrease for underexecution. -\$2.586M decrease for SBIR/STTR.						
FY 2025: -\$17.000M; Enacted 3620 RDT&E Adjustment						
FY 2026: -\$0.342M; decrease for higher Space Force priorities.						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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)		
-\$0.927M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative. -\$0.454M; FFRDC reduction -\$2.153M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Title: SCN Enhancements and Deficiency Resolution Description: Provides system enhancements, deficiency resolution, test, cyber security, requirements management, and system architecture support to the Satellite Control Network (SCN) utilizing enterprise developed technologies or capabilities, when applicable. Additionally, the SCN is investigating multiple cyber defense tools for integration onto the SCN baseline. FY 2025 Plans: N/A. FY 2026 Plans: N/A. FY 2025 to FY 2026 Increase/Decrease Statement: N/A.		8.797	0.000	0.000
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. FY 2025 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. Continue foundational Enterprise Resource Manager (ERM) system development efforts, iteratively maturing the design to assure ground resource integration, management, and automation. Continue to deliver enhancements and deficiency resolution for Satellite Operations Transmit and Receive efforts. 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		18.591	23.937	20.801

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) 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: 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to ramp-down of ERM Minimum Viable Capability Release (MVCR) development.		FY 2024	FY 2025	FY 2026
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. FY 2025 Plans: Continue development and modernization of augmentation services, including integration of services into Enterprise Resource Manager (ERM), and implementation of system resiliency and situational awareness necessary to operate in the contested space domain. Support the final year of initial operations of the Federal Augmentation capability. Continue pursuit of commercial augmentation solutions. On-board missions to utilize augmentation as prescribed by user-driven need. Continue to deliver enhancements and deficiency resolution for Satellite C2 Augmentation Services efforts. 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 2025 to FY 2026 Increase/Decrease Statement:		14.597	21.479	15.006

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2026 decreased due to conclusion of initial operations support for Federal Augmentation.				
Title: Cyber-secure Mission Data Transport		27.420	27.715	50.234
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 DoD 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.				
FY 2025 Plans: Execute the initial full year of development, integration, and fielding, following FY 2024 contract award. Continue 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, new network nodes, and communication to support warfighter-prioritized mission partners and locations. Continue to deliver enhancements and deficiency resolution for Cyber-secure Mission Data Transport efforts, and improve timely, secure movement of data between USSF systems and downstream warfighting service elements, improve resiliency and extensibility, efficiently connect data producers and consumers, and close capability gaps. Perform pre-operations support for existing meshONE-T network mission partners and users. 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 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 2025 to FY 2026 Increase/Decrease Statement:				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force							Date: June 2025					
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 2024		FY 2025		FY 2026	
FY 2026 increased due to escalation of effort to meet node deployment requirements, onboard additional mission partners, and to support pre-operations for the expanding mesh network.												
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 2025 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 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 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to operational acceptance of FAS and AST.							7.674		8.441		7.739	
Accomplishments/Planned Programs Subtotals							77.079		81.572		93.780	
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost	
• SPAF 01 1203110F: Satellite Control Network (SPACE)	64.345	90.586	69.593	-	69.593	-	-	-	-	-	-	

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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)							
D. Other Program Funding Summary (\$ in Millions)												
	Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
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 seeks to modernize satellite command and control (C2) network capabilities, Data Transport Receive Network (DTRN), and data transmit, receive and transport architectures to increase efficiency and resiliency of satellite operations (SATOPS) and information mobility operations. The approach addresses warfighter needs for increased satellite contact capacity, cyber security, automated resource management and operations, and capability resiliency. Early development of Enterprise Resource Manager (ERM) leveraged various contracts internal and external to SSC to meet specifications outlined in requirements documents through FY2026. In FY 2027, SSC will implement updated acquisition strategies for the next phases of ERM and JAM.												
The Systems Engineering & Integration (SE&I) contractor maintains the DoD Architecture Framework (DoDAF) 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 2026 Air Force												Date: June 2025			
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>					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
SCN Enhancements and Deficiency Resolution	Various	Various : Colorado Springs, CO	-	7.205	May 2024	-		-		-		-	-	-	-
Satellite Ops Transmit and Receive - Scheduling	Various	Various : Colorado Springs, CO	-	9.555	Jan 2024	6.577	Jan 2025	-		-		-	-	-	-
Satellite Ops Transmit and Receive - Enterprise Resource Manager	MIPR	Classified : TBD	-	3.600	Aug 2024	8.000	Jan 2025	11.150	Jan 2026	-		11.150	-	-	-
Satellite Ops Transmit and Receive - Antenna Services	Various	Various : Colorado Sprirngs, CO	-	2.069	Sep 2024	4.191	May 2025	5.103	Feb 2026	-		5.103	-	-	-
Satellite Commercial Augmentation Services (CAS)	C/CPFF	Parsons Gov't Svcs Inc : Centerville, VA	-	1.135	Mar 2024	0.000	Mar 2025	0.000	Mar 2026	-		0.000	-	-	-
Satellite Commercial Augmentation Services - JAM	Various	Various : TBD	-	-		7.600	May 2025	11.500	Mar 2026	-		11.500	-	-	-
Satellite Commercial Augmentation Services - Other	Various	Various : TBD	-	8.016	Apr 2024	8.330	May 2025	0.225	Mar 2026	-		0.225	-	-	-
Satellite Federal Augmentation Services: NOAA	MIPR	NOAA : Hillcrest Heights, MD	-	2.040	Mar 2024	0.000	Mar 2025	-		-		-	-	-	-
Satellite Federal Augmentation Services: AFRL (Blue Halo)	C/CPFF	Blue Halo LLC : Albuquerque, NM	-	0.763	Mar 2024	0.911	Dec 2024	-		-		-	-	-	-
Cyber-secure Mission Data Transport	SS/ Various	sev1Tech LLC : Denver, CO	-	22.455	Aug 2024	21.730	Dec 2024	40.623	Jan 2026	-		40.623	-	-	-
Enterprise Systems Engineering and Integration (SE&I)	SS/CPIF	ENSCO : Colorado Springs, CO	-	7.674	Nov 2023	8.441	Nov 2024	7.739	Nov 2025	-		7.739	-	-	-
Technical Mission Analysis	RO	Aerospace Corp : El Segundo, CA	-	2.497	Jan 2024	2.173	Jan 2025	2.984	Jan 2026	-		2.984	-	-	-
SBIR/STTR	TBD	TBD : TBD	-	0.000	May 2024	2.613	Jun 2025	3.283	May 2026	-		3.283	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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			-	67.009		70.566		82.607		-		82.607	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	3.363	Jan 2024	4.004	Jan 2025	3.199	Jan 2026	-		3.199	-	-	-
A&AS	Various	Various : Various	-	6.519	Jan 2024	6.697	Jan 2025	7.674	Jan 2026	-		7.674	-	-	-
Other	Various	Various : Various	-	0.188	Jan 2024	0.305	Jan 2025	0.300	Jan 2026	-		0.300	-	-	-
Subtotal			-	10.070		11.006		11.173		-		11.173	-	-	N/A
			Prior Years	FY 2024	FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals			-	77.079		81.572		93.780		-		93.780	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 7					PE 1203110SF / Satellite Control Network (SPACE)					673276 / Satellite Control Network			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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
SCN Enhancements and Deficiency Resolution																												
SCN Enhancements and Deficiency Resolution																												
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																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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
<i>SCN Enhancements and Deficiency Resolution</i>				
SCN Enhancements and Deficiency Resolution	1	2024	4	2024
<i>Satellite Operations Transmit and Receive</i>				
Satellite Operations Transmits and Receive	1	2024	4	2030
<i>Satellite C2 Augmentation Services</i>				
Satellite C2 Augmentation Services	1	2024	4	2030
<i>Cyber-secure Mission Data Transport</i>				
Cyber-secure Mission Data Transport	3	2024	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force **Date:** June 2025

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>

COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	185.970	244.121	1.916	0.000	1.916	-	-	-	-	-	-
671112: <i>Moving Target Indicator</i>	0.000	0.450	0.839	0.000	0.000	0.000	-	-	-	-	-	-
671113: <i>Auxiliary Payloads</i>	0.000	185.520	243.282	1.916	0.000	1.916	-	-	-	-	-	-

Note

In FY 2026, Project Moving Target Indicator is transferred to Program Element 1203155SF, Project Ground Moving Target Indicator to better align efforts with the USSF mission areas.

In FY 2026, Project Auxiliary Payloads was erroneously transferred to Program Element 1203609SF. This funding will be realigned back to PE 1203154SF for proper execution following enactment.

A. Mission Description and Budget Item Justification

In FY 2026, Project Moving Target Indicator is transferred to Program Element 1203155SF to better align efforts with the USSF mission areas.

In FY 2026, Project Auxiliary Payloads was erroneously transferred to Program Element 1203609SF. This funding will be realigned back to PE 1203154SF for proper execution following enactment.

The FY 2026 request for Long Range Kill Chains includes \$1,916 thousand of discretionary and \$1,255,000 thousand of mandatory (reconciliation) for a total of \$1,256,916 thousand. The mandatory supports the Golden Dome Integration Office and requirements that can be discussed under separate cover. Further information for this reconciliation request is provided in Sections 20003 (Missile Defense) & 20009 (INDOPACOM Capabilities) of the Reconciliation Exhibit. In addition, the FY 2026 request for Long Range Kill Chains includes \$6,440,000 thousands Mandatory funding in this PE under BA 5. Further information for this reconciliation request is provided in Sections 20003 (Missile Defense).

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 2026 Air Force				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		PE 1203154SF I Long Range Kill Chains			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	243.036	244.121	249.481	0.000	249.481
Current President's Budget	185.970	244.121	1.916	0.000	1.916
Total Adjustments	-57.066	0.000	-247.565	0.000	-247.565
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-50.000	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	-7.066	0.000			
• Other Adjustments	0.000	0.000	-247.565	0.000	-247.565
Change Summary Explanation					
In FY 2026, Project Moving Target Indicator is transferred to Program Element 1203155SF, Project Ground Moving Target Indicator to better align efforts with the USSF mission areas.					
In FY 2026, Project Auxiliary Payloads was erroneously transferred to Program Element 1203609SF. This funding will be realigned back to PE 1203154SF for proper execution following enactment.					
FY 2025: 0.428M increase for inflation.					
FY 2024: 7.066M decrease for SBIR					
FY 2024: 50.0M decrease for early to need.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains				Project (Number/Name) 671112 / Moving Target Indicator			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
671112: Moving Target Indicator	0.000	0.450	0.839	0.000	0.000	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
The space-based GMTI system will replace a portion of the aging E-8C JSTARS sensing capability, based upon the Space Warfighting Analysis Center's (SWAC's) analysis of alternatives assessment completed in September 2022. Proper funding is critical to ensure this system is in place to support the warfighter before all JSTARS aircraft retire. Space-based GMTI is not a one-for-one swap for the E-8 JSTARS slated to retire, but rather an evolved weapon system that serves as the next generation moving target indicator for the warfighter. GMTI capability will be critical to tracking surface targets in Competition, Crisis, and Conflict environments. This will be accomplished from space, instead of from JSTARS aircraft which will not be capable of operating in a contested/non-permissive environment. Space-based GMTI will provide another way to harness data from the space domain and incorporate it into the secure cloud environment underpinning the ABMS to sense, make sense, and act faster than our adversaries. The Department of the Air Force will maximize partnerships with the Intelligence Community (IC) and use of mature commercial technologies to accelerate the acquisition timeline and meet the GMTI needs of the warfighter.												
Moved to PE 1203155SF to align with the rest of the program's budget.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Moving Target Indicator									0.450	0.839	0.000	
Description: Moving Target Indicator												
FY 2025 Plans: In FY 2025, the DoD led Moving Target Indicator project will continue to leverage the National Reconnaissance Office (NRO) partnership to develop and field the USSF GMTI space system. The project will complete a System Requirements Review for the first block of planned space vehicles. Technology maturation with an alternate vendor will continue to improve future industrial base competition.												
FY 2026 Plans: N/A												
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decrease due to funding transfer to PE 1203155SF, Ground Moving Target Indicator												
Accomplishments/Planned Programs Subtotals									0.450	0.839	0.000	
C. Other Program Funding Summary (\$ in Millions)												
N/A												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains	Project (Number/Name) 671112 / Moving Target Indicator	

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

Remarks

Program funding has been transferred between this Project and other DAF Projects and this current Project does not represent the full investment. Additional details can be discussed under separate cover.

D. Acquisition Strategy

The DoD led Moving Target Indicator project partnered with the NRO to leverage efficiencies and completed market research informing the Analysis of Alternatives identifying vendors capable of meeting technical and schedule requirements. The project will award Firm Fixed Price contracts that leverage a low-risk approach by leveraging mature commercial technologies to accelerate the acquisition timeline and meet the GMTI needs of the warfighter. Competition will be maintained through technical maturation of an alternate vendor that will be later down selected to award development and delivery of the second block of space vehicles.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains				Project (Number/Name) 671112 / Moving Target Indicator					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
MTI	TBD	Various : Various	-	0.300		0.689		0.000		-		0.000	-	-	-
Subtotal			-	0.300		0.689		0.000		-		0.000	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	TBD	Various : Various	-	0.050		0.050		0.000		-		0.000	-	-	-
A&AS	TBD	Various : Various	-	0.050		0.050		0.000		-		0.000	-	-	-
Other Support	TBD	Various : Various	-	0.050		0.050		0.000		-		0.000	-	-	-
Subtotal			-	0.150		0.150		0.000		-		0.000	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	0.450		0.839		0.000		-		0.000	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force

Date: June 2025

Appropriation/Budget Activity
3620F / 7

R-1 Program Element (Number/Name)
PE 1203154SF / Long Range Kill Chains

Project (Number/Name)
671112 / Moving Target Indicator

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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
Moving Target Indicator																												
Dev & Field MTI																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203154SF / Long Range Kill Chains	Project (Number/Name) 671112 / Moving Target Indicator	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Moving Target Indicator				
Dev & Field MTI	2	2024	4	2030

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
671113: Auxiliary Payloads	0.000	185.520	243.282	1.916	0.000	1.916	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
In FY 2026, Project 67113 Auxiliary Payloads was erroneously transferred to Program Element 1203609SF. This funding will be realigned back to PE 1203154SF for proper execution following enactment.												
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.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Auxiliary Payloads									185.520	243.282	1.916	
Description: Auxiliary Payloads												
FY 2025 Plans:												
In FY 2025, the Auxiliary Payloads project leverages NRO partnership to continue the acquisition and deployment of USSF communication relay space vehicles to meet the required constellation capacity to enable GMTI system C2 and data relay requirements.												
FY 2026 Plans:												
Funds were erroneously transferred to PE 1203609SF and will be realigned back for proper execution towards continuing to leverage relationship with NRO partner to develop and field GMTI system.												
FY 2025 to FY 2026 Increase/Decrease Statement:												
In FY 2026, Project 67113 Auxiliary Payloads was erroneously transferred to Program Element 1203609SF. This funding will be realigned back to PE 1203154SF for proper execution following enactment.												
Accomplishments/Planned Programs Subtotals									185.520	243.282	1.916	
C. Other Program Funding Summary (\$ in Millions)												
N/A												
Remarks												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	182.520		240.282		1.916		-		1.916	-	-	-
Subtotal			-	182.520		240.282		1.916		-		1.916	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	TBD	Various : Various	-	1.000		1.000		0.000		-		0.000	-	-	-
A&AS	TBD	Various : Various	-	1.000		1.000		0.000		-		0.000	-	-	-
Other Support	TBD	Various : Various	-	1.000		1.000		0.000		-		0.000	-	-	-
Subtotal			-	3.000		3.000		0.000		-		0.000	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	185.520		243.282		1.916		-		1.916	-	-	N/A
Remarks															
In FY 2026, Project 67113 Auxiliary Payloads was erroneously transferred to Program Element 1203609SF. This funding will be realigned back to PE 1203154SF for proper execution following enactment.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)	
3620F / 7	PE 1203154SF / Long Range Kill Chains	671113 / Auxiliary Payloads	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
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	3	2024	4	2030

Note
In FY 2026, Project 67113 Auxiliary Payloads was erroneously transferred to Program Element 1203609SF. This funding will be realigned back to PE 1203154SF for proper execution following enactment.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 Ground Moving Target Indicator (GMTI)

COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	256.000	1,063.384	0.000	1,063.384	-	-	-	-	-	-
671120: Ground Moving Target Indicator	0.000	0.000	256.000	1,063.384	0.000	1,063.384	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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. Additional details can be provided under separate cover.

Note: this effort was previously completed under 1203154SF.

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	256.000	1,063.384	0.000	1,063.384
Total Adjustments	0.000	256.000	1,063.384	0.000	1,063.384
• 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	256.000	1,063.384	0.000	1,063.384

Change Summary Explanation

FY 2025 Other Adjustments: Transfer of \$256.000 from USAF to USSF in enacted appropriation.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025	
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 Ground Moving Target Indicator (GMTI)						
C. Accomplishments/Planned Programs (\$ in Millions)											
Title: GMTI					FY 2024		FY 2025		FY 2026		
Description: Design, development, production, integration, test, on-orbit initialization, and mission execution for GMTI space vehicles and vehicle-unique ground. Additional details can be provided under separate cover.					0.000		256.000		1,063.384		
FY 2025 Plans: Continue partnership to develop and field the GMTI system. Additional details can be provided under separate cover.											
FY 2026 Plans: Continue partnership to develop and field the GMTI system. Additional details can be provided under separate cover.											
FY 2025 to FY 2026 Increase/Decrease Statement: Increase due to ramp-up of production consistent with the program baseline. Additional details can be provided under separate cover.											
Accomplishments/Planned Programs Subtotals					0.000		256.000		1,063.384		
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• RDTE 07 DAF	100.000	-	-	-	-	-	-	-	-	-	-
Funding: DAF Funding											
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 can be provided under separate cover.											
The FY 2024 budget for GMTI was transferred from USAF to Department of the Air Force in the FY 2024 DAA.											
The FY 2025 budget for GMTI was transferred from USAF to USSF in the Full-Year Continuing Appropriations and Extensions Act, 2025.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203155SF / Ground Moving Target Indicator (GMTI)						Project (Number/Name) 671120 / Ground Moving Target Indicator			
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.000		190.433	Nov 2024	993.643	Nov 2025	0.000		993.643	-	-	718.645
Subtotal			-	0.000		190.433		993.643		0.000		993.643	-	-	N/A
Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.000		55.000	Nov 2024	59.000	Nov 2025	0.000		59.000	-	-	-
Subtotal			-	0.000		55.000		59.000		0.000		59.000	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.000		6.967	Nov 2024	7.141	Nov 2025	0.000		7.141	-	-	-
FFRDC	MIPR	Aerospace Corp. : El Segundo, CA	-	0.000		3.600	Nov 2024	3.600	Nov 2025	0.000		3.600	-	-	-
Subtotal			-	0.000		10.567		10.741		0.000		10.741	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	0.000		256.000		1,063.384		0.000		1,063.384	-	-	N/A
Remarks															
The FY 2024 budget for GMTI was transferred from USAF to Department of the Air Force in the FY 2024 DAA.															
The FY 2025 budget for GMTI was transferred from USAF to USSF in the Full-Year Continuing Appropriations and Extensions Act, 2025.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
Appropriation/Budget Activity 3620F / 7			R-1 Program Element (Number/Name) PE 1203155SF / Ground Moving Target Indicator (GMTI)		
			Project (Number/Name) 671120 / Ground Moving Target Indicator		

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force		Date: June 2025
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203155SF / Ground Moving Target Indicator (GMTI)	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	2	2024	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					PE 1203173SF I Space and Missile Test and Evaluation Center							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	21.329	20.844	22.128	0.000	22.128	-	-	-	-	-	-
67A014: R&D Space & Missile Operations	0.000	21.329	20.844	22.128	0.000	22.128	-	-	-	-	-	-
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 Defense (DoD), and other government mission partners. This program also leads the transfer of approved on-orbit missions to operational command organizations such as Space Operations Command. 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, DoD, 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 standard hardware and software to:

- (1) perform satellite C2 in support of launch and on-orbit requirements;
- (2) develop TTP to conduct satellite operations;
- (3) provide a satellite C2 incremental or revolutionary (as required) 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;.
- (6) maximize flexible satellite operations to support multi-mission prototype operations to move to cloud-based systems;

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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				
(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 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		22.039	20.844	22.932	0.000	22.932
Current President's Budget		21.329	20.844	22.128	0.000	22.128
Total Adjustments		-0.710	0.000	-0.804	0.000	-0.804
• 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		-0.710	0.000			
• Other Adjustments		0.000	0.000	-0.804	0.000	-0.804
Change Summary Explanation						
FY 2024: -0.710M for SBIR/STTR						
FY 2026: -0.218M 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, and for inflation						
FY 2026: -0.506M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: MMSOC Development				4.640	3.297	3.025

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
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 2025 Plans: Continue to evolve hardware, on-premises based MMSOC XPro architectures for full cybersecurity compliance (PKI, 2 Factor Authentication, out of band management) 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. 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 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 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 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to transition of missions to a cloud-enabled ground system.				
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 2025 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. Continue to prototype and demonstrate a modernized cloud-based off-premises GSA solution and Rapid Resilient Command and Control (R2C2) capabilities, to include critical technology maturation of new mission on-boarding solutions, the stand-up of integration and test environments, enabling of data distribution at multiple security levels, transition to a cloud service provider, and stand-up of shared R2C2 architecture. Evaluate trades and implementations between hybrid (on-premises and cloud-based solutions) to determine the most cost- and mission-effective optimization. Continue integrating the prototype operations center with R2C2 development, including developing a Risk-Reduction & Integration Plan for each prototype mission.		9.200	9.552	10.044

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
Continue to develop and deliver ground solutions and support for prototype, demonstration, and experimental missions, including but not limited to the ROOSTER and Tetra 3, 4, & 5 missions. 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. 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to transition of missions from legacy hardware-based MMSOC ground systems and also initiating prototype of R2C2 FOC capability deployment into cloud-hosted environment to validate integration of common services for prototype missions outside the scope of R2C2.				
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.		7.489	7.995	9.059

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2025 Plans: Continue to develop automated 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 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. Develop and integrate ground antenna system capabilities at the Mobile Range Flight (MRF). Continue to develop and deliver TTPs for next-generation USSF satellites. Provide for necessary infrastructure needs to perform system operations and continue evolution of system capabilities both for off- and on-premises architectures.				
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. 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).				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Continue to develop and deliver TTPs for next-generation USSF satellites.			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to expanded use of Rapid Resilient Command and Control (R2C2) and Mission Partner integration support, POPS-I, and AFRL SE&I for conducting cyber security assessments and providing subject matter expertise across on- and off-premises systems.			
Accomplishments/Planned Programs Subtotals		21.329	20.844
D. Other Program Funding Summary (\$ in Millions) N/A			
Remarks			
E. Acquisition Strategy RDSMO will continue to use the competitively awarded Engineering, Development, Integration, and Sustainment (EDIS) contract (awarded Feb 2020) 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 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 Test	C/CPAF	SAIC : Albuquerque, NM	-	5.501	Nov 2023	6.750	Nov 2024	9.723	Nov 2025	-		9.723	-	-	-
EGS and Mission Partner Integration Support	Various	TBD : TBD	-	-		2.343	Feb 2025	-		-		-	-	-	-
Ground System Integration	C/CPAF	a.i. solutions, Inc. : Kirtland, NM	-	4.047		-		3.895	Oct 2025	-		3.895	-	-	-
UARC - Space & Nuclear Advanced Prototypes/ Experiments/Tech (SNAPET) Contract (through AFRL)	SS/CPFF	Space Dynamics Laboratory : Logan, UT	-	2.418	Feb 2024	3.989	Feb 2025	-		-		-	-	-	-
Enterprise SE&I	C/CPFF	Linqest : Kirtland, NM	-	0.767	Nov 2023	-		1.397	Nov 2025	-		1.397	-	-	-
SBIR/STTR	Allot	TBD : TBD	-	-		0.691	Oct 2024	0.706	Apr 2026	-		0.706	-	-	-
Subtotal			-	12.733		13.773		15.721		-		15.721	-	-	N/A
Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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/CPAF	a.i. solutions, Inc. : Kirtland AFB, NM	-	1.575	May 2024	0.820	May 2025	0.956	Nov 2025	-		0.956	-	-	-
Subtotal			-	1.575		0.820		0.956		-		0.956	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	3.448	Oct 2023	3.330	Nov 2024	3.432	Oct 2025	-		3.432	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
AFRL SE&I	C/CPFF	Linquest : Kirtland AFB, NM	-	-		0.400	Nov 2024	-		-		-	-	-	-
A&AS - SAFS-II/SAFS-III	C/FFP	Tecolote : Kirtland AFB, NM	-	2.522	Nov 2023	1.364	Nov 2024	0.889	Nov 2025	-		0.889	-	-	-
Other Support	TBD	TBD : TBD	-	1.051	Oct 2023	1.157	Nov 2024	1.130	Oct 2025	-		1.130	-	-	-
Subtotal			-	7.021		6.251		5.451		-		5.451	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	21.329		20.844		22.128		-		22.128	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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)																												
Off-Premises Cloud-Enabled Ground System Development																												
Off-Premises Cloud-Enabled Ground System Development and Integration																												
Analysis of On- vs. Off-Premises Cloud Enabled Systems																												
Off-Premises Development																												
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 a SZI hosted GSA																												
Prototype Baseline Support																												
Monitor and coordinate cyber defense capabilities																												
Develop and evaluate TTPs																												
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 2026 Air Force			Date: June 2025
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>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>MMSOC Development</i>				
Ground Services Architecture (GSA) Evolution (On-Premise Cloud)	1	2024	4	2027
<i>Off-Premises Cloud-Enabled Ground System Development</i>				
Off-Premises Cloud-Enabled Ground System Development and Integration	1	2024	4	2029
Analysis of On- vs. Off-Premises Cloud Enabled Systems	1	2024	4	2026
Off-Premises Development	1	2024	4	2026
Integration of Off-Premises Cloud Enabled Ground Systems	1	2024	4	2030
Prototype and continuously develop R2C2 Acme software with prototype vehicle	2	2024	4	2030
Prototype and continuously develop R2C2 Acme Software in a SZI hosted GSA	1	2026	4	2030
<i>Prototype Baseline Support</i>				
Monitor and coordinate cyber defense capabilities	1	2024	4	2030
Develop and evaluate TTPs	1	2024	4	2030
Develop and integrate ground antenna system capabilities at the Mobile Range Flight (MRF)	1	2024	4	2028
Prototype and continuously develop AaaS through R2C2 Software Factory	1	2024	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force **Date:** June 2025

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 1203174SF / <i>Space Innovation, Integration and Rapid Technology Development</i>

COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	37.649	48.900	82.399	0.000	82.399	-	-	-	-	-	-
674671: <i>Enterprise Training Services Development</i>	0.000	27.836	38.866	72.164	0.000	72.164	-	-	-	-	-	-
67A011: <i>Space Analysis and Application Development</i>	0.000	9.813	10.034	10.235	0.000	10.235	-	-	-	-	-	-

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 secure 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 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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		PE 1203174SF I Space Innovation, Integration and Rapid Technology Development			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	41.483	48.900	40.330	0.000	40.330
Current President's Budget	37.649	48.900	82.399	0.000	82.399
Total Adjustments	-3.834	0.000	42.069	0.000	42.069
• 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	-1.334	0.000			
• Other Adjustments	-2.500	0.000	42.069	0.000	42.069
Change Summary Explanation					
FY 2026: +42.069M to accelerate OTTI Distributed Training Capability development; enhances, extends and scales advanced and combat training capabilities for Service-level combat exercises and Guardian lethality.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
674671: Enterprise Training Services Development	0.000	27.836	38.866	72.164	0.000	72.164	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In concert with PE 1206759F, Project 664598, NSTTC, 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 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 Information Technology (IT) required to deliver the above capabilities and interoperate with other joint acquisition, test, training, exercise, and exercise platforms and tools

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.

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

	FY 2024	FY 2025	FY 2026
Title: Enterprise Training Services Development	27.836	38.866	72.164
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 2025 Plans: Execute multiple development and risk reduction activities to deliver capabilities for Force Generation and buy down risk for future High-End Advanced Test, Training, and Tactics Development (HEAT3) capabilities. Specific activities include the following: - Modify and Integrate existing/fielded training systems and modeling and simulation tools from multiple vendors into a synthetic environment to yield immediate enhancements for Space Operations Command tactics development and exercises - Continue to develop mission-specific simulations for Missile Warning and Orbital Warfare missions			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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) - Accelerate artificial intelligence (AI) development to augment Guardian aggressors, providing a force multiplier for Guardians to train against thinking, realistic, and responsive threats - Execute risk reductions to prototype use of the USAF Joint Simulation Environment for space HEAT3 and future joint exercises Additional activities may include, but are not limited to program office support, studies, technical analyses, experimentation, prototyping, computer network infrastructure provisioning, etc. 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 station - Continue to modify and integrate mission simulator software into synthetic space environment to expand multi-mission training and exercise capability - Continue aggressor augmentation AI development and deploy software quarterly, 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 2025 to FY 2026 Increase/Decrease Statement: Increase in FY26 accelerates OTTI Distributed Training Capability development; enhances, extends and scales advanced and combat training capabilities at appropriate security levels for Service-level combat exercises and Guardian lethality.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		27.836	38.866	72.164
C. Other Program Funding Summary (\$ in Millions) N/A Remarks 				

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>

D. Acquisition Strategy

FY25 and 26 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 FY25 and FY26 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 (CSO)	C/FFP	Various : Various	-	-		-		28.700	Jan 2026	-		28.700	-	-	-
Electronic Warfare Tool Modifications and Integration	TBD	TBD : TBD	-	-		-		4.200	Jan 2026	-		4.200	-	-	-
Distributed Training Cloud Infrastructure	Various	Various : TBD	-	-		-		7.100	Dec 2025	-		7.100	-	-	-
Standard Space Trainer (SBIR Phase III)	C/CPFF	Sonalysts : Waterford, CT	-	12.059	Nov 2023	18.334	Nov 2024	10.500	Jan 2026	-		10.500	-	-	-
Aggressor Augmentation AI & Threat Visualization	C/FFP	Slingshot Aerospace, Inc : El Segundo, CA	-	6.178	Dec 2023	9.264	Nov 2024	15.000	Jan 2026	-		15.000	-	-	-
Global Positioning System Environment Simulation	C/CPFF	Parsons, Inc : Colorado Springs, CO	-	6.460	Nov 2023	6.592	Dec 2024	2.000		-		2.000	-	-	-
Systems Engineering & Integration (SE&I)	SS/CPIF	ENSCO : Colorado Springs, CO	-	2.336	Jan 2024	2.463	Nov 2024	-		-		-	-	-	-
Technical Mission Analysis	RO	Space Dynamics Lab/AFRL : TBD	-	0.300	Nov 2023	0.000	Nov 2024	2.066		-		2.066	-	-	-
SBIR/STTR	Allot	TBD : TBD	-	0.000	Oct 2023	1.396	Oct 2024	2.598	Oct 2025	-		2.598	-	-	-
Subtotal			-	27.333		38.049		72.164		-		72.164	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.226	Jan 2024	0.817	Jan 2025	-		-		-	-	-	-
A&AS	Various	TBD : TBD	-	0.259	Jan 2024	-		-		-		-	-	-	-
Other	Various	TBD : TBD	-	0.018	Jan 2024	-		-		-		-	-	-	-
Subtotal			-	0.503		0.817		-		-		-	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force											Date: June 2025		
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>				
	Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	27.836		38.866		72.164		-		72.164	-	-	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force																Date: June 2025			
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 2024				FY 2025				FY 2026			
								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 2026 Air Force			Date: June 2025
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	2024	4	2030
Adversary Capabilities	1	2024	4	2030
Space Effects for Joint Support	1	2024	4	2030
Distributed Training	2	2026	4	2030

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
67A011: Space Analysis and Application Development	0.000	9.813	10.034	10.235	0.000	10.235	-	-	-	-	-	-
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 2024	FY 2025	FY 2026
Title: Model/Tool Development and Capability Upgrades	9.813	10.034	10.235
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 OSD, Joint Staff, Headquarters Air Force, Headquarters United States Space Force, USSF Field Commands, Space Component Field Commands, and Combatant Commands.			
FY 2025 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:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
- Performing ongoing latency analyses on SDA sensors, data, and networks. - Updating designation of three modeling/simulation environments to speed system accreditation. Completing pathfinder cloud computing project to evaluate cost/performance compared to existing architecture. - Completing 4 increments of space electronic warfare analysis campaign that quantified impact of USSF's Space Electronic Warfare enterprise on conflict in DoD's pacing scenario in the theater of consequence. - Providing 9 operational applications to the National Space Defense Center including updated model of high-altitude nuclear explosions. - Completing initial operational assessment of space force generation process (SPAFORGEN). - Mapping 9,200 training requirements to mission essential tasks and determine sufficiency of training resources in support of STARCOM's Operational Test and Training Infrastructure program. - Deploying campaign and mission area tools - Integrate into major theater exercise and operations to provide SpOC/CC and CCMDs with status of space forces near real time. - Developing applications and analysis to meet space mission requirements (e.g., conjunction assessment, satellite maneuver pattern of life, automated tools). - Conducting orbital warfare study to inform SPAFORGEN readiness activities. - Implementing SPAFORGEN assessment framework 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. FY25 Expanded data sources and scope/objectives—specifically incorporating impacts of space base deltas. - Supporting SpRCO's Remote Modular Terminal emplacement decision with operational effectiveness analysis. - Continuing development and enhancement of SpOC/CC's ops & intel/orders management tool. - Completing validation and verification of an advanced automated sensor calibration system for the 18 Space Defense Squadron - Validating the S4S Laser Clearinghouse deconfliction software update. - Delivering a satellite maneuver generation tool for tactical units training and planning development. - Completing logistics sustainment analysis on Upgraded Early Warning Radar system. 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. - 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.					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force							Date: June 2025				
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 2024	FY 2025	FY 2026		
- 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 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 2025 to FY 2026 Increase/Decrease Statement: FY26 increase in funding is due to inflation rate adjustments.											
Accomplishments/Planned Programs Subtotals							9.813	10.034	10.235		
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPAF 01 GNRLIT: General Information Tech - Space	-	0.000	-	-	-	-	-	-	-	-	-
• SPSF 01 GNRLIT: General Information Tech - Space	0.434	0.441	0.450	-	0.450	-	-	-	-	-	-
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.											

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>

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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	9.813	Jan 2024	10.034	Dec 2025	10.235	Dec 2026	-		10.235	-	-	-
Subtotal			-	9.813		10.034		10.235		-		10.235	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	9.813		10.034		10.235		-		10.235	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 7					PE 1203174SF / <i>Space Innovation, Integration and Rapid Technology Development</i>					67A011 / <i>Space Analysis and Application Development</i>			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Model Development/Modification, verification & validation																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	2024	4	2030

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	10.778	45.506	54.996	0.000	54.996	-	-	-	-	-	-
674137: <i>Launch and Test Range System (LTRS) Modernization</i>	0.000	10.778	45.506	54.996	0.000	54.996	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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 Defense 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 the 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.

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 to 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

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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)				
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 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		11.175	55.906	57.270	0.000	57.270
Current President's Budget		10.778	45.506	54.996	0.000	54.996
Total Adjustments		-0.397	-10.400	-2.274	0.000	-2.274
• 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	-10.400			
• SBIR/STTR Transfer		-0.397	0.000			
• Other Adjustments		0.000	0.000	-2.274	0.000	-2.274
Change Summary Explanation						
FY 2026: -1.263M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.						
FY 2026: -0.554M for Advisory and Assistance Services funding 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."						
FY 2026: -\$0.266M in Federally Funded Research and Development Corporation funding						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Delta-V				-	26.170	27.992

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
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. 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 2025 Plans: Delta-V will build developmental capabilities such as the Continuous Integration/Continuous Delivery (CI/CD) platform, software development and test environments, Zero Trust pilot program, Spaceport agile software projects and prototypes and mature DevSecOps processes and leverage lessons learned virtualizing legacy Launch and Test Range System hardware. Delta-V will utilize CI/CD platform and processes to provide engineering solutions, test, and deliver enhanced operational systems to meet National launch capacity and cadence requirements. 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. FY 2025 to FY 2026 Increase/Decrease Statement:				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2026 increased due to initial development of spaceport data infrastructure and expansion of spaceport situational awareness tools.				
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 2025 Plans: Adopt modern systems, infrastructure, platforms, and processes to transition to an increasingly Cloud-based infrastructure with Cloud-native data governance regimes to sustain future operational data needs. 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. Efforts 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 towards the SOTF objectives. Harness proven 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, program office strategy advisement on advanced technology adoption, studies, technical analyses, experimentation, prototyping, etc. FY 2026 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: Starting with the FY26 President's Budget, the "Enterprise Systems Engineering and Integration to Support Government-Controlled Baseline" will be book kept under the "LTRS Range Technology Integration" Major Thrust.		2.050	9.527	0.000
Title: LTRS Range Technology Integration 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 configuration management of all range assets, requirements analyses, and special studies. Provides support for Systems Program Office operations, Systems Engineering and Technical Assistance (SETA),		8.728	9.809	27.004

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) and Federally Funded Research and Development Centers (FFRDC). Strategically executes experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose capabilities. FY 2025 Plans: Adopt modern systems, infrastructure, platforms, and processes to transition an increasingly Cloud-based infrastructure with Cloud-native data governance regimes to sustain future operational data needs. Transition year for the shift of commercial launch customers to Automated Flight Safety Systems (AFSS) and the gradual shift for government launch customers away from the manned and manual Flight Termination System (FTS) 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. Efforts 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 towards the SOTF objectives. Harness proven 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, program office strategy advisement on advanced technology adoption, studies, technical analyses, experimentation, prototyping, etc. FY 2026 Plans: 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 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, program office strategy advisement on advanced technology		FY 2024	FY 2025	FY 2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026
adoption, studies, technical analyses, experimentation, prototyping, etc. Decision-support delivered to senior leaders for progress against SOTF objectives.												
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to the shift and growth of "Enterprise Systems Engineering and Integration to Support Government-Controlled Baseline" from it's own Major Thrust now being kept under the "LTRS Range Technology Integration" Major Thrust as well as the growth of the LTRS Range Technology Integration effort.												
Accomplishments/Planned Programs Subtotals										10.778	45.506	54.996
D. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost	
• SPSF 01 1203182SF: Spacelift Range System (Space)	114.358	63.798	64.321	-	64.321	-	-	-	-	-	-	
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) guidance, 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 DoD test and evaluation needs as well as assuring the Nation's ability to access space. Innovative development and employment of 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 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 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203182SF / Spacelift Range System (SPACE)				Project (Number/Name) 674137 / Launch and Test Range System (LTRS) Modernization					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	27.992	Jan 2026	-		27.992	-	-	-
Enterprise Systems Engineering and Integration	C/FPIF	ENSCO INC : Falls Church, VA	-	2.050	Oct 2023	9.527	Oct 2024	0.000	Oct 2025	-		0.000	-	-	-
LTRS Range Technology Integration	C/Various	Various : Various	-	6.415	May 2024	6.086	May 2025	22.639	May 2026	-		22.639	-	-	-
SBIR/STTR	Allot	Not Specified: TBD : TBD	-	0.039	May 2024	1.578	May 2025	1.925	May 2026	-		1.925	-	-	-
Subtotal			-	8.504		43.361		52.556		-		52.556	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.573	Nov 2023	0.581	Nov 2024	1.340	Nov 2025	-		1.340	-	-	-
OTHER SUPPORT	PO	Various : El Segundo, CA	-	1.701	Nov 2023	1.564	Nov 2024	1.100	Nov 2025	-		1.100	-	-	-
Subtotal			-	2.274		2.145		2.440		-		2.440	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	10.778		45.506		54.996		-		54.996	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
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	2030
Range Technology Integration	1	2024	4	2030
Enterprise SE&I	1	2024	4	2025

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					PE 1203330SF I Space Superiority ISR							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	28.730	28.227	24.411	0.000	24.411	-	-	-	-	-	-
67A051: Space Superiority - Advanced Intelligence Systems	0.000	28.730	28.227	24.411	0.000	24.411	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Space Superiority Intelligence (SSI) program provides intelligence for key find, fix, track, target, engage, and assess requirements supporting Space Superiority activities meeting Combatant Command (CCMD) needs for Space Operations Command (SpOC). SSI funds developmental intelligence activities to support new space superiority capability acquisition and development. Funds associated developmental 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 and transportable intelligence collection; Processing, Exploitation and Dissemination (PED); analysis and production capabilities that are modular (plug-and-play); meet Risk Management Framework Accreditation requirements and can 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 and threat conditions and intelligence support to the Space Security and Defense Program (SSDP) by providing architectural survivability analysis of critical mission assets for mission assurance, as well as network analysis. 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.

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 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.

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 2026 Air Force				Date: June 2025	
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			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	28.730	28.227	24.668	0.000	24.668
Current President's Budget	28.730	28.227	24.411	0.000	24.411
Total Adjustments	0.000	0.000	-0.257	0.000	-0.257
• 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	-0.257	0.000	-0.257
Change Summary Explanation					
-FY 2025 PB: The FY 2025 funding request was reduced by \$0.007 million per SAF/FM directed FY26-FY30 Stargazer withhold.					
-FY 2026 PB: The FY 2026 request was reduced by \$0.168 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."					
-FY 2026 PB: The FY 2026 request was reduced by \$0.082 million for Inflation Rate adjustments.					
C. Accomplishments/Planned Programs (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Title: Advanced Intelligence Systems for Space Superiority	28.730	28.227	24.411	0.000	24.411
Description: Develops & delivers fixed & mobile PCPAD capabilities.					
FY 2025 Plans: Completes the multi-year development/delivery of seven mid-to-large aperture fixed collection and associated processing capabilities for the 73 ISR Squadron at OCONUS and CONUS sites. Begins refurbishment of final, large aperture in support of INDO-PACOM requirements; digitizes ISR processing architecture to increase collection capacity and data veracity. Begins three-year effort to modernize eight mid-sized apertures at OCONUS and CONUS locations; modernizes digital architecture to allow for "Sun Synchronous" operational control automation across multiple AORs for efficient collection and processing architecture. Continues installation, assessments and Authority to Operate (ATO) of mission management planning enhancements and robust collection automation capability, compliant with Risk Management Framework (RMF) requirements. Begins refurbishment of large, multi-band antenna array. Continues development of Space Intelligence deployable capabilities, including small form factor solutions for 72 ISRS, Peterson SFB, CO in support of					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force			Date: June 2025			
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				
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Continental United States (CONUS)-based deployable Tactical ISR Operations Cells (TISROCs)/Deployable ISR Support Cells (DISCs) to meet USSF Service-retained and CCMD ISR requirements. Concludes contractor "fly-off" and down-select of developed enhancement of fixed/mobile ISR Processing, Exploitation and Dissemination (PED) capabilities via latest hardware/software technology, digital processing, automation and supportable with high-speed connectivity. Continues enhancements to data dissemination capabilities. Continues funding for updates to analytic exploitation, vulnerability and susceptibility analysis, contributing to development of operational tactics, techniques, and procedures (TTPs). Second year of FY24 RDT&E funding, in FY25, also supports multi-INT Space Intelligence Production Cell (SIPC) fused intelligence in support of operations. Continues analysis for execution of Space Intelligence Capabilities-Based Assessment (CBA), resulting in formalized requirements development and material solutions analysis for fielding Space Domain Awareness (SDA) capabilities. Completes support to Data Management System to archive and make mission data discoverable, and upgrades to a GEOINT ISR exploitation tool suite, in support of CCMDs and the IC.						
FY 2026 Base Plans: Continues refurbishment of final, large aperture in support of INDO-PACOM requirements; further enhances automated intelligence processing architecture to increase collection capacity and data veracity. Continues further prototype development of contractor "fly-off" winner for best available enhancement of fixed/mobile ISR Processing, Exploitation and Dissemination (PED) capabilities via latest hardware/software technology, digital processing, automation and supportable with high speed connectivity. Begin full development of fully operational Space Intelligence deployable capabilities, including small form factor solutions for 72 ISRS, Peterson SFB, CO in support of Continental United States (CONUS)-based deployable Tactical ISR Operations Cells (TISROCs)/Deployable ISR Support Cells (DISCs) to meet USSF Service-retained and CCMD intelligence collection requirements. Begins full recapitalization of fixed processing systems to current Intelligence Community hardware/software baseline. Continues second year of three-year effort to modernize eight mid-sized apertures at OCONUS and CONUS locations; continues modernization of digital architecture to allow for "Sun Synchronous" operational control automation across multiple AORs for efficient collection and processing architecture. Completes refurbishment of large, multi-band antenna array. Continues installation, assessments and Authority to Operate (ATO) of mission management planning enhancements and robust collection automation capability to fulfill Risk Management Framework (RMF) requirements. Instantiates a Radio Frequency search and survey tool enhancement. Continues enhancements to data dissemination capabilities. Continues funding for support to exploitation, vulnerability and susceptibility analysis. Investments in multi-INT Space Intelligence Production Cell (SIPC) fused intelligence completed. Continues funding for updates to analytic exploitation, vulnerability and susceptibility analysis, contributing to development of operational tactics,						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
techniques, and procedures (TTPs). Continues analysis for execution of Space ISR CBA results, including requirements development, material solutions analysis for fielding Space Domain Awareness (SDA) capabilities. FY 2026 OOC Plans: NA FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026: Decrease in FY 2026 due to the completion of near-term fixed site collection upgrades.						
Accomplishments/Planned Programs Subtotals		28.730	28.227	24.411	0.000	24.411
D. Other Program Funding Summary (\$ in Millions)						
N/A						
Remarks						
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 contractor is Cherokee LLC. Architecture upgrades to support SDA, SSDP, 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.						

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

Date: June 2025

Appropriation/Budget Activity

3620F / 7

R-1 Program Element (Number/Name)

PE 1203330SF / Space Superiority ISR

Project (Number/Name)

67A051 / Space Superiority - Advanced Intelligence Systems

Product Development (\$ in Millions)

				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 : Peterson SFB, CO	-	1.484	Nov 2023	1.770	Nov 2024	2.435	Nov 2025	-		2.435	-	-	-
Architecture Upgrades to SDA, SSDP, and Space Superiority	C/CPFF	CACI : Dulles, VA	-	17.306	Dec 2023	20.803	Dec 2024	17.194	Dec 2025	-		17.194	-	-	-
Data Analysis, Product Development & Test Support for R&D	C/CPFF	Booz Allen Hamilton : WPAFB, OH	-	6.298	Nov 2023	5.422	Nov 2024	4.579	Dec 2025	-		4.579	-	-	-
Space ISR Production Cell (SIPC) for Multi-INT Exploitation, Data Management and Dissemination	C/CPAF	Tyto, AT&T, SPA & MATRIX : WPAFB, OH	-	3.432	Jan 2024	0.000		0.000		-		0.000	-	-	-
Subtotal			-	28.520		27.995		24.208		-		24.208	-	-	N/A

Support (\$ in Millions)

				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.210	Oct 2023	0.232	Oct 2024	0.203	Oct 2025	-		0.203	-	-	-
Subtotal			-	0.210		0.232		0.203		-		0.203	-	-	N/A

			Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	28.730	28.227	24.411	-	24.411	-	-	N/A

Remarks

Note that SIPC was not slated to receive FY 2025 RDT&E funds; Second year FY24 RDT&E funds were used to fund SIPC in FY25.

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 7					PE 1203330SF / Space Superiority ISR					67A051 / Space Superiority - Advanced Intelligence Systems			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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, SSDP, and Space Superiority																												
Data Analysis, Production Development and Test Support for R&D																												
Space ISR PED Cell (SIPC) for Data Management Archiving, Exploitation and Dissemination																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	2024	4	2030
Architecture Upgrades to SDA, SSDP, and Space Superiority	1	2024	4	2030
Data Analysis, Production Development and Test Support for R&D	1	2024	4	2030
Space ISR PED Cell (SIPC) for Data Management Archiving, Exploitation and Dissemination	1	2024	4	2025

Note

Note that SIPC was not slated to receive FY25 RDT&E funds; Second year FY24 RDT&E funds were used to fund SIPC in FY 2025.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 1203609SF / <i>pLEO SATCOM (MILNET)</i>

COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	277.407	0.000	277.407	-	-	-	-	-	-
670009: <i>Auxillary Payloads</i>	0.000	0.000	0.000	236.720	0.000	236.720	-	-	-	-	-	-
670010: <i>Space-to-Space Communications</i>	0.000	0.000	0.000	40.687	0.000	40.687	-	-	-	-	-	-

Note

In FY 2026, funds were erroneously transferred into Program Element (PE) 1203609SF, pLEO SATCOM (MILNET) from PEs 1203154SF, Long Rang Kill Chains & 1206427SF Space Systems Prototype Transitions. This funding will be realigned back to PE 1203154SF & 1206427SF for proper execution following enactment.

A. Mission Description and Budget Item Justification

In FY 2026, 236.720M was erroneously transferred from PE 1203154SF, Project 671113, Auxillary Payloads to Project 670009: Auxillary Payloads. Mission descriptions and justifications are contained in PE 1203154SF. The funds will be transferred back for proper execution following enactment.

In FY 2026, 40.687M was erroneously transferred from PE 1206427SF, Project 645601 / Space Defense Capabilities (Title: Space-To-Space Communications) to Project 670010: Space-To-Space Communications. Mission descriptions and justifications are contained in PE 1206427SF. The funds will be transferred back for proper execution following enactment.

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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	277.407	0.000	277.407
Total Adjustments	0.000	0.000	277.407	0.000	277.407
• 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	277.407	0.000	277.407

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203609SF / pLEO SATCOM (MILNET)				Project (Number/Name) 670009 / Auxillary Payloads			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
670009: Auxillary Payloads	0.000	0.000	0.000	236.720	0.000	236.720	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
In FY 2026, funds were erroneously transferred into Program Element (PE) 1203609SF, pLEO SATCOM (MILNET) from PEs 1203154SF, Long Rang Kill Chains & 1206427SF Space Systems Prototype Transitions. This funding will be realigned back to PE 1203154SF & 1206427SF for proper execution following enactment.												
A. Mission Description and Budget Item Justification												
In FY 2026, funds were erroneously transferred into Program Element (PE) 1203609SF, pLEO SATCOM (MILNET) from PEs 1203154SF, Long Rang Kill Chains & 1206427SF Space Systems Prototype Transitions. This funding will be realigned back to PE 1203154SF & 1206427SF for proper execution following enactment.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Auxillary Payloads									-	0.000	236.720	
Description: The Auxiliary Payloads project will continue to leverage relationship with NRO partner to develop and field GMTI system												
FY 2025 Plans:												
In FY25, the Auxiliary Payloads project will continue to leverage relationship with NRO partner to develop and field GMTI system												
FY 2026 Plans:												
In FY26, the Auxiliary Payloads project will continue to leverage relationship with NRO partner to develop and field GMTI system.												
FY 2025 to FY 2026 Increase/Decrease Statement:												
In FY 2026, funds were erroneously transferred into Program Element (PE) 1203609SF, pLEO SATCOM (MILNET) from PEs 1203154SF, Long Rang Kill Chains & 1206427SF Space Systems Prototype Transitions. This funding will be realigned back to PE 1203154SF & 1206427SF for proper execution following enactment.												
Accomplishments/Planned Programs Subtotals									-	0.000	236.720	
C. Other Program Funding Summary (\$ in Millions)												
N/A												
Remarks												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203609SF / pLEO SATCOM (MILNET)	Project (Number/Name) 670009 / Auxillary Payloads
D. Acquisition Strategy In FY 2026, funds in this PE were erroneously transferred from PE 1203154SF, Project 671113, Auxiliary Payloads and PE 1206427SF, Project 645601 / Space Defense Capabilities (Title: Space-To-Space Communications) and will be realigned back for proper execution following enactment.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203609SF / pLEO SATCOM (MILNET)				Project (Number/Name) 670009 / Auxillary Payloads					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
Auxiliary Payloads	Various	Various : Various	-	-		-		236.720	Oct 2025	-		236.720	-	-	-
Subtotal			-	-		-		236.720		-		236.720	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		236.720		-		236.720	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force

Date: June 2025

Appropriation/Budget Activity
3620F / 7

R-1 Program Element (Number/Name)
PE 1203609SF / pLEO SATCOM (MILNET)

Project (Number/Name)
670009 / Auxillary Payloads

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 Payloads																												
Dev & field Aux PL																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203609SF / <i>pLEO SATCOM (MILNET)</i>	Project (Number/Name) 670009 / <i>Auxillary Payloads</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Auxiliary Payloads</i>				
Dev & field Aux PL	1	2026	4	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F / 7					R-1 Program Element (Number/Name) PE 1203609SF / pLEO SATCOM (MILNET)				Project (Number/Name) 670010 / Space-to-Space Communications			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
670010: Space-to-Space Communications	0.000	0.000	0.000	40.687	0.000	40.687	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
In FY 2026, funds were erroneously transferred into Program Element (PE) 1203609SF, pLEO SATCOM (MILNET) from PEs 1203154SF, Long Rang Kill Chains & 1206427SF Space Systems Prototype Transitions. This funding will be realigned back to PE 1203154SF & 1206427SF for proper execution following enactment.												
A. Mission Description and Budget Item Justification												
In FY 2026, funds were erroneously transferred into Program Element (PE) 1203609SF, pLEO SATCOM (MILNET) from PEs 1203154SF, Long Rang Kill Chains & 1206427SF Space Systems Prototype Transitions. This funding will be realigned back to PE 1203154SF & 1206427SF for proper execution following enactment.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2024	FY 2025	FY 2026	
Title: Space-to-Space Communications									-	0.000	40.687	
Description: Continue development of optical communication terminal prototypes through Other Transaction Agreements and fund the Optical Terminal Verification Testbed at Massachusetts Institute of Technology Lincoln Laboratory (MIT/LL). Develop 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. Enhance the DARPA Space-Based Adaptive Communication Node (SpaceBACN) modem design to support long-range crosslinks and incorporate emerging optical waveform standards.												
FY 2025 Plans:												
Continue development of optical communication terminal prototypes through Other Transaction Agreements and fund the Optical Terminal Verification Testbed at Massachusetts Institute of Technology Lincoln Laboratory (MIT/LL). Develop 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. Enhance the DARPA Space-Based Adaptive Communication Node (SpaceBACN) modem design to support long-range crosslinks and incorporate emerging optical waveform standards.												
FY 2026 Plans:												
Continue development of optical communication terminal prototypes through Other Transaction Agreements and fund the Optical Terminal Verification Testbed at Massachusetts Institute of Technology Lincoln Laboratory (MIT/LL). Develop interface controls and integration plans in preparation for a space-based prototype demonstration. Mature networking management of optical												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203609SF / <i>pLEO SATCOM (MILNET)</i>	Project (Number/Name) 670010 / <i>Space-to-Space Communications</i>	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
crosslink terminals in partnerships with other organizations. Enhance the DARPA Space-Based Adaptive Communication Node (SpaceBACN) modem design to support long-range crosslinks and incorporate emerging optical waveform standards. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> In FY 2026, funds were erroneously transferred into Program Element (PE) 1203609SF, <i>pLEO SATCOM (MILNET)</i> from PEs 1203154SF, Long Rang Kill Chains & 1206427SF Space Systems Prototype Transitions. This funding will be realigned back to PE 1203154SF & 1206427SF for proper execution following enactment.			
Accomplishments/Planned Programs Subtotals		-	0.000
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
D. Acquisition Strategy			
In FY 2026, funds in this PE were erroneously transferred from PE 1203154SF, Project 671113, Auxiliary Payloads and PE 1206427SF, Project 645601 / Space Defense Capabilities (Title: Space-To-Space Communications) and will be realigned back for proper execution following enactment.			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1203609SF / pLEO SATCOM (MILNET)				Project (Number/Name) 670010 / Space-to-Space Communications					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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-to-Space Comm. Space Terminal	Various	Various : Various	-	-		-		34.399	Nov 2025	-		34.399	-	-	-
Space-to-Space Comm. SDN C2 System	Various	Various : Various	-	-		-		1.055	Jan 2026	-		1.055	-	-	-
Space-to-Space Comm. Testbed	Various	Various : Various	-	-		-		2.450	Jan 2026	-		2.450	-	-	-
Technical Mission	Various	Various : Various	-	-		-		0.650	Jan 2026	-		0.650	-	-	-
Subtotal			-	-		-		38.554		-		38.554	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		-		0.720	Jan 2026	-		0.720	-	-	-
A&AS	Various	Various : TBD	-	-		-		1.413	Jan 2026	-		1.413	-	-	-
Subtotal			-	-		-		2.133		-		2.133	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		40.687		-		40.687	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force																Date: June 2025			
Appropriation/Budget Activity								R-1 Program Element (Number/Name)								Project (Number/Name)			
3620F / 7								PE 1203609SF / pLEO SATCOM (MILNET)								670010 / Space-to-Space Communications			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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-to-Space Communications																												
Space Terminals																												
SDN C2 System																												
Comm Testbed																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203609SF / pLEO SATCOM (MILNET)	Project (Number/Name) 670010 / Space-to-Space Communications	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space-to-Space Communications				
Space Terminals	1	2026	4	2027
SDN C2 System	1	2026	4	2027
Comm Testbed	1	2026	4	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	30.885	12.024	0.000	0.000	0.000	-	-	-	-	-	-
674820: Sensor Development	0.000	30.885	12.024	0.000	0.000	0.000	-	-	-	-	-	-
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.

The PARCS Radar Digitization Upgrade Study will determine the requirement to modernize the radar through a systematic re-architecture from an analog infrastructure to a digital phased array radar to keep up with modern threats.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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				
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.						
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		20.752	12.024	0.000	0.000	0.000
Current President's Budget		30.885	12.024	0.000	0.000	0.000
Total Adjustments		10.133	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		8.000	0.000			
• Congressional Directed Transfers		0.000	0.000			
• Reprogrammings		3.000	0.000			
• SBIR/STTR Transfer		-0.867	0.000			
• Other		0.000	0.000	0.000	0.000	0.000
Congressional Add Details (\$ in Millions, and Includes General Reductions)						
Project: 674820: Sensor Development						
Congressional Add: PARCS Radar Digitization Upgrade Study						
Congressional Add Subtotals for Project: 674820						
Congressional Add Totals for all Projects						
C. Accomplishments/Planned Programs (\$ in Millions)						
Title: ADPE Rehost Upgrade, Phase II				FY 2024	FY 2025	FY 2026
Description: The Automated Data Processing Equipment (ADPE) Rehost (ADPE-R) Phase II Signal Processor, Radar Controller and Receiver modernization. Mission Computer replacement will also be accomplished as soon as resources allow. The approach will modernize these systems with an innovative hardware and software-based open architecture solution supported by switching solutions and modernized development environments.				23.124	12.024	0.000
FY 2025 Plans:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 1203873SF / <i>Ballistic Missile Defense Radars</i>			
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
The FY 2025 PB restructures the Automated Data Processing Equipment Rehost (ADPE-R) program to continue development of the Signal Processor, Radar Controller, Receiver-Exciter (SPARC/REX) and supports integration and testing for upgrading Mission Processing to address emerging threats, up to the point where it could be operationally accepted pending future decisions. 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 Plans: FY 2026 Plans: N/A. FY 2025 to FY 2026 Increase/Decrease Statement: No funding required in FY 2026 due to completion of ADPE Rehost Upgrade, Phase II.				
Accomplishments/Planned Programs Subtotals		23.124	12.024	0.000
		FY 2024	FY 2025	
Congressional Add: PARCS Radar Digitization Upgrade Study FY 2024 Accomplishments: The PARCS RADAR Digitization Study continues the requirement to modernize the radar from an analog infrastructure to a digital phased array radar to keep up with modern threats. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc.		7.761	-	
Congressional Adds Subtotals		7.761	-	
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. PARCS Radar Digitization upgrade study will be accomplished using an existing indefinite delivery/indefinite quantity contract.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	14.899	Oct 2023	9.507	Oct 2024	-		-		-	-	-	-
Signal Processor, Radar Controller, Receiver-Exciter Replacement	SS/CPAF	Various : Colorado Springs, CO	-	6.867	Oct 2023	0.000	Oct 2024	-		-		-	-	-	-
PARCS Radar Digitization	SS/CPFF	Georgia Tech : Atlanta, GA	-	7.761	Aug 2024	-		-		-		-	-	-	-
SBIR/STTR	Allot	TBD : TBD	-	0.000	Oct 2023	0.405	Oct 2024	-		-		-	-	-	-
Subtotal			-	29.527		9.912		-		-		-	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.006	Jan 2024	0.617	Jan 2025	-		-		-	-	-	-
Subtotal			-	0.006		0.617		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.659	Jan 2024	1.033	Jan 2025	-		-		-	-	-	-
Other Support	Various	Various : Colorado Springs, CO	-	0.693	Mar 2024	0.462	Mar 2025	-		-		-	-	-	-
Subtotal			-	1.352		1.495		-		-		-	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force											Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals	-	30.885		12.024		-		-		-	-	-	N/A	

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
Appropriation/Budget Activity 3620F / 7		R-1 Program Element (Number/Name) PE 1203873SF / Ballistic Missile Defense Radars		Project (Number/Name) 674820 / Sensor Development	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 SPARC/REX Replacement																												
Phase II, Part II Hardware/Software Development																												
Phase II, Part II Systems Integration & Test																												
ADPE Rehost Phase II, Part II Mission Computer Replacement																												
Phase II, Part II Requirements Development & Design																												
Phase II, Part II Hardware/Software Development																												
Phase II, Part II Systems Integration & Test																												
PARCS Radar Digitization Upgrade Study																												
Digitization Upgrade Study																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1203873SF / Ballistic Missile Defense Radars	Project (Number/Name) 674820 / Sensor Development	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ADPE Rehost Phase II, Part II SPARC/REX Replacement				
Phase II, Part II Hardware/Software Development	1	2024	2	2024
Phase II, Part II Systems Integration & Test	2	2024	2	2025
ADPE Rehost Phase II, Part II Mission Computer Replacement				
Phase II, Part II Requirements Development & Design	1	2024	1	2024
Phase II, Part II Hardware/Software Development	1	2024	2	2025
Phase II, Part II Systems Integration & Test	2	2025	4	2025
PARCS Radar Digitization Upgrade Study				
Digitization Upgrade Study	4	2024	4	2025

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	21.757	25.656	25.839	0.000	25.839	-	-	-	-	-	-
67A051: Space Superiority - Advanced Intelligence Systems	0.000	21.757	25.656	25.839	0.000	25.839	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program element supports development activities for the North American Aerospace Defense Command (NORAD) Cheyenne Mountain Complex (NCMC) - Integrated Tactical Warning Attack Assessment (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 Defense, 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.

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.

Missile Warning/Missile Track (MW/MT) Enhancement includes mission critical data from other non-traditional high-fidelity sources to address current and future emerging threats that are non-traditional ballistic missile threats. In order to address the new threat to the homeland, it is necessary to expand the available sources to update the ITW/AA situational picture for the COCOM and provide the necessary data for sound decisions for the Nuclear C3 (NC3) community.

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. It also supports the Chief Scientist Office building algorithms and models which provide 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

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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				
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.						
Service Contract Reduction: -\$254 thousand - Reduces contracts 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 North American Aerospace Defense Command (NORAD) Cheyenne Mountain Complex (NCMC) - Integrated Tactical Warning Attack Assessment (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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		25.545	25.656	26.777	0.000	26.777
Current President's Budget		21.757	25.656	25.839	0.000	25.839
Total Adjustments		-3.788	0.000	-0.938	0.000	-0.938
• 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		-3.000	0.000			
• SBIR/STTR Transfer		-0.788	0.000			
• Other Adjustments		0.000	0.000	-0.938	0.000	-0.938
Change Summary Explanation						
FY 2024: -3.0M Below Threshold Reprogramming to PE 1203873SF for higher USSF priorities						
FY 2026: -0.094M reduction to support higher USSF priorities						
FY 2026: -0.254M; Advisory and Assistance Services (A&AS) reduction to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative.						
FY 2026: -0.590M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: ITW/AA System of Systems Integration				10.730	12.000	11.649

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
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 Defense, 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 2025 Plans: Coordinate across Integrated Tactical Warning Attack Assessment (ITW/AA) community to ramp up configuration change control, architecture management, and future initiative integration. Additional effort required 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, specializing in creating and maintaining test/training scenarios for Missile Warning (MW), Missile Defense (MD), Space Domain Awareness (SDA) sensors and supporting systems/ infrastructure. Tombstone maintains the existing scenarios with the most up-to-date information, building new developmental and operational test scenarios and supporting updates to scenario building and test analysis tools to further increase warfighter effectiveness in MD/MW/SDA domains. Test and integrate additional data feeds into the Emerging Threat Lab (ETL), analyze these feeds to 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 MW, MD, and Air Warning (AW) systems. Effort requires modernization of antiquated health system requirements alignment across multiple organizations. 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 Plans:				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Continue coordination across ITW/AA community to ramp up 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, will analyze these feeds to 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.				
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 2025 to FY 2026 Increase/Decrease Statement: FY2026 decreased by 0.351M for realignment to PE1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively				
Title: MW/MT Enhancement		11.027	13.656	14.190
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				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) impact prediction. Creates multiple display options for the operator and reduces ambiguity between missile defense and missile warning displays. FY 2025 Plans: Continue the analysis, solution, and software coding of integration, processing, and display of high-fidelity data from non-Integrated Tactical Warning Attack Assessment (ITW/AA) and non-traditional sensor sources, resolving ambiguity and improving prediction accuracy, thus increasing the time-critical National Command Authorities nuclear responses decision space. Continue addressing emergent space-based missile threats and other capability gaps identified in the Global Threat Characterization Assessment recommendations. Continue enhancing missile defense and missile warning information supporting a common operating picture. Continue harmonizing the displays between strategic Missile Warning and Missile Defense. Continue integrating non-traditional source data to provide a seamless event-tracking and common operating picture. 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 integration of first non-traditional data source to provide event-tracking and common operating picture. Conduct formal developmental test and evaluation followed by formal operational test and evaluation. 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 2025 to FY 2026 Increase/Decrease Statement:		FY 2024	FY 2025	FY 2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2026 increased by \$0.534M to conduct formal system test and evaluation.				
Accomplishments/Planned Programs Subtotals		21.757	25.656	25.839
D. Other Program Funding Summary (\$ in Millions) N/A				
Remarks				
E. Acquisition Strategy MW/MT Enhancement effort will be a competitive single task order award in 4th Quarter FY 2024 with options available to be awarded in 3rd Quarter FY 2025 for next phases of integration and testing. 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 is in the Software Acquisition Execution Phase 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	2.749	Jul 2024	10.150	Dec 2024	10.612	Oct 2025	-		10.612	-	-	-
Product Development of Missile Warning/Missile Track Enhancement - Equipment	C/CPFF	Amentum : Colorado Springs, CO	-	5.500	Feb 2025	0.422	Feb 2025	-		-		-	-	-	-
Product Development of Missile Warning/Missile Track Enhancement - MDA Integration Support	TBD	TBD : TBD	-	-		0.933	Jun 2025	1.439	Nov 2025	-		1.439	-	-	-
Product Development of ITW/AA System of Systems Integration	Various	Multiple : Multiple	-	8.520	Apr 2024	9.531	Oct 2024	1.340	Jan 2026	-		1.340	-	-	-
Product Development of ITW/AA System of Systems Integration - SE&I	C/CPFF	ADDx : Colorado Springs, CO	-	-		-		3.331	Mar 2026	-		3.331	-	-	-
Product Development of ITW/AA System of Systems Integration - AMS SpaceCAMP	SS/CPFF	AFRL : Colorado Springs, CO	-	-		-		4.142	Dec 2025	-		4.142	-	-	-
Product Development of Emerging Threat Lab	Various	Multiple : Multiple	-	1.500	Jul 2024	1.065	Oct 2024	1.522	Jan 2026	-		1.522	-	-	-
SBIR/STTR	Allot	TBD : TBD	-	-		0.842	Oct 2024	0.937	Oct 2025	-		0.937	-	-	-
Subtotal			-	18.269		22.943		23.323		-		23.323	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 : TBD	-	-		0.114	May 2025	-		-		-	-	-	-
OT&E	PO	Not specified. : TBD	-	-		-		0.145	Nov 2025	-		0.145	-	-	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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			-	-		0.114		0.145		-		0.145	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	3.246	Jan 2024	2.538	Feb 2025	2.307	Feb 2026	-		2.307	-	-	-
Other Support	TBD	TBD : TBD	-	0.242	Jan 2024	0.061	Jan 2025	0.064	Jan 2026	-		0.064	-	-	-
Subtotal			-	3.488		2.599		2.371		-		2.371	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	21.757		25.656		25.839		-		25.839	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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
MW/MT Enhancement																												
MW/MT Enhancement Prime Contract																												
- Integrate first non-traditional data source into CCIC2S																												
-Conduct developmental and operational test and evaluation																												
-Integrate second non-traditional data source into CCIC2S																												
-Conduct development and operational test and evaluation 2nd data source																												
ITW/AA System of Systems Integration																												
ITW/AA System of Systems Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	4	2024	4	2026
- Integrate first non-traditional data source into CCIC2S	4	2024	4	2026
-Conduct developmental and operational test and evaluation	1	2026	4	2026
-Integrate second non-traditional data source into CCIC2S	3	2026	2	2028
-Conduct development and operational test and evaluation 2nd data source	2	2028	2	2029
<i>ITW/AA System of Systems Integration</i>				
ITW/AA System of Systems Integration	3	2024	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	83.591	83.426	96.836	0.000	96.836	-	-	-	-	-	-
672808: <i>Nuc Detonation Det Sys (sensors)</i>	0.000	83.591	83.426	96.836	0.000	96.836	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Universal Ground NDS Terminal (UGNTs) 7 modernization effort, a FY26 new start, is the USG's only Survivable/Endurable (S/E) system capable of processing United States Nuclear Detonation (NUDET) data from the next-gen NDS payloads on GPS IIIF. Obsolete hardware and software will be replaced within the UGNT trailers. Integrated Correlation and Display Systems (ICADS 7) will be installed on the system enabling UGNT to be fully mission capable (FMC) and to download nuclear detonation data from GPS IIIF satellites enabling DoD and COCOM decision makers to have near-real time decision quality data for nuclear force management in support of the NC3 mission set.

The NUDET Detection System (USNDS) provides a near real-time worldwide, highly survivable/endurable capability to detect, locate, and report any nuclear detonations 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 Department of Defense (DoD), through the Space Force, and the Department of Energy (DOE), through the National Nuclear Security Administration (NNSA) and its Nuclear Detonation Detection (NA-22) office, 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 Global Positioning System (GPS) and additional hosts, and their supporting ground control segments. The AF directly funds the development of the USNDS ground segment (described below).

DoD 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 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 Integrated Correlation and Display System (ICADS), the five deployable mobile ground segment survivable Ground Nuclear Detonation Detection System Terminals

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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>
(GNTs), and the survivable/endurable UGNTs, when operationally accepted. 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 program. 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 Survivable (SBIRS) / 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 Defense, 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. Universal Ground NDS Terminal (UGNTs) 7 are a component of the S2E2 Force Package (FPAK). UGNT upgrades will be 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 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 2026 Air Force				Date: June 2025		
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)				
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget	93.391	83.426	76.968	0.000	76.968	
Current President's Budget	83.591	83.426	96.836	0.000	96.836	
Total Adjustments	-9.800	0.000	19.868	0.000	19.868	
• 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	-9.800	0.000				
• SBIR/STTR Transfer	0.000	0.000				
• Other Adjustments	0.000	0.000	19.868	0.000	19.868	
Change Summary Explanation						
FY 2024: -9.800M; for Higher Priorities USSF Investments						
FY 2026: 23.000M; Universal Ground NDS Terminals (UGNTs)						
FY 2026: -1.697M; to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively						
FY 2026: -0.730M; Advisory and Assistance Services (A&AS) reduction to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative.						
FY 2026: -0.358M; Federally Funded Research and Development reduction						
FY 2026: -0.326M: Inflation rate reductions						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Integration with SBIRS S2E2 Mobile Ground Terminals (SMGTs)				3.400	0.370	23.000
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 also in support of ITW/AA and NFM. Support program scope analyzation for USNDS receiver and NUDET Decryption Unit (NDU) components. Additional support costs includes such activities as; receiver system engineering support, conceptual hardware and software design, check-out/support, testing, and system engineering.						
FY 2025 Plans:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Provide final year of Interim Contractor Support (ICS). Activities include completion of remaining work on technical orders that provide military personnel instructions for maintenance and operations and system sustainment support. 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 2025 to FY 2026 Increase/Decrease Statement: Increase from FY25 to FY26 due to support the new UGNT modernization effort.				
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 2025 Plans: Continue ICADS 7 development during EMD phase, including completion of CDR. Focus on development of new cryptographic devices NDU and Receiver, preparing for certification by respective NSA and GPS organizations, and pause the development of the new ERS. Program will increase efforts on software development for main database and processing subsystem, algorithm integration for optical, X-Ray and EMP sensors across multiple prime contractor developers and completion of testbed development. 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. Development, integration and testing of Sandia Data Analysis and Display System (SDADS) and NAPGS subsystems. 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 Plans:		80.191	83.056	73.836

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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) 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 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. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> Decrease due to development efforts nearing completion and transitioning to integration and test, which will require a smaller headcount to support these activities.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		83.591	83.426	96.836
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 DoD 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	3.400	Nov 2023	0.370	Nov 2024	22.071	Nov 2025	-		22.071	-	-	-
USNDS Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	0.000	Nov 2023	0.000	Nov 2024	1.531	Nov 2025	-		1.531	-	-	-
USNDS Enterprise SE&I	Various	TASC : El Segundo, CA	-	1.232	Nov 2023	1.521	Nov 2024	3.466	Nov 2025	-		3.466	-	-	-
ICADS 7	MIPR	Sandia National Laboratory : Albuquerque, NM	-	65.272	Nov 2023	70.335	Nov 2024	58.581	Nov 2025	-		58.581	-	-	-
Subtotal			-	69.904		72.226		85.649		-		85.649	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 On-orbit Sensor Testing	MIPR	Various : LANL, SNL, NM	-	5.450	Nov 2023	3.966	Nov 2024	4.372	Nov 2025	-		4.372	-	-	-
Subtotal			-	5.450		3.966		4.372		-		4.372	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	2.814	Nov 2023	2.885	Nov 2024	3.022	Nov 2025	-		3.022	-	-	-
USNDS A&AS	Various	Various : Various	-	5.363	Nov 2023	4.269	Nov 2024	3.713	Nov 2025	-		3.713	-	-	-
USNDS Other Support	Various	Various : Various	-	0.060	Nov 2023	0.080	Nov 2024	0.080	Nov 2025	-		0.080	-	-	-
Subtotal			-	8.237		7.234		6.815		-		6.815	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force											Date: June 2025		
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	83.591		83.426		96.836		-		96.836	-	-	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
Appropriation/Budget Activity		R-1 Program Element (Number/Name)		Project (Number/Name)	
3620F / 7		PE 1203913SF / NUDET Detection System (SPACE)		672808 / Nuc Detonation Det Sys (sensors)	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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
ICADS7																												
ICADS 7 Development																												
Milestone B																												
Critical Design Review (CDR)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force		Date: June 2025
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
ICADS7				
ICADS 7 Development	1	2024	4	2029
Milestone B	1	2025	3	2025
Critical Design Review (CDR)	1	2026	1	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	259.417	115.660	182.377	0.000	182.377	-	-	-	-	-	-
673940: Space Data Fusion	0.000	87.023	77.464	53.959	0.000	53.959	-	-	-	-	-	-
673941: Unified Data Library (UDL)	0.000	168.463	35.075	42.945	0.000	42.945	-	-	-	-	-	-
673942: Joint Commercial Operations (JCO)	0.000	0.000	0.000	34.381	0.000	34.381	-	-	-	-	-	-
673943: Space Domain Awareness Mesh Network (SDANet)	0.000	0.000	0.000	47.998	0.000	47.998	-	-	-	-	-	-
67A018: SF Weather Services Research	0.000	3.931	3.121	3.094	0.000	3.094	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

In FY 2026, Project 673942, Joint Commercial Operations (JCO) efforts were transferred from Project 673940, Space Data Fusion to increase transparency.
In FY 2026, Project 673943, Space Domain Awareness Network (SDANet) efforts were transferred from Project 673940, Space Data Fusion to increase transparency.

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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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>
The Space Data Fusion (SDF) project (673940) includes the Global Sensor Watch (GSW) program, which develops and/or upgrades Space Domain Awareness (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. 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. The Joint Commercial Operations (673942) effort supports the Joint Commercial Operations (JCO) cell. The JCO's mission is to provide persistent and rapid SDA coverage to maximize decision making space and reduce reaction time in support of Protect & Defend missions. Commercial SDA executes commercial data buys beyond protect and defend missions and 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 expanding agile software development, delivery, and integration practices. 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, allow optimized data flow for use of existing SDA capability and provide 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 FY 2026 cost of the Middle Tier of Acquisition is reflected in the budget request, including RDT&E and procurement of prototype units. The Department will certify Future Years Defense Program funding in a future budget submission. 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.		

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force			Date: June 2025		
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 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	264.966	120.160	108.071	0.000	108.071
Current President's Budget	259.417	115.660	182.377	0.000	182.377
Total Adjustments	-5.549	-4.500	74.306	0.000	74.306
• Congressional General Reductions	0.000	-7.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	2.500			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-5.549	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	74.306	0.000	74.306
Congressional Add Details (\$ in Millions, and Includes General Reductions)					
Project: 673940: Space Data Fusion					
Congressional Add: Commercial Collaborative Sensor Network					
Congressional Add: AI and Autonomy Data Analytics and Sensors					
Congressional Add Subtotals for Project: 673940					
Congressional Add Totals for all Projects					
Change Summary Explanation					
FY 2026: -4.167M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and Commercial Space Office industry innovation outreach support respectively.					
FY 2026: -1.803M; Advisory and Assistance Services (A&AS) reduction to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative."					
FY 2026: +26.000M; Fully fund Joint Commercial Operations beyond Protect and Defend					
FY 2026: +48.900M; funds SDANet to deploy end-to-end data delivery capability via resilient, distributed terrestrial mesh network					

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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	
FY 2026: +8.000M; upgrade and expand the UDL Platform Architecture		
FY 2026: -2.000M; reduction to Space Data Fusion to account for availability of prior year balances		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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>			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
673940: <i>Space Data Fusion</i>	0.000	87.023	77.464	53.959	0.000	53.959	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In FY 2026, Project 673942, Joint Commercial Operations efforts were transferred from Project 673940, Space Data Fusion to increase transparency.
In FY 2026, Project 673943, Space Domain Awareness Network (SDANet) efforts were transferred from Project 673940, Space Data Fusion to increase transparency.

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. The Space 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.

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 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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. In order 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. To do this, 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 2025 Plans: Continue 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: -Integrate radar sites at Eglin Air Force Base, Florida; 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. -Continue Ground Based Radar-Kwajalein radome work and sensor array development. -Continue efforts towards DARC Site 1; COBRA DANE; GEODSS; Ascension Site C and REDLAN, as sites are available. -Award contract for Ascension SDA replacement radar (previously Ascension Site C) to fill USSPACECOM LEO detection and tracking capability gap in South Atlantic; continue site preparation and begin execution of hardware and software technical refresh and capability upgrades. -Vet new SDA capability deliveries and concepts of operations for optimizing legacy SDA sensor operations via other USSPACECOM operations and test activities. Continue Global Sensor Watch (GSW) integration and fielding of: -Expand to additional Space Surveillance Network (SSN) sites, mesh network for essential SCU communications and resilient data transport capability. -Upgrades to 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 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.		59.265	48.829
			53.959

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
-Automate SDA process such as MACHINA integration with the secret-level GEODSS system in Maui and other sensors. -Continue developing and integration of classified C2 and SDA sharing with the Japanese Space Operations Center (JSpOC) and expand Security Cooperation activities with other International mission partners, such as Canada and the United Kingdom. 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 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 DoD 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: -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).			
			FY 2026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
-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. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to internal realignment of FY 2025 GSW funds to SDANet.			
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 2025 Plans: N/A FY 2026 Plans:		0.000	17.432
			0.000

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
N/A			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to transfer of SDANet funds to new project SDANet (673943) thereby increasing transparency.			
Title: Commercial Data Buys Beyond Protect and Defend		14.758	8.703
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.			0.000
FY 2025 Plans: Combine Joint Commercial Operations 24/7 GEO Protect and Defend mission (Which include multiple partner nations across three geographic sectors named Americas, Meridian, Pacific) with additional capabilities which achieved successful prototyping during FY24 events. The potential prototypes include LEO SDA support using both ground-centric and space-to-space collection; electromagnetic frequency SDA and interference detection and geolocation support across the spectrum (e.g., PNT); on-orbit GEO SDA augmentation from commercial providers; persistent revisit of the GEO belt for military space flight safety in coordination with the DOC; cyber SDA support; space-to-ground imagery collection in tactical support of unified combatant commands as directed by the recent Tac ISR/SRT initiative; and RF TT&C SDA monitoring and link support augmentation.			
FY 2026 Plans: N/A			
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased due to transfer of Commercial SDA funds to new project Joint Commercial Operations (JCO 673942) thereby increasing transparency.			
Accomplishments/Planned Programs Subtotals		74.023	74.964
			53.959

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force							Date: June 2025				
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 2024	FY 2025				
Congressional Add: Commercial Collaborative Sensor Network						3.000	2.500				
FY 2024 Accomplishments: This effort will develop autonomous, agent-based sensor control software for collaborative commercial sensors, enabling seamless integration of commercial and non-traditional sensors with US government space sensing capabilities.											
FY 2025 Plans: 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 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 Add: AI and Autonomy Data Analytics and Sensors						10.000	0.000				
FY 2024 Accomplishments: This effort will deliver novel autonomous, mobile sensing solutions capable of augmenting the Space Surveillance Network, along with associated image processing, object tracking, and event warning software.											
FY 2025 Plans: N/A											
Congressional Adds Subtotals						13.000	2.500				
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPAF 01 SPCMOD: Space Mods	8.331	-	-	-	-	-	-	-	-	-	-
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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	MIT/LL : Lexington, MA	-	18.678	Nov 2023	4.867	Nov 2024	20.220	Nov 2025	-		20.220	-	-	-
GSW Sensor Comm Upgrades	Various	Various : Various	-	29.953	Nov 2023	7.993	Nov 2024	15.608	Nov 2025	-		15.608	-	-	-
SDANet	Various	Various : Various	-	0.000	Nov 2023	7.381	Nov 2024	-		-		-	-	-	-
GSW Commercial Data Buys Beyond Protect and Defend	Various	Various : Colorado Springs, CO	-	13.013	Oct 2023	8.425	Oct 2024	10.500	Nov 2025	-		10.500	-	-	-
Lighthouse	Various	Various : Various	-	0.000	May 2024	35.781	Dec 2024	-		-		-	-	-	-
TAPOUT	MIPR	AFRL : Various	-	2.436	Nov 2023	-		-		-		-	-	-	-
Commercial Collaborative Sensor Network	MIPR	TBD : Various	-	3.000	Jul 2024	2.417	Aug 2025	-		-		-	-	-	-
AI and Autonomy Data Analytics and Sensors	MIPR	TBD : Various	-	10.000	Jul 2024	-		-		-		-	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	2.163	Oct 2023	2.555	Jun 2025	2.035	Oct 2025	-		2.035	-	-	-
Subtotal			-	79.243		69.419		48.363		-		48.363	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	4.700	Nov 2023	5.524	Nov 2024	3.446	Nov 2025	-		3.446	-	-	-
FFRDC	RO	Various : Colorado Springs, CO	-	2.700	Nov 2023	2.291	Nov 2024	2.020	Nov 2025	-		2.020	-	-	-
Other Support	Various	Various : Colorado Springs, CO	-	0.380	Nov 2023	0.230	Nov 2024	0.130	Nov 2025	-		0.130	-	-	-
Subtotal			-	7.780		8.045		5.596		-		5.596	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force											Date: June 2025		
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	87.023		77.464		53.959		-		53.959	-	-	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 (1-4)																												
GSW Sensor Comm Upgrades - Operationalize LH2 Sites (5-10)																												
GSW Sensor Comm Upgrades - Operationalize LH2 Sites (11-17)																												
GSW Prototypes/Integration																												
TAPOUT Experimental Operations and Development																												
TAPOUT Experimental Evaluation Period																												
TAPOUT IOC																												
TAPOUT FOC																												
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																												
New Capability Experimentation and Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force

Date: June 2025

Appropriation/Budget Activity

3620F / 7

R-1 Program Element (Number/Name)

PE 1203940SF / *Space Situation Awareness Operations*

Project (Number/Name)

673940 / *Space Data Fusion*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Global Sensor Watch (GSW)</i>				
GSW Operationalization	1	2024	4	2029
GSW Sensor Comm Upgrades - Operationalize LH2 Sites (1-4)	1	2024	4	2024
GSW Sensor Comm Upgrades - Operationalize LH2 Sites (5-10)	1	2025	1	2026
GSW Sensor Comm Upgrades - Operationalize LH2 Sites (11-17)	2	2026	1	2027
GSW Prototypes/Integration	1	2024	1	2025
TAPOUT Experimental Operations and Development	1	2024	4	2024
TAPOUT Experimental Evaluation Period	1	2024	4	2024
TAPOUT IOC	3	2024	3	2024
TAPOUT FOC	3	2025	3	2025
<i>SDANet</i>				
Space Domain Awareness Network (SDANet) - Tranche 2 - Nodes 7-12	2	2025	4	2025
<i>Commercial Data Buys Beyond Protect and Defend</i>				
Americas-Only Developmental Support	1	2024	4	2025
Meridian Expansion Support	1	2024	4	2025
Pacific Expansion Support	1	2024	4	2025
Global Development Support for Command and Control	1	2024	4	2025
New Capability Experimentation and Integration	1	2024	4	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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)			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
673941: Unified Data Library (UDL)	0.000	168.463	35.075	42.945	0.000	42.945	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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 2024	FY 2025	FY 2026
Title: Unified Data Library (UDL)	59.025	35.075	42.945
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 2025 Plans: Continue to expand UDL infrastructure to maintain digital superiority, supporting an increased number of providers and consumers, and strengthening operations across multiple security environments. Continue to incorporate non-traditional and commercial SDA data and information to improve the overall battle-space awareness for Guardians. Renew UDL's Authority to Operate (ATO). Implement controls to monitor data egress and ingress that will result in overall reduction of cloud hosting costs.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
Improve processes and tracking, and initiate stakeholder engagements resulting in a doubling of the number of onboarding effort over FY24. Implement configurable schemas to allow for development to continue on a single baseline. Complete the first phase of a translation service that will expand the number of data providers and consumers and shorten the timeline to ingest mission critical data to the UDL, enabling seamless integration with legacy systems and formats. Continue to streamline SDA data flows as improved transport options are implemented; partner with MeshONE-T and other network enhancements as appropriate to create a direct connect between the UDL and the Space Mission Platform. Enable secure, bi-directional data sharing with coalition and allied partners. As data ingress and egress grows, a portion of the funds will cover cloud-hosting costs, data service development, security, system administration, technical refreshes, data on boarding, 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. 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: 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), Silent Barker, Joint Commercial Operations, Ground-Based Electro-Optical Deep Space 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.			
			FY 2026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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)	
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025
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. FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to platform architecture upgrades and additional software cybersecurity and engineering compliance. Title: Expansion of sensor communications upgrades and data integration Description: Expand planned sensor communications upgrades and the integration of non-traditional and commercial data. Deliver data on tactically relevant timelines from sensor to UDL and C2. FY 2025 Plans: N/A FY 2026 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: N/A			
Accomplishments/Planned Programs Subtotals		109.438	0.000
			0.000
		168.463	35.075
			42.945
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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>
D. Acquisition Strategy In FY 2025/2026 the UDL program plans to execute a follow-on contract for the next generation of the UDL for data platform maturation and in support of emerging mission requirements. The USSF expects to be executing this strategy within the Software Acquisition Pathway. 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
Expansion of sensor comm upgrades and data integration	Various	Various : Various	-	109.438	Dec 2024	-		-		-		-	-	-	-
UDL Commercial Data	Various	Various : Various	-	3.000	Jan 2024	-		-		-		-	-	-	-
UDL Development/Data Onboarding	Various	Various : Various	-	37.927	Dec 2023	20.552	Dec 2024	27.285	Dec 2025	-		27.285	-	-	-
UDL Cloud Hosting	Various	Various : Various	-	9.069	Mar 2024	3.625	Mar 2025	5.807	Mar 2026	-		5.807	-	-	-
UDL Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	1.247	Nov 2023	1.932	Nov 2024	1.914	Nov 2025	-		1.914	-	-	-
SBIR/STTR	Allot	TBD : TBD	-	0.000	Oct 2023	1.284	Oct 2024	1.504	Oct 2025	-		1.504	-	-	-
Subtotal			-	160.681		27.393		36.510		-		36.510	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	0.894	Nov 2023	1.097	Nov 2024	1.125	Nov 2025	-		1.125	-	-	-
Subtotal			-	0.894		1.097		1.125		-		1.125	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	4.066	Dec 2023	4.196	Apr 2025	3.036	Apr 2026	-		3.036	-	-	-
FFRDC	RO	Various : Colorado Springs, CO	-	2.616	Nov 2023	2.139	Nov 2024	1.974	Dec 2025	-		1.974	-	-	-
Other Support	C/Various	Various : Colorado Springs, CO	-	0.206	Dec 2023	0.250	Dec 2024	0.300	Dec 2025	-		0.300	-	-	-
Subtotal			-	6.888		6.585		5.310		-		5.310	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force											Date: June 2025						
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)							
					Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals					-	168.463		35.075		42.945		-		42.945	-	-	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)			
3620F / 7					PE 1203940SF / Space Situation Awareness Operations					673941 / Unified Data Library (UDL)			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
UDL Commercial Data																												
Commercial Data																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	2024	4	2030
UDL Platform Dev / Space Onboarding Component	1	2024	4	2030
UDL Cloud Component Development	1	2024	4	2030
Cross Functional UDL Integration	1	2024	4	2030
UDL Component Integration	2	2025	4	2030
UDL Cross Domain Solution Support	1	2024	4	2030
UDL AI/ML Support	1	2024	4	2030
UDL Test and Integration	2	2024	4	2030
UDL Commercial Data				
Commercial Data	1	2024	4	2024

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
673942: Joint Commercial Operations (JCO)	0.000	0.000	0.000	34.381	0.000	34.381	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In FY 2026, Project 673942, Joint Commercial Operations efforts were transferred from Project 673940, Space Data Fusion to increase transparency. This is not a new start.

The Joint Commercial Operations (673942) effort supports the Joint Commercial Operations (JCO) cell. The JCO's mission is to provide persistent and rapid SDA coverage to maximize decision making space and reduce reaction time in support of Protect & Defend missions. Joint Commercial Operations executes commercial data buys beyond protect and defend missions and 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 expanding agile software development, delivery, and integration practices.

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

	FY 2024	FY 2025	FY 2026
Title: Commercial Data Buys Beyond Protect and Defend	-	0.000	34.381
Description: The Joint Commercial Operations effort supports the Joint Commercial Operations (JCO) cell. The JCO's mission is to provide persistent and rapid SDA coverage to maximize decision making space and reduce reaction time in support of Protect & Defend missions. Joint Commercial Operations executes commercial data buys beyond protect and defend missions and 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 expanding agile software development, delivery, and integration practices.			
FY 2025 Plans: N/A			
FY 2026 Plans: Continue to provide persistent and rapid SDA coverage to maximize decision making space and reduce reaction time in support of Protect & Defend missions as well as other SDA mission areas. Execute commercial data buys beyond protect and defend missions and support 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 expanding agile software development, delivery, and integration practices.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 increased due to transfer of funds from Project 673940, Space Data Fusion and addition of commercial data buys beyond Protect and Defend missions.			
Accomplishments/Planned Programs Subtotals		-	0.000
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. In FY 2026 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-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		-		32.658	Nov 2025	-		32.658	-	-	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		-		1.258	Oct 2025	-		1.258	-	-	-
Subtotal			-	-		-		33.916		-		33.916	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-		0.465	-	-	-
Subtotal			-	-		-		0.465		-		0.465	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		34.381		-		34.381	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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)	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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)	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Commercial Data Buys Beyond Protect and Defend				
Americas-Only Developmental Support	1	2026	4	2028
Meridian Expansion Support	1	2026	4	2028
Pacific Expansion Support	1	2026	4	2028
Global Development Support for Command and Control	1	2026	4	2028
New Capability Experimentation and Integration	1	2026	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
673943: Space Domain Awareness Mesh Network (SDANet)	0.000	0.000	0.000	47.998	0.000	47.998	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

In FY 2026, Project 673943, Space Domain Awareness Network efforts were transferred from Project 673940, Space Data Fusion to increase transparency. This is not a new start.

The Space Domain Awareness Network (SDANet, 673943) effort 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, 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.

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

	FY 2024	FY 2025	FY 2026
Title: Space Domain Awareness Network (SDANet)	-	0.000	47.998
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 2025 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025	
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 2024	FY 2025
N/A <i>FY 2026 Plans:</i> 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 IOC. New data capabilities include message types beyond legacy Integrated Weapon System Data (IWSD) messages, rich data observations, and other information required for modern 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. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 increased due to transfer of SDANet funds from Space Data Fusion, project 673940 for increased transparency and addition of Kill Chain integration funding.			
Accomplishments/Planned Programs Subtotals		-	0.000
C. Other Program Funding Summary (\$ in Millions)			
N/A			
Remarks			
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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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/CPAF	Various : Various	-	-		-		22.514	Nov 2025	-		22.514	-	-	-
SDANET Sensor Integration	C/CPAF	Various : Various	-	-		-		11.569	Nov 2025	-		11.569	-	-	-
SDANet Comms	C/CPAF	Starshield : Various	-	-		-		3.000	Nov 2025	-		3.000	-	-	-
SDANet Cyber Support	C/CPAF	Booz Allen Hamilton : Various	-	-		-		0.700	Nov 2025	-		0.700	-	-	-
Lighthouse	Various	Various : Various	-	-		-		6.000	Dec 2025	-		6.000	-	-	-
Technical Mission Analysis	Various	Various : Various	-	-		-		0.093	Dec 2025	-		0.093	-	-	-
SBIR/STTR	C/CPAF	Not specified. : TBD	-	-		-		1.757	Oct 2025	-		1.757	-	-	-
Subtotal			-	-		-		45.633		-		45.633	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-		1.909	-	-	-
FFRDC	C/Various	Aerospace : Colorado Springs, CO	-	-		-		0.356	Nov 2025	-		0.356	-	-	-
Other Support	C/Various	Various : Colorado Springs, CO	-	-		-		0.100	Nov 2025	-		0.100	-	-	-
Subtotal			-	-		-		2.365		-		2.365	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		47.998		-		47.998	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force																Date: June 2025			
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)			

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force		Date: June 2025
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				
Space Domain Awareness Network (SDANet) - Tranche 2 - Nodes 7-12	1	2026	1	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
67A018: SF Weather Services Research	0.000	3.931	3.121	3.094	0.000	3.094	-	-	-	-	-	-
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 Defense (DoD) weapon systems.

To strengthen alliances and partnerships, SF Weather Services Research development efforts integrate DoD, 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 2024	FY 2025	FY 2026
Title: Space Weather Analysis and Forecast System (SWAFS)	3.931	3.121	3.094
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 2026 Air Force		Date: June 2025	
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 2024	FY 2025
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 2025 Plans: Continue software upgrades into the Space Weather Analysis and Forecast System (SWAFS) version 2.x baseline that supports the deployment of the Satellite Anomaly Assess tool, which includes Solar Indices Forecasting Tool (SIFT) and ECP-HAS forecast model integration analysis tool. As well as the Environmental Effects to DoD communications tool, Ionospheric Data Assimilation - four dimensional (IDA-4D) model. This work includes decomposing, developing, testing, and validating software applications for prediction/forecasting processors for global environmental effects to DoD satellites and communications spectrum. Model environmental effects to DoD satellites and develop an operator user tool and on-board additional data sets required to effectively execute the user application. Develop and deploy updates to the operator user tool and environmental models that support DoD Long-Haul communications systems and environmental impacts to radar operations specifically supported by IDA-4D. 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. Additional AFRL tools such as Solar Indices Forecasting Tool (SIFT), Air Force Data Assimilative Photospheric Flux Transport (ADAPT), Solar Radio Burst (SRB) forecast, and Radiation Exposure (RADEX), will require integration into SET4D baseline. Lastly beginning efforts to apply operational metrics to environmental assessment tools to provide a near real time assessment that will be incorporated into the CI/CD process. 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 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.			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased to promote efficiencies.												
Accomplishments/Planned Programs Subtotals										3.931	3.121	3.094
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost	
• SPAF 01 SPCMOD: Space Mods	3.995	3.883	3.997	-	3.997	-	-	-	-	-	-	
• 0604002SF: Space Force Weather Services Research	0.849	0.867	0.888	-	0.888	-	-	-	-	-	-	
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 sustainment and Fixed Firm Price contracts for Commercial-off-the-shelf (COTS) systems and Contract Logistics Support (CLS) efforts that were pre-competed via General Services Administration (GSA).												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025					
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	C/CPFF	Peraton : Herndon, VA	-	3.805	Feb 2024	3.003	Feb 2025	2.966	Feb 2026	-		2.966	-	-	-		
SBIR/STTR	Allot	Not specified. : TBD	-	0.126		0.103	Oct 2024	0.114	Oct 2025	-		0.114	-	-	-		
Subtotal			-	3.931		3.106		3.080		-		3.080	-	-	N/A		
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	TBD	Not specified. : TBD	-	0.000		0.015		0.014		-		0.014	-	-	-		
Subtotal			-	0.000		0.015		0.014		-		0.014	-	-	N/A		
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract		
Project Cost Totals			-	3.931		3.121		3.094		-		3.094	-	-	N/A		
Remarks																	

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
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			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												
Radiation Exposure (RADEX)																												
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																												
Solar Radio Burst (SRB) Forecast																												
JHU-APL IDA-4D Model Integration																												
LEAF-HQ+ Forecast Model Integration																												
LEAF-PACE Forecast Model Integration																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Weather Service				
Radiation Exposure (RADEX)	1	2024	4	2025
Solar Indices Forecasting Ionospheric Scintillation (SIFT)	1	2024	4	2025
Air Force Data Assimilative Photospheric Flux Transport (ADAPT)	1	2024	4	2025
Metrics development & integration for all models, data and apps	3	2024	4	2028
ECP-HAS Forecast Model Integration	1	2025	4	2030
EMI-HAS Forecast Model Integration	1	2025	4	2030
Solar Radio Burst (SRB) Forecast	1	2025	2	2026
JHU-APL IDA-4D Model Integration	2	2025	2	2026
LEAF-HQ+ Forecast Model Integration	1	2026	4	2027
LEAF-PACE Forecast Model Integration	1	2026	4	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force **Date:** June 2025

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 1206423SF / <i>Global Positioning System III - Operational Control Segment</i>							

COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	1,007.896	238.821	272.224	190.484	0.000	190.484	-	-	-	-	-	-
67A021: OCX	925.917	148.864	208.909	119.597	0.000	119.597	-	-	-	-	-	-
67A023: OCX Block 3F	81.979	89.957	63.315	70.887	0.000	70.887	-	-	-	-	-	-

A. Mission Description and Budget Item Justification

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 Defense (SECDEF) 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.

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 Defense (DoD) 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.

OCX Block 1 and 2 primary development concludes at system acceptance executed via DoD Form DD 250 (planned for 3rd Quarter FY 2025). Pre-Operational Support (pre-ops acceptance) and Interim Contractor Support (ICS) (post-ops acceptance) is the final contract phase that completes development, achieves the program's final Acquisition Program Baseline (APB) milestone Ready to Transition to Operations (RTO), supports Operational Acceptance (OA), and transitions OCX to long-term

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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 1206423SF / <i>Global Positioning System III - Operational Control Segment</i>

sustainment. Specifically, Interim Contract Support (ICS) provides contractor support services to sustain and provide capability insertions, maintain system performance requirements, and participate in government led events such as maintenance, integrated supply support, security, and launch activities. Research, Development, Test, and Evaluation (RDT&E) funded government activities include Development Test and Evaluation (DT&E), GPS Constellation Transfer (CTX), Operational Test and Evaluation (OT&E), and OA. Upon completion of those activities, OCX will prepare for, and transition to O&M funded Contractor Logistics Support (CLS). In FY 2024, the contractor conducted ICS proposal activities and the definitized contract was awarded in May 2025.

OCX 3F, which achieved Milestone B May 2022, is required to launch and operationally command and control GPS IIIF space vehicles. OCX 3F will upgrade OCX 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, 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 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 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	317.309	217.224	22.875	0.000	22.875
Current President's Budget	238.821	272.224	190.484	0.000	190.484
Total Adjustments	-78.488	55.000	167.609	0.000	167.609
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-70.500	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	55.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-7.988	0.000			
• Other Adjustments	0.000	0.000	167.609	0.000	167.609

Change Summary Explanation

FY 2024: -70.500M: Congressional directed reduction for excess to need, A&AS overestimation, prior-year carryover and OCX-3F execution delay.

FY 2025: +55.000M: FY 2025 Enactment to meet intended Congressional funds transfer.

FY 2026: +170.100M: to complete OCX operational transition and realign OCX-3F capability deliveries to GPS IIIF launch schedule.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
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	
FY 2026: The FY 2026 request was reduced by 0.697 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." FY 2026: -1.146M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office capability delivery and industry engagement support respectively.		

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force									Date: June 2025			
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
67A021: OCX	925.917	148.864	208.909	119.597	0.000	119.597	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
Prior Years Funding \$4,366.725M was executed in PE 1206423F.												
FY 2024 OCX Project 67A021 should reflect \$225.064M. The FY 2024 cost number does not include a +\$76.200M Above-Threshold Re-programming (ATR).												
A. Mission Description and Budget Item Justification												
The Global Positioning System (GPS) is a space based Position, Navigation and Timing (PNT) distribution system which operates through all weather. This project funds the research and development for the Next Generation Operational Control System (OCX). This includes, but is not limited to: advanced concept development, systems engineering and analysis, modernized control segment and mission planning development, modernization/deployment of 17 monitor stations, training simulators, integrated logistics support products, and test resources.												
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 DoD 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). It also fully meets information assurance/cyber defense requirements.												
OCX Block 2 fields the advanced operational capability to control the advanced features of the modernized military signals (L1M and L2M M-Code). Blocks 1 & 2 are being delivered concurrently as a result of the Oct 2016 Nunn-McCurdy review.												
The \$76.2M Above Threshold Reprogramming for FY24 is not reflected in the R-Doc. Funds are being used for Interim Contractor Support (ICS) and for continued Deficiency Report (DR) burndown.												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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 2024	FY 2025	FY 2026
Title: OCX Development			138.121	202.521	113.868
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 2025 Plans: Focus on completing DD250 in 3QFY2025 and continue contract closeout activities past DD250 for applicable contract line items, complete Pre-Ops Support/ICS (Interim Contract Support) contract definitization and execute contract line items (i.e., on-going ICS for OCX Blocks 0 and Blocks 1/2). Continue supporting 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. Complete activities to achieve Ready to Transition to Operations (RTO) such as Factory Engineering, System Acceptance Testing (SAT), Development Testing (Integrated System Test 3-1 (IST 3-1)), contractor performed crew operations, supporting additional crew, training, performing transition rehearsals that validate the procedures to transition the GPS satellite constellation to OCX, transferring the GPS Constellation from the legacy Operational Control System (OCS) to OCX, troubleshooting issues and/or rectifying deficiency reports levied by the operational community in connection with Operational Test and Evaluation (OT&E). 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 Plans: Continue 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. Complete activities to achieve Blocks 1/2 Operational Acceptance (OA) such as Factory Engineering, contractor performed crew operations, supporting additional crew training, transferring the GPS Constellation from the legacy Operational Control System (OCS) to OCX, troubleshooting issues and/or rectifying deficiency reports levied by the operational community in connection with Operational Test and Evaluation (OT&E), and conducting OT&E that culminates with OA. 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 2025 to FY 2026 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force									Date: June 2025		
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 2024	FY 2025	FY 2026
FY 2026 funding decreases due to completion of OCX development and OA, full transition to operations and sustainment, and initiating contract close out activities.											
Title: Technical Support									10.743	6.388	5.729
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 2025 Plans: Continue data collection and tuning of the monitoring stations equipment as needed. Complete Systems Engineering and technical support and analysis for Government led testing, and operational demonstrations, exercises, and training. Assist with plans for transition to sustainment, provide contract technical support, and assist with closeout activities as required.											
FY 2026 Plans: Complete data collection and tuning of the monitoring stations equipment as needed. Complete Systems Engineering and technical support and analysis for Government led testing, and operational demonstrations, exercises, and training. Assist with plans for transition to sustainment, provide contract technical support, and assist with closeout activities as required.											
FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding decreases due to completion of OCX development and OA, full transition to operations and sustainment, and initiating contract close out activities.											
Accomplishments/Planned Programs Subtotals									148.864	208.909	119.597
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• RDTE 05 1203269SF: GPS III Follow-on	237.970	240.264	179.249	-	179.249	-	-	-	-	-	-
• SPSF 01 GPSIII: GPS III Space Segment	101.370	54.805	29.274	-	29.274	-	-	-	-	-	-
• SPSF 01 GPS03C: GPSIII Follow On	53.248	647.165	109.944	-	109.944	-	-	-	-	-	-
Remarks											

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025
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

The Space Force is pursuing a "Block" approach for OCX in order to respond to warfighter capability requirements. Enterprise studies will ensure GPS Enterprise synchronization across space and ground segments.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	676.312	128.024	Oct 2023	111.625	Oct 2024	0.000		-		0.000	-	-	4,415.794
GPS OCX Pre Operational and Interim Contractor Support	SS/CPIF	Raytheon : Aurora, CO	2.973	-		76.708	Nov 2024	105.677	Oct 2025	-		105.677	-	-	-
GPS OCX SBIR/STTR	Allot	Not Specified; TBD : Washington, DC	0.000	-		6.806		4.425		-		4.425	-	-	-
GPS OCX Block 3F Development	Various	Various : Various	131.019	-		-		-		-		-	-	-	-
GPS OCX Technical Mission Analysis	Various	Various : Various	27.467	2.893	Nov 2023	1.436	Nov 2024	1.278	Oct 2025	-		1.278	-	-	-
GPS OCX Enterprise SE&I	C/CPAF	TASC : El Segundo, CA	15.124	0.536	Nov 2023	3.080	Nov 2024	3.017	Nov 2025	-		3.017	-	-	-
GPS OCX Modernization/ SE & Tech Support	Various	Various : Various	15.845	7.140	Nov 2023	0.652	Nov 2024	0.543	Oct 2025	-		0.543	-	-	-
GPS OCX Standardized Space Trainer (SST)	C/CPAF	Sonalyst, Inc. : Waterford, CT	6.316	-		-		-		-		-	-	-	-
GPS OCX Enterprise Mission Planning	MIPR	Various : Various	11.700	-		-		-		-		-	-	-	-
Subtotal			886.756	138.593		200.307		114.940		-		114.940	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	4.355	0.710	Nov 2023	-		-		-		-	-	-	-
Subtotal			4.355	0.710		-		-		-		-	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	6.381	1.192	Oct 2023	0.510	Nov 2024	0.459	Oct 2025	-		0.459	-	-	-
GPS OCX A&AS	Various	Various : Various	27.164	8.134	Nov 2023	7.692	Nov 2024	3.908	Oct 2025	-		3.908	-	-	-
GPS OCX Other Support	Various	Various : Various	1.261	0.235	Oct 2023	0.400	Oct 2024	0.290	Oct 2025	-		0.290	-	-	-
Subtotal			34.806	9.561		8.602		4.657		-		4.657	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			925.917	148.864		208.909		119.597		-		119.597	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025			
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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)																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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	2026
DD250	3	2025	3	2025
System Acceptance Test (SAT)	4	2024	3	2025
OCX Block 1 Ready to Transition to Operations (RTO)	1	2026	1	2026
Operational Acceptance (OA)	3	2026	3	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
67A023: OCX Block 3F	81.979	89.957	63.315	70.887	0.000	70.887	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
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 2024	FY 2025	FY 2026	
Title: OCX Block 3F									89.957	63.315	70.887	
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 2025 Plans:												
Continue software development for C2 capabilities for Global Positioning, Navigating, and Timing (PNT), Regional Military Protection (RMP) checkout and Rapid Warfighting Effects (RWE) initial operations. Continue integration activities that support the validation of requirements with use of the OCX 3F GPS System Simulator. Initiate functional and physical control audits for delivery of OCX 3F baseline. Continue to support early GPS Enterprise integration testing in support of Mission Readiness Campaign (MRC) for GPS IIIF. 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. 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 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)												

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026
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, 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 funding increases due to projected ramp up of OCX 3F software development and factory testing in support of initial GPS IIIF to include early development and testing specific to the evolved bus.												
Accomplishments/Planned Programs Subtotals										89.957	63.315	70.887
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost	
• SPSF 01 GPSIII: GPS III Space Segment	101.370	54.805	29.274	-	29.274	-	-	-	-	-	-	
• SPSF 01 GPS03C: GPSIII Follow On	53.248	647.165	109.944	-	109.944	-	-	-	-	-	-	
• RDTE 05 1203269SF: GPS III Follow-On (GPS IIIF)	237.970	240.264	179.249	-	179.249	-	-	-	-	-	-	
Remarks												
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 3QFY25.												

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	66.747	66.589	Oct 2023	41.401	Oct 2024	56.065	Oct 2025	-		56.065	-	-	-
OCX 3F SBIR/STTR	Allot	Not Specified; TBD : Washington, DC	0.000	-		2.063		2.623		-		2.623	-	-	-
OCX 3F Technical Mission Analysis	Various	Various : Various	3.859	3.221	Nov 2023	2.982	Nov 2024	2.459	Oct 2025	-		2.459	-	-	-
OCX 3F Enterprise SE&I	C/CPAF	TASC : El Segundo, CA	0.622	2.275	Nov 2023	3.920	Nov 2024	2.507	Nov 2025	-		2.507	-	-	-
OCX 3F Enterprise Mission Planning	MIPR	Various : Various	2.700	5.000	Jan 2024	2.000	Jan 2025	1.400	Jan 2026	-		1.400	-	-	-
OCX 3F Modernization/SE & Tech Support	Various	Various : Various	0.000	3.225	Nov 2023	1.561	Nov 2024	1.606	Nov 2025	-		1.606	-	-	-
OCX 3F Standardized Space Trainer (SST)	C/CPAF	Sonalyt, Inc : Waterford, CT	0.000	1.520	Feb 2024	2.280	Nov 2024	1.050	Nov 2025	-		1.050	-	-	-
Subtotal			73.928	81.830		56.207		67.710		-		67.710	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	0.775	1.085	Nov 2023	1.717	Nov 2024	1.063	Oct 2025	-		1.063	-	-	-
OCX 3F A&AS	Various	Various : Various	7.175	7.001	Nov 2023	5.191	Nov 2024	1.914	Oct 2025	-		1.914	-	-	-
OCX 3F Other Support	Various	Various : Various	0.101	0.041	Oct 2023	0.200	Oct 2024	0.200	Oct 2025	-		0.200	-	-	-
Subtotal			8.051	8.127		7.108		3.177		-		3.177	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			81.979	89.957		63.315		70.887		-		70.887	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025			
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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 2026 Air Force			Date: June 2025
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>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
OCX Block 3F				
OCX 3F GPS System Simulator	1	2024	3	2025
OCX 3F Core Software Development	1	2024	2	2026
OCX 3F Support GPS IIIF Integration Exercises	2	2024	4	2026
OCX 3F Deploy to Master Control Station (MCS) Operations	2	2026	4	2026
OCX 3F Satellite Integration Launch Readiness	1	2026	4	2028
OCX 3F Satellite Integration Ops Test	1	2026	4	2028
OCX 3F Contract Closeout	4	2028	2	2030

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 3QFY25.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1206770SF I Enterprise Ground Services							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	149.825	0.000	0.000	0.000	0.000	-	-	-	-	-	-
673140: Enterprise Ground Services EGS	0.000	149.825	0.000	0.000	0.000	0.000	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2026, PE 1206770SF, Enterprise Ground Services, 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 Assistant Secretary of the Air Force for Space Acquisition and Integration directed the formation of a Combined Program Office (CPO) by merging Enterprise Ground Services (EGS) from Space Systems Command (SSC) and Ground Command, Control, and Communications (GC3) from the Space Rapid Capabilities Office (Space RCO). The CPO is called the Rapid Resilient Command and Control (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 protect and defend 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 2026 Air Force				Date: June 2025		
Appropriation/Budget Activity 3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		R-1 Program Element (Number/Name) PE 1206770SF I Enterprise Ground Services				
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget	155.825	111.284	107.652	0.000	107.652	
Current President's Budget	149.825	0.000	0.000	0.000	0.000	
Total Adjustments	-6.000	-111.284	-107.652	0.000	-107.652	
• Congressional General Reductions	0.000	0.000				
• Congressional Directed Reductions	0.000	-22.253				
• Congressional Rescissions	0.000	0.000				
• Congressional Adds	0.000	0.000				
• Congressional Directed Transfers	0.000	-89.031				
• Reprogrammings	-6.000	0.000				
• SBIR/STTR Transfer	0.000	0.000				
• Other Adjustments	0.000	0.000	-107.652	0.000	-107.652	
Change Summary Explanation						
FY 2024: Decrease of 6.00 million due to below threshold requirement, to support other Space Force priorities.						
FY 2025: Net decrease of 111.284 million, decrease of 89.031 million due to congressional directed transfer to Space Rapid Capabilities Office, PE 1206857SF and decrease of 22.253 million due to congressional directed reduction for acquisition strategy change.						
FY 2026: Decrease of 107.652 million due to transfer to Rapid Resilient Command and Control, PE 1206772SF to consolidate functions for efficiency and improve transparency.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Rapid Resilient Command and Control (R2C2) Development				104.853	0.000	0.000
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 2025 Plans: Continue development, integration, and deployment of enterprise SatOps C2 services, such as flight dynamics and associated standards and interfaces for the Research and Development Space and Missile Operations program (RDSMO) and protect and defend mission partners. 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 C2 requirements. Continue growing infrastructure and network connectivity to support mission partners. Continue maturing a commercial cloud architecture in support of protect and defend missions. Continue development of antenna networking services to						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 1206770SF / <i>Enterprise Ground Services</i>		
C. Accomplishments/Planned Programs (\$ in Millions) enable mission planning and scheduling for commercial and government antennas. Continue integration of developed capabilities with the protect and defend enterprise. Continue risk reduction demos as test assets become available and R2C2 v1.0 release. FY 2026 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased by \$72.041M due to effort transfer to Space RCO PE 1206772SF.		FY 2024	FY 2025	FY 2026
Title: Rapid Resilient Command and Control (R2C2) Pre-Operations (Pre-Ops) Support Description: Maintain hardware and software baselines, update software licenses, integrate cybersecurity, and provide help-desk operations with associated training. FY 2025 Plans: Continue pre-ops support activities and facilities for protect and defend mission partners using R2C2 satellite operations ground segment services (SatOps) to include maintaining software baselines, expanding commercial cloud environments, supporting private cloud environments, updating software licenses, facilitating user engagements, and 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. FY 2026 Plans: N/A FY 2025 to FY 2026 Increase/Decrease Statement: FY 2026 decreased by \$39.243M due to effort transfer to Space RCO PE 1206772SF		44.972	0.000	0.000
Accomplishments/Planned Programs Subtotals		149.825	0.000	0.000
D. Other Program Funding Summary (\$ in Millions) N/A Remarks E. Acquisition Strategy The R2C2 Combined Program Office (CPO) has an approved acquisition strategy, leveraging Department of Defense (DoD)- 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 SatOps and providing pre-ops support for protect and defend mission partners.				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 7						R-1 Program Element (Number/Name) PE 1206770SF / Enterprise Ground Services				Project (Number/Name) 673140 / Enterprise Ground Services EGS					
Product Development (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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 Development	Various	Various : Various	-	88.667	Nov 2023	-		-		-		-	-	-	-
R2C2 Pre-Ops Support	Various	Various : Various	-	39.156	Dec 2023	-		-		-		-	-	-	-
SBIR/STTR	Allot	TBD : TBD	-	0.000	Oct 2023	-		-		-		-	-	-	-
Subtotal			-	127.823		-		-		-		-	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	15.178	Oct 2023	-		-		-		-	-	-	-
A&AS Support	Various	Various : Various	-	6.724	Dec 2023	-		-		-		-	-	-	-
Other Support	Various	Various : Various	-	0.100	Dec 2023	-		-		-		-	-	-	-
Subtotal			-	22.002		-		-		-		-	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	149.825		-		-		-		-	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force												Date: June 2025			
Appropriation/Budget Activity 3620F / 7								R-1 Program Element (Number/Name) PE 1206770SF / Enterprise Ground Services				Project (Number/Name) 673140 / Enterprise Ground Services EGS			

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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) Development																												
Continuous Satellite Operations Development & Integration																												
R2C2 Demo 1																												
Cloud Environments																												
R2C2 Pre-Operations (Pre-Ops) Support																												
R2C2 Pre-Ops Support																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1206770SF / Enterprise Ground Services	Project (Number/Name) 673140 / Enterprise Ground Services EGS	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Rapid Resilient Command and Control (R2C2) Development				
Continuous Satellite Operations Development & Integration	1	2024	4	2024
R2C2 Demo 1	3	2024	3	2024
Cloud Environments	1	2024	4	2024
R2C2 Pre-Operations (Pre-Ops) Support				
R2C2 Pre-Ops Support	1	2024	4	2024

Note
R2C2 milestones include initial delivery and maturation of tactical Satellite Operations ground segment solutions (SatOps) for the protect and defend mission set. R2C2 Pre-Ops support milestones include phased initial integration of protect and defend mission partners. Pre-ops support is on-going.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force	Date: June 2025

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>							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	0.000	0.000	106.220	0.000	106.220	-	-	-	-	-	-
67A001: <i>Rapid Resilient Command and Control (R2C2)</i>	0.000	0.000	0.000	106.220	0.000	106.220	-	-	-	-	-	-

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 Assistant Secretary of the Air Force for Space Acquisition and Integration directed the formation of a Combined Program Office (CPO) by merging Enterprise Ground Services (EGS) from Space Systems Command (SSC) and Ground Command, Control, and Communications (GC3) from the Space Rapid Capabilities Office (Space RCO). The CPO is called the Rapid Resilient Command and Control (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 protect and defend mission set, including, but not limited to, capabilities and services needed to perform mission control.

In FY 2026, Program Element (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.

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 2026 Air Force				Date: June 2025	
Appropriation/Budget Activity		R-1 Program Element (Number/Name)			
3620F: Research, Development, Test & Evaluation, Space Force I BA 7: Operational Systems Development		PE 1206772SF I Rapid Resilient Command and Control (R2C2)			
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	106.220	0.000	106.220
Total Adjustments	0.000	0.000	106.220	0.000	106.220
• 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	106.220	0.000	106.220
Change Summary Explanation					
FY 2026: Increase of 106.220 million to transfer efforts from Enterprise Ground Services, PE 1206770SF to consolidate functions for efficiency and improve transparency. This includes a reduction of 1.045 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".					

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force										Date: June 2025		
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)			
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
67A001: Rapid Resilient Command and Control (R2C2)	0.000	0.000	0.000	106.220	0.000	106.220	-	-	-	-	-	-
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 Assistant Secretary of the Air Force for Space Acquisition and Integration directed the formation of a Combined Program Office (CPO) by merging Enterprise Ground Services (EGS) from Space Systems Command (SSC) and Ground Command, Control, and Communications (GC3) from the Space Rapid Capabilities Office (Space RCO). The CPO is called the Rapid Resilient Command and Control (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 protect and defend 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.

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

	FY 2024	FY 2025	FY 2026
Title: Rapid Resilient Command and Control (R2C2) Satellite Command and Control Services	-	0.000	56.270
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 2025 Plans: N/A			
FY 2026 Plans:			

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force			Date: June 2025		
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>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2024	FY 2025	FY 2026
Will 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. Will continue deployment of cybersecurity, cryptography, and security architectures to support protect and defend capabilities. 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, to include ground entry points and enabling operational C2 in support of satellite C2 for protect and defend activities. Will continue maturing cloud architecture in support of protect and defend missions. Will continue development of antenna networking services and test assets to enable mission planning and scheduling for commercial and government antennas. Will continue risk reduction demos as test assets become available. Will begin developing, integrating, testing, and evaluating automation technologies to enhance mission control and engineering management capabilities for protect and defend missions. Will 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 Satellite Command and Control Services funding increased by 56.270 million due to transfer from PE 1206770SF, Enterprise Ground Services. This includes a reduction for Advisory and Assistance Services efficiencies. FY25 funding was in PE 1206857SF, Space Rapid Capabilities Office due to a congressionally directed transfer.					
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 helpdesk operations with associated training, to include support for developing software for cloud-hosted and antenna scheduling and command and control (C2). FY 2025 Plans: N/A FY 2026 Plans: Will 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. Will 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. Will continue service center capabilities to support mission partners developing, integrating, testing, and operating R2C2 SatOps services. Will accomplish necessary infrastructure			-	0.000	49.950

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Exhibit R-2A, RDT&E Project Justification: PB 2026 Air Force		Date: June 2025		
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>		
B. Accomplishments/Planned Programs (\$ in Millions) technical refresh, patching, and cybersecurity updates. Will continue support of antenna networking services. Will initiate life cycle sustainment activities for R2C2 SatOps C2 services in support of ongoing protect and defend missions. <i>FY 2025 to FY 2026 Increase/Decrease Statement:</i> FY 2026 Cloud Infrastructure and Platform/Antenna Services funding increased by 49.950 million due to transfer from PE 1206770SF, Enterprise Ground Services. This includes a reduction for Advisory and Assistance Services efficiencies. FY25 funding was in PE 1206857SF, Space Rapid Capabilities Office due to a congressionally directed transfer.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		-	0.000	106.220
C. Other Program Funding Summary (\$ in Millions) N/A Remarks N/A D. Acquisition Strategy The R2C2 Combined Program Office (CPO) has an approved acquisition strategy, leveraging Department of Defense (DoD)- 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 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		-		39.810	Nov 2025	-		39.810	-	-	-
R2C2 Cloud Infrastructure & Platform/Antenna Services	Various	Various : Various	-	-		-		33.489	Nov 2025	-		33.489	-	-	-
SE&I	Various	Various : Various	-	-		-		8.292	Oct 2025	-		8.292	-	-	-
SBIR/STTR	Allot	TBD : TBD	-	-		-		3.718	Oct 2025	-		3.718	-	-	-
Subtotal			-	-		-		85.309		-		85.309	-	-	N/A
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	-		-		17.177	Oct 2025	-		17.177	-	-	-
A&AS Support	Various	Various : Various	-	-		-		3.698	Dec 2025	-		3.698	-	-	-
Other Support	Various	Various : Various	-	-		-		0.036	Oct 2025	-		0.036	-	-	-
Subtotal			-	-		-		20.911		-		20.911	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		106.220		-		106.220	-	-	N/A
Remarks FY 2026 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 2026 Air Force												Date: June 2025					
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force		Date: June 2025
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	2030
<i>R2C2 Cloud Infrastructure & Platform/Antenna Services</i>				
Cloud Infrastructure & Platform/Antenna Services	1	2026	4	2030

Note
R2C2 milestones include initial delivery and maturation of tactical Satellite Operations ground segment solutions (SatOps) for the protect and defend mission set. R2C2 milestones include phased initial integration of protect and defend mission partners.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	14.568	6.937	6.698	0.000	6.698	-	-	-	-	-	-
676760: Joint Tactical Ground Station	0.000	14.568	6.937	6.698	0.000	6.698	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Joint Tactical Ground Station (JTAGS) is a post-production, Acquisition Category (ACAT) III program. JTAGS provides missile warning message data for the Air and Missile Defense (AMD) architecture and improves performance for Integrated Air and Missile Defense Fire Control Systems/Composite Army Air and Missile Defense Brigades. JTAGS disseminates near real time warning, alerting, and cueing information on ballistic missile launches and other tactical events of interest throughout the theater using existing communication networks, providing critical support to Combatant Commanders in their Areas of Responsibility (AOR). 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 DoD's 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. On 14 January 2016, the Army Acquisition Executive designated the JTAGS Pre-Planned Product Improvement (JTAGS P3I) program as a separate ACAT III modification program.

The JTAGS Program Element (PE) supports development and testing of the JTAGS Block II P3I program based on the JTAGS Operational Requirements Document (ORD), additive Joint Requirements Oversight Council - Memorandum (JROC-M) requirements, and the formal JTAGS Block II Capability Development Document (CDD) thresholds. P3I upgraded JTAGS to a Block II configuration for operation with the next generation of Space Based Infrared System (SBIRS) satellites, and improved warning tactical parameters and timeliness. The JTAGS Block II P3I program based on the 2009 JTAGS ORD is on contract as a two-phase development effort. JTAGS Block II Phase 2 activities seek to develop and test capabilities identified in 2009 JTAGS ORD. Joint Requirements Oversight Council (JROC) Memos 197-12, 113-13, and 042-19 and PL 111-383(Ike Skelton National Defense Authorization Act for FY 2011) support the requirements to develop and field JTAGS Block II capabilities as soon as possible.

JTAGS Block II Phase 2 Spiral 3 fielding was completed during FY 2024 and FY 2025. The continued JTAGS Block II CDD addresses evolving User-driven needs such as emerging threats and interface efforts 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 2029.

FY 2026 requests funds to continue development for cyber compliance, defense against emerging threats, Assured Positioning, Navigation and Timing (APNT) and M-code GPS compliance, addresses obsolescence mitigation with Commercial Off The Shelf (COTS) hardware/software upgrades, and research and develop prototypes for various system modifications for Red Hat Linux, the next generation Joint Tactical Terminals.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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 sue 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 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total
Previous President's Budget		14.568	6.937	6.941	0.000	6.941
Current President's Budget		14.568	6.937	6.698	0.000	6.698
Total Adjustments		0.000	0.000	-0.243	0.000	-0.243
• 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	-0.243	0.000	-0.243
Change Summary Explanation						
FY 2026: -\$0.066M; Advisory and Assistance Services (A&AS) reductions to promote efficiencies and advance the policies of the Administration in alignment EO 14222, "Implementing the President's Department of Government Efficiency Cost Efficiency Initiative.						
FY 2026: -\$0.153M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: Development and Test of Block II Capability Development Document (CDD) requirements				14.568	6.937	6.698
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 2025 Plans:						

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
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 2024	FY 2025	FY 2026
Complete development, testing and fielding of software and hardware (Spiral 3) upgrades to comply with the Joint Staff (J-6) granted Net-Ready Key Performance Parameter (NR KPP) certification in support of the Joint Tactical Ground Station (JTAGS) Pre-Planned Product Improvement (P3I) Block II Capability Development Document (CDD) requirements to deter near-peer competitors' threats. Complete development and deployment of cyber security tools to be achieve compliance with Risk Management Framework (RMF) requirements. Continue to address obsolescence mitigation with Commercial Off the Shelf (COTS) 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. 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 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased due to inflation in support of steady state development activities.				
Title: Joint Tactical Ground Stations (JTAGS) Test and Evaluation Support Description: Test and evaluation support for the JTAGS program. FY 2025 Plans: Funding provides for Technical Manual Delta Validation and Verification Certification of the JTAGS Block II system. FY 2026 Plans:		0.000	0.000	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025									
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 2024	FY 2025	FY 2026							
No FY 2026 plans.											
FY 2025 to FY 2026 Increase/Decrease Statement: Decrease due to focus on evolving cybersecurity requirements to develop a more robust and cyber hardened system.											
Accomplishments/Planned Programs Subtotals		14.568	6.937	6.698							
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
• SPSF 01 JTAGS0: <i>Joint Tactical Ground Station</i>	0.580	0.000	-	-	-	-	-	-	-	-	-
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 continue to evolve and change as well as new satellite sensors become available, the JTAGS Users in conjunction with the Army Capabilities Manager have 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. The JTAGS Block II P3I contract ends 31 Dec 2024. The Government is expected to extend the contract by 30 months with a new expiration of 30 June 2027. The scope of work will continue to focus on Block II Capability Development, addressing new/changing threats, research and develop prototypes and the incorporation of resiliency/next generation capabilities into the weapon system architecture.											

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	8.721	Nov 2023	6.414	Jan 2025	6.438	Dec 2025	-		6.438	-	-	-
Joint Tactical Terminals - Next Generation (JTT-NG)	SS/FFP	DRS Advanced ISR, LLC : Beavercreek, OH	-	1.562	Sep 2024	-		-		-		-	-	-	-
System Engineering Support	C/CPFF	Intrepid : Huntsville, AL	-	0.000	Jan 2024	-		-		-		-	-	-	-
Subtotal			-	10.283		6.414		6.438		-		6.438	-	-	N/A
Remarks															
Continues development of the Joint Tactical Ground Stations (JTAGS) Block II capabilities based on the JTAGS Block II CDD															
Support (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	2.239	Jan 2024	0.279	Jun 2025	0.219	Feb 2026	-		0.219	-	-	-
Subtotal			-	2.239		0.279		0.219		-		0.219	-	-	N/A
Remarks															
Provides technical assistance in implementing the JTAGS Block II CDD															
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	Allot	Various : Various	-	1.611	Oct 2023	0.015	Oct 2024	0.041	Oct 2025	-		0.041	-	-	-
A&AS	C/Various	Various : Various	-	0.435	Apr 2024	0.229	Jun 2025	0.000	Jan 2026	-		0.000	-	-	-
Subtotal			-	2.046		0.244		0.041		-		0.041	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
Remarks FY24 included Other Government Agency (OGA) support to the JTAGS acquisition program during transition.															
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	14.568		6.937		6.698		-		6.698	-	-	N/A
Remarks The Joint Tactical Ground Station (JTAGS) transitioned to USSF in FY 2024.															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force			Date: June 2025		
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	

	FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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)																												
JTAGS Block II Engineering Service Follow on Contract																												
Continued Block II Capability Development Document (CDD) Emerging Threats and future sensors																												
JTAGS Block II Phase 2 Spiral 3 fielding																												
Limited User Test of Block II CDD Emerging Threat Capabilities																												
Purchase Joint Tactical Terminals - Next Generation (JTT-NG) equipment																												
Integration of JTT-NG equipment into baseline																												
Red Hat Linux (RHEL) 7 Fielding																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2026 Air Force			Date: June 2025
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 (JTAGS) - Preplanned Product Improvements (P3I)				
JTAGS Block II Engineering Service Follow on Contract	1	2024	2	2025
Continued Block II Capability Development Document (CDD) Emerging Threats and future sensors	1	2024	1	2025
JTAGS Block II Phase 2 Spiral 3 fielding	1	2024	4	2024
Limited User Test of Block II CDD Emerging Threat Capabilities	1	2025	1	2025
Purchase Joint Tactical Terminals - Next Generation (JTT-NG) equipment	4	2024	2	2026
Integration of JTT-NG equipment into baseline	2	2026	4	2027
Red Hat Linux (RHEL) 7 Fielding	2	2026	1	2027

Note
The JTAGS transitioned to US Space Force in FY 2024.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force										Date: June 2025		
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							
COST (\$ in Millions)	Prior Years	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	FY 2027	FY 2028	FY 2029	FY 2030	Cost To Complete	Total Cost
Total Program Element	0.000	130.185	145.665	200.968	0.000	200.968	-	-	-	-	-	-
68A035: SSA/BMC2	0.000	130.185	145.665	200.968	0.000	200.968	-	-	-	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The FY 2018 National Defense Authorization Act (Sections 873/874) directed the Office of the Secretary of Defense (OSD) to streamline software development. The Space Domain Awareness (SDA)/Planning/Tasking software program is an OSD pilot initiative in which all lifecycle funding is tracked under Budget Activity 08 (BA 08), Software and Digital Technology Pilot Programs, beginning in FY 2021. Pilot programs enable 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).

The Space Force is developing SDA/Planning/Tasking functions for the United States Space Force (USSF) and U.S. Indo-Pacific Command (USINDOPACOM). Capabilities will initially be delivered to Space Operations Command (SpOC) 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) 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.

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.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force				Date: June 2025		
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				
B. Program Change Summary (\$ in Millions)	FY 2024	FY 2025	FY 2026 Base	FY 2026 OOC	FY 2026 Total	
Previous President's Budget	122.326	157.265	138.192	0.000	138.192	
Current President's Budget	130.185	145.665	200.968	0.000	200.968	
Total Adjustments	7.859	-11.600	62.776	0.000	62.776	
• 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	7.859	-11.600	62.776	0.000	62.776	
Change Summary Explanation						
FY 2024: +12.000M Below threshold reprogramming and -4.141M SBIR reduction						
FY 2025: -11.600M Congressional Mark						
FY 2026: +69.931M to accelerate developing operational software for Space Domain Awareness (SDA) advanced processing and exploitation and Theater Support enhancements, and for Battle Management and C2 systems integration, and for inflation reductions						
FY 2026: -1.876M; Reduces contracts 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."+						
FY 2026: -0.677M reduction for non-pay and non-fuel inflation rates						
FY 2026: -0.919M reduction in Federally Funded Research and Development Centers (FFRDC) support						
FY 2026: -4.360M to realign funding to PEs 1206399SF and 1206771SF for increased transparency and efficient execution of basic operating costs for Space Systems Integration Office enterprise engineering support and for Commercial Space Office industry outreach and innovation support respectively.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2024	FY 2025	FY 2026
Title: SDA/Planning/Tasking Development				89.161	104.561	153.970

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 8: Software and Digital Technology Pilot Programs</i>		R-1 Program Element (Number/Name) PE 1208248SF / <i>Space Domain Awareness/Planning/Tasking SW</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2024	FY 2025	FY 2026
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, Space Control, Tactical Operations 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 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 2025 Plans: Continue to plan and develop a message standard compliant open architecture to support both the Space Domain Awareness (SDA) and Battle Management C2 (BMC2) missions to meet dynamic emerging threats. Continue product support and enhancements for operationally accepted applications, workflows, and capabilities. The enterprise architecture and platform/ infrastructure will modernize and deliver new capabilities in the National Space Defense Center (NSDC), Combined Space Operations Center (CSpOC), and other operations centers supporting SDA, BMC2, Theater Support, Battle Space Awareness, and Planning & Tasking & Electronic Warfare tools. Enhance the scalability, performance, and reliability of the platform. These requirements will include design, enablement services, security, services necessary for Authorization To Operate (ATO), engineering, network and platform architecture, reliability testing, prototyping efforts to increase platform, communications, network capabilities, data science, data engineering, reinforcement learning, machine learning, artificial intelligence and product management services. Expand SDA software development, integration, deployment, and testing for replacement of joint legacy software systems and establish machine-to-machine interfaces for SDA event processing. Ramp up SDA C2 related activity to develop and deploy enterprise capabilities previously deferred by Space System Command (SSC), Space Operations Command (SpOC), and US Space Command agreement as the program prioritized efforts related to Space Defense Operations Center (SPADOC) decommissioning. Continue development, system engineering and contracting efforts to integrate commercial, contractor, and government applications through the release of multiple incremental software capability in program increments 24-27 drops throughout FY 2025. 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-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 8: Software and Digital Technology Pilot Programs</i>		R-1 Program Element (Number/Name) PE 1208248SF / <i>Space Domain Awareness/Planning/Tasking SW</i>		
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 2026 Plans: Continue to 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. Continue product support and enhancements for operationally accepted applications, workflows, and capabilities. Continue product support and enhancements to SDA collection processing software (observation processing, orbit determination & 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, & Objectives, tasking & Orders Generation, Status of Forces, Space Effect Coordination, Theater Situational Awareness, and Operational Support. Continue development, system engineering and contracting efforts to integrate commercial, contractor, and government applications through the release of multiple incremental software capability in program increments 28-31 drops throughout 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased by \$49.409M to accelerate developing operational software for Space Domain Awareness (SDA) advanced processing and exploitation for SDA warfighter requirements and Theater Support enhancements and to integrate with battle management command and control systems.		FY 2024	FY 2025	FY 2026
Title: SDA/Planning/Tasking Sustainment Description: The program maintains existing capability for the National Space Defense Center (NSDC), Combined Space Operations Center (CSpOC) and other C2 centers. These tasks include maintaining the Commercial Off The Shelf (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 2025 Plans:		41.024	41.104	46.998

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025		
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 8: Software and Digital Technology Pilot Programs</i>		R-1 Program Element (Number/Name) PE 1208248SF / <i>Space Domain Awareness/Planning/Tasking SW</i>		
C. Accomplishments/Planned Programs (\$ in Millions) Continue to 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. The program maintains foundational DevSecOps enablers such as, but not limited to, Data as a Service, Platform Support, continuous Improvement/Continuous Deployment (CI/CD) toolchain, infrastructure/network connectivity, helpdesk services and inherent sustainment efforts that are an integral part of the agile software development process. FY 2026 Plans: Continue to 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. The program maintains foundational 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 2025 to FY 2026 Increase/Decrease Statement: FY 2026 increased by \$5.894M to capture program transition to hardware as a service model and expand to Top Secret/Sensitive Compartmented Information (TS/SCI) security level.		FY 2024	FY 2025	FY 2026
Accomplishments/Planned Programs Subtotals		130.185	145.665	200.968
D. Other Program Funding Summary (\$ in Millions) N/A Remarks E. Acquisition Strategy The Space Domain Awareness (SDA)/Planning/Tasking software program is employing agile software development practices per the requirements specified in the Department of Defense Instruction (DODI) 5000.87, Operation of the Software Acquisition Pathway (SWP), and in accordance with the approved July 2024 Acquisition Strategy Document. It breaks down the Software Initial Capabilities Document (SW ICD) for SDA/Planning/Tasking SW scope into tailored Lines of Effort (LOE) 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				

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Exhibit R-2, RDT&E Budget Item Justification: PB 2026 Air Force		Date: June 2025
Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force / BA 8: Software and Digital Technology Pilot Programs</i>	R-1 Program Element (Number/Name) PE 1208248SF / <i>Space Domain Awareness/Planning/Tasking SW</i>	
that delivers and sustains new features and capabilities through a CI/CD pipeline with 90-day Program Increments. 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. In FY 2026 SDA/Planning/Tasking program will be performing in the Execution phase of the Software Acquisition Pathway.		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
SDA/Planning/Tasking Applications Development	Various	Various : Various	-	50.009	Nov 2023	46.314	Nov 2024	74.472	Nov 2025	-		74.472	-	-	-
SDA/Planning/Tasking Platform Development	Various	Various : Various	-	20.229	Nov 2023	28.002	Nov 2024	34.960	Nov 2025	-		34.960	-	-	-
SDA/Planning/Tasking Platform Sustainment	Various	Various : Various	-	17.330	Dec 2023	18.649	Dec 2024	13.797	Dec 2025	-		13.797	-	-	-
SDA/Planning/Tasking Infrastructure Sustainment	Various	Various : Various	-	3.600	Nov 2023	2.000	Nov 2024	9.951	Nov 2025	-		9.951	-	-	-
SDA/Planning/Tasking Enterprise Systems Engineering & Integration	Various	Various : Various	-	3.068	Nov 2023	4.000	Nov 2024	15.778	Nov 2025	-		15.778	-	-	-
SDA/Planning/Tasking Data as a Service Sustainment	Various	Various : Various	-	20.093	Nov 2023	20.455	Nov 2024	23.251	Nov 2025	-		23.251	-	-	-
SDA/Planning/Tasking Technical Mission Analysis	RO	Aerospace : El Segundo, CA	-	0.767	Jan 2024	1.000	Jan 2025	3.407	Jan 2026	-		3.407	-	-	-
SBIR/STTR	Allot	TBD : TBD	-	0.000	Oct 2023	5.331	Oct 2024	7.034	Oct 2025	-		7.034	-	-	-
Subtotal			-	115.096		125.751		182.650		-		182.650	-	-	N/A
Test and Evaluation (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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
SDA/Planning/Tasking Test	Various	Various : Various	-	1.554	Dec 2023	2.506	Dec 2025	2.174	Dec 2025	-		2.174	-	-	-
Subtotal			-	1.554		2.506		2.174		-		2.174	-	-	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2026 Air Force												Date: June 2025			
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			
Management Services (\$ in Millions)				FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 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	-	4.742	Dec 2023	4.583	Dec 2024	4.077	Dec 2025	-		4.077	-	-	-
A&AS	Various	Various : Various	-	8.480	Dec 2023	12.325	Dec 2024	11.567	Dec 2025	-		11.567	-	-	-
Other	Various	Various : Various	-	0.313	Oct 2023	0.500	Oct 2024	0.500	Oct 2025	-		0.500	-	-	-
Subtotal			-	13.535		17.408		16.144		-		16.144	-	-	N/A
			Prior Years	FY 2024		FY 2025		FY 2026 Base		FY 2026 OOC		FY 2026 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	130.185		145.665		200.968		-		200.968	-	-	N/A
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2026 Air Force										Date: June 2025			
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 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029				FY 2030			
	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
SDA/Planning/Tasking																												
Platform/Infrastructure Sustainment																												
Platform Development																												
SDA/Planning/Tasking Sustainment (maintain existing capability)																												
SDA/Planning/Tasking Data as a Service (DaaS)																												
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 2026 Air Force			Date: June 2025
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
<i>SDA/Planning/Tasking</i>				
Platform/Infrastructure Sustainment	1	2024	4	2030
Platform Development	1	2025	4	2030
SDA/Planning/Tasking Sustainment (maintain existing capability)	1	2024	4	2030
SDA/Planning/Tasking Data as a Service (DaaS)	1	2024	4	2030
Program Increment 20-23	1	2024	4	2024
Program Increment 24-27	1	2025	4	2025
Program Increment 28-31	1	2026	4	2026
Program Increment 32-35	1	2027	4	2027
Program Increment 36-39	1	2028	4	2028
Program Increment 40-43	1	2029	4	2029
Program Increment 44-47	1	2030	4	2030