Department of Defense
Fiscal Year (FY) 2025 Budget Estimates

March 2024

Air Force

Justification Book Volume 4 of 4

Research, Development, Test & Evaluation, Air Force

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Air Force • Budget Estimates FY 2025 • RDT&E Program

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Fiscal Year (FY) 2025 President's Budget
RDT&E Descriptive Summaries
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March 2024

INTRODUCTION AND EXPLANATION OF CONTENTS

GENERAL

- This document has been prepared to provide information on the United States Air Force (USAF) Research, Development, Test and Evaluation (RDT&E) program elements and projects in the FY25 Budget Estimate Submission (BES).

  - 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 USAF FY 2025 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.

UNCLASSIFIED

CLASSIFICATION

- 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.

Department of the Air Force
FY 2025 President's Budget
Exhibit R-1 FY 2025 President's Budget
Total Obligational Authority

(Dollars in Thousands)

Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
1	0601102F	Defense Research Sciences	01	U	377,616	401,486	361,930
2	0601103F	University Research Initiatives	01	U	191,797	182,372	143,372
	Basic Research				**569,413**	**583,858**	**505,302**
3	0602020F	Future AF Capabilities Applied Research	02	U	93,684	90,713	85,477
4	0602022F	University Affiliated Research Center (UARC) - Tactical Autonomy	02	U		8,018	8,225
5	0602102F	Materials	02	U	266,944	142,325	142,336
6	0602201F	Aerospace Vehicle Technologies	02	U	188,407	161,268	5,235
7	0602202F	Human Effectiveness Applied Research	02	U	133,233	146,921	138,204
8	0602203F	Aerospace Propulsion	02	U	201,798	184,867	339,477
9	0602204F	Aerospace Sensors	02	U	249,300	216,269	193,029
10	0602212F	Defense Laboratories R&D Projects (10 U.S.C, Sec 2358)	02	U	107,281		
11	0602298F	Science and Technology Management - Major Headquarters Activities	02	U	8,856	10,303	9,662
12	0602602F	Conventional Munitions	02	U	136,169	160,599	138,497
13	0602605F	Directed Energy Technology	02	U	104,085	129,961	114,962
14	0602788F	Dominant Information Sciences and Methods	02	U	258,606	182,076	176,333
	Applied Research				**1,748,363**	**1,433,320**	**1,351,437**
15	0603032F	Future AF Integrated Technology Demos	03	U	144,712	255,855	248,506
16	0603112F	Advanced Materials for Weapon Systems	03	U	53,164	30,372	29,661

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Department of the Air Force
FY 2025 President's Budget
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Total Obligational Authority

(Dollars in Thousands)

Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
17	0603199F	Sustainment Science and Technology (S&T)	03	U	17,907	10,478	12,558
18	0603203F	Advanced Aerospace Sensors	03	U	35,354	48,046	37,935
19	0603211F	Aerospace Technology Dev/Demo	03	U	95,428	51,896	102,529
20	0603216F	Aerospace Propulsion and Power Technology	03	U	91,041	56,789	
21	0603270F	Electronic Combat Technology	03	U	32,338	32,510	36,445
22	0603273F	Science & Technology for Nuclear Re-entry Systems	03	U	22,893	70,321	91,885
23	0603444F	Maui Space Surveillance System (MSSS)	03	U		2	
24	0603456F	Human Effectiveness Advanced Technology Development	03	U	29,250	15,593	19,568
25	0603601F	Conventional Weapons Technology	03	U	144,026	132,311	125,460
26	0603605F	Advanced Weapons Technology	03	U	81,040	102,997	25,050
27	0603680F	Manufacturing Technology Program	03	U	261,998	44,422	34,730
28	0603788F	Battlespace Knowledge Development and Demonstration	03	U	50,138	37,779	26,172
29	0604776F	Deployment & Distribution Enterprise R&D	03	U			27,762
30	0207412F	Control and Reporting Center (CRC)	03	U		2,005	2,012
	Advanced Technology Development				**1,059,289**	**891,376**	**820,273**
31	0603036F	Modular Advanced Missile	04	U	73,250	105,238	
32	0603260F	Intelligence Advanced Development	04	U	7,401	6,237	3,820
33	0603742F	Combat Identification Technology	04	U	13,718	21,298	24,799
34	0603790F	NATO Research and Development	04	U	4,295	2,208	4,498
35	0603851F	Intercontinental Ballistic Missile - Dem/Val	04	U	44,751	45,319	119,197

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Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
36	0604001F	NC3 Advanced Concepts	04	U	5,098	10,011	10,148
37	0604003F	Advanced Battle Management System (ABMS)	04	U	229,842	500,575	743,842
38	0604004F	Advanced Engine Development	04	U	212,586	595,352	562,337
39	0604005F	NC3 Commercial Development & Prototyping	04	U	93,485	78,799	68,124
40	0604006F	Dept of the Air Force Tech Architecture	04	U	48,808	2,620	
41	0604007F	E-7	04	U	411,704	681,039	418,513
42	0604009F	AFWERX Prime	04	U	164,648	83,336	20,580
43	0604015F	Long Range Strike - Bomber	04	U	3,037,499	2,984,143	2,654,073
44	0604025F	Rapid Defense Experimentation Reserve (RDER)	04	U	61,915	154,300	75,051
45	0604032F	Directed Energy Prototyping	04	U	4,202	1,246	3,712
46	0604033F	Hypersonics Prototyping	04	U	112,015	150,340	
47	0604183F	Hypersonics Prototyping - Hypersonic Attack Cruise Missile (HACM)	04	U	387,325	381,528	516,971
48	0604201F	PNT Resiliency, Mods, and Improvements	04	U	28,902	18,041	
49	0604257F	Advanced Technology and Sensors	04	U	12,311	27,650	24,204
50	0604288F	Survivable Airborne Operations Center (SAOC)	04	U	94,740	888,829	1,687,500
51	0604317F	Technology Transfer	04	U	34,986	26,638	3,485
52	0604327F	Hard and Deeply Buried Target Defeat System (HDBTDS) Program	04	U	113,552	19,266	154,417
53	0604414F	Cyber Resiliency of Weapon Systems-ACS	04	U	42,068	37,121	59,539
54	0604534F	Adaptive Engine Transition Program (AETP)	04	U	276,659		

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Department of the Air Force
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Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
55	0604609F	Requirements Analysis & Concept Maturation	04	U			22,667
56	0604668F	Joint Transportation Management System (JTMS)	04	U	27,758	37,026	174,723
57	0604776F	Deployment & Distribution Enterprise R&D	04	U	27,586	31,833	4,840
58	0604858F	Tech Transition Program	04	U	298,057	210,806	234,342
59	0604860F	Operational Energy and Installation Resilience	04	U	24,603	46,305	63,194
60	0605057F	Next Generation Air-refueling System	04	U			7,014
61	0605164F	Air Refueling Capability Modernization	04	U	11,281	19,400	13,661
62	0606005F	Digital Transformation Office	04	U			9,800
63	0201184F	Counter Narco-Terrorism Program Office	04	U	2		
64	0207110F	Next Generation Air Dominance	04	U	1,608,787	2,326,128	3,306,355
65	0207179F	Autonomous Collaborative Platforms	04	U	54,954	118,826	51,666
66	0207420F	Combat Identification	04	U	1,866	1,902	1,914
67	0207431F	Combat Air Intelligence System Activities	04	U			18,733
68	0207448F	C2ISR Tactical Data Link	04	U			42,371
69	0207455F	Three Dimensional Long-Range Radar (3DELRR)	04	U	13,959	19,763	8,100
70	0207522F	Airbase Air Defense Systems (ABADS)	04	U	48,252	78,867	17,273
71	0207606F	Joint Simulation Environment (JSE)	04	U			191,337
72	0208030F	War Reserve Materiel - Ammunition	04	U	10,288	8,175	5,226
73	0305236F	Common Data Link Executive Agent (CDL EA)	04	U	37,460	25,157	33,349
74	0305601F	Mission Partner Environments	04	U	16,741	17,727	22,028

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Department of the Air Force
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Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments[*]	FY 2025 Request
75	0306250F	Cyber Operations Technology Support	04	U	272,583		
76	0306415F	Enabled Cyber Activities	04	U	16,728		
77	0708051F	Rapid Sustainment Modernization (RSM)	04	U	69,000	43,431	37,044
78	0808736F	Special Victim Accountability and Investigation	04	U			3,006
79	0808737F	Integrated Primary Prevention	04	U	8,973	9,364	5,364
80	0901410F	Contracting Information Technology System	04	U	13,630	28,294	28,995
81	1206415F	U.S. Space Command Research and Development Support	04	U	8,350	14,892	28,392
		Advanced Component Development & Prototypes			**8,086,618**	**9,859,030**	**11,486,204**
82	0604200F	Future Advanced Weapon Analysis & Programs	05	U	11,641	9,757	7,205
83	0604201F	PNT Resiliency, Mods, and Improvements	05	U	170,057	163,156	217,662
84	0604222F	Nuclear Weapons Support	05	U	61,736	45,884	70,823
85	0604270F	Electronic Warfare Development	05	U	8,352	13,804	19,264
86	0604281F	Tactical Data Networks Enterprise	05	U	120,186	74,023	78,480
87	0604287F	Physical Security Equipment	05	U	6,664	10,605	10,569
88	0604336F	Hard and Deeply Buried Target Defeat System (HDBTDS) Prototyping	05	U			39,079
89	0604602F	Armament/Ordnance Development	05	U	6,120	5,918	7,157
90	0604604F	Submunitions	05	U	3,273	3,345	3,427
91	0604617F	Agile Combat Support	05	U	18,677	21,967	24,178
92	0604706F	Life Support Systems	05	U	32,820	39,301	25,502

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93	0604735F	Combat Training Ranges	05	U	100,322	152,569	224,783
94	0604932F	Long Range Standoff Weapon	05	U	921,891	911,406	623,491
95	0604933F	ICBM Fuze Modernization	05	U	97,499	71,732	10,408
96	0605030F	Joint Tactical Network Center (JTNC)	05	U	2,222	2,256	
97	0605031F	Joint Tactical Network (JTN)	05	U		452	
98	0605056F	Open Architecture Management	05	U	37,262	36,582	41,223
99	0605057F	Next Generation Air-refueling System	05	U		7,928	
100	0605223F	Advanced Pilot Training	05	U	32,513	77,252	83,985
101	0605229F	HH-60W	05	U	27,722	48,268	
102	0605238F	Ground Based Strategic Deterrent EMD	05	U	3,434,623	3,746,935	3,721,024
103	0207171F	F-15 EPAWSS	05	U	65,587	13,982	
104	0207279F	Isolated Personnel Survivability and Recovery	05	U	9,591	56,225	10,020
105	0207328F	Stand In Attack Weapon	05	U	243,076	298,585	375,528
106	0207701F	Full Combat Mission Training	05	U	12,528	7,597	7,754
107	0208036F	Medical C-CBRNE Programs	05	U		2,006	
108	0303267F	Auctioned Spectrum Relocation Fund	05	U	60,167		
109	0303667F	Citizen Broadband Radio System	05	U	8		
110	0303867F	AMBIT - Post-Auctioned SRF	05	U	14,851		
111	0305155F	Theater Nuclear Weapon Storage & Security System	05	U			9,018
112	0305205F	Endurance Unmanned Aerial Vehicles	05	U		30,000	

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113	0401221F	KC-46A Tanker Squadrons	05	U	140,395	124,662	93,620
114	0401319F	VC-25B	05	U	79,623	490,701	433,943
115	0701212F	Automated Test Systems	05	U	16,657	12,911	26,640
116	0804772F	Training Developments	05	U	10,838	1,922	4,960
117	1203176F	Combat Survivor Evader Locator	05	U			2,269
		System Development & Demonstration			**5,746,901**	**6,481,731**	**6,172,012**
118	0604256F	Threat Simulator Development	06	U	20,835	16,626	19,927
119	0604759F	Major T&E Investment	06	U	169,432	31,143	74,228
120	0605101F	RAND Project Air Force	06	U	37,655	38,398	39,720
121	0605502F	Small Business Innovation Research	06	U	836,355	1,466	
122	0605712F	Initial Operational Test & Evaluation	06	U	13,926	13,736	14,247
123	0605807F	Test and Evaluation Support	06	U	842,401	913,213	936,913
124	0605827F	Acq Workforce- Global Vig & Combat Sys	06	U	288,812	317,901	316,924
125	0605828F	Acq Workforce- Global Reach	06	U	456,624	541,677	496,740
126	0605829F	Acq Workforce- Cyber, Network, & Bus Sys	06	U	471,073	551,213	521,987
127	0605830F	Acq Workforce- Global Battle Mgmt	06	U	3,696		
128	0605831F	Acq Workforce- Capability Integration	06	U	261,016	243,780	262,349
129	0605832F	Acq Workforce- Advanced Prgm Technology	06	U	64,081	109,030	69,319
130	0605833F	Acq Workforce- Nuclear Systems	06	U	236,382	336,788	343,180
131	0605898F	Management HQ - R&D	06	U	6,054	5,005	6,291

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Department of the Air Force
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Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
132	0605976F	Facilities Restoration and Modernization - Test and Evaluation Support	06	U	133,420	87,889	94,828
133	0605978F	Facilities Sustainment - Test and Evaluation Support	06	U	31,561	35,065	63,579
134	0606017F	Requirements Analysis and Maturation	06	U	106,454	89,956	41,550
135	0606398F	Management HQ - T&E	06	U	7,535	7,453	7,647
136	0303166F	Joint Information Operations Range	06	U	556		
137	0303255F	Command, Control, Communication, and Computers (C4) - STRATCOM	06	U	29,092	20,871	19,607
138	0308602F	ENTEPRISE INFORMATION SERVICES (EIS)	06	U	71,020	100,357	104,133
139	0702806F	Acquisition and Management Support	06	U	48,331	20,478	25,216
140	0804731F	General Skill Training	06	U	871	796	10
141	0804776F	Advanced Distributed Learning	06	U			1,652
142	0909999F	Financing for Cancelled Account Adjustments	06	U	1,887		
143	1001004F	International Activities	06	U	2,593	3,917	4,590
		Management Support			**4,141,662**	**3,486,758**	**3,464,637**
144	0604233F	Specialized Undergraduate Flight Training	07	U	16,729	41,464	39,667
145	0604281F	Tactical Data Networks Enterprise	07	U			22
146	0604283F	Battle Mgmt Com & Ctrl Sensor Development	07	U		40,000	100,183
147	0604445F	Wide Area Surveillance	07	U		8,018	21,443
148	0604617F	Agile Combat Support	07	U	7,937	5,645	
149	0604776F	Deployment & Distribution Enterprise R&D	07	U	156		

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150	0604840F	F-35 C2D2	07	U	994,924	1,275,268	1,124,207
151	0605018F	AF Integrated Personnel and Pay System (AF-IPPS)	07	U	41,872	40,203	49,739
152	0605024F	Anti-Tamper Technology Executive Agency	07	U	49,908	49,613	65,792
153	0605117F	Foreign Materiel Acquisition and Exploitation	07	U	117,838	93,881	94,188
154	0605229F	HH-60W	07	U			52,314
155	0605278F	HC/MC-130 Recap RDT&E	07	U	47,174	36,536	24,934
156	0606018F	NC3 Integration	07	U	24,317	22,910	21,864
157	0101113F	B-52 Squadrons	07	U	701,934	950,815	1,045,570
158	0101122F	Air-Launched Cruise Missile (ALCM)	07	U	571	290	542
159	0101126F	B-1B Squadrons	07	U	19,456	12,619	17,939
160	0101127F	B-2 Squadrons	07	U	100,590	87,623	41,212
161	0101213F	Minuteman Squadrons	07	U	71,339	33,237	62,550
162	0101316F	Worldwide Joint Strategic Communications	07	U	17,894	24,653	13,690
163	0101318F	Service Support to STRATCOM - Global Strike	07	U		7,562	7,330
164	0101324F	Integrated Strategic Planning & Analysis Network	07	U	31,043		
165	0101328F	ICBM Reentry Vehicles	07	U	112,282	475,415	629,928
167	0102110F	MH-139A	07	U	15,805	25,737	
168	0102326F	Region/Sector Operation Control Center Modernization Program	07	U	389	831	852
169	0102412F	North Warning System (NWS)	07	U	231,884	102	103

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170	0102417F	Over-the-Horizon Backscatter Radar	07	U	4,400	428,754	383,575
171	0202834F	Vehicles and Support Equipment - General	07	U	13,715	15,498	6,097
172	0205219F	MQ-9 UAV	07	U	144,827	81,123	7,074
173	0205671F	Joint Counter RCIED Electronic Warfare	07	U	3,901	2,303	3,372
174	0207040F	Multi-Platform Electronic Warfare Equipment	07	U	44,264	7,312	
175	0207131F	A-10 Squadrons	07	U	52,797		
176	0207133F	F-16 Squadrons	07	U	241,482	98,633	106,952
177	0207134F	F-15E Squadrons	07	U	193,307	50,965	178,603
178	0207136F	Manned Destructive Suppression	07	U	9,540	16,543	16,182
179	0207138F	F-22A Squadrons	07	U	542,659	725,889	768,561
180	0207142F	F-35 Squadrons	07	U	60,501	97,231	47,132
181	0207146F	F-15EX	07	U	91,178	100,006	56,228
182	0207161F	Tactical AIM Missiles	07	U	33,365	41,958	34,932
183	0207163F	Advanced Medium Range Air-to-Air Missile (AMRAAM)	07	U	36,055	53,679	53,593
184	0207227F	Combat Rescue - Pararescue	07	U	863	726	743
185	0207238F	E-11A	07	U		64,888	64,127
186	0207247F	AF TENCAP	07	U	28,809	25,749	50,263
187	0207249F	Precision Attack Systems Procurement	07	U	12,284	11,872	12,723
188	0207253F	Compass Call	07	U	54,758	66,932	132,475
189	0207268F	Aircraft Engine Component Improvement Program	07	U	131,325	55,223	68,743

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included for FY 2024 reflect the annualized level provided by the continuing resolution.

Department of the Air Force
FY 2025 President's Budget
Exhibit R-1 FY 2025 President's Budget
Total Obligational Authority

(Dollars in Thousands)

Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
190	0207325F	Joint Air-to-Surface Standoff Missile (JASSM)	07	U	123,852	132,937	183,532
191	0207327F	Small Diameter Bomb (SDB)	07	U	37,988	37,518	29,910
192	0207410F	Air & Space Operations Center (AOC)	07	U	76,216	72,059	71,442
193	0207412F	Control and Reporting Center (CRC)	07	U	6,409	17,498	18,473
194	0207417F	Airborne Warning and Control System (AWACS)	07	U	11,191		
195	0207418F	AFSPECWAR - TACP	07	U	5,763	2,106	2,206
197	0207431F	Combat Air Intelligence System Activities	07	U	36,704	72,010	46,702
198	0207438F	Theater Battle Management (TBM) C4I	07	U	5,647	6,467	4,873
199	0207439F	Electronic Warfare Integrated Reprogramming (EWIR)	07	U	15,990	10,388	17,149
200	0207444F	Tactical Air Control Party-Mod	07	U	10,008	10,060	12,171
201	0207452F	DCAPES	07	U	7,754	8,233	8,431
202	0207521F	Air Force Calibration Programs	07	U	20,226	2,172	2,223
203	0207573F	National Technical Nuclear Forensics	07	U	2,039	2,049	2,060
204	0207590F	Seek Eagle	07	U	32,794	33,478	34,985
205	0207601F	USAF Modeling and Simulation	07	U	20,980		
206	0207605F	Wargaming and Simulation Centers	07	U	7,004	11,894	
207	0207697F	Distributed Training and Exercises	07	U	4,480	3,811	4,847
208	0207701F	Full Combat Mission Training	07	U			7,048
209	0208006F	Mission Planning Systems	07	U	96,492	96,272	92,566
210	0208007F	Tactical Deception	07	U	32,343	26,533	539

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Department of the Air Force
FY 2025 President's Budget
Exhibit R-1 FY 2025 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
211	0208064F	OPERATIONAL HQ - CYBER	07	U	13,841		
212	0208087F	Distributed Cyber Warfare Operations	07	U	69,414	50,122	29,996
213	0208088F	AF Defensive Cyberspace Operations	07	U	16,220	113,064	113,218
214	0208097F	Joint Cyber Command and Control (JCC2)	07	U	86,631		
215	0208099F	Unified Platform (UP)	07	U	103,792		
219	0208288F	Intel Data Applications	07	U	1,026	967	988
220	0301025F	GeoBase	07	U	2,256	1,514	1,002
221	0301112F	Nuclear Planning and Execution System (NPES)	07	U	17,276		
222	0301113F	Cyber Security Intelligence Support	07	U	8,972	8,476	18,141
228	0301377F	Countering Advanced Conventional Weapons (CACW)	07	U			1,668
230	0301401F	AF Multi-Domain Non-Traditional ISR Battlespace Awareness	07	U	3,069	2,890	3,436
231	0302015F	E-4B National Airborne Operations Center (NAOC)	07	U	29,425	39,868	40,441
232	0302315F	Non-Kinetic Countermeasure Support	07	U			15,180
233	0303004F	EIT CONNECT	07	U		32,900	32,960
234	0303089F	Cyberspace and DoDIN Operations	07	U		4,881	9,776
235	0303131F	Minimum Essential Emergency Communications Network (MEECN)	07	U	32,876	33,567	25,500
236	0303133F	High Frequency Radio Systems	07	U	2,315	40,000	8,667
237	0303140F	Information Systems Security Program	07	U	63,048	95,523	94,424
238	0303248F	All Domain Common Platform	07	U	44,989	71,296	82,927

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Department of the Air Force
FY 2025 President's Budget
Exhibit R-1 FY 2025 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
239	0303260F	Joint Military Deception Initiative	07	U	2,493	4,682	7,324
240	0304100F	Strategic Mission Planning & Execution System (SMPES)	07	U		64,944	69,441
243	0304260F	Airborne SIGINT Enterprise	07	U	98,297	108,947	85,284
244	0304310F	Commercial Economic Analysis	07	U	4,054	4,635	4,719
247	0305015F	C2 Air Operations Suite - C2 Info Services	07	U	7,499	13,751	13,524
248	0305020F	CCMD Intelligence Information Technology	07	U	1,821	1,660	1,836
249	0305022F	ISR Modernization & Automation Dvmt (IMAD)	07	U	15,138	18,680	22,909
250	0305099F	Global Air Traffic Management (GATM)	07	U	4,727	5,031	5,151
251	0305103F	Cyber Security Initiative	07	U	87	301	304
252	0305111F	Weather Service	07	U	52,060	26,329	31,372
253	0305114F	Air Traffic Control, Approach, and Landing System (ATCALS)	07	U	6,729	8,751	15,143
254	0305116F	Aerial Targets	07	U	1,316	6,915	7,685
257	0305128F	Security and Investigative Activities	07	U	214	352	481
258	0305146F	Defense Joint Counterintelligence Activities	07	U	8,328	6,930	6,387
259	0305158F	Tactical Terminal	07	U			1,002
260	0305179F	Integrated Broadcast Service (IBS)	07	U	14,123	21,588	16,006
261	0305202F	Dragon U-2	07	U	35,170	16,842	
262	0305206F	Airborne Reconnaissance Systems	07	U	76,139	43,158	84,363
263	0305207F	Manned Reconnaissance Systems	07	U	14,590	14,330	16,323

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Department of the Air Force
FY 2025 President's Budget
Exhibit R-1 FY 2025 President's Budget
Total Obligational Authority

(Dollars in Thousands)

Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments[*]	FY 2025 Request
264	0305208F	Distributed Common Ground/Surface Systems	07	U	26,901	88,854	86,476
265	0305220F	RQ-4 UAV	07	U	36,791	1,242	9,516
266	0305221F	Network-Centric Collaborative Targeting	07	U	17,564	12,496	8,952
267	0305238F	NATO AGS	07	U	826	2	865
268	0305240F	Support to DCGS Enterprise	07	U	28,774	31,589	30,932
269	0305600F	International Intelligence Technology and Architectures	07	U	25,036	15,322	18,670
270	0305881F	Rapid Cyber Acquisition	07	U	3,636	8,830	
271	0305984F	Personnel Recovery Command & Ctrl (PRC2)	07	U	3,123	2,764	2,831
272	0307577F	Intelligence Mission Data (IMD)	07	U	6,332	7,090	3,658
273	0401115F	C-130 Airlift Squadron	07	U	392	5,427	
274	0401119F	C-5 Airlift Squadrons (IF)	07	U	3,095	29,502	33,003
275	0401130F	C-17 Aircraft (IF)	07	U	25,387	2,753	17,395
276	0401132F	C-130J Program	07	U	9,782	19,100	34,423
277	0401134F	Large Aircraft IR Countermeasures (LAIRCM)	07	U	2,820	5,982	7,768
278	0401218F	KC-135s	07	U	18,409	51,105	31,977
279	0401318F	CV-22	07	U	9,678	18,127	26,249
280	0408011F	Special Tactics / Combat Control	07	U	6,163	9,198	9,421
281	0708055F	Maintenance, Repair & Overhaul System	07	U	18,313		
282	0708610F	Logistics Information Technology (LOGIT)	07	U	15,882	17,520	11,895

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included for FY 2024 reflect the annualized level provided by the continuing resolution.

Department of the Air Force
FY 2025 President's Budget
Exhibit R-1 FY 2025 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
283	0801380F	AF LVC Operational Training (LVC-OT)	07	U		25,144	29,815
284	0804743F	Other Flight Training	07	U	1,908	2,265	2,319
285	0901202F	Joint Personnel Recovery Agency	07	U	1,805	2,266	2,320
286	0901218F	Civilian Compensation Program	07	U	3,461	4,006	4,267
287	0901220F	Personnel Administration	07	U	2,883	3,078	3,163
288	0901226F	Air Force Studies and Analysis Agency	07	U	866	5,309	18,937
289	0901538F	Financial Management Information Systems Development	07	U	4,922	4,279	5,634
290	0901554F	Defense Enterprise Acntng and Mgt Sys (DEAMS)	07	U	43,111	45,925	57,689
291	1202140F	Service Support to SPACECOM Activities	07	U	13,418	9,778	
999	999999999	Classified Programs	07	U	17,634,854	16,814,245	18,038,552
		Operational Systems Development			**23,662,019**	**23,829,283**	**25,308,906**
293	0901560F	Continuing Resolution Programs	20	U		-1,651,372	
		Undistributed				**-1,651,372**	
		Total Research, Development, Test and Evaluation, Air Force			**45,014,265**	**44,913,984**	**49,108,771**

*A full-year FY 2024 appropriation for this account was not enacted at the time the budget was prepared;

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included for FY 2024 reflect the annualized level provided by the continuing resolution.

Department of the Air Force
FY 2025 President's Budget
Exhibit R-1 FY 2025 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Mar 2024

Appropriation: 3600F Research, Development, Test and Evaluation, Air Force

Line No	Program Element Number	Item	Act	Sec	FY 2024 PB Request Overseas Operations Costs (OOC)*	FY 2025 Overseas Operations Costs (OOC)*
86	0604281F	Tactical Data Networks Enterprise	05	U	1,792	1,831
		System Development & Demonstration			**1,792**	**1,831**
219	0208288F	Intel Data Applications	07	U	967	988
		Operational Systems Development			**967**	**988**
		Total Research, Development, Test and Evaluation, Air Force			**2,759**	**2,819**

*FY 2024 and FY 2025 Overseas Operations Costs (OOC) numbers are a subset of the baseline submission.

*FY 2023 includes $0K in Overseas Operations Costs (OOC) Actuals. FY 2024 includes $2,759K in OOC Requested. FY 2025 includes $2,819K for the OOC Budget Estimate. OOC were financed previously with former Overseas Contingency Operations (OCO) funding.

Master Program Element Table of Contents (by Budget Activity then Line Item Number)

Appropriation 3600: Research, Development, Test & Evaluation, Air Force

Appropriation 3600: Research, Development, Test & Evaluation, Air Force

Appropriation 3600: Research, Development, Test & Evaluation, Air Force

Appropriation 3600: Research, Development, Test & Evaluation, Air Force

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Appropriation 3600: Research, Development, Test & Evaluation, Air Force

Line #	Budget Activity	Program Element Number	Program Element Title	Page
167	07	0102110F	MH-139A	Volume 3 - 519
168	07	0102326F	Region/Sector Operation Control Center Modernization Program	Volume 3 - 535
169	07	0102412F	North Warning System (NWS)	Volume 3 - 541
170	07	0102417F	Over-the-Horizon Backscatter Radar	Volume 3 - 547
171	07	0202834F	Vehicles and Support Equipment - General	Volume 3 - 563
172	07	0205219F	MQ-9 UAV	Volume 3 - 571
173	07	0205671F	Joint Counter RCIED Electronic Warfare	Volume 3 - 593
174	07	0207040F	Multi-Platform Electronic Warfare Equipment	Volume 3 - 599
175	07	0207131F	A-10 Squadrons	Volume 3 - 607
176	07	0207133F	F-16 Squadrons	Volume 3 - 615
177	07	0207134F	F-15E Squadrons	Volume 3 - 629
178	07	0207136F	Manned Destructive Suppression	Volume 3 - 641
179	07	0207138F	F-22A Squadrons	Volume 3 - 649
180	07	0207142F	F-35 Squadrons	Volume 3 - 669
181	07	0207146F	F-15EX	Volume 3 - 693
182	07	0207161F	Tactical AIM Missiles	Volume 3 - 701
183	07	0207163F	Advanced Medium Range Air-to-Air Missile (AMRAAM)	Volume 3 - 709
184	07	0207227F	Combat Rescue - Pararescue	Volume 3 - 717

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Appropriation 3600: Research, Development, Test & Evaluation, Air Force

Appropriation 3600: Research, Development, Test & Evaluation, Air Force

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Appropriation 3600: Research, Development, Test & Evaluation, Air Force

Master Program Element Table of Contents (Alphabetically by Program Element Title)

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Department of Defense
FY 2025 President's Budget
Exhibit R-1 FY 2025 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Mar 2024

	FY 2023 Actuals	FY 2024 PB Request with CR Adjustments*	FY 2025 Request
Summary Recap of Budget Activities			
Basic Research	622,674	583,858	541,382
Applied Research	2,117,867	1,639,516	1,596,401
Advanced Technology Development	1,648,354	1,473,902	1,383,709
Advanced Component Development & Prototypes	10,991,064	14,088,176	16,037,150
System Development & Demonstration	11,193,856	12,489,748	11,823,371
Management Support	5,100,989	4,049,779	4,032,006
Operational Systems Development	30,143,717	31,317,391	32,237,640
Software And Digital Technology Pilot Programs	191,980	122,326	157,265
Undistributed		-4,234,749	
Total Research, Development, Test, & Evaluation	**62,010,501**	**61,529,947**	**67,808,924**
Summary Recap of FYDP Programs			
Strategic Forces	1,307,587	2,047,638	2,203,291
General Purpose Forces	4,609,324	5,160,229	6,329,448
Intelligence and Communications	1,215,200	1,061,042	1,073,411
Mobility Forces	295,744	756,557	687,799
Research and Development	19,717,934	20,470,919	20,509,040
Central Supply and Maintenance	168,183	94,340	100,795
Training Medical and Other	22,590	39,491	47,126
Administration and Associated Activities	74,312	-4,141,592	121,005

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included for FY 2024 reflect the annualized level provided by the continuing resolution.

Department of the Air Force
FY 2025 President's Budget
Exhibit R-1 FY 2025 President's Budget
Total Obligational Authority
(Dollars in Thousands)

Mar 2024

	FY 2024 PB Request Overseas Operations Costs (OOC)[*]	FY 2025 Overseas Operations Costs (OOC)[*]
Summary Recap of Budget Activities		
System Development & Demonstration	1,792	1,831
Operational Systems Development	967	988
Total Research, Development, Test, & Evaluation	**2,759**	**2,819**
Summary Recap of FYDP Programs		
General Purpose Forces	967	988
Research and Development	1,792	1,831
Total Research, Development, Test, & Evaluation	**2,759**	**2,819**

*FY 2024 and FY 2025 Overseas Operations Costs (OOC) numbers are a subset of the baseline submission.

*FY 2023 includes $0K in Overseas Operations Costs (OOC) Actuals. FY 2024 includes $2,759K in OOC Requested. FY 2025 includes $2,819K for the OOC Budget Estimate. OOC were financed previously with former Overseas Contingency Operations (OCO) funding.

Department of the Air Force
TOTAL CIVILIAN PERSONNEL COSTS
OP-8B: OP-8 (PB)
FY 2025 President's Budget Submission
(FY 2023)

($ in Thousands)

	a Begin Strength	b End Strength	c FTEs	d Basic Comp	e Overtime Pay	f Holiday Pay	g Other O.C.11	e+f+g h Total Variables	d+h i Comp O.C.11	i Benefits O.C.12/13	i+j k Comp & Benefits	d/c l Basic Comp	i/c m Total Comp	Rates k/c n Comp & Benefits	h/d o % BC Variables	j/d p % BC Benefits
Direct Funded Personnel (includes OC 13)	**18,218**	**20,333**	**17,813**	**2,664,609**	**0**	**0**	**0**	**0**	**2,664,609**	**0**	**2,664,609**	*$149,588*	*$149,588*	*$149,588*	*0.0%*	*0.0%*
D1. US Direct Hire (USDH)	**18,216**	**20,329**	**17,809**	**2,664,308**	-	-	-	-	**2,664,308**	-	**2,664,308**	*$149,605*	*$149,605*	*$149,605*	*0.0%*	*0.0%*
D1a. Senior Executive Schedule	13	23	23	3,547				-		-	3,547	*$154,217*	*$154,217*	*$154,217*	*0.0%*	*0.0%*
D1b. General Schedule	15,110	19,425	16,905	2,434,670				-	2,434,670	-	2,434,670	*$144,021*	*$144,021*	*$144,021*	*0.0%*	*0.0%*
D1c. Special Schedule	-	-	-	-				-		-		-	-	-	-	-
D1d. Wage System	3,093	881	881	226,091				-	226,091	-	226,091	*$256,630*	*$256,630*	*$256,630*	*0.0%*	*0.0%*
D1e. Highly Qualified Experts	-	-	-	-				-		-		-	-	-	-	-
D1f. Other	-	-	-	-				-	-	-		-	-	-	-	-
D2. Direct Hire Program Foreign Nationals (DHFN)	-	-	-	-				-		-		-	-	-	-	-
D3. Total Direct Hire	**18,216**	**20,329**	**17,809**	**2,664,308**	-	-	-	-	**2,664,308**	-	**2,664,308**	*$149,605*	*$149,605*	*$149,605*	*0.0%*	*0.0%*
D4. Indirect Hire Foreign Nationals (IHFN)	2	4	4	301	-	-	-	-	301	-	301	*$75,250*	*$75,250*	*$75,250*	*0.0%*	*0.0%*
Subtotal - Direct Funded (excludes OC 13)	*18,218*	*20,333*	*17,813*	*2,664,609*	-	-	-	-	*2,664,609*	-	*2,664,609*	*$149,588*	*$149,588*	*$149,588*	*0.0%*	*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)	**4,153**	**2,788**	**2,788**	**329,323**	**0**	**0**	**0**	**0**	**329,323**	**0**	**329,323**	*$118,122*	*$118,122*	*$118,122*	*0.0%*	*0.0%*
R1. US Direct Hire (USDH)	**4,153**	**2,788**	**2,788**	**329,323**	-	-	-	-	**329,323**	-	**329,323**	*$118,122*	*$118,122*	*$118,122*	*0.0%*	*0.0%*
R1a. Senior Executive Schedule	-	-	-	-				-		-		-	-	-	-	-
R1b. General Schedule	4,153	2,788	2,788	329,323				-	329,323	-	329,323	*$118,122*	*$118,122*	*$118,122*	*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	**4,153**	**2,788**	**2,788**	**329,323**	-	-	-	-	**329,323**	-	**329,323**	*$118,122*	*$118,122*	*$118,122*	*0.0%*	*0.0%*
R4. Indirect Hire Foreign Nationals (IHFN)	-	-	-	-				-		-		-	-	-	-	-
Subtotal - Reimbursable Funded (excludes OC 13)	*4,153*	*2,788*	*2,788*	*329,323*	-	-	-	-	*329,323*	-	*329,323*	*$118,122*	*$118,122*	*$118,122*	*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)	**22,371**	**23,121**	**20,601**	**2,993,932**	**0**	**0**	**0**	**0**	**2,993,932**	**0**	**2,993,932**	*$145,329*	*$145,329*	*$145,329*	*0.0%*	*0.0%*
T1. US Direct Hire (USDH)	**22,369**	**23,117**	**20,597**	**2,993,631**	-	-	-	-	**2,993,631**	-	**2,993,631**	*$145,343*	*$145,343*	*$145,343*	*0.0%*	*0.0%*
T1a. Senior Executive Schedule	13	23	23	3,547	0	0	0	0	3,547	0	3,547	*$154,217*	*$154,217*	*$154,217*	*0.0%*	*0.0%*
T1b. General Schedule	19,263	22,213	19,693	2,763,993	0	0	0	0	2,763,993	0	2,763,993	*$140,354*	*$140,354*	*$140,354*	*0.0%*	*0.0%*
T1c. Special Schedule	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T1d. Wage System	3,093	881	881	226,091	0	0	0	0	226,091	0	226,091	*$256,630*	*$256,630*	*$256,630*	*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	**22,369**	**23,117**	**20,597**	**2,993,631**	-	-	-	-	**2,993,631**	-	**2,993,631**	*$145,343*	*$145,343*	*$145,343*	*0.0%*	*0.0%*
T4. Indirect Hire Foreign Nationals (IHFN)	2	4	4	301	0	0	0	0	301	0	301	*$75,250*	*$75,250*	*$75,250*	*0.0%*	*0.0%*
Subtotal - Total Funded (excludes OC 13)	*22,371*	*23,121*	*20,601*	*2,993,932*	-	-	-	-	*2,993,932*	-	*2,993,932*	*$145,329*	*$145,329*	*$145,329*	*0.0%*	*0.0%*
T5. Other Object Class 13 Benefits										-						
T5a. USDH - Benefits for Former Employees										0	0					
T5b. DHFN - Benefits for Former Employees										0	0					
T5c. Voluntary Separation Incentive Pay (VSIP)										0	0					
T5d. Foreign National Separation Liability Accrual										0	0					

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<div style="text-align:center">
Department of the Air Force
TOTAL CIVILIAN PERSONNEL COSTS
OP-8B: OP-8 (PB)
FY 2025 President's Budget Submission
(FY 2024)
</div>

($ in Thousands)

	a Begin Strength	b End Strength	c FTEs	d Basic Comp	e Overtime Pay	f Holiday Pay	g Other O.C.11	e+f+g h Total Variables	d+h i Comp O.C.11	i Benefits O.C.12/13	i+j k Comp & Benefits	d/c l Basic Comp	i/c m Total Comp	Rates k/c n Comp & Benefits	h/d o % BC Variables	j/d p % BC Benefits
Direct Funded Personnel (includes OC 13)	**18,726**	**19,345**	**19,127**	**3,191,398**	**0**	**0**	**0**	**0**	**3,191,398**	**0**	**3,191,398**	*$166,853*	*$166,853*	*$166,853*	*0.0%*	*0.0%*
D1. US Direct Hire (USDH)	**18,724**	**19,343**	**19,125**	**3,190,276**	-	-	-	-	**3,190,276**	-	**3,190,276**	*$166,812*	*$166,812*	*$166,812*	*0.0%*	*0.0%*
D1a. Senior Executive Schedule	13	75	75	11,567				-	11,567	-	11,567	*$154,227*	*$154,227*	*$154,227*	*0.0%*	*0.0%*
D1b. General Schedule	15,455	16,012	15,794	2,952,618				-	2,952,618	-	2,952,618	*$186,946*	*$186,946*	*$186,946*	*0.0%*	*0.0%*
D1c. Special Schedule	-	-	-	-				-	-	-	-	-	-	-	-	-
D1d. Wage System	3,256	3,256	3,256	226,091				-	226,091	-	226,091	*$69,438*	*$69,438*	*$69,438*	*0.0%*	*0.0%*
D1e. Highly Qualified Experts	-	-	-	-				-	-	-	-	-	-	-	-	-
D1f. Other	-	-	-	-				-	-	-	-	-	-	-	-	-
D2. Direct Hire Program Foreign Nationals (DHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
D3. Total Direct Hire	**18,724**	**19,343**	**19,125**	**3,190,276**	-	-	-	-	**3,190,276**	-	**3,190,276**	*$166,812*	*$166,812*	*$166,812*	*0.0%*	*0.0%*
D4. Indirect Hire Foreign Nationals (IHFN)	2	2	2	1,122	-	-	-	-	1,122	-	1,122	*$561,000*	*$561,000*	*$561,000*	*0.0%*	*0.0%*
Subtotal - Direct Funded (excludes OC 13)	*18,726*	*19,345*	*19,127*	*3,191,398*	-	-	-	-	*3,191,398*	-	*3,191,398*	*$166,853*	*$166,853*	*$166,853*	*0.0%*	*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)	**4,591**	**4,591**	**4,591**	**608,639**	**0**	**0**	**0**	**0**	**608,639**	**0**	**608,639**	*$132,572*	*$132,572*	*$132,572*	*0.0%*	*0.0%*
R1. US Direct Hire (USDH)	**4,591**	**4,591**	**4,591**	**608,639**	-	-	-	-	**608,639**	-	**608,639**	*$132,572*	*$132,572*	*$132,572*	*0.0%*	*0.0%*
R1a. Senior Executive Schedule	-	-	-	-				-	-	-	-	-	-	-	-	-
R1b. General Schedule	4,591	4,591	4,591	608,639				-	608,639	-	608,639	*$132,572*	*$132,572*	*$132,572*	*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	**4,591**	**4,591**	**4,591**	**608,639**	-	-	-	-	**608,639**	-	**608,639**	*$132,572*	*$132,572*	*$132,572*	*0.0%*	*0.0%*
R4. Indirect Hire Foreign Nationals (IHFN)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Subtotal - Reimbursable Funded (excludes OC 13)	*4,591*	*4,591*	*4,591*	*608,639*	-	-	-	-	*608,639*	-	*608,639*	*$132,572*	*$132,572*	*$132,572*	*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)	**23,317**	**23,936**	**23,718**	**3,800,037**	**0**	**0**	**0**	**0**	**3,800,037**	**0**	**3,800,037**	*$160,217*	*$160,217*	*$160,217*	*0.0%*	*0.0%*
T1. US Direct Hire (USDH)	**23,315**	**23,934**	**23,716**	**3,798,915**	-	-	-	-	**3,798,915**	-	**3,798,915**	*$160,184*	*$160,184*	*$160,184*	*0.0%*	*0.0%*
T1a. Senior Executive Schedule	13	75	75	11,567	0	0	0	0	11,567	0	11,567	*$154,227*	*$154,227*	*$154,227*	*0.0%*	*0.0%*
T1b. General Schedule	20,046	20,603	20,385	3,561,257	0	0	0	0	3,561,257	0	3,561,257	*$174,700*	*$174,700*	*$174,700*	*0.0%*	*0.0%*
T1c. Special Schedule	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T1d. Wage System	3,256	3,256	3,256	226,091	0	0	0	0	226,091	0	226,091	*$69,438*	*$69,438*	*$69,438*	*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	**23,315**	**23,934**	**23,716**	**3,798,915**	-	-	-	-	**3,798,915**	-	**3,798,915**	*$160,184*	*$160,184*	*$160,184*	*0.0%*	*0.0%*
T4. Indirect Hire Foreign Nationals (IHFN)	2	2	2	1,122	0	0	0	0	1,122	0	1,122	*$561,000*	*$561,000*	*$561,000*	*0.0%*	*0.0%*
Subtotal - Total Funded (excludes OC 13)	*23,317*	*23,936*	*23,718*	*3,800,037*	-	-	-	-	*3,800,037*	-	*3,800,037*	*$160,217*	*$160,217*	*$160,217*	*0.0%*	*0.0%*
T5. Other Object Class 13 Benefits																
T5a. USDH - Benefits for Former Employees										0	0					
T5b. DHFN - Benefits for Former Employees										0	0					
T5c. Voluntary Separation Incentive Pay (VSIP)										0	0					
T5d. Foreign National Separation Liability Accrual										0	0					

<p style="text-align:center; color:green">UNCLASSIFIED</p>

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

($ in Thousands)

	a Begin Strength	b End Strength	c FTEs	d Basic Comp	e Overtime Pay	f Holiday Pay	g Other O.C.11	e+f+g h Total Variables	d+h i Comp O.C.11	i Benefits O.C.12/13	i+j k Comp & Benefits	d/c l Basic Comp	i/c m Total Comp	k/c n Comp & Benefits	h/d o % BC Variables	j/d p % BC Benefits
Direct Funded Personnel (includes OC 13)	**19,345**	**19,949**	**19,949**	**2,226,320**	**0**	**0**	**0**	**0**	**2,226,320**	**876,094**	**3,102,414**	*$111,601*	*$111,601*	*$155,517*	*0.0%*	*39.4%*
D1. US Direct Hire (USDH)	**19,343**	**19,947**	**19,947**	**2,225,988**	-	-	-	-	**2,225,988**	**876,094**	**3,102,082**	*$111,595*	*$111,595*	*$155,516*	*0.0%*	*39.4%*
D1a. Senior Executive Schedule	75	75	75	13,500				-	13,500	4,860	18,360	*$180,000*	*$180,000*	*$244,800*	*0.0%*	*36.0%*
D1b. General Schedule	16,012	16,616	16,616	1,965,032				-	1,965,032	782,150	2,747,182	*$118,261*	*$118,261*	*$165,334*	*0.0%*	*39.8%*
D1c. Special Schedule	-							-	-			-	-	-	-	-
D1d. Wage System	3,256	3,256	3,256	247,456				-	247,456	89,084	336,540	*$76,000*	*$76,000*	*$103,360*	*0.0%*	*36.0%*
D1e. Highly Qualified Experts	-							-	-			-	-	-	-	-
D1f. Other	-							-	-			-	-	-	-	-
D2. Direct Hire Program Foreign Nationals (DHFN)	-							-	-			-	-	-	-	-
D3. Total Direct Hire	**19,343**	**19,947**	**19,947**	**2,225,988**	-	-	-	-	**2,225,988**	**876,094**	**3,102,082**	*$111,595*	*$111,595*	*$155,516*	*0.0%*	*39.4%*
D4. Indirect Hire Foreign Nationals (IHFN)	2	2	2	332				-	332		332	*$166,000*	*$166,000*	*$166,000*	*0.0%*	*0.0%*
Subtotal - Direct Funded (excludes OC 13)	*19,345*	*19,949*	*19,949*	*2,226,320*	-	-	-	-	*2,226,320*	*876,094*	*3,102,414*	*$111,601*	*$111,601*	*$155,517*	*0.0%*	*39.4%*
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)	**4,591**	**4,591**	**4,591**	**565,802**	**0**	**0**	**0**	**0**	**565,802**	**0**	**565,802**	*$123,242*	*$123,242*	*$123,242*	*0.0%*	*0.0%*
R1. US Direct Hire (USDH)	**4,591**	**4,591**	**4,591**	**565,802**	-	-	-	-	**565,802**	-	**565,802**	*$123,242*	*$123,242*	*$123,242*	*0.0%*	*0.0%*
R1a. Senior Executive Schedule	-							-	-			-	-	-	-	-
R1b. General Schedule	4,591	4,591	4,591	565,802				-	565,802		565,802	*$123,242*	*$123,242*	*$123,242*	*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	**4,591**	**4,591**	**4,591**	**565,802**	-	-	-	-	**565,802**	-	**565,802**	*$123,242*	*$123,242*	*$123,242*	*0.0%*	*0.0%*
R4. Indirect Hire Foreign Nationals (IHFN)	-							-	-		-	-	-	-	-	-
Subtotal - Reimbursable Funded (excludes OC 13)	*4,591*	*4,591*	*4,591*	*565,802*	-	-	-	-	*565,802*	-	*565,802*	*$123,242*	*$123,242*	*$123,242*	*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)	**23,936**	**24,540**	**24,540**	**2,792,122**	**0**	**0**	**0**	**0**	**2,792,122**	**876,094**	**3,668,216**	*$113,778*	*$113,778*	*$149,479*	*0.0%*	*31.4%*
T1. US Direct Hire (USDH)	**23,934**	**24,538**	**24,538**	**2,791,790**	-	-	-	-	**2,791,790**	**876,094**	**3,667,884**	*$113,774*	*$113,774*	*$149,478*	*0.0%*	*31.4%*
T1a. Senior Executive Schedule	75	75	75	13,500	0	0	0	0	13,500	4,860	18,360	*$180,000*	*$180,000*	*$244,800*	*0.0%*	*36.0%*
T1b. General Schedule	20,603	21,207	21,207	2,530,834	0	0	0	0	2,530,834	782,150	3,312,984	*$119,340*	*$119,340*	*$156,221*	*0.0%*	*30.9%*
T1c. Special Schedule	0	0	0	0	0	0	0	0	0	0	0	-	-	-	-	-
T1d. Wage System	3,256	3,256	3,256	247,456	0	0	0	0	247,456	89,084	336,540	*$76,000*	*$76,000*	*$103,360*	*0.0%*	*36.0%*
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	**23,934**	**24,538**	**24,538**	**2,791,790**	-	-	-	-	**2,791,790**	**876,094**	**3,667,884**	*$113,774*	*$113,774*	*$149,478*	*0.0%*	*31.4%*
T4. Indirect Hire Foreign Nationals (IHFN)	2	2	2	332	0	0	0	0	332	0	332	*$166,000*	*$166,000*	*$166,000*	*0.0%*	*0.0%*
Subtotal - Total Funded (excludes OC 13)	*23,936*	*24,540*	*24,540*	*2,792,122*	-	-	-	-	*2,792,122*	*876,094*	*3,668,216*	*$113,778*	*$113,778*	*$149,479*	*0.0%*	*31.4%*
T5. Other Object Class 13 Benefits										-	-					
T5a. USDH - Benefits for Former Employees										0	0					
T5b. DHFN - Benefits for Former Employees										0	0					
T5c. Voluntary Separation Incentive Pay (VSIP)										0	0					
T5d. Foreign National Separation Liability Accrual										0	0					

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Exhibit OP-8, Part 1, Total Civilian Personnel Costs

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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

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

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 ACRONYMNS

ACC	- Air Combat Command
AETC	- Air Education & Training Command
AFCAO	- Air Force Computer Acquisition Office
AFCESA	- 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

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 ACRONYMNS

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	- Undefinitized Contract Action
WP	- Work Project

CONTRACTED BY ACRONYMNS

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 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*

R-1 Program Element (Number/Name)
PE 0207418F *I AFSPECWAR - TACP*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	5.763	2.106	2.206	0.000	2.206	4.336	4.425	2.211	2.254	Continuing	Continuing
675234: *TACP Support*	-	5.763	2.106	2.206	0.000	2.206	4.336	4.425	2.211	2.254	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

a. The Joint Terminal Control Training and Rehearsal (JTC TRS) Program, under the Tactical Airborne Control System, funds development necessary to provide a Distributed Mission Operations (DMO) capable, high-fidelity simulator for Special Warfare airmen, to include Tactical Air Control Party (TACP), Special Tactics Combat Control Team (CCT), Joint Terminal Attack Controller (JTAC) operations and Air Support Operations Center (ASOC) operations.

JTC TRS is essential to provide initial training, mission qualification training, continuation training, and currency control requirements to JTACs and Special Tactics personnel. JTAC control training requirements exceed the ability of live-fly aircraft to meet, and JTC TRS is the only capability enabling JTACs to achieve and maintain minimum required training for both qualification and proficiency in accordance with the U.S and Partner Nation Memorandum of Agreement for JTAC certification and qualification.

The JTC TRS Program provides research and development to facilitate interoperability with joint and sister Service air-ground simulation using industry standards. JTC TRS will provide the capability to network aircrew full mission trainers and training centers in a live-virtual-constructive network. This development effort will also integrate ASOCs with the Joint Theater Air Ground Simulation System (JTAGSS) trainer for Joint Fires integration. The simulator will supplement live field training and live-fly sorties to provide realistic introductory, proficiency, currency, and upgrade training in a simulated battlefield, disaster, or humanitarian relief environment. FY25 funds are required for the integration of Joint Air Ground Integration Center Command and Control into JTAGSS.

b. JTAGSS is a continuation of the ASOC simulation trainer initially funded in 2009 and complements the JTC TRS trainer by providing a total air-ground constructive simulation environment for integrated networked training and mission rehearsal capability that will develop TACP/CCT/JTAC and ASOC/Special Operations Forces (SOF) C2 battle staff skills. JTAGSS will provide the ASOC, SOF, and TACP with the vertical and horizontal C2 communications and coordination training and mission rehearsal required for mission effectiveness. There are insufficient exercises and live training events available to meet mandated readiness requirements. The system will include a secure network connection, a constructive simulation environment generator with sharable databases, computer workstations that have synthetic reflex agent applications for each ASOC/SOF crew position to execute the Air Tasking Order.

Funds may be used to address emerging and short notice Diminishing Manufacturing Sources and Material Shortage (DMSMS) issues. DMS efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards initiative.

PE 0207418F: *AFSPECWAR - TACP*
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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0207418F *I AFSPECWAR - TACP*

This program element may include necessary civilian pay expenses required to manage, execute, and deliver JTC TRS 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 FY23 $0.00M was expended for civilian pay expenses in this program element, and in FY24 $0.00M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	5.982	2.106	4.221	0.000	4.221
Current President's Budget	5.763	2.106	2.206	0.000	2.206
Total Adjustments	-0.219	0.000	-2.015	0.000	-2.015
• 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	-0.219	0.000			
• Other Adjustments	0.000	0.000	-2.015	0.000	-2.015

Change Summary Explanation

The FY 2025 funding request was reduced by $2.018 million to account for the availability of prior year execution balances

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: JTC TRS Trainer Development	5.763	2.106	2.206
Description: Development and test of Engineering Change Proposals for TACP-Close Air Support System.			
FY 2024 Plans: Continuing development of Joint Theater Air Ground Simulation System -Joint Air Ground Integration Center Interface.			
FY 2025 Plans: Will support integration of Joint Air Ground Integration Center Command and Control into JTAGSS.			
FY 2024 to FY 2025 Increase/Decrease Statement:			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207418F *I AFSPECWAR - TACP*	

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Increase in funding due to inflationary adjustments and program transition from development into systems integration.			
Accomplishments/Planned Programs Subtotals	5.763	2.106	2.206

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 Line Item 837100: *Tactical C-E Equipment*	2.722	3.155	3.620	-	3.620	3.704	3.830	2.445	2.493	Continuing	Continuing

Remarks

E. Acquisition Strategy

The JTC TRS acquisition has provided full capability as defined in the Capability Production Document (CPD). A Full and Open competitive source selection was conducted and resulted in the award of a single contract to produce and sustain the JTC TRS family of systems. The contract includes pre-priced production options for additional JTC TRS production; Emulated Military Equipment (EME) program management; cybersecurity support, Contractor Logistic Support (CLS), Training System Support Center (TSSC) for both JTC TRS and JTAGSS devices; training; and device relocation. The contract structure allows for maintaining concurrency, fidelity and connectivity; implementing system improvements/technical refresh; and other modifications as required. JTC TRS awarded the competitive contract in June 2021.

b. The acquisition strategy for the JTAGSS trainer will be to field advance technology demonstration units to continue to perform proof of concept and technology validation of mission simulations for all ASOC crew positions including detailed communications planning, asset deconfliction, integration of joint fires, and other critical mission areas required for integrated TACP/ASOC C2 mission success. At the completion of the technology validation, a contract will be competitively awarded to complete JTAGSS development, deployment and integration. Current software is Government or Commercial Off-the-Shelf technologies (GOTS/COTS) allowing almost any training technology development company to compete, which lowers technical risk, schedule risk, and cost.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207418F / *AFSPECWAR - TACP*	**Project (Number/Name)** 675234 / *TACP Support*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JTC TRS Trainer Development	C/FFP	AFLCMC/WNS, AFMC : Wright Patterson AFB, OH	-	5.763	Nov 2022	1.956	Jun 2024	2.056	Mar 2025	-		2.056	Continuing	Continuing	-
Subtotal			-	5.763		1.956		2.056		-		2.056	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	Various	AFLCMC/WNS, AFMC : Wright Patterson AFB, OH	-	-		0.150	Feb 2024	0.150	Feb 2025	-		0.150	Continuing	Continuing	-
Subtotal			-	-		0.150		0.150		-		0.150	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	5.763	2.106	2.206	-	2.206	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207418F / *AFSPECWAR - TACP*	**Project (Number/Name)** 675234 / *TACP Support*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
JTC TRS Trainer Development																												
Develop and Test TACP Engineering Change Proposals																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207418F *I AFSPECWAR - TACP*	**Project (Number/Name)** 675234 *I TACP Support*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
JTC TRS Trainer Development				
Develop and Test TACP Engineering Change Proposals	1	2023	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0207431F *I Combat Air Intelligence System Activities*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	36.704	72.010	46.702	0.000	46.702	50.391	50.982	52.007	53.018	Continuing	Continuing
675307: *TARGETING ENTERPRISE RESEARCH*	-	35.899	40.029	45.858	0.000	45.858	49.527	50.101	51.093	52.086	Continuing	Continuing
675309: *GEO Info & Serv Software*	-	0.805	31.981	0.844	0.000	0.844	0.864	0.881	0.914	0.932	Continuing	Continuing

A. Mission Description and Budget Item Justification

The mission of Combat Air Intelligence Systems (CAIS) is to process, analyze, and disseminate intelligence for air component and unit operations worldwide by providing key intelligence infrastructure and production capabilities for the supported and supporting forces with true backbone type of intelligence support for air operations and air support to joint operations. CAIS is focused on providing the intelligence infrastructure and funding to Air Force Major Commands, Intelligence, Cyber and Space Squadrons, Field Operating Agencies, and subordinate units.

Modernizations are required for the CAIS enterprise capabilities, inside and outside AOCs to keep pace with evolving Government Off the Shelf (GOTS) components, integrated Commercial Off the Shelf (COTS) components, Department of Defense (DoD) directives, and changes in the underlying Information Technology (IT) environment, as well as to deliver effective operational capabilities for the user. In Summer of FY20, the decision was made to transition from Middle Tier Acquisition (MTA), Sec 804 Rapid Prototyping/Fielding to the new NDAA FY20 - Software Acquisition Pathway, which is the preferred path for acquisition and development of software-intensive systems. In October 2021, Kessel Run Air Domain was authorized by the Service Acquisition Executive to enter the Software Acquisition Pathway in the Execution Phase.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Targeting and Geospatial Intelligence 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 PY 1.975M (FY2023) was expended for civilian pay expenses in this program element, and in CY (FY2024) 2.569M is forecasted for civilian pay expenses in this program element.

This program is part of the overarching Kessel Run portfolio.

Additional CAIS funding associated with BA4 24731F 640141

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.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0207431F *I Combat Air Intelligence System Activities*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	37.454	72.010	51.554	0.000	51.554
Current President's Budget	36.704	72.010	46.702	0.000	46.702
Total Adjustments	-0.750	0.000	-4.852	0.000	-4.852
• 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	-0.750	0.000	-4.852	0.000	-4.852

Congressional Add Details ($ in Millions, and Includes General Reductions)	**FY 2023**	**FY 2024**
Project: 675307: *TARGETING ENTERPRISE RESEARCH*		
Congressional Add: *Geospatial Infrastructure for ISR Wings*	6.200	-
Congressional Add: *Ukraine Assistance*	7.750	-
Congressional Add Subtotals for Project: 675307	13.950	-
Congressional Add Totals for all Projects	13.950	-

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 I 7					**R-1 Program Element (Number/Name)** PE 0207431F I *Combat Air Intelligence System Activities*				**Project (Number/Name)** 675307 I *TARGETING ENTERPRISE RESEARCH*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675307: *TARGETING ENTERPRISE RESEARCH*	-	35.899	40.029	45.858	0.000	45.858	49.527	50.101	51.093	52.086	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Provides support to personnel utilizing Target Development, Planning, and Execution applications; Unit Level Intelligence; Tactical Intelligence Applications; and direct support to national, combatant command, and Air Force intelligence missions.

This program element may include necessary emergent or unanticipated civilian pay expenses required to manage, execute, and deliver Targeting Intelligence 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.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: ACC Targeting Enterprise Research *Description:* Conducts limited early R&D for tools and workflow, initial cloud and data structure architecture, initial implementation of Sensor-to-shooter concept to accelerate kill chain for at scale dynamic execution, TTP development for targeting in an agile combat environment in the "lead wing concept", and enhanced target mensuration development to improve speed and capacity for target location. *FY 2024 Plans:* Continue Kill Chain automation support to enhance Find, Fix, Track. Target, Engage, assess sensor-to-shooter intelligence and training on applications to shorten long range kill chains. Provides funds for the enhancement of existing weapon systems in direct support of countering Stratospheric platforms, to include High Altitude Balloons. Expansion of analysis and exploitation related to the technical characteristics, signatures, employment, vulnerabilities, performance, and proliferation of current and future unmanned airborne ISR platforms and their associated subsystems and support equipment. *FY 2025 Plans:* Continue Kill Chain automation support to enhance Find, Fix, Track. Target, Engage, assess sensor-to-shooter intelligence and training on applications to shorten long range kill chains. Provides funds for the enhancement of existing weapon systems in direct support of countering Stratospheric platforms, to include High Altitude Balloons. Expansion of analysis and exploitation related to the technical characteristics, signatures, employment,	6.168	27.146	40.401

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024	
Appropriation/Budget Activity 3600 I 7	R-1 Program Element (Number/Name) PE 0207431F I Combat Air Intelligence System Activities	Project (Number/Name) 675307 I TARGETING ENTERPRISE RESEARCH	

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
vulnerabilities, performance, and proliferation of current and future unmanned airborne ISR platforms and their associated subsystems and support equipment. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to a realignment of Kill Chain Automation funding from BPAC 675309 (Geo Info & Software). Kill Chain Automation requirements are better aligned with the Targeting Enterprise BPAC 675307.			
Title: Kessel Run Targeting Research, Modernization, and SoftWare Pathways *Description:* Conduct Targeting Enterprise research and advancement for projects such as Joint Targeting Toolbox (JTT) [In both the Global Command and Control System Joint (GCCS-J) and Stand-alone configurations-JTT-Capability Package (JTT-CP) and JTT codebase re-architecture] and the Unit Level Intelligence (ULI) systems Toolkit for Intelligence Targeting Analysis (TITAN) and Targeting Application Workstation (TAW).) This budget item also funds emerging targeting capabilities such as Target System Analysis and Targeting Enterprise software application modernization efforts. *FY 2024 Plans:* Continue the phased modernization of capabilities within the T&G portfolio, expand test automation, and migrate to a true Continuous Integration/DevOps environment to support continuous delivery to the warfighter. *FY 2025 Plans:* Continue the phased modernization of capabilities within the T&G portfolio, expand test automation, and migrate to a true Continuous Integration/DevOps environment to support continuous delivery to the warfighter. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decrease is due to JTIM funding supporting Joint Targeting Toolbox and RIPSAW modernization support alignment to Kessel Run AOC program.	15.781	12.883	5.457
Accomplishments/Planned Programs Subtotals	21.949	40.029	45.858

	FY 2023	FY 2024
Congressional Add: Geospatial Infrastructure for ISR Wings *FY 2023 Accomplishments:* These funds will be used for the necessary hardware and software to enable the 363rd to deploy a geospatial infrastructure to create, publish, and share content and information products quickly and seamlessly throughout the Wing and other IC and DoD organizations.	6.200	-
Congressional Add: Ukraine Assistance	7.750	-

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207431F *I Combat Air Intelligence System Activities*	**Project (Number/Name)** 675307 *I TARGETING ENTERPRISE RESEARCH*

	FY 2023	**FY 2024**
FY 2023 Accomplishments: Funds Sensor-to-Shooter embedded support, ISR Dynamic Execution (IDEX) Dynamic Re-tasking, Low-Cost Threat Emitters (LCTE) Amplifier, and Intel Support to Non-Kenetic weaponeering.		
Congressional Adds Subtotals	13.950	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 Line Item 832070: *Intelligence Comm Equipment*	3.185	2.830	5.921	-	5.921	6.055	6.282	6.414	6.542	Continuing	Continuing
• O&M 27431F: *Combat Air Intelligence System (CAIS)*	5.188	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

The acquisition strategy builds on agile software engineering methodologies and modernization of existing capabilities utilizing evolutionary acquisition. Using Section 804, timelines are reduced by modularizing both software engineering solutions and the associated contracting and funding strategies. This enables dynamic resource allocation based on current warfighter needs. In Summer of FY20, the decision was made to transition from MTA, Sec 804 Rapid Prototyping/Fielding to the new NDAA FY20 - Software Acquisition Pathway, which is the preferred path for acquisition and development of software-intensive systems. In October 2021, Kessel Run Air Domain was authorized by the Service Acquisition Executive to enter the Software Acquisition Pathway in the Execution Phase. This program is part of the overarching Kessel Run portfolio and is dependent on the All Domain Common Platform (ADCP). The ADCP provides an extensible cloud-based Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform built to deliver highly resilient mission applications and data to Airmen deployed around the world.

PE 0207431F: *Combat Air Intelligence System Activitie...*
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024	

Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0207431F I Combat Air Intelligence System Activities	**Project (Number/Name)** 675307 I TARGETING ENTERPRISE RESEARCH

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
cHAB	TBD	NASIC : TBD	-	-		12.000		14.700		-		14.700	Continuing	Continuing	-
JTIM Funds	TBD	ACC : TBD	-	-		8.400		9.716		-		9.716	Continuing	Continuing	-
Geospatial Infrastructure ISR Wings	TBD	ACC : TBD	-	6.200		-		-		-		-	Continuing	Continuing	-
Ukraine Assistance	TBD	ACC : TBD	-	7.750		-		-		-		-	Continuing	Continuing	-
Targeting Enterprise Research	TBD	ACC : TBD	-	6.168	Jan 2023	6.746	Jan 2024	15.985	Jan 2025	-		15.985	Continuing	Continuing	-
JTT	SS/CPFF	BAE Systems : Rockville, MD	-	5.880	Jun 2023	3.570	Jun 2024	0.000	Jun 2025	-		0.000	Continuing	Continuing	-
Software Development (Legacy/ENDOR)	C/T&M	Various : Boston, MA	-	4.491	Dec 2022	2.789	Dec 2023	2.315	Dec 2024	-		2.315	Continuing	Continuing	-
Software Development (Other Direct Support)	MIPR	NIWC Pacific : San Diego, CA	-	1.359	Oct 2022	1.178	Dec 2023	0.000	Dec 2024	-		0.000	Continuing	Continuing	-
Subtotal			-	31.848		34.683		42.716		-		42.716	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Civilian Direct Cite Authority	Reqn	AFLCMC : WPAFB, OH	-	1.975	Oct 2022	2.569	Oct 2023	1.614	Oct 2024	-		1.614	Continuing	Continuing	-
Federally Funded Research & Development Center (FFRDC) Engineers	C/CPFF	MITRE : Hanscom AFB, MA	-	0.365	Oct 2022	0.000	Oct 2023	0.000	Oct 2024	-		0.000	Continuing	Continuing	-
Advisory & Assistance Services	C/CPFF	Odyssey : Boston, MA	-	0.411	Jul 2023	0.657	Jul 2024	0.248	Jul 2025	-		0.248	Continuing	Continuing	-
Platform One/NGA Support	Various	Various : Hanscom AFB, MA	-	0.163	Mar 2023	0.691	Mar 2024	0.468	Mar 2025	-		0.468	Continuing	Continuing	-
Subtotal			-	2.914		3.917		2.330		-		2.330	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | **Date:** March 2024

| Appropriation/Budget Activity 3600 *I* 7 | R-1 Program Element (Number/Name) PE 0207431F *I Combat Air Intelligence System Activities* | Project (Number/Name) 675307 *I TARGETING ENTERPRISE RESEARCH* |

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test Support	PO	45th Test Squadron : Eglin AFB, FL	-	0.422	Dec 2022	0.789	Dec 2023	0.796	Dec 2024	-		0.796	Continuing	Continuing	-
Subtotal			-	0.422		0.789		0.796		-		0.796	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Office Support	Various	Program Management Office : Hanscom AFB, MA	-	0.715	Nov 2022	0.640	Nov 2023	0.016	Nov 2024	-		0.016	Continuing	Continuing	-
Subtotal			-	0.715		0.640		0.016		-		0.016	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	35.899	40.029	45.858	-	45.858	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207431F *I Combat Air Intelligence System Activities*	**Project (Number/Name)** 675307 *I TARGETING ENTERPRISE RESEARCH*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Kessel Run Targeting																												
Software/Hardware Development																												
Test and Evaluation																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207431F *I Combat Air Intelligence System Activities*	**Project (Number/Name)** 675307 *I TARGETING ENTERPRISE RESEARCH*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Kessel Run Targeting				
Software/Hardware Development	1	2024	4	2029
Test and Evaluation	1	2024	4	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0207431F / *Combat Air Intelligence System Activities*						**Project (Number/Name)** 675309 / *GEO Info & Serv Software*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675309: *GEO Info & Serv Software*	-	0.805	31.981	0.844	0.000	0.844	0.864	0.881	0.914	0.932	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Provides support to personnel using Geospatial resources utilized in Geospatial Intelligence (GEOINT) databasing applications, technology exploration and refresh initiatives, geospatial imagery data management and dissemination architecture, geospatial information and services modernization, and enablers for intel and targeting capabilities. Provides support to the MAJCOMs to ensure requisite and available target intelligence and GEOINT tools for information directly available to warfighters.

The GEOINT information and service software program funds the Air Force Enhanced Geospatial Product Library (EGPL) which is currently fielded to all combatant command air components and subordinate units supporting global air operations. The EGPL provides digital GEOINT data to support mission planning, targeting & intelligence in support of mission objectives.

The Enhanced Geospatial Product Library (EGPL) is world-wide distributed United States Air Force (USAF) repository for geospatial products from the National Geospatial Intelligence Agency (NGA) and other government sources. Its purpose is to provide the Geospatial Intelligence (GEOINT) information needed by the Air Force (AF) and other DoD command and control systems. EGPL is on premise, continuously updated, NGA Foundational GEOINT data seamlessly accessible via shared drive or browser.

Funds enhanced dynamic F2T2EA sensor-to-shooter intel and advanced training on cloud-based apps to shorten LRKC with automated and AI-enabled Sensing Grid/targeting tools and applications. Analyzes, visualizes, and shares National, Tactical, and open source Intel to close the capability gap against adversary's truncated kill chains.

This program element may include necessary emergent or unanticipated civilian pay expenses required to manage, execute, and deliver GEOINT 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.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025
Title: Kill Chain Automation	0.000	31.165	-
Description: Funds dynamic F2T2EA S2S intelligence and advanced training on cloud-based application to shorten LRKC with automated/AI-enabled sensing-grid and targeting/applications. Analyzes, visualizes, and shares national, tactical, and open source intelligence to close the capability gap against adversary's truncated kill-chains *FY 2024 Plans:*			

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207431F *I Combat Air Intelligence System Activities*	**Project (Number/Name)** 675309 *I GEO Info & Serv Software*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Continue Kill Chain automation support to enhance Find, Fix, Track. Target, Engage, assess sensor-to-shooter intelligence and training on applications to shorten long range kill chains. *FY 2024 to FY 2025 Increase/Decrease Statement:* Currently no funding/plans in FY25			
Title: Kessel Run Enhanced Geospatial Product Library (EGPL) *Description:* Provide continuing support for EGPL software and storage to meet future and evolving IT and GEOINT standards and support. *FY 2024 Plans:* Provide continuing support for EGPL software and storage to meet future and evolving IT and GEOINT standards and support. *FY 2025 Plans:* Provide continuing support for EGPL software and storage to meet future and evolving IT and GEOINT standards and support. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to inflation	0.805	0.816	0.844
Accomplishments/Planned Programs Subtotals	0.805	31.981	0.844

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

D. Acquisition Strategy

The acquisition strategy builds on agile software engineering methodologies and modernization of existing capabilities utilizing evolutionary acquisition. Using section 804, timelines are reduced by modularizing both software engineering solutions and the associated contracting and funding strategies. This enables dynamic resource allocation based on current warfighter needs. The desired end state is continuous delivery of Software. In Summer of FY20, the decision was made to transition from MTA, Sec 804 Rapid Prototyping/Fielding to the new NDAA FY20 - Software Acquisition Pathway, which is the preferred path for acquisition and development of software-intensive systems. In October 2021, Kessel Run Air Domain was authorized by the Service Acquisition Executive to enter the Software Acquisition Pathway in the Execution Phase. This program is part of the overarching Kessel Run portfolio and is dependent on the All Domain Common Platform (ADCP). The ADCP provides an extensible cloud-based Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform built to deliver highly resilient mission applications and data to Airmen deployed around the world.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207431F *I Combat Air Intelligence System Activities*	**Project (Number/Name)** 675309 *I GEO Info & Serv Software*	

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Kill Chain Automation	TBD	ACC : TBD	-	-		31.165		-		-		-	Continuing	Continuing	-
Software Development(Legacy/ENDOR)	C/CPAF	Various : Boston, MA	-	-		0.362	Dec 2023	0.373	Dec 2024	-		0.373	Continuing	Continuing	-
		Subtotal	-	-		31.527		0.373		-		0.373	Continuing	Continuing	N/A

Support ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 & Assistance Services	C/CPFF	Odyssey : Boston, MA	-	0.805	Mar 2023	0.454	Jul 2024	0.402	Jul 2025	-		0.402	Continuing	Continuing	-
		Subtotal	-	0.805		0.454		0.402		-		0.402	Continuing	Continuing	N/A

Management Services ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 Office Support	Reqn	Various : Hanscom, MA	-	0.000	Jul 2023	0.000	Dec 2023	0.069	Dec 2024	-		0.069	Continuing	Continuing	-
		Subtotal	-	0.000		0.000		0.069		-		0.069	Continuing	Continuing	N/A

	Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	0.805		31.981		0.844		-		0.844	Continuing	Continuing	N/A

Remarks
 Realigned $100K from BPAC 675307 to BPAC 675309 for EGPL follow-on contract.

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207431F / *Combat Air Intelligence System Activities*	**Project (Number/Name)** 675309 / *GEO Info & Serv Software*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Kill Chain Automation																												
Software Development					███																							
GeoInt																												
Software Designer					███																							

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207431F *I Combat Air Intelligence System Activities*	**Project (Number/Name)** 675309 *I GEO Info & Serv Software*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Kill Chain Automation				
Software Development	1	2024	4	2028
GeoInt				
Software Designer	1	2024	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0207438F *I Theater Battle Management (TBM) C4I*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	5.647	6.467	4.873	0.000	4.873	6.829	6.968	7.221	7.364	Continuing	Continuing
675218: *Applications Development*	-	5.647	6.467	4.873	0.000	4.873	6.829	6.968	7.221	7.364	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This budget line funds joint partner requirements of the Air Operations Center (AOC) Weapon System Modification effort. Applications Development efforts deliver capabilities identified in the Joint Command and Control (JC2) Capability Development Document (CDD) (2013) and are executed under the Development, Security, and Operations (DevSecOps) Software Acquisition Pathway Program. Applications Development provides worldwide operational capabilities for Air Force Command and Control (C2) in support of DoD, Coalition Partners, and other government agencies. These efforts focus on support to the Joint Forces Air Component Commander (JFACC), who provides air, space and cyber support to other AF and Joint Services C2 systems. This program is dependent on the All Domain Common Platform (ADCP), which provides an extensible cloud-based Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform built to deliver highly resilient mission applications and data to Airmen deployed around the world.

In FY25, Applications Development will focus on providing necessary software capabilities to build, disseminate, and execute the Master Air Attack Plan (MAAP). Applications Development also provides an Airspace Management tool used for building airspaces, evaluating requests, and instantaneously generating the Airspace Control Order (ACO). These efforts deliver modern software for inclusion to the AOC Weapon System Modifications program to replace the Master Air Attack Plan-Toolkit (MAAPTK) and components of Theater Battle Management Core System - Force Level (TBMCS FL).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funding would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M 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.

PE 0207438F: *Theater Battle Management (TBM) C4I*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0207438F *I Theater Battle Management (TBM) C4I*		

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	5.851	6.467	6.650	0.000	6.650
Current President's Budget	5.647	6.467	4.873	0.000	4.873
Total Adjustments	-0.204	0.000	-1.777	0.000	-1.777
• 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	-0.204	0.000			
• Other Adjustments	0.000	0.000	-1.777	0.000	-1.777

Change Summary Explanation

The FY 2025 funding request was reduced by $1.785 million to account for the availability of prior year execution balances.
The FY 2025 funding request was increased by $0.008 million to account for inflation adjustments.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: C2 Applications Development	5.647	6.467	4.873
Description: Employ agile software development methodologies to engineer, integrate, and test modern C2 software capabilities leveraging test-driven development. Provide engineering solutions, test, and deliver effective operational C2 capabilities utilizing continuous integration and continuous delivery (CI/CD) processes. *FY 2024 Plans:* - To deliver software to AOC WS Modifications to incrementally replace MAAPTK and portions of TBMCS FL *FY 2025 Plans:* - Will continue delivery of software to AOC WS Modifications to incrementally replace MAAPTK and portions of TBMCS FL *FY 2024 to FY 2025 Increase/Decrease Statement:* FY25 funding decreased due to the availability of prior year execution balances.			
Accomplishments/Planned Programs Subtotals	5.647	6.467	4.873

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207438F *I Theater Battle Management (TBM) C4I*

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 833140: *Strategic Command And Control*	30.738	9.991	5.431	-	5.431	1.862	1.906	28.700	29.267	Continuing	Continuing
• RDTE 07 0303248F: *All Domain Common Platform*	44.989	71.296	82.927	-	82.927	87.575	92.589	88.829	90.583	Continuing	Continuing

Remarks

E. Acquisition Strategy

The acquisition strategy builds on agile development and modification of existing capabilities using evolutionary acquisition to standardize and modernize C2 Applications Development. C2 Applications Development will operate under authority of a Software Acquisition Pathway.

Program management for the C2 Applications Development is under direction of PEO Digital, located at Hanscom AFB, MA. The Air Force Life Cycle Management Center (AFLCMC) located at Hanscom AFB, MA is the contracting authority for C2 Applications Development. AFLCMC provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207438F / *Theater Battle Management (TBM) C4I*	**Project (Number/Name)** 675218 / *Applications Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C2AOS-C2IS Agile Software Development	C/T&M	Multiple : Multiple	-	3.347	Oct 2022	6.467	Oct 2023	4.702	Oct 2024	-		4.702	Continuing	Continuing	-
Subtotal			-	3.347		6.467		4.702		-		4.702	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support	Various	Multiple : TBD	-	2.300	Apr 2023	0.000	Apr 2024	0.171	Apr 2025	-		0.171	Continuing	Continuing	-
Subtotal			-	2.300		0.000		0.171		-		0.171	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	5.647		6.467	4.873	-	4.873	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207438F *I Theater Battle Management (TBM) C4I*	**Project (Number/Name)** 675218 *I Applications Development*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Applications Development																												
C2 Applications Development																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207438F *I Theater Battle Management (TBM) C4I*	**Project (Number/Name)** 675218 *I Applications Development*	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Applications Development				
C2 Applications Development	1	2023	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						R-1 Program Element (Number/Name) PE 0207439F *I Electronic Warfare Integrated Reprogramming (EWIR)*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	15.990	10.388	17.149	0.000	17.149	17.735	18.275	18.936	22.316	Continuing	Continuing
673310: *Electronic Warefare Integrated Reprogram RDT&E*	-	15.990	10.388	17.149	0.000	17.149	17.735	18.275	18.936	22.316	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Electronic Warfare Integrated Reprogramming (EWIR) program element hosts the DoD's first System of System Technology Integration Tool Chain for Heterogeneous Electronic Systems (STITCHES) Warfighter Application Team (SWAT) at the 350th Spectrum Warfare Wing (350 SWW). SWAT is an integration team employing, maintaining, and instructing other teams in the DoD how to use the STITCHES integration platform. STITCHES is a fully government developed, owned, and open-source Modular Open Systems Architecture (MOSA) toolchain and multi-classification information system that creates new capabilities by integrating incompatible DoD fielded systems and architectures together without the need to modify system source code. STITCHES' separable and community-based databases allow disparate teams across the DoD to utilize STITCHES and SWAT in separate security levels without co-mingling data. The 350 SWW will utilize SWAT to generate requested capability using the STITCHES interoperability software on systems both within and external to the 350 SWW and deploy the capabilities created to the requesting organizations. SWAT interfaces and integrates with other DoD systems and their authorities to support 350 SWW missions and HHQ directed activities. SWAT is responsible for testing and deploying STITCHES generated interoperability into DoD systems supported by the 350 SWW, working with existing DoD test and certification organizations, and teaming with organizations outside of the 350 SWW when adapting and creating novel system of systems using capabilities from these organizations. SWAT will deliver adaptive and cutting-edge electromagnetic spectrum capabilities that provide the warfighter a tactical and strategic competitive advantage and freedom to attack, maneuver, and defend.

SWAT is a software development team composed of a government tiger team, the STITCHES toolchain developer, a secure cloud infrastructure and repository developer, and mission partners. SWAT includes a revolving team of subsystem subject matter experts when adapting DoD systems using STITCHES. SWAT is responsible for the execution of tasks employing STITCHES outlined in NDAA 2021 Section 804 and supports Joint All Domain Command and Control (JADC2) tasking and integration efforts in support of JADC2.

SWAT will conduct regular STITCHES training courses to scale the capability to the DoD. SWAT may team with other DoD organizations utilizing STITCHES to increase the scale of the deployed capabilities.

The STITCHES integration platform achieved a Cross Domain Solution (CDS) Authority to Operate (ATO) prior to the DoD's Raise The Bar (RTB) certification requirement process. The STITCHES integration platform will be submitted to the National Cross Domain Strategy and Management Office (NCDSMO) for Cross Domain Solution certification in FY24.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207439F *I Electronic Warfare Integrated Reprogramming (EWIR)*	

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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	15.990	10.388	17.118	0.000	17.118
Current President's Budget	15.990	10.388	17.149	0.000	17.149
Total Adjustments	0.000	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	0.000	0.000			
• Other Adjustments	0.000	0.000	0.031	0.000	0.031

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Develop Deployment Strategy for STITCHES	5.063	3.289	4.945
Description: This effort develops the deployment strategy of the STITCHES training and implementation process. **FY 2024 Plans:** Scope, lead, and deploy STITCHES integrations and train DoD personnel. **FY 2025 Plans:** Scope, lead, and deploy STITCHES integrations and train DoD personnel. Lead continual development for STITCHES Platform and new certification processes at 350 SWW direction. **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding increased to stand up STITCHES-based Artificial intelligence data battle labs in Europe and the Pacific Areas of Operation.			
Title: STITCHES Verification, Validation, and Test Activities	2.665	1.731	2.841
Description: Improve existing STITCHES verification, validation, and testing capabilities and apply to STITCHES-integrated systems in coordination with DoD test, accreditation, and certification authorities. **FY 2024 Plans:**			

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207439F *I Electronic Warfare Integrated Reprogramming (EWIR)*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Improve STITCHES verification, validation, and testing capabilities and apply to STITCHES integrated systems in coordination with DoD test, accreditation, and certification authorities. *FY 2025 Plans:* Improve STITCHES verification, validation, and testing capabilities through automation, Graphical User Interface development, and streamline the developmental process for STITCHES toolchain and 350 SWW projects. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased to execute Technology Integration experiments with Command and Control Data Models, moving-target enabling linkages, and software defined wide area networks.			
Title: Deploy STITCHES Secure Cloud Structures/Information Systems *Description:* The STITCHES information systems are the portion of the STITCHES Platform including NDAA 2021 Section 804 repositories at all classification levels deployed into Controlled Unclassified Information (CUI) and FENCES cloud environments as well as other stand-alone/edge unclassified & classified infrastructures. *FY 2024 Plans:* Deploy secure cloud and non-cloud structures and NDAA 2021 Section 804 repositories within FENCES environment. Maintain CUI cloud and stand-alone/edge structure ATOs. *FY 2025 Plans:* Continue deploying STITCHES toolchain and repository into web-based infrastructure for unclassified/classified information systems. Deploy secure cloud and non-cloud structures and NDAA 2021 Section 804 repositories within FENCES environment. Maintain CUI and classified cloud and stand-alone/edge structure ATOs. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased to provide enterprise program management including creating and maintaining Authorizations to Operate (ATO) usable across the DoD security classification guidance by establishing and maintaining cloud and locally accessible data repositories capable of integrating systems from unclassified through TS//SAR//SCI on both Department of Defense information networks (DODIN) and stand-alone systems.	2.665	1.731	2.841
Title: Develop STITCHES Kill Chain Applications & Enabling Emerging Electromagnetic Spectrum Operations (EMSO) Technology *Description:* 350 SWW utilizes the ad-hoc System of System toolchain to integrate fielded DoD systems together in different configurations to create new EW/EMSO capabilities without the need to modify system source code. Conduct risk reduction and	5.597	3.637	6.522

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207439F *I Electronic Warfare Integrated Reprogramming (EWIR)*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
prototyping activities on emerging and enabling technologies to inform future EMSO capabilities informed by internal and external stakeholders. *FY 2024 Plans:* Create novel kill chains involving previously incompatible weapon systems, sensor, and command, control, and communication systems from multiple military services in cooperation with United States Indo-Pacific Command, United States European Command, and 350 SWW accepted integration tasking. *FY 2025 Plans:* Develop EW/EMSO capabilities through creation novel kill chains and EA/ES/EP involving previously incompatible weapon systems, Mission Design Series, sensor, and command, control, and communication systems. The development of advanced EW capability projects through collaboration of all military services in cooperation with multiple MAJCOMs to support multiple AORs such as United States Indo-Pacific Command and European Command. The 350 SWW will focus on traditional EW/EMSO problem sets and new gaps in air, maritime, space, and cyberspace domains. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased to provide STITCHES Platform improvements and upgrades involving previously incompatible weapon systems, Mission Design Series, sensor, and command, control, and communication systems; and the partnering with other STITCHES integration efforts to facilitate wide-spread adoption and scaling of the capability.			
Accomplishments/Planned Programs Subtotals	15.990	10.388	17.149

D. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

 PE 0207439F funding allocation for FY24 was reduced to $10.388M due to initial expenditure rates below prescribed goals. FY25 funding increase provides the
 program full level of effort funding.

E. Acquisition Strategy

 Accomplish studies, analysis, concept demonstrations, prototyping and engineering; efforts will be conducted using contracting strategies deemed most appropriate;
 generally using competitive contracts and/or other obligating documentation considered most appropriate by the obligating and performing agencies involved. Project
 utilizes existing DoD contracts to develop, maintain, and deploy interoperability within the DoD. SWAT will generate interoperability derived from system interface details
 as the requirements from NDAA 2021 Section 804 are delivered to DoD repositories via existing DoD programs. SWAT will serve existing programs to train and deliver
 their interface details into existing repositories including those Section 804 compliant repositories maintained by the STITCHES team. SWAT's System Adaptation effort
 generates those interface artifacts for programs not able to perform those functions on their own.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7						**R-1 Program Element (Number/Name)** PE 0207439F *I Electronic Warfare Integrated Reprogramming (EWIR)*						**Project (Number/Name)** 673310 *I Electronic Warefare Integrated Reprogram RDT&E*	

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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, STITCHES Toolchain	C/CPFF	Various : TBD	-	7.995	Apr 2023	6.488	Dec 2023	8.555	Dec 2024	-		8.555	Continuing	Continuing	-
Product Development, STITCHES Secure Cloud Infrastructure and Section 804 Repositories	C/Various	Various : TBD	-	2.932	Apr 2023	2.400	Dec 2023	3.132	Dec 2024	-		3.132	Continuing	Continuing	-
Product Development, System Adaption	C/Various	Various : TBD	-	3.054	Apr 2023	-		3.287	Dec 2024	-		3.287	Continuing	Continuing	-
		Subtotal	-	13.981		8.888		14.974		-		14.974	Continuing	Continuing	N/A

Support ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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	Various	Various : TBD	-	2.009	Apr 2023	1.500	Dec 2023	2.175	Dec 2024	-		2.175	Continuing	Continuing	-
		Subtotal	-	2.009		1.500		2.175		-		2.175	Continuing	Continuing	N/A

	Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	15.990		10.388		17.149		-		17.149	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207439F *I Electronic Warfare Integrate d Reprogramming (EWIR)*	**Project (Number/Name)** 673310 *I Electronic Warefare Integrated Reprogram RDT&E*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Develop Deployment Strategy for STITCHES																												
Develop Offensive and Defensive Electromagnetic Spectrum Capabilities	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██				
STITCHES Verification, Validation, and Test Activities																												
Test & Evaluate Offensive and Defensive Electromagnetic Spectrum Capabilities	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██				
Deploy STITCHES Secure Cloud Structures/ Information Systems																												
Deploy Repositories into CUI and FENCES Cloud Environments	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██				
Develop STITCHES Kill Chain Applications & Enabling Emerging Electromagnetic Spectrum Operations (EMSO) Technology																												
Integrate Fielded DoD Systems Together in Different Configurations	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██				

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207439F *I Electronic Warfare Integrated Reprogramming (EWIR)*	**Project (Number/Name)** 673310 *I Electronic Warefare Integrated Reprogram RDT&E*	

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Develop Deployment Strategy for STITCHES				
Develop Offensive and Defensive Electromagnetic Spectrum Capabilities	1	2023	4	2029
STITCHES Verification, Validation, and Test Activities				
Test & Evaluate Offensive and Defensive Electromagnetic Spectrum Capabilities	1	2023	4	2029
Deploy STITCHES Secure Cloud Structures/Information Systems				
Deploy Repositories into CUI and FENCES Cloud Environments	1	2023	4	2029
Develop STITCHES Kill Chain Applications & Enabling Emerging Electromagnetic Spectrum Operations (EMSO) Technology				
Integrate Fielded DoD Systems Together in Different Configurations	1	2023	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0207444F *I Tactical Air Control Party-Mod*					

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	10.008	10.060	12.171	0.000	12.171	12.605	12.864	6.426	6.554	Continuing	Continuing
676013: *Equipment Modernization*	-	10.008	10.060	12.171	0.000	12.171	12.605	12.864	6.426	6.554	Continuing	Continuing

A. Mission Description and Budget Item Justification

This budget line funds the Air Force Special Warfare (AFSPECWAR) Tactical Air Control Party (TACP) Weapon System which executes precision strike, integration, and all-domain command and control missions to meet Air Force power projection for the joint force's expanded maneuver.

TACP Airmen are part of the Air Force's premier ground combat units that are highly maneuverable and scalable. They execute ground-based command and control functions and seamlessly integrate kinetic and non-kinetic effects across the entire spectrum of conflict. They do this by providing joint force air component commanders with a highly trained force that operates at the tactical edge in highly contested environments and complicates enemy decision-making processes. Additionally, TACP Airmen conduct precision strike and integration operations at all echelons of maneuver warfare, from dismounted operations on the forward edge of the battlefield to tactical command posts; TACP Airmen plan, request, advise, and control joint fires and air power to meet supported commander's objectives.

The purpose of the Tactical Air Control Party - Modernization (TACP-M) program is to provide TACPs with modernized voice, data and video communications, advanced targeting equipment, and enhanced battlefield awareness/management capabilities across all domains. Improved targeting and data communications capabilities improve kill chain timelines, defeat adversary systems through opening and closing kill webs, extended critical networks to the forward edge, and when required reduce the probability of fratricide or collateral damage.

The TACP-M program support includes addressing frequent TACP combat deployments that sometimes lead users to change equipment procurement priorities to support urgent operational needs and respond to evolving threat environments. The TACP-M program jointly develops software with other AFSPECWAR programs to consolidate requirements that are common across the AFSPECWAR enterprise. This teaming arrangement helps standardize equipment, improves efficiency by consolidating acquisition efforts, and often reduces unit costs by increasing procurement quantities.

The TACP-M program provides and modernizes capabilities in the following five major areas: (1) Air Support Operations Center (ASOC)/ Tactical Operational Center (TOC) systems (used in mobile and maneuverable operations centers), (2) Vehicle Mounted Systems (used in tactical vehicles) and maneuverable operations, (3) Dismounted Systems (primarily used by Joint Terminal Attack Controllers (JTACs) in wearable configurations), (4) Digitally-Aided Close Air Support (DACAS) software, and (5) Support distributed and resilient ground-based command and control teams that leverage airpower within the Theater Air Control System

FY25 funding will allow for the continued development of the CASS 1.4.5 and WARHAWK software. The CASS 1.4.5 and WARHAWK software program will modernize the software used in Command, Control, Communications and Cybersecurity (C4) processing systems for ASOC/TOC operations, as well as, vehicle Mounted and Dismounted operations. The software will allow enhanced capability and seamless communication between the operations centers and the TACP military units in high combat areas.

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207444F *I Tactical Air Control Party-Mod*

TACP-M funding also supports innovation activities to include studies, analyses, requirements definition, and quick-reaction capability prototypes/demonstrations to accelerate planning for technology transition, technology insertion and future acquisition programs such as but not limited to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $00.000M was expended for civilian pay expenses in this program element, and in FY24 $00.000M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	10.304	10.060	12.276	0.000	12.276
Current President's Budget	10.008	10.060	12.171	0.000	12.171
Total Adjustments	-0.296	0.000	-0.105	0.000	-0.105
• 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	-0.296	0.000			
• Other Adjustments	0.000	0.000	-0.105	0.000	-0.105

Change Summary Explanation
The FY 2025 funding request was reduced by $.127 million to account for the availability of prior year execution balances.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force									Date: March 2024	

Appropriation/Budget Activity 3600 / 7			R-1 Program Element (Number/Name) PE 0207444F / Tactical Air Control Party-M od			Project (Number/Name) 676013 / Equipment Modernization				

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
676013: Equipment Modernization	-	10.008	10.060	12.171	0.000	12.171	12.605	12.864	6.426	6.554	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This budget line funds the Air Force Special Warfare (AFSPECWAR) Tactical Air Control Party (TACP) Weapon System which executes precision strike, integration, and all-domain command and control missions to meet Air Force power projection for the joint force's expanded maneuver.

TACP Airmen are part of the Air Force's premier ground combat units that are highly maneuverable and scalable. They execute ground-based command and control functions and seamlessly integrate kinetic and non-kinetic effects across the entire spectrum of conflict. They do this by providing joint force air component commanders with a highly trained force that operates at the tactical edge in highly contested environments and complicates enemy decision-making processes. Additionally, TACP Airmen conduct precision strike and integration operations at all echelons of maneuver warfare, from dismounted operations on the forward edge of the battlefield to tactical command posts; TACP Airmen plan, request, advise, and control joint fires and air power to meet supported commander's objectives.

The purpose of the Tactical Air Control Party - Modernization (TACP-M) program is to provide TACPs with modernized voice, data and video communications, advanced targeting equipment, and enhanced battlefield awareness/management capabilities across all domains. Improved targeting and data communications capabilities improve kill chain timelines, defeat adversary systems through opening and closing kill webs, extended critical networks to the forward edge, and when required reduce the probability of fratricide or collateral damage.

The TACP-M program support includes addressing frequent TACP combat deployments that sometimes lead users to change equipment procurement priorities to support urgent operational needs and respond to evolving threat environments. The TACP-M program jointly develops software with other AFSPECWAR programs to consolidate requirements that are common across the AFSPECWAR enterprise. This teaming arrangement helps standardize equipment, improves efficiency by consolidating acquisition efforts, and often reduces unit costs by increasing procurement quantities.

The TACP-M program provides and modernizes capabilities in the following five major areas: (1) Air Support Operations Center (ASOC)/ Tactical Operational Center (TOC) systems (used in mobile and maneuverable operations centers), (2) Vehicle Mounted Systems (used in tactical vehicles) and maneuverable operations, (3) Dismounted Systems (primarily used by Joint Terminal Attack Controllers (JTACs) in wearable configurations), (4) Digitally-Aided Close Air Support (DACAS) software, and (5) Support distributed and resilient ground-based command and control teams that leverage airpower within the Theater Air Control System

FY25 funding will allow for the continued development of the CASS 1.4.5 and WARHAWK software. The CASS 1.4.5 and WARHAWK software program will modernize the software used in Command, Control, Communications and Cybersecurity (C4) processing systems for ASOC/TOC operations, as well as, vehicle Mounted and Dismounted operations. The software will allow enhanced capability and seamless communication between the operations centers and the TACP military units in high combat areas.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207444F / *Tactical Air Control Party-Mod*	**Project (Number/Name)** 676013 / *Equipment Modernization*

TACP-M funding also supports innovation activities to include studies, analyses, requirements definition, and quick-reaction capability prototypes/demonstrations to accelerate planning for technology transition, technology insertion and future acquisition programs such as but not limited to Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) programs.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Software - CASS 1.4.5 and WARHAWK	10.008	10.060	12.171

Description: The CASS 1.4.5 and WARHAWK software program will modernize the software used in Command, Control, Communications and Cybersecurity (C4) processing systems for ASOC/TOC operations, as well as, vehicle Mounted and Dismounted operations. The software will allow enhanced capability and seamless communication between the operations centers and the TACP military units in high contested areas.

FY 2024 Plans:
-Continue agile software development with quarterly software releases across TACP systems.
-Continue testing quarterly software releases, as applicable.
-Continue to support development/fielding of Special Warfare Assault Kit (SWAK) and Dismounted Special Warfare software.
-Continue TACP common software architecture for further development to meet other Special Warfare airman operational needs.
-Continue to integrate WARHAWK with ASOC-Mod software acquisition.
-Continue to integrate and test DACAS software data communications interfaces with C2 Nodes, CAS aircraft, Army Tactical Network (ATN), Soldier Radios Waveform (SRW) networks, Theater Battle Management Core Systems (TBMCS), and Mobile User Objective System (MUOS) Satellite communications (SATCOM) networks to enhance interoperability between TACPs and other joint warfighters.
-Conduct investigations to provide additional features (capabilities) for the software.

FY 2025 Plans:
-Will continue agile software development with at least quarterly software releases across TACP systems.
-Will continue testing software releases, as applicable.
-Will continue to support development/fielding of Special Warfare Assault Kit (SWAK)/Tactical Assault Kit (TAK) and Dismounted Special Warfare software.
-Will continue TACP common software architecture for further development to meet other Special Warfare airman operational needs.
-Will continue to integrate WARHAWK with ASOC-Mod software acquisition.
-Will continue to integrate and test DACAS software data communications interfaces with C2 Nodes, CAS aircraft, Army Tactical Network (ATN), Soldier Radios Waveform (SRW) networks, Theater Battle Management Core Systems (TBMCS), and Mobile User Objective System (MUOS) Satellite communications (SATCOM) networks to enhance interoperability between TACPs and other joint warfighters.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207444F *I Tactical Air Control Party-Mod*	**Project (Number/Name)** 676013 *I Equipment Modernization*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
-Will conduct investigations, studies and assessments to provide additional features (capabilities) for the software. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase in funding due to inflationary adjustments and to perform additional WARHAWK software sprint releases.			
Accomplishments/Planned Programs Subtotals	10.008	10.060	12.171

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 Line item 837100: *Tactical C-E Equipment*	53.632	38.535	51.031	-	51.031	54.046	59.912	37.790	38.311	Continuing	Continuing

Remarks

D. Acquisition Strategy

TACP-M continues the replacement of CASS 1.4.5 software; titled WARHAWK. The original WARHAWK contract continues support activities through FY28. The new contract activity will be awarded in FY25 to continue required agile software development.

The ASOC-Mod effort will continue to modernize fielded ASOC/TOC software capabilities by developing enhanced communications capabilities

The SWAK/TAK Dismounted software awarded the follow-on Systems Engineering and Integration (S&EI) contract in May 23, which continues agile development and deployment through FY33

The Air Force Life Cycle Management Center (AFLCMC) located at Wright-Patterson AFB, OH is the contracting authority for the TACP-M program. AFLCMC provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207444F / *Tactical Air Control Party-Mod*	Project (Number/Name) 676013 / *Equipment Modernization*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CASS (TAK/SWAK) Software Dev Dismounted	Various	TBD : Dayton, OH	-	1.521	Apr 2023	2.652	Feb 2024	2.357	Feb 2025	-		2.357	Continuing	Continuing	-
WARHAWK CASS System Dev Mounted ATM	C/CPFF	GDIT : Dayton, OH	-	5.938	Mar 2023	4.568	Mar 2024	6.074	Mar 2025	-		6.074	Continuing	Continuing	-
WARHAWK CASS NSWC, Crane (Naval Surface Warfare Center)	MIPR	NSWC Crane : Crane, IN	-	0.917	Jan 2023	1.060	Jan 2024	2.121	Jan 2025	-		2.121	Continuing	Continuing	-
Subtotal			-	8.376		8.280		10.552		-		10.552	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Agency Support	MIPR	Various : Multiple, FL	-	0.564	Apr 2023	0.619	Apr 2024	0.632	Apr 2025	-		0.632	Continuing	Continuing	-
Subtotal			-	0.564		0.619		0.632		-		0.632	Continuing	Continuing	N/A

Remarks
Development, operational and interoperability testing

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support Costs (PSC)	Various	Various/Various : TBD	-	1.068	Jul 2023	1.161	Jul 2024	0.987	Jul 2025	-		0.987	Continuing	Continuing	-
Subtotal			-	1.068		1.161		0.987		-		0.987	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	10.008	10.060	12.171	-	12.171	Continuing	Continuing	N/A

PE 0207444F: *Tactical Air Control Party-Mod*
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force									**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0207444F *I Tactical Air Control Party-Mod*			**Project (Number/Name)** 676013 *I Equipment Modernization*		

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Remarks									

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207444F *I Tactical Air Control Party-Mod*	**Project (Number/Name)** 676013 *I Equipment Modernization*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
WARHAWK Close Air Support System(CASS)																												
DACAS (SWAK/TAK) Software SE&I follow-on contract (all versions) Design, Development ,Testing and Fielding																												
DACAS (WARHAWK) ATM Software follow-on contract (all versions)Design, Development, Testing and Fielding																												
DACAS (SWAK/TAK) Software (all versions) Design, Development ,Testing and Fielding																												
DACAS (WARHAWK) ATM Software (all versions)Design, Development, Testing and Fielding																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207444F *I Tactical Air Control Party-Mod*	**Project (Number/Name)** 676013 *I Equipment Modernization*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
WARHAWK Close Air Support System(CASS)				
DACAS (SWAK/TAK) Software SE&I follow-on contract (all versions) Design, Development ,Testing and Fielding	2	2023	4	2029
DACAS (WARHAWK) ATM Software follow-on contract (all versions)Design, Development, Testing and Fielding	2	2025	4	2029
DACAS (SWAK/TAK) Software (all versions) Design, Development ,Testing and Fielding	1	2023	4	2028
DACAS (WARHAWK) ATM Software (all versions)Design, Development, Testing and Fielding	1	2023	2	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0207452F *I DCAPES*					

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	0.000	7.754	8.233	8.431	0.000	8.431	8.643	8.821	9.141	9.321	Continuing	Continuing
674801: *DCAPES INC 2B*	0.000	7.754	8.233	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.987
674803: *DCAPES Cont Dev*	0.000	0.000	0.000	8.431	0.000	8.431	8.643	8.821	9.141	9.321	Continuing	Continuing

Program MDAP/MAIS Code: 500

Note

In FY 2025, PE 0207452F, (DCAPES), Project 674801, (DCAPES INC 2B) efforts were transferred to PE 0207452F, (DCAPES), Project 674803, (DCAPES CONT DEV), to align with program's transition to Software Acquisition Pathway and out of ACAT 1AC status.

A. Mission Description and Budget Item Justification

Deliberate and Crisis Action Planning and Execution System (DCAPES) is the Department of the Air Force (DAF) system used to implement the Air Force Force Generation (AFFORGEN) process and project forces (includes weapon systems, logistics, and personnel). It enables the DAF to posture mission ready and equipped forces (organized in effects-based operational capability packages) to deliver air, space and cyberspace capabilities to Joint commanders worldwide. Technical requirements planned for Increment 2B include enabling the system to support Public Key Infrastructure and elimination of Social Security Account Numbers as the primary key for identifying Air Force military and civilian members by replacing it with the Electronic Data Interchange Personal Identifier.

DCAPES has received approval to transition to the Software Acquisition Pathway following the DCAPES Inc 2B Full Deployment decision.

DCAPES funding will be executed against capabilities packaged into agile development projects for multiple releases based on the warfighter's priorities.

Funds will be used to perform studies and innovative integration efforts for common technology capabilities such as cloud migration, technology development and mobile application.

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 FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207452F *I DCAPES*

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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	8.049	8.233	8.416	0.000	8.416
Current President's Budget	7.754	8.233	8.431	0.000	8.431
Total Adjustments	-0.295	0.000	0.015	0.000	0.015
• 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	-0.295	0.000			
• Other Adjustments	0.000	0.000	0.015	0.000	0.015

Change Summary Explanation

No significant change to FY25 funding request.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0207452F *I DCAPES*				**Project (Number/Name)** 674801 *I DCAPES INC 2B*		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
674801: *DCAPES INC 2B*	0.000	7.754	8.233	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.987
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2025, PE 0207452F, (DCAPES), Project 674801, (DCAPES INC 2B) efforts were transferred to PE 0207452F, (DCAPES), Project 674803, (DCAPES CONT DEV), in order to account for program moving out of ACAT 1AC status to the Software Pathway.

A. Mission Description and Budget Item Justification

Deliberate and Crisis Action Planning and Execution System (DCAPES) is the Department of the Air Force (DAF) system used to project air expeditionary forces (includes weapon systems, logistics, and personnel). It enables the DAF to posture mission ready and equipped forces (organized in effects-based operational capability packages) to deliver air, space and cyberspace capabilities to Joint commanders worldwide. DCAPES stores planning and execution information for DAF functional users in the four (4) main DAF disciplines: 1) operations, 2) logistics, 3) manpower, and 4) personnel. These disciplines support joint, combined, and DAF military operations worldwide. Technical requirements planned for Increment 2B include enabling the system to support Public Key Infrastructure and elimination of Social Security Account Numbers as the primary key for identifying Air Force military and civilian members by replacing it with the Electronic Data Interchange Personal Identifier.

Funds will be used to perform studies and innovative integration efforts for common technology capabilities such as cloud migration, technology development and mobile application.

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 0.0M was expended for civilian pay expenses in this program element, and in FY25 0.0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: DCAPES INCREMENT 2B	7.754	8.233	-
Description: DCAPES Increment 2B includes Infrastructure Support, Business Intelligence, and the development of multiple Warfighter Capabilities (see remarks section below for capability titles). In August 2020, the Air Force restructured DCAPES Inc 2B Acquisition Program Baseline adding two and a half capability packages (second half of 6 plus 7 and 8), that had previously been deferred. Capability packages 5 and 7 were later eliminated by the customer (AF/A3OD) post restructure. *FY 2024 Plans:* - Continue the development of Force Availability Analysis (FAA) Capability 6 - Continue the development of Work Flow Management Capability 8			

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207452F / DCAPES	**Project (Number/Name)** 674801 / DCAPES INC 2B

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Continue JPES integration - Begin Continuous Development Planning ***FY 2024 to FY 2025 Increase/Decrease Statement:*** In FY25 DCAPES program and funding move to Software Pathway in new project 674803.			
Accomplishments/Planned Programs Subtotals	7.754	8.233	-

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

Remarks
 DCAPES Increment 2B Warfighter Capability Packages:
 Capability 1 - Electronic Data Interface Personnel Identifier (EDIPI) (Delivered)
 Capability 2 - Global Force Management Interoperability (GFM-DI) (Delivered)
 Capability 3 - Enhanced Contingency-Rotational Air Expeditionary Force Scheduling Tool Interface (ECAST) (Delivered)
 Capability 4 - Manpower & Equipment Force Packaging (MEFPAK) (Delivered)
 Capability 5 - Logistics Factor File (LFF) (Removed by AF/A3OD)
 Capability 6 - Force Availability Analysis (FAA)
 Capability 7 - Air Reserve Component (ARC) Forces (Removed by AF/A3OD, requirement moved to TIMES Program)
 Capability 8 - Work Flow Management
 JPES - Joint Planning Execution Services

D. Acquisition Strategy
 The DCAPES program successfully awarded the DCAPES Increment 2B Development Task Order for a one-year Base Period and three one-year Option Periods using the NETCENTS 2 Application Services Small Business Indefinite Delivery Indefinite Quantity (IDIQ) contract. The period of performance started on 6 April 2020 and ends on 5 April 2024. A one-year Fair Opportunity Exception (FOE) was awarded in FY23 to extend the Development Task Order from 6 April 2024 to 5 April 2025.

 DCAPES is an Evolutionary Acquisition Program using an incremental development approach (DoDI 5000.02 Model 3) to develop capabilities over several increments. To support the rapid development and delivery of capabilities, DCAPES employs a hybrid Agile acquisition strategy in which capabilities are incrementally delivered in time-phased stages based on warfighter priorities and adoption of key architecture and technology requirements as a trade-off for accelerated delivery and risk reduction.

 The DCAPES Program Management Office (PMO) uses a mix of agreements (Service Level Agreements and Memorandums) with DCAPES interface partners. Memorandums of Agreement with Joint Interoperability Test Command, Air Force Operational Test and Evaluation Command, and the 45th Test Squadron are in place and outline the test support required before fielding the final capability packages.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0207452F **/** DCAPES	**Project (Number/Name)** 674801 **/** DCAPES INC 2B

The DCAPES Increment 2B requirements have been packaged into multiple discreet capabilities which will be developed in multiple releases. Each capability will be developed using several Sprints and with one or more fieldings to satisfy the approved requirements within each package.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7					**R-1 Program Element (Number/Name)** PE 0207452F / DCAPES					**Project (Number/Name)** 674801 / DCAPES INC 2B				

Product Development ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
DCAPES Increment 2B/ Prime Contract	C/FFP	CGI Federal Inc : Fairfax, VA	0.000	3.619	Apr 2023	3.604	Apr 2024	-	-	-	-	-	0.000	7.223	47.306
DCAPES Infrastructure/ Integration	C/FFP	DATUM Software Inc. : John Creek, GA	0.000	0.964	Feb 2023	0.000	Feb 2024	-	-	-	-	-	0.000	0.964	5.152
DCAPES Infrastructure/ Integration (NEW)	C/FFP	TB D : TBD	0.000	0.000	Feb 2023	0.343	Feb 2024	-	-	-	-	-	0.000	0.343	0.343
DCAPES Architecture Documentation Development (NEW)	C/CPAF	TB D : TBD	0.000	0.077	Aug 2023	0.077	Aug 2024	-	-	-	-	-	0.000	0.154	0.154
DCAPES DISA Hosting	MIPR	DISA : Pensacola, FL	0.000	0.973	Oct 2022	0.987	Oct 2023	-	-	-	-	-	0.000	1.960	15.166
DCAPES CLOUD Supt	C/CPAF	SAIC : Reston, VA	0.000	0.059	Sep 2023	0.170	Sep 2024	-	-	-	-	-	0.000	0.229	0.229
Subtotal			0.000	5.692		5.181		-		-		-	0.000	10.873	N/A

Support ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
DCAPES GBB Integration Contract Support	C/FFP	MacaLogic, LLC : Dayton, OH	0.000	0.288	Apr 2023	0.000	Apr 2024	-	-	-	-	-	0.000	0.288	3.225
DCAPES GBB Integration Contract Support (NEW)	C/CPAF	TB D : TBD	0.000	0.000	Apr 2023	0.779	Apr 2024	-	-	-	-	-	0.000	0.779	0.779
DCAPES Engineering Contract Support (NEW)	C/CPAF	Torch Technologies INC : Huntsville, AL	0.000	0.430	Apr 2023	0.943	Apr 2024	-	-	-	-	-	0.000	1.373	0.943
DCAPES Oracle Licenses	C/FFP	Mythics : Vienna, VA	0.000	0.271	Aug 2023	0.271	Aug 2024	-	-	-	-	-	0.000	0.542	4.560
DCAPES Government Purchase Card	Reqn	Various : Various	0.000	0.020	Oct 2022	0.020	Oct 2023	-	-	-	-	-	0.000	0.040	0.209
Subtotal			0.000	1.009		2.013		-		-		-	0.000	3.022	N/A

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force													**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7						**R-1 Program Element (Number/Name)** PE 0207452F *I DCAPES*						**Project (Number/Name)** 674801 *I DCAPES INC 2B*			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DCAPES Development Test and Evaluation	MIPR	45th Test Sqdn : Eglin AFB, FL	0.000	0.312	Dec 2022	0.312	Dec 2023	-		-		-	0.000	0.624	3.519
DCAPES Interoperability Testing and Evaluation	MIPR	DISA JITC : Huachuca, AZ	0.000	0.088	Oct 2022	0.169	Oct 2023	-		-		-	0.000	0.257	1.278
Subtotal			0.000	0.400		0.481		-		-		-	0.000	0.881	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Assessments	Various	Various : Various	0.000	0.588	Oct 2022	0.493	Oct 2023	-		-		-	0.000	1.081	4.145
DCAPES Travel	Reqn	Various : Various	0.000	0.030	Oct 2022	0.030	Oct 2023	-		-		-	0.000	0.060	0.330
DCAPES Business Integration Support	Various	Various : Various	0.000	0.035	Oct 2022	0.035	Oct 2023	-		-		-	0.000	0.070	0.385
Subtotal			0.000	0.653		0.558		-		-		-	0.000	1.211	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	7.754	8.233	-	-	-	0.000	15.987	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207452F / DCAPES	**Project (Number/Name)** 674801 / DCAPES INC 2B

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
DCAPES Increment 2B																												
DCAPES Increment 2B (Restructured)																												
- Capability 6 Force Availability Analysis (FAA)																												
- Capability 8 Work Flow Management																												
- JPES (Joint Planning Execution Services)																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207452F / DCAPES	**Project (Number/Name)** 674801 / DCAPES INC 2B

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
DCAPES Increment 2B				
DCAPES Increment 2B (Restructured)	1	2023	2	2025
- Capability 6 Force Availability Analysis (FAA)	1	2023	3	2024
- Capability 8 Work Flow Management	1	2023	3	2024
- JPES (Joint Planning Execution Services)	1	2023	2	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0207452F / DCAPES				Project (Number/Name) 674803 / DCAPES Cont Dev		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
674803: *DCAPES Cont Dev*	0.000	0.000	0.000	8.431	0.000	8.431	8.643	8.821	9.141	9.321	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2025, PE 0207452F, (DCAPES), Project 674801, (DCAPES INC 2B) efforts were transferred to PE 0207452F, (DCAPES), Project 674803, (DCAPES CONT DEV), to align with program's transition to Software Acquisition Pathway and out of ACAT 1AC status.

A. Mission Description and Budget Item Justification

Deliberate and Crisis Action Planning and Execution System (DCAPES) is the Department of the Air Force (DAF) system used to implement the Air Force Force Generation (AFFORGEN) process and project forces (includes weapon systems, logistics, and personnel). It enables the DAF to posture mission ready and equipped forces (organized in effects-based operational capability packages) to deliver air, space and cyberspace capabilities to Joint commanders worldwide. DCAPES stores planning and execution information for DAF functional users in the four (4) main DAF disciplines: 1) operations, 2) logistics, 3) manpower, and 4) personnel. These disciplines support joint, combined, and DAF military operations worldwide. Technical requirements planned for the Continuous Development phase include Cloud production environment migration and continuous technical debt and engineering.

As a Software Acquisition Pathway program, DCAPES Continuous Development will define specific requirements annually through an approved Capability Needs Statement (CNS) that will project capabilities for the upcoming FY along with two additional years.

Funds will be used to perform studies and innovative integration efforts for common technology capabilities such as cloud migration, technology development and mobile application.

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 FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: DCAPES Continuous Development	0.000	0.000	8.431
Description: DCAPES Continuous Development Infrastructure Support, Business Intelligence, and the development of multiple Warfighter requirements. In July 2023, the Air Force transitioned DCAPES to the Software Pathway. *FY 2024 Plans:*			

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207452F / DCAPES	**Project (Number/Name)** 674803 / DCAPES Cont Dev

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
No activities planned in FY24, as funding starts in FY25. ***FY 2025 Plans:*** - Will begin to develop logistics detail for (LOGDET) Manpower and Force Equipment Packaging module (MEFPAK) - Will begin to subscribe to data services from the Air Force Org Server (AFOS) and the Defense Readiness Reporting System (DRRS) - Will begin to update Allocation Tool Suite (ATS) - Continue to update DCAPES Business Intelligence (BI) and Authoritative Data Services (ADS) for ATS, MEFPAK, and Unit Type code Availability (UTA) data ***FY 2024 to FY 2025 Increase/Decrease Statement:*** PE 0207452F, (DCAPES), Project 674801, (DCAPES INC 2B FY24 efforts were $8.233M. In FY 2025, PE 0207452F, (DCAPES), Project 674801, (DCAPES INC 2B) efforts were transferred to PE 0207452F, (DCAPES), Project 674803, (DCAPES CONT DEV), to align with program's transition to Software Acquisition Pathway and out of ACAT 1AC status.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	8.431

C. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

D. Acquisition Strategy

 The DCAPES program successfully awarded the DCAPES Increment 2B Development Task Order for a one-year Base Period and three one-year Option Periods using the NETCENTS 2 Application Services Small Business Indefinite Delivery Indefinite Quantity (IDIQ) contract. The period of performance started on 6 April 2020 and ends on 5 April 2024. DCAPES is in the process of contracting the follow-on prime development and sustainment effort.

 As a Software Acquisition Pathway (SWP) program DCAPES will maintain contractor support of the system to provide rapid development and delivery of capabilities based on the warfighter's top priorities.

 The DCAPES Program Management Office (PMO) uses a mix of agreements (Service Level Agreements and Memorandums) with DCAPES interface partners. Both development and production environments are transitioning to cloud infrastructure. Memorandums of Agreement with Joint Interoperability Test Command, Air Force Operational Test and Evaluation Command, and the 45th Test Squadron are in place and outline the test support required before fielding the final capability packages.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0207452F / DCAPES						**Project (Number/Name)** 674803 / DCAPES Cont Dev		

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
DCAPES Cont Dev/Prime Contract	C/FFP	TBD : TBD	0.000	-		-		3.916	Apr 2025	-		3.916	Continuing	Continuing	43.136
DCAPES Infrastructure/Integration	C/FFP	TBD : TBD	0.000	-		-		0.608	Feb 2025	-		0.608	Continuing	Continuing	5.152
DCAPES Architecture Documentation Development	C/CPAF	Bowhead LLC : Springfield, VA	0.000	-		-		0.226	Jun 2025	-		0.226	Continuing	Continuing	13.756
DCAPES CLOUD Supt	C/CPFF	SAIC : Reston, VA	0.000	-		-		0.170	Jun 2025	-		0.170	Continuing	Continuing	-
Subtotal			0.000	-		-		4.920		-		4.920	Continuing	Continuing	N/A

Support ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
DCAPES GBB Integration Contract Support	C/FFP	TBD : TBD	0.000	-		-		0.673	Apr 2025	-		0.673	Continuing	Continuing	3.225
DCAPES Engineering Contract Support	C/CPFF	Torch Tech Inc : Huntsville, AL	0.000	-		-		0.943	Apr 2025	-		0.943	Continuing	Continuing	5.392
DCAPES Oracle Licenses	C/FFP	TBD : TBD	0.000	-		-		0.271	Jun 2025	-		0.271	Continuing	Continuing	0.271
DCAPES C2AO	MIPR	C2 SCA : Hanscom AFB, MA	0.000	-		-		0.105	Oct 2024	-		0.105	Continuing	Continuing	0.105
DCAPES Shared Services	Various	Various : TBD	0.000	-		-		0.128	Oct 2024	-		0.128	Continuing	Continuing	-
DCAPES Government Purchase Card	Reqn	Various : TBD	0.000	-		-		0.015	Oct 2024	-		0.015	Continuing	Continuing	-
Subtotal			0.000	-		-		2.135		-		2.135	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
DCAPES Development Test and Evaluation	MIPR	45th Test Sqdn : Eglin AFB, FL	0.000	-		-		0.650	Oct 2024	-		0.650	Continuing	Continuing	-

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207452F / DCAPES	**Project (Number/Name)** 674803 / DCAPES Cont Dev

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DCAPES Interoperability Testing and Evaluation	MIPR	DISA JITC : Ft Huachuca, AZ	0.000	-		-		0.099	Oct 2024	-		0.099	Continuing	Continuing	-
Subtotal			0.000	-		-		0.749		-		0.749	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DCAPES Program Management Assessments	Various	Various : Various	0.000	-		-		0.502	Oct 2024	-		0.502	Continuing	Continuing	-
DCAPES Travel	Reqn	Various : TBD	0.000	-		-		0.120	Oct 2024	-		0.120	Continuing	Continuing	-
DCAPES Business Integration Support	Various	Various : TBD	0.000	-		-		0.005	Oct 2024	-		0.005	Continuing	Continuing	-
Subtotal			0.000	-		-		0.627		-		0.627	Continuing	Continuing	N/A

			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		-		8.431		-		8.431	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0207452F **/** *DCAPES*	**Project (Number/Name)** 674803 **/** *DCAPES Cont Dev*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
DCAPES Continuous Development																												
- Manpower and Force Equipment Packaging (MEFPAK) LOGDET Module										▆▆▆																		
- Allocation Tool Suite (ATS) New Capability Update											▆▆																	
- Air Force Org Server (AFOS) and the Defense Readiness Reporting System (DRRS) Data Subscriptions										▆▆▆																		
- Continuous Business Intelligence (BI) & Authoritative Data Services (ADS) Updates										▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆▆																		
- Operation Plan (OPLAN) & Unit Line Number (ULN) On-Demand Capability													▆▆															
- MEFPAK Update												▆▆																
- ADS User Management Phase 2 Development														▆▆														
- Ongoing Air Force Force Generation (AFFORGEN) Capability Development																▆▆▆▆▆▆▆▆▆▆▆▆													

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024	
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207452F / DCAPES	**Project (Number/Name)** 674803 / DCAPES Cont Dev	

<div align="center">Schedule Details</div>

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
DCAPES Continuous Development				
- Manpower and Force Equipment Packaging (MEFPAK) LOGDET Module	1	2025	3	2025
- Allocation Tool Suite (ATS) New Capability Update	3	2025	4	2025
- Air Force Org Server (AFOS) and the Defense Readiness Reporting System (DRRS) Data Subscriptions	1	2025	4	2025
- Continuous Business Intelligence (BI) & Authoritative Data Services (ADS) Updates	1	2025	4	2029
- Operation Plan (OPLAN) & Unit Line Number (ULN) On-Demand Capability	1	2026	2	2026
- MEFPAK Update	2	2026	3	2026
- ADS User Management Phase 2 Development	3	2026	1	2027
- Ongoing Air Force Force Generation (AFFORGEN) Capability Development	1	2027	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

| **Appropriation/Budget Activity**
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development* | | | | | **R-1 Program Element (Number/Name)**
PE 0207521F *I Air Force Calibration Programs* | | | | | | |

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	20.226	2.172	2.223	0.000	2.223	2.281	2.327	2.412	2.461	Continuing	Continuing
673326: *Precision Measurement & Calibration*	-	20.226	2.172	2.223	0.000	2.223	2.281	2.327	2.412	2.461	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program develops, tests, and evaluates national and Air Force measurement standards (hardware) and calibration equipment in support of all Air Force programs and activities, including Precision Measurement Equipment Laboratories (PMELs) worldwide. Metrology research and development provides technology to support systems in all phases of development and acquisition, as well as Air Force R&D laboratories, test ranges, ground test facilities, and operational weapons systems support. Rapidly changing technology requires continuing research and development of measurement standards and calibration equipment to ensure modern weapon systems meet Air Force readiness objectives. This program addresses all metrology disciplines and includes the technology areas of laser, infrared, microwave, millimeter wave, optical, physical, mechanical, electrical, electronic, and ionizing radiation measurements. Metrology is a technical discipline devoted to the science of measurements and to the study and improvement of measurement technology. Measurements are the foundation of military system development, quality assurance, hardware conformance testing and system readiness tests. The integrity of these tests is assured through calibration and traceability assurance schemes.

The capability to measure and calibrate must parallel the emergence of new technology, new ranges, and new capabilities of military systems. Lack of new measurement capability impedes or blocks the successful exploitation of new technologies, especially in the movement from development laboratory to production to deployment. R&D efforts are essential within the DoD to pace these requirements, otherwise, these same new systems will suffer time delays, excessive cost, and increased risk due to unreliable test results in all phases of development, production, deployment and operation.

This program element may include necessary civilian pay expenses required to manage, execute and deliver Air Force Calibration capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program elements 0605826F, 0605827F, 0605828F, 0605829F, 0605830F, 0605831F, 0605832F, 0605898F, and 0605833F. In FY23 $0 was expended for civilian pay expenses in the program element and in FY24 $175K is forecasted for civilian pay expenses in this program element.

Program is managed by Air Force Materiel Command, Agile Combat Support Directorate, Air Force Metrology Division (WNM).

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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0207521F *I Air Force Calibration Programs*		

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	2.123	2.172	2.220	0.000	2.220
Current President's Budget	20.226	2.172	2.223	0.000	2.223
Total Adjustments	18.103	0.000	0.003	0.000	0.003
• 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	18.103	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	0.003	0.000	0.003

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Weapons System Measurement Standards	0.439	0.450	0.462
Description: Develop national measurement standards to support Air Force infared / laser / electro-optical weapon systems and support equipment. **FY 2024 Plans:** Continue development of national measurement standards to support Air Force infared / laser / electro-optical weapon systems and support equipment. **FY 2025 Plans:** Continue development of national measurement standards to support Air Force infared / laser / electro-optical weapon systems and support equipment. **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding increased due to inflation.			
Title: Electrical Measurements	0.425	0.436	0.449
Description: Develop Standards for electrical measurements to support high accuracy electronic test equipment. **FY 2024 Plans:** Continue development of standards for electrical measurements to support high accuracy electronic test equipment. **FY 2025 Plans:**			

PE 0207521F: *Air Force Calibration Programs*
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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0207521F *I Air Force Calibration Programs*		

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Continue development of standards for electrical measurements to support high accuracy electronic test equipment. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to inflation.			
Title: Calibration Standards ***Description:*** Develop improved calibration standards to support physical, mechanical, and electro-mechanical support equipment. ***FY 2024 Plans:*** Continue to develop improved calibration standards to support physical, mechanical, and electro-mechanical support equipment. ***FY 2025 Plans:*** Continue to develop improved calibration standards to support physical, mechanical, and electro-mechanical support equipment. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to inflation.	0.681	0.692	0.308
Title: Radar Support/Communications ***Description:*** Develop standards for radar support, RF communication, and radar cross section range measurements. ***FY 2024 Plans:*** Continue to develop standards for radar support, RF communication, and radar cross section range measurements. ***FY 2025 Plans:*** Continue to develop standards for radar support, RF communication, and radar cross section range measurements. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to inflation.	0.578	0.594	0.604
Title: Development of Self Calibrating Equipment ***Description:*** Development of self-calibrating, quantum-based calibration standards for all calibration domains. ***FY 2024 Plans:*** Tempurature, Air Data ongoing projects ***FY 2025 Plans:***	18.103	0.000	0.400

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207521F *I Air Force Calibration Programs*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Tempurature, Air Data ongoing projects			
FY 2024 to FY 2025 Increase/Decrease Statement:			
Tempurature, Air Data ongoing projects			
Accomplishments/Planned Programs Subtotals	20.226	2.172	2.223

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 Primarily accomplished through intergovernmental transfer between the Department of Defense and other Federal Departments.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024		

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207521F / Air Force Calibration Programs	Project (Number/Name) 673326 / Precision Measurement & Calibration

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
National Institute of Standards and Technology	MIPR	AFMETCAL : Heath, OH	-	19.666	Oct 2022	1.598	Oct 2023	1.622	Oct 2024	-		1.622	Continuing	Continuing	-
Department of Defense	MIPR	AFMETCAL : Heath, OH	-	0.050	Oct 2022	0.052	Oct 2023	0.062	Oct 2024	-		0.062	Continuing	Continuing	-
Industry	Various	AFMETCAL : Heath, OH	-	0.510	Oct 2022	0.522	Oct 2023	0.539	Oct 2024	-		0.539	Continuing	Continuing	-
Subtotal			-	20.226		2.172		2.223		-		2.223	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	20.226		2.172		2.223		-		2.223	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207521F *I Air Force Calibration Programs*	**Project (Number/Name)** 673326 *I Precision Measurement & Calibration*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Precision Measurement & Calibration																												
Precision Measurement & Calibration																												

PE 0207521F: *Air Force Calibration Programs*
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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0207521F / Air Force Calibration Programs	Project (Number/Name) 673326 / Precision Measurement & Calibration	

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Precision Measurement & Calibration				
Precision Measurement & Calibration	1	2023	4	2028

PE 0207521F: *Air Force Calibration Programs*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207573F *I National Technical Nuclear Forensics*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	2.039	2.049	2.060	0.000	2.060	0.000	0.000	2.004	2.004	0.000	10.156
674881: *Prompt Diagnostics*	-	2.039	2.049	2.060	0.000	2.060	0.000	0.000	2.004	2.004	0.000	10.156
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This is an amendment, prior verbiage had this funding pointing to National Technical Nuclear Forensics [NTNF].

The United States Nuclear Detonation [NUDET] Detection System [USNDS] is the system used for the collection, analysis, and evaluation of signatures from NUDETS in the Atmosphere or Space. This funding is to integrate the data from the seconds and third Space and Atmospheric Burst Reporting System [SABRS] sensors into the Integrated Correlation and Display System [ICADS] and to develop algorithms, codes, and tools necessary to enable detailed Subject Matter Expert analysis of SABRS data.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0 was expended for civilian pay expenses in this program element, and in FY24 $0 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	2.039	2.049	2.057	0.000	2.057
Current President's Budget	2.039	2.049	2.060	0.000	2.060
Total Adjustments	0.000	0.000	0.003	0.000	0.003
• 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	0.003	0.000	0.003

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0207573F *I National Technical Nuclear Forensics*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: ABRS 2/3 Integration/ Offline Tools Development	2.039	2.049	2.060
Description: Develop the algorithms, codes, and tools necessary to fully exploit the data collected by the SABRS-2 and SABRS-3 sensor suites located on geostationary hosts. This detection system records signals resulting from a nuclear detonations occurring in space. These event signature elements support weapon and event characterization analysis for the purposes of identifying the weapon classification, magnitude of the detonation [yield], and Reaction Time History [RTH] of the device. The unique signatures captured by these sensors provide undeniable evidence of NUDETs occurring in space. *FY 2024 Plans:* - Will finish SABRS -2/3 data integration into ICADS - Will Continue algorithm, code, and tool development necessary for SME analysis of SABRS data *FY 2025 Plans:* - Will finish SABRS -2/3 data integration into ICADS - Will Continue algorithm, code, and tool development necessary for SME analysis of SABRS data *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to inflation.			
Accomplishments/Planned Programs Subtotals	2.039	2.049	2.060

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 Line Item 834320: *National Technical Nuclear Forensics*	5.666	3.786	7.177	-	7.177	7.379	7.524	7.674	-	Continuing	Continuing

Remarks

E. Acquisition Strategy
Contract strategy still being assessed, historically contracted via MIPR.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7						**R-1 Program Element (Number/Name)** PE 0207573F *I National Technical Nuclear Forensics*						**Project (Number/Name)** 674881 *I Prompt Diagnostics*		

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Nuclear Forensics - Prompt Diagnostics	MIPR	National Laboratory : TBD	-	2.039	Mar 2023	2.049	Mar 2024	2.060	Mar 2025	-		2.060	Continuing	Continuing	-
		Subtotal	-	2.039		2.049		2.060		-		2.060	Continuing	Continuing	N/A

Remarks

Kansas City Nuclear Security Campus will work with several National Laboratories for reachback/collaboration on efforts.

	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	2.039	2.049	2.060	-	2.060	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207573F *I National Technical Nuclear Forensics*	**Project (Number/Name)** 674881 *I Prompt Diagnostics*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
SABRS Agorithm and Tool Development																												
SABRSABRS-2/3 Data Integration into ICADS	████████																											
Algorithm, Code, and Tool Development for SME Data Analysis	███████████████████																											

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207573F *I National Technical Nuclear Forensics*	**Project (Number/Name)** 674881 *I Prompt Diagnostics*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
SABRS Agorithm and Tool Development				
SABRSABRS-2/3 Data Integration into ICADS	1	2023	4	2023
Algorithm, Code, and Tool Development for SME Data Analysis	1	2023	4	2025

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						R-1 Program Element (Number/Name) PE 0207590F *I Seek Eagle*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	32.794	33.478	34.985	0.000	34.985	35.861	36.596	37.921	38.670	Continuing	Continuing
674037: *SEEK EAGLE Certifications*	-	32.794	33.478	34.985	0.000	34.985	35.861	36.596	37.921	38.670	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Air Force SEEK EAGLE Office (AFSEO) is designated by the Assistant Secretary of the Air Force (Acquisition, Technology, and Logistics) as the center of expertise for aircraft-store compatibility activities and as the primary source of technical analysis and test support, as well as the central data repository, for the SEEK EAGLE process. The SEEK EAGLE process is a rigorous analysis of many factors to assure the safe and acceptable carriage and release (employment and jettison), safe escape, and ballistics accuracy of all stores on Air Force and foreign military sales aircraft. Thus, the AFSEO's mission as an accelerator is to ensure that every aircraft type is capable of employing the weapons and stores needed to meet Combatant Commander requirements, directly supporting the Secretary of the Air Force's (SECAF) Operational Imperatives (OI), and Cross-cutting Operational Enablers (COE).

The Air Force operates a variety of combat and other aircraft that carry numerous and varied stores: bombs, missiles, rockets, fuel tanks, cargo pods, targeting pods, electronic countermeasures pods, etc. Stores are carried in many different loading combinations determined by operational and training scenarios, missions, tactics, and weapon development programs. Additionally, aircraft-store configuration (carriage and employment) requirements change as operational plans and tactics are updated and/or as new stores are developed and fielded. Aircraft program managers must provide SEEK EAGLE certifications for all aircraft-store configurations within their user-established carriage and employment parameters before they may be used for operations, test, or training. The AFSEO completes flight clearance and certification recommendations through any combination of engineering analysis, wind tunnel testing, modeling and simulation, and ground/flight test and evaluation. The SEEK EAGLE process encompasses eight engineering disciplines: Fit and Function, Flutter, Aircraft and Store Structural Integrity, Stability and Control, Electromagnetic Compatibility/Interference (EMC/EMI), Separations, Ballistics, and Safe Escape.

In support of certification, the AFSEO recommends approximately 1000 aircraft-store combinations for flight each year through engineering analysis and testing. The AFSEO certification portfolio includes the Next Generation Air Dominance (NGAD) Family of Systems and B-21, as well as the following Mission Design Series aircraft: A-10, B-1, B-2, B-52, F-15C/D/E/EX, F-16, QF-16, F-22, F-35, KC-135, WC-130, MC-130H, HH-60W, MH-139A, MQ-9, T-7A, AT-6, and more. Integrated solutions for combat delivery mission planning problems are developed and provided to combat forces via Combat Weapons Delivery Software (CWDS) and Joint Safe Escape Analysis Solution (JSEAS) software. The SEEK EAGLE Office also works in coordination with the Air Force Safety Center to provide Hazards of Electromagnetic Radiation to Ordnance (HERO) analysis and certification recommendations for ordnance systems containing electro-explosive devices. Additionally, the AFSEO is responsible for incorporating new and emerging technologies into the SEEK EAGLE process to make certification more efficient in support of rapid acquisition timelines, as well as resourcing for the sustainment of a viable Air Force aircraft-store certification capability.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207590F *I Seek Eagle*	

SEEK EAGLE funds are budgeted to support certification testing and analysis for new and inventory stores including, but not limited to: Small Diameter Bomb (SDB) I and II, Laser Joint Direct Attack Munitions (LJDAM), Joint Air-to-Surface Standoff Missile (JASSM), Long-Range Anti-Ship Missile (LRASM), Advanced Medium Range Air-to-Air Missile (AMRAAM), Miniature Air-Launched Decoy (MALD), BRU-57 (Smart Bomb Rack), BRU-61 (SDB Bomb Rack), Advanced Precision Kill Weapon System (APKWS), Sniper Targeting Pod with video data link, LITENING Targeting Pod with video data link, B61-12 nuclear free-fall weapon, penetrator warhead upgrades, practice bombs, electronic warfare pods, reconnaissance pods, and aircraft instrumentation pods. SEEK EAGLE funds also support certification of other inventory stores on Combat Air Forces (CAF) and Special Operations Command (SOCOM) aircraft. In addition, these funds further support capability development and weapons certification efforts required by Air Combat Command (ACC) to achieve Full Operational Capability (FOC) for the F-35A. Many of these weapons certification efforts are directly involved in SECAF OI-3, Moving Target Engagement, and all of them contribute to COE-1, Munitions. Additionally, many of the pods and other stores these funds support contribute directly to COE-2, Electromagnetic Spectrum.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0.00 was expended for civilian pay expenses in this program element, and in FY24 0.00 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	32.853	33.478	34.924	0.000	34.924
Current President's Budget	32.794	33.478	34.985	0.000	34.985
Total Adjustments	-0.059	0.000	0.061	0.000	0.061
• 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	-0.059	0.000	0.061	0.000	0.061

Change Summary Explanation
No significant changes

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Aircraft-Store Certification	0.838	2.423	3.894

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*				**R-1 Program Element (Number/Name)** PE 0207590F *I Seek Eagle*	

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Evaluates aircraft-store compatibility through analysis of ground and flight test data. Supports procurement of test assets, such as instrumented weapons, and includes end-to-end tracking of MAJCOM requirements from user request to tech data fielding and operational flight program (OFP) updates. Provides certification recommendations to airworthiness authorities. *FY 2024 Plans:* Provide for USAF Air-to-Air and Air-to-Ground Munitions certification efforts, including towed decoys, ECM pods, chaff/flare countermeasures certification efforts, Airborne Instrumentation Systems pods, fuel tanks, and travel pods certification efforts. Provide CWDS upgrade support. *FY 2025 Plans:* Continue to provide for USAF Air-to-Air and Air-to-Ground Munitions certification efforts, including towed decoys, ECM pods, chaff/flare countermeasures certification efforts, Airborne Instrumentation Systems pods, fuel tanks, and travel pods certification efforts. Continue CWDS upgrade support. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increase due to increase in F-35 requirements and associated prime contractor support and materials.			
Title: Operations Baseline and Mission Support *Description:* Supports the ability to rapidly meet emerging warfighter needs for global operations and other ongoing world-wide operations through sustainment of a viable Air Force aircraft-store certification capability. *FY 2024 Plans:* Support increased Air Force munition and aircraft capability requirements that drive infrastructure and resource capacity needs within the SEEK EAGLE enterprise. *FY 2025 Plans:* Continue to support increased Air Force munition and aircraft capability requirements that drive infrastructure and resource capacity needs within the SEEK EAGLE enterprise. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increase due to inflation adjustments.	19.743	22.063	22.843
Title: Advanced Capability Development *Description:* Provides resources to increase the Air Force SEEK EAGLE OFFICE (AFSEO) organic capabilities, to support advanced weapons such as hypersonic weapons and other classified weapons programs, as well as investing in the development of advanced modeling and analytical tools to make the SEEK EAGLE certification process more efficient in support of	8.656	2.986	3.458

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0207590F *I Seek Eagle*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
rapid acquisition timelines. These resources include, but are not limited to: artificial intelligence, modeling and simulation enhancements, wind tunnel model development, automated tool enhancements, information technology enhancements, and facility improvements. *FY 2024 Plans:* Continue development of the F-35 wind tunnel model, and support investments in other advanced modeling and simulation, automated tool and information technology enhancements. Initiate planning and coordination of Israeli Air Force Project Arrangement for F-35 weapons certification. *FY 2025 Plans:* Complete development of the F-35 wind tunnel model, commence F-35 weapon certification partnership with Israeli Air Force, and support investments in other advanced modeling and simulation, automated tool and information technology enhancements. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increase due to execution of a new Project Arrangement with the Israeli Air Force to accelerate F-35 weapons certifications.			
Title: Tools, Equipment, and Capability Sustainment *Description:* Supports development and sustainment of state-of-the-art engineering and business tools to support the SEEK EAGLE enterprise. Funding resources are required for operational management of existing information and technology infrastructure, hardware, software, and equipment. *FY 2024 Plans:* Develop and sustain of state-of-the-art engineering and business tools to advance the SEEK EAGLE enterprise. *FY 2025 Plans:* Continue to develop and sustain state-of-the-art engineering and business tools to support the SEEK EAGLE enterprise. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decrease due to re-phasing of tooling requirements	3.557	6.006	4.790
Accomplishments/Planned Programs Subtotals	32.794	33.478	34.985

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207590F *I Seek Eagle*

E. Acquisition Strategy

 The SEEK EAGLE program is not an acquisition program in itself; instead it supports other acquisition programs, for both aircraft and weapons or other stores. For initial aircraft-weapons integration, the aircraft or weapon program office is responsible for budgeting and providing the test assets to the Air Force SEEK EAGLE Office (AFSEO) for the store certification requirements. For post-integration certification requirements, AFSEO funds are used to obtain the non-inventory test assets. In addition to the above highlights, budgeting responsibilities for AFSEO are delineated in Air Force Instruction 63-101/20-101, paragraph 5.4.22.1.3, dated 30 June 2020.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0207590F I *Seek Eagle*	**Project (Number/Name)** 674037 I *SEEK EAGLE Certifications*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Advanced Data Analytics - Artificial Intelligence (AI)	SS/FP	TAMR : Cambridge, MA	-	2.415	Feb 2023	-		-		-		-	Continuing	Continuing	-
AFSEO Mission and Planning Support (SEMATS)	C/CPFF	ERC : Ft. Walton Beach, FL	-	13.426	Oct 2022	13.999	Nov 2023	13.012	Oct 2024	-		13.012	Continuing	Continuing	-
F-35 Capabilities	C/CPFF	Lockheed Martin : Marietta, GA	-	0.288	Feb 2023	0.195	Jan 2024	0.318	Jan 2025	-		0.318	Continuing	Continuing	-
Multiple Fighter and Weapon Capability Support	C/CPFF	Multiple : Multiple	-	0.036	Mar 2023	0.031	Mar 2024	0.075	Mar 2025	-		0.075	Continuing	Continuing	-
F-16 Aero Sustainment	C/CPFF	Lockheed Martin : Fort Worth, TX	-	0.000	Dec 2022	0.167	Oct 2023	0.176	Dec 2024	-		0.176	Continuing	Continuing	-
Subtotal			-	16.165		14.392		13.581		-		13.581	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Flight Tests and Aircraft/ Store Compatibility Analysis	PO	96th Test Wing : Eglin AFB, FL	-	14.130	Oct 2022	15.984	Oct 2023	19.612	Oct 2024	-		19.612	Continuing	Continuing	-
Wind Tunnel Model/Design and Testing	PO	Arnold Engineering Dev Complex : Arnold AFB, TN	-	1.450	Mar 2023	1.742	Jan 2024	1.107	Jan 2025	-		1.107	Continuing	Continuing	-
Subtotal			-	15.580		17.726		20.719		-		20.719	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
A&AS Support (TMAS)	C/CPFF	AFTC : Eglin AFB, FL	-	0.267	Oct 2022	0.111	Oct 2023	0.156	Oct 2024	-		0.156	Continuing	Continuing	-
Management Support	Various	Various : Various, FL	-	0.782	Oct 2022	1.249	Oct 2023	0.529	Oct 2024	-		0.529	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7						**R-1 Program Element (Number/Name)** PE 0207590F *I Seek Eagle*						**Project (Number/Name)** 674037 *I SEEK EAGLE Certifications*		

Management Services ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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			-	1.049		1.360		0.685		-		0.685	Continuing	Continuing	N/A

			Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals			-	32.794		33.478		34.985		-		34.985	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207590F / Seek Eagle	**Project (Number/Name)** 674037 / SEEK EAGLE Certifications

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
SEEK EAGLE																												
Aircraft-Store Certification																												
Operations Baseline and Mission Support																												
Advanced Capability Development																												
Tools, Equipment, and Capability Sustainment																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force			Date: March 2024	
Appropriation/Budget Activity 3600 *I* 7		**R-1 Program Element (Number/Name)** PE 0207590F *I Seek Eagle*	**Project (Number/Name)** 674037 *I SEEK EAGLE Certifications*	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SEEK EAGLE				
Aircraft-Store Certification	1	2023	4	2029
Operations Baseline and Mission Support	1	2023	4	2029
Advanced Capability Development	1	2023	4	2029
Tools, Equipment, and Capability Sustainment	1	2023	4	2029

Note

Note: The SEEK EAGLE program supports both production stores on production aircraft and the planning for future acquisition program milestones without an anticipated end date. Current warfighter requirements trigger the SEEK EAGLE process for requested aircraft-store configurations, and work is completed in accordance with designated user priorities established through the SEEK EAGLE Prioritization List process.

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force | | | | | | | | | | | Date: March 2024 | |

| Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7:
Operational Systems Development | R-1 Program Element (Number/Name)
PE 0207601F *I USAF Modeling and Simulation* |

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	20.980	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	20.980
674567: *M&S Foundations*	-	7.468	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.468
675135: *Warfighter Readiness*	-	13.512	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13.512

Note

In FY2024, PE 0207601F, USAF Modeling and Simulation, Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness, efforts were transferred to PE 0801380F, AF LVC Operational Training (LVC-OT), Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness, to meet higher priority AF Operational Readiness and Training efficiencies.

A. Mission Description and Budget Item Justification

In FY2025, no requirement.

In FY2023, Modeling and Simulation support to our Warfighter's Readiness is a United States Air Force (USAF) corporate imperative to ensure air, space, cyberspace training, and mission rehearsal activities are supported with realistic, interoperable, and readily available tools, data, services and environments. Warfighter readiness supports Department of Defense (DoD) Training Transformation (T2) and Joint National Training Capability (JNTC) along with the USAF priorities and core functions. Activities also include studies and analysis to support both current program planning, execution, and future program planning.

It includes several complimentary programs, initiatives and areas for investment: Warfighter and Joint Training Integration supports the Chief of Staff of the Air Force (CSAF) directed Live, Virtual, and Constructive (LVC) integration efforts and is a critical piece to the USAF's implementation of the Strategic Plan for Transforming DoD Training. The goal of LVC training and mission rehearsal is to prepare our warfighters for the full range of military operations and maintain the combat readiness levels required by the Combatant Commanders. This can only be accomplished by training and rehearsing in realistic operational environments. These environments include live training ranges and virtual simulators enhanced with constructive entities. Specific training and mission rehearsal events can include some or all of these simultaneously; making the ability to integrate LVC capabilities a necessity.

The Air, Space, and Cyberspace Constructive Environment (ASCCE) is the USAF's authoritative federation of constructive training models and tools realistically representing the tactical and operational capabilities the USAF brings to the joint fight. Project 675135, Warfighter Readiness, provides for the Command & Control Simulation Environment for Training (C2SET) development effort, which is modernizing the authoritative representation of AF and joint theater-level air and space power for training Air and Space Operations Center (AOC) personnel and Combatant Commanders' battle staffs. The primary models in development for C2SET are based on the AF common Advanced Framework for Simulation, Integration, and Modeling (AFSIM). C2SET will replace the current Air Force Modeling and Simulation Training Toolkit (AFMSTT).

The program element also contains Project 674567, M&S Foundations, the Air, Space and Cyberspace Collaborative Environment - Information Operations Suite (ACE-IOS). ACE-IOS is a federation of constructive models for the authoritative representation of Air Force Intelligence, Surveillance, and Reconnaissance (ISR), Electronic Warfare (EW), Information Operations (IO), and Cyber Effects on AF combat operations. The program supports multifaceted training and mission rehearsal for the Air

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0207601F *I USAF Modeling and Simulation*	

Force at multiple training tiers, Joint Task Force commanders, and Combatant Commanders' battle staffs covering training from the AF schoolhouse through the Air Combatant Commander staff via Joint and Service exercises, tests, and experiments. This program also supports the DoD Training Transformation Initiative.

This program is part of the overarching Kessel Run portfolio and is leveraging the All Domain Common Platform (ADCP). The ADCP provides an extensible cloud based Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform built to deliver highly resilient mission applications and data to Airmen deployed around the world.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 1.269M was expended for civilian pay expenses in this program element, and in FY24 0.0M is forecasted for civilian pay expenses in this program element.

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

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	19.283	0.000	0.000	0.000	0.000
Current President's Budget	20.980	0.000	0.000	0.000	0.000
Total Adjustments	1.697	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	2.013	0.000			
• SBIR/STTR Transfer	-0.316	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0207601F *I USAF Modeling and Simulation*					**Project (Number/Name)** 674567 *I M&S Foundations*		

COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
674567: *M&S Foundations*	-	7.468	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	7.468
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY2024, PE 0207601F, USAF Modeling and Simulation, Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness, efforts were transferred to PE 0801380F, AF LVC Operational Training (LVC-OT), Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness, to meet higher priority AF Operational Readiness and Training efficiencies.

A. Mission Description and Budget Item Justification

In FY2025, no requirement.

In FY2023, Modeling and Simulation Foundations (MSF) focuses on integrating foundational capabilities needed to improve the usefulness of Modeling and Simulation (M&S) capabilities derived from the Warfighter Readiness (WR) thrust. The efforts supporting the MSF thrust include both concept exploration and development. MSF provides the capability to rapidly and efficiently create realistic and accurate synthetic operational battlespaces to support the full spectrum of activities associated with concept development to acquisition and testing through composite training and mission rehearsals.

ACE-IOS project is a federation of constructive models for the authoritative representation of Air Force ISR and Information Operations. ACE-IOS provides simulation modeling and stimulation systems, software, and contract support in support of ISR/Cyber training from the AF ISR Schoolhouse to Joint mission rehearsal for the Air Force, Joint Task Force commanders, and Combatant Commands battle staffs during Joint and Service exercises, tests and experiments.

ACE-IOS provides ISR and Cyber live-virtual-constructive (LVC) environments to support the Joint training of offensive and defensive ISR/Cyber capabilities for the AF, DoD, select Coalition, and national agencies. AF Joint ISR operational training is conducted by the AF Simulation centers worldwide using the ACE-IOS M&S models and stimulations with specific extensions in support of the Air Force Cyber Simulation Center (CSC) and the AF ISR schoolhouse. Overall development and integration efforts of the ACE-IOS program are imperative to ensure that air, space, and cyberspace training and mission rehearsal activities are supported with realistic, interoperable, and readily available tools, data, and services. Specific ACE-IOS capability enhancements are built in direct support of the Distributed Mission Operations Center for Cyberspace (DMOC-C) and the AF ISR schoolhouse. The specific cyber effects software extensions for DMOC-C are in support of the training and exercising of tactical cyber mission forces (CMF), cyber service providers (CSP), and operational-level command and control, intelligence, and cyber planners and operators supporting global operations.

LVC environments today are used as one of the most cost effective and practical means to meet mission needs. These efforts enable more efficient delivery of effective capabilities to the warfighter while reducing the time and resources required for design, development, test and evaluation, maintainability and sustainment.

Authorization and Accreditation and Networthiness is maintained via the Information Technology (IT) systems Risk Management Framework (RMF) for seven classified ACE-IOS configurations and two supported cross domain solutions, which includes code and ruleset development, testing, and fielding, and meets AF Joint Worldwide

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207601F *I USAF Modeling and Simulation*	**Project (Number/Name)** 674567 *I M&S Foundations*

Intelligence Communications System (JWICS), AF Secret Internet Protocol Router Network (SIPRNET) and AF and Joint Staff training network net worthiness standards and evaluations.

This program also supports the DoD Training Transformation Initiative.

This program is part of the overarching Kessel Run portfolio and is leveraging the All Domain Common Platform (ADCP). The ADCP provides an extensible cloud based Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform built to deliver highly resilient mission applications and data to Airmen deployed around the world.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 1.349M was expended for civilian pay expenses in this program element, and in FY24 0.0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Air, Space and Cyberspace Constructive Environment - Information Operations Suite (ACE-IOS)	7.468	0.000	-
Description: Provides the authoritative representation of the AF ACE-IOS program. ACE- IOS is comprised of models that support training and mission rehearsal for the Air Force, Joint Task Force commanders, and Combatant Commander battle staffs during Joint and Service exercises and experimentations. Also supports shared ACE-IOS development in support of the AF ISR schoolhouse and DMOC-C extensions. *FY 2024 Plans:* Due to PE transfer, see detailed plans in PE 0801380F, AF LVC Operational Training (LVC-OT). *FY 2024 to FY 2025 Increase/Decrease Statement:* N/A			
Accomplishments/Planned Programs Subtotals	7.468	0.000	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 833140: *Strategic Command And Control*	30.738	9.962	5.413	-	5.413	1.866	1.883	28.316	-	0.000	78.178
• RDTE 07 0303248F: *All Domain Common Platform*	45.502	88.916	98.464	-	98.464	99.216	98.907	88.153	-	0.000	519.158

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207601F / *USAF Modeling and Simulation*	**Project (Number/Name)** 674567 / *M&S Foundations*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost

Remarks
 N/A

D. Acquisition Strategy

 The Acquisition goals of the Air, Space and Cyberspace Constructive Environment - Information Operations Suite (ACE-IOS) are achieved through incremental development of the project's M&S activities; all contracts are awarded using full and open competition. In order to meet evolving M&S technology and requirements and its modernization effort, the ACE-IOS program will leverage commercial best practices for agile software development.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207601F / *USAF Modeling and Simulation*	**Project (Number/Name)** 674567 / *M&S Foundations*

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Air, Space and Cyberspace Constructive Environment - Information Operations Suite (ACE-IOS)	C/Various	CACI NSS, LLC : San Antonio, TX	-	7.468	Dec 2022	-		-		-		-	Continuing	Continuing	-
Subtotal			-	7.468		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	7.468		-		-		-		-	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207601F / *USAF Modeling and Simulation*	**Project (Number/Name)** 674567 / *M&S Foundations*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Air, Space and Cyberspace Constructive Environment - Information Operations Suite (ACE-IOS)																												
-ACE-IOS v5.0.24	██████																											

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207601F *I USAF Modeling and Simulation*	**Project (Number/Name)** 674567 *I M&S Foundations*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Air, Space and Cyberspace Constructive Environment - Information Operations Suite (ACE-IOS)				
-ACE-IOS v5.0.24	1	2023	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0207601F *I USAF Modeling and Simulation*					**Project (Number/Name)** 675135 *I Warfighter Readiness*			

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675135: *Warfighter Readiness*	-	13.512	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13.512
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY2024, PE 0207601F, USAF Modeling and Simulation, Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness, efforts were transferred to PE 0801380F, AF LVC Operational Training (LVC-OT), Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness, to meet higher priority AF Operational Readiness and Training efficiencies.

A. Mission Description and Budget Item Justification

In FY2025, no requirement.

In FY2023, Modeling and Simulation support to our Warfighter's Readiness is a United States Air Force (USAF) corporate imperative to ensure air, space, cyberspace training, and mission rehearsal activities are supported with realistic, interoperable, and readily available, tools, data, services and environments. Warfighter Readiness supports Department of Defense (DoD) Training Transformation (T2) and Joint National Training Capability (JNTC) along with the USAF priorities and core functions. Activities also include studies and analysis to support both current program planning, execution, and future program planning.

It includes several complimentary programs, initiatives and areas for investment: Warfighter and Joint Training Integration supports the Chief of Staff of the Air Force (CSAF) directed Live, Virtual, and Constructive (LVC) integration efforts and is a critical piece to the USAF's implementation of the Strategic Plan for Transforming DoD Training. The goal of LVC training and mission rehearsal is to prepare our warfighters for the full range of military operations and maintain the combat readiness levels required by the Combatant Commands. This can only be accomplished by training and rehearsing in realistic operational environments. These environments include live training ranges and virtual simulators enhanced with constructive entities. Specific training and mission rehearsal events can include some or all of these simultaneously; making the ability to integrate LVC capabilities a necessity.

The Air, Space, and Cyberspace Constructive Environment (ASCCE) is the USAF's authoritative federation of constructive training models and tools realistically representing the tactical and operational capabilities the USAF brings to the joint fight. This includes development effort for Command & Control Simulation Environment for Training (C2SET), which provides the authoritative representation of AF and Joint theater-level air and space power and is used to train Air and Space Operations Center (AOC) personnel and Combatant Commanders' battle staffs. C2SET is replacing the AFMSTT models with the proven core Advanced Framework for Simulation, Integration, and Modeling (AFSIM) scientific engine. The goal is toward a fully scalable and more scientific based modeling, simulation, and training stimulation to the Combined Forces Air Component Commander (CFACC). AFMSTT entered full sustainment in FY21 and continues to receive operational updates to maintain operational currency until C2SET fully replaces.

This program is part of the overarching Kessel Run portfolio and is leveraging the All Domain Common Platform (ADCP). The ADCP provides an extensible cloud based Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform built to deliver highly resilient mission applications and data to Airmen deployed around the world.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207601F *I USAF Modeling and Simulation*	**Project (Number/Name)** 675135 *I Warfighter Readiness*

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 1.349M was expended for civilian pay expenses in this program element, and in FY24 0.0M is forecasted for civilian pay expenses in this program element.,

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Command & Control Simulation Environment for Training (C2SET) *Description:* Provides the authoritative representation of AF and joint theater-level air and space power and is used to train AOC personnel and Combat Commander's battle staffs *FY 2024 Plans:* Due to PE transfer, see detailed plans in PE 0801380F, AF LVC Operational Training (LVC-OT). *FY 2024 to FY 2025 Increase/Decrease Statement:* N/A	13.512	0.000	-
Accomplishments/Planned Programs Subtotals	13.512	0.000	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 833140: *Strategic Command And Control*	30.738	9.962	5.413	-	5.413	1.866	1.883	28.316	-	0.000	78.178
• RDTE 07 0303248F: *All Domain Common Platform*	45.502	88.916	98.464	-	98.464	99.216	98.907	88.153	-	0.000	519.158

Remarks
 N/A

D. Acquisition Strategy

 The Acquisition goals of the Command & Control Simulation Environment for Training (C2SET) are achieved through incremental development of the project's M&S activities; all contracts are awarded using full and open competition. C2SET operates under authority of a Software Acquisition Pathway following DoDI 5000.87, Operation of a Software Acquisition Pathway Guidance. The desired end state is continuous delivery of all C2SET software.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force				**Date:** March 2024

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207601F / *USAF Modeling and Simulation*	**Project (Number/Name)** 675135 / *Warfighter Readiness*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C2SET (FSO)	C/T&M	Full Spectrum Operations : Fairfax, VA	-	6.103	Jul 2023	-		-		-		-	Continuing	Continuing	19.100
C2SET (Omni)	C/T&M	Omni Federal : Gainesville, VA	-	3.792	Jul 2023	-		-		-		-	Continuing	Continuing	19.100
		Subtotal	-	9.895		-		-		-		-	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C2SET Direct Mission Support	Reqn	ATA : Vienna, VA	-	0.500	Jan 2023	-		-		-		-	Continuing	Continuing	-
C2SET Civilian Direct Cite Authorizations for Product Development	Allot	AFLCMC/FZA : TBD	-	1.269	Oct 2022	-		-		-		-	Continuing	Continuing	-
		Subtotal	-	1.769		-		-		-		-	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration	C/Various	AFLCMC : Hanscom AFB, MA	-	1.400	Oct 2022	-		-		-		-	Continuing	Continuing	-
Systems Engineering	SS/Various	MITRE : Bedford, MA	-	0.448	Oct 2022	-		-		-		-	Continuing	Continuing	-
		Subtotal	-	1.848		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	13.512	-	-	-	-	Continuing	Continuing	N/A

PE 0207601F: *USAF Modeling and Simulation*
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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force									**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0207601F *I USAF Modeling and Simulation*			**Project (Number/Name)** 675135 *I Warfighter Readiness*	
	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207601F *I USAF Modeling and Simulation*	**Project (Number/Name)** 675135 *I Warfighter Readiness*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Air, Space, and Cyberspace Constructive Environment (ASCCE)																												
C2SET				████																								

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207601F *I USAF Modeling and Simulation*	**Project (Number/Name)** 675135 *I Warfighter Readiness*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Air, Space, and Cyberspace Constructive Environment (ASCCE)				
C2SET	1	2023	4	2023

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0207605F *I Wargaming and Simulation Centers*							
COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	7.004	11.894	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.898
672888: *Distributed Mission Operations Center (DMOC)*	-	7.004	11.894	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.898
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY2025, PE 0207605F, Wargaming and Simulation Centers, Project 672888, Distributed Mission Operations Center, efforts were transferred to PE 0207701F, Full Combat Mission Training, Project 672888, Distributed Mission Operations Center to meet higher priority AF Operational Readiness and Training efficiencies.

A. Mission Description and Budget Item Justification

In FY2025, no requirement.

In FY2024: The Distributed Mission Operations Center (DMOC) provides comprehensive Live, Virtual, and Constructive (LVC) simulation capabilities which prepare warfighters to conduct Joint All-Domain Command & Control (JADC2) operations in air, land, sea, space, and cyber domains for theater-level, full spectrum combat training for Air Force, joint service, and coalition partners. The DMOC training capabilities reach over 40 geographically separated Live, Virtual, and Constructive (LVC) locations across 17 time zones representing such assets as real-world weapon systems, operator-in-the-loop, and constructive or computer-driven simulations. DMOC is responsible for development and integration of scenarios, models, and databases and the integration of participating sites into Virtual Flag (VF) and other Distributed Mission Operations (DMO) training events via numerous network connections, DMOC-developed interoperability tools, and controlled interfaces in support of Air Force, joint, and coalition warfighter readiness. In addition, activities include DMO technology and capability studies/analyses which support both current and future program planning and execution by:

1. Distributed Mission Operations Capability/Battlespace Systems Development: The DMOC upgrades and enhances the capabilities of various systems, tools, and simulators to incorporate emerging technology and training requirements into DMO events, such as Virtual Flag (VF) and VF: Coalition (VF:C), to enhance the quality of warfighter training. Activities include Environment Generator development, DMO Tool Development, and Simulator Enhancement. DMOC is in partnership with the US Naval Air Warfare Center-Aircraft Division (NAWCAD) to enhance the capabilities of the Next Generation Threat System (NGTS). The NGTS is the primary environment generator for both Blue and Red Air in DMOC White Force. DMO Tool development includes: a) DMOC Replay Tool (DRT), which facilitates a more complete mission review and debrief capability of the exercises as more sites and systems are added to events; b) enhancement & improvement of the Distributed Interactive Simulation (DIS) Filter and the Doctor-J (Dr. J) tools to enable tactical datalinks to be communicated and translated between disparate simulator and operationally fielded (i.e. live aircraft) communication formats; c) Development of Intelligence, Surveillance, and Reconnaissance (ISR)/Battle Damage Assessment (BDA) to improve damage state models used by intelligence analysts in exercises; and d) development of solutions for integrating Contested Degraded Operations Gateway (CDOG, geographical and communications jamming) into DMO events; and simulator enhancement efforts to incorporate Mission Package standards upgrades into the Control and Reporting Center (CRC) Simulation Package (CSP) to allow a real-world system to be used as a simulator when needed in DMO events.

PE 0207605F: *Wargaming and Simulation Centers*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207605F *I Wargaming and Simulation Centers*	

2. Assessment & Authorization (A&A)/Software Certification: The DMOC supports cybersecurity requirements definition, integration/test support, analysis, systems engineering support, A&A of core systems, and support software certification. The DMOC implements cybersecurity requirements and complies with the application of the Risk Management Framework (RMF) and Continuous Monitoring. Efforts include Cross-Domain Information Sharing / Multi-national Information Sharing (CDIS/ MNIS) ruleset development, load sharing, and testing; integration and testing of various newly developed / updated systems such as the DMOC Replay Tool, Dr. J, DIS Filter, and the DMOC Battlespace; support of Air Force Network Integration Center (AFNIC) software certification.

3. Distributed Training Sites & Systems Integration: DMOC integrates over 40 geographically separated LVC training locations and 50+ systems into LVC DMO training events such as VF and VF:C by resolving interoperability issues between disparate systems and networks so that all exercise participants can interact in the DMO environment. New sites and systems are incorporated into LVC DMO events each year based on higher headquarters and Combatant Commander's (CCDRs) emerging requirements.

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.

Joint Training Center (JTC): Adds training and test capability to 5th generation operation readiness, scales up the Joint Simulation Environment (JSE), and increases operational training capability at Elmendorf AFB.

This is not a new start.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	7.004	11.894	15.586	0.000	15.586
Current President's Budget	7.004	11.894	0.000	0.000	0.000
Total Adjustments	0.000	0.000	-15.586	0.000	-15.586
• 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	-15.586	0.000	-15.586

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0207605F *I Wargaming and Simulation Centers*

Change Summary Explanation

In FY2025, PE 0207605F, Wargaming and Simulation Centers, Project 672888, Distributed Mission Operations Center, efforts were transferred to PE 0207701F, Full Combat Mission Training, Project 672888, Distributed Mission Operations Center to meet higher priority AF Operational Readiness and Training efficiencies.

C. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Distributed Mission Operations (DMO) Capability / Battlespace Systems Development **Description:** Simulation software/hardware development in support of users conducting RDT&E, mission rehearsal, and concepts of operation development. **FY 2024 Plans:** - Complete Battlespace Jamming exploration and continue White Force Artificial Intelligence (AI) exploration through AFRL contracting vehicle - Redesign and enhance legacy DMO tools. - Continue DMOC/NAWCAD partnership to enhance NGTS source code to implement future Air Force DMO requirements, develop/install future versions of DMOC customized NGTS, and focus on increasing NAWCAD partnership/ requirements development to better meet AF DMO needs. - Explore additional virtualized methods to enhance training. - Research and test promising emerging Modeling & Simulation (M&S) technologies for possible integration into DMO training. - Continue exploration and transitioning to cloud-based software development. **FY 2025 Base Plans:** N/A **FY 2025 OCO Plans:** N/A **FY 2024 to FY 2025 Increase/Decrease Statement:** FY 2025 decrease due to PE 0207605F efforts transferred to PE 0207701F.	4.723	4.658	0.000	0.000	0.000
Title: Assessment and Authorization (A&A)/Software (A&AS) Certification **Description:** Support requirements definition, integration test support, scenario development, analysis, systems engineering support, and Certification and Accreditation (C&A) and Networthiness of core systems. Implement requirements of Cybersecurity, Risk Management Framework, and Continuous Monitoring.	0.540	0.530	0.000	0.000	0.000

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				**Date:** March 2024	
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C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
FY 2024 Plans: - Test for the following Assessment and Authorization activities: -- Maintain ATO from HAF/A3 for Battlespace. -- Maintain ATO for Jumper Room with accompanying SSP modifications for event-driven needs. - Assess DMOC software for the AFNIC E/APL process viability and test accordingly - Continue A&A support for virtualization effort. - Support CVF and RED KITE (if required) with CDIS ruleset development, testing, and implementation. - Continue to develop Cross Domain Solutions into LVC training. ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2025 decrease due to PE 0207605F efforts transferred to PE 0207701F.					
Title: Distributed Training Sites and Systems Integration ***Description:*** Establish distributed training site system integration and interoperability between DMOC, operational units, and modeling & simulation facilities. ***FY 2024 Plans:*** - Continue to develop LVC concepts in support of VF/CVF integration efforts. - Support emerging higher headquarters/CCDR requirements. - Develop Virtual-into-Live integration and testing with NTTR/VTTC/RF. - Expand Jumper Room support capabilities to CJCS events. - Expand distributed operations to increase the number of small-scale, joint/coalition events. ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:***	1.741	1.706	0.000	0.000	0.000

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207605F *I Wargaming and Simulation Centers*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
FY 2025 decrease due to PE 0207605F efforts transferred to PE 0207701F.					
Title: Joint Training Center	0.000	5.000	0.000	0.000	0.000
Description: Supports the Joint Simulation Environment (JSE) CONOPS by providing the Operational Training Capability at Elmendorf, AFB. *FY 2024 Plans:* Scale the JSE CONOPS. *FY 2025 Base Plans:* N/A *FY 2025 OCO Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* FY 2025 decrease due to PE 0207605F efforts transferred to PE 0207701F.					
Accomplishments/Planned Programs Subtotals	7.004	11.894	0.000	0.000	0.000

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks
 N/A

E. Acquisition Strategy
 The DMOC supports AF/Joint/Coalition DMO and the Joint National Training Capability (JNTC) through the development and integration of DMO training and test events, networks, scenarios, and databases. Due to evolving modeling & simulation technology, the DMOC is an on-going, evolutionary effort to keep pace with those changes by continuously developing/upgrading DMO environment generators, systems, and tools and ensuring integration/interoperability of new systems into DMO to provide the best warfighter training possible. DMOC has the following two primary contracts that manage the acquisition, development, testing, and integration of DMO standards, training, modeling and simulation, cross-domain information sharing testbed, and exercises on AF/Joint/Coalition DMO networks. Additionally, Military Interdepartmental Purchase Requests (MIPRs) are sent to other external organizations (i.e. NAWCAD) to fund development of DMO tools that support DMOC efforts.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207605F *I Wargaming and Simulation Centers*	

Infrastructure, Development, and Engineering (IDE) Contract: Develops/upgrades various DMOC tools, systems, and simulators that are needed to conduct DMO training events. Develops, implements, and tests technical solutions for the integration of sites/systems into VF, CVF, and other DMO events. IDE is a firm-fixed-price contract.

Command and Control Technical Support Contract (C2TSC): Supports government by assisting with development of technical requirements for upgrades to various systems and tools that will be developed by the IDE contractor and then performs acceptance testing of the delivered products. Develops requirements for site/system integration of sites/systems into VF, CVF, and other DMO events. C2TSC is a firm-fixed-price contract.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													Date: March 2024		

| Appropriation/Budget Activity
3600 / 7 | | | | R-1 Program Element (Number/Name)
PE 0207605F / Wargaming and Simulation Centers | | | | | | Project (Number/Name)
672888 / Distributed Mission Operations Center (DMOC) | | | | | |

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Distributed Mission Operations (DMO) Capability / Battlespace Systems Development, Certification & Accreditation (C&A) and Networthiness, and Distributed Training Sites& Systems Integration	C/FFP	General Dynamics IT : Kirtland AFB, NM	-	1.482	Dec 2022	-		-		-		-	0.000	1.482	16.935
Distributed Mission Operations (DMO) Capability / Battlespace Systems Development, Certification & Accreditation (C&A) and Networthiness, and Distributed Training Sites & Systems Integration	C/FFP	TBD - Follow-on Contract : Kirtland AFB, NM	-	2.768	Mar 2023	4.427	Nov 2023	-		-		-	Continuing	Continuing	24.482
NAWCAD NGTS Development	MIPR	NAWCAD : Patuxent River, MD	-	1.000	Feb 2023	1.000	Nov 2023	-		-		-	Continuing	Continuing	-
Artificial Intelligence Integration Into VF (Conceptual Design)	C/CPFF	L3 Technologies, Inc : Kirtland AFB, NM	-	0.360	Apr 2023	0.119	Nov 2023	-		-		-	0.000	0.479	1.179
Global Positioning System (GPS) Jamming Integration Into VF (Conceptual Design - Contract 1)	C/CPFF	XL Scientific, LLC Verus Research : Kirtland AFB, NM	-	0.109	Nov 2022	-		-		-		-	0.000	0.109	0.899
Global Positioning System (GPS) Jamming Integration Into VF (Conceptual Design - Contract 2)	C/CPFF	Scientific Research Corp, Inc : Kirtland AFB, NM	-	-		-		-		-		-	0.000	0.000	0.244
Joint Training Center	C/CPAF	TBD : Elmendorf AFB, AL	-	-		5.000	Dec 2023	-		-		-	Continuing	Continuing	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													Date: March 2024		
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0207605F / Wargaming and Simulation Centers						Project (Number/Name) 672888 / Distributed Mission Operations Center (DMOC)				

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Subtotal			-	5.719		10.546		-		-		-	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Technical requirements development, integration/ acceptance testing, and engineering support	C/FFP	River Tech, LLC : Kirtland AFB, NM	-	0.959	Jan 2023	-		-		-		-	0.000	0.959	4.759
Technical requirements development, integration/ acceptance testing, and engineering support (Follow-on Contract)	C/FFP	TBD - Follow-on Contract : Kirtland AFB, NM	-	-		1.012	Mar 2024	-		-		-	Continuing	Continuing	5.592
Subtotal			-	0.959		1.012		-		-		-	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DMOC Program Management Office Support	Various	705 CTS : Kirtland AFB, NM	-	0.326	Oct 2022	0.336	Oct 2023	-		-		-	Continuing	Continuing	-
Subtotal			-	0.326		0.336		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	7.004	11.894	-	-	-	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207605F *I Wargaming and Simulation Centers*	**Project (Number/Name)** 672888 *I Distributed Mission Operations Center (DMOC)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
DMO																												
DMO Capability / Battlespace Systems Development	████████████																											
Virtual Flag (VF)																												
Virtual Flag / Coalition Virtual Flag exercises	████████████																											
Joint Training Center (JTC)																												
Joint Simulation Environment events	████████████																											

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207605F *I Wargaming and Simulation Centers*	**Project (Number/Name)** 672888 *I Distributed Mission Operations Center (DMOC)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
DMO				
DMO Capability / Battlespace Systems Development	1	2023	4	2024
Virtual Flag (VF)				
Virtual Flag / Coalition Virtual Flag exercises	1	2023	4	2024
Joint Training Center (JTC)				
Joint Simulation Environment events	1	2023	4	2024

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207697F *I Distributed Training and Exercises*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	4.480	3.811	4.847	0.000	4.847	4.969	5.070	5.254	5.358	Continuing	Continuing
675190: *JFCOM Wargaming*	-	4.480	3.811	4.847	0.000	4.847	4.969	5.070	5.254	5.358	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Funding supports the CSAF Title 10 wargaming efforts to test concepts, capabilities, programming choices, and plans using simulation and other techniques, otherwise known as wargaming. Based on the Department and Air Force direction, there is a concerted effort in these periods of fiscal restraint to reinvigorate, institutionalize, and systematize wargaming across the Department. This effort requires continued funding to maintain the level of effort to most effectively pursue an innovative strategy, avoid operational and technical surprise and make best use of limited resources. The Air Force continues to refine the wargame process and design to better integrate and synergize those efforts in support of the Air Force Strategy, Planning, Programming, Budget, and Execution (SPPBE) process. Specifically, in addition to maintaining a robust Title 10 Wargame series, Global Engagement, servicing Chief of Staff of the Air Force (CSAF) objectives. The HAF Wargaming Enterprise is executing on-call Wargaming in support of the AF/A5/7, the Agile series, along with quick-turning wargame support to the USAF Enterprise Capability Collaboration Team (ECCT) requirements, the Enterprise series, Plan Blue, and to service AF/A5/7 strategy and concept development objectives; all to better address the requirements of the Strategy, Planning, Programming, Budget, and Execution (SPPBE)process and cycles. Additionally, HAF Wargaming provides and coordinates Air Force representation at other Service and Joint wargames as they execute across the department. These efforts are providing decision support to senior Air Force leaders involving investment strategies and develop concepts to best employ U.S. forces in future conflicts.

The Wargame Information Environment (WIE) is a continually evolving system that provides an array of services to game players which enables the accomplishment of game objectives. The backbone of the WIE is GameNet, a deployable, standalone, Local Area Network (LAN) with servers and laptops that host applications to support virtual battlespace collaboration, decision making, three-dimensional visualizations & mapping, and services. Behind these applications are cutting edge technologies and database architectures from both commercial off-the-shelf and government developed software that assures relevance to the wargame. The modeling, simulation, and analysis applications allow participants, adjudicators, and control team members to effectively and efficiently collaborate, make decisions, present those decisions, and execute moves within the wargame; documenting each step in the process. This information capture enables discovery during the wargame and permits postgame analysis. These findings inform portfolio rebalancing exercises, concept and strategy development, and very senior leader decision making.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 $0 was expended for civilian pay expenses in this program element, and in FY2024 $0 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.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0207697F *I Distributed Training and Exercises*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	4.624	3.811	4.838	0.000	4.838
Current President's Budget	4.480	3.811	4.847	0.000	4.847
Total Adjustments	-0.144	0.000	0.009	0.000	0.009
• 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	-0.144	0.000	0.009	0.000	0.009

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Develop/ Upgrade Modeling & Simulation (M&S) Tools for Wargaming Information Environment (WIE) ***Description:*** Develop air, space and cyber space wargaming specific functionality in existing modeling and simulation and analysis tools and integrate into the latest version of the WIE ***FY 2024 Plans:*** • Continue developing and assimilating state of the art tools that capture consequences of alternative force structures and capabilities employed in wargames to inform Department of the Air Force (DAF) budgeting and programming choices. • Continue to expand and develop the Headquarters USAF (HAF) Wargaming Information Environment (WIE) by integrating the latest technology and tools that will support of a more flexible, robust, and agile wargaming enterprise that is quicker to respond and tailorable for a wider range of wargaming. This will require analysis of the utility and functionality of additional models and analytical tools used in other wargames, and creation of custom interfaces to allow interaction within the WIE (for example, the latest iteration of Air Force Materiel Command's Integrated Sustainment and Wargaming Analysis Toolkit (ISWAT3), which assesses and reports changing logistics and supply levels across wargame moves, battle damage, resupply etc.). • Seek to improve the ease and effectiveness of wargame execution by developing new WIE visualizations and user/ participant interfaces in the FY23 HAF "Title 10" wargame series comprised of Futures Game 24 (FG 24) and Global Engagement 23 (GE 23) —where FG is a high-classification deep-dive into capabilities 15-20 years out and GE is an Ally-informed look at military theater competition between now and that period.	1.770	1.624	1.863

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207697F *I Distributed Training and Exercises*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
There are no OCO funds programmed or executed in this PE. *FY 2025 Plans:* • Continue developing and assimilating state of the art tools that capture consequences of alternative force structures and capabilities employed in wargames to inform Department of the Air Force (DAF) budgeting and programming choices. • Continue to expand and develop the Headquarters USAF (HAF) Wargaming Information Environment (WIE) by integrating the latest technology and tools that will support of a more flexible, robust, and agile wargaming enterprise that is quicker to respond and tailorable for a wider range of wargaming. This will require analysis of the utility and functionality of additional models and analytical tools used in other wargames, and creation of custom interfaces to allow interaction within the WIE (for example, the latest iteration of Air Force Materiel Command's Integrated Sustainment and Wargaming Analysis Toolkit, which assesses and reports changing logistics and supply levels across wargame moves, battle damage, resupply etc.). Develop updated Force Tracker with meaningful updates for user experience and input with dynamic analysis execution. • Seek to improve the ease and effectiveness of wargame execution by developing new WIE visualizations and user/ participant interfaces in the FY23 HAF "Title 10" wargame series comprised of Futures Game 24 (FG 24) and Global Engagement 23 (GE 23)—where FG is a high-classification deep-dive into capabilities 15-20 years out and GE is an Ally-informed look at military theater competition between now and that period. There are no OCO funds programmed or executed in this PE *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to inflation			
Title: Joint Concept Development & Experimentation (JCD&E) Tools *Description:* Develop scenarios and data for future synthetic environment that are grounded in truth to support several wargames and mini-wargames. *FY 2024 Plans:* • HAF Wargaming will execute FG 24 and GE 24 lead-up events in FY24. • HAF Wargaming will continue to design, develop models, research concepts, and conduct workshops for FG 24 and GE 24 including post-game assessment, analysis and reporting.	2.710	2.187	2.984

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207697F *I Distributed Training and Exercises*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
• HAF Wargaming will continue to conduct quick-turn wargames in support of senior leaders as directed including support to other service wargames to ensure Air Force interests are incorporated in a realistic manner. *FY 2025 Plans:* • HAF Wargaming will execute FG 25 and GE 25 lead-up events in FY24. • HAF Wargaming will continue to design, develop models, research concepts, and conduct workshops for FG 25 and GE 25 including post-game assessment, analysis and reporting. • HAF Wargaming will continue to conduct quick-turn wargames in support of senior leaders as directed including support to other service wargames to ensure Air Force interests are incorporated in a realistic manner. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to increase in requirements.			
Accomplishments/Planned Programs Subtotals	4.480	3.811	4.847

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy

 In order to achieve an innovative strategy, avoid operational and technical surprise and make best use of limited resources, wargaming requires an evolutionary acquisition approach for every wargame. Contract support is required as wargame and IT specialized expertise resides with industry and is not available organically. The requirements constantly evolve and a challenge to be accurately defined at the outset of the contract; however, we will continue to pursue a firm fixed price (FFP) contract awarded under a full and open competition.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force											**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0207697F / Distributed Training and Exercises					**Project (Number/Name)** 675190 / JFCOM Wargaming		

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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	C/CPAF	Not specified. : TBD	-	-		-		-		-		-	Continuing	Continuing	-
FA7014-19-FA092	Various	AFDW : JBA, MD	-	4.480	Apr 2023	3.811	Apr 2024	4.847	Apr 2025	-		4.847	0.000	13.138	22.084
Subtotal			-	4.480		3.811		4.847		-		4.847	Continuing	Continuing	N/A

	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	4.480	3.811	4.847	-	4.847	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207697F / *Distributed Training and Exercises*	**Project (Number/Name)** 675190 / *JFCOM Wargaming*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Wargaming Information Environment																												
Develop and Integrate M&S Tools																												
Enhance ViewPoint																												
Improve GamePoint																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0207697F / *Distributed Training and Exercises*	**Project (Number/Name)** 675190 / *JFCOM Wargaming*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Wargaming Information Environment				
Develop and Integrate M&S Tools	1	2023	4	2028
Enhance ViewPoint	1	2023	4	2028
Improve GamePoint	1	2023	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0207701F I *Full Combat Mission Training*						
COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	7.048	0.000	7.048	7.223	7.372	7.640	7.790	Continuing	Continuing
672888: *Distributed Mission Operations Center (DMOC)*	-	0.000	0.000	7.048	0.000	7.048	7.223	7.372	7.640	7.790	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2025, PE 0207605F, Wargaming and Simulation Centers, Project 672888, Distributed Mission Operations Center, efforts were transferred to PE 0207701F, Full Combat Mission Training, Project 672888, Distributed Mission Operations Center to meet higher priority AF Operational Readiness and Training efficiencies. Subsequently, PE207701F now resides in BA05 (AFRL integration work) and BA07 (DMOC Efforts)

A. Mission Description and Budget Item Justification

The Distributed Mission Operations Center (DMOC) provides comprehensive Live, Virtual, and Constructive (LVC) simulation capabilities which prepare warfighters to conduct Joint All-Domain Command & Control (JADC2) operations in air, land, sea, space, and cyber domains for Air Force, joint service, and coalition partners' theater-level, full spectrum combat training. The DMOC training capabilities reach over 40 geographically separated LVC locations representing real-world weapon systems, operator-in-the-loop, and constructive/computer-driven simulations. DMOC is responsible for development and integration of scenarios, models, and databases of participating sites into Virtual Flag (VF) and other Distributed Mission Operations (DMO) training events via network connectivity, interoperability tools, and controlled interfaces in support of Air Force, joint, and coalition warfighter readiness. In addition, activities include DMO technology and capability studies/analyses which support both current and future program planning and execution by:

DISTRIBUTED MISSION OPERATIONS CAPABILITY/BATTLESPACE SYSTEMS DEVELOPMENT: The DMOC upgrades and enhances capabilities of various systems, tools, and simulators incorporating emerging technology and training requirements into DMO events, such as Virtual Flag (VF) and VF: Coalition (VF:C), enhancing the quality of warfighter training. Activities include Environment Generator development, DMO Tool Development, and Simulator Enhancement. DMOC partners with the US Naval Air Warfare Center-Aircraft Division (NAWCAD) to enhance Next Generation Threat System (NGTS) capabilities. The NGTS is the primary environment generator for both Blue and Red Air in DMOC White Force. DMO Tool development includes: a) DMOC Replay Tool (DRT), which facilitates a more complete exercise mission review and debrief capability as more sites and systems are added to events; b) enhancement & improvement of the Distributed Interactive Simulation (DIS) Filter and the Doctor-J (Dr. J) tools to enable tactical datalinks communication and translation between disparate simulator and operationally fielded (i.e. live aircraft) communication formats; c) Development of Intelligence, Surveillance, and Reconnaissance (ISR)/Battle Damage Assessment (BDA) to improve damage state models used by intelligence analysts in exercises; d) development of solutions for integrating Contested Degraded Operations Gateway (CDOG, geographical and communications jamming) into DMO events; e) and simulator enhancement efforts to incorporate Mission Package standards upgrades into the Control and Reporting Center (CRC) Simulation Package (CSP), allowing a real-world system to be used as a simulator when needed in DMO events.

ASSESSMENT & AUTHORIZATION (A&A)/SOFTWARE CERTIFICATION: The DMOC supports cybersecurity requirements definition, integration/test support, analysis, systems engineering support, A&A of core systems, and support software certification. The DMOC implements cybersecurity requirements and complies with the

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207701F *I Full Combat Mission Training*	

application of the Risk Management Framework (RMF) and Continuous Monitoring. Efforts include Cross-Domain Information Sharing / Multi-national Information Sharing (CDIS/MNIS) ruleset development, load sharing, and testing; integration and testing of various newly developed / updated systems such as the DMOC Replay Tool, Dr. J, DIS Filter, and the DMOC Battlespace; support of Air Force Network Integration Center (AFNIC) software certification.

DISTRIBUTED TRAINING SITES & SYSTEMS INTEGRATION: DMOC integrates over 40 geographically separated LVC training locations and 50+ systems into LVC DMO training events such as VF and VF:C by resolving interoperability issues between disparate systems and networks so that all exercise participants can interact in the DMO environment. New sites and systems are incorporated into LVC DMO events each year based on higher headquarters and Combatant Commander's (CCDRs) emerging requirements.

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. In FY23 $0.00M was expended for civilian pay expenses in this program element, and in FY24 $0.00M 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	7.048	0.000	7.048
Total Adjustments	0.000	0.000	7.048	0.000	7.048
• 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	7.048	0.000	7.048

Change Summary Explanation
No other significant changes.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Distributed Mission Operations (DMO) Capability / Battlespace Systems Development	0.000	0.000	4.758

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207701F *I Full Combat Mission Training*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Description: Simulation software/hardware development in support of users conducting RDT&E, mission rehearsal, and concepts of operation development. *FY 2024 Plans:* N/A *FY 2025 Plans:* Redesign and enhance legacy DMO tools. Continue DMOC/NAWCAD partnership, enhancing NGTS source code to implement future Air Force DMO requirements, develop/install future versions of DMOC customized NGTS, and focus on increasing NAWCAD partnership/ requirements development to better meet AF DMO needs. Explore additional virtualized methods to enhance training. Research and test emerging Modeling & Simulation (M&S) technologies for possible integration into DMO training and explore/transition to cloud-base software development. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to PE transfer and FY25 plan above. This effort is NOT an FY2025 New Start. Work was previouslyaccomplished in PE 0207605F.			
Title: Assessment and Authorization (A&A)/Software (A&AS) Certification	0.000	0.000	0.543
Description: Support requirements definition, integration test support, scenario development, analysis, systems engineering support, Certification and Accreditation (C&A) and Networthiness of core systems. Implement requirements of Cybersecurity, Risk Management Framework, and Continuous Monitoring. *FY 2024 Plans:* N/A *FY 2025 Plans:* Perform testing for the following Assessment and Authorization activities: Authority to Operate (ATO) from HAF/A3 for Battlespace; ATO for Jumper Room with accompanying System Security Plan (SSP) modifications to support event-driven needs; DMOC software assessments for the Air Force Network Integration Center (AFNIC) Evaluated/Approved Products List (E/APL) process; Support Virtual Flag: Coalition (VF:C) and RED KITE (UK exercise) with Cross-Domain Information Sharing (CDIS) rule set development, testing, and implementation; A&A support for virtualization efforts; and Develop Cross Domain Solution into LVC training. *FY 2024 to FY 2025 Increase/Decrease Statement:*			

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* / BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0207701F / *Full Combat Mission Training*		

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Funding increased due to PE transfer and FY25 plan above. This effort is NOT a New Start. Work was previously accomplished in PE 0207605F.			
Title: Distributed Training Sites and Systems Integration	0.000	0.000	1.747
Description: Establish distributed training site system integration and interoperability between DMOC, operational units, and modeling & simulation facilities. *FY 2024 Plans:* N/A *FY 2025 Plans:* Develop LVC concepts in support of VF/CVF VF:C integration efforts. Support emerging higher headquarters/ Combatant Commander's (CCDR) requirements. Develop Virtual-into-Live integration and testing with Nevada Test and Training Range (NTTR)/Virtual Test and Training Center (VTTC)/Red-Flag (RF). Expand Jumper Room support capabilities to Chairman, Joint Chief of Staff (CJCS) events. Expand distributed operations to increase the number of small-scale, joint/coalition events. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to PE transfer and FY25 plan above. This effort is NOT a New Start. Work was previously accomplished in PE 0207605F.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	7.048

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 The DMOC supports AF/Joint/Coalition DMO and the Joint National Training Capability (JNTC) through the development and integration of DMO training and test events, networks, scenarios, and databases. Due to evolving modeling & simulation technology, the DMOC is an on-going, evolutionary effort to keep pace with those changes by continuously developing/upgrading DMO environment generators, systems, and tools and ensuring integration/interoperability of new systems into DMO to provide the best warfighter training possible.

 DMOC has the following two primary contracts that manage the acquisition, development, testing, and integration of DMO standards, training, modeling and simulation, cross-domain information sharing testbed, and exercises on AF/Joint/Coalition DMO networks:

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0207701F *I Full Combat Mission Training*	

Infrastructure, Development, and Engineering (IDE) Contract: Develops/upgrades various DMOC tools, systems, and simulators that are needed to conduct DMO training events. Develops, implements, and tests technical solutions for the integration of sites/systems into VF, CVF, and other DMO events. IDE is a firm-fixed-price contract.

Command and Control Technical Support Contract (C2TSC): Supports government by assisting with development of technical requirements for upgrades to various systems and tools that will be developed by the IDE contractor and then performs acceptance testing of the delivered products. Develops requirements for site/system integration of sites/systems into VF, CVF, and other DMO events. C2TSC is a firm-fixed-price contract.

Additionally, Military Interdepartmental Purchase Requests (MIPRs) are sent to other external organizations (i.e., NAWCAD) to fund development of DMO tools that support DMOC efforts.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024

Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207701F *I Full Combat Mission Training*	**Project (Number/Name)** 672888 *I Distributed Mission Operations Center (DMOC)*

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 Mission Operations (DMO) Capability / Battlespace Systems Development, Certification & Accreditation (C&A) and Networthiness, and Distributed Training Sites & Systems Integration	C/FFP	TBD: Kirtland AFB, NM : TBD	-	-		-		3.887	Nov 2024	-		3.887	Continuing	Continuing	18.074
Distributed Mission Operations (DMO) Capability / Battlespace Systems Development, Certification & Accreditation (C&A) and Networthiness, and Distributed Training Sites & Systems Integration (NGTS)	MIPR	NAWCAD:Patuxent River, MD : TBD	-	-		-		1.000	Oct 2024	-		1.000	Continuing	Continuing	-
Subtotal			-	-		-		4.887		-		4.887	Continuing	Continuing	N/A

Support ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Technical requirements development, integration/ acceptance testing, and engineering support (Follow-on Contract)	C/FFP	TBD: Kirtland AFB, NM : TBD	-	-		-		1.018	Nov 2024	-		1.018	Continuing	Continuing	4.994
Subtotal			-	-		-		1.018		-		1.018	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												Date: March 2024		
Appropriation/Budget Activity 3600 / 7							**R-1 Program Element (Number/Name)** PE 0207701F / Full Combat Mission Training					**Project (Number/Name)** 672888 / Distributed Mission Operations Center (DMOC)		

Management Services ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
DMOC Program Management Office Support	Various	705 CTS: Kirtland AFB, NM : TBD	-	-		-		1.143	Oct 2024	-		1.143	Continuing	Continuing	-
Subtotal			-	-		-		1.143		-		1.143	Continuing	Continuing	N/A

	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	-	-	7.048	-	7.048	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0207701F *I Full Combat Mission Training*	**Project (Number/Name)** 672888 *I Distributed Mission Operations Center (DMOC)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
DMO																												
DMO Capability/ Battlespace Systems Development								██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██
Virtual Flag (VF)																												
Virtual Flag/Coalition Virtual Flag exercises								██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██	██

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force				**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7		**R-1 Program Element (Number/Name)** PE 0207701F *I Full Combat Mission Training*	**Project (Number/Name)** 672888 *I Distributed Mission Operations Center (DMOC)*	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
DMO				
DMO Capability/ Battlespace Systems Development	1	2025	4	2029
Virtual Flag (VF)				
Virtual Flag/Coalition Virtual Flag exercises	1	2025	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0208006F *I Mission Planning Systems*							

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	0.000	96.492	96.272	92.566	0.000	92.566	97.417	99.419	103.021	105.057	Continuing	Continuing
675302: *Precision Aerial Delivery Systems (PADS)*	0.000	1.964	2.007	2.056	0.000	2.056	2.106	2.150	2.229	2.274	Continuing	Continuing
675380: *Mission Planning Systems (MPS) Modernization*	0.000	94.528	94.265	90.510	0.000	90.510	95.311	97.269	100.792	102.783	Continuing	Continuing

Program MDAP/MAIS Code: 509

A. Mission Description and Budget Item Justification

Budget line 0208006F funds the Precision Aerial Delivery Systems (PADS) and Mission Planning Systems (MPS) Modernization efforts.

Joint PADS (JPADS), (consisting of airdrop hardware and the Consolidated Airdrop Tool (CAT)) is the primary airdrop mission planning system for all airdrop missions including, precision guided and ballistic, when the mission profile or surface-to-air threat assessment warrants standoff precision delivery. JPADS enables high-altitude airdrop delivery for resupply, kinetic, and non-kinetic effects. FY25 JPADS efforts consist of but are not limited to the following: software development, upgrades to increase accuracy and expand delivery of advanced air released equipment. These software upgrades will increase both survivability and lethality while enabling single pass capability.

MPS is a computer-based flight planning software and hardware program that is required for fixed and rotary wing aircraft sorties. MPS technology consists of layered software, designed with open architecture standards and modular construction. The software integrates the latest intelligence, weather, weapons, aircraft performance, and real-time threat data into flight management systems. Joint Mission Planning System (JMPS), the core of the legacy MPS software, utilized by the U.S. Air Force (USAF) and the Navy (USN), focuses solely on pre-mission planning operations. JMPS Open Mission System (JOMS) and future modernization solutions focus on connected and disconnected planning and execution for pre-mission, in-flight, and post-mission planning operations.

FY25 funding supports development of planning software to enable new capabilities required for aircraft platforms' Operational Flight Program (OFP) (e.g., new weapons, avionics). FY25 MPS Modernization efforts consist of the following but not limited to: 1) deploy additional increments of JOMS capability to operational cloud environments and disconnected systems, and conduct risk reduction development efforts; 2) enhance aircraft survivability and lethality by supporting on-aircraft federated mission systems; and 3) update Combat Air Forces (CAF), Global Strike (GS), Mobility Air Forces (MAF), Special Mission Air Combat Command (SMACC) Mission Planning Environments (MPEs).

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 PY $0.693M was expended for civilian pay expenses in this program element, and in CY $1.030M is forecasted for civilian pay expenses in this program element.

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0208006F *I Mission Planning Systems*		

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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	98.807	96.272	94.881	0.000	94.881
Current President's Budget	96.492	96.272	92.566	0.000	92.566
Total Adjustments	-2.315	0.000	-2.315	0.000	-2.315
• 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	0.900	0.000			
• SBIR/STTR Transfer	-3.215	0.000			
• Other Adjustments	0.000	0.000	-2.315	0.000	-2.315

Change Summary Explanation

The FY 2025 funding request was reduced by $2.477M to account for the availability of prior year execution balances.

The FY 2025 funding request was increased by $0.162M for inflation adjustments.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0208006F *I Mission Planning Systems*				**Project (Number/Name)** 675302 *I Precision Aerial Delivery Systems (PADS)*		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675302: *Precision Aerial Delivery Systems (PADS)*	0.000	1.964	2.007	2.056	0.000	2.056	2.106	2.150	2.229	2.274	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Budget line 0208006F funds JPADS. JPADS is the primary mission planning system for all precision guided ballistic Airdrop missions when the mission profile mission profile or surface-to-air threat assessment warrants a standoff precision delivery. JPADS, comprised of Airdrop hardware and the CAT, enables high-altitude delivery for resupply, kinetic, and non-kinetic effects. Precision airdrop critical to support when a long logistics tail is impractical.

CAT and other airdrop mission planning applications are key JPADS-Mission Planning (MP) software deliverables to enable an airdrop solution. JPADS enables precision drops that increase survivability, lethality, and accuracy by improving aircraft, payload, and chute specific calculations. Future initiatives will automate and enhance airdrop planning, mitigate task saturation, enable dynamic and mobile airdrop solutions, and support delivery of palletized effects. Efforts also include utilization of real-time mission planning data, improvements for aircraft and aircrew survivability and lethality, and acquisition of payload and delivery hardware systems (eg. drones, gliders, modern parachute technologies) for prototyping, testing, evaluation, and demonstrations.

FY25 funding supports USAF and Joint Services mission planners and will include but are not limited to: 1) supporting high- altitude, precise, airdrop delivery of cargo and resources to ground forces while mitigating surface-to-air threats; 2) developing single-pass Airdrop capability to enhance survivability; and 3) development of two-stage payload delivery; 4) prototyping, testing, evaluation, and demonstration of palletized effects; 5) enabling command and control of aerial delivery systems and palletized effects; and 6) supporting aerial logistics delivery in contested areas of responsibility (AORs).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: JPADS-MP Phase I	1.964	2.007	2.056
Description: Funds will be used for the development, integration, and test activities of the JPADS program ***FY 2024 Plans:*** Activities supported with FY24 funding include, but are not limited to the following: -Development/fielding of the CAT version 6.8 that incorporates Protected Object Groups -Field Mobile Airdrop Solution Application (MASA) -Upgrade application with single pass airdrop improvements to the Wind Uncertainty Table (WUT) -Incorporate Tactical Drop Zone (DZ) Creator Application based on Department of Air Force Manual (DAFMAN) 13-217 -Complete the analysis for kinetic and non-kinetic airdrop effects for future capability development ***FY 2025 Plans:***			

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208006F *I Mission Planning Systems*	**Project (Number/Name)** 675302 *I Precision Aerial Delivery Systems (PADS)*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Activities supported with FY25 funding include, but are not limited to the following: -CAT and airdrop dynamic mobile mission applications -Further development of single-pass airdrop capability -Two-stage payload delivery -Prototyping, testing, evaluation, and demonstration of palletized effects -Dynamic airdrop mission planning and retasking of palletized effects -Command and control functionality of aerial delivery systems and palletized effects -Contested AOR aerial logistics delivery support -Flight testing of airdrop mission planning software, hardware, and systems ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Minor increase due to inflation.			
Accomplishments/Planned Programs Subtotals	1.964	2.007	2.056

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 Line Item 833170: *Mission Planning Systems*	13.947	17.078	18.474	-	18.474	18.878	19.538	19.958	20.353	Continuing	Continuing

Remarks

D. Acquisition Strategy

The JPADS effort utilizes a variety of contracting vehicles. Efforts to accomplish activities such as Scaled Agile Framework (SAFe) software development methodology, systems engineering and integration, training, and support are completed using competitively awarded contracts. Mission Planning utilizes established Government Wide Acquisition Contract (GWAC) indefinite delivery/indefinite quantity (ID/IQ) schedules, with a larger pool of vendors, to competitively award Task Orders. These vehicles are utilized for the development and fielding of software.

Program Support Costs (PSC) contracts are awarded competitively and consist of various types of contracts at various locations. MITRE, a Federally Funded Research and Development Center (FFRDC) contractor, provides technical support via a no fee for service contract. The Systems Engineering & Integration Contract (SEIC) is a competitively awarded Single Award ID/IQ. Other efforts are accomplished using Purchase Orders (PO) and Military Interdepartmental Purchase Requests (MIPR).

For the efforts listed above, the Air Force Life Cycle Management Center at Hanscom AFB, MA (AFLCMC/HB) is the Contracting Authority and provides contracts, legal, and comptroller support. Program management is under direction of Program Executive Officer (PEO) Digital located at Hanscom AFB, MA. Milestone Decision Authority (MDA) is delegated to the Materiel Lead.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force											**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0208006F *I Mission Planning Systems*					**Project (Number/Name)** 675302 *I Precision Aerial Delivery Systems (PADS)*			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	C/T&M	Various : Various	0.000	1.214	Nov 2022	1.365	Nov 2023	1.227	Nov 2024	-		1.227	Continuing	Continuing	-
Systems Engineering and Integration	C/T&M	Leidos, Inc. : Reston, VA	0.000	0.482	Jan 2023	0.368	Jan 2024	0.592	Jan 2025	-		0.592	Continuing	Continuing	-
Subtotal			0.000	1.696		1.733		1.819		-		1.819	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Cost Estimating	C/T&M	Quantech Services : Lexington, MA	0.000	0.018	Nov 2022	0.019	Nov 2023	0.020	Nov 2024	-		0.020	Continuing	Continuing	-
Subtotal			0.000	0.018		0.019		0.020		-		0.020	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Responsible Test Organization (RTO)	PO	96CTG : Eglin AFB, FL	0.000	0.230	Dec 2022	0.235	Dec 2023	0.197	Dec 2024	-		0.197	Continuing	Continuing	-
Operational Testing	PO	28TH TEST AND EVAL : Eglin AFB, FL	0.000	0.020	Apr 2023	0.020	Apr 2024	0.020	Apr 2025	-		0.020	Continuing	Continuing	-
Subtotal			0.000	0.250		0.255		0.217		-		0.217	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	1.964		2.007		2.056		-		2.056	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208006F / *Mission Planning Systems*	**Project (Number/Name)** 675302 / *Precision Aerial Delivery Systems (PADS)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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

Precision Aerial Delivery Systems (PADS)

JPADS-MP: Developed/Field Mobile Airdrop Solution Application (MASA)

JPADS-MP: Development/field Consolidated Air Drop Tool (CAT) version 6.8

JPADS-MP: Mobile Airdrop Solution Application (MASA) upgrade

JPADS-MP Program Increment quarterly cadence releases

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208006F *I Mission Planning Systems*	**Project (Number/Name)** 675302 *I Precision Aerial Delivery Systems (PADS)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Precision Aerial Delivery Systems (PADS)				
JPADS-MP: Developed/Field Mobile Airdrop Solution Application (MASA)	1	2024	1	2024
JPADS-MP: Development/field Consolidated Air Drop Tool (CAT) version 6.8	1	2024	3	2024
JPADS-MP: Mobile Airdrop Solution Application (MASA) upgrade	2	2024	4	2024
JPADS-MP Program Increment quarterly cadence releases	1	2025	4	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0208006F *I Mission Planning Systems*					**Project (Number/Name)** 675380 *I Mission Planning Systems (MPS) Modernization*		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675380: *Mission Planning Systems (MPS) Modernization*	0.000	94.528	94.265	90.510	0.000	90.510	95.311	97.269	100.792	102.783	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Mission planning is an essential task that must be completed prior to any fixed or rotary wing aircraft sortie. The planner must have the ability to plan weapon, cargo, passenger, and fuel delivery; calculate fuel requirements; and assess the route based on known enemy threat location and type. This includes the ability to: 1) optimize and de-conflict flight routes with other aircraft; 2) review, print, and brief the plan; 3) download pertinent flight information to on-board aircraft avionics; and 4) conduct dynamic/in-flight replanning as applicable. The MPS Modernization project, follows a multi-year strategic roadmap to migrate mission planning capabilities into a services-based open architecture, and focuses on delivering JOMS environment for mission planning. This includes the development, test and support of MPEs for CAF-GS and MAF-SMACC aircraft, (including the B-1, C-5, C-17, C-130, HC-130, EA-37, EC-130, E-3, E-7, E-8, F-15, F-22, U-2, KC-10, KC-46, KC-135, RC-135, HH-60, 6th generation aircraft), Collaborative Combat Aircraft (CCAs), and training aircraft. Mission planning development will align with Advance Battle Management Systems as an enabler in order to close the kill chain. Activities also include studies and analysis to support both current program planning and execution and future program planning. MPS Modernization efforts include:

1) CAF-GS MPS Modernization: Provide new and improved mission planning capability to: support Agile Combat Employment (ACE) software applications for pre-flight, dynamic/in-flight replanning, and post-flight analysis; provide software applications to support operational engagement to optimize the tactical kill chain; and support platform OFP requirements, such as new weapons, avionics upgrades, communications systems, etc. The OFPs requiring MPE updates under the CAF-GS modernization effort include, but are not limited to: B-1, F-15, and F-22. Within the framework of Agile Software Cadence, development teams will deliver improved capabilities to support each aircraft platform OFP, including early deliveries for risk reduction testing. Modernization efforts for weapons planning capabilities include, but are not limited to, Small Diameter Bomb (SDB-II), Joint Direct Attack Munitions (JDAM), Joint Air-to-Surface Standoff Missile (JASSM), Hypersonic Attack Cruise Missile (HACM), and associated interface tools between the CAF-GS platforms and the weapons such as Universal Armament Interface (UAI) and Mission Planning Certification Tool (MPCT). Additionally modernization efforts will address requirements to JMPS Common Components (CCs), such as Weapon Planning Software (WPS), Electronic Warfare (EW), Global Positioning System (GPS) crypto (including GPS M-code), and weather. Furthermore, efforts include development of JOMS CAF-GS mission planning capabilities in collaboration with USN's Mission Planning Program Office and the F-35 Joint Program Office (JPO). Finally, platform specific modernization efforts include, but are not limited to, the following:

a. F-15 Modernization: Includes key initiatives on improving/adapting software architecture to improve lethality, survivability, readiness, affordability, and performance. The F-15 OFP will update on an annual release to the field to provide new capabilities to the warfighter. The F-15 Unique Planning Component (UPC), segmented into code modules, will transition from a JMPS process to use microservices. These changes position the MPE to migrate to the loosely coupled web-based services and open standard interfaces of JOMS. Multiple software development efforts for the F-15, previously called Suites, are now called Continuous Development and Integration (CD&I). F-15 MPE agile software initiatives will include, but not be limited to, updates for new features in weapons such as JDAM, SDB I and II, AIM-9X, AIM-120D, and Network Enabled Weapon support elements (e.g., key handling, weapon data link, and Link 16), software enhancements to Synthetic Aperture Radar Planning

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208006F / Mission Planning Systems	Project (Number/Name) 675380 / Mission Planning Systems (MPS) Modernization

Tools (SAR-PT), global area reference tools, radar modernization updates (e.g., combat identification, radar planning tool enhancements), active warning survivability system(s), Advanced Dual Core Process II (ADCP- II) computer as well as Digital Transfer Device/Modules (DTD/DTM) modernized in support of operational capabilities to the F-15 OFP. The overall end state is a common OFP and one MPE baseline that supports all F-15 models (C, D, E, & EX). F-15 Modernization also includes pathfinder/exploratory efforts to provide pre-flight and dynamic mission planning and reduction of the logistics footprint.

b. F-22 Modernization: Includes multiple software development efforts driven by OFP updates for Releases 4 through 6 as identified by ACC and the operational user as well as future OFP releases. These new capabilities improve the F-22's lethality, survivability, and tactical communications with sensor enhancements and updates to Link-16 Transmit, Mode 5 Identification Friend or Foe (IFF) Transmit and Interrogate, Infrared Search and Track (IRST) Pod, and various classified projects. Additionally, efforts will increase readiness and affordability through incremental incorporation of JOMS microservices to create a common baseline MPE/UPC that any platform can use, integrates initial JOMS capabilities into JMPS, and generates mission data files in appropriate test jets. Furthermore, efforts are collaborative with USN's and F-35 JPO's mission planning teams to deliver JOMS capabilities. Finally, efforts also include pathfinder/exploratory efforts to provide pre-flight and dynamic mission planning and reduction of the logistics footprint.

c. B-1 Modernization: Includes multiple software development efforts driven by OFP updates for Blocks 17b, 17c, 18, and 19. Efforts will incrementally deliver the B-1 MPE to improve survivability, lethality, and readiness; increase mission capabilities with weapon updates for JASSM and Long Range Anti-Ship (LRASM); and incorporation of crypto modernization for Link-16 Network Enabled Weapons. Additionally, efforts will improve processing capability 64/128-bit environment, replace the mass storage unit where pre-recorded map and mission data is stored, and develop microservices to integrate JOMS into the B-1 MPE.

2) Global Mobility and Special Mission (GM-SM) MPS Modernization: Provide new and improved MAF-SMACC mission planning capability to support ACE software applications for pre-flight, dynamic/in-flight replanning, and post-flight analysis; provide software applications to support operational engagement to optimize the tactical kill chain; and support individual OFP requirements, such as avionics upgrades, communications systems, etc. Common operational GM-SM baselines 1) enable agile software deliverables; 2) minimize platform schedule constraints; and 3) reduce platform dependencies within the OFP.

a. Global Mobility Modernization: Includes new and improved mission planning capability to support C-17, C-130H, C-130J, C-5, KC-135, KC-10, and KC-46, global command and control (C2), and AMC fuel efficiency requirements incorporating MAF Automated Flight Planning Service into the deployed squadron mission planning suite. Efforts include, but are not limited to, enhancing capabilities to accommodate avionics upgrades, precision airdrop for increased accuracy, interfaces with C2 systems, and improved weather data ingestion/utilization. Additionally, efforts include, but are not limited to, integrating improvements to MAF-related CCs, such as assault zone, Air Refueling Tool, CAT, and weather.

b. Special Mission Modernization: Includes new and improved mission planning capability to support SMACC platforms (E-3, E-7, E-8, RC-135, EA-37, and EC-130) and Combat Search and Rescue (CSAR) platforms (HC-130J and HH-60G/W). Efforts will replace JMPS with JOMS for initial SMACC platforms. Additionally, efforts includes, but are not limited to, improving performance stability by more efficient transfer of mission data from the MPE to the OFP and integration onto the smart multifunction color display for the HH-60G/W.

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208006F *I Mission Planning Systems*	**Project (Number/Name)** 675380 *I Mission Planning Systems (MPS) Modernization*

3) MPS Core Mission Planning (CMP) encompasses the core functions of JMPS developed as microservices in a Common Development Environment (CDE) and the core modernization effort for JOMS architecture to continuously develop and deploy mission planning capabilities. MPS CMP: 1) develops mission planning software services, user interfaces, and underlying software architecture that are common to all aircraft (e.g., rapid computing of flight routes based on specific aircraft flying characteristics, weather, flight safety, airport destination, etc.); 2) develops software and data updating services to automatically synchronize connected assets; 3) develops, operates, and sustains the continuous integration/continuous delivery (CI/CD) infrastructure and software integration processes; and 4) supports worldwide USAF aircraft operations in connected and disconnected environments. The program office is preparing for Software Acquisition Pathway (SWP) follow-on program(s) that will start in FY25.

4) Test, Training, and Certification: Continues all MPS-related integration, test, and certification activities for all platforms.

Program Support: Continues all program office management operations and support activities to ensure the timely development, testing, and delivery of mission planning systems to the warfighter.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: F-15 Modernization ***Description:*** Incorporates and enables use of new lethal and survivable capabilities being developed in the F-15 OFP. Increases readiness and affordability through incremental incorporation of JOMS microservices. ***FY 2024 Plans:*** Activities supported with FY24 funding include, but are not limited to the following: - Implement a common F-15 baseline (CD&I) with JMPS MPE improvements that increase F-15 lethality, survivability, and readiness in a contested environment and meet OFP requirements. - Conduct lab demonstrations for pre-flight dynamic mission replanning. - Continue JMPS software rearchitecting for microservices. ***FY 2025 Plans:*** - Continue software release in support of JMPS planning/replanning requirements. - Complete JMPS software rearchitecting for microservices ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to minimum reduced cost savings realized after shifting to agile processes vice waterfall processes.	10.019	9.036	8.814
Title: F-22 Modernization ***Description:*** Incorporates and enables use of new lethal and survivable capabilities being developed in the F-22 OFP, including sensor enhancements, Link 16 Transmit, Mode 5 interrogate and transponder updates, IRST Pod, Special Program upgrades,	8.903	7.512	9.505

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208006F / *Mission Planning Systems*	**Project (Number/Name)** 675380 / *Mission Planning Systems (MPS) Modernization*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
radar updates and pilot display updates. Increases readiness and affordability through incremental incorporation of JOMS microservices. ***FY 2024 Plans:*** Activities supported with FY24 funding include, but are not limited to the following: - Prototype blended F-22 JMPS MPE with modernized JOMS capabilities - Develop and field JMPS MPE improvements that increase F-22 lethality, survivability, and readiness in a contested environment, such as OFP requirements for Link 16 and Mode 5 Transmit/Interrogate enhancements - Mature in-flight mission replanning concepts; continue lab demonstrations for pre-flight dynamic mission replanning ***FY 2025 Plans:*** - Mature prototype blended F-22 JMPS MPE with modernized JOMS capabilities - Develop and field JMPS MPE improvements that increase F-22 lethality, survivability, and readiness in a contested environment, such as OFP requirements for Link 16 and Mode 5 Transmit/Interrogate enhancements - Demonstrate in-flight mission replanning solutions; transition pre-flight dynamic mission replanning capabilities ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to increasing requirements by the OFP along with inflation.			
Title: B-1 Modernization ***Description:*** Modernizes fielded B-1 MPE to enable efficient use of new and improved capabilities being developed in the OFPs. ***FY 2024 Plans:*** Activities supported with FY24 funding include, but are not limited to the following: - Develop and field JMPS MPE improvements that increase B-1 lethality, survivability, and readiness in a contested environment, such as crypto key enhancements, LRASM integration, and hypersonic weapons integration ***FY 2025 Plans:*** - Develop and field JMPS MPE improvements that increase B-1 lethality, survivability, and readiness in a contested environment, such as crypto key enhancements, LRASM integration, and hypersonic weapons integration ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Minor decrease due to efficiencies gained by agile processes.	9.944	10.306	10.068
Title: Global Mobility Modernization ***Description:*** Incorporate improvements to MAF aircraft through Tactical Airlift Mission Support System (TAMSS) tools, upgraded Link 16 for enhanced situational awareness and evolving employment concepts while continuing the development, testing, and	17.287	18.273	17.571

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			Date: March 2024		
Appropriation/Budget Activity 3600 *I* 7		**R-1 Program Element (Number/Name)** PE 0208006F *I Mission Planning Systems*	**Project (Number/Name)** 675380 *I Mission Planning Systems (MPS) Modernization*		

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
fielding of the Agile Global Mobility (AGM) JMPS MPE for C-5, C-17, C-130, KC-10, KC-135, and KC-46 to enable changes in OFP, global C2, and operational mission requirements. Meets evolving MAJCOM employment concepts and increases lethality, survivability, readiness, and affordability via agile development and phased capability delivery. *FY 2024 Plans:* Activities supported with FY24 funding include, but are not limited to the following: - Enhance AGM JMPS MPE for KC-46, TENSO VM, and airdrop - Improve CAT, upgrade route planning, low-level planning, and vertical obstruction - Create JMPS UPCs for C-130J Blk 8.1.2 and C-130H Avionics Modernization Program aircraft - Mature and operationalize dynamic/in-flight replanning capabilities used in Exercise Mobility Guardian 2023 *FY 2025 Plans:* - Develop and field JMPS MPE releases to further improve AGM products, based on AMC priorities - Develop modernized air refueling mission planning capabilities for KC-46 - Deliver dynamic/in-flight replanning capabilities to support AMC initiatives *FY 2024 to FY 2025 Increase/Decrease Statement:* Minor decrease reflects increased maturity of AGM JMPS MPE & shift in priority from JMPS to modernized solutions.			
Title: Special Mission Modernization *Description:* Modernizes and/or creates modernized mission planning capabilities for SMACC and CSAR aircraft (E-3, E-7, E-8, EA-37, EC-130, RC-135, HC-130J, HH-60G/W). Increases readiness and affordability through transition from JMPS to connected and disconnected JOMS MPEs. Develops critical CSAR situational awareness tools such as Counter Listener Acoustics Warfare (CLAW) and Survivor Broadcast Overlay Tool (SBOT). *FY 2024 Plans:* Activities supported with FY24 funding include, but are not limited to the following: - Develop new CSAR JMPS MPEs to enable integration with modernized HC-130J avionics suite and enhance HH-60G mapping tools to operate low-level missions safely - Develop EA-37B (to replace EC-130H) JMPS MPE and deliver engineering releases for early user demonstration and feedback - Develop modernized, connected and disconnected pre-flight MPEs for RC-135 to increase readiness and affordability - Extend/prototype dynamic/in-flight replanning capabilities used in Exercise Mobility Guardian 2023 to accommodate smaller size/weight/power constraints in SMACC aircraft *FY 2025 Plans:* - Deliver first EA-37B JMPS MPE, which will provide pre-flight mission planning capability for operational use	13.636	14.805	14.256

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208006F / *Mission Planning Systems*	Project (Number/Name) 675380 / *Mission Planning Systems (MPS) Modernization*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Deliver first operational JOMS capability to RC-135 connected and disconnected environments - Deliver dynamic/in-flight replanning capabilities for HH-60W CSAR operations ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Slight decrease reflecting reduced effort for the sunsetting HH-60G & EC-130H & efficiencies gained in JOMS architecture.			
Title: MPS Core Mission Planning (CMP) ***Description:*** MPS CMP develops common mission planning capabilities, user interfaces, and underlying software architecture for all tactical mission planners that replaces user dependencies on PowerPoint, white boards, paper maps, and manual data transfer with a solution that automates and fuses data to enable time-sensitive planning in a changing environment and give DoD and partner forces a competitive advantage. This family of mission planning capabilities provides access to information, automated tools, and decision aids needed to rapidly plan and execute aircraft, weapon, sensor, or other types of missions, as well as support post-mission analysis of recorded data. These capabilities allow warfighters to perform unit- and force-level planning. This modernization will result in enhanced system performance (lethality and survivability), readiness, security, and affordability. ***FY 2024 Plans:*** Activities supported with FY24 funding include, but are not limited to the following: - Deploy first increment of JOMS to connected (cloud) operational environment with continued development of microservices - Deliver core mission planning capabilities required for RC-135 migration from JMPS to JOMS - Deliver classified cloud-based environment for connected operations and stand-alone system for disconnected operations - Explore and demonstrate enablers for dynamic/in-flight mission replanning to support Agile Combat Employment in disconnected and contested environments, such as C2 links and real-time readiness reporting tools for aircraft user ***FY 2025 Plans:*** - Extend JOMS to develop & deliver additional core mission planning capabilities for required for additional SMACC aircraft, such as E-3, EA-37B, and E-7, including deployments to connected and disconnected operations - Integrate enablers for dynamic/in-flight mission replanning to support Agile Combat Employment in disconnected & contested environments, such as C2 links & real-time readiness reporting tools for aircraft user ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY25 funding decreases due to reduced software development as platforms begin to operate JOMS. This is in alignment with the program's acquisition strategy.	34.739	34.333	30.296
Accomplishments/Planned Programs Subtotals	94.528	94.265	90.510

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208006F / Mission Planning Systems	**Project (Number/Name)** 675380 / Mission Planning Systems (MPS) Modernization

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 Line Item 833170: *Mission Planning Systems*	13.947	17.078	18.474	-	18.474	18.878	19.538	19.958	20.353	Continuing	Continuing

Remarks

D. Acquisition Strategy

MPS Modernization consists of multiple capability upgrades across multiple platforms that are developed and fielded using a variety of contracting instruments. PEO Digital at Hanscom AFB, MA utilizes established GWAC ID/IQ schedules, with a larger pool of vendors, to competitively award Task Orders. These vehicles are utilized for the development and fielding of software.

PSC contracts are awarded competitively and consist of various types of contracts at various locations. MITRE, a Federally FFRDC contractor provides technical support on a no fee for service contract.

The SEIC is a competitively awarded single award ID/IQ. Other efforts are accomplished via POs and MIPRs.

For the efforts listed above, the PEO Digital at Hanscom AFB, MA provides the program management, contracts, legal, and financial management support.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												Date: March 2024	
Appropriation/Budget Activity 3600 / 7			**R-1 Program Element (Number/Name)** PE 0208006F / Mission Planning Systems							**Project (Number/Name)** 675380 / Mission Planning Systems (MPS) Modernization			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Mission Planning Software Development	C/Various	Various : Various	0.000	25.452	Nov 2022	23.423	Nov 2023	23.227	Nov 2024	-		23.227	Continuing	Continuing	-
EC-130H Modernization	PO	Organic : Robins AFB, GA	0.000	0.902	Jan 2023	0.929	Jan 2024	0.951	Jan 2025	-		0.951	Continuing	Continuing	-
SMACC CSAR Tools	MIPR	Various : Various	0.000	0.560	Jan 2023	0.581	Jan 2024	0.601	Jan 2025	-		0.601	Continuing	Continuing	-
Digital Flight Scheduling (PUCKBOARD)	C/T&M	RevaComm : Honolulu, HI	0.000	-		-		-		-		-	0.000	0.000	-
Systems Engineering and Integration	C/T&M	Leidos, Inc. : Reston, VA	0.000	16.558	Jan 2023	16.785	Jan 2024	16.343	Jan 2025	-		16.343	Continuing	Continuing	-
Framework	C/T&M	Northrop Grumman : Herndon, VA	0.000	31.962	Jan 2023	33.079	Jan 2024	30.052	Jan 2025	-		30.052	Continuing	Continuing	-
Common Components	C/Various	Various : Various	0.000	7.883	Nov 2022	8.120	Nov 2023	8.422	Nov 2024	-		8.422	Continuing	Continuing	-
Subtotal			0.000	83.317		82.917		79.596		-		79.596	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Cost Estimating	C/T&M	Quantech : Lexington, MA	0.000	0.184	Nov 2022	0.202	Nov 2023	0.217	Nov 2024	-		0.217	Continuing	Continuing	-
Subtotal			0.000	0.184		0.202		0.217		-		0.217	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Responsible Test Organization (RTO)	PO	96CTG : Eglin AFB, FL	0.000	5.702	Dec 2022	5.698	Dec 2023	5.524	Dec 2024	-		5.524	Continuing	Continuing	-
Certification and Accreditation	MIPR	JITC : Fort Huachuca, AZ	0.000	0.050	Feb 2023	0.050	Feb 2024	0.050	Feb 2025	-		0.050	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208006F *I Mission Planning Systems*	**Project (Number/Name)** 675380 *I Mission Planning Systems (MPS) Modernization*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Operational Testing	PO	28TH TEST AND EVAL : Eglin AFB, FL	0.000	0.180	Apr 2023	0.186	Apr 2024	0.194	Apr 2025	-		0.194	Continuing	Continuing	-
Type I Training	PO	96CTG : Eglin AFB, FL	0.000	1.579	Jul 2023	1.611	Jul 2024	1.575	Jul 2025	-		1.575	Continuing	Continuing	-
Field Representative Hardware	C/Various	Various : Various	0.000	0.468	Nov 2022	0.482	Nov 2023	0.425	Nov 2024	-		0.425	Continuing	Continuing	-
Subtotal			0.000	7.979		8.027		7.768		-		7.768	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Engineering and Technical Support	RO	MITRE Corp : Bedford, MA	0.000	3.048	Oct 2022	3.119	Oct 2023	2.929	Oct 2024	-		2.929	Continuing	Continuing	-
Subtotal			0.000	3.048		3.119		2.929		-		2.929	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	94.528		94.265		90.510		-		90.510	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208006F / *Mission Planning Systems*	**Project (Number/Name)** 675380 / *Mission Planning Systems (MPS) Modernization*

Schedule chart covering FY 2023 through FY 2029 (quarters 1–4 each year):

- **Mission Planning Systems (MPS) Modernization**
  - CAF-GS Modernization Continuous Integration, Test, and Fielding
  - F-15 v6.1 Fielding
  - F-15 v6.1.200 Fielding
  - F-22 v14.3 Fielding
  - F-22 v14.4 Fielding
  - B-1 Release 12.0.200 Fielding
  - B-1 Release 14.0.0 Fielding
  - GM-SM Modernization Continuous Integration, Test, and Fielding
  - GM: Agile Global Mobility Rel 1.1.240
  - GM: Agile Global Mobility Rel 1.1.250
  - SM: CSAR Rel 2.0.012
  - SM: CSAR Rel 2.0.013
  - SM: CSAR Rel 2.0.014
  - SM: RC-135 Minimum Viable Product
  - SM: C2-ISR (RC-135) MVCR
  - MPS Core Mission Planning Agile Development, Integration, Test & Release
  - Complete IL 6 Production Environment & Integrate capabilities for RC-135 MVCR
  - Integrate additional capabilities for remaining C2-ISR aircraft

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024		
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208006F / Mission Planning Systems	Project (Number/Name) 675380 / Mission Planning Systems (MPS) Modernization		

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Mission Planning Systems (MPS) Modernization				
CAF-GS Modernization Continuous Integration, Test, and Fielding	1	2023	4	2029
F-15 v6.1 Fielding	1	2023	2	2023
F-15 v6.1.200 Fielding	1	2024	1	2024
F-22 v14.3 Fielding	2	2023	2	2023
F-22 v14.4 Fielding	1	2024	1	2024
B-1 Release 12.0.200 Fielding	1	2023	1	2023
B-1 Release 14.0.0 Fielding	2	2024	2	2024
GM-SM Modernization Continuous Integration, Test, and Fielding	1	2023	4	2029
GM: Agile Global Mobility Rel 1.1.240	1	2024	1	2024
GM: Agile Global Mobility Rel 1.1.250	4	2024	4	2024
SM: CSAR Rel 2.0.012	1	2024	1	2024
SM: CSAR Rel 2.0.013	2	2024	2	2024
SM: CSAR Rel 2.0.014	3	2024	3	2024
SM: RC-135 Minimum Viable Product	2	2024	4	2024
SM: C2-ISR (RC-135) MVCR	4	2024	2	2025
MPS Core Mission Planning Agile Development, Integration, Test & Release	1	2023	4	2029
Complete IL 6 Production Environment & Integrate capabilities for RC-135 MVCR	1	2024	4	2024
Integrate additional capabilities for remaining C2-ISR aircraft	4	2024	4	2025

PE 0208006F: *Mission Planning Systems*
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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0208007F *I Tactical Deception*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	32.343	26.533	0.539	0.000	0.539	0.553	0.563	0.584	0.595	Continuing	Continuing
674550: *Air Base Resiliency*	-	32.343	26.533	0.539	0.000	0.539	0.553	0.563	0.584	0.595	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Tactical Deception is a Service program to provide a suite of technologies that will enable the USAF to minimize, distort, or create signatures. This includes technologies to confuse or mislead all major categories of adversary sensors. These capabilities can reduce confidence in adversary assessments, exhaust intelligence enterprises, and disrupt targeting cycles. In addition, these technologies and tactics techniques and procedures (TTPs) can be employed across the competition continuum for deterrence or advantage in conflict. Tac-D, CISR also supports all activities and costs needed to support the Air Force to further these types of development projects, as well as, required program support costs (PSC).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0M was expended for civilian pay expenses in this program element, and in FY24 0M 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	34.574	26.533	0.538	0.000	0.538
Current President's Budget	32.343	26.533	0.539	0.000	0.539
Total Adjustments	-2.231	0.000	0.001	0.000	0.001
• 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	-0.965	0.000			
• SBIR/STTR Transfer	-1.266	0.000			
• Other Adjustments	0.000	0.000	0.001	0.000	0.001

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force			**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0208007F *I Tactical Deception*	

Congressional Add Details ($ in Millions, and Includes General Reductions)	**FY 2023**	**FY 2024**
Project: 674550: *Air Base Resiliency*		
Congressional Add: *Radar Modeling*	17.500	0.000
Congressional Add Subtotals for Project: 674550	17.500	0.000
Congressional Add Totals for all Projects	17.500	0.000

Change Summary Explanation

FY23 reduced by -$2.231M due to Reprogramming and Small Business Innovation Research (SBIR).

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Non-Kinetic Air Base Defense	14.843	26.533	0.539
Description: Provide non-kinetic air base defense capabilities to include military and civilian personnel to support planning, concept development, experimentation, and operational employment of emerging air base defense capabilities. Develops capabilities and TTPs to denied adversaries ability to develop accurate intelligence assessments and conduct effective intelligence, surveillance, reconnaissance, and Targeting.			
FY 2024 Plans: Continue non-kinetic Air Base Defense development, testing, and operational support. Complete initial phase 1 prototypes and begin phase 2 prototyping. Transition toward Program of Record.			
FY 2025 Plans: Ramp down non-kinetic Air Base Defense development, testing, and operational support due to higher AF priorities. Finalize development and delivery of phase 1 and 2 prototypes for field user evaluation. Begin technology maturation for part of phase 3 prototypes.			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding decreased due to higher AF priorities.			
Accomplishments/Planned Programs Subtotals	14.843	26.533	0.539

	FY 2023	**FY 2024**	
Congressional Add: Radar Modeling	17.500	0.000	
FY 2023 Accomplishments: Signature Management Congressional Add used for Technical Maturation Risk Reduction Contract to develop tactical deception assets.			

		FY 2023	**FY 2024**
Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024	

Appropriation/Budget Activity	**R-1 Program Element (Number/Name)**
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	PE 0208007F *I Tactical Deception*

	FY 2023	**FY 2024**
Radar Modeling Congressional Add used to develop models of Technical Deception Assets. ***FY 2024 Plans:*** N/A		
Congressional Adds Subtotals	17.500	0.000

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

Due to the level of classification of tactical deception efforts, additional details will be provided upon request through the appropriate forum.

E. Acquisition Strategy

FY24 plan is to develop contracts that will build out the family of systems to begin delivering kits to end users for initial testing and reporting. These deliveries to units will be tracked and reported to allow for continued end user notification to the acquisition office allowing for any required updating to individual technologies. PE 0208007F will use AFLCMC/XA IDIQ for one off prototyping and new contracts that will come with phase 3 technologies.

In FY25 Tactical Deception will continue working PEO designation and prepare to transition technologies to the PEO. Begin transition of mature/validated technologies to procurement and fielding.

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| Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | | | | | | | | | | | | | Date: March 2024 | | |

| Appropriation/Budget Activity
3600 / 7 | R-1 Program Element (Number/Name)
PE 0208007F / Tactical Deception | Project (Number/Name)
674550 / Air Base Resiliency |

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development Acoustics	C/CPAF	Various : Houghton, MI	-	2.718	Dec 2022	3.524	May 2024	-		-		-	Continuing	Continuing	-
TMRR Contract (XA)	C/CPFF	Various : Huntsville, AL	-	9.142	Jul 2023	4.945	Jan 2024	0.314	Jan 2025	-		0.314	Continuing	Continuing	-
Radar Modeling (XA)	SS/CPFF	Various : Los Angeles, CA	-	7.225	Jul 2023	-		-		-		-	Continuing	Continuing	-
Prototype SHO	C/TBD	Various : TBD	-	1.916	Apr 2023	3.000	Jun 2024	-		-		-	Continuing	Continuing	-
X-Hanger	MIPR	Various : Los Angeles, CA	-	0.253	Feb 2024	-		-		-		-	Continuing	Continuing	-
Product Development Mai Tai	Reqn	Various : Atlanta, GA	-	1.191	Jul 2023	5.000	Jun 2024	-		-		-	Continuing	Continuing	-
SR Prototype	MIPR	Various : Calumet, MI	-	2.100	Feb 2024	-		-		-		-	Continuing	Continuing	-
Rum Runner	TBD	Various : TBD	-	-		1.000	Aug 2024	-		-		-	Continuing	Continuing	-
CREED	TBD	Various : TBD	-	-		0.500	May 2024	-		-		-	Continuing	Continuing	-
Lemon Drop	Various	Not specified. : TBD	-	-		3.000	Jun 2024	-		-		-	Continuing	Continuing	-
Cosmo	TBD	Not specified. : TBD	-	-		1.416	Apr 2024	-		-		-	Continuing	Continuing	-
Subtotal			-	24.545		22.385		0.314		-		0.314	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Site Improvement	MIPR	Chicken Little : Eglin AFB, FL	-	2.500	Jan 2023	-		-		-		-	0.000	2.500	-
JCTD	MIPR	Army ERDC : Vicksburg, MS	-	0.000	Jan 2023	0.000	Jan 2024	0.000	Jan 2025	-		0.000	Continuing	Continuing	-
CAIAC Study	MIPR	Various : Fort Belvoir, VA	-	0.783	Dec 2022	-		-		-		-	0.000	0.783	-
SIBR Tax	TBD	Tax : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Subtotal			-	3.283		0.000		0.000		-		0.000	Continuing	Continuing	N/A

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208007F *I Tactical Deception*	**Project (Number/Name)** 674550 *I Air Base Resiliency*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test and Evaluation	MIPR	Chicken Little : Eglin AFB, FL	-	3.620	Dec 2022	2.100	Mar 2024	0.100	Jan 2025	-		0.100	Continuing	Continuing	-
Subtotal			-	3.620		2.100		0.100		-		0.100	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Administration and Advisory Services (A&AS)	MIPR	Various : Dayton/ WPAFB, OH	-	0.650	Aug 2023	1.100	Mar 2024	0.050	Jan 2025	-		0.050	Continuing	Continuing	-
X-Hanger (A&AS) Support	MIPR	Various : Washington D.C	-	0.174	Feb 2024	-		-		-		-	Continuing	Continuing	-
Program Management Administration (PMA)	Various	Various : WPAFB, OH	-	0.071	Dec 2023	0.948	Dec 2024	0.075	Jan 2026	-		0.075	Continuing	Continuing	-
Subtotal			-	0.895		2.048		0.125		-		0.125	Continuing	Continuing	N/A

Remarks

PMA: Other government costs (travel)

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	32.343	26.533	0.539	-	0.539	Continuing	Continuing	N/A

Remarks

Due to the level of classification of tactical deception efforts, additional details will be provided upon request through the appropriate forum.

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208007F *I Tactical Deception*	**Project (Number/Name)** 674550 *I Air Base Resiliency*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Non-Kinetic Air Base Defense Development																												
Non-Kinetic Defense Development				████	████	████	████	████	████	████	████	████	████	████	████	████	████	████	████	████	████	████	████	████	████			

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208007F *I Tactical Deception*	**Project (Number/Name)** 674550 *I Air Base Resiliency*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Non-Kinetic Air Base Defense Development				
Non-Kinetic Defense Development	2	2023	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0208064F *I OPERATIONAL HQ - CYBER*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	13.841	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13.841
676002: *Cyber Systems Modernization*	-	13.841	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	13.841
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
 In FY 2023, Project 676002, (Cyber Systems Modernization) was completed.

A. Mission Description and Budget Item Justification

Cyber Command and Control Mission System [C3MS] Mission Description: Provides the AFCYBER Commander with the tools necessary to effectively and efficiently plan, monitor, and execute missions in the cyber domain. This includes development and dissemination of Cyberspace Tasking Orders to ensure commander's intent is supported through the application of cyber forces using the latest intelligence. C3MS provides a common operational picture to maintain cyberspace threat activities and integrates cyberspace indications and warnings, analysis, and other actionable intelligence products into overall situational awareness, planning, and execution.

C3MS capabilities will fully transition to Joint Cyber Command and Control [JCC2]. All efforts support continuous development with focus on interoperability and integration into JCC2. C3MS will continue modernization efforts based on a backlog of validated requirements to automate battle management capabilities and provide comprehensive cyber situational awareness. Developmental Activities include: machine-to-machine interfaces to dynamically interoperate with Air Operations Center [AOC] systems, enabling the 616 OC to conduct Command and Control [C2] and Situational Awareness [SA] at the operational level, publish AF Cyber Tasking Orders [CTOs], and quickly facilitate collaboration and mutual situational awareness; capabilities to present weapon system operators with near-real-time force location, mission, effect, and linked information, including a standardized, dynamic, map-based, situational awareness interface to display, manipulate, and manage units, missions, network elements, and effects; and multi-level security capabilities to support full-spectrum operations.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M 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.

PE 0208064F: *OPERATIONAL HQ - CYBER*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0208064F *I OPERATIONAL HQ - CYBER*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	14.347	0.000	0.000	0.000	0.000
Current President's Budget	13.841	0.000	0.000	0.000	0.000
Total Adjustments	-0.506	0.000	0.000	0.000	0.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.506	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

Congressional Add Details ($ in Millions, and Includes General Reductions)	**FY 2023**	**FY 2024**
Project: 676002: *Cyber Systems Modernization*		
Congressional Add: *Command and Control of the Information Environment*	12.000	-
Congressional Add Subtotals for Project: 676002	12.000	-
Congressional Add Totals for all Projects	12.000	-

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Cyber Command and Control Mission System [C3MS] Modernization	1.841	0.000	0.000
Description: Perform development activities to automate processes and ingest & visualize data in support of Air Force specific cyber command and control requirements. Funding includes agile/continuous software development, test, and evaluation. **FY 2024 Plans:** N/A **FY 2025 Plans:** N/A **FY 2024 to FY 2025 Increase/Decrease Statement:** In FY 2023, Project 676002, (Cyber Systems Modernization) was completed.			
Accomplishments/Planned Programs Subtotals	1.841	0.000	0.000

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208064F *I OPERATIONAL HQ - CYBER*	

	FY 2023	**FY 2024**
Congressional Add: Command and Control of the Information Environment	12.000	-
FY 2023 Accomplishments: Next Generation Architecture - Execute accreditation activities to gain authorization to implement production instances in multi-domain environments (JWICS, SIPR, NIPR) - Migrate on-premises primary environment to Cloud and instantiate JWICS environment with additional work for full production deployment - Initiate, investigate, and scope effort necessary to refactor existing architecture to cloud native form Mis/Disinformation / Non-Lethal Integration - Integrate Cyber/Cyber terrain data to inform non-lethal targeting - Integrate Security Cooperation Engagement data to enable country-level campaigning and target-audience messaging efforts - Identify, develop, and implement technologies applicable to mis/disinformation Joint Assessments - Expand current effort with Joint Staff J5 to develop requirements and implement capabilities supporting global campaign assessments - Identify, scope, and create an interface to ingest additional intelligence and raw reporting information to assist in qualification and measurement during assessments - Discover features to support campaign planning based on assessments generated within C2IE		
Congressional Adds Subtotals	12.000	-

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 834320: *C3 Countermeasures*	8.417	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	8.417

Remarks

E. Acquisition Strategy

The Cyber Command and Control Mission System (C3MS) weapon system program office will lead development of new capabilities to provide automated battle management capabilities to plan, monitor, and execute missions in the cyber domain. The program office will develop solutions based on a backlog of validated requirements. To meet these requirements, the C3MS program office will utilize various contractual vehicles when necessary, such as Government-Wide Acquisition

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
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Contract, Solutions for Enterprise-Wide Procurement IV, and General Services Administration Federal Supply Schedules, Network-Centric Solutions, Responsive Cyber Indefinite Delivery/Indefinite Quantity (IDIQ), Blanket Ordering Agreements (BOA) and competitive contract (if required). The use of multiple-award contractual vehicles will provide a wide range of commercially-available products and services that will be able to meet emerging requirements related to Air Force Cyber Command and Control.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208064F *I OPERATIONAL HQ - CYBER*	**Project (Number/Name)** 676002 *I Cyber Systems Modernization*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C3MS Software Development	Various	Multiple : Various	-	1.788	Feb 2023	-		-		-		-	0.000	1.788	1.788
Congressional Add: Command and Control of the Information Environment	MIPR	Multiple : Various	-	12.000	May 2023	-		-		-		-	0.000	12.000	12.000
Subtotal			-	13.788		-		-		-		-	0.000	13.788	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C3MS Software Test and Evaluation	Various	Multiple : Various	-	0.053	Oct 2022	-		-		-		-	0.000	0.053	0.053
Subtotal			-	0.053		-		-		-		-	0.000	0.053	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	13.841	-	-	-	-	0.000	13.841	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208064F / *OPERATIONAL HQ - CYBER*	**Project (Number/Name)** 676002 / *Cyber Systems Modernization*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Automated Battle Management and Cyber SA																												
Architecture and Modeling Support	██████																											
Software Development	████████																											
Test and Evaluation	██████																											
Congressional Add: C2IE																												
Software Development				████████																								

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208064F *I OPERATIONAL HQ - CYBER*	**Project (Number/Name)** 676002 *I Cyber Systems Modernization*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Automated Battle Management and Cyber SA				
Architecture and Modeling Support	1	2023	4	2023
Software Development	1	2023	1	2024
Test and Evaluation	1	2023	4	2023
Congressional Add: C2IE				
Software Development	3	2023	2	2024

Note
 FY23 C3MS development contract period of performance ends 1Q FY24.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					PE 0208087F *I Distributed Cyber Warfare Operations*							

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	69.414	50.122	29.996	0.000	29.996	33.060	43.696	45.168	35.297	Continuing	Continuing
674543: *AF Offensive Cyber Operations*	-	69.414	50.122	29.996	0.000	29.996	33.060	43.696	45.168	35.297	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2025, PE 0305881F, (Rapid Cyber Acquisition), Project 670374, (Electronic Combat Support C3 Protection/Multi-Mission, Technology and Support) efforts were transferred to PE 0208087F, (Distributed Cyber Warfare Operations), Project 674543, (AF Offensive Cyber Operations), in order to consolidate Air Force Offensive Cyber development.

A. Mission Description and Budget Item Justification

Distributed Cyber Warfare Operations (DCWO) consists of a portfolio of programs and projects that conduct Research, Development, Testing and Evaluation (RDT&E) leading to operations-ready offensive cyberspace capabilities (OCO). This includes the transition of efforts from laboratory, industry, and academia via studies, accelerated prototyping, and technology demonstrations. DCWO effectiveness comes from balancing acquisition related RDT&E efforts in three Air Force (AF) offensive cyber operations (OCO) mission threads (Off Network, Telephony Network, and the associated Infrastructure that propel the Off Network and Telephony Network mission threads) across three OCO-related subsystems and technical enablers (Platforms, Access, and Cyber Weapons) that enable products, services, and systems in the DCWO portfolio. The resulting DCWO capabilities provide cyber effects to Combatant Commanders and other offensive cyber customers to enable air superiority.

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. In FY23 $1.859M was expended for civilian pay expenses in this program element, and in FY24 $2.250M is forecasted for civilian pay expenses in this program element.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0208087F *I Distributed Cyber Warfare Operations*

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	76.425	50.122	24.521	0.000	24.521
Current President's Budget	69.414	50.122	29.996	0.000	29.996
Total Adjustments	-7.011	0.000	5.475	0.000	5.475
• 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	-4.600	0.000			
• SBIR/STTR Transfer	-2.411	0.000			
• Other Adjustments	0.000	0.000	5.475	0.000	5.475

Change Summary Explanation

The FY23 funding request decreased by $4.600M due to below threshold reprogramming.

The FY25 funding request decreased by $0.006M due to the transfer to PE 0306250JCY, Cyber Operations Technology Support, Project CY06, Cyber Weapons/ Tools: AF Payloads, in order to satisfy Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to United States Cyber Command (USCYBERCOM).

The FY25 funding request increased by $9.703M due to PE 0305881F, (Rapid Cyber Acquisition), Project 670374, (Electronic Combat Support C3 Protection/ Multi-Mission, Technology and Support) efforts transferring to PE 0208087F, Distributed Cyber Warfare Operations), Project 674543, (AF Offensive Cyber Operations), in order to consolidate Air Force Offensive Cyber development.

The FY25 funding request increased by $4.600M due to the standup of Mansfield, OH ANG 179 Cyber Wing.

The FY25 funding request decreased by $8.882M to account for the availability of prior year execution balances.

The FY25 funding request increased by $0.060 due to inflation.

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: AF Cyber Mission Platform (CMP) *Description:* Platform capabilities primarily consist of the USAF Cyber Mission Platform (CMP) program. CMP is an ACAT III program of record that provides a modular, configurable framework for cyberspace operations.	8.300	9.263	0.000	0.000	0.000

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
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C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
The CMP framework is currently being applied to offensive cyber operations and may also be applied to defensive cyber operations in the future as prioritized by CMP stakeholders. CMP uses an Agile acquisition strategy that allows the USAF to dynamically prioritize the delivery of operational capabilities. The CMP program develops capability enhancements on a regular cadence and delivers them to operations based on operational need and acceptance timelines. The program office will posture to work RDT&E efforts on core CMP capabilities until the USCYBERCOM Joint Common Access Platform (JCAP) is fielded for operations. Moreover, the program office will continue to conduct DCWO development activities to integrate unique, Air Force-specific, platform related capabilities in support of cyber missions. Relevant components of the former Converging Universal Battlespace Enabler (CUBE) architecture will continue as required by DCWO customers. *FY 2024 Plans:* Continue CMP enhancements to satisfy prioritized customer requirements. - Continue to execute a continuous delivery program. - Continue to decompose the CUBE architecture into more flexible and manageable modular components to better support multiple DCWO customers and their associated missions. - Transition CMP to USCYBERCOM JCAP per USCYBERCOM direction. *FY 2025 Base Plans:* FY 2025 Base Plans: Will transfer remaining essential products of the AF CMP major thrust within PE 0208087F, (Distributed Cyber Warfare Operations), Project 674543, (AF Offensive Cyber Operations) to new FY 2025 DCWO major thrust. Within the new DCWO major thrust, the Platform OCO product line (formerly the AF CMP thrust) will consist of the Off Network, Telephony Network, and Infrastructure mission thread portfolios. *FY 2025 OCO Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreases due to transfer of AF CMP within PE 0208087F, (Distributed Cyber Warfare Operations), Project 674543, (AF Offensive Cyber Operations) to the new FY 2025 DCWO major thrust.					
Title: Access/Infrastructure *Description:* Access and Infrastructure capabilities provide connectivity and required infrastructure to conduct OCO. USAF OCO access and infrastructure solutions are developed and fielded through the DCWO program	22.735	40.859	0.000	0.000	0.000

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
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C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
office and also leverage industry and other Government/non-Government mission partner applications and programs. ***FY 2024 Plans:*** Continue to develop and field Air Force-unique connectivity and required infrastructure across multiple spectrums leveraging industry and other Government/non-Government mission partner applications and programs. ***FY 2025 Base Plans:*** Will transfer the Access/Infrastructure major thrust within PE 0208087F, (Distributed Cyber Warfare Operations), Project 674543, (AF Offensive Cyber Operations) to the new FY 2025 DCWO major thrust. Within the new DCWO major thrust, Access OCO product line (formerly the Access/Infrastructure thrust) will consist of the Off Network, Telephony Network, and Infrastructure mission thread portfolios. ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreases due to transfer of Access/Infrastructure major thrust within PE 0208087F, (Distributed Cyber Warfare Operations), Project 674543, (AF Offensive Cyber Operations) to the new FY 2025 DCWO major thrust.					
Title: Payloads ***Description:*** Payloads and Weapons capabilities consist of cyber tools and payloads leveraging industry and other Government/non-Government mission partner-developed applications and programs. In FY 2024, 37.936M from PE 0208087F, Distributed Cyber Warfare Operations, Project 674543, AF Offensive Cyber Operations efforts for foundational tools were transferred to PE 0306250JCY, Cyber Operations Technology Support, Project CY06, Cyber Weapons/Tools: AF Payloads, in order to satisfy Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to USCYBERCOM ***FY 2024 Plans:*** Currently no FY24 funding/plans ***FY 2025 Base Plans:***	38.379	0.000	0.000	0.000	0.000

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0208087F *I Distributed Cyber Warfare Operations*		

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Currently no FY25 funding/plans					
FY 2025 OCO Plans: N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: N/A					
Title: DCWO (Formerly AF Cyber Mission Platform, Access/Infrastructure, and Payloads)	-	0.000	29.996	0.000	29.996
Description: DCWO portfolio consists of a variety of capabilities previously described as Platform, Access, and Payloads products and services prior to FY 2025. In FY 2025, DCWO programs and projects are managed and delivered in a more cohesive and integrated fashion more closely aligned to OCO organizations executing operations across applicable AF OCO mission threads (Off Network, Telephony Network, and associated Infrastructure that enables the Off network and Telephony network mission threads). Therefore, the new DCWO major thrust will comprise the Platform (formerly the AF CMP thrust), Access (formerly the Access/Infrastructure thrust), and Cyber Weapons (formerly the Payloads thrust) OCO-related product lines as subsystems and technical enablers that will each consist of the Off Network, Telephony Network, and Infrastructure mission thread portfolios. DCWO products and services are managed, developed, fielded, and sustained through the AF Life Cycle Management Center, Cyber Warfare Mission Systems (AFLCMC/HNCO) Program Management Office (PMO). *FY 2024 Plans:* The DCWO major thrust existed in the AF CMP and Access/Infrastructure major thrusts in FY 2024. *FY 2025 Base Plans:* Platforms (Formerly the AF CMP thrust) -Off-network: Will continue to develop and field SPECTRAL RAPTOR capabilities to enable Cyber Enabled Air Superiority (CEAS) -Telephony Network: Will continue to develop and integrate Network Attack System (NAS) capabilities and develop the LOCUTUS mission planning capability -Infrastructure: Will continue to develop and field Air Force-unique connectivity and associated Infrastructure products and services in support of Off Network and Telephony Network mission and capability requirements (i.e., Coral Dragon/Dodgeball, Secure View (SV), Cross-Domain Shared Services Framework (CDSSF) Access (Formerly the Access/Infrastructure thrust)					

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	**Date:** March 2024
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C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
-Off-network: Will continue to develop and field SPECTRAL RAPTOR capabilities to enable CEAS -Telephony Network: Will continue to develop and integrate Dark Nebula (DANE) capabilities -Infrastructure: Will continue to develop and field Air Force-unique connectivity and associated Infrastructure products and services in support of Off Network and Telephony Network mission and capability requirements (i.e., Kraken, SV, CDSSF) Cyber Weapons (Formerly the Payloads thrust) -Infrastructure: Will continue to develop and field Air Force-unique connectivity and associated Infrastructure products and services in support of Off Network and Telephony Network mission and capability requirements (i.e., Wicked Wizard (WW), SV, CDSSF) ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A					
Accomplishments/Planned Programs Subtotals	69.414	50.122	29.996	0.000	29.996

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 834320: *C3 Countermeasures*	29.051	30.671	25.395	-	25.395	30.172	31.892	33.355	34.016	0.000	214.552

Remarks

E. Acquisition Strategy

The AFLCMC/HNCO PMO will utilize Concept, Development, Risk Management, Production, or Deployment Plans as part of a streamlined approach to DCWO acquisition planning. All plans will contain sufficient information for the Milestone Decision Authority (MDA) to determine readiness to enter into the applicable phase of the acquisition process. DCWO will execute under both new and existing contractual vehicles, such as Government-Wide Acquisition Contract (GWAC) vehicles (Alliant, Encore II, Solutions for Enterprise-Wide Procurement IV (SEWP IV)), General Services Administration (GSA) Federal Supply Schedules, and a Cyber Indefinite Delivery Indefinite Quantity (IDIQ) contract. The use of multiple-award contractual vehicles will provide a wide range of commercially-available products and services that should meet many requirements related to Offensive Cyberspace Operations. These multiple-award contractual vehicles have already met the statutory requirements of the

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Competition in Contracting Act (CICA), which requires a fair opportunity to all contract holders, in accordance with Federal Acquisition Regulation (FAR) 16.505, unless an exception to fair opportunity applies.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0208087F / Distributed Cyber Warfare Operations						**Project (Number/Name)** 674543 / AF Offensive Cyber Operations		

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
DCWO	Various	Various : Various : TBD	-	0.000	Nov 2022	0.000	Nov 2023	15.416	Oct 2024	-		15.416	Continuing	Continuing	-
Access	Various	Various : Various : TBD	-	7.640	Nov 2022	7.921	Nov 2023	-		-		-	Continuing	Continuing	-
Platforms	Various	Various : Various : TBD	-	18.025	Nov 2022	27.661	Nov 2023	-		-		-	Continuing	Continuing	-
Payloads Development	Various	Various : Various : TBD	-	31.420	Nov 2022	0.000	Nov 2023	-		-		-	Continuing	Continuing	-
Subtotal			-	57.085		35.582		15.416		-		15.416	Continuing	Continuing	N/A

Support ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
DCA-AF Offensive Cyber Operations Development	Allot	USAF Hanscom AFB, MA : TBD	-	2.400	Oct 2022	2.200	Oct 2023	2.210	Oct 2024	-		2.210	Continuing	Continuing	-
Subtotal			-	2.400		2.200		2.210		-		2.210	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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	PO	47 CTS San Antonio, TX : TBD	-	2.827	Dec 2022	2.590	Dec 2023	2.360	Dec 2024	-		2.360	Continuing	Continuing	-
Subtotal			-	2.827		2.590		2.360		-		2.360	Continuing	Continuing	N/A

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Management Services ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
PSC - Acquisition Support (Various)	Various	Various San Antonio, TX : TBD	-	7.102	Nov 2022	9.750	Nov 2023	10.010	Nov 2024	-		10.010	Continuing	Continuing	-
Subtotal			-	7.102		9.750		10.010		-		10.010	Continuing	Continuing	N/A

	Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	69.414		50.122		29.996		-		29.996	Continuing	Continuing	N/A

Remarks

PE 0208087F: *Distributed Cyber Warfare Operations*
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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force			**Date:** March 2024
Appropriation/Budget Activity 3600 / 7		**R-1 Program Element (Number/Name)** PE 0208087F / *Distributed Cyber Warfare Operations*	**Project (Number/Name)** 674543 / *AF Offensive Cyber Operations*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
DCWO (Formerly AF Cyber Mission Platform, Access/Infrastructure, and Payloads)																												
Platform Off Network Capabilities									███████████████████████████████████████																			
Platform Telephony Network Capabilities									███████████████████████████████████████																			
Platform Infrastructure Capabilities									███████████████████████████████████████																			
Access Off Network Capabilities									███████████████████████████████████████																			
Access Telephony Network Capabilities									███████████████████████████████████████																			
Access Infrastructure Capabilities									███████████████████████████████████████																			
Cyber Weapons Infrastructure Capabilities									███████████████████████████████████████																			
AF Cyber Mission Platform (elements moved to "DCWO - On Network" in FY25)																												
CMP	███████████████████																											
Access/Infrastructure (moved to "DCWO" - Off Network"/"TelephonyNetwork"/"Infrastructure" in FY25)																												
Spectral Raptor	███████████████████																											
Infrastructure/Chimera	███████████████████																											
Infrastructure/Cross Domain	███████████████████																											
Telephony Network Access/Network Attack	███████████████████																											
Data Analytics/Kraken	███████████████████																											
(moved to "DCWO" - "Cyber Weapons" in FY25)																												
Neptune Rumble	███████████																											

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208087F / *Distributed Cyber Warfare Operations*	**Project (Number/Name)** 674543 / *AF Offensive Cyber Operations*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
DCWO (Formerly AF Cyber Mission Platform, Access/Infrastructure, and Payloads)				
Platform Off Network Capabilities	1	2025	4	2029
Platform Telephony Network Capabilities	1	2025	4	2029
Platform Infrastructure Capabilities	1	2025	4	2029
Access Off Network Capabilities	1	2025	4	2029
Access Telephony Network Capabilities	1	2025	4	2029
Access Infrastructure Capabilities	1	2025	4	2029
Cyber Weapons Infrastructure Capabilities	1	2025	4	2029
AF Cyber Mission Platform (elements moved to "DCWO - On Network" in FY25)				
CMP	1	2023	4	2024
Access/Infrastructure (moved to "DCWO" - Off Network"/"TelephonyNetwork"/"Infrastructure" in FY25)				
Spectral Raptor	1	2023	4	2024
Infrastructure/Chimera	1	2023	4	2024
Infrastructure/Cross Domain	1	2023	4	2024
Telephony Network Access/Network Attack	1	2023	4	2024
Data Analytics/Kraken	1	2023	4	2024
(moved to "DCWO" - "Cyber Weapons" in FY25)				
Neptune Rumble	1	2023	4	2023

Note

 Notes:

PE 0208087F: *Distributed Cyber Warfare Operations*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208087F *I Distributed Cyber Warfare Operations*	**Project (Number/Name)** 674543 *I AF Offensive Cyber Operations*

Will consolidate products and services previously developed under two AF CMP and Access/Infrastructure major thrusts within PE 0208087F, (Distributed Cyber Warfare Operations), Project 674543, (AF Offensive Cyber Operations) to the new DCWO major thrust in FY25. The new DCWO major thrust will comprise the Platform (formerly the AF CMP thrust), Access (formerly the Access/Infrastructure thrust), and Cyber Weapons (formerly the Payloads thrust) OCO-related product lines as subsystems and technical enablers that will each consist of the Off Network, Telephony Network, and Infrastructure mission thread portfolios. NOTE. Payloads will be renamed to Cyber Weapons as outlined by Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to USCYBERCOM.

DCWO
- Efforts are classified and information can be provided on a need-to-know basis
- Balances acquisition related RDT&E efforts in three AF OCO mission threads (Off Network, Telephony Network, and the associated Infrastructure that propel the Off Network and Telephony Network mission threads) across three OCO-related subsystems/technical enablers (Platforms, Access, and Cyber Weapons) that enable products, services, and systems in the DCWO portfolio
- Efforts include: 1. Off-network and telephony network capabilities enabling OCO platforms (i.e., SPECTRAL RAPTOR, CEAS, NAS, LOCUTUS); 2. Off-network and telephony network capabilities enabling OCO access (i.e., SPECTRAL RAPTOR, CEAS, DANE), and various Infrastructure systems across the Platforms, Access, and Cyber Weapons subsystems/technical enablers (i.e., Coral Dragon/Dodgeball, KRAKEN, WICKED WIZARD, SV, and CDSSF)

PE 0208087F: *Distributed Cyber Warfare Operations*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0208088F *I AF Defensive Cyberspace Operations*							

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	16.220	113.064	113.218	0.000	113.218	131.691	147.758	172.286	175.689	Continuing	Continuing
677820: *Computer Security RDTE: Firestarter*	-	7.720	7.068	7.237	0.000	7.237	7.419	7.570	7.722	7.875	Continuing	Continuing
677821: *Cyberspace Vulnerability Assessment*	-	8.500	6.618	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.118
677822: *Cyber Defense Analysis*	-	0.000	0.301	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.301
677823: *AFCERT*	-	0.000	99.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	99.077
677824: *677824 - Integrated Defensive Cyberspace System*	-	0.000	0.000	105.981	0.000	105.981	124.272	140.188	164.564	167.814	Continuing	Continuing

A. Mission Description and Budget Item Justification

AF Defensive Cyberspace Operations (AF DCO) allows the Department of the Air Force (DAF) to keep pace with the ever-evolving threats from the operational (cyber) environment. AF DCO develops capabilities that provide the Department of the Air Force increased assurance in prosecuting air campaigns through enhanced situational awareness and cyber defense of the systems and assets required to enable the movement of forces.

AF DCO is building an integrated architecture that extends cyber defense to, and integrates data from, information systems, mission systems and control systems relevant to air campaigns.   The Integrated Defensive Cyberspace System (IDCS) will unify the missions of network defense and cyber protection teams, allowing them to conduct cyber missions from the same system with shared, mission-relevant data.

IDCS safeguards Air Force Information Network (AFIN) and Department of Defense (DoD) network enclaves including their associated computer systems, software applications and sensitive operational information against unauthorized access, intrusion, data exfiltration, corruption, and/or destruction. Legacy system modernization activities have been combined into IDCS (BPAC 677824). The Firestarter effort will continue to be funded in BPAC 677820. Firestarter capabilities will be incrementally integrated to be compatible with and operate within the IDCS. IDCS continually improves its capabilities through modern software delivery practices: continuous research and development (R&D), testing, fielding, and modification based on operational feedback.

IDCS is operated by the DAF Total Force, including Active Duty (AD), Air National Guard (ANG), and Air Force Reserve Command (AFRC) Airmen. IDCS enables rapid deployment of defensive cyber sensor capabilities while disrupting bad actors from exploiting critical vulnerabilities by developing and employing both automated decision making (ADM) and human/machine teaming (HMT) with trained defensive cyber operators. IDCS supports both enterprise (fixed) and edge/mobile use cases and allows the DAF to execute the Cyberspace Vulnerability Assessment/Hunter (CVA/H), Air Force Cyber Defense (ACD), and Cyber Defense Analysis (CDA) missions.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	

IDCS addresses a critical capability gap identified by the Secretary of the Air Force (SecAF) - the lack of a synchronized, enterprise-level approach to mitigate cyberspace vulnerabilities related to mission performance and/or mission assurance. Failing to address this gap will hinder the DAF ability to project Air Power and dominate in a fight against near-peer adversaries.

IDCS integrates with, and makes its data available to, the Department of the Air Force (DAF) Data Fabric, Joint Cyberspace Warfighting Architecture (JCWA) and the Advanced Battle Management System (ABMS). IDCS provides increased visibility into health and readiness of cyberspace systems for both local and enterprise commanders.

Activities also include various Advisory and Assistance Services (A&AS) and Program Management Administration (PMA) activities to support the aforementioned development efforts.

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. In FY23 $0.457M was expended for civilian pay expenses in this program element, and in FY24 $4.053M is forecasted for civilian pay expenses in this program element.

In FY25, PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT efforts were transferred to PE 0208088F, AF Defensive Cyberspace Operations, Project 677824, Integrated Defensive Cyber System, in order to distinguish IDCS from previous efforts.

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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	16.809	113.064	126.271	0.000	126.271
Current President's Budget	16.220	113.064	113.218	0.000	113.218
Total Adjustments	-0.589	0.000	-13.053	0.000	-13.053
• 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	-0.589	0.000			
• Other Adjustments	0.000	0.000	-13.053	0.000	-13.053

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 677820: *Computer Security RDTE: Firestarter*		
Congressional Add: *Autonomous Satellite Cybersecurity*	7.720	0.000
Congressional Add Subtotals for Project: 677820	7.720	0.000
Congressional Add Totals for all Projects	7.720	0.000

<u>**Change Summary Explanation**</u>

In FY24, the DAF added $105.759M to develop IDCS which will defend AF networks, control systems, and mission systems against more complex and capable cyber threats from near-peer adversaries and other state actors focusing initially on INDOPACOM defense.

FY25 funding was reduced by $13.053M due to higher OSD and AF priorities.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024	

Appropriation/Budget Activity 3600 I 7					R-1 Program Element (Number/Name) PE 0208088F I AF Defensive Cyberspace Operations				Project (Number/Name) 677820 I Computer Security RDTE: Firestarter		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
677820: Computer Security RDTE: Firestarter	-	7.720	7.068	7.237	0.000	7.237	7.419	7.570	7.722	7.875	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Firestarter program provides newly improved capabilities and technical transition opportunities for Cyber Defense and Information Assurance (IA) technologies and tools needed to defend Air Force Command, Control, Communications, Computer, and Intelligence (C4I) systems from cyber attacks, while ensuring recovery in the event of an attack. 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 in response to evolving threats and changes to 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 & situational awareness, persistent network operations, as well as decision support, recovery, and digital forensics. Current Air Force systems, such as the AFNET NIPRNet Gateways, SIPRNet Modernization program, and Host Based Security System leverage this technology to meet their information assurance and defensive cyberspace needs/requirements.

Firestarter utilizes cyber and IA technology investments by US Cyber Command, the Defense Advanced Research Projects Agency (DARPA), the National Security Agency (NSA), Director of National Intelligence (DNI), Intelligence Advanced Research Projects Activity (IARPA), and the Department of Homeland Security (DHS), and various government research laboratories, to jump-start its development of solutions to existing Air Force cyber and IA requirements. This program supports AF Cyberspace strategic direction in support of Cyber Defense which provides capabilities to 16th AF, as AF component to US Cyber Command (USCYBERCOM), Defense Information Systems Agency (DISA), National Security Agency (NSA), and other services to ensure Global Information Grid (GIG) cyber and IA requirements are being met. Activities performed include those designed to identify, analyze, test, rapidly acquire, and integrate emerging IA and cyber technology and defensive cyberspace weapons systems and capabilities into all regions of the GIG - terrestrial, airborne, and space systems. In addition, this effort will support implementation of DoD Enterprise-wide IA & Computer Network Defense (CND) Solutions Steering Group (ESSG) solutions.

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. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025
Title: Firestarter	0.000	7.068	7.237

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677820 *I Computer Security RDTE: Firestarter*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Description: To provide newly improved capabilities and technical transition opportunities for Cyber Defense and IA technologies and tools needed to defend Air Force Command, Control, Communications, Computer, and Intelligence (C4I) systems from cyber attacks, while ensuring recovery in the event of an attack. *FY 2024 Plans:* - Continue to perform incident response via remote analysis of end points - Continue to conduct detection, interception, and analysis of advanced malware - Continue to perform detection and eradication of stealth dormant implants - Continue to develop influence capabilities over adversary perceptions of blue cyber assets - Continue to intercept of malicious code over covert channels - Continue to enhance cyber hardening of Industrial Control Systems (ICS) and Supervisory Control and Data Acquisition (SCADA) infrastructure - Continue to research cyber defense for 5G protocol infrastructure and devices - Continue to research cyber defense of space-born assets - Continue to mature and implement Artificial Intelligence and Machine Learning (AI/ML) systems for Cyber Mission Assurance - Continue to adapt technologies in all of the above areas for joint distribution and sustainment via Iron Bank (DoD's cyber capability repository) *FY 2025 Plans:* - Will perform incident response via remote analysis of end points - Will conduct detection, interception, and analysis of advanced malware - Will perform detection and eradication of stealth dormant implants - Will develop influence capabilities over adversary perceptions of blue cyber assets - Will intercept of malicious code over covert channels - Will enhance cyber hardening of ICS/SCADA infrastructure - Will research cyber defense for 5G protocol infrastructure and devices - Will research cyber defense of space-born assets - Will mature and implement AI/ML systems for Cyber Mission Assurance - Will adapt technologies in all of the above areas for joint distribution and sustainment via Iron Bank (DoD's cyber capability repository) *FY 2024 to FY 2025 Increase/Decrease Statement:* The increase from FY24 to FY25 is an inflationary adjustment.			
Accomplishments/Planned Programs Subtotals	0.000	7.068	7.237

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677820 *I Computer Security RDTE: Firestarter*

	FY 2023	**FY 2024**
Congressional Add: Autonomous Satellite Cybersecurity	7.720	0.000
FY 2023 Accomplishments: - Continue to research and develop new methods of autonomous cybersecurity and the applications of such onto satellites for the purpose of securing missions from cyber-attack in the space domain **FY 2024 Plans:** N/A		
Congressional Adds Subtotals	7.720	0.000

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

Firestarter conducts late stage Science and Technology (S&T) for tech demo and tech transition to warfighter employment. All contracts within this project are awarded using full and open competition and utilize evolutionary capability and incremental development. Where appropriate, collaborative efforts are conducted with services and agencies within the DAF to result in more robust and cost effective solutions. Contracting activities are primarily done through other agencies when deemed more advantageous. All aspects of the Firestarter project are managed by the Air Force Research Laboratory.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity 3600 I 7	R-1 Program Element (Number/Name) PE 0208088F I AF Defensive Cyberspace Operations	Project (Number/Name) 677820 I Computer Security RDTE: Firestarter

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Firestarter Development	C/CPFF	Various : Various	-	0.000	Jan 2023	4.650	Jan 2024	4.766	Jan 2025	-		4.766	Continuing	Continuing	9.401
Firestarter Integration	C/CPFF	Various : Various	-	0.000	Jan 2023	1.318	Jan 2024	1.347	Jan 2025	-		1.347	Continuing	Continuing	2.665
Congressional Add: Autonomous Satellite Cybersecurity	C/Various	Various : Various	-	7.720	Mar 2023	-		-		-		-	Continuing	Continuing	8.000
Subtotal			-	7.720		5.968		6.113		-		6.113	Continuing	Continuing	N/A

Remarks

Multiple contractors and multiple universities reflect on-going efforts with over a dozen contractors and universities. Each has a different contract date depending on when that particular contract was awarded.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Firestarter Testing	C/CPFF	Various : Various	-	0.000	Jan 2023	1.100	Jan 2024	1.124	Jan 2025	-		1.124	Continuing	Continuing	2.224
Subtotal			-	0.000		1.100		1.124		-		1.124	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	7.720	7.068	7.237	-	7.237	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677820 *I Computer Security RDTE: Firestarter*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Firestarter																												
Maturation of Cyber Defense Capabilities for Transition to Operations																												
Congressional Add: Autonomous Satellite Cybersecurity																												
Research and develop new methods of autonomous satellite cybersecurity																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677820 *I Computer Security RDTE: Firestarter*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Firestarter				
Maturation of Cyber Defense Capabilities for Transition to Operations	1	2023	4	2028
Congressional Add: Autonomous Satellite Cybersecurity				
Research and develop new methods of autonomous satellite cybersecurity	3	2023	1	2024

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*			**Project (Number/Name)** 677821 *I Cyberspace Vulnerability Assessment*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
677821: *Cyberspace Vulnerability Assessment*	-	8.500	6.618	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.118
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Beginning in FY25, continuation of this work is described in BPAC 677824. Funding in this BPAC contributes to the development of software and related activities in support of the creation of an Integrated Defensive Cyberspace system.

The Cyberspace Vulnerability Assessment/Hunter (CVA/H) weapon system provides Air Force Cyber Command (AFCYBER) and Combatant Commanders additional mobile precision in addition to currently fielded protection capabilities to identify, pursue, and mitigate cyberspace threats. The CVA/H weapon system performs defensive sorties world-wide via remote or on-site access. CVA/H executes Hunter missions on AF and DoD networks & systems. Hunter operations characterize and then eliminate threats for the purpose of mission assurance. The Hunter mission focuses on the capability to find, fix, track, target, engage, and assess (F2T2EA) the advanced persistent threat (APT). This effort funds development efforts to enhance command and control situational awareness and to expand the capability of the current weapon system to meet scope and scale of the USCYBERCOM directed Cyber Protection Teams and AF Mission Defense Teams.

Activity in this BPAC also supports development of enhancements to legacy DCO weapon systems, as needed, to support current operations and facilitate the transition of legacy capabilities to the IDCS described more fully in BPAC 677824.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.457M was expended for civilian pay expenses in this BPAC, and in FY24 $0.000M is forecasted for civilian pay expenses in this BPAC.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: CVA/H Development	8.500	6.618	0.000
Description: Development and integration of solutions supporting defensive cyber modernization in the area of DCO capabilities and technologies to meet capability gaps required by Mission Defense Teams. *FY 2024 Plans:* - Continue to develop modifications to the CVA/H weapon system based on AF operational cyber needs. *FY 2025 Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:*			

PE 0208088F: *AF Defensive Cyberspace Operations*
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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677821 *I Cyberspace Vulnerability Assessment*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
In FY25, PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT efforts were transferred to PE 0208088F, AF Defensive Cyberspace Operations, Project 677824, Integrated Defensive Cyber System, in order to distinguish IDCS from previous efforts.			
Accomplishments/Planned Programs Subtotals	8.500	6.618	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 834320: *C3 Countermeasures*	82.029	89.455	43.780	-	43.780	26.420	37.510	57.782	57.213	Continuing	Continuing

Remarks

D. Acquisition Strategy

Funding in BPAC 677821 contributes to the IDCS and as such is accomplished under the same Acquisition Strategy described in BPAC 677824.

Acquisition Strategy for the IDCS employs the Software Acquisition Pathway defined in DoDI 5000.87 and multiple software development providers. IDCS will be highly integrated with Joint Cyber Warfighting Architecture (JCWA) and Command, Control, Communications and Battle Management (C3BM)/Advanced Battle Management System (ABMS), leveraging this work to complement DAF investments in Defensive Cyber. IDCS will deliver new software capabilities through a continuous integration, continuous delivery pipeline built on enterprise offerings. IDCS will employ an agile development process to deliver incremental capabilities at the speed required to counter the emerging and persistent cyber threat. IDCS will integrate commercial off the shelf, Government off the shelf and open source software capabilities as appropriate to achieve an effective, efficient mission capability.

IDCS will procure software development capacity through various existing and new contractual vehicles. Contract sources include Government-Wide Acquisition Contracts (GWACs) such as Alliant, Encore II, NASA Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration (GSA) Federal Supply Schedules. IDCS will also use Small Business Innovative Research (SBIR) and Air Force Research Laboratory (AFRL) contracts, Federally Funded Research and Development Contractors (FFRDCs), Advisory and Assistance Services (A&AS) contracts, and support from Test and Evaluation Enterprises. Wherever possible IDCS will use competitive contracts and task orders to ensure cost efficiency and industry engagement.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677821 *I Cyberspace Vulnerability Assessment*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CVA/H Development	Various	Various : Various	-	6.447	Jan 2023	6.618	Jan 2024	-		-		-	0.000	13.065	13.044
		Subtotal	-	6.447		6.618		-		-		-	0.000	13.065	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Support	MIPR	47 Test Squadron : Lackland AFB, TX	-	1.596	Oct 2022	-		-		-		-	0.000	1.596	1.596
		Subtotal	-	1.596		-		-		-		-	0.000	1.596	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CVA/H Direct Cite Authority Civilian Pay	TBD	USAF : Hanscom AFB, MA	-	0.457	Oct 2022	-		-		-		-	0.000	0.457	0.787
		Subtotal	-	0.457		-		-		-		-	0.000	0.457	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	8.500		6.618		-		-		-	0.000	15.118	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677821 *I Cyberspace Vulnerability Assessment*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Cyber Vulnerability Assessment																												
CVA/H Development					▉▉▉▉▉▉▉▉▉																						
Test and Evaluation					▉▉▉▉▉▉▉▉▉																						

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677821 *I Cyberspace Vulnerability Assessment*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Cyber Vulnerability Assessment				
CVA/H Development	1	2023	4	2024
Test and Evaluation	1	2023	4	2024

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force									**Date:** March 2024		

Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677822 *I Cyber Defense Analysis*

COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
677822: *Cyber Defense Analysis*	-	0.000	0.301	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.301
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Beginning in FY25, continuation of this work is described in BPAC 677824. Funding in this BPAC contributes to the development of software and related activities in support of the creation of an Integrated Defensive Cyberspace system.

The Cyberspace Defense Analysis (CDA) weapon system conducts Defensive Cyberspace Operations (DCO) during peace time and contingency operations and network defense by monitoring, collecting, analyzing, and reporting sensitive information transiting or residing on the AFNet. CDA assessments of non-secure telecommunications determine type and amount of sensitive and/or classified information that may have been disclosed to our adversaries and encompasses several mission subsets, including: Telephony Communications, Radio Frequency (RF) Communications, Email Communications, Internet based Capabilities (IbC), and Cyber Operations Risk Assessment (CORA). The CDA weapon system protects the AF's critical information such as Personally Identifiable Information (PII), OPSEC, and other sensitive information through passive monitoring and active Data Loss Protection (DLP). CDA shows its true capability in the force protection realm, OPSEC, DLP, etc. and helps ensure our adversaries are not provided early warning of our plans, capabilities, or limitations.

Without proper funding the CDA Operators will not be able to determine potential impacts and operational adjustments resulting from information disclosures or identify compromised information from network intrusions. There will be a decreased assurance of network defense and an increase in the amount of lost PII, OPSEC, and other sensitive information. Continuing funding is essential in developing new capabilities to combat the rapidly evolving cyber threats.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Cyber Defense Analysis	0.000	0.301	0.000
Description: Engineering support to conduct Cyberspace Defense Analysis (CDA) assessment of non-secure telecommunications during peace time and contingency operations. *FY 2024 Plans:* - Continue to support integration of CDA capabilities into IDCS *FY 2025 Plans:*			

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677822 *I Cyber Defense Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** In FY25, PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT efforts were transferred to PE 0208088F, AF Defensive Cyberspace Operations, Project 677824, Integrated Defensive Cyber System, in order to distinguish IDCS from previous efforts.			
Accomplishments/Planned Programs Subtotals	0.000	0.301	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 0208088F: *AF Defensive Cyberspace Operations*	82.029	89.455	43.780	-	43.780	26.420	37.510	57.782	57.213	Continuing	Continuing

Remarks

D. Acquisition Strategy

Funding in BPAC 677821 contributes to the IDCS and as such is accomplished under the same Acquisition Strategy described in BPAC 677824.

Acquisition Strategy for the IDCS employs the Software Acquisition Pathway defined in DoDI 5000.87 and multiple software development providers. IDCS will be highly integrated with JCWA and C3BM/ABMS, leveraging this work to complement DAF investments in Defensive Cyber. IDCS will deliver new software capabilities through a continuous integration, continuous delivery pipeline built on enterprise offerings. IDCS will employ an agile development process to deliver incremental capabilities at the speed required to counter the emerging and persistent cyber threat. IDCS will integrate commercial off the shelf, Government off the shelf and open source software capabilities as appropriate to achieve an effective, efficient mission capability.

IDCS will procure software development capacity through various existing and new contractual vehicles. Contract sources include Government-Wide Acquisition Contracts (GWACs) such as Alliant, Encore II, NASA Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration (GSA) Federal Supply Schedules. IDCS will also use Small Business Innovative Research (SBIR) and Air Force Research Laboratory (AFRL) contracts, FFRDCs, Advisory and Assistance Services (A&AS) contracts, and support from Test and Evaluation Enterprises. Wherever possible IDCS will use competitive contracts and task orders to ensure cost efficiency and industry engagement.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024	

Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677822 *I Cyber Defense Analysis*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CDA Program Support Costs	Various	AFLCMC/PZ : Hanscom, MA	-	0.000	Jan 2023	0.301	Jan 2024	0.000		-		0.000	Continuing	Continuing	0.301
Subtotal			-	0.000		0.301		0.000		-		0.000	Continuing	Continuing	N/A

Remarks

 Provides program office subject matter expertise, engineering continuity, technical maturation and expertise, and access to an extensive professional network for future capabilities.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.000	0.301	0.000	-	0.000	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677822 *I Cyber Defense Analysis*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Cyber Defense Analysis																												
Cyber Defense Analysis Program Support Costs	███	███	███	███	███																							

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / AF Defensive Cyberspace Operations	**Project (Number/Name)** 677822 / Cyber Defense Analysis

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Cyber Defense Analysis				
Cyber Defense Analysis Program Support Costs	1	2023	4	2024

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600 / 7		**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*		**Project (Number/Name)** 677823 / *AFCERT*	

COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
677823: *AFCERT*	-	0.000	99.077	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	99.077
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Beginning in FY25, continuation of this work is described in BPAC 677824. Funding in this BPAC contributes to the development of software and related activities in support of the creation of an Integrated Defensive Cyberspace system (IDCS).

IDCS generates defensive cyberspace capabilities supported by active response methodologies as the main focus of our efforts (we utilize NIST-standardized actions, such as protecting and securing computer and network systems, detecting and assessing damage, defending while recognizing / attributing / mitigating cyber threats, and recovering systems and data) as the DAF seeks to keep pace with ever-evolving threats and changes to our operational [cyber] environment.

IDCS benefits the DAF Total Force, including Active Duty (AD), Air National Guard (ANG), and Air Force Reserve Command (AFRC) Airmen by enabling rapid deployment of defensive cyber sensor capabilities while disrupting bad actors from exploiting critical vulnerabilities upon the initial discovery of adversarial action at the tactical edge, by utilizing both automated decision making (ADM) and human/machine teaming (HMT) with trained defensive cyber operators. IDCS will equip DAF operational units (predominantly 16th Air Force (AFCYBER), 688th Cyber Security Service Provider (CSSP), and 67th Cyber Wing, Air Force Cyber Protection Teams (CPTs), in addition to Mission Defense Teams (MDTs) and network defenders) with capabilities required to sensor, monitor and protect DAF and ad-hoc mission networks (including networks utilized by AFSOC - Air Force Special Operations Command), Industrial Control Systems (ICS), and Weapon Systems. IDCS supports both enterprise (fixed) and edge/mobile use cases.

IDCS exists to sustain two major components: (1) common sensor platform, known as VOLTRN+; (2) situational awareness platform, known as ELICSAR, acting as DAF's version of a Big Data Platform (BDP). IDCS components are comprised of 3 main parts: (A) Strategic Data Platform; (B) Strategic and Tactical Analytics; (C) Joint Situational Awareness Applications. Working together, IDCS enables AF DCO to host, integrate, and feed defensive-cyber-related data, which informs both operational and strategic analysis, contributing to enhanced situational awareness for senior leaders.

IDCS addresses the lack of a synchronized, enterprise-level approach to mitigate cyberspace vulnerabilities related to mission performance and/or mission assurance. Failing to address capability gaps will hinder DAF's ability to project Air Power and dominate in a fight against near-peer adversaries. The increased request to RDT&E funding for this portfolio reflects the threats (identified with SecAF support) to Air Force Defensive Cyber Operations, specifically requiring sensor data and enhanced situational awareness to mobilize, deploy, and sustain forces.

IDCS develops, sources, sustains, and provides common non-proprietary modular hardware (including commercial-off-the-shelf / COTS solutions), hosting, an edge cloud-compute defensive cyber platform (with options for both standalone or cloud-connected software), and cloud-based containerized software needed to execute the Cyberspace Vulnerability Assessment/Hunter (CVA/H), Air Force Cyber Defense (ACD), and Cyber Defense Analysis (CDA) missions.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0208088F **/** *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 **/** *AFCERT*

IDCS makes its cyber data available to the Department of the Air Force (DAF) Data Fabric (including JCWA / ABMS), providing increased visibility into health and readiness of cyberspace systems for both local and enterprise leaders. IDCS aggregates and analyzes cyberspace data with the ability to enhance strategic assessments through the use of Artificial Intelligence and Machine Learning, along with providing a comprehensive dashboard and reporting structure, which assists DCO operators in detecting and defeating Advanced Persistent Threats (APTs).

Increased funding for IDCS development and sustainment is required to enable DAF's Defensive Cyber Operations to meet the urgent need to deploy modernized, interconnected cyber defenses across the entire Air Force, including the Pacific theater to deter near-peer aggression. IDCS contributes to successful sortie generation (getting our planes off the ground and keeping them in the fight) while ensuring the integrity and global dominance of US Air Power.

IDCS will be integrated with and leverage developmental activity from across the DoD including USCYBERCOM's Joint Cyber Warfighting Architecture and the Department of the AF's Command, Control, Communications and Battle Management (C3BM) (formerly known as ABMS).

Activities also include various Advisory and Assistance Services (A&AS) and Program Management Administration (PMA) activities to support the aforementioned development efforts.

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. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $4.053M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Integrated Defensive Cyberspace System (IDCS) Development *Description:* In FY24 only, BPAC 677823, formerly used for AFCERT and ACD, was used to describe the IDCS that subsumes the missions of AFCERT, CVA/H and CDA. This activity also includes cloud-based big data capabilities and associated research and development to apply machine learning to cyberspace defenses. The DAF will develop a common sensor platform which relies upon a modern containerized software-based system, known as an edge cloud compute platform, for IDCS. IDCS will be deployable to physical, virtual and cloud-based hosts and will provide for interconnectivity, management and data processing across the data fabric. IDCS will be developed to include 3 components: (1) Strategic Data Platform (to host, integrate, and feed data); (2) Strategic and Tactical Defensive Cyber Analysis Tools; (3) Joint Situational Awareness Applications. The physical domain will leverage modular commercial hardware - procured with Other Procurement Air Force (OPAF) funding in 0208088F -- with processing power tailored to the data throughput and speed requirements present at each AF base across both fixed (enterprise) and mobile configurations. The architecture will include data transport to Big Data Platform (BDP) capabilities (such as ELICSAR) present among the Enterprise and at the tactical edge. IDCS include building and placing sensors across the enterprise to enhance situational awareness through the BDP for senior leaders.	0.000	99.077	0.000

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 *I AFCERT*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Development activities include data processing to take advantage of additional data made available by the IDCS. IDCS includes the Air Force's Big Data Platform, Enterprise Logging Ingest & Cyber Situational Awareness Refinery (ELICSAR), which is federated with, and leverages the technical baseline of the Unified Platform program. IDCS utilizes DoD Platform One's Continuous Integration/Continuous Delivery (CI/CD) technology to leverage a reciprocal continuous Authority to Operate (cATO), which is essential to deployment of infrastructure as code, which keeps our IDCS system updated at the speed of relevance. IDCS will employ, over time, data analysis powered by advances in Machine Learning and Artificial Intelligence. ***FY 2024 Plans:*** - Continue to develop the software baseline for the IDCS architecture which will integrate and leverage Open-Source Software, Government Off the Shelf (GOTS) and Commercial Off the Shelf (COTS) software. - Continue to participate in a PACAF Operational Pilot to demonstrate prototyped capability - Continue to conduct test and evaluation including extensive, ongoing cyber security and penetration testing - Continue to refine digital engineering processes to attain and maintain both internal and external alignment and integration. - Continue to refine CI/CD deployment processes, infrastructure as code, documentation, and tools to enable continuous delivery - Continue to improve risk management for IDCS program and configuration management, including generation of attestations for software development pathways, complying with software bills of material (SBOM) mandates - Continue to award and/or expand software development contracts to support the following Team structure, consistent with and aligned to components of the IDCS Architecture -- CI/CD Platform Teams - Responsible for developing and operating continuous integration / continuous delivery software delivery pipelines -- Control Plane Teams - Responsible for developing and operating the core platform operating system -- Data Plane Teams - Responsible for developing and operating cyber applications -- Data Platform, Ingest, Analytics and Display Teams for the ELICSAR BDP - Responsible for ingestion of data into the IDCS, and data analytics, displays and presentation in the form of dashboards at multiple levels: Senior Leader, Local Commander, CSSP operator. Includes early adoption of machine learning and artificial intelligence applications where appropriate. -- Persona Teams - Responsible for the development of cyber mission tools/interfaces tailored for CSSP, Hunt, Mission Defense, and other cyber missions. - Continue to support the rapid adoption of new operational capabilities through training. - Continue to develop and refine model-based representations of the IDCS to facilitate integration with USCYBERCOM JCWA and C3BM/ABMS and other related capabilities.			

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 *I AFCERT*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Continue to develop tools and environments required to support software development. *FY 2025 Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* In FY25, PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT efforts were transferred to PE 0208088F, AF Defensive Cyberspace Operations, Project 677824, Integrated Defensive Cyber System, in order to distinguish IDCS from previous efforts.			
Accomplishments/Planned Programs Subtotals	0.000	99.077	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 834320: *C3 Countermeasures*	82.029	89.455	43.780	-	43.780	26.420	37.510	57.782	57.213	Continuing	Continuing

Remarks

D. Acquisition Strategy

Funding in BPAC 677823 contributes to the IDCS and as such is accomplished under the same Acquisition Strategy described in BPAC 677824.

The acquisition strategy for the IDCS employs the Software Acquisition Pathway defined in DoDI 5000.87 and multiple software development providers. IDCS will be highly integrated with JCWA and C3BM/ABMS, leveraging this work to complement DAF investments in Defensive Cyber. IDCS will deliver new software capabilities through a continuous integration, continuous delivery pipeline built on enterprise offerings. IDCS will employ an agile development process to deliver incremental capabilities at the speed required to counter the emerging and persistent cyber threat. IDCS will integrate COTS, GOTS, and open source software capabilities as appropriate to achieve an effective mission capability.

IDCS will procure software development capacity through various existing and new contractual vehicles. Contract sources include Government-Wide Acquisition Contracts (GWACs) such as Alliant, Encore II, NASA Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration GSA) Federal Supply Schedules. IDCS will also use Small Business Innovative Research (SBIR) and Air Force Research Laboratory (AFRL) contracts, FFRDCs, Advisory and Assistance Services (A&AS) contracts, and support from Test and Evaluation Enterprises. Wherever possible IDCS will use competitive contracts and task orders to ensure cost efficiency and industry engagement.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*						**Project (Number/Name)** 677823 / *AFCERT*			

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
IDCS: Software Development - CI/CD Platform	TBD	Not specified. : TBD	-	-		8.400	Jan 2024	-		-		-	0.000	8.400	8.400
IDCS: Software Development - Control Plane	TBD	Not specified. : TBD	-	-		8.400	Jan 2024	-		-		-	0.000	8.400	8.400
IDCS: Software Development - Data Plane	TBD	Not specified. : TBD	-	-		8.400	Jan 2024	-		-		-	0.000	8.400	8.400
IDCS: Software Development - Data Platform, Ingest, Analytics, and Display (ELICSAR BDP)	TBD	Not specified. : TBD	-	-		26.489	Jan 2024	-		-		-	0.000	26.489	26.489
IDCS: Software Development - Persona	TBD	Not specified. : TBD	-	-		22.200	Jan 2024	-		-		-	0.000	22.200	22.200
Subtotal			-	-		73.889		-		-		-	0.000	73.889	N/A

Support ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
IDCS: Data Science	TBD	Not specified. : TBD	-	-		2.000	Jan 2024	-		-		-	0.000	2.000	2.000
IDCS: Early Continuous Operator Training Support	TBD	Not specified. : TBD	-	-		2.619	Jan 2024	-		-		-	0.000	2.619	2.619
IDCS: Digital Engineering	TBD	Not specified. : TBD	-	-		2.000	Jan 2024	-		-		-	0.000	2.000	2.000
Subtotal			-	-		6.619		-		-		-	0.000	6.619	N/A

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 / *AFCERT*

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: 47th Cyber Test Sq	MIPR	47th Cyber Test Sq : Lackland AFB, TX	-	-		2.356	Oct 2023	-		-		-	0.000	2.356	2.356
IDCS: 48th Test Support Sq	MIPR	48th Test Support Sq : Eglin AFB, FL	-	-		1.649	Oct 2023	-		-		-	0.000	1.649	1.649
Subtotal			-	-		4.005		-		-		-	0.000	4.005	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: Program SupportCosts (PSC)	Various	CCSD : Lackland AFB, TX	-	-		10.511	Apr 2024	-		-		-	0.000	10.511	10.511
IDCS: Direct Cite Authority Civilian Pay	Various	AFLCMC/HN : Lackland AFB, TX	-	-		4.053	Oct 2023	-		-		-	0.000	4.053	4.053
Subtotal			-	-		14.564		-		-		-	0.000	14.564	N/A

Remarks

 In FY25, IDCS efforts were transferred to PE 0208088F, AF Defensive Cyberspace Systems, BPAC 677824 Integrated Defensive Cyberspace System.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	99.077	-	-	-	0.000	99.077	N/A

Remarks

 In FY25, IDCS was transferred to PE 0208088F, AF Defensive Cyberspace Operations, BPAC 677824, IDCS.

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 / *AFCERT*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Integrated Defensive Cyberspace System (IDCS)																												
IDCS Development						███																						
Test and Evaluation						███																						

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677823 *I AFCERT*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Integrated Defensive Cyberspace System (IDCS)				
IDCS Development	1	2024	4	2024
Test and Evaluation	1	2024	4	2024

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*				**Project (Number/Name)** 677824 / *677824 - Integrated Defensive Cyberspace System*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
677824: *677824 - Integrated Defensive Cyberspace System*	-	0.000	0.000	105.981	0.000	105.981	124.272	140.188	164.564	167.814	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

IDCS generates defensive cyberspace capabilities supported by active response methodologies as the main focus of our efforts (we utilize NIST-standardized actions, such as protecting and securing computer and network systems, detecting and assessing damage, defending while recognizing / attributing / mitigating cyber threats, and recovering systems and data) as the DAF seeks to keep pace with ever-evolving threats and changes to the operational cyber environment.

IDCS benefits the DAF Total Force, including Active Duty (AD), Air National Guard (ANG), and Air Force Reserve Command (AFRC) Airmen by enabling rapid deployment of defensive cyber sensor capabilities while disrupting bad actors from exploiting critical vulnerabilities upon the initial discovery of adversarial action at the tactical edge, by utilizing both automated decision making (ADM) and human/machine teaming (HMT) with trained defensive cyber operators. IDCS will equip DAF operational units (predominantly 16th Air Force (AFCYBER), 688th Cyber Security Service Provider (CSSP), and 67th Cyber Wing, Air Force Cyber Protection Teams (CPTs), in addition to Mission Defense Teams (MDTs) and network defenders) with capabilities required to sensor, monitor and protect DAF and ad-hoc mission networks (including networks utilized by AFSOC - Air Force Special Operations Command), Industrial Control Systems (ICS), and Weapon Systems. IDCS supports both enterprise (fixed) and edge/mobile use cases.

IDCS exists to sustain two major components: (1) common sensor platform, known as VOLTRN+; (2) situational awareness platform, known as ELICSAR, acting as DAF's version of a Big Data Platform (BDP). IDCS components are comprised of 3 main parts: (A) Strategic Data Platform; (B) Strategic and Tactical Analytics; (C) Joint Situational Awareness Applications. Working together, IDCS enables AF DCO to host, integrate, and feed defensive-cyber-related data, which informs both operational and strategic analysis, contributing to enhanced situational awareness for senior leaders.

IDCS addresses the lack of a synchronized, enterprise-level approach to mitigate cyberspace vulnerabilities related to mission performance and/or mission assurance. Failing to address capability gaps will hinder DAF's ability to project Air Power and dominate in a fight against near-peer adversaries. Our request to increase RDT&E funding for this portfolio reflects the threats (identified with SecAF support) to Air Force Defensive Cyber Operations, specifically requiring sensor data and enhanced situational awareness to mobilize, deploy, and sustain forces.

IDCS develops, sources, sustains, and provides common non-proprietary modular hardware (including commercial-off-the-shelf / COTS solutions), hosting, an edge cloud-compute defensive cyber platform (with options for both standalone or cloud-connected software), and cloud-based containerized software needed to execute the Cyberspace Vulnerability Assessment/Hunter (CVA/H), Air Force Cyber Defense (ACD), and Cyber Defense Analysis (CDA) missions.

IDCS makes its cyber data available to the Department of the Air Force (DAF) Data Fabric (including JCWA / ABMS), providing increased visibility into health and readiness of cyberspace systems for both local and enterprise leaders. IDCS aggregates and analyzes cyberspace data with the ability to enhance strategic

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 I 7	R-1 Program Element (Number/Name) PE 0208088F I AF Defensive Cyberspace Operations	Project (Number/Name) 677824 I 677824 - Integrated Defensive Cyberspace System

assessments through the use of Artificial Intelligence and Machine Learning, along with providing a comprehensive dashboard and reporting structure, which assists DCO operators in detecting and defeating Advanced Persistent Threats (APTs). IDCS will utilize visualization dashboards developed by Cyberspace Operations Systems, PE 0303089F, to enhance cyber situational awareness reporting and battle management capabilities.

Activities also include various Advisory and Assistance Services (A&AS) and Program Management Administration (PMA) activities to support the aforementioned development efforts.

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. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

In FY25, PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT efforts were transferred to PE 0208088F, AF Defensive Cyberspace Operations, Project 677824, Integrated Defensive Cyber System, in order to distinguish IDCS from previous efforts.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Integrated Defensive Cyberspace System (IDCS) Development	0.000	0.000	105.981

Description: The DAF will develop a modern containerized software-based system known as IDCS. IDCS will be deployable to physical, virtual and cloud-based hosts and will provide for interconnectivity, management and data processing across the data fabric. The physical domain will leverage modular commercial hardware - procured with Other Procurement Air Force (OPAF) funding in 0208088F -- with processing power tailored to the data throughput and speed requirements present at each AF base across both fixed and mobile configurations. The architecture will include data transport to Big Data Platform capabilities present at Enterprise and at the tactical edge.

Development activities include data processing to take advantage of additional data made available by the IDCS.

IDCS includes the Air Force's Big Data Platform, Enterprise Logging Ingest & Cyber Situational Awareness Refinery (ELICSAR), which is federated with, and leverages the technical baseline of the Unified Platform program. IDCS leverages Platform One's Continuous Integration/Continuous Delivery (CI/CD) technology to enable continuous Authorization to Operate, essential to deploy system updates at the speed of relevance.
IDCS will employ, over time, data analysis powered by advances in Machine Learning and Artificial Intelligence.

FY 2024 Plans:

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677824 *I 677824 - Integrated Defensive Cyberspace System*	

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Executed under PE 0208088F, AF Defensive Cyberspace Operations, Project 677821, Cyberspace Vulnerability Assessment, Project 677822, Cyber Defense Analysis, and Project 677823, AFCERT in FY24. ***FY 2025 Plans:*** - Will develop the software baseline for the IDCS architecture which will integrate and leverage COTS, GOTS, and open-source software. - Will conduct test and evaluation including extensive, ongoing cyber security and penetration testing - Will refine digital engineering processes to attain and maintain both internal and external alignment and integration. - Will refine CI/CD deployment processes and tools to enable continuous delivery - Will award and/or expand software development contracts to support the following Team structure, consistent with and aligned to components of the IDCS Architecture -- CI/CD Platform Team(s) - Responsible for developing and operating continuous integration / continuous delivery software delivery pipelines -- Control Plane Team(s) - Responsible for developing and operating the core platform operating system -- Data Plane Team(s) - Responsible for developing and operating cyber applications -- Data Platform, Ingest, Analytics and Display Team(s) for the ELICSAR BDP - Responsible for ingestion of data into the IDCS, and data analytics, displays and presentation in the form of dashboards, created by Cyberspace Systems Operations, PE 0303089F at multiple levels: Senior Leader, Local Commander, Cybersecurity Service Provider (CSSP) operator. Includes early adoption of AI/ML applications where appropriate -- Persona Team(s) - Responsible for the development of cyber mission tools/interfaces tailored for CSSP, Hunt, Mission Defense, and other cyber missions - Will support the rapid adoption of new operational capabilities through training - Will develop and refine model-based representations of the IDCS to facilitate integration with USCYBERCOM JCWA and C3BM/ ABMS and other related capabilities - Will develop tools and environments required to support software development ***FY 2024 to FY 2025 Increase/Decrease Statement:*** From the FY24 $105.996M combined total for Projects 677821, 677822, and Project 677823, the FY25 request of $105.981M has no significant changes.			
Accomplishments/Planned Programs Subtotals	0.000	0.000	105.981

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force									**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*				**Project (Number/Name)** 677824 *I 677824 - Integrated Defensive Cyberspace System*		

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 0208088F: *AF Defensive Cyberspace Operations*	82.029	89.455	43.780	-	43.780	26.420	37.510	57.782	57.213	Continuing	Continuing

Remarks

D. Acquisition Strategy

Acquisition Strategy for the IDCS is to employ the Software Acquisition Pathway (defined in DoDI 5000.87) for the overall acquisition.

IDCS entered Software Acquisition Pathway Planning Phase in Feb 2023.

Entry into the Software Acquisition Pathway Execution Phase is anticipated in early FY25.

The IDCS PMO will leverage multiple software development providers. IDCS will be highly integrated with JCWA and ABMS, leveraging this work to complement DAF investments in Defensive Cyber. IDCS will deliver new software capabilities through a continuous integration, continuous delivery pipeline built on Platform One capabilities. IDCS will employ an agile development process to deliver incremental capabilities at the speed required to counter the emerging and persistent cyber threat. IDCS will integrate commercial off the shelf, Government off the shelf and open-source software capabilities as appropriate to achieve an effective mission capability.

IDCS will procure software development capacity through various existing and new contractual vehicles. Contract sources include Government-Wide Acquisition Contracts (GWACs) such as Alliant, Encore III, NASA Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration GSA) Federal Supply Schedules. IDCS will also use Small Business Innovative Research (SBIR) and Air Force Research Laboratory (AFRL) contracts, FFRDCs, Advisory and Assistance Services (A&AS) contracts, and support from Test and Evaluation Enterprises. Wherever possible IDCS will use competitive contracts and task orders to ensure cost efficiency and industry engagement.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force																	**Date:** March 2024	

Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677824 *I* 677824 - Integrated Defensive Cyberspace System

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
IDCS: Software Development - CI/CD Pipeline	TBD	TBD : TBD	-	-		-		9.800	Jan 2025	-		9.800	Continuing	Continuing	9.800
IDCS: Software Development - Control Plane	TBD	TBD : TBD	-	-		-		10.600	Jan 2025	-		10.600	Continuing	Continuing	10.600
IDCS: Software Development - Data Plane	TBD	TBD : TBD	-	-		-		11.100	Jan 2025	-		11.100	Continuing	Continuing	11.100
IDCS: Software Development - Data Platform, Ingest, Analytics, and Display (ELICSAR BDP)	TBD	TBD : TBD	-	-		-		27.900	Jan 2025	-		27.900	Continuing	Continuing	27.900
IDCS: Software Development - Multiple Personas	TBD	TBD : TBD	-	-		-		15.064	Jan 2025	-		15.064	Continuing	Continuing	15.064
Subtotal			-	-		-		74.464		-		74.464	Continuing	Continuing	N/A

Support ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
IDCS: Data Science	TBD	Not specified. : TBD	-	-		-		3.000	Jan 2025	-		3.000	Continuing	Continuing	3.000
IDCS: Early ContinuousOperator Training Support	TBD	Not specified. : TBD	-	-		-		3.500	Jan 2025	-		3.500	Continuing	Continuing	3.500
IDCS: Digital Engineering	TBD	Not specified. : TBD	-	-		-		3.000	Jan 2025	-		3.000	Continuing	Continuing	3.000
Subtotal			-	-		-		9.500		-		9.500	Continuing	Continuing	N/A

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force				**Date:** March 2024									
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0208088F *I AF Defensive Cyberspace Operations*					**Project (Number/Name)** 677824 *I* 677824 - Integrated Defensive Cyberspace System				

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: 47th Cyber Test Sq	PO	Not specified. : TBD	-	-		-		2.800	Oct 2024	-		2.800	Continuing	Continuing	2.800
IDCS: 48th Test Support Sq	PO	Not specified. : TBD	-	-		-		2.200	Oct 2024	-		2.200	Continuing	Continuing	2.200
Subtotal			-	-		-		5.000		-		5.000	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
IDCS: ProgramSupport Costs (PSC)	Various	Not specified. : TBD	-	-		-		11.517	Apr 2025	-		11.517	Continuing	Continuing	11.517
IDCS: Direct Cite Authority Civilian Pay	Allot	Not specified. : TBD	-	-		-		5.500	Oct 2024	-		5.500	Continuing	Continuing	5.500
Subtotal			-	-		-		17.017		-		17.017	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	-	105.981	-	105.981	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / AF Defensive Cyberspace Operations	**Project (Number/Name)** 677824 / 677824 - Integrated Defensive Cyberspace System

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Integrated Defensive Cyberspace System (IDCS)																												
SW Prototyping																												
System Integration and Initial Training																												
Continuous SW Updates/vulnerability patches/enhancements																												
- ELICSAR Big Data Platform																												
- IDCS Command and Control																												
- IDCS Sensor Layer Data Fabric																												
- - CSSP User Persona Applications																												
- - Hunt User Persona Applications																												
- - ICS User Persona Applications																												
- - MDT User Persona Applications																												
- Data Plane SW																												
- Control Plane SW																												
Continuous Test																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208088F / *AF Defensive Cyberspace Operations*	**Project (Number/Name)** 677824 / *677824 - Integrated Defensive Cyberspace System*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Integrated Defensive Cyberspace System (IDCS)				
SW Prototyping	1	2024	4	2024
System Integration and Initial Training	2	2024	4	2029
Continuous SW Updates/vulnerability patches/enhancements	4	2024	4	2029
- ELICSAR Big Data Platform	4	2024	4	2029
- IDCS Command and Control	4	2024	4	2029
- IDCS Sensor Layer Data Fabric	4	2024	4	2029
- - CSSP User Persona Applications	4	2024	4	2029
- - Hunt User Persona Applications	4	2024	4	2029
- - ICS User Persona Applications	3	2025	4	2029
- - MDT User Persona Applications	3	2025	4	2029
- Data Plane SW	4	2024	4	2029
- Control Plane SW	4	2024	4	2029
Continuous Test	4	2024	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0208097F *I Joint Cyber Command and Control (JCC2)*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	86.631	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	86.631
676045: *Foundational Efforts*	-	86.631	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	86.631
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2024, PE 0208097F, (Joint Cyber Command and Control (JCC2)), Project 676045, (Foundational Efforts) efforts were transferred to PE 0208097JCY, (Joint Cyber Command and Control (JCC2)), Project CY02, (Cyber Command and Control), in order to satisfy Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to USCYBERCOM.

A. Mission Description and Budget Item Justification

Joint Cyber Command and Control (JCC2) provides Combatant Commanders, Joint Force Commanders and Service Component Commanders with enhanced situational awareness and battle management for cyberspace operations missions and forces. JCC2 establishes congressionally directed focal point to provide integrated JCC2 solutions to all echelons for execution of cyberspace operations to enable and accelerate planning/collaboration between Cyber Mission Forces (CMF) and Combatant Commands (CCMD).

It will integrate Cyber Command and Control (C2) with Joint, Coalition and inter-agency C2 to enhance multi-domain operations, reduce planning time, improve decision quality and speed resulting in a shorter kill chain. Capabilities will be developed to address the Cyber Mission Forces used to conduct cyber operations. Additionally, it will leverage and utilize a Continuous Integration/Continuous Deployment (CI/CD) Framework to pace development with warfighter need. JCC2 development activities include, but are not limited to: rapid prototyping, development of software/hardware systems; integration and transition of lab developed cyber capabilities to the warfighter; testing and evaluation; program management, studies, analysis, pilots, and demonstrations; risk reduction for emerging technologies; and development and assessment of operational systems for inclusion into JCC2 to meet capability requirements.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, or 0606398F. In FY23 0.993M was expended for civilian pay expenses in this program element, and in FY24 0.000M 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.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208097F *I Joint Cyber Command and Control (JCC2)*	

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	79.955	0.000	0.000	0.000	0.000
Current President's Budget	86.631	0.000	0.000	0.000	0.000
Total Adjustments	6.676	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	9.231	0.000			
• SBIR/STTR Transfer	-2.555	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

Change Summary Explanation

In FY24, PE 0208097F (Joint Cyber Command and Control (JCC2)), Project 676045 (Foundational Efforts) efforts were transferred to PE 0208097JCY, (Joint Cyber Command and Control (JCC2)), Project CY02, (Cyber Command and Control), in order to satisfy Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to USCYBERCOM.

FY23 funding increased by 9.231M below threshold reprogramming.

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Foundational Efforts	86.631	0.000	0.000
Description: Foundational Efforts are program activities, at multiple operating locations, supporting development and evaluations activities and JCC2 baseline efforts to provide capability. Actions include system and software engineering, risk management, developmental framework management, and the execution of acquisition activities. *FY 2024 Plans:* N/A *FY 2025 Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding transferred to USCYBERCOM in accordance with FY22 NDAA Section 1507.			
Accomplishments/Planned Programs Subtotals	86.631	0.000	0.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208097F *I Joint Cyber Command and Control (JCC2)*

D. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

E. Acquisition Strategy

 JCC2 is in the Software Acquisition Execution Phase which enables continuous integration and delivery of software capability at the speed of relevance. JCC2 will apply agile acquisition tenants to the programmatic, design/engineering, test, and delivery aspects to provide an ability to deliver Situational Awareness/C2 capabilities to the warfighter in a rapid manner. JCC2 is transitioning from a collection of distinct, special-purpose tools to an integrated joint C2 capability to reduce overall lifecycle costs, improve interoperability, and increase information sharing across the CCMDs.

 The JCC2 program office is utilizing new and existing contract vehicles and concept, development, risk management, production, or deployment plans as part of a streamlined approach. The JCC2 program office has established a continuous integration/continuous development pipeline to facilitate the rapid development, integration, and fielding of capabilities to remain responsive to evolving warfighter requirements. The JCC2 program will execute the agile development requirements provided by the Army, Navy, Marine Corps, Air Force, and USCYBERCOM stakeholders in accordance with the prioritization provided by the multi-Service JCC2 governance structure.

 The JCC2 program office is integrating several C2 mission systems for battle management and situational awareness. Most of the programs are using Agile development efforts, making rapid changes and upgrades to the applications and/or prototypes. In addition to converging the contracting efforts, the multiple mission systems, or applications, will eventually converge onto a shared C2 hosting and transit cloud infrastructure created by the PMO under the new Software Acquisition Pathway program. This approach will deliver an integrated JCC2 capability for Battle Management (BM) and Situational Awareness (SA). The JCC2 baseline capability relies on extensive development and evaluation efforts to analyze integration constraints and opportunities of Service-specific cyber capabilities.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7							**R-1 Program Element (Number/Name)** PE 0208097F / *Joint Cyber Command and Control (JCC2)*					**Project (Number/Name)** 676045 / *Foundational Efforts*		

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JCC2 CI/CD Infrastructure	Various	Multiple : Multiple	-	1.510	Feb 2023	-		-		-		-	0.000	1.510	4.432
JCC2 Agile Capability Development	Various	Multiple : Multiple	-	77.260	Feb 2023	-		-		-		-	0.000	77.260	76.176
Subtotal			-	78.770		-		-		-		-	0.000	78.770	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Direct Cite Authority Civilian Pay	TBD	USAF : Hanscom AFB, MA	-	0.993	Oct 2022	-		-		-		-	0.000	0.993	0.993
Subtotal			-	0.993		-		-		-		-	0.000	0.993	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	C/CPAF	Not specified. : TBD	-	1.992	Oct 2022	-		-		-		-	0.000	1.992	2.000
Subtotal			-	1.992		-		-		-		-	0.000	1.992	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
JCC2 Acquisition Support	Various	Multiple : Multiple	-	4.876	Nov 2022	-		-		-		-	0.000	4.876	3.030
Subtotal			-	4.876		-		-		-		-	0.000	4.876	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	86.631	-	-	-	-	0.000	86.631	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force									**Date:** March 2024

Appropriation/Budget Activity 3600 *I* 7		R-1 Program Element (Number/Name) PE 0208097F *I Joint Cyber Command and Control (JCC2)*				Project (Number/Name) 676045 *I Foundational Efforts*			

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract

Remarks

PE 0208097F: *Joint Cyber Command and Control (JCC2)*
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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024

Appropriation/Budget Activity 3600 **/** 7	R-1 Program Element (Number/Name) PE 0208097F **/** *Joint Cyber Command and Control (JCC2)*	Project (Number/Name) 676045 **/** *Foundational Efforts*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Foundational Events																												
Transition DOD pilot systems to USAF	███████																											
JCC2 CI/CD Infrastructure	███████																											
JCC2 Agile Capability Development	███████																											
- JCC2 Agile Capability Development of Situational Awareness (SA) MVCR	███████																											
- JCC2 Agile Capability Development of Battle Management (BM) MVCR	███████																											
JCC2 Acquisition Support	███████																											

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208097F *I Joint Cyber Command and Control (JCC2)*	**Project (Number/Name)** 676045 *I Foundational Efforts*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Foundational Events				
Transition DOD pilot systems to USAF	1	2023	4	2023
JCC2 CI/CD Infrastructure	1	2023	4	2023
JCC2 Agile Capability Development	1	2023	4	2023
- JCC2 Agile Capability Development of Situational Awareness (SA) MVCR	1	2023	4	2023
- JCC2 Agile Capability Development of Battle Management (BM) MVCR	1	2023	4	2023
JCC2 Acquisition Support	1	2023	4	2023

Note

Situational Awareness (SA) Minimum Viable Capability Release (MVCR):
Development of features that enable automation of data between network, mission, and threat domains.

Battle Management (BM) MVCR:
Development of features that enable Planning, Directing, Monitoring and Assessment capabilities in support of cyberspace operations at all levels of war.

PE 0208097F: *Joint Cyber Command and Control (JCC2)*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						R-1 Program Element (Number/Name) PE 0208099F *I Unified Platform (UP)*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	103.792	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	103.792
672281: *Foundational Efforts*	-	103.792	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	103.792
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2024, PE 0208099F, (Unified Platform (UP), Project 672281, (Foundational Efforts)) efforts were transferred to PE 0208099JCY, (Unified Platform (UP), Project CY03, (Unified Platform)), in order to satisfy Congressional requirements in the FY22 NDAA, Section 1507, transferring responsibilities for the planning, programming, budgeting, and execution of the resources to USCYBERCOM.

A. Mission Description and Budget Item Justification

Unified Platform provides the Cyber Mission Forces, U.S. Cyber Command (USCYBERCOM), and Service cyber components a Joint cyber operations infrastructure enabling full spectrum cyberspace operations at the operational through tactical levels of warfare as part of USCYBERCOM's Joint Cyber Warfighting Architecture (JCWA). USCYBERCOM requires an interconnected and interoperable cyber infrastructure to conduct integrated planning and execution of cyberspace operations to meet Combatant Commander requirements. Unified Platform delivers this capability through the integration of disparate firing platforms, existing or evolving systems, infrastructure, mission capabilities, data analytics, and programs used for military cyber operations to build interoperable and scalable network for cyber capabilities. Unified Platform allows the DoD to achieve and maintain decision and operational superiority, the key to successful cyber operations within the highly dynamic cyberspace domain.

Foundational Efforts provide for the research, development, prototype maturation, integration, enhancement, delivery, and enduring product support of the Unified Platform capability to ensure responsiveness to warfighter requirements within operationally relevant timeframes. With the government as the lead integrator, Unified Platform Foundational Efforts provide a flexible—yet disciplined—agile development/security/operations (DevSecOps) capability to generate new capabilities, integrate existing and emerging technologies, incorporate rapid prototyping efforts, and evolve the Unified Platform baseline on an agile basis. Foundational efforts include both the management of the DevSecOps capabilities including systems engineering, risk management, contracting, test, and program management as well as the active research and capability development to be conducted for the Unified Platform baseline.

The Secretary of the Air Force leads the Unified Platform effort as Executive Agent on behalf of the Department of Defense. Unified Platform directly supports the Joint Network Attack Initial Capabilities Document (ICD), the National Military Strategy for Cyberspace Operations (NMS-CO), USCYBERCOM operational directives, the latest MAJCOM Offensive Cyberspace Operations System Flight Plan, and other formal requirements documents.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, or 0606398F. In FY23, $1.167M was expended for civilian pay expenses in this program element, and in FY24, $0.000M is forecasted for civilian pay expenses in this program element.

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Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208099F *I Unified Platform (UP)*	

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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	106.916	0.000	0.000	0.000	0.000
Current President's Budget	103.792	0.000	0.000	0.000	0.000
Total Adjustments	-3.124	0.000	0.000	0.000	0.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-3.124	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Foundational Efforts	103.792	0.000	0.000
Description: Foundational Efforts ensure the perpetual capability development, integration, and delivery of the Unified Platform capability through the rapid and agile development of requirements via a DevSecOps pipeline. Unified Platform requirements are warfighter-derived under the framework of validated Unified Platform requirement documents and met using agile development teams, integration of Service and U.S. Cyber Command capabilities, or external prototyping activities. Unified Platform capabilities are developed within the government-lead Unified Platform Continuous Integration/Continuous Deployment DevSecOps pipeline, leveraging a common pipeline baseline maintained by Platform One. This pipeline provides a common system development, integration, and staging environment to permit collaborative development. Developmental efforts will be continuously verified for security compliance and continually tested to ensure development meets established security and performance criteria. Foundational Efforts also include program office expertise at multiple operating locations in the areas of cyberspace, systems engineering, risk management framework, scaled agile framework, contracting, and program management to ensure that agile acquisition development planning and frequent customer engagement is accomplished. ***FY 2024 Plans:***			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0208099F *I Unified Platform (UP)*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
N/A			
FY 2025 Plans: N/A			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding transferred to USCYBERCOM in accordance with FY22 NDAA Section 1507.			
Accomplishments/Planned Programs Subtotals	103.792	0.000	0.000

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 834320: *C3 Countermeasures*	5.013	0.000	0.000	-	0.000	0.000	0.000	-	-	0.000	5.013

Remarks

E. Acquisition Strategy

Unified Platform represents a flexible, interoperable, and scalable warfighter capability to be employed by the Army, Navy, Marine Corps, and Air Force in conjunction with U.S. Cyber Command (USCYBERCOM). In order to match the speed of need of the highly dynamic cyberspace domain, the Service-agnostic Unified Platform implements an agile development framework to facilitate the rapid development, integration, and fielding of capabilities to remain responsive to evolving warfighter requirements. The Unified Platform program develops capability in response to requirements provided by the Army, Navy, Marine Corps, Air Force, and USCYBERCOM stakeholders in accordance with the prioritization provided by the multi-Service Unified Platform governance structure.

The initial Unified Platform capability delivered a minimum viable product (MVP) for immediate deployment and operational use by the Cyber Mission Force. Subsequent build iterations continue to deliver enhanced capabilities, incrementally building the Unified Platform capability to match warfighter needs and requirements to achieve cyberspace dominance. Development of the Unified Platform baseline capability relies agile software sprints to analyze integration constraints and opportunities of Service-specific cyber capabilities to realize the Unified Platform MVP and inform the future Unified Platform baseline an enduring foundational Unified Platform thrust area supports the development and maturation of Unified Platform baseline, integrates successful prototyping activities, and implements an agile development/security/ operations (DevSecOps) construct to rapidly evolve and enhance the Unified Platform capability to match warfighter requirements.

The Unified Platform program office utilizes Concept, Development, Risk management, Production, and Deployment Plans as part of a streamlined approach to agile acquisition planning. All plans contain sufficient information to inform acquisition decisions (i.e., authorities to proceed), within the agile framework, to determine readiness to enter into the applicable phase of the acquisition process. Unified Platform will utilize both new and existing contractual vehicles, such as Government-Wide Acquisition Contract (GWAC) vehicles (Alliant, Encore II, Solutions for Enterprise-Wide Procurement IV (SEWP IV), and General Services Administration (GSA)

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0208099F *I Unified Platform (UP)*	

Federal Supply Schedules, a Cyber Indefinite Delivery Indefinite Quantity (IDIQ) contract, Other Transaction Authority (OTA), DoD Enterprise Software Initiative (ESI), Commercial Solution Openings (CSO), Partnership Intermediary Agreements (PIA), Small Business Innovative Research (SBIR) contracts, and Small Disadvantaged Business 8(a) contracts. The use of multiple-award contractual vehicles will provide a wide range of commercially-available products and services that will meet any future requirements related to Unified Platform.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208099F / Unified Platform (UP)	Project (Number/Name) 672281 / Foundational Efforts	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
UP System Technical Coordination Follow On	C/T&M	TBD : San Antonio, TX	-	5.496	Oct 2022	-	-	-	-	-	-	-	0.000	5.496	5.426
UP Cloud Compute and Store	Various	TBD : San Antonio, TX	-	10.559	Oct 2022	-	-	-	-	-	-	-	0.000	10.559	14.554
UP Agile Capability Development	Various	Multiple: Various : TBD	-	34.226	Oct 2022	-	-	-	-	-	-	-	0.000	34.226	50.356
UP Distributed Common Computing Environment	Various	Multiple: Various : TBD	-	30.551	Feb 2023	-	-	-	-	-	-	-	0.000	30.551	12.325
Subtotal			-	80.832		-		-		-		-	0.000	80.832	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
UP Direct Cite Authority Civilian Pay	TBD	Not specified. : TBD	-	1.167	Oct 2022	-	-	-	-	-	-	-	0.000	1.167	-
Subtotal			-	1.167		-		-		-		-	0.000	1.167	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
UP Test and Evaluation	Various	Multiple: Various : TBD	-	1.041	Jan 2023	-	-	-	-	-	-	-	0.000	1.041	1.700
Subtotal			-	1.041		-		-		-		-	0.000	1.041	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
UP Systems Engineering	Various	Various : TBD	-	9.167	Dec 2022	-	-	-	-	-	-	-	0.000	9.167	11.082
UP Acquisition Support	Various	Various : TBD	-	7.295	Dec 2022	-	-	-	-	-	-	-	0.000	7.295	3.167

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208099F / Unified Platform (UP)	**Project (Number/Name)** 672281 / Foundational Efforts

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
UP Program Mgmt Office Overhead Costs	Various	Various : TBD	-	4.290	Dec 2022	-		-		-		-	0.000	4.290	4.015
Subtotal			-	20.752		-		-		-		-	0.000	20.752	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	103.792		-		-		-		-	0.000	103.792	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208099F *I Unified Platform (UP)*	**Project (Number/Name)** 672281 *I Foundational Efforts*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Foundational Efforts																												
UP System Technical Coordination	████████																											
UP Agile Capability Development	████████																											
Distributed Common Computing Environment	████████																											

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208099F / *Unified Platform (UP)*	**Project (Number/Name)** 672281 / *Foundational Efforts*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Foundational Efforts				
UP System Technical Coordination	1	2023	4	2023
UP Agile Capability Development	1	2023	4	2023
Distributed Common Computing Environment	1	2023	4	2023

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*

R-1 Program Element (Number/Name)
PE 0208288F *I Intel Data Applications*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	1.026	0.967	0.988	0.000	0.988	1.012	1.030	1.068	1.090	0.000	7.181
67A051: *Space Superiority - Advanced Intelligence Systems*	-	1.026	0.967	0.988	0.000	0.988	1.012	1.030	1.068	1.090	0.000	7.181
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Funds the application of Intelligence data as datasets/databases, model and simulations, and analysis for combat and combat support users. Funds the development of techniques focused on S&T operations required to meet combat support needs for data collected through PE activities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 0 was expended for civilian pay expenses in this program element, and in FY2024 0 is forecasted for civilian pay expenses in this program element.

Fiscal Year (FY) 2025 European Deterrence Initiative (EDI) funding accounted for in the Base budget total 988K supports IDA Program.

FY 2023 includes $0 in Overseas Operations Costs (OOC) Actuals. FY 2024 includes $967 thousand in OOC Requested. FY 2025 includes$ 988 thousand for the OOC Budget Estimate. OOC were financed previously with former Overseas Contingency Operations (OCO) funding.

Fiscal Year (FY) 2025 Overseas Operations Costs funding accounted for in the Base budget total 988K.

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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Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0208288F *I Intel Data Applications*		

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	1.065	0.967	0.988	0.000	0.988
Current President's Budget	1.026	0.967	0.988	0.000	0.988
Total Adjustments	-0.039	0.000	0.000	0.000	0.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.039	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Radar Dynamic Cueing	1.026	0.967	0.988
Description: Develop algorithm to dynamically cue radar assets to increase collection capability and data relevance. *FY 2024 Plans:* Continue dynamic radar targeting efforts *FY 2025 Plans:* Continue dynamic radar targeting efforts *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to inflation.			
Accomplishments/Planned Programs Subtotals	1.026	0.967	0.988

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 This effort will be supported via the NASIC ATEP II contract.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											**Date:** March 2024		

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0208288F / Intel Data Applications	Project (Number/Name) 67A051 / Space Superiority - Advanced Intelligence Systems

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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	C/CPAF	Not specified. : TBD	-	-		-		-		-		-	Continuing	Continuing	-
NASIC ATEP II	TBD	NASIC : Dayton, OH	-	1.026	Apr 2023	0.967	Apr 2024	0.988	Apr 2025	-		0.988	Continuing	Continuing	-
Subtotal			-	1.026		0.967		0.988		-		0.988	Continuing	Continuing	N/A

			Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals			-	1.026		0.967		0.988		-		0.988	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208288F / Intel Data Applications	**Project (Number/Name)** 67A051 / Space Superiority - Advanced Intelligence Systems

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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

Radar Dynamic Cueing

Algorithm Development

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0208288F *I Intel Data Applications*	**Project (Number/Name)** 67A051 *I Space Superiority - Advanced Intelligence Systems*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Radar Dynamic Cueing				
Algorithm Development	1	2023	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0301025F *I GeoBase*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	2.256	1.514	1.002	0.000	1.002	1.002	1.002	0.000	0.000	Continuing	Continuing
673280: *Ceit01*	-	2.256	1.514	1.002	0.000	1.002	1.002	1.002	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 7, PE 0301025F, project 673280, Comprehensive Planning Platform Development, is a new start.

The funding will allow the AF to modernize NexGen IT and develop interfaces with other CE data systems as well as provide for continued development of the Comprehensive Planning Platform. The RDT&E requirements for NexGen IT are planned to be completed in FY24.

A. Mission Description and Budget Item Justification

Funds the research and development of AF Civil Engineer (CE) NexGen IT systems for all Total Force installations. The purpose for the funds are to develop/modernize NexGen IT, a Commercial-Off-The-Shelf (COTS) system; specifically to develop a Space Management/Utilization capability as well as new interfaces with other Civil Engineer data systems (i.e. Builder SMS). NexGen IT provides an integrated asset management system for the CE community with the capability to support cost accounting, Operations (Work Management and Material Control), Real Property, Project Management, and Energy Management. NexGen IT replaces several Legacy IT systems that lack the capability to meet present and future mission requirements and the ability to be compliant with Congressionally-mandated Financial Audit Improvement Readiness (FIAR).

The Comprehensive Planning Platform (CPP) is a Civil Engineering Enterprise solution that enables installations and 2,800 users to make investment decisions based on asset management principles, strategic guidance, and data through a repeatable planning process. The platform digitally integrates Installation Development Plans (IDPs), Component Plans, & Asset Management Plans (AMPs) - strengthens installation planning & operationalizes asset management responsive to changes at the installation and enterprise by allowing for continuous updates. Funding is necessary to support migration activities from the current SharePoint Online (SPO) environment to Cloud-based servers, as well as support continued development of features necessary for the long-term build out of the CPP.

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

This program element may include necessary emergent or unanticipated civilian pay expenses required to manage, execute, and deliver NexGen IT and CPP development/modernization 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 0207479F.

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 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0301025F *I GeoBase*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	2.928	1.514	0.000	0.000	0.000
Current President's Budget	2.256	1.514	1.002	0.000	1.002
Total Adjustments	-0.672	0.000	1.002	0.000	1.002
• 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	-0.108	0.000			
• Other Adjustments	-0.564	0.000	1.002	0.000	1.002

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: NexGen IT Development	2.256	1.514	-
Description: Develop a Space Management/Space Utilization capability within NexGen IT; develop interfaces between NexGen IT and other CE data systems (a COTS program). **FY 2024 Plans:** Develop a Space Management/Space Utilization capability within NexGen IT; develop interfaces between NexGen IT and other CE data systems (a COTS program). **FY 2024 to FY 2025 Increase/Decrease Statement:** RDT&E requirements for NexGen IT are planned to be completed in FY24 and were decreased to $0 for FY25.			
Title: Comprehensive Planning Platform Development	-	0.000	1.002
Description: Develop Comprehensive Planning Platform cloud environment. **FY 2024 Plans:** Development doesn't start until 2025 **FY 2025 Plans:** Develop Comprehensive Planning Platform cloud environment providing digital storage, visualization, and management to facilitate installation planning. **FY 2024 to FY 2025 Increase/Decrease Statement:**			

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0301025F *I GeoBase*		

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
FY2025 is the first year of funding for this program at $1.000 million.			
Accomplishments/Planned Programs Subtotals	2.256	1.514	1.002

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 The requirements development will be executed through the Air Force Life Cycle Management Center Enterprise Information Systems Directorate (AFLCMC/HIM).
 NexGen IT will utilize an existing contract vehicle.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0301025F / GeoBase						**Project (Number/Name)** 673280 / Ceit01		

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Develop CE NexGen IT	C/CPFF	Not specified. : TBD	-	2.256		1.514		-		-		-	Continuing	Continuing	-
Develop Comprehensive Planning Platform	C/TBD	Not specified. : TBD	-	-		-		1.002		-		1.002	Continuing	Continuing	-
Subtotal			-	2.256		1.514		1.002		-		1.002	Continuing	Continuing	N/A

	Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	2.256		1.514		1.002	-	1.002	Continuing	Continuing	N/A

Remarks

The funding will allow the AF to modernize NexGen IT and develop interfaces with other CE data systems as well as provide for continued development of the Comprehensive Planning Platform.

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0301025F / *GeoBase*	**Project (Number/Name)** 673280 / *Ceit01*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Develop Civil Engineer NexGen IT																												
Develop Civil Engineer NexGen IT																												
Develop Comprehensive Planning Platform																												
Develop Comprehensive Panning Platform																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0301025F / *GeoBase*	**Project (Number/Name)** 673280 / *Ceit01*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Develop Civil Engineer NexGen IT				
Develop Civil Engineer NexGen IT	4	2023	4	2028
Develop Comprehensive Planning Platform				
Develop Comprehensive Panning Platform	4	2025	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force							**Date:** March 2024				
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0301112F *I Nuclear Planning and Execution System (NPES)*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	0.000	17.276	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	17.276
673768: *Nuclear Planning and Execution System (NPES)*	0.000	17.276	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	17.276
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2024, efforts in PE 0301112F, Nuclear Planning and Execution System (NPES), Budget Program 673768, transferred to PE 0304100F, Strategic Mission Planning and Execution System (SMPES), Budget Program 675029; aligning legacy nuclear command and control (NC2) PEs under a single PE to initiate SMPES integration efforts.

A. Mission Description and Budget Item Justification

NPES develops software to facilitate NC2 adaptive planning and execution at fixed and mobile sites in real time. NPES Legacy encompassed cyber related investments necessary for a successful operational application/system delivery, for fixed command centers, distributive sites, and mobile platforms. NPES Recapitalization (Recap) succeeded NPES Legacy and provides communication interfaces with software development, data management, software re-engineering and operations to include requirements validation and training.

This is a rapid software prototyping effort. This effort includes decomposing system, functional and non-functional requirements to design, build, and field a new NPES application software baseline via agile, DevOps, and user-centered design principles. Further, the effort includes developing written artifacts to document system / software engineering elements appropriate for an Agile/DevOps software development effort.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Nuclear Planning and Execution System capability. The use of such programmatic funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element and in FY24 $0.000M 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force					**Date:** March 2024

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0301112F *I Nuclear Planning and Execution System (NPES)*

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	16.158	0.000	0.000	0.000	0.000
Current President's Budget	17.276	0.000	0.000	0.000	0.000
Total Adjustments	1.118	0.000	0.000	0.000	0.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	1.118	0.000	0.000	0.000	0.000

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: NPES Modernization	7.952	0.000	0.000
Description: The NPES program will use proven and mature software engineering, technologies, and design tenets to provide a modern, secure, interoperable, and reliable NC2 capability for U.S. Strategic Command and other users as appropriate. **FY 2024 Plans:** See PE 0304100F, SMPES **FY 2025 Plans:** See PE 0304100F, SMPES			
Title: Decision Support Service	9.324	0.000	0.000
Description: Product Development **FY 2024 Plans:** See PE 0304100F, SMPES **FY 2025 Plans:** See PE 0304100F, SMPES			
Accomplishments/Planned Programs Subtotals	17.276	0.000	0.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force									**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0301112F *I Nuclear Planning and Execution System (NPES)*					

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 Line Item 833140: *Strategic Command and Control*	0.216	-	-	-	-	-	-	-	-	0.000	0.216

Remarks

E. Acquisition Strategy

NPES will develop, test, and field a renewed NC2 capability for combatant commanders using an evolutionary acquisition approach with development contracts that are negotiated and awarded in a competitive environment. Additionally, select government agencies will be used to conduct relevant analyses and provide other required support. NPES will enhance Air Force Life Cycle Management Center (AFLCMC) agile software development, creating a proportionate savings in costs gained by an increased level of production. The increased level of production will enable developers to build and integrate software at the Top Secret level as opposed to paying to build duplicate capabilities at other government or contractor facilities.

This effort funds agile software development activities and a secure software development environment. Software development environment will meet classification/security regulations/criteria, which will promote competition.

The AFLCMC at Hanscom AFB, and the 55th Contracting Squadron at Offutt AFB will be the contracting authorities for NPES and provide necessary program management, contracts, legal, and financial management support.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													Date: March 2024		
Appropriation/Budget Activity 3600 *I* 7							**R-1 Program Element (Number/Name)** PE 0301112F *I Nuclear Planning and Execution System (NPES)*						**Project (Number/Name)** 673768 *I Nuclear Planning and Execution System (NPES)*		

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Development	Various	NG : Offutt AFB, NE	0.000	4.828	Dec 2022	-		-		-		-	0.000	4.828	-
DSS Prototype Development	C/T&M	NG : Offutt AFB, NE	0.000	6.379	Feb 2023	-		-		-		-	0.000	6.379	-
		Subtotal	0.000	11.207		-		-		-		-	0.000	11.207	N/A

Support ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
DevOps Support	Various	Various : Offutt AFB, NE	0.000	1.199	Feb 2023	-		-		-		-	0.000	1.199	-
Technical Engineering Services	Various	Various : Offutt AFB, NE	0.000	0.628	Jun 2023	-		-		-		-	0.000	0.628	-
DSS DevOps Support	Various	TBD : Offutt AFB, NE	0.000	1.967	Apr 2023	-		-		-		-	0.000	1.967	-
DSS Engineering Support	SS/ Various	MITRE : Offutt AFB, NE	0.000	0.324	Jan 2023	-		-		-		-	0.000	0.324	-
		Subtotal	0.000	4.118		-		-		-		-	0.000	4.118	N/A

Test and Evaluation ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
T&E	Various	Various : Offutt AFB, NE	0.000	0.078	Jan 2023	-		-		-		-	0.000	0.078	-
		Subtotal	0.000	0.078		-		-		-		-	0.000	0.078	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													Date: March 2024		

| Appropriation/Budget Activity
3600 / 7 | | | | | R-1 Program Element (Number/Name)
PE 0301112F / Nuclear Planning and Execution System (NPES) | | | | | | Project (Number/Name)
673768 / Nuclear Planning and Execution System (NPES) | | | | |

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Management Services	C/CPAF	Not specified. : Offutt AFB, NE	0.000	1.219	Feb 2023	-		-		-		-	0.000	1.219	-
DSS Management Services	C/TBD	TBD : Offutt AFB, NE	0.000	0.654	Mar 2023	-		-		-		-	0.000	0.654	-
		Subtotal	0.000	1.873		-		-		-		-	0.000	1.873	N/A

			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
		Project Cost Totals	0.000	17.276		-		-		-		-	0.000	17.276	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0301112F *I Nuclear Planning and Execution System (NPES)*	**Project (Number/Name)** 673768 *I Nuclear Planning and Execution System (NPES)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
NPES Development																												
Continuous Product Improvement						▬▬▬▬																						

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 I 7	R-1 Program Element (Number/Name) PE 0301112F I *Nuclear Planning and Execution System (NPES)*	Project (Number/Name) 673768 I *Nuclear Planning and Execution System (NPES)*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
NPES Development				
Continuous Product Improvement	4	2023	3	2024

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0301113F *I Cyber Security Intelligence Support*						
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	8.972	8.476	18.141	0.000	18.141	15.080	15.308	15.717	15.948	Continuing	Continuing
671931: *TECH SURVEIL COUNTER MEAS EQPT*	-	8.972	8.476	18.141	0.000	18.141	15.080	15.308	15.717	15.948	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Mission Description: Provides funding to the Air Force owned DoD Cyber Crime Center to fund continued development and modifications of cybersecurity tools and activities to support DoD-wide military intelligence efforts to include CADO-IS (formerly CI-PED) and STORMSYSTEM. Activities include but are not limited to development of software/hardware systems, integration and transition of lab-developed cyber capabilities, developmental testing, operational evaluation, manpower, studies, analysis, pilots, demonstrations, and risk reduction efforts to improve protection of critical technologies.

In FY 2022, PE 0305103F, Cyber Security Initiative, Project 671931, Tech Surveillance Counter Measures, efforts were transferred to PE 03031113F, Cyber Security Intelligence Support, Project 671931, Tech Surveillance Counter Measurement Equipment, in order to more appropriately categorize the funding according to purpose.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 $0 was expended for civilian pay expenses in this program element, and in FY2024 $0 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	8.972	8.476	11.107	0.000	11.107
Current President's Budget	8.972	8.476	18.141	0.000	18.141
Total Adjustments	0.000	0.000	7.034	0.000	7.034
• 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	7.034	0.000	7.034

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0301113F *I Cyber Security Intelligence Support*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Cyber Security Intelligence Support	8.972	8.476	18.141
Description: Provides funding to the Air Force DoD Cyber Crime Center to fund continued development and modifications of cybersecurity tools and activities to support DoD-wide military intelligence efforts to include CADO-IS [formerly CI-PED] and STORMSYSTEM. Activities include but are not limited to development of software/hardware systems, integration and transition of lab-developed cyber capabilities, developmental testing, operational evaluation, manpower, studies, analysis, pilots, demonstrations, and risk reduction efforts to improve protection of critical technologies. *FY 2024 Plans:* Continue providing professional and technical subject matter expertise to the development and modification of cybersecurity tools and activities to support DoD-wide military intelligence efforts. Continue the design and maintain enhanced ability to support research, prototyping, development, and testing of cybersecurity tools to synchronize collection, focus operational activity, and rapidly share intelligence to support DoD-wide military intelligence efforts. *FY 2025 Plans:* Program efforts will provide professional and technical subject matter expertise to the future development and modification of cybersecurity tools and activities to support DoD-wide military intelligence efforts. Enhance future design and improved ability to support research, prototyping, development, and testing of cybersecurity tools to synchronize collection, focus operational activity, and rapidly share intelligence to support DoD-wide military intelligence efforts. *FY 2024 to FY 2025 Increase/Decrease Statement:* Increased due to higher workload and labor rates.			
Accomplishments/Planned Programs Subtotals	8.972	8.476	18.141

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 Utilize a tailorable acquisition strategy that facilitates the rapid update and delivery of material and nonmaterial solutions to operational military intelligence efforts. This approach allows flexibility for solutions to enter the acquisitions process at any phase of the acquisition life cycle.   Cyber Security Intelligence Support provides the rapid development environment and DevOps capacity to meet urgent operational needs/requirements in the protection of critical technologies.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												Date: March 2024	
Appropriation/Budget Activity 3600 I 7							**R-1 Program Element (Number/Name)** PE 0301113F I Cyber Security Intelligence Support					**Project (Number/Name)** 671931 I TECH SURVEIL COUNTER MEAS EQPT	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Cyber Security Capability Development	C/CPAF	Perspecta (Peraton) : Reston, VA	-	4.824	Apr 2023	4.540	Apr 2024	5.950	Apr 2025	-		5.950	Continuing	Continuing	-
Cyber CI Capability Development	C/CPFF	CACI : Florham Park, NJ	-	1.440	Apr 2023	0.500	Apr 2024	0.500	Apr 2025	-		0.500	Continuing	Continuing	-
Cyber Security Sensor Development	C/CPFF	MITRE : McLean, VA	-	1.546	Oct 2022	1.850	Oct 2023	1.850	Oct 2024	-		1.850	Continuing	Continuing	-
Cyber Sensor Development	C/CPAF	SAF/CDN : Columbia, MD	-	-		-		4.037	Oct 2024	-		4.037	Continuing	Continuing	-
Cyber Security Data Capability Development	C/CPAF	MITRE : McLean, VA	-	-		-		3.000	Mar 2025	-		3.000	Continuing	Continuing	-
		Subtotal	-	7.810		6.890		15.337		-		15.337	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Cyber Security Intelligence Support	C/CPAF	Perspecta (Peraton) : Reston, VA	-	1.162	Apr 2023	1.586	Apr 2024	2.804	Apr 2025	-		2.804	Continuing	Continuing	-
		Subtotal	-	1.162		1.586		2.804		-		2.804	Continuing	Continuing	N/A

			Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
		Project Cost Totals	-	8.972	8.476	18.141	-	18.141	Continuing	Continuing	N/A

Remarks

PE 0301113F: *Cyber Security Intelligence Support*
Air Force

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0301113F / Cyber Security Intelligence Support	Project (Number/Name) 671931 / TECH SURVEIL COUNTER MEAS EQPT

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Cyber Security Intelligence Support

Design and Maintain Enhanced Research, Prototyping, Development and Testing of Cybersecurity Tools

Research, Prototype, Develop, and Test Cybersecurity Tools to Synchronize Collection, Focus Operational Activity, and Rapidly Share Intelligence

PE 0301113F: Cyber Security Intelligence Support
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0301113F *I Cyber Security Intelligence Support*	**Project (Number/Name)** 671931 *I TECH SURVEIL COUNTER MEAS EQPT*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Cyber Security Intelligence Support				
Design and Maintain Enhanced Research, Prototyping, Development and Testing of Cybersecurity Tools	1	2023	4	2029
Research, Prototype, Develop, and Test Cybersecurity Tools to Synchronize Collection, Focus Operational Activity, and Rapidly Share Intelligence	1	2023	4	2029

PE 0301113F: *Cyber Security Intelligence Support*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0301377F *I Countering Advanced Conventional Weapons (CACW)*

COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	0.000	0.000	1.668	0.000	1.668	1.120	1.337	1.597	1.630	Continuing	Continuing
675306: *Analysis Enterprise*	-	0.000	0.000	1.668	0.000	1.668	1.120	1.337	1.597	1.630	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
 This program, BA 7, PE 0301377F, project 675306, CACW Production Tools, is a new start.

A. Mission Description and Budget Item Justification
Countering Advanced Conventional Weapons is a DoD effort established in FY23 to increase Science & Technical Intelligence (S&TI) assessments and Modeling and Simulation (M&S) efforts to increase survivability and mission success.

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. In FY2023 $0.894M was expended for civilian pay expenses in this program element, and in FY2024 $3.868M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	1.668	0.000	1.668
Total Adjustments	0.000	0.000	1.668	0.000	1.668
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	1.668	0.000	1.668

PE 0301377F: *Countering Advanced Conventional Weapons...*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0301377F *I Countering Advanced Conventional Weapons (CACW)*		

Change Summary Explanation					
FY25 increase will fund the development of advanced analytic tools and information technology (IT) critical to technical intelligence needs of the Defense Intelligence Enterprise.					

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: CACW Production Tools	-	0.000	1.668
Description: Creation of advanced analytic tool and IT capabilities critical to production needs focusing on Machine Learning, operations research analysis, advanced software configuration & development, and external assistance for proper set-up and prototyping execution of system-of-systems simulations. *FY 2024 Plans:* No funding provided. *FY 2025 Plans:* Develop tools and IT needs for S&TI needs to facilitate the creation and delivery of multi-domain, cross-functional technical simulation & modeling analysis. *FY 2024 to FY 2025 Increase/Decrease Statement:* FY25 increase will fund the development of advanced analytic tools and information technology (IT) critical to technical intelligence needs of the Defense Intelligence Enterprise.			
Accomplishments/Planned Programs Subtotals	-	0.000	1.668

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 Contract type and strategy will be assessed each year; however, it is anticipated to be a mix of contract types.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024		

| Appropriation/Budget Activity
3600 *I* 7 | | | | | R-1 Program Element (Number/Name)
PE 0301377F *I Countering Advanced Conventional Weapons (CACW)* | | | | | Project (Number/Name)
675306 *I Analysis Enterprise* | | | | | |

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CACW Production Tools	Various	Not specified. : TBD	-	-		-		1.668	Jan 2025	-		1.668	Continuing	Continuing	-
Subtotal			-	-		-		1.668		-		1.668	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	-	1.668	-	1.668	Continuing	Continuing	N/A

Remarks

PE 0301377F: *Countering Advanced Conventional Weapons...*
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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0301377F / *Countering Advanced Conventional Weapons (CACW)*	**Project (Number/Name)** 675306 / *Analysis Enterprise*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
CACW Tool Development																												
1.668																												

PE 0301377F: *Countering Advanced Conventional Weapons...*
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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force				Date: March 2024	
Appropriation/Budget Activity 3600 / 7		R-1 Program Element (Number/Name) PE 0301377F / Countering Advanced Conventional Weapons (CACW)		Project (Number/Name) 675306 / Analysis Enterprise	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
CACW Tool Development				
1.668	1	2025	4	2029

PE 0301377F: *Countering Advanced Conventional Weapons...*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0301401F *I AF Multi-Domain Non-Traditional ISR Battlespace Awareness*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	3.069	2.890	3.436	0.000	3.436	3.804	4.808	5.961	9.574	0.000	33.542
67A051: *Space Superiority - Advanced Intelligence Systems*	-	3.069	2.890	3.436	0.000	3.436	3.804	4.808	5.961	9.574	0.000	33.542
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Cross Domain Tactical OPIR Processing delivers a mechanism providing reach-back support for battlespace awareness functions and manages the timely transfer of newly developed tools to operational users.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0M was expended for civilian pay expenses in this program element, and in FY24 $0M 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	3.069	2.890	56.173	0.000	56.173
Current President's Budget	3.069	2.890	3.436	0.000	3.436
Total Adjustments	0.000	0.000	-52.737	0.000	-52.737
• 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	-52.737	0.000	-52.737

C. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025
Title: TAC OPIR Processing	3.069	2.890	3.436

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0301401F *I AF Multi-Domain Non-Traditional ISR Battlespace Awareness*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Deliver tactically relevant OPIR processing, including both software development and a controlled multi-level security interface that provides data access and processing services for a robust and flexible network architecture. *FY 2024 Plans:* Continue to process and deliver tactically relevant OPIR data. Multiple tools developed under an Intelligence Community Major System Acquisition will reach IOC or FOC in FY24, leading to increased demand for the capabilities and multi-level security interface provided by this Budget Item. *FY 2025 Plans:* Continue to process and deliver tactically relevant OPIR data. Multiple tools developed under an Intelligence Community Major System Acquisition will have reached IOC or FOC in FY24, leading to increased demand for the capabilities and multi-level security interface provided by this Budget Item. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due primarily to inflationary cost.			
Accomplishments/Planned Programs Subtotals	3.069	2.890	3.436

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.

PE 0301401F: *AF Multi-Domain Non-Traditional ISR Batt...*
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		**Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0301401F / AF Multi-Domain Non-Tradit ional ISR Battlespace Awareness	Project (Number/Name) 67A051 / Space Superiority - Advanced Intelligence Systems

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Cross Domain OPIR	C/CPFF	NASIC : Dayton, OH	-	3.069	Oct 2022	2.890	Oct 2023	3.436	Oct 2024	-		3.436	Continuing	Continuing	-
		Subtotal	-	3.069		2.890		3.436		-		3.436	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	3.069		2.890		3.436		-		3.436	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0301401F *I AF Multi-Domain Non-Tradit ional ISR Battlespace Awareness*	**Project (Number/Name)** 67A051 *I Space Superiority - Advanced Intelligence Systems*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Cross Domain OPIR																												
Algorithm Development																												
Tactical OPIR Processing																												
Hardware Purchases, Software Development																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0301401F *I AF Multi-Domain Non-Tradit ional ISR Battlespace Awareness*	**Project (Number/Name)** 67A051 *I Space Superiority - Advanced Intelligence Systems*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Cross Domain OPIR				
Algorithm Development	1	2023	4	2028
Tactical OPIR Processing				
Hardware Purchases, Software Development	1	2023	4	2028

PE 0301401F: *AF Multi-Domain Non-Traditional ISR Batt...*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						R-1 Program Element (Number/Name) PE 0302015F *I E-4B National Airborne Operations Center (NAOC)*					

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	29.425	39.868	40.441	0.000	40.441	43.496	24.649	3.005	3.065	0.000	183.949
674777: *E-4B Aircraft Modernization*	-	29.425	39.868	40.441	0.000	40.441	43.496	24.649	3.005	3.065	0.000	183.949
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The four (4) aircraft E-4B National Airborne Operations Center (NAOC) fleet satisfies the military need for an airborne operations center with communications capabilities permitting military and civilian leadership to monitor and control military and civil national assets during all phases of conflict (nuclear and non-nuclear) or natural disaster. The E-4B NAOC fleet also satisfies the military requirement to provide a highly survivable node of the National Military Command System (NMCS).

This program's developmental modifications include, but are not limited to, upgrades and enhancements to aircraft structures, propulsion system, fuel system, environmental control system, electrical generation and distribution systems, flight safety and navigation systems (with their associated communications equipment), and the Systems Integration Lab. Modifications may enhance the aircraft's mission capabilities necessary for the E-4B fleet to execute its mission, to include but not limited to those necessary for the Senior Leadership Command, Control and Communications System (SLC3S), National Leadership Command Capability (NLCC), and Nuclear Command, Control, and Communications (NC3). Funds may also be used to explore and develop modifications, upgrades, and future systems required to meet evolving mission requirements. This budget supports the following developmental modifications and studies/projects currently underway or planned for accomplishment:

- Survivable Super High Frequency (SSHF) will upgrade and replace portions of the E-4B's Jam-Resistant Secure Communications (JRSC) system to meet existing Presidential Policy Directive (PPD)-35 and National Security Presidential Directive (NSPD)-51/Homeland Security Presidential Directive (HSPD)-20 requirements and to ensure continued connectivity and interoperability as satellite and communications infrastructure evolves. Expected modifications include, but are not limited to, component and sub-system upgrades and replaces portions of the current Super High Frequency (SHF) system that are obsolete or near end of service life. A replacement to the SHF system is required as secure, survivable communications capability transitions from the Defense Satellite Communications System (DSCS). A risk-reduction study was completed in FY19 to further define the acquisition strategy of the SSHF program. The program will be acquired in 2 increments and each increment will be split into 2 installs to expedite fielding and reduce impact to Aircraft Availability. Increment 1A will upgrade the existing Ka-band system. Increment 1B will include technical solutions such as upgrading the existing modems and systems integration lab. Increment 2A will include new modem technology and common workstation. Increment 2B will include a new Ku-band system upgrades to the X-band system.

- The E-4B Systems Integration Laboratory (SIL) program will develop a test environment configured to represent the mission systems of the E-4B with connectivity to mission networks and services. E-4B SIL started as the Test Accreditation Integration Lab (TAIL) 5 for development of the E-4B SSHF program. The E-4B SIL program will expand the capabilities of TAIL 5 beyond SSHF to include the other mission communication systems within the E-4B. The E-4B SIL is necessary to minimize modernization and technical refresh schedules by reducing time on aircraft for install, test, ground connections/configurations, technical orders, redlines/rework, and

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0302015F *I E-4B National Airborne Operations Center (NAOC)*	

training. Schedule reduction by the E-4B SIL will directly support increased Aircraft Availability (AA). The E-4B SIL will be developed in three blocks in FY24-FY27: Block 1 will focus on voice systems, Block 2 will focus on data systems, and Block 3 will integrate the remaining communication systems.

The total cost of the E-4B Survivable Super High Frequency Increment 2 Rapid Prototyping Middle Tier of Acquisition effort is 174.7 million, including RDT&E and procurement of prototype units. The E-4B SSHF Inc 2 RP program is not fully funded across the Future Years Defense Program. The Department of the Air Force is assessing all options to address the funding shortfalls for MTA programs including additional funding in a future budget request, performance trades based on technical maturity, or transition to alternative pathways.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0.0M was expended for civilian pay expenses in this program element, and in FY24 0.0M 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 2023	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	25.701	39.868	26.767	0.000	26.767
Current President's Budget	29.425	39.868	40.441	0.000	40.441
Total Adjustments	3.724	0.000	13.674	0.000	13.674
• 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	3.724	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	13.674	0.000	13.674

Change Summary Explanation

FY23 increase from a Below Threshold Reprogramming for E-4B SHF +$3.724M
FY25 increase associated with ongoing SSHF Increment 2 design and development activities.

C. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	**FY 2024**	**FY 2025**
Title: Survivable SHF	29.425	24.868	28.417

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0302015F *I E-4B National Airborne Operations Center (NAOC)*	

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Survivable Super High Frequency (SSHF) will upgrade and replace portions of the E-4B's Jam-Resistant Secure Communications (JRSC) system to meet existing Presidential Policy Directive (PPD)-35 and National Security Presidential Directive (NSPD)-51/Homeland Security Presidential Directive (HSPD)-20 requirements and to ensure continued connectivity and interoperability as satellite and communications infrastructure evolves. Expected modifications include, but are not limited to, component and sub-system upgrades and replaces of portions of the current SHF system that are obsolete or near end of service life. A replacement to the SHF system is required as secure, survivable communications capability transitions from the Defense Satellite Communications System (DSCS). A risk-reduction study was completed in FY19 to further define the acquisition strategy of the SSHF program. The program will be acquired in 2 increments and each increment will be split into 2 installs to expedite fielding and reduce impact to Aircraft Availability. Increment 1A will upgrade the existing Ka-band system. Increment 1B will include technical solutions such as upgrading the existing modems and systems integration lab. Increment 2A will include new modem technology and common workstation. Increment 2B will include a new Ku-band system upgrades to the X-band system. *FY 2024 Plans:* - Continue Increment 2 development activities. - Continue design of common workstation. - Continue development of new modem technology. *FY 2025 Plans:* - Continue Increment 2 development activities. - Begin design of Ku-band system. - Begin development of X-band upgrades. *FY 2024 to FY 2025 Increase/Decrease Statement:* Increase due to start of Ku-band design and X-band upgrades.			
Title: E-4B Systems Integration Laboratory (SIL) *Description:* The E-4B Systems Integration Laboratory (SIL) program will develop a test environment configured to represent the mission systems of the E-4B with connectivity with mission networks and services. E-4B SIL started as the Test Accreditation Integration Lab (TAIL) 5 for development of the E-4B SSHF program. The E-4B SIL program will expand the capabilities of TAIL 5 beyond SSHF to include the other mission communication systems within the E-4B. The E-4B SIL is necessary to minimize modernization and technical refresh schedules by reducing time on aircraft for install, test, ground connections/configurations, technical orders, redlines/rework, and training. Schedule reduction by the E-4B SIL will directly support increased Aircraft Availability (AA). The E-4B SIL will be developed in three blocks in FY24-FY27 to support AA: Block 1 will focus on voice systems, Block 2 will focus on data systems, and Block 3 will integrate the remaining communication systems.	0.000	15.000	12.024

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0302015F *I E-4B National Airborne Operations Center (NAOC)*	

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: - Begin Block 1 (voice system) development *FY 2025 Plans:* - Continue Block 1 (voice systems) development - Begin Block 2 (data systems) development *FY 2024 to FY 2025 Increase/Decrease Statement:* Decrease due to cost equipment required for Block 1 development.			
Accomplishments/Planned Programs Subtotals	29.425	39.868	40.441

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 Line Item E00400: *E-4B Nat Airborne Ops Center (NAOC)*	5.973	13.055	28.728	-	28.728	36.835	44.487	45.414	46.316	0.000	220.808
• APAF 06 Line Item 000999: *Initial Spares/Repair Parts*	4.523	0.364	0.373	-	0.373	0.379	0.388	0.396	0.403	0.000	6.826

Remarks

E. Acquisition Strategy

Acquisition Strategy: The acquisition strategy for each specific modification differs based on the urgency of the requirement, definition of the capability, and technology readiness level of the components.

The Acquisition Strategy for Survivable SHF is a Section 804 Middle Tier Acquisition (MTA). Increment 1 Rapid Prototype MTA was approved in April 2019. Increment 2 Rapid Prototype MTA was approved in December 2021.

Management Strategy: Program management for all aircraft modifications is executed by the Commercial Derivative Aircraft Division at Tinker AFB, Oklahoma. The Program Executive Officer (PEO) for Presidential and Executive Airlift, at Wright Patterson, Ohio provides management oversight.

Contracting Strategy: The contracting strategy differs for each individual modification, but normally includes an initial engineering study contract followed by a development contract. Production installations and sustainment are typically accomplished with the E-4B Contractor Logistics Support (CLS) contract.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024	

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0302015F / E-4B National Airborne Operations Center (NAOC)	Project (Number/Name) 674777 / E-4B Aircraft Modernization

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Survivable SHF	C/CPFF	L-3 : SLC, UT	-	29.425	Jan 2023	24.868	Jan 2024	28.417	Jan 2025	-		28.417	0.000	82.710	120.000
E-4B SIL	SS/CPFF	L-3 : SLC, UT	-	-		15.000	Apr 2024	12.024	Jan 2025	-		12.024	0.000	27.024	50.000
Subtotal			-	29.425		39.868		40.441		-		40.441	0.000	109.734	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	29.425	39.868	40.441	-	40.441	0.000	109.734	N/A

Remarks

FY23, FY24, & FY25 SSHF funding supports development, integration, and test of prototype SSHF system under L-3Harris contract.

FY24, FY25 SIL funding supports Block 1 development efforts.

FY25 SIL funding supports Block 2 development efforts.

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0302015F *I* E-4B National Airborne Operations Center (NAOC)	**Project (Number/Name)** 674777 *I* E-4B Aircraft Modernization

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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

E-4B Aircraft Modernization

Activity
MUOS Modification Integration and Testing
MUOS Modification Milestone Decision C
Survivable SHF Inc 1 Rapid Fielding Decision
Survivable SHF Inc 2A Integration and Testing
Survivable SHF Inc 2A Prototype Modification Decision
Survivable SHF Inc 2A Rapid Fielding Decision
Survivable SHF Inc 2B Integration and Testing
Survivable SHF Inc 2B Prototype Modification Decision
Survivable SHF Inc 2B Rapid Fielding Decision
E-4B SIL Block 1 Development
E-4B SIL Block 2 Development
E-4B SIL Block 3 Development

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0302015F / E-4B National Airborne Operations Center (NAOC)	**Project (Number/Name)** 674777 / E-4B Aircraft Modernization

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
E-4B Aircraft Modernization				
MUOS Modification Integration and Testing	2	2023	1	2024
MUOS Modification Milestone Decision C	2	2024	2	2024
Survivable SHF Inc 1 Rapid Fielding Decision	4	2023	4	2023
Survivable SHF Inc 2A Integration and Testing	1	2023	4	2024
Survivable SHF Inc 2A Prototype Modification Decision	1	2024	1	2024
Survivable SHF Inc 2A Rapid Fielding Decision	4	2024	4	2024
Survivable SHF Inc 2B Integration and Testing	1	2025	1	2027
Survivable SHF Inc 2B Prototype Modification Decision	4	2026	4	2026
Survivable SHF Inc 2B Rapid Fielding Decision	2	2027	2	2027
E-4B SIL Block 1 Development	3	2024	4	2025
E-4B SIL Block 2 Development	2	2025	3	2026
E-4B SIL Block 3 Development	2	2026	3	2027

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity	R-1 Program Element (Number/Name)
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	PE 0302315F *I Non-Kinetic Countermeasure Support*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	15.180	0.000	15.180	15.731	12.986	11.253	9.529	Continuing	Continuing
675309: *Geo Info & Serv Software Development*	-	0.000	0.000	15.180	0.000	15.180	15.731	12.986	11.253	9.529	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Please reference 2025 Classified CJB MIP Volume 5.

This is a new MIP project in FY25

This program element may include necessary civilian pay expenses requried 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 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 0 was expended for civilian pay expenses in this program element, and in FY2024 0 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	15.180	0.000	15.180
Total Adjustments	0.000	0.000	15.180	0.000	15.180
• 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	15.180	0.000	15.180

Change Summary Explanation

New Start in FY25. RDT&E required to develop a federated data architecture and repository for DoD wide efforts.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0302315F *I Non-Kinetic Countermeasure Support*		

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: Data Architecture/Repository	-	0.000	15.180	0.000	15.180
Description: RDT&E funding will enable the testing, prototyping, and development efforts for a DoD wide federated data architecture and repository with the tools to provide tailored analysis and visualization to meet the intelligence needs of the intelligence enterprise. **FY 2024 Plans:** New Start FY25 **FY 2025 Base Plans:** Funding will commence the evaluation of current database capabilities, design of federated architecture, and prototyping of repository capabilities. **FY 2025 OCO Plans:** N/A **FY 2024 to FY 2025 Increase/Decrease Statement:** FY25 new start required to develop a DoD federated data architecture and repository.					
Accomplishments/Planned Programs Subtotals	-	0.000	15.180	0.000	15.180

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 Contract type and strategy will be assessed each year; however, it is anticipated that there will be a mix of contract types.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0302315F *I Non-Kinetic Countermeasure Support*						**Project (Number/Name)** 675309 *I Geo Info & Serv Software Development*		

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Data Architecture/ Repository	C/Various	Not specified. : TBD	-	-		-		8.166	Jan 2025	-		8.166	Continuing	Continuing	-
		Subtotal	-	-		-		8.166		-		8.166	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Capability Evaluation and Testing	C/CPAF	Not specified. : TBD	-	-		-		7.014	Feb 2025	-		7.014	Continuing	Continuing	-
		Subtotal	-	-		-		7.014		-		7.014	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	-	15.180	-	15.180	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0302315F / *Non-Kinetic Countermeasure Support*	**Project (Number/Name)** 675309 / *Geo Info & Serv Software Development*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Data Architecture and Repository																												
Development and Testing									▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮	▮

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0302315F / *Non-Kinetic Countermeasure Support*	**Project (Number/Name)** 675309 / *Geo Info & Serv Software Development*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Data Architecture and Repository				
Development and Testing	2	2025	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	**Date:** March 2024

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303004F *I EIT CONNECT*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.000	32.900	32.960	0.000	32.960	0.000	0.000	0.000	0.000	0.000	65.860
673100: *Operational System Development - Hq USAF Only*	-	0.000	32.900	32.960	0.000	32.960	0.000	0.000	0.000	0.000	0.000	65.860
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This activity builds upon the deployment and connectivity of solutions being delivered under the DAF Advanced Battle Management System (ABMS) Program Element 64003F. The DAF executed Task Force Sentinel Stand (TFSS) to assess cyber command relations (COMREL) at the tactical edge. TFSS proved warfighters have a critical need to take their endpoint devices to austere locations and still access needed classified data without High Assurance IP Encryptor devices. Connectivity will allow relevant mission data requirements to the edge and through space with diverse access paths to deter adversary intrusions. This will include the SD-WAN (Software-Defined Wide Area Network) routing layer to transport content across nodes through both government and commercial communication paths. Through this effort the DAF will deploy, connect, and test SD-WAN solutions in direct support of USAFE, Air Force Forces Generation (AFFORGEN), and Agile Combat Employment (ACE) initiatives, to allow Combat Air Forces to connect, move and maneuver, and recover safely, reducing risk to mission and life.

DAF CIO's vision is to provide resilient, software-defined, transport and portable end points that create efficiencies and resiliency in transport by creating a "Black Fabric" that allows multiple providers to transport multiple classifications, rather than the historic and vulnerable approach of 1 fiber, 1 network, 1 classification.

In FY24, funding was allocated for activities to support deployment, connection and testing of an Operational EIT SD-WAN network in an "operational prototype" configuration, to demonstrate distributed edge intelligence and C2 "on-the-move." Funding initiated deployment of network capability that could in the future, if successful, be scaled for employment across any DAF (or DoD) installation or weapon system.

FY25 funds are focused on the following outcomes:

- Codify requirements, through experimentation and evaluation activities, for provisioning future network solutions to proliferate and sustain the SD-WAN architecture for any DAF installation or weapon system.

- Define the DAF level standards for ensuring access to a proliferated SD-WAN architecture, which aligns with analogous technologies employed in the private sector today, to allow the widest possible adoption of this capability in the future.

- Deliver critical near-term infrastructure for OI championed ACE needs and to demonstrate a technology that supports broader Joint All Domain C2 objectives.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0303004F *I EIT CONNECT*

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. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.000	32.900	32.902	0.000	32.902
Current President's Budget	0.000	32.900	32.960	0.000	32.960
Total Adjustments	0.000	0.000	0.058	0.000	0.058
• 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	0.058	0.000	0.058

Change Summary Explanation

No significant change to FY25 funding request.

C. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: EIT CONNECT	0.000	32.900	32.960	0.000	32.960

Description: To ensure the efficient use of DAF investment in the tactical communications at the edge to execute ACE design and validate broader DAF level requirements that provide resilient, distributed, and secure connectivity—including mobile computing and multiple communications pathways (government and commercial space, cellular, wireless, fiber)—to mitigate adversary threats to our critical Enterprise Information Technology infrastructure during both normal/peacetime operations and in wartime operations. Initial deployments support PACAF/INDOPACOM and USAFE.

FY 2024 Plans:

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0303004F *I EIT CONNECT*		

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
- Award task order to facilitate deployment, test and validation of network capability that could in the future, if successful, be scaled for employment across any DAF (or potentially DoD) installation or weapon system. *FY 2025 Base Plans:* - Will facilitate deployment, test and validation of network scalability in support of USAFE. *FY 2025 OCO Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* No significant change.					
Accomplishments/Planned Programs Subtotals	0.000	32.900	32.960	0.000	32.960

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

E. Acquisition Strategy

The EIT Connect program will award the SD-WAN Development Task Order for a one-year Period using a commercial solution opening IDIQ contract. The period of performance is projected to start in April 2024 and ends in April 2025. A follow-on contract is expected to be awarded in April 2025, to support testing system scalability in USAFE.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0303004F *I EIT CONNECT*					**Project (Number/Name)** 673100 *I Operational System Development - Hq USAF Only*				

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
EIT CONNECT	C/TBD	TBD : TBD	-	-		32.900	Apr 2024	32.960	Apr 2025	-		32.960	0.000	65.860	-
Subtotal			-	-		32.900		32.960		-		32.960	0.000	65.860	N/A

	Prior Years	**FY 2023**		**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	-		32.900	32.960	-	32.960	0.000	65.860	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303004F *I EIT CONNECT*	**Project (Number/Name)** 673100 *I Operational System Development - Hq USAF Only*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Operational System Development - Hq USAF Only																												
SD-WAN																												
PACAF																												
USAFE																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303004F *I EIT CONNECT*	**Project (Number/Name)** 673100 *I Operational System Development - Hq USAF Only*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Operational System Development - Hq USAF Only				
SD-WAN	3	2024	3	2026
PACAF	3	2024	3	2025
USAFE	3	2025	3	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0303089F I *Cyberspace Operations Systems*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.000	4.881	9.776	0.000	9.776	10.114	10.401	10.716	10.929	Continuing	Continuing
676002: *Cyber Systems Modernization*	-	0.000	4.881	9.776	0.000	9.776	10.114	10.401	10.716	10.929	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

CSOS provides Functional Mission Analysis-Cyber and the ability to link weapon/mission systems, sensored by the Integrated Defensive Cyberspace System (IDCS), to support Mission Relevant Terrain-Cyber (MRT-C) for Indo-Pacific Command (INDOPACOM) and Air Force missions in the INDOPACOM Area of Responsibility. CSOS will prioritize updating dashboards with data collected by IDCS sensors for the five prioritized bases in INDOPACOM then expand across the Air Force. Together, with IDCS, the CSOS program directly aligns with the Air Force's ability to achieve compliance with the FY22 National Defense Authorization Act (NDAA) Section 1505 to complete mapping of MRT-C for Defense Critical Assets (DCAs) and Task Critical Assets (TCAs) enabling mission thread analysis and situational awareness.

In FY25, cyber systems modernization will focus on development of new approaches and stay technologically current to inform the delivery of data analytics, visualization, dashboards, threat, and network awareness with an emphasis of delivering capabilities which directly enable missions across the DAF. Development will focus on improvement of visualization dashboards to provide cyber situational awareness (SA) and decision support tools with data collected by IDCS for the Pacific Air Forces (PACAF) Area of Responsibility (AOR). Development teams will produce Air Force - specific software modules and/or enhancements to existing suites of cyber Command and Control (C2) software, to include the Joint Cyber Command and Control (JCC2), or new software development efforts - including Mission Defense Team (MDT) C2 software, provide weapon systems cyber awareness, and provide situational awareness for the Air Force Information Network Security Operations Center (AFIN SOC).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			Date: March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0303089F *I Cyberspace Operations Systems*		

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.000	4.881	9.758	0.000	9.758
Current President's Budget	0.000	4.881	9.776	0.000	9.776
Total Adjustments	0.000	0.000	0.018	0.000	0.018
• 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	0.018	0.000	0.018

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Cyber Systems Modernization	-	4.881	9.776
Description: Capabilities developed/delivered will support integration of existing cyber C2 solutions into the cross functional mission analysis scope of work to support: 1) sensor strategy deployment 2) identification and monitoring of control systems 3) C2 support of mission defense teams 4) situational awareness to cyber service security providers **FY 2024 Plans:** - Continue developing requirements for PACAF-focused cyber C2 SA/dashboard capabilities - Continue PACAF AOR mapping/monitoring of mission relevant terrain-cyber on all domains - Continue surveying fielded cyber C2 systems to assess adaptability to meet/support cyber C2/dashboard mission needs - Continue scaling and delivering capability through an agile development model to rapidly deliver operational capabilities **FY 2025 Plans:** - Will select a C2 solution (fielded cyber C2 systems and/or new software development effort) and initiate C2 visualization/ dashboard prototyping - Will complete PACAF AOR mapping of mission relevant terrain-cyber and update JCC2 mission assurance tools - Will support PACAF AOR cyber exercises and incorporate emerging requirements into software development cycles - Will scale and deliver capability through an agile development model to rapidly deliver operational capabilities **FY 2024 to FY 2025 Increase/Decrease Statement:** - Funding increased to fully implement software development, modification and exercise efforts established through FY24 requirements development and PACAF AOR mission analysis.			
Accomplishments/Planned Programs Subtotals	-	4.881	9.776

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303089F *I Cyberspace Operations Systems*	

D. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

E. Acquisition Strategy

 The Cyber Situational Awareness cyber C2 visualization/dashboard effort will be executed by the Joint Cyber Command and Control (JCC2) Program Office (AFLCMC/ HNCJ). JCC2, an approved Software Acquisition Pathway (SWAP) program, is in the Software Acquisition Execution Phase which enables continuous integration and delivery of software capability at the speed of relevance. JCC2 will apply agile acquisition tenants to the programmatic, design/engineering, test, and delivery aspects to provide an ability to deliver Situational Awareness/C2 capabilities to the warfighter in a rapid manner, and will leverage this capability to deliver PACAF-AOR focused visualization/dashboard tools and applications to meet specified mission requirements. The JCC2 program office may leverage existing contract vehicles, or if required to meet specified PACAF AOR needs, award new contract vehicles/task orders to deliver a continuous integration/continuous development pipeline to facilitate the rapid development, integration, and fielding of capabilities to remain responsive to evolving warfighter requirements.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		**Date:** March 2024

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0303089F / *Cyberspace Operations Systems*	**Project (Number/Name)** 676002 / *Cyber Systems Modernization*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Cyber Systems Modernization - Development	TBD	TBD : TBD	-	-		4.081	Apr 2024	7.170	Feb 2025	-		7.170	Continuing	Continuing	11.231
Subtotal			-	-		4.081		7.170		-		7.170	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Cyber Systems Modernization - PMO Program Support Costs (PSC)	Various	TBD : TBD	-	-		0.500	Feb 2024	1.656	Feb 2025	-		1.656	Continuing	Continuing	2.156
Subtotal			-	-		0.500		1.656		-		1.656	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Cyber Systems Modernization - Test Support	PO	Not specified. : TBD	-	-		0.300	Feb 2024	0.950	Feb 2025	-		0.950	Continuing	Continuing	1.250
Subtotal			-	-		0.300		0.950		-		0.950	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	4.881	9.776	-	9.776	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303089F *I Cyberspace Operations Systems*	**Project (Number/Name)** 676002 *I Cyber Systems Modernization*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Cyber Systems Modernization																												
Visualization Dashboards																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force			**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7		**R-1 Program Element (Number/Name)** PE 0303089F / *Cyberspace Operations Systems*	**Project (Number/Name)** 676002 / *Cyber Systems Modernization*	

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Cyber Systems Modernization				
Visualization Dashboards	2	2024	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024		

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	32.876	33.567	25.500	0.000	25.500	11.550	7.667	7.944	8.101	Continuing	Continuing
672832: *MEECN System Improvements*	-	1.023	1.047	1.073	0.000	1.073	1.099	0.008	0.008	0.008	Continuing	Continuing
672835: *Common VLF/LF Receiver Inc 2*	-	12.471	29.520	13.004	0.000	13.004	10.451	7.659	7.936	8.093	Continuing	Continuing
676030: *Global ASNT Inc 2*	-	19.382	3.000	11.423	0.000	11.423	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

Nuclear Deterrence Operations (NDO) is an Air Force Core Function. Within this core function, Nuclear Command and Control (NC2) is the exercise of authority and direction by the President, as Commander in Chief, through established command lines, over nuclear weapon operations of military forces. The President's authority and direction are exercised through the Nuclear Command and Control System (NCCS). The NCCS is the designated combination of flexible and enduring elements including facilities, equipment, communications, procedures, personnel, and the structure in which these elements are integrated, all of which are essential for planning, directing, and controlling nuclear weapon operations.

The Minimum Essential Emergency Communications Network (MEECN) portfolio modernizes the systems necessary to effectively provide assured communications connectivity between the President and the strategic deterrence forces in stressed environments.

MEECN System Improvements (MSI) is a long-range planning effort with users (Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), United States Space Force (USSF), Air Mobility Command (AMC), Air Force Special Operations Command (AFSOC), US Strategic Command (USSTRATCOM), and the US Navy (USN)) to monitor and assess the performance of existing NC3 systems and develop recommendations for strategic and tactical architecture upgrades, requirements, and issues based on available and emerging technologies. MSI is used to conduct technology testing; analyze technology strategies; conduct requirement trade space analysis, technology maturation and risk reduction efforts, and mission analysis; and build technology roadmaps as proactive support to the NC3 community. MSI performs analysis, integration, and testing activities for the NC3 Weapon System.

The Common Very Low Frequency/Low Frequency (VLF/LF) Receiver (CVR) Increment 2 (CVRi2) Program will develop and produce a modular open systems approach (MOSA) compliant, advanced, adaptable VLF/LF receiver. As the USAF VLF receiver integrator, the VLF Enterprise Program Office will continue to be responsible for VLF sustainment to include configuration management of the CVR Increment 1 (CVRi1) material solution while also providing management support to the B-52 VLF Modernization Program for its procurement and production of the directed VLF receiver. The VLF Enterprise Program Office will provide the same management support to other legacy NC3 platforms' VLF receiver requirements. VLF Enterprise Program Office will also develop an acquisition strategy for adaptation of CVRi2 for the current and future NC3 platforms, while establishing an overarching contract to capture both development and production of CVRi2 for multiple NC3 platforms, which will enable enterprise level management of the VLF receivers for the current and future USAF airborne and ground-based NC3 platforms.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)*	

The total cost of the Common VLF Receiver Increment 2 Middle Tier of Acquisition effort is 122.1 million, including RDT&E and procurement of prototype units. The CVR Inc 2 RP program is not fully funded across the Future Years Defense Program. The Department of the Air Force is assessing all options to address the funding shortfalls for MTA programs including additional funding in a future budget request, performance trades based on technical maturity, or transition to alternative pathways.

This project 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 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F.   In FY 2023 0.188M was expended for civilian pay expenses in this project, and FY 2024 0.319M is forecasted for civilian pay expenses in this project. No FY 2025 civilian pay.

The Global Aircrew Strategic Network Terminal (Global ASNT) program replaces inadequate, unsustainable strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces and Munitions Support Squadrons (MUNSS) and for Mobile Support Teams (MSTs). Global ASNT is a ground-based system that will provide survivable, secure communication paths to receive Emergency Action Messages (EAMs), Force Management messages, and Force Direction messages and disseminate them to bomber, tanker, and reconnaissance aircrews.

Global ASNT is being fielded in separate capability increments.

Global ASNT Increment 1 (Inc 1) fields required Extremely High Frequency/Advanced Extremely High Frequency (EHF/AEHF) capabilities and replaces inadequate, unsustainable strategic mobile and fixed-site Single Channel Anti-jam Man-Portable (SCAMP) terminals and Secure, Mobile, Anti-Jam, Reliable, Tactical - Terminal (SMART-T) equipment. FY 2019 was the last year of RDT&E funding for Global ASNT Inc 1; development is complete, full rate production is in process, and fielding of terminals commenced in 2QFY22.

Global ASNT Increment 2 (Inc 2) Block 1 delivers a replacement Aircrew Alerting System (AAS) consisting of personal and general area alerting as well as Ultra High Frequency (UHF) line of sight (LOS) voice communications to bomber, tanker, and reconnaissance aircraft. Increment 2 replaces aging legacy Electromagnetic Pulse Hardened Dispersal Communication (EHDC) and Aircrew Alerting Communications Electromagnetic Pulse (AACE) systems.

Global ASNT Increment 2 (Inc 2) Block 2 delivers High Frequency (HF) Beyond Line of Sight (BLOS) communications to bomber, tanker, and reconnaissance aircraft.

The total cost of the Global ASNT Inc 2 Block 1 Middle Tier of Acquisition effort is 132.210M, including RDT&E and procurement of prototype units. The Global ASNT Inc 2 Block 1 is not fully funded across the Future Years Defense Program.

This project 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 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. No FY 2024 or FY 2025 civilian pay is planned.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* I BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303131F I *Minimum Essential Emergency Communications Network (MEECN)*

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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	35.548	33.567	13.535	0.000	13.535
Current President's Budget	32.876	33.567	25.500	0.000	25.500
Total Adjustments	-2.672	0.000	11.965	0.000	11.965
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-1.566	0.000			
• SBIR/STTR Transfer	-1.106	0.000			
• Other Adjustments	0.000	0.000	11.965	0.000	11.965

Change Summary Explanation

FY 2023: (-1.106M) SBIR Reduction and (-1.566M) for AF FY 23-80 PA September 2023 reprograming
FY 2025: (+23.423M) AF internal realignment and (-11.457M) Reduced due to higher Air Force priorities

PE 0303131F: *Minimum Essential Emergency Communicatio...*
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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)*				**Project (Number/Name)** 672832 *I MEECN System Improvements*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
672832: *MEECN System Improvements*	-	1.023	1.047	1.073	0.000	1.073	1.099	0.008	0.008	0.008	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

MSI is a long-range planning effort with users [Air Force Global Strike Command (AFGSC), Air Combat Command (ACC), United States Space Force (USSF), Air Mobility Command (AMC), Air Force Special Operations Command (AFSOC), US Strategic Command (USSTRATCOM), and the US Navy] to monitor and assess the performance of existing NC3 systems and develop recommendations for strategic and tactical architecture upgrades, requirements, and issues based on available and emerging technologies. MSI is used to conduct technology testing; analyze technology strategies; conduct requirement trade space analyses, technology maturation and risk reduction efforts, mission analysis; and build technology Roadmaps as proactive support to the NC3 community. MSI performs analysis, integration, and testing activities for the NC3 Weapon System.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: MEECN System Improvements *Description:* MSI is used to conduct technology testing, analyze technology strategies, conduct requirement trade space analyses, technology maturation, risk reduction efforts mission analyses, and build technology Roadmaps as proactive support to the NC3 community. MSI may also be used to execute test bed activities and exercise participation related to NC3 integration into Advanced Battle Management System (ABMS) and Joint All-Domain Command and Control (JADC2) demonstrations and execute contracts in support of next generation NC3 systems and sub-systems. *FY 2024 Plans:* - Complete the annual MSI Summary Report - Perform analysis of engineering issues and technology insertion - Perform analysis, integration, and testing activities - Conduct studies and analysis for the assessment and modernization of the AF NC3 Weapon System (AN/USQ-225) - Conduct analysis of the performance/condition of NC3 platforms' VLF receiver Group A elements [e.g., antennas, power source, cabling/wiring, human machine interface (HMI), etc.] - Develop messaging, waveform, mode, and system standards and documentation - Conduct studies, analysis, proof-of-concept, and prototyping for the assessment and modernization of the AF NC3 Weapon System (AN/USQ-225) - Conduct the second phase of an in-depth cybersecurity evaluation of the fielded VLF receiver - Conduct studies, analyses, and evaluations of the HF/DHF/AEHF NC3 Capabilities	1.023	1.047	1.073

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0303131F / *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 672832 / *MEECN System Improvements*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Perform characterization of fielded legacy VLF receive capability; identify strategies/tools for mitigating electromagnetic interference to improve reception - Modeling and Simulation to support assessments of legacy and future VLF system effectiveness in disturbed environments at maximum range ***FY 2025 Plans:*** - Complete the annual MSI Summary Report - Conduct analysis of the performance/condition of prototype VLF configuration on tankers - Modeling and simulation of next-generation VLF relay systems to support evolving NC3 CONOPs - Conduct analysis and identify means of improving transmission and receipt of VLF messages in NC3 exercise events - Conduct analysis and identify means of integrating VLF receive capabilities into current or soon-to-be-fielded Software Defined Radios (SDRs) - Conduct analysis and identify potential VLF transmit and receive capabilities of existing antennas by modifying existing aircraft installation designs and leveraging novel electromagnetic effects to enhance performance of existing antennas - Develop messaging, waveform, mode, and system standards and documentation including OMS/UCI and SOSA - Conduct studies, analysis, proof-of-concept, and prototyping for the assessment and modernization of the AF NC3 Weapon System (AN/USQ-225) - Conduct the third (final) phase of an in-depth cybersecurity evaluation of the fielded VLF receiver - Connectivity Studies: Update the 2023 NC3 Connectivity Study - Conduct studies, analyses, and evaluations of the HF/DHF/AEHF NC3 Capabilities ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase due to inflation			
Accomplishments/Planned Programs Subtotals	1.023	1.047	1.073

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

D. Acquisition Strategy
 MSI will continue to evaluate the performance of the NC3 Weapon System by assessing performance and technology areas for improvement with the assistance of expert technical support from Federally Funded Research and Development Centers (FFRDCs) and University Affiliated Research Centers (UARCs) [e.g. MITRE, Massachusetts Institute of Technology (MIT) Lincoln Labs, and Johns Hopkins University/Applied Physics Laboratory (JHU/APL), etc.]. It may also include competitively awarded technical support contracts with industry and/or academia.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 672832 *I MEECN System Improvements*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MSI NC3 Roadmap / NC3 Connectivity Performances Update Cybersecurity Evaluation	Various	JHU/APL - Laurel, MD : Laurel, MD	-	0.675	Mar 2023	0.797	Jan 2024	0.803	Dec 2024	-		0.803	Continuing	Continuing	0.000
Subtotal			-	0.675		0.797		0.803		-		0.803	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Support	Various	Various : Various	-	0.342	Mar 2023	0.250	Mar 2024	0.270	Mar 2025	-		0.270	Continuing	Continuing	-
Subtotal			-	0.342		0.250		0.270		-		0.270	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
MSI PSC (Eng/Acq Spt/ Travel/IMPAC)	Various	Various : Various	-	0.006	Feb 2024	-		-		-		-	Continuing	Continuing	0.000
Subtotal			-	0.006		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	1.023		1.047		1.073		-		1.073	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0303131F I *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 672832 I *MEECN System Improvements*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
MEECN System Improvement																												
MSI Summary Report - FY23				▮																								
MSI Summary Report - FY24								▮																				
MSI Summary Report - FY25												▮																
MSI Summary Report - FY26																▮												
MSI Summary Report - FY27																				▮								
MSI Summary Report - FY28																								▮				

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 672832 *I MEECN System Improvements*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
MEECN System Improvement				
MSI Summary Report - FY23	1	2024	1	2024
MSI Summary Report - FY24	1	2025	1	2025
MSI Summary Report - FY25	1	2026	1	2026
MSI Summary Report - FY26	1	2027	1	2027
MSI Summary Report - FY27	1	2028	1	2028
MSI Summary Report - FY28	1	2029	1	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024	

| Appropriation/Budget Activity
3600 I 7 | | | | R-1 Program Element (Number/Name)
PE 0303131F I Minimum Essential Emergency Communications Network (MEECN) | | | | Project (Number/Name)
672835 I Common VLF/LF Receiver Inc 2 | | | |

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
672835: Common VLF/LF Receiver Inc 2	-	12.471	29.520	13.004	0.000	13.004	10.451	7.659	7.936	8.093	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Common Very Low Frequency/Low Frequency (VLF/LF) Receiver (CVR) Increment 2 (CVRi2) Program will develop and produce a modular open systems approach (MOSA) compliant, advanced, adaptable VLF/LF receiver. As the USAF VLF receiver integrator, the VLF Enterprise Program Office will continue to be responsible for VLF sustainment to include configuration management of the CVR Increment 1 (CVRi1) materiel solution while also providing management support to the B-52 VLF Modernization Program for its procurement and production of the directed VLF receiver. The VLF Enterprise Program Office will provide the same management support to other legacy NC3 platforms' VLF receiver requirements. VLF Enterprise Program Office will also develop an acquisition strategy for adaptation of CVRi2 for the current and future NC3 platforms, while establishing an overarching contract to capture both development and production of CVRi2 for multiple NC3 platforms, which will enable enterprise level management of the VLF receivers for the current and future USAF airborne and ground-based NC3 platforms.

The total cost of the CVRi2 Middle Tier of Acquisition effort is $122.089M, including RDT&E and procurement of prototype units. CVRi2 is not fully funded across the Future Years Defense Program. The Department of the Air Force is assessing all options to address the funding shortfalls for MTA programs including additional funding in a future budget request, performance trades based on technical maturity, or transition to alternative pathways.

This project 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 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F.   In FY23 $0.188M was expended for civilian pay expenses in this project, and FY2024 $0.319M is forecasted for civilian pay expenses in this project. No FY25 civilian pay.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: CVR Inc 2	12.471	29.520	13.004
Description: Post-award of delivery order for prototype development employing a Middle Tier Acquisition (MTA) approach. FY 2024 Plans: - Complete CVRi2 Preliminary Design Review (PDR) - Complete CVRi2 Critical Design Review (CDR) - Deliver CVRi2 engineering design models (EDMs) to lead platform - Complete studies to develop/adapt CVRi2 for airborne and ground-based NC3 platforms - Complete market research for CVRi2 follow-on acquisition			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0303131F I *Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 672835 I *Common VLF/LF Receiver Inc 2*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Complete Acquisition Strategy Panel for CVRi2 follow-on acquisition			
FY 2025 Plans: - Complete Test Readiness Review (TRR) - Complete Contractor Developmental Test and Evaluation (DT&E) - Complete Functional Configuration Audit (FCA) and Production Configuration Audit (PCA) - CVRi2 Operational Demonstration - Deliver CVRi2 Production Representative Model (PRM) to the lead platform - Award CVRi2 follow-on acquisition contract			
FY 2024 to FY 2025 Increase/Decrease Statement: FY24 to FY25 funding decrease due to planned progression through CVRi2 Rapid Prototyping Effort and a decrease due to $11.483M reduction to fund higher Air Force priorities.			
Accomplishments/Planned Programs Subtotals	12.471	29.520	13.004

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 0303131F: *CVR i2*	0.000	0.000	0.000	-	0.000	12.204	10.193	5.224	5.329	Continuing	Continuing

Remarks
 N/A

D. Acquisition Strategy

Employing a Middle Tier Acquisition (MTA) Rapid Prototyping (RP) approach, CVR Inc 2 used the Advanced Battle Management Systems (ABMS) Indefinite Delivery/ Indefinite Quantity (IDIQ) to release a fair opportunity proposal request (FOPR). After the Fair Opportunity Team (FOT) evaluation and recommendation, the Fair Opportunity Decision Authority (FODA) awarded Collins Aerospace a delivery order (DO) to develop a Modular Open Systems Approach (MOSA) - compliant, advanced VLF/LF receiver prototype. The CVRi2 is being developed to meet the lead platform requirement and will be adaptable to other follow-on NC3 platforms. The program will remain flexible to apply delta changes to the follow-on NC3 platforms as directed.

The RP phase will result in production representative model (PRM) prototypes and conclude with a successful demonstration of the prototype in an operationally relevant environment. The Program will then transition to either a Milestone C or an MTA Rapid Fielding (RF) phase to compete a contract for production and fielding to meet the lead and follow-on platforms' timeline requirements. Per the approved Acquisition Strategy, the Program will present an Acquisition Strategy Panel (ASP) for Production and Fielding to AFPEO NC3 for a production decision.

| **Exhibit R-3**, RDT&E Project Cost Analysis: PB 2025 Air Force | | | | | | | | | **Date:** March 2024 | | | |

| **Appropriation/Budget Activity**
3600 *I* 7 | **R-1 Program Element (Number/Name)**
PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)* | **Project (Number/Name)**
672835 *I Common VLF/LF Receiver Inc 2* |

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Early Development (TMRR/prototyping)	C/CPFF	Rockwell Collins Inc : Cedar Rapids, IA	-	10.820	Mar 2023	18.821	Jan 2024	2.932	Oct 2024	-		2.932	Continuing	Continuing	-
Prime Contract ECOs	Various	Various : TBD	-	0.000	Jan 2024	0.150	Mar 2024	1.156	May 2025	-		1.156	Continuing	Continuing	-
MITRE (DMS)	Various	Cost : Bedford, MA	-	0.000	Oct 2022	2.645	Oct 2023	2.408	Oct 2024	-		2.408	Continuing	Continuing	-
GFE	Various	Various : Various	-	0.001	Jan 2023	0.107	Nov 2023	0.000		-		0.000	Continuing	Continuing	-
NSA Certification	Various	Various : Fort Meade, MD	-	0.000	Sep 2023	0.260	Dec 2023	0.170	Oct 2024	-		0.170	Continuing	Continuing	-
Subtotal			-	10.821		21.983		6.666		-		6.666	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Direct Cite Civilian Pay	Various	Various : Hanscom, MA	-	0.188	Sep 2023	0.319	Sep 2024	-		-		-	Continuing	Continuing	-
Subtotal			-	0.188		0.319		-		-		-	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test and Evaluation	C/CPAF	96th Test Wing : Eglin AFB	-	0.572	Aug 2023	0.703	Nov 2023	0.384	Nov 2024	-		0.384	Continuing	Continuing	-
Subtotal			-	0.572		0.703		0.384		-		0.384	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0303131F / Minimum Essential Emergency Communications Network (MEECN)						**Project (Number/Name)** 672835 / Common VLF/LF Receiver Inc 2		

Management Services ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PSC (Eng/Acq Spt/Travel/ IMPAC)	Various	Various : Hanscom, MA	-	0.143	Apr 2023	3.183	Nov 2023	2.814	Oct 2024	-		2.814	Continuing	Continuing	-
MITRE (PSC)	Various	Various : Bedford, MA	-	0.747	Jun 2023	3.332	Nov 2023	3.140	Oct 2024	-		3.140	Continuing	Continuing	-
Subtotal			-	0.890		6.515		5.954		-		5.954	Continuing	Continuing	N/A

		Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals		-	12.471		29.520		13.004		-		13.004	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 672835 *I Common VLF/LF Receiver Inc 2*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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

CVR Inc. 2 Rapid Prototyping

- CVRi2 Rapid Prototyping Development
- CVRi2 System Requirements Review (SRR)
- CVRi2 System Functional Review (SFR)
- CVRi2 Preliminary Design Review (PDR)
- CVRi2 Critical Design Review (CDR)
- CVRi2 Test Readiness Review (TRR)
- Operations Demonstration
- ADM Program Complete

CVR Inc. 2 Follow-On Acquisition Strategy Development

- CVRi2 Follow-On Acquisition Strategy Development
- Sources Sought Complete
- Market Research Complete
- Acquisition Strategy Panel
- CVRi2 Follow-On Acquisition RFP Release
- CVRi2 Follow-On Acquisition Contract Award

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 672835 *I Common VLF/LF Receiver Inc 2*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
CVR Inc. 2 Rapid Prototyping				
CVRi2 Rapid Prototyping Development	1	2023	2	2025
CVRi2 System Requirements Review (SRR)	1	2023	1	2023
CVRi2 System Functional Review (SFR)	2	2023	2	2023
CVRi2 Preliminary Design Review (PDR)	2	2024	2	2024
CVRi2 Critical Design Review (CDR)	4	2024	4	2024
CVRi2 Test Readiness Review (TRR)	1	2025	1	2025
Operations Demonstration	2	2025	2	2025
ADM Program Complete	2	2025	2	2025
CVR Inc. 2 Follow-On Acquisition Strategy Development				
CVRi2 Follow-On Acquisition Strategy Development	1	2024	4	2029
Sources Sought Complete	1	2024	1	2024
Market Research Complete	2	2024	2	2024
Acquisition Strategy Panel	2	2024	3	2024
CVRi2 Follow-On Acquisition RFP Release	4	2024	4	2024
CVRi2 Follow-On Acquisition Contract Award	3	2025	3	2025

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity
3600 / 7

R-1 Program Element (Number/Name)
PE 0303131F / Minimum Essential Emergency Communications Network (MEECN)

Project (Number/Name)
676030 / Global ASNT Inc 2

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
676030: Global ASNT Inc 2	-	19.382	3.000	11.423	0.000	11.423	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Global ASNT Increment 2 (Inc 2) replaces aging legacy strategic communications equipment at bomber, tanker and reconnaissance Wing Command Posts (WCPs), Nuclear Task Forces, Munitions Support Squadrons (MUNSS), and Mobile Support Teams (MSTs). Global ASNT Inc 2 is a ground-based system that will provide survivable, secure communication paths to disseminate Emergency Action Messages (EAMs) to bomber, tanker, and reconnaissance aircrews.

Global ASNT Inc 2 is being fielded in 2 separate capability incremental blocks; both blocks are High-Altitude Electro-Magnetic Pulse (HEMP) and Radiation Hazard (RADHAZ) protected.

Global ASNT Inc 2 Block 1 delivers a replacement Aircrew Alerting System (AAS) consisting of Ultra High Frequency (UHF) personal and general alerting equipment replacing EHDC and AACE systems.

Global ASNT Inc 2 Block 2 provides High Frequency (HF) capabilities for Beyond Line of Sight (BLOS), communications to bomber, tanker and reconnaissance aircraft. Global ASNT Inc 2 Block 2 requirements were approved by Air Force Global Strike Command in December 2023.

The total cost of the Global Aircrew Strategic Network Terminal Increment 2 Middle Tier of Acquisition effort is 132.2 million, including RDT&E and procurement of prototype units. The Global ASNT Inc 2 RP program is fully funded across the Future Years Defense Program.

This program element may include necessary revised Security Classification Guide (SCG) implementation activities.

This project 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 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. No FY24 or 25 civilian pay is planned.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Global ASNT Inc 2 **Description:** Middle Tier Acquisition - Rapid Prototyping **FY 2024 Plans:** - Block 1: Qual Unit Builds	19.382	3.000	11.423

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 676030 *I Global ASNT Inc 2*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Block 1: 70% Technical Orders (TO) submittal - Block 1: Build and complete Training packages - Block 1: HEMP Critical Design Review (CDR) - Block 1: HEMP Test Readiness Review (TRR) ***FY 2025 Plans:*** - Block 1: HEMP Environmental Testing - Block 1: HEMP Developmental Testing - Block 1: HEMP Operational Test - Block 2: Conduct Acquisition Strategy Panel (ASP) - Block 2: Release Request for Proposal (RFP) ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to additional funding required to complete GASNTi2 Mid-Tier Acquisition (MTA) efforts.			
Accomplishments/Planned Programs Subtotals	19.382	3.000	11.423

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 05 0303131F: *Minimum Essential Emergency Communications Network (MEECN)*	13.094	40.760	33.909	-	33.909	95.920	38.262	17.732	0.000	Continuing	Continuing

Remarks

D. Acquisition Strategy

Global ASNT Inc 2 Block 1 is leveraging the Rapid Prototyping MTA pathway for development and the program plans to transition to a Rapid Fielding MTA.

Global ASNT Inc 2 Block 2 is evaluating use of Rapid Prototyping MTA pathway for development.

Pending success of Block 1, Block 2 will utilize the same MTA Prototype acquisition approach to continue rapid development and delivery of capabilities to the warfighter.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 676030 *I Global ASNT Inc 2*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	C/CPAF	Various : Bedford, MA	-	12.013	Feb 2023	1.275	Apr 2024	6.772	Oct 2024	-		6.772	Continuing	Continuing	-
Subtotal			-	12.013		1.275		6.772		-		6.772	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Direct Cite Civilian Pay	Various	Various : Bedford, MA	-	0.149	Oct 2022	-		-		-		-	Continuing	Continuing	-
Information Assurance	SS/CPAF	Booz Allen Hamilton : Bedford, MA	-	0.115	Jul 2023	0.014	Jul 2024	0.094	Oct 2024	-		0.094	Continuing	Continuing	-
Subtotal			-	0.264		0.014		0.094		-		0.094	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Planning	PO	96 TW : Eglin AFB, FL	-	0.518	Jun 2023	0.793	Jun 2024	0.921	Nov 2024	-		0.921	Continuing	Continuing	-
Subtotal			-	0.518		0.793		0.921		-		0.921	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSC - (Eng/Acq Support, Travel)	C/CPAF	Various : Bedford, MA	-	6.087	Apr 2023	0.418	Apr 2024	1.641	Apr 2025	-		1.641	Continuing	Continuing	-
PSC-MITRE	C/CPAF	Not specified. : TBD	-	0.500	Oct 2022	0.500	Oct 2023	1.995	Oct 2024	-		1.995	Continuing	Continuing	-
Subtotal			-	6.587		0.918		3.636		-		3.636	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force									Date: March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0303131F / Minimum Essential Emergency Communications Network (MEECN)	Project (Number/Name) 676030 / Global ASNT Inc 2

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	19.382	3.000	11.423	-	11.423	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emerge ncy Communications Network (MEECN)*	**Project (Number/Name)** 676030 *I Global ASNT Inc 2*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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 ANST Inc 2																												
RDT&E (Non-HEMP) Block 1																												
RDT&E (HEMP) Block 1																												
Production: Block 1																												
RAA IOC (Non-HEMP) Block 1																												
RAA IOC (HEMP) Block 1																												
IOC (HEMP) Block 1																												
FOC (HEMP) Block 1																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303131F *I Minimum Essential Emergency Communications Network (MEECN)*	**Project (Number/Name)** 676030 *I Global ASNT Inc 2*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Global ANST Inc 2				
RDT&E (Non-HEMP) Block 1	1	2023	2	2024
RDT&E (HEMP) Block 1	1	2023	3	2025
Production: Block 1	4	2023	4	2028
RAA IOC (Non-HEMP) Block 1	2	2025	2	2025
RAA IOC (HEMP) Block 1	2	2026	2	2026
IOC (HEMP) Block 1	4	2026	4	2026
FOC (HEMP) Block 1	4	2028	4	2028

PE 0303131F: *Minimum Essential Emergency Communicatio...*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*					R-1 Program Element (Number/Name) PE 0303133F *I High Frequency Radio Systems*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	2.315	40.000	8.667	0.000	8.667	0.000	0.000	0.000	0.000	0.000	50.982
675046: *Systems Engineering & Integration*	-	2.315	40.000	8.667	0.000	8.667	0.000	0.000	0.000	0.000	0.000	50.982
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This budget line funds the Airborne High Frequency Radio Modernization (AHFRM) Middle Tier of Acquisition (MTA) program. The program is designed to replace existing legacy AN/ARC-190 High Frequency (HF) radios with a modernized HF radio, the AN/ARC-260. This replacement radio provides digital, software defined HF capability for 1,300 aircraft (most of which require multiple AN/ARC-260s) across 15 distinct Global Strike, Military Airlift (MAF) and refueling platforms within the US Air Force, US Navy, and US Coast Guard.

The AN/ARC-190 is end-of-life and is currently the only HF radio capability within these 15 aircraft platforms. Starting FY24-Q4, it is anticipated the AN/ARC-190 radio will fall below supply chain thresholds. This Federal Aviation Administration (FAA) Minimum Equipment Listing (MEL) requires a secure Long-Range Communication System (LRCS) on all aircraft performing transoceanic flights, and therefore, will ground any aircraft without this capability. Without the completion of the AHFRM program, any aircraft platform without a functioning LRC radio will be unable to perform any transoceanic flight until a replacement radio is procured outside of current supply chain reserves. The replacement AN/ARC-260 radio is the only Air Force airborne HF digital radio in development to address this anticipated capability gap.

Impacted aircraft include AC-130J, B-1, B-52, C-5, C-17, C-130J, E-4B, E-6B, EC-130J, HC-130J, KC-130H, KC-135, KC-46, and MC-130J.

The new AN/ARC-260 radio provides critical long-range HF communications when satellite communications are unavailable due to nature and/or man-made disruptions. It will incorporate new technologies such as 3G/4G Automatic Link Establishment and Low Probability of Intercept/Detection/Geolocation features, as well as accommodate the development of new technologies through software upgrades and open architecture. Finally, the AN/ARC-260 radio will be critical in providing a survivable/secure communications path for Force Direction messages.

For FY25, a follow-on antenna coupler development effort is required to replace the legacy AN/ARC-190 analog coupler used as part of the new AN/ARC-260 radio. During contactor testing, the legacy AN/ARC-190 analog antenna coupler return rate was unable to match AN/ARC-260 processing power and limited output to 10 KHz versus the expected 48 KHz of wideband throughput. The legacy analog coupler can be used with the new AN/ARC-260 radio but limits the overall capabilities. Additionally, the AN/ARC-190 analog coupler is now out of production and presents significant supportability challenges starting in FY27.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303133F *I High Frequency Radio Systems*	

and 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	0.000	40.000	0.000	0.000	0.000
Current President's Budget	2.315	40.000	8.667	0.000	8.667
Total Adjustments	2.315	0.000	8.667	0.000	8.667
• 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	2.315	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	8.667	0.000	8.667

Change Summary Explanation

The FY 2023 funding request was increased by 2.315 million to account for an Above Threshold Reprogramming (ATR) to support additional developmental testing requirements

The FY 2025 funding request was increased by 8.667 million to account for the development of a digital radio coupler for the AN/ARC-260 airborne HF radio.

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: High Frequency Radio System	2.315	40.000	8.667
Description: Development of High Frequency Radio System *FY 2024 Plans:* Activities supported with FY24 funding include, but are not limited to the following: - Complete AN/ARC-260 airborne HF radio prototype - Complete Developmental Testing - Complete production readiness activities - Ordering production representative test assets for aircraft integration			

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303133F *I High Frequency Radio Systems*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Complete test readiness and perform Operational Testing - Publish test results and final reports to appropriate stakeholders in support of decision reviews and certification of asset readiness - Gain production approval ***FY 2025 Plans:*** Will begin the development of digital coupler to meet Air Force nuclear requirements ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY25 funding decreases due to the completion of the AN/ARC-260 airborne HF radio development and focused efforts on development of digital coupler.			
Accomplishments/Planned Programs Subtotals	2.315	40.000	8.667

D. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

E. Acquisition Strategy

 The Service Acquisition Executive (SAE) designated the AHFRM program a MTA Rapid Prototyping effort on 4 Sep 2018. To date, the program completed a competitive rapid prototyping effort and awarded a 5-year/176M pre/post-production contract to BAE Systems in Dec 2021. AHFRM is scheduled to transition from an MTA to an MCA program in 2024.

 The AHFRM program received FY19 and FY20 funding to begin its rapid prototyping efforts. In FY22, the Survivable Airborne Operations Center (SAOC) program (PE 0604288F) provided $38.6M FY22 funding to continue AHFRM program development. The SAOC FY22 PB supports use of RDT&E funds for external subsystems that heavily impact their technical baseline. The AHFRM program directly supports SAOC derived requirements and meets bona fide need requisites for FY22 work.

 The Milestone Decision Authority for the AHFRM program is the Air Force Program Executive Officer - Agile Combat Support. Program management for the AHFRM program is located at Robins AFB, GA. The Air Force Life Cycle Management Center - Combat Avionics Division (AFLCMC/WNX) provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											**Date:** March 2024			
Appropriation/Budget Activity 3600 *I* 7							**R-1 Program Element (Number/Name)** PE 0303133F *I High Frequency Radio Systems*				**Project (Number/Name)** 675046 *I Systems Engineering & Integration*			

Product Development ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 Readiness	C/FFP	Not specified. : TBD	-	-		5.000	Jan 2024	-		-		-	0.000	5.000	-
Coupler Development	C/FFP	Not specified. : TBD	-	-		-		7.537	Jan 2025	-		7.537	0.000	7.537	-
Subtotal			-	-		5.000		7.537		-		7.537	0.000	12.537	N/A

Support ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Sustainment Planning	C/FFP	Not specified. : TBD	-	0.315	Dec 2023	1.300	Jan 2024	-		-		-	0.000	1.615	-
SRD Changes	C/FFP	Not specified. : TBD	-	-		2.894	Jan 2024	-		-		-	Continuing	Continuing	-
Subtotal			-	0.315		4.194		-		-		-	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Operational Test	PO	Not specified. : TBD	-	2.000	Jan 2024	6.615	Jan 2024	-		-		-	0.000	8.615	-
Aircraft Integration Test Assets	C/CPAF	Not specified. : TBD	-	-		15.999	Aug 2024	-		-		-	0.000	15.999	-
Subtotal			-	2.000		22.614		-		-		-	0.000	24.614	N/A

Management Services ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 Costs	C/FFP	Not specified. : TBD	-	-		4.792	Jan 2024	1.000	Jan 2025	-		1.000	0.000	5.792	-
Program Taxes	C/FFP	Not specified. : TBD	-	-		3.400	Mar 2024	0.130	Mar 2025	-		0.130	Continuing	Continuing	-
Subtotal			-	-		8.192		1.130		-		1.130	Continuing	Continuing	N/A

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity
3600 *I* 7

R-1 Program Element (Number/Name)
PE 0303133F *I High Frequency Radio Systems*

Project (Number/Name)
675046 *I Systems Engineering & Integration*

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	2.315	40.000	8.667	-	8.667	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0303133F / *High Frequency Radio Syste* *ms*	**Project (Number/Name)** 675046 / *Systems Engineering & Integration*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
High Frequency Radio System																												
Product Development																												
Support																												
Test and Evaluation																												
Management Services																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303133F *I High Frequency Radio Syste ms*	**Project (Number/Name)** 675046 *I Systems Engineering & Integration*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
High Frequency Radio System				
Product Development	1	2024	4	2025
Support	1	2023	4	2024
Test and Evaluation	1	2023	4	2024
Management Services	1	2023	4	2024

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*							
COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	63.048	95.523	94.424	0.000	94.424	87.536	88.058	69.981	71.362	Continuing	Continuing
675100: *Cryptographic Modernization*	-	63.048	63.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	126.088
675200: *Cryptographic Modernization 2 (CM2)*	-	0.000	32.483	94.424	0.000	94.424	87.536	88.058	69.981	71.362	Continuing	Continuing

Note

In FY 2025, Project 675100, Cryptographic Modernization, efforts were transferred to Project 675200, Cryptographic Modernization 2 (CM2), in order to add Quantum Resilience to all high-assurance cryptographic products and realign funding to CM2 major thrust priorities.

A. Mission Description and Budget Item Justification

Information Systems Security Program (ISSP) - Includes resources, manpower authorizations, necessary facilities and equipment required to develop, deliver, and sustain Cryptographic Modernization (Crypto Mod) capabilities to nearly all Department of the Air Force (DAF) weapon systems that encrypt/decrypt sensitive information. Crypto Mod ensures confidentiality, integrity, and availability of the information and the systems. The Crypto Mod work done in the ISSP ensures that DAF systems receive cryptographic capabilities that are compliant with National Security Agency mandates and that commanders can confidently leverage for Joint All Domain Command and Control (JADC2) capabilities.

The ISSP Element and associated Crypto Mod activities provide a foundational Communications Security (COMSEC) capability that is the first and last line of cyber defense against adversary exploitation. The DAF and the DoD require the capability to securely collect, process, store, and disseminate an uninterrupted flow of information, while denying an adversary the ability to intercept, collect, destroy, interpret, or manipulate our information flows. Crypto Mod provides secure communication to allow the DoD to achieve and maintain decision superiority, the key to successful application of the military instrument of national power in modern, high-tempo, full-spectrum operations. AF COMSEC equipment protects sensitive information such as warfighter positions, mission planning, target strikes, commanders' orders, intelligence, force strength, and force readiness. When an adversary is capable of interpretation, manipulation, or destruction of the information used by the warfighter, DoD military forces will suffer significant and/or devastating mission degradation that can result in loss of life and resources and/or exceptionally grave damage to national security. The advanced threats and capabilities of near-peer adversaries will necessitate the exclusion of weapon systems with obsolete cryptography from Combatant Commander Areas of Responsibility (AORs)—diminishing the ability of the DAF win in a high-end fight. The 2021 National Defense Authorization Act (NDAA) mandates the services begin reporting on their Crypto Mod activities and status of obsolete products starting in Jan 2022, as well as the National Security Memorandum 10 (4 May 2022) which identifies the need for quantum-resistant crypto. These documents highlight the high importance of ISSP efforts.

The overall focus of the Research, Development, Test, and Evaluation (RDT&E) efforts within the ISSP program is to transform current Crypto Mod devices to protect against current technology threats, which include quantum computing. The modernization effort is required by Chairman Joint Chiefs of Staff Notice (CJCSN) 6510 and NSA Decertification Messages (CED-31-15/037-21/032-16) from FY23 for the need to add Quantum Resilience to the existing high assurance cryptographic products. This effort will allow protection against advanced & evolving quantum computing threats. All existing crypto devices will be vulnerable and must be modernized to be

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*

quantum resilient. These efforts are driven by the National Security Agency's (NSA) requirements to implement newly developed Quantum Resistant Algorithms (QRAs). The NSA requires an inventory of cryptographic devices that are more resilient to future threats through full software re-programmability. This will enable protection against near peer adversary exploitation and provide the ability to rapidly adapt against newer threats.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F.   In FY23 $1.579M was expended for civilian pay expenses in this program element, and in FY24 $1.642M 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	70.263	95.523	64.450	0.000	64.450
Current President's Budget	63.048	95.523	94.424	0.000	94.424
Total Adjustments	-7.215	0.000	29.974	0.000	29.974
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-4.631	0.000			
• SBIR/STTR Transfer	-2.584	0.000			
• Other Adjustments	0.000	0.000	29.974	0.000	29.974

Change Summary Explanation
FY23 decreases for JCC2 BTR and SBIR transfer.
FY25 increase continues FY23 and FY24 increases to accelerate Quantum Resilience modernization to meet NSA-mandated decertification dates for all Air, Ground, and Space networks and platforms in DAF, other Services, and multinational and interagency partners. Modernization will secure an uninterrupted flow of national security information while denying adversaries the ability to exploit, interpret, and manipulate that information. Addresses the near peer pacing threat. The FY 2025 funding request was reduced by $5.5 million to account for the availability of prior year execution balances.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force									Date: March 2024	

Appropriation/Budget Activity 3600 I 7		R-1 Program Element (Number/Name) PE 0303140F I Information Systems Security Program		Project (Number/Name) 675100 I Cryptographic Modernization	

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675100: Cryptographic Modernization	-	63.048	63.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	126.088
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2025, Project 675100, Cryptographic Modernization, efforts were transferred to Project 675200, Cryptographic Modernization 2 (CM2), in order to add Quantum Resilience to all high-assurance cryptographic products and realign funding to CM2 major thrust priorities.

A. Mission Description and Budget Item Justification

The AF Cryptographic Modernization (CM) effort modernizes cryptographic devices protecting critical national security information across multi-domain operations. This AF effort supports an integrated effort across the cyber domain to transform to next-generation cryptographic capabilities. It provides U.S. forces and multinational and interagency partners the multi-domain security needed to protect the flow and exchange of strategic, operational, and tactical information in accordance with national and international policy/standards, and the validated requirements of decision makers, warfighters, and the intelligence community. The AF Cryptographic Modernization 2 (CM2) effort is required by Chairman Joint Chiefs of Staff Notice (CJCSN) 6510 and NSA Decertification Messages (CED-31-15/037-21/032-16) for the need to add quantum resistance to the existing high assurance cryptographic products. This effort will allow protection against advanced & evolving quantum computing threats. All existing crypto devices will be vulnerable and must be modernized to be quantum resilient. The majority of the development effort includes hardware changes to the existing crypto devices.

The CM effort is a holistic AF-wide "modern" cryptographic strategy to provide long-term, evolving protection of NC3, ISR, PKI, KME, and nearly all AF platforms and ground networks. CM will provide the required enhanced security for all AF voice, data, and video capabilities on the battlefield and throughout the DoD enterprise and will enable the integration of new capabilities to AF users through development of a new DoD Cryptographic Modernization 2 (CM2) Initial Capabilities Document (ICD) dated 15 July 2021.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $1.579M was expended for civilian pay expenses in this program element, and in FY24 $1.642M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Technology Development (TD)	38.130	58.940	0.000	0.000	0.000

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*	**Project (Number/Name)** 675100 *I Cryptographic Modernization*	

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Description: Technology Development (TD) provides the initial development efforts needed to tackle the current and upcoming quantum computing threat for Crypto Modernization 2. TD will stand up all acquisition efforts for over 13 devices to become quantum resilient, reprogrammable architecture to ensure long service life. Capabilities slated for modernization include classified data at rest if data storage is comprised or captured; NC2 and NC3 requirements, secure voice and data, and remote rekey. ***FY 2024 Plans:*** - Continue to further enable strategic deterrent capabilities for the Sentinel Program by developing and delivering NSA cryptologic solutions to secure communications and data for Nuclear Command and Control missions - Award innovative proof of concept contracts to build near-real time high assurance crypto situational awareness - Award contracts to develop the crypto core standards to support the modernization of the joint-interest Future Airborne Tactical Radio that provides secure voice capabilities across the enterprise - Execute activities to operationalize and enable future NSA required all-black secure key management and distribution capabilities ***FY 2025 Base Plans:*** Budget to be funded via BPAC 675200 Crypto Mod 2 ***FY 2025 OCO Plans:*** Not Applicable ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to transition of funding to BPAC 675200 CM2 budget					
Title: IFF Mode 5 ***Description:*** Modernization of the Identification Friend or Foe (IFF) Mode 5 devices enables the war-fighter to engage and accurately identify friendly or enemy forces as friend or foe. It prevents fratricide during target engagements and provides authentication and encryption/decryption services. The modernized devices will be quantum resilient and prevent enemy disruption of IFF functions. They will enhance the needed security for interrogations and response. These encryption devices operate within military aircraft, fixed, and transportable ground stations when connected to an interrogator and/or transponder. The Identification Friend or Foe (IFF) Mode 5 crypto modules KIV-77 and KIV-78 requires permanent modification. The modification of these devices	13.820	0.100	0.000	0.000	0.000

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7		**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*	**Project (Number/Name)** 675100 *I Cryptographic Modernization*		

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
is required to address quantum threats, produce-ability and algorithm re-programmability mandated by the National Security Agency (NSA) and the 2019 Chairman of the Joint Chiefs of Staff Notice (CJCSN) 6510. *FY 2024 Plans:* Continue development for the KIV-77A/KIV-78A IFF Mode 5 device to address quantum threats, produce-ability and algorithm re-programmability to obtain NSA certification in support of the CM2 ICD (dated Jul 2021) *FY 2025 Base Plans:* Budget to be funded via BPAC 675200 Crypto Mod 2 *FY 2025 OCO Plans:* Not Applicable *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased due to transition to BPAC 675200 Crypto Mod 2 budget					
Title: Algorithm Transition Compliance and Support *Description:* Supports Air Combat Command (AF lead for Cyber Superiority) in Algorithm Transition Compliance and provides Information Assurance (IA) support by investigating and analyzing all utilized cryptographic algorithms and hundreds of cryptographic equipment types to support the transformation effort in becoming quantum resilient. This includes the development of prototyping efforts to include the development of a software program of a centralized near real-time accountability of AF COMSEC equipment that reports compliance to AF/DoD Leadership. In addition, it will provide automated software updates to crypto devices (networked & non-networked), and field modernized cryptography, algorithms, and quantum computing. *FY 2024 Plans:* - Continue tech maturation efforts to reduce risk on the new algorithm integrations across all crypto devices - Begin fielding efforts to operationalize new NSA required key management and distribution capabilities across the enterprise - Continue to work across all MAJCOMs to ensure the Department of the Air Force is implementing enterprise crypto solutions to reduce logistical footprints and sustainment costs - Continue to incorporate model-based systems engineering processes and methodologies to increase user validation of solutions and reduce integration costs for platforms *FY 2025 Base Plans:*	3.700	3.900	0.000	0.000	0.000

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0303140F / *Information Systems Security Program*	**Project (Number/Name)** 675100 / *Cryptographic Modernization*	

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Budget to be funded via BPAC 675200 Crypto Mod 2 ***FY 2025 OCO Plans:*** Not Applicable ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to transition to BPAC 675200 Crypto Mod 2 budget					
Title: Space Modular Common Crypto (SMCC) ***Description:*** SMCC architecture is being studied for quantum resilient impacts. ***FY 2024 Plans:*** - Continue performance assessments and perform quantum resilience studies ***FY 2025 Base Plans:*** Budget to be funded via BPAC 675200 Crypto Mod 2 ***FY 2025 OCO Plans:*** Not applicable ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to transition to BPAC 675200 Crypto Mod 2 budget	0.100	0.100	0.000	0.000	0.000
Title: Classified Data At Rest (CDAR) ***Description:*** CDAR will provide the capability to render classified data at rest unusable to adversaries if data storage is captured or compromised, eliminating policy compliance shortfalls. The development of CDAR is an NSA approved modernized cryptographic solution(s) for use in 45 Air Force platforms/systems exposed to hostile/uncontrolled environments. The enterprise cryptographic solution will encrypt/decrypt Top Secret and Below (TSAB) data at rest residing in a variety of data storage environments. ***FY 2024 Plans:*** Budget to be funded via BPAC 675200 Crypto Mod 2 funding ***FY 2025 Base Plans:*** Budget to be funded via BPAC 675200 Crypto Mod 2 funding ***FY 2025 OCO Plans:***	7.298	0.000	0.000	0.000	0.000

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*	**Project (Number/Name)** 675100 *I Cryptographic Modernization*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Not Applicable ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to transition to BPAC 675200 Crypto Mod 2 budget					
Accomplishments/Planned Programs Subtotals	63.048	63.040	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 831010: *COMSEC Equipment*	91.817	98.600	63.233	-	63.233	64.884	67.262	68.701	70.063	Continuing	Continuing

Remarks

Remarks: Other Program Funding reflects Crypto Modernization (CM) portion of Information Systems Security Program (ISSP) OPAF total.

D. Acquisition Strategy

Implement AF portion of the DoD's Cryptographic Modernization (CM) Initiative through modernization/modification efforts, in varying stages of the acquisition cycle, with focus on minimizing life cycle costs. The CM portfolio of component acquisition projects is executing using a variety of approaches that vary from an evolutionary acquisition strategy using spiral development (for new component development) to incremental improvement leveraging leading-edge, certified non-developmental items (for modernization). Contract type is selected for each of the individual projects based upon its acquisition approach and its unique technology risks. A mixture of fixed-price and cost-reimbursement contracts have been selected which maximize the best value for the Government.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7						**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*						**Project (Number/Name)** 675100 *I Cryptographic Modernization*	

Product Development ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Tech Development	Various	MULTIPLE : MULTIPLE	-	22.602	Feb 2023	32.894	Feb 2024	0.000	Feb 2025	-		0.000	0.000	55.496	-
IFF Mode 5	Various	MULTIPLE : MULTIPLE	-	11.332	Feb 2023	0.100	Feb 2024	0.000	Feb 2025	-		0.000	0.000	11.432	-
Space Modular Common Crypto (SMCC)	Various	MULTIPLE : MULTIPLE	-	0.100	Feb 2023	0.100	Feb 2024	0.000	Feb 2025	-		0.000	0.000	0.200	-
Algorithm Transition Compliance and Support	Various	MULTIPLE : MULTIPLE	-	3.700	Nov 2022	3.780	Nov 2023	0.000	Nov 2024	-		0.000	0.000	7.480	-
CDAR	Various	MULTIPLE : MULTIPLE	-	7.298	Feb 2023	0.000	Feb 2024	0.000	Feb 2025	-		0.000	0.000	7.298	-
		Subtotal	-	45.032		36.874		0.000		-		0.000	0.000	81.906	N/A

Test and Evaluation ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
IFF Mode 5	C/CPAF	Not specified. : TBD	-	2.488	Jan 2023	2.920	Jan 2024	0.000	Jan 2025	-		0.000	0.000	5.408	-
		Subtotal	-	2.488		2.920		0.000		-		0.000	0.000	5.408	N/A

Management Services ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 Costs (PSC)	Various	Various : Various	-	15.528	Dec 2022	23.246	Dec 2023	0.000	Dec 2024	-		0.000	0.000	38.774	-
		Subtotal	-	15.528		23.246		0.000		-		0.000	0.000	38.774	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	63.048		63.040		0.000		-		0.000	0.000	126.088	N/A

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force									**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*			**Project (Number/Name)** 675100 *I Cryptographic Modernization*		
	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*	**Project (Number/Name)** 675100 *I Cryptographic Modernization*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Cryptographic Modernization APPN 3600, BA07, PE 0303140F, BPAC 675100																												
Technology Development																												
IFF Mode 5																												
Algorithm Transition Compliance and Support																												
Space Modular Common Crypto (SMCC)																												
CDAR																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*	**Project (Number/Name)** 675100 *I Cryptographic Modernization*

Schedule Details

Events by Sub Project	**Start**		**End**	
	Quarter	**Year**	**Quarter**	**Year**
Cryptographic Modernization APPN 3600, BA07, PE 0303140F, BPAC 675100				
Technology Development	1	2023	4	2024
IFF Mode 5	3	2023	4	2025
Algorithm Transition Compliance and Support	1	2023	4	2025
Space Modular Common Crypto (SMCC)	1	2023	4	2025
CDAR	1	2023	4	2024

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*				**Project (Number/Name)** 675200 *I Cryptographic Modernization 2 (CM2)*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675200: *Cryptographic Modernization 2 (CM2)*	-	0.000	32.483	94.424	0.000	94.424	87.536	88.058	69.981	71.362	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2025, Project 675100, Cryptographic Modernization, efforts were transferred to Project 675200, Cryptographic Modernization 2 (CM2), in order to add Quantum Resilience to all high-assurance cryptographic products and realign funding to CM2 major thrust priorities.

A. Mission Description and Budget Item Justification

The AF Cryptographic Modernization 2 (CM2) effort modernizes cryptographic devices protecting critical national security information across multi-domain operations. This Department of the Air Force (DAF) effort supports an integrated effort across the cyber domain to transform to next-generation cryptographic capabilities. It provides U.S. forces and multinational and interagency partners the multi-domain security needed to protect the flow and exchange of strategic, operational, and tactical information in accordance with national and international policy/standards, and the validated requirements of decision makers, warfighters, and the intelligence community. The CM2 modernization effort is required by Chairman Joint Chiefs of Staff Notice (CJCSN) 6510 and NSA Decertification Messages (CED-31-15/037-21/032-16) from FY23 for the need to add Quantum Resilience to the existing high assurance cryptographic products. This effort will allow protection against advanced & evolving quantum computing threats. All existing crypto devices will be vulnerable and must be modernized to be quantum resilient.

The CM2 effort is a holistic AF-wide "modern" cryptographic strategy to provide long-term, evolving protection of NC3, ISR, PKI, KME, and nearly all AF platforms and ground networks. CM2 will provide the required enhanced security for all AF voice, data, and video capabilities on the battlefield and throughout the DoD enterprise. In addition to the development /modernization of the devices, this effort requires studies, proof of concepts, and prototype efforts to accurately address the evolving quantum computing threats in the years to come and ramp up efforts accordingly.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $1.579 was expended for civilian pay expenses in this program element, and in FY24 $1.642M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: Technology Development (TD) *Description:* Cryptographic Modernization 2 (CM2) will provide crypto devices with common solutions that are more robust, modular, scalable, and provide durability to existing cryptographic end items, as well as updating	0.000	2.878	28.509	0.000	28.509

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7		**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*	**Project (Number/Name)** 675200 *I Cryptographic Modernization 2 (CM2)*	

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
midterm aging/unsupportable crypto equipment. All existing crypto devices will be vulnerable and must be modernized to be Quantum Resilient. The development efforts includes hardware and software changes to the existing crypto devices while identifying new efforts necessary for development to address the refined CM2 Minimum Threshold Requirements. ***FY 2024 Plans:*** - Continue to further enable strategic deterrent capabilities for the Sentinel Program by developing and delivering NSA cryptologic solutions to secure communications and data for Nuclear Command and Control missions - Award innovative proof of concept contracts to build near-real time high assurance crypto situational Awareness (Crypto Enterprise Management capability) - Award contracts to develop the crypto core standards to support the modernization of the joint-interest Future Airborne Tactical Radio that provides secure voice capabilities across the enterprise - Execute activities to operationalize and enable future NSA required all-black secure key management and distribution capabilities ***FY 2025 Base Plans:*** - Will execute development contract activities for Network Enabled Weapons, Strategic Deterrence, High Speed networks, software mods, Multi-Function Encryption, Crypto Situational Awareness and Space COMSEC ground operating equipment - Will execute the Remote ReKey-NexGen crypto development program - Will continue to work with NSA on implementation of new algorithms and crypto key management standards to share with defense contractors on CM2 efforts - Will continue to further enable artificial intelligence and machine learning capabilities for the Joint All Domain Command and Control (JADC2) by developing and delivering NSA cryptologic solutions to secure communications and data for tactical and strategic level data - Will award development contracts for incorporating quantum resilience for additional Network Enabled Weapons, Beyond Line-of-Sight Comms, and High Speed Crypto - Will execute Crypto Enterprise Management program to build infrastructure for crypto situational awareness - Will continue to further enable strategic deterrent capabilities for the Sentinel Program by developing and delivering NSA cryptologic solutions to secure communications and data for Nuclear Command and Control mission - Will execute innovative proof of concept contracts to build near-real time high assurance crypto situational awareness					

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0303140F **/** *Information Systems Security Program*	**Project (Number/Name)** 675200 **/** *Cryptographic Modernization 2 (CM2)*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
- Will execute contracts developing the crypto core standards to support the modernization of the joint-interest Future Airborne Tactical Radio that provides secure voice capabilities across the enterprise - Will execute activities to operationalize and enable future NSA required all-black secure key management and distribution capabilities ***FY 2025 OCO Plans:*** Not Applicable ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to transition of funding from BPAC 675100 CM1 budget. CM1 FY24 $58.940M was realigned in FY25 to multiple CM2 Major Thrusts based on effort priorities.					
Title: Algorithm Transition Compliance and Support ***Description:*** Supports Air Combat Command (AF lead for Cyber Superiority) in Algorithm Transition Compliance and provides Information Assurance (IA) support by investigating and analyzing all utilized cryptographic algorithms and hundreds of cryptographic equipment types to support the transformation effort in becoming quantum resilient. This includes the development of prototyping efforts to include the development of software program of a centralized near real-time accountability of AF COMSEC equipment that reports compliance to AF/DoD Leadership. In addition, it will provide automated software updates to crypto devices (networked & non-networked), and field modernized cryptography, algorithms, and quantum computing. ***FY 2024 Plans:*** Budget funded via BPAC 675100 CM 1 ***FY 2025 Base Plans:*** - Will continue tech maturation efforts to reduce risk on the new algorithm integrations across all crypto devices - Will continue fielding efforts to operationalize new NSA required key management and distribution capabilities across the enterprise - Will continue to work across all MAJCOMs to ensure the Department of the Air Force is implementing enterprise crypto solutions to reduce logistical footprints and sustainment costs - Will continue to incorporate model-based systems engineering processes and methodologies to increase user validation of solutions and reduce integration costs for platforms ***FY 2025 OCO Plans:***	0.000	0.000	4.092	0.000	4.092

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force					Date: March 2024	
Appropriation/Budget Activity 3600 *I* 7			R-1 Program Element (Number/Name) PE 0303140F *I Information Systems Security Program*		Project (Number/Name) 675200 *I Cryptographic Modernization 2 (CM2)*	

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Not applicable ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to transition of funding from BPAC 675100 CM1 budget. No significant change from CM1 FY24 $3.900M.					
Title: Crypto Enterprise Management	0.000	7.122	11.973	0.000	11.973
Description: Cryptographic Enterprise Management (CEM) will lead development of an asset management and information system capable of providing near real-time cryptographic equipment accountability and situational awareness. Efforts will focus on consolidation, integration, sustainment, and standardization of data from disparate USAF logistics and supply chain management systems currently tracking, reporting, and managing. ***FY 2024 Plans:*** - Assemble CEM software architecture, infrastructure, services, pipelines, development, and test platform(s) - Execute CEM Minimum Viable Product (MVP) requirements and begin software development activities to achieve MVP delivery ***FY 2025 Base Plans:*** - Will post MVP delivery, accomplish Continuous Integration Continuous Deployment (CI/CD) through quarterly capability releases - Will continuously improve and refine CEM software development process, practices, tools, and program strategies to deliver in quarterly releases ***FY 2025 OCO Plans:*** Not Applicable ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to delivering capability through Continuous Integration Continuous Deployment (CI/CD) through quarterly capability releases					
Title: Classified Data At Rest (CDAR)	0.000	11.653	14.700	0.000	14.700
Description: CDAR will provide the capability to render classified data at rest unusable to adversaries if data storage is captured or compromised, eliminating policy compliance shortfalls. The development of CDAR is an NSA approved modernized cryptographic solution(s) for use in 45 Air Force platforms/systems exposed to					

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7		**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*	**Project (Number/Name)** 675200 *I Cryptographic Modernization 2 (CM2)*		

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
hostile/uncontrolled environments. The enterprise cryptographic solution will encrypt/decrypt Top Secret and Below (TSAB) data at rest residing in a variety of data storage environments. ***FY 2024 Plans:*** - Complete year 2 of the 3-year development contract for Increment 1: Single-channel device - Begin year 1 of the 3-year development contract for Increment 2: Multi-channel device ***FY 2025 Base Plans:*** - Will deliver Production Representative Engineering Design Models and complete year 3 of the 3-year development contract for Increment 1: Single-channel device - Will deliver initial Digital Engineering Models/Artifacts and continue 36-month engineering and manufacturing development contract for Increment 2: Multi-channel device ***FY 2025 OCO Plans:*** Not Applicable ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to the completion of the Increment 1: Single-channel device development contract in 3rd quarter FY2025					
Title: IFF Mode 5 ***Description:*** Modernization of the Identification Friend or Foe (IFF) Mode 5 devices enables the warfighter to engage and accurately identify friendly or enemy forces as friend or foe. It prevents fratricide during target engagements and provides authentication and encryption/decryption services. The modernized devices will be quantum resilient and prevent enemy disruption of IFF functions. They will enhance the needed security for interrogations and response. These encryption devices operate within military aircraft, fixed, and transportable ground stations when connected to an interrogator and/or transponder. The Identification Friend or Foe (IFF) Mode 5 crypto modules KIV-77 and KIV-78 requires permanent modification. The modification of these devices is required to address quantum threats, produce-ability and algorithm re-programmability mandated by the National Security Agency (NSA) and the 2019 Chairman of the Joint Chiefs of Staff Notice (CJCSN) 6510. ***FY 2024 Plans:*** Budget funded via BPAC 675100 CM 1 ***FY 2025 Base Plans:***	0.000	0.000	14.000	0.000	14.000

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force				**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7		**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*		**Project (Number/Name)** 675200 *I Cryptographic Modernization 2 (CM2)*		

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
- Will complete development of the IFF Mode 5 device that addresses quantum threats, produce-ability and algorithm re-programmability in support of the CM2 ICD (dated Jul 2021). **FY 2025 OCO Plans:** Not Applicable **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding increased due to transition of funding from BPAC 675100 CM1. This is the highest priority CM2 major thrust. CM1 FY24 Tech Dev $58.940M was realigned in FY25 to multiple CM2 Major Thrusts based on effort priorities.					
Title: KG-3XA (NC3 Very Low Frequency Capability) **Description:** KG-3XA 1067 modification will provide a transmit and receive quantum resilient compliant National Security Agency (NSA) approved cryptographic solution for the Very Low Frequency (VLF) Enterprise (KGV-363) and modernize legacy KG-3X cryptographic device (KG-333) to support Nuclear Command, Control, and Communications Center (NC3) missions. The KG-3XA development effort will deliver form, fit function cryptographic capabilities employed in air and group equipment to securely process emergency action messages. **FY 2024 Plans:** - Complete year 2 of the 3-year development contract for KGV-363 development - Begin year 1 of the 3-year development contract for KG-333 modernization **FY 2025 Base Plans:** - Will deliver Production Representative Engineering Design Models (PREDMS) and complete year 3 of the 3-year development contract for KGV-363 development contract - Will deliver initial Digital Engineering Models/Artifacts and continue a 36-month engineering and manufacturing development contract for KG-333 modernization development **FY 2025 OCO Plans:** Not Applicable **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding decreased due to the completion of the KGV-363 Development contract in FY2025	0.000	10.830	6.150	0.000	6.150
Title: Space COMSEC/SMCC	0.000	0.000	15.000	0.000	15.000

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 *I* 7	R-1 Program Element (Number/Name) PE 0303140F *I Information Systems Security Program*	Project (Number/Name) 675200 *I Cryptographic Modernization 2 (CM2)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Description: Implements Cryptographic Modernization 2 across space enterprise devices including Space Ground Operating Equipment (GOE) and orbital Aerospace Vehicle Equipment (AVE) supporting satellites of all sizes. These Space CM2 efforts will also increase the performance envelope for space crypto to support the emerging growth of space-based communications by increasing data throughput and number of channels supported per device. . *FY 2024 Plans:* Budget funded via BPAC 675100 CM 1 Technology Development. *FY 2025 Base Plans:* - Will develop the KG-210 GOE combining space and terrestrial communications capabilities into single device to seamlessly connect the space and terrestrial networks at all space operations centers. *FY 2025 OCO Plans:* Not Applicable *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to transition of funding from BPAC 675100 CM1 budget to CM2. High CM2 priority. CM1 FY24 Tech Dev $58.940M was realigned in FY25 to multiple CM2 Major Thrusts based on effort priorities.					
Accomplishments/Planned Programs Subtotals	0.000	32.483	94.424	0.000	94.424

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 831010: *Comsec Equipment*	91.817	98.600	63.233	-	63.233	64.884	67.262	68.701	70.063	Continuing	Continuing

Remarks

D. Acquisition Strategy

Implement AF portion of the DoD's Cryptographic Modernization 2 (CM2) Initiative through modernization/modification efforts, in varying stages of the acquisition cycle, with focus on minimizing life cycle costs. The CM portfolio of component acquisition projects is executing using a variety of approaches that vary from an evolutionary acquisition strategy using spiral development (for new component development) to incremental improvement leveraging leading-edge, certified non-developmental items (for modernization). Contract type is selected for each of the individual projects based upon its acquisition approach and its unique technology risks. A mixture of fixed-price and cost-reimbursement contracts have been selected which maximize the best value for the Government.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													Date: March 2024	

| Appropriation/Budget Activity
3600 / 7 | | R-1 Program Element (Number/Name)
PE 0303140F / Information Systems Security Program | | Project (Number/Name)
675200 / Cryptographic Modernization 2 (CM2) | |

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Technology Development (TD)	Various	MULTIPLE : MULTIPLE	-	-		12.437	Jan 2024	20.115	Jan 2025	-		20.115	Continuing	Continuing	-
IFF Mode 5	Various	MULTIPLE : MULTIPLE	-	-		-		10.648	Feb 2025	-		10.648	Continuing	Continuing	-
SPACE MODULAR COMMON CRYPTO (SMCC)	Various	MULTIPLE : MULTIPLE	-	-		-		15.000	Feb 2025	-		15.000	Continuing	Continuing	-
Algorithm Transition Compliance and Support	Various	MULTIPLE : MULTIPLE	-	-		-		4.092	Nov 2024	-		4.092	Continuing	Continuing	-
CDAR	Various	MULTIPLE : MULTIPLE	-	-		20.046	Feb 2024	14.700	Feb 2025	-		14.700	Continuing	Continuing	-
Crypto Enterprise Management	Various	MULTIPLE : MULTIPLE	-	-		-		5.264	Nov 2024	-		5.264	Continuing	Continuing	-
KG-3XA	Various	MULTIPLE : MULTIPLE	-	-		-		3.130	Nov 2024	-		3.130	Continuing	Continuing	-
Subtotal			-	-		32.483		72.949		-		72.949	Continuing	Continuing	N/A

Remarks
In FY24 PB 32.5M development funding from 675100 transferred to 675200.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
IFF Mode 5	Various	Various : Various	-	-		-		3.352	Jan 2025	-		3.352	Continuing	Continuing	-
Subtotal			-	-		-		3.352		-		3.352	Continuing	Continuing	N/A

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity 3600 *I* 7	R-1 Program Element (Number/Name) PE 0303140F *I Information Systems Security Program*	Project (Number/Name) 675200 *I Cryptographic Modernization 2 (CM2)*

Management Services ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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 Costs (PSC)	Various	Various : Various : TBD	-	-		-		18.123	Dec 2024	-		18.123	Continuing	Continuing	-
Subtotal			-	-		-		18.123		-		18.123	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	32.483	94.424	-	94.424	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*	**Project (Number/Name)** 675200 *I Cryptographic Modernization 2 (CM2)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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

Cryptographic Modernization 2 (CM2)

Technology Development

IFF Mode 5

Algorithm Transition Compliance and Support

Space COMSEC/SMCC

CDAR

Crypto Enterprise Management

KG-3XA

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303140F *I Information Systems Security Program*	**Project (Number/Name)** 675200 *I Cryptographic Modernization 2 (CM2)*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Cryptographic Modernization 2 (CM2)				
Technology Development	1	2024	4	2029
IFF Mode 5	1	2025	4	2026
Algorithm Transition Compliance and Support	1	2025	4	2029
Space COMSEC/SMCC	1	2025	4	2029
CDAR	1	2024	4	2027
Crypto Enterprise Management	1	2025	4	2029
KG-3XA	1	2025	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						R-1 Program Element (Number/Name) PE 0303248F *I All Domain Common Platform*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	44.989	71.296	82.927	0.000	82.927	87.575	92.589	88.829	90.583	Continuing	Continuing
673248: *Air Force Command and Control (C2) Comm*	-	0.000	71.296	82.927	0.000	82.927	87.575	92.589	88.829	90.583	Continuing	Continuing
675218: *Applications Development*	-	44.989	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	44.989

A. Mission Description and Budget Item Justification

This budget line funds the All Domain Common Platform (ADCP), an extensible cloud-based Infrastructure and Platform as a Service (IaaS/PaaS) hosting medium built to deliver highly resilient Command and Control (C2) mission applications and data to Airmen deployed around the world. The ADCP is a warfighting capability that enables on-boarded users to build, deploy, and monitor mission applications to the end state of production. Having applications operational in various environments ensures data is accessible as it is needed across United States Air Force (USAF) mission sets. The ADCP's collection of technologies, services, and tooling enables warfighter outcomes by abstracting away technical complexity and enabling the deployment of products onto its infrastructure.

ADCP is the primary path to production for modernized C2 software-intensive systems. ADCP is in collaboration with all primary customers of the platform and environments to include Air Operations Center (AOC), Intelligence Programs, the 309th Software Engineering Group, the 350th Spectrum Warfare Group, and others. In collaboration with the Department of the Air Force Rapid Capabilities Office (DAF RCO), ADCP is USAF's contributing platform to Joint All-Domain Command and Control (JADC2), meeting system resiliency requirements through the escalating phases of warfare.

Funding directly supports the design, development, testing and evaluation, engineering, and the product/program management to build functionality and scalability of the platform. In addition, it supports the security and cyber security efforts required to obtain and maintain ADCP's continuous authority to operate (cATO). To speed product development, funding supports enablement services, data science, data engineering, data modeling/governance, and process automation. Lastly, funding supports network and platform architecture, as well as prototyping efforts to increase platform, communications, and network efficiency and capabilities. ADCP uses Agile methodologies and Development, Security, and Operations (DevSecOps) practices to deliver improved capabilities at scale, in support of mission requirements. ADCP is an evolving, delivered and managed product distributed to customers ensuring the requisite tools and services needed to securely build, deploy and sustain successful C2 mission applications.

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 FY23, $2.920M was expended for civilian pay expenses in this program element, and in FY24, $15.945M is forecasted for civilian pay expenses in this program element.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0303248F *I All Domain Common Platform*		

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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	46.540	71.296	88.492	0.000	88.492
Current President's Budget	44.989	71.296	82.927	0.000	82.927
Total Adjustments	-1.551	0.000	-5.565	0.000	-5.565
• 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	-1.551	0.000			
• Other Adjustments	0.000	0.000	-5.565	0.000	-5.565

Change Summary Explanation

The FY 2025 funding request was reduced by $5.710 million to account for the availability of prior year execution balances.
The FY 2025 funding request was increased by $0.145 million to account for inflation adjustments.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 I 7					**R-1 Program Element (Number/Name)** PE 0303248F I *All Domain Common Platform*				**Project (Number/Name)** 673248 I *Air Force Command and Control (C2) Comm*		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
673248: *Air Force Command and Control (C2) Comm*	-	0.000	71.296	82.927	0.000	82.927	87.575	92.589	88.829	90.583	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This budget line funds the ADCP, an extensible cloud-based IaaS/PaaS hosting medium built to deliver highly resilient C2 mission applications and data to Airmen deployed around the world. The ADCP is a warfighting capability that enables on-boarded users to build, deploy, and monitor mission applications to the end state of production. Having applications operational in various environments ensures data is accessible as it is needed across United States Air Force (USAF) mission sets. The ADCP's collection of technologies, services, and tooling enables warfighter outcomes by abstracting away technical complexity and enabling the deployment of products onto its infrastructure.

ADCP is the primary path to production for modernized C2 software-intensive systems. ADCP is in collaboration with all primary customers of the platform and environments to include Air Operations Centers (AOC), Intelligence Programs, the 309th Software Engineering Group, the 350th Spectrum Warfare Group, and others. In collaboration with the Department of the Air Force Rapid Capabilities Office (DAF RCO), ADCP is USAF's contributing platform to Joint All-Domain Command and Control (JADC2), meeting system resiliency requirements through the escalating phases of warfare.

Funding directly supports the design, development, testing and evaluation, engineering, and the product/program management to build functionality and scalability of the platform. In addition, it supports the security and cyber security efforts required to obtain and maintain ADCP's continuous authority to operate (cATO). To speed product development, funding supports enablement services, data science, data engineering, data modeling/governance, and process automation. Lastly, funding supports network and platform architecture development, as well as prototyping efforts, to increase platform, communications, and network efficiency and capabilities. ADCP uses Agile methodologies and Development, Security, and Operations (DevSecOps) practices to deliver improved capabilities at scale, in support of mission requirements. ADCP is an evolving, delivered and managed product distributed to customers ensuring the requisite tools and services needed to securely build, deploy and sustain successful C2 mission applications.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: ADCP Development	0.000	71.296	82.927
Description: Funding directly supports the design, development, testing and evaluation, engineering, and the product/program management to build functionality and scalability of the platform. In addition, it supports the security and cyber security efforts required to obtain and maintain ADCP's continuous authority to operate (cATO). To speed product development, funding supports enablement services, data science, data engineering, data modeling/governance, and process automation. Lastly, supports network and platform architecture development, as well as prototyping efforts, to increase platform, communications, and network efficiency and capabilities. ADCP uses Agile methodologies and Development, Security, and Operations (DevSecOps)			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303248F *I All Domain Common Platform*	**Project (Number/Name)** 673248 *I Air Force Command and Control (C2) Comm*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
practices to deliver improved capabilities at scale, in support of mission requirements. ADCP is an evolving, delivered and managed product distributed to customers ensuring the requisite tools and services needed to securely build, deploy and sustain successful C2 mission applications. *FY 2024 Plans:* - Support Continuous Integration/Continuous Delivery (CI/CD) pipelines - Stabilize the platform hosting AOC modernization applications in operational use across 4 AORs - Increase cloud environment development to migrate current operational platform hosted on-premises to classified cloud - Deliver production-ready open-source system for automating deployment, scaling, and management of containerized applications - Create and implement enhanced security observability tooling in support of application customers and platform services - Increase automation for monitoring and tracking services for application customer usage - Improve C2 mission application reliability and decrease lead time for new capability delivery - Continue transition to commercially managed platform and infrastructure services on available public cloud service provider offerings *FY 2025 Plans:* - Will continue to support CI/CD pipelines operating in cloud-native environments - Will initiate extension of ADCP PaaS to cloud-connected edge environments - Will continue transition of containerized C2 applications to the production-ready open-source system - Will increase enhanced security observability tooling in support of application customers and platform services via a Security Operations Center - Will continue automation for monitoring and tracking services for application customer usage - Will continue to improve C2 mission application reliability and decrease lead time for new capability delivery - Will optimize implementation of commercially managed platform and infrastructure services on available public cloud service provider offerings - Will increase cloud-hosted self-monitoring access for C2 mission application development teams to manage path to production - Will improve data management and sharing through establishment of enterprise data governance *FY 2024 to FY 2025 Increase/Decrease Statement:* - FY25 funding increases due to the instantiation of a Security Operations Center for monitoring and supporting hosted C2 mission applications and to integrate legacy I.T. services with ADCP's cloud migration to deliver a secure, cloud-native path to production for software applications.			
Accomplishments/Planned Programs Subtotals	0.000	71.296	82.927

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303248F *I All Domain Common Platform*	**Project (Number/Name)** 673248 *I Air Force Command and Control (C2) Comm*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 833140: *Strategic Command And Control*	30.738	9.991	5.432	-	5.432	1.862	1.906	28.700	29.267	Continuing	Continuing
• OPAF 03 834530: *Air & Space Operations Center (AOC)*	1.893	0.963	0.511	-	0.511	0.523	0.541	0.553	0.564	Continuing	Continuing

Remarks

D. Acquisition Strategy

The ADCP program is operating under authority FY20 NDAA, Section 800, Software Acquisition Pathway (SWP). ADCP will leverage a modular contracting strategy that focuses on evolving needs, continuous market research, and streamlined solicitation procedures. ADCP leverages both small and large business contracts for specialized services and enterprise ADCP to adopt commercial best practices for software development and to continue scaling of the modern Infrastructure as a Service/Platform as a Service (IaaS/PaaS) solution. Activities are also accomplished via Military Interdepartmental Purchase Requests (MIPR). Additionally, significant technical expertise will be sought after via modular contracting approach and provided by Government Agencies, DoD Laboratories, Federally Funded Research and Development Centers (FFRDC), Academia, and Engineering & Professional Acquisition Support Services contractors as well as commercial industry partners.

Program management for the ADCP program is under direction of PEO Digital, located at Hanscom AFB, MA. The Air Force Life Cycle Management Center (AFLCMC) located at Hanscom AFB, MA is the contracting authority for the ADCP program. AFLCMC provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303248F *I All Domain Common Platform*	**Project (Number/Name)** 673248 *I Air Force Command and Control (C2) Comm*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ADCP Development	Various	Various : TBD	-	0.000		29.726	Apr 2024	41.820	Dec 2024	-		41.820	Continuing	Continuing	-
ADCP Data Services	C/FFP	Various : TBD	-	0.000		4.677	Apr 2024	5.481	Apr 2025	-		5.481	Continuing	Continuing	-
Subtotal			-	0.000		34.403		47.301		-		47.301	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ADCP Direct Mission Support	C/CPAF	Various : TBD	-	0.000		2.691	Oct 2023	1.797	Oct 2024	-		1.797	Continuing	Continuing	-
ADCP Civilian Direct Cite Authority for Product Development	C/CPAF	Not specified. : TBD	-	0.000		15.945	Oct 2023	17.803	Oct 2024	-		17.803	Continuing	Continuing	-
Subtotal			-	0.000		18.636		19.600		-		19.600	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ADCP Development	TBD	Not specified. : TBD	-	0.000		0.207	Dec 2023	0.211	Dec 2024	-		0.211	Continuing	Continuing	-
Subtotal			-	0.000		0.207		0.211		-		0.211	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ADCP Engineering Services	Various	Various : TBD	-	0.000		4.700	Oct 2023	4.794	Oct 2024	-		4.794	Continuing	Continuing	-
ADCP Program Support	C/Various	Various : TBD	-	0.000		13.350	Nov 2023	11.021	Nov 2024	-		11.021	Continuing	Continuing	-
Subtotal			-	0.000		18.050		15.815		-		15.815	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force							**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0303248F *I All Domain Common Platform*			**Project (Number/Name)** 673248 *I Air Force Command and Control (C2) Comm*		
	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	0.000	71.296	82.927	-	82.927	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303248F *I All Domain Common Platform*	**Project (Number/Name)** 673248 *I Air Force Command and Control (C2) Comm*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Air Force Command and Control (C2) Common Platform																												
Continuous ADCP Deliveries																												
Manage Enterprise Services																												
Stabilize ADCP Platform																												
Move to Commercially Managed Service																												
Migrate Applications to Commercially Managed Platform																												
Develop Cloud-Connected Edge Solutions																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303248F *I All Domain Common Platform*	**Project (Number/Name)** 673248 *I Air Force Command and Control (C2) Comm*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Air Force Command and Control (C2) Common Platform				
Continuous ADCP Deliveries	1	2024	4	2029
Manage Enterprise Services	1	2024	4	2029
Stabilize ADCP Platform	1	2024	4	2025
Move to Commercially Managed Service	1	2024	1	2025
Migrate Applications to Commercially Managed Platform	3	2024	4	2026
Develop Cloud-Connected Edge Solutions	1	2024	4	2026

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600 I 7					**R-1 Program Element (Number/Name)** PE 0303248F I *All Domain Common Platform*					**Project (Number/Name)** 675218 I *Applications Development*		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675218: *Applications Development*	-	44.989	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	44.989
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This budget line funds the ADCP, an extensible cloud-based IaaS/PaaS hosting medium built to deliver highly resilient C2 mission applications and data to Airmen deployed around the world. The ADCP is a warfighting capability that enables on-boarded users to build, deploy, and monitor mission applications to the end state of production. Having applications operational in various environments ensures data is accessible as it is needed across Air Force mission sets. The ADCP's collection of technologies, services, and tooling enables warfighter outcomes by abstracting away technical complexity and enabling the deployment of products onto its infrastructure.

ADCP is the primary path to production for modernized C2 systems. ADCP is in collaboration with all primary customers of the platform and environment to include AOC, Intelligence Programs, the DAF RCO, and others. ADCP is USAF's contributing platform to JADC2 for user-facing C2 capability with the resiliency requirements met through the escalating phases of warfare.

Funding directly supports the design, development, testing and evaluation, engineering, and the product management and program management to build functionality and scalability of the platform. It also supports the security and cyber security required for ADCP's cATO. To speed product development, funding supports enablement services, data science, data engineering, machine learning, artificial intelligence, and process automation. Last, funding supports the network and platform architecture, as well as prototyping efforts to increase platform, communications, and network efficiency and capabilities. ADCP uses Agile methodologies and DevSecOps practices to deliver improved capabilities at scale, in support of mission requirements. ADCP is an evolving, delivered and managed product distributed to customers ensuring the requisite tools and services needed to securely build, deploy and sustain successful C2 mission applications.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: ADCP Development	44.989	0.000	0.000
Description: Funding directly supports the design, development, testing and evaluation, engineering, and the product management and program management to build functionality and scalability of the platform. It also supports the security and cyber security required for ADCP's cATO. To speed product development, funding supports enablement services, data science, data engineering, machine learning, artificial intelligence, and process automation. Last, funding supports the network and platform architecture, as well as prototyping efforts to increase platform, communications, and network efficiencies and capabilities. ADCP uses Agile methodologies and DevSecOps practices to deliver improved capabilities at scale, in support of mission requirements. ADCP is an evolving, delivered and managed product distributed to customers ensuring the requisite tools and services needed to securely build, deploy and sustain successful C2 mission applications.			

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0303248F I *All Domain Common Platform*	**Project (Number/Name)** 675218 I *Applications Development*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
FY 2024 Plans: See PE 0303248F, All Domain Common Platform, Project 673248, Air Force Command and Control (C2) Common Platform			
FY 2025 Plans: See PE 0303248F, All Domain Common Platform, Project 673248, Air Force Command and Control (C2) Common Platform			
FY 2024 to FY 2025 Increase/Decrease Statement: See PE 0303248F, All Domain Common Platform, Project 673248, Air Force Command and Control (C2) Common Platform			
Accomplishments/Planned Programs Subtotals	44.989	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 833140: *Strategic Command And Control*	30.738	9.991	5.432	-	5.432	1.862	1.906	28.700	29.267	Continuing	Continuing
• OPAF 03 834530: *Air & Space Operations Center (AOC)*	1.893	0.963	0.511	-	0.511	0.523	0.541	0.553	0.564	Continuing	Continuing

Remarks

D. Acquisition Strategy

The ADCP program is operating under authority FY20 NDAA, Section 800, Software Acquisition Pathway (SWP). ADCP will leverage a modular contracting strategy that focuses on evolving needs, continuous market research, and streamlined solicitation procedures. ADCP leverages both small and large business contracts for specialized services and enterprise ADCP to adopt commercial best practices for software development and to continue scaling of the modern Infrastructure as a Service/Platform as a Service (IaaS/PaaS) solution. Activities are also accomplished via Military Interdepartmental Purchase Requests (MIPR). Additionally, significant technical expertise will be sought after via modular contracting approach and provided by Government Agencies, DoD Laboratories, Federally Funded Research and Development Centers (FFRDC), Academia, and Engineering & Professional Acquisition Support Services contractors as well as commercial industry partners.

Program management for the ADCP program is under direction of PEO Digital, located at Hanscom AFB, MA. The Air Force Life Cycle Management Center (AFLCMC) located at Hanscom AFB, MA is the contracting authority for the ADCP program. AFLCMC provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0303248F / *All Domain Common Platform*						**Project (Number/Name)** 675218 / *Applications Development*		

Product Development ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
ADCP Development	Various	Various : TBD	-	21.657	Dec 2022	-		-		-		-	0.000	21.657	-
ADCP Data Science	C/Various	Various : TBD	-	3.119	Apr 2023	-		-		-		-	0.000	3.119	-
		Subtotal	-	24.776		-		-		-		-	0.000	24.776	N/A

Support ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
ADCP Direct Mission Support	C/CPFF	Various : TBD	-	3.017	Dec 2022	-		-		-		-	0.000	3.017	-
ADCP Civilian Direct Cite Authority for Product Development	C/CPAF	Not specified. : TBD	-	2.920	Apr 2023	-		-		-		-	0.000	2.920	-
		Subtotal	-	5.937		-		-		-		-	0.000	5.937	N/A

Test and Evaluation ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
ADCP Development	PO	Eglin AFB : TBD	-	0.262	Aug 2023	-		-		-		-	0.000	0.262	-
		Subtotal	-	0.262		-		-		-		-	0.000	0.262	N/A

Management Services ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
ADCP Engineering Services	Various	Various : TBD	-	3.388	Oct 2022	-		-		-		-	0.000	3.388	-
ADCP Program Support	C/Various	Various : TBD	-	10.626	Dec 2022	-		-		-		-	0.000	10.626	-
		Subtotal	-	14.014		-		-		-		-	0.000	14.014	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force								Date: March 2024		
Appropriation/Budget Activity 3600 I 7				**R-1 Program Element (Number/Name)** PE 0303248F I All Domain Common Platform				**Project (Number/Name)** 675218 I Applications Development		
	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	44.989	-	-	-	-	0.000	44.989	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force			**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7		**R-1 Program Element (Number/Name)** PE 0303248F *I All Domain Common Platform*	**Project (Number/Name)** 675218 *I Applications Development*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
AF Command and Control (C2) Common Platform																												
All Domain Common Platform	███████████																											

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0303248F *I All Domain Common Platform*	**Project (Number/Name)** 675218 *I Applications Development*	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
AF Command and Control (C2) Common Platform				
All Domain Common Platform	1	2023	4	2023

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0303260F *I Joint Military Deception Initiative*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	2.493	4.682	7.324	0.000	7.324	7.881	0.000	0.000	0.000	0.000	22.380
674550: *Air Base Resiliency*	-	2.493	4.682	7.324	0.000	7.324	7.881	0.000	0.000	0.000	0.000	22.380
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Air Base Resiliency information remain classified and will be provided in the appropriate forum on a need-to-know basis.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898, 0606398F. In FY23 $0M was expended for civilian pay expenses in this program element, and in FY24 $0M 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	2.588	4.682	7.311	0.000	7.311
Current President's Budget	2.493	4.682	7.324	0.000	7.324
Total Adjustments	-0.095	0.000	0.013	0.000	0.013
• 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	-0.095	0.000			
• Other Adjustments	0.000	0.000	0.013	0.000	0.013

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Air Base Resiliency	2.493	4.682	7.324
Description: Detailed information on Air Base Resiliency remains classified and will be provided upon request.			

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0303260F *I Joint Military Deception Initiative*		

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
FY 2024 Plans: Detailed information on Air Base Resiliency remains classified and will be provided on upon request. *FY 2025 Plans:* Detailed information on Air Base Resiliency remains classified and will be provided upon request. *FY 2024 to FY 2025 Increase/Decrease Statement:* Detailed information on Air Base Resiliency remains classified and will be provided upon request.			
Accomplishments/Planned Programs Subtotals	2.493	4.682	7.324

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks
 Detailed information on Air Base Resiliency remains classified and will be provided upon request.

E. Acquisition Strategy
 Strategy is still being assessed.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0303260F I *Joint Military Deception Initiative*	**Project (Number/Name)** 674550 I *Air Base Resiliency*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	Award Date	FY 2024 Cost	Award Date	FY 2025 Base Cost	Award Date	FY 2025 OCO Cost	Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Air Base Resiliency	TBD	Various : TBD	-	1.900	Sep 2023	4.172	May 2024	6.824	Apr 2025	-		6.824	Continuing	Continuing	-
Subtotal			-	1.900		4.172		6.824		-		6.824	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	Award Date	FY 2024 Cost	Award Date	FY 2025 Base Cost	Award Date	FY 2025 OCO Cost	Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration (PMA)	MIPR	MTSI : Dayton, WPAFB, OH	-	0.593	Aug 2023	0.510	Mar 2024	0.500		-		0.500	Continuing	Continuing	-
Subtotal			-	0.593		0.510		0.500		-		0.500	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	2.493	4.682	7.324	-	7.324	Continuing	Continuing	N/A

Remarks
Air Base Resiliency information remain classified and will be provided in the appropriate forum on a need-to-know basis.

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0303260F / *Joint Military Deception Initiative*	**Project (Number/Name)** 674550 / *Air Base Resiliency*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Air Base Resiliency																												
Classified																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0303260F **/** *Joint Military Deception Initiative*	**Project (Number/Name)** 674550 **/** *Air Base Resiliency*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Air Base Resiliency				
Classified	1	2023	4	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	

| **Appropriation/Budget Activity**
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7:
Operational Systems Development | | | | | **R-1 Program Element (Number/Name)**
PE 0304100F *I Strategic Mission Planning & Execution System (SMPES)* | | | | | | | |

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.000	64.944	69.441	0.000	69.441	70.937	72.751	73.651	75.552	Continuing	Continuing
674212: *NLCC Decision Support System*	-	0.000	9.675	11.933	0.000	11.933	11.693	11.695	10.826	10.902	Continuing	Continuing
675029: *Strategic Mission Planning & Execution System*	-	0.000	55.269	57.508	0.000	57.508	59.244	61.056	62.825	64.650	Continuing	Continuing

Note

Program is not a new start. In FY24, the following efforts were transferred to PE 0304100F, Strategic Mission Planning and Execution System (SMPES): PE 0101324F, Integrated Strategic Planning & Analysis Network (ISPAN) and PE 0301112F Nuclear Planning & Execution System (NPES) / Decision Support Service (DSS).

A. Mission Description and Budget Item Justification

This budget line funds SMPES PE. Legacy PEs 0101324F ISPAN and 0301112F NPES and DSS have been consolidated into one SMPES PE 0304100F. The SMPES PE is comprised of two Budget, Program, and Activity Codes (BPAC): the SMPES software acquisition program and the National Leadership Command Capability (NLCC) Decision Support Service (DSS) software acquisition program.

SMPES is an integrated enterprise solution software system providing the U.S. Air Force (USAF) and U.S. strategic nuclear forces' principal nuclear planning and analysis tools; including tools for consequence analysis and deliberate, adaptive, and crisis action planning for strategic deterrence.

SMPES consolidates the following six independently managed programs into one system: 1) Mission Planning and Analysis System (MPAS); 2) Global Adaptive Planning Collaborative Information Environment (GAP CIE); 3) Decision Support Service (DSS) - Nuclear Command and Control (NC2) conference module component; 4) Nuclear Planning and Execution System Recapitalization (NPES Recap); 5) Force Status Readiness (FSR); and 6) Force Survivability Analysis and Management (FSAM).

MPAS provides comprehensive global strike, coordinated space and missile defense, and information operations capabilities to meet strategic deterrent and national security objectives. MPAS consists of multiple sub-applications, working together to provide senior leaders with a strategic planning capability to U.S. Strategic Command (USSTRATCOM) leadership and war planners. MPAS software, including ISPAN, is utilized to develop Joint Staff Level I - IV nuclear and conventional attack options for national and theater requirements, by conducting continuous agile software development for classified and unclassified networks. Located at USSTRATCOM, ISPAN supports the Unified Command Plan and Nuclear Posture Review. ISPAN Increment 5 (Inc 5) provided more distributed capability within the MPAS program.

GAP-CIE is a web-based, collaborative, joint operation planning (JOP) application that enables combatant commanders and strategic leaders to rapidly coordinate on course of action development. The GAP-CIE planning environment provides deliberative planning, crisis action planning, decision support tools, and the Global Situational Awareness Tool (GSAT), supporting combatant commanders' visual of geospatial, temporal, and relational planning data.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0304100F *I Strategic Mission Planning & Execution System (SMPES)*

DSS develops software to improve situational awareness on the current situation, aggregate strategic-level information, and provide a common, resilient, and mobile visual display to directly support strategic leaders.

NPES Recap develops software to facilitate NC2 adaptive planning and execution at fixed and mobile sites in real time. NPES Recap provides communication interfaces with software development, data management, software re-engineering, and operations to include requirements validation and training.

FSR provides decision-makers and planners with real-time status of U.S. nuclear forces and stores information related to the USSTRATCOM NC2 mission enabling combatant commanders the ability to monitor the status of forces to include missiles, aircraft, submarines, and key personnel.

FSAM enables the Warning System Controller (WSC) to monitor the status of all USSTRATCOM assigned forces to include but not limited to: 1) tracking the location of hostile threat aircraft and missile systems; 2) processing and displaying potential U.S. force vulnerabilities; and 3) providing force management/force survival (FM/FS) analysis tools to USSTRATCOM senior leaders.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon systems capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in PE 0605830F.

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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	0.000	64.944	70.698	0.000	70.698
Current President's Budget	0.000	64.944	69.441	0.000	69.441
Total Adjustments	0.000	0.000	-1.257	0.000	-1.257
• 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	-1.257	0.000	-1.257

Change Summary Explanation

The reduction is due to the programmed reduction to the DSS - NC2 Conference Module budget from FY24 to FY25.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0304100F *I Strategic Mission Planning & Execution System (SMPES)*					**Project (Number/Name)** 674212 *I NLCC Decision Support System*		

COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
674212: *NLCC Decision Support System*	-	0.000	9.675	11.933	0.000	11.933	11.693	11.695	10.826	10.902	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This budget line funds the National Leadership Command Capability (NLCC) DSS. DSS will develop and deliver software to directly support strategic leaders with situational awareness and response options in time critical national events. DSS will improve situational awareness of threats to the U.S. and its Allies, aggregate strategic-level information, and provide a common, resilient, and mobile visual display capability.

This budget line funds the DSS BPAC 674212.

DSS is developing conference modules that will directly support senior leaders with a common visual display to enhance national-level situational awareness and strategic-level decision making. The program include the NC2 conference module that will be integrated into the SMPES enterprise architecture as well as at least two additional follow-on conference modules to support other mission areas and Combatant Commands. These additional conference modules are not expected to be a part of the SMPES enterprise architecture.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: DSS - Conference Module Development	0.000	9.675	11.933	0.000	11.933
Description: Funds will be used for the development, integration, and test activities of NLCC DSS conference modules					
FY 2024 Plans: Activities supported with FY24 funding include, but are not limited to the following: - Continue foundational functionality and data integration - Refine prototype development that includes high availability failover capability to support NC2 operational requirements - Further development, testing, and implementation of requirements for continuity of operations and continuity of government communications - Conduct integrated government developmental test and evaluation (DT&E) and operational test and evaluation (OT&E) to characterize performance and cybersecurity posture					

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304100F *I Strategic Mission Planning &* *Execution System (SMPES)*	**Project (Number/Name)** 674212 *I NLCC Decision Support System*	

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
- Development and integration of modernized platform, data services, and detailed situational awareness information in support of senior leaders ***FY 2025 Base Plans:*** Activities will include, but are not limited to the following: - Continue FY24 activities to complete NC2 conference module - Begin requirement refinement and development of two additional conference modules in support of two separate mission areas and Combatant Commands ***FY 2025 OCO Plans:*** No OCO requested ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY24 to FY25 increase is due to the planned development for the additional conference modules, in addition to sustainment of the NC2 conference module.					
Accomplishments/Planned Programs Subtotals	0.000	9.675	11.933	0.000	11.933

C. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

D. Acquisition Strategy

 DSS has implemented the Agile DevSecOps, Continuous Integration/Continuous Delivery (CI/CD) acquisition strategy with development contracts that are negotiated and awarded in a competitive environment. DSS will consider the best contract options to implement the Agile DevSecOps, CI/CD strategy. Other activities are also accomplished using various contracting vehicles, such as Military Interdepartmental Purchase Requests (MIPRs).

 After the Acquisition Decision Memorandum (ADM) was signed on 11 May 2022, DSS entered the Execution Phase of the Software Acquisition Pathway (SWP) to accelerate delivery of a finished product.

 Program management for DSS is under the direction of Program Executive Officer (PEO) Digital, located at Hanscom AFB, MA. The Air Force Life Cycle Management Center (AFLCMC) located at Hanscom AFB, MA and the 55th Contracting Squadron at Offutt AFB, NE are the contracting authorities for the DSS program. AFLCMC provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024	

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0304100F / Strategic Mission Planning & Execution System (SMPES)	**Project (Number/Name)** 674212 / NLCC Decision Support System

Product Development ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Visualization Development	C/CPIF	Various : Bellevue, Offutt AFB, NE	-	-		7.061	Jan 2024	8.456	Jan 2025	-		8.456	Continuing	Continuing	-
	Subtotal		-	-		7.061		8.456		-		8.456	Continuing	Continuing	N/A

Support ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
DevOps Support	C/FFP	John Hopkins Univ/ Various : Bellevue, Offutt AFB, NE	-	-		0.834	Jan 2024	0.852	Jan 2025	-		0.852	Continuing	Continuing	-
IT Support	C/CPAF	Various : Bellevue, Offutt AFB, NE	-	-		0.120	Jun 2024	0.623	Jun 2025	-		0.623	Continuing	Continuing	-
Engineering Support	SS/FFP	MITRE : Bellevue, Offutt AFB, NE	-	-		0.679	Nov 2023	1.000	Nov 2024	-		1.000	Continuing	Continuing	-
	Subtotal		-	-		1.633		2.475		-		2.475	Continuing	Continuing	N/A

Management Services ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 Ops Support	C/CPIF	Various : Bellevue, Offutt AFB, NE	-	-		0.981	Feb 2024	1.002	Feb 2025	-		1.002	Continuing	Continuing	-
	Subtotal		-	-		0.981		1.002		-		1.002	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	-		9.675		11.933		-		11.933	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304100F *I Strategic Mission Planning &* *Execution System (SMPES)*	**Project (Number/Name)** 674212 *I NLCC Decision Support System*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Software Acquisition Pathway Continuous Software Delivery																												
Continuous development and delivery of working software on a 2-week sprint cadence. Continuous feedback is implemented through customer channels.																												
NC2 Conference Module																												
NC2 Conference module is being developed for SMPES to support the NC2 mission area. Note: Project started 3rd Qtr FY22																												
Mission Area 2																												
Mission Area 2 conference module development to support senior leader conferences																												
Mission Area 3																												
Mission Area 3 conference module development to support senior leader conferences																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304100F *I Strategic Mission Planning & Execution System (SMPES)*	**Project (Number/Name)** 674212 *I NLCC Decision Support System*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Software Acquisition Pathway Continuous Software Delivery				
Continuous development and delivery of working software on a 2-week sprint cadence. Continuous feedback is implemented through customer channels.	3	2023	4	2029
NC2 Conference Module				
NC2 Conference module is being developed for SMPES to support the NC2 mission area. Note: Project started 3rd Qtr FY22	1	2023	4	2029
Mission Area 2				
Mission Area 2 conference module development to support senior leader conferences	1	2025	4	2029
Mission Area 3				
Mission Area 3 conference module development to support senior leader conferences	1	2025	4	2029

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0304100F *I Strategic Mission Planning & Execution System (SMPES)*					**Project (Number/Name)** 675029 *I Strategic Mission Planning & Execution System*		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675029: *Strategic Mission Planning & Execution System*	-	0.000	55.269	57.508	0.000	57.508	59.244	61.056	62.825	64.650	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

SMPES will be the USAF and U.S. strategic nuclear forces' principal nuclear planning and analysis tool for accessing consequence analysis information and strategic deterrence. SMPES consolidates the following six independently managed programs into one system: 1) MPAS; 2) GAP-CIE; 3)DSS - NC2 Conference Module; 4) NPES Recap; 5) FSR; and 6) FSAM.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Development	0.000	55.269	57.508	0.000	57.508

Description: Funds will be used for the development, integration, test, and fielding activities of NC3 enterprise solutions

FY 2024 Plans:
SMPES will combine J5 (Mission Planners)/J3 (Operations) capabilities, by refactoring legacy software, into a single system of container based services.
- Will field refactored software architecture and capabilities and automate software deployments via the SWP.
- Software will be refactored with modernized computer languages and data storage. It will employ automation and optimization to enable users to conduct planning and execution with container ready services
- Pursue software acquisition pathways for development and fielding of new architecture
- Enhance cybersecurity and continue the recurring lifecycle procurement and tech refreshes for commercial based hardware and software components
- Refine prototype to include high availability failover to support NC2 operational requirements
- Refine and implement evolving cybersecurity requirements, situational awareness, incorporation of classified capabilities, and integration into NPES Recap architecture
- Further development, testing, and implementation of continuity of operations and continuity of government communications requirements
- Conduct integrated government DT&E and OT&E to characterize performance and cybersecurity posture

FY 2025 Base Plans:
Activities will include, but are not limited to the following:

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 I 7	R-1 Program Element (Number/Name) PE 0304100F I Strategic Mission Planning & Execution System (SMPES)	Project (Number/Name) 675029 I Strategic Mission Planning & Execution System

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
- Build upon initial planning and execution refactored capabilities and continue to enhance automated deployments - Continue to field capabilities to enhance software architecture and utilize software acquisition pathway enhancement through field-able containerized services - Refactor software to enable user representatives to conduct optimized solutions - Enhance evolving cybersecurity and continue the recurring lifecycle procurement and tech refreshes of commercial based hardware and software components - Conduct integrated government DT&E and OT&E to characterize performance and cybersecurity posture ***FY 2025 OCO Plans:*** No OCO requested ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY24 to FY25 increase is due to inflation and planned program growth					
Accomplishments/Planned Programs Subtotals	0.000	55.269	57.508	0.000	57.508

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 833570: *Strategic Mission Planning & Execution System*	-	3.861	7.376	-	7.376	6.404	7.188	9.854	10.049	Continuing	Continuing

Remarks

D. Acquisition Strategy

The acquisition strategy builds agile software engineering solutions and modification of existing capabilities using an evolutionary acquisition approach to standardize SMPES. SMPES will leverage commercial best practices of Agile DevSecOps to integrate 6 services into a system of services construct. SMPES operates under authority FY20 NDAA, Section 800, SWP.

The SMPES program will implement Agile DevSecOps CI/CD to develop and modernize software for combatant commanders; producing a secure software development environment located in existing space at Offutt AFB, NE. Software development environment will meet classification/security regulations/criteria, which will promote competition. The program will consider the best contract options to implement the Agile DevSecOps CI/CD strategy. Other activities are also accomplished through the use of various contracting vehicles such as MIPRs.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304100F *I Strategic Mission Planning & Execution System (SMPES)*	**Project (Number/Name)** 675029 *I Strategic Mission Planning & Execution System*

SMPES will leverage both small and large business contracts for application and system services.

Program management for the SMPES program is under direction of PEO Digital, located at Hanscom AFB, MA. The AFLCMC located at Hanscom AFB, MA and the 55th Contracting Squadron at Offutt AFB, NE are the contracting authorities for the SMPES program. AFLCMC provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7		**R-1 Program Element (Number/Name)** PE 0304100F / *Strategic Mission Planning & Execution System (SMPES)*	**Project (Number/Name)** 675029 / *Strategic Mission Planning & Execution System*	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Development - NPES, Targeting, Missiles	C/CPAF	Northrop Grumman : Bellevue, Offutt AFB, NE	-	-		16.025	Dec 2023	13.691	Dec 2024	-		13.691	Continuing	Continuing	-
Primary Development - Air Vehicle & Quality Review-Mission Planning & Analysis Common Service (QR MPACS)	C/CPAF	Leidos : Bellevue, Offutt AFB, NE	-	-		8.599	Nov 2023	8.336	Dec 2024	-		8.336	Continuing	Continuing	-
Primary Development - Global Strike & Intell	C/CPAF	Lockheed Martin : Bellevue, Offutt AFB, NE	-	-		2.600	Feb 2024	2.204	Dec 2024	-		2.204	Continuing	Continuing	-
RBS	C/CPAF	Various : Various, NE	-	-		5.733	Nov 2023	4.861	Dec 2025	-		4.861	Continuing	Continuing	-
GAP-CIE Development	C/CPAF	Northrop Grumman : Bellevue, Offutt AFB, NE	-	-		-		1.245	Jan 2025	-		1.245	Continuing	Continuing	-
Database Development and Integration	C/CPAF	Various : Various, NE	-	-		-		3.320	Jan 2025	-		3.320	Continuing	Continuing	-
Johns Hopkins - NSRI - DCA	C/CPAF	Various : Various, NE	-	-		-		0.945	Jan 2025	-		0.945	Continuing	Continuing	-
Subtotal			-	-		32.957		34.602		-		34.602	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DevOps Support	C/FP	Various : Bellevue, Offutt AFB, NE	-	-		6.882	Jan 2024	7.032	Jan 2025	-		7.032	Continuing	Continuing	-
Technical Engineering Services	C/FFP	Various : Bellevue, Offutt AFB, NE	-	-		1.489	Feb 2024	1.521	Feb 2025	-		1.521	Continuing	Continuing	-
Engineering Support	C/CPAF	Various : Bellevue, Offutt AFB, NE	-	-		8.315	Feb 2024	8.495	Feb 2025	-		8.495	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force				Date: March 2024	

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0304100F / Strategic Mission Planning & Execution System (SMPES)	Project (Number/Name) 675029 / Strategic Mission Planning & Execution System

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Subtotal			-	-		16.686		17.048		-		17.048	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test Support	SS/TBD	Various : Bellevue, Offutt AFB, NE	-	-		0.086	Feb 2024	0.198	Feb 2025	-		0.198	Continuing	Continuing	-
Subtotal			-	-		0.086		0.198		-		0.198	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PSC	C/Various	Various : Bellevue, Offut AFB, NE	-	-		5.540	Nov 2023	5.660	Nov 2024	-		5.660	Continuing	Continuing	-
Subtotal			-	-		5.540		5.660		-		5.660	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	55.269	57.508	-	57.508	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304100F *I Strategic Mission Planning & Execution System (SMPES)*	**Project (Number/Name)** 675029 *I Strategic Mission Planning & Execution System*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Software Acquisition Pathway Continuous Software Delivery																												
Continuous development and delivery of working software on a 2-week sprint cadence. Continuous feedback is implemented through customer channels. Supporting events include Quality Design and Build.					███																							

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304100F *I Strategic Mission Planning & Execution System (SMPES)*	**Project (Number/Name)** 675029 *I Strategic Mission Planning & Execution System*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Software Acquisition Pathway Continuous Software Delivery				
Continuous development and delivery of working software on a 2-week sprint cadence. Continuous feedback is implemented through customer channels. Supporting events include Quality Design and Build.	1	2024	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity	R-1 Program Element (Number/Name)
3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*	PE 0304260F *I Airborne SIGINT Enterprise*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	98.297	108.947	85.284	0.000	85.284	94.684	96.734	100.236	102.214	Continuing	Continuing
675180: *RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)*	-	39.412	43.443	41.917	0.000	41.917	45.753	46.798	48.492	49.449	Continuing	Continuing
675183: *Common Development (Airborne SIGINT Development - Common Development)*	-	39.849	47.902	25.335	0.000	25.335	30.449	31.075	32.199	32.835	Continuing	Continuing
675185: *COMPASS BRIGHT*	-	4.109	9.495	9.727	0.000	9.727	9.971	10.175	10.544	10.752	Continuing	Continuing
675186: *Special Programs (Airborne SIGINT Development - Special Platforms)*	-	14.927	8.107	8.305	0.000	8.305	8.511	8.686	9.001	9.178	Continuing	Continuing

Note
 Project 675185, (COMPASS BRIGHT), changed from (Non-Traditional SIGINT (NTS))

A. Mission Description and Budget Item Justification

This program funds multi-domain, multi-Intelligence, Surveillance and Reconnaissance (ISR) research, development, test and evaluation (RDT&E) efforts in support of the National Defense Strategy (NDS), as applied by the Air Force in the Next Generation ISR Dominance Flight Plan. Specifically, Program Element (PE) 0304260F provides authorized and appropriated funding to Signals Intelligence (SIGINT) RDT&E efforts for utilization on airborne platforms.

The future ISR portfolio will consist of multi-domain, multi-intelligence systems to meet emerging ISR threats across the entire conflict spectrum. The Airborne SIGINT Enterprise (ASE) PE is integral to developing the SIGINT component of the multi-domain, multi-ISR system capable of maintaining the warfighter's decision advantage through all ranges of military operations, to include highly contested environments (HCEs).

ASE program funds are distributed to projects based on the development priorities established by the USAF SIGINT Capabilities Working Group (SCWG), which is chartered to guide the ASE capability investment. When required, the USAF may move funds between ASE projects, developing the highest priority projects in response to urgent (e.g., JUON) and emerging (e.g., JEON) warfighter needs.

The ASE program participates in the development, integration, testing, and implementation of international and Air Force standards (e.g., North Atlantic Treaty Organization (NATO) standardization) to ensure joint, allied, and coalition interoperability with ASE fielded systems. ASE funds lead the modernization efforts including existing airborne platform sensors, and where appropriate, their interfaces with the Air Force Distributed Common Ground System (AF DCGS). The ASE program approach is a synergistic development effort providing Air Force-wide ISR capabilities consistent with the NDS.

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*

ASE will use the continuously evolving Air Force SIGINT Architecture (AFSA), managed by the AFSA team, for planning and decision-making. The AFSA team is focused on employing open architecture standards whenever possible, to allow maximum effectiveness, efficiency and flexibility of development upgrades with multi-domain interoperability. The primary goal is to produce an open system architecture-based, capability-focused SIGINT investment strategy for the USAF.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver 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 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23, $0.514M was expended for civilian pay expenses in this program element, and in FY24, $1.244M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	109.528	108.947	89.499	0.000	89.499
Current President's Budget	98.297	108.947	85.284	0.000	85.284
Total Adjustments	-11.231	0.000	-4.215	0.000	-4.215
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-11.231	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	-4.215	0.000	-4.215

Change Summary Explanation
FY23 $11.231M was realigned to other AF priorities.

The FY 2025 funding request was reduced by $4.366 million to account for the availability of prior year execution balances.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024	
Appropriation/Budget Activity 3600 I 7					R-1 Program Element (Number/Name) PE 0304260F I Airborne SIGINT Enterprise				Project (Number/Name) 675180 I RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)		
COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675180: RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)	-	39.412	43.443	41.917	0.000	41.917	45.753	46.798	48.492	49.449	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project supports design studies, engineering analysis, non-recurring engineering, and other efforts associated with the integration and modification of the RC-135 SIGINT sensors and their associated air and ground components. Through extensive utilization of commercial-off-the-shelf (COTS) based solutions to field needed capabilities, it also incurs a need for continuous identification of suitable replacements for components affected by Diminishing Manufacturing Sources and integration efforts consistent with the COTS technology cycle. These efforts provide required engineering for preliminary assessments of technical feasibility, operability, or military utility as well as specific engineering implementations integrated into the various baseline modifications. Funding also supports innovation activities to include studies, analyses, requirements definition, and quick-reaction capability prototypes/demonstrations to accelerate planning for technology transition, technology insertion and future acquisition programs. These funds will be disbursed among the RC-135V/W RIVET JOINT, the RC-135U COMBAT SENT, and the RC-135S COBRA BALL programs. Funding reflects the SCWG priorities and the accomplishment of other Airborne SIGINT Enterprise initiatives.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: RC-135 SIGINT Development	39.412	43.443	41.917
Description: Non-Recurring Engineering for the RC-135 signals intelligence systems. See Classified Budget Exhibits (PE 0305207F)			
FY 2024 Plans: - Developing SIGINT development efforts for the RC-135 fleet to include new signal sets and upgrades to current capabilities. See PE 0305207F for classified details. Classified requirements POC is HAF AF/A2OO (704) 614-7317.			
FY 2025 Plans: - Will continue SIGINT development efforts for the RC-135 fleet to include new signal sets and upgrades to current capabilities. See PE 0305207F for classified details. Classified requirements POC is HAF AF/A2OO (704) 614-7317.			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding decrease is due to higher Air Force priorities.			
Accomplishments/Planned Programs Subtotals	39.412	43.443	41.917

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*	**Project (Number/Name)** 675180 *I RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 Line Item DARP01: *RC-135*	213.428	220.138	222.554	-	222.554	225.856	230.948	235.755	240.428	Continuing	Continuing

Remarks

The funds within Program 0305207F procure all necessary aircraft modifications for the RC-135 program and include those funds necessary to field SIGINT capabilities developed under Project 675180 of the ASE. Not all procurement funds in #DARPO1: RC-135 are for ASE SIGINT projects.

D. Acquisition Strategy

Aircraft, aircraft sensor systems, and associated ground support system modifications planned include the procurement, fielding and logistical support for future RC-135V/W RIVET JOINT, RC-135U COMBAT SENT and RC-135S COBRA BALL baseline configurations. Development and integration is managed by the Big Safari Systems Group. They employ evolutionary acquisition approaches to field incremental capability improvements.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													Date: March 2024	
Appropriation/Budget Activity 3600 *I* 7						**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*						**Project (Number/Name)** 675180 *I RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)*		

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
RC-135 SIGINT Development	SS/ Various	L3 Harris : Greenville, TX	-	39.412	Jan 2023	43.443	Jan 2024	41.917	Jan 2025	-		41.917	Continuing	Continuing	-
		Subtotal	-	39.412		43.443		41.917		-		41.917	Continuing	Continuing	N/A

<u>**Remarks**</u>
Above contract method/type will be CPFF and FFP

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	39.412		43.443		41.917		-		41.917	Continuing	Continuing	N/A

<u>**Remarks**</u>

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*	**Project (Number/Name)** 675180 *I RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Development of RC-135 mission sensors																												
Development of RIVET JOINT mission sensors (see 0305207F for classified details	██																											
Development of COMBAT SENT mission sensors (see 0305207F for classified details)	██																											
Development of COBRA BALL mission sensors (see 0305207F for classified details)	██																											

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*	**Project (Number/Name)** 675180 *I RC-135 (Airborne SIGINT Development - RC-135 Rivet Joint)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Development of RC-135 mission sensors				
Development of RIVET JOINT mission sensors (see 0305207F for classified details	1	2023	4	2029
Development of COMBAT SENT mission sensors (see 0305207F for classified details)	1	2023	4	2029
Development of COBRA BALL mission sensors (see 0305207F for classified details)	1	2023	4	2029

Note

Requirements documentation is classified. Classified requirements POC is HAF AF/A2/6UO (703) 614-7317

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7						**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*				**Project (Number/Name)** 675183 *I Common Development (Airborne SIGINT Development - Common Development)*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675183: *Common Development (Airborne SIGINT Development - Common Development)*	-	39.849	47.902	25.335	0.000	25.335	30.449	31.075	32.199	32.835	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Common Development project supports airborne SIGINT design studies, engineering analysis, non-recurring engineering (NRE), program management, risk reduction, and other efforts associated with support to fielded SIGINT sensors and their associated air and ground components. The Common Development project also supports the development and integration of new sensor capabilities, quick reaction capabilities, and capabilities to address emerging needs as identified by the SIGINT Capabilities Working Group (SCWG). Finally, the Common Development project supports replacement components affected by Diminishing Manufacturing Sources and Material Shortages (DMSMS).

Future SIGINT sensors are being developed through the implementation of open architecture concepts that enable the rapid integration of new signals of interests. Future SIGINT sensor efforts will address needs identified in the National Defense Strategy and Next Generation ISR Dominance Flight Plan in order to sustain SIGINT operations in a highly contested environment. The efforts include, but are not limited to, demonstrating SIGINT capabilities using a CI-6 family of systems sensor on a current USAF platform, demonstrating integration of a CI-6 family of systems sensor with the Distributed Common Ground System (DCGS), conducting CI-6 family of systems sensor improvements, developing Low-Cost UAS Sensor Technology (LOCUST), and furthering the development of CRESTONE to counter emerging threats.

This project also supports overarching Airborne SIGINT Enterprise (ASE) common development to include, but not limited to, the Air Force SIGINT Architecture maintenance, SIGINT modeling and simulation efforts, and technology development and risk reduction through the Air Force Research Lab managed Open Architecture Technology Lab (OATL). Capability improvements needed to exploit service identified signals of interest will be identified as priorities by the Air Force SCWG. This project provides the warfighter increased SIGINT combat capability via rapid acquisition. Capability enhancements are implemented as soon as the ASE technology achieves satisfactory risk levels. ASE developed Sensors will be integrated and tested on available platforms, funding permitting.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver 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 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23, $0.514M was expended for civilian pay expenses in this program element, and in FY24, $1.244M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Common SIGINT Development	39.849	47.902	25.335

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*	**Project (Number/Name)** 675183 *I Common Development (Airborne SIGINT Development - Common Development)*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Description: Develop and test common open architecture compliant SIGINT systems to include but not limited to CI-6, LOCUST, and CRESTONE. Additionally, will advance testing capabilities through the Open Architecture Technology Lab for current and future SIGINT sensors. *FY 2024 Plans:* - Develop new signals capabilities and enhancements. Details are classified. - Enhance OATL infrastructure to support future SIGINT sensor development and testing. - Pursue risk reduction and necessary follow-on support to CI-6 Family of Systems assessments and demonstrations conducted in FY22 and FY23. - Evaluate open architecture compliance of SIGINT sensor prototypes in the OATL. - Develop capabilities that address emerging needs, as identified by the SCWG. - Evaluate and test low-cost SIGINT solutions that will perform multiple intelligence collection capabilities in denied airspace. Details are classified. *FY 2025 Plans:* - Will continue to develop new signals capabilities and enhancements. Details are classified. - Will continue to enhance OATL infrastructure to support future SIGINT sensor development and testing. - Will continue to pursue risk reduction and necessary follow-on support to CI-6 Family of Systems, following assessments and demonstrations conducted in FY23 and FY24. - Will continue to evaluate open architecture compliance of SIGINT sensor prototypes in the OATL. - Will continue to develop capabilities that address emerging needs, as identified by the SCWG. - Will continue LOCUST development efforts and begin flight tests with DoD mission partners. Details are classified. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decrease in FY25 due to the termination of the GHOST program and realignment of funds to higher Air Force priorities.			
Accomplishments/Planned Programs Subtotals	39.849	47.902	25.335

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

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*	**Project (Number/Name)** 675183 *I Common Development (Airborne SIGINT Development - Common Development)*

D. Acquisition Strategy

SIGINT capabilities will be developed and integrated onto various platforms using an evolutionary acquisition approach to field incremental capability improvements, leveraging the OATL to incorporate platform agile, open system architecture. Attritable platforms and sensors will be evaluated as solutions to some requirements. Requirements are validated and prioritized by the SCWG (SIGINT Capability Working Group).

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7						**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*					**Project (Number/Name)** 675183 *I Common Development (Airborne SIGINT Development - Common Development)*			

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Open Architecture Technology Lab (OATL)	Various	AFRL / VTS / BRSC / NPD : Rome, NY	-	3.148	Apr 2023	4.500	Apr 2024	1.000	Apr 2025	-		1.000	Continuing	Continuing	-
CI-6 Sensor SW Development/Support	C/CPFF	BAE Systems : Hudson, NH	-	12.113	Aug 2023	14.609	May 2024	10.000	May 2025	-		10.000	Continuing	Continuing	-
CI-6 Ground SW Support/ Demo	C/CPFF	LM RMS : Littleton, CO	-	4.025	May 2023	2.994	May 2024	1.500	May 2025	-		1.500	Continuing	Continuing	-
CI-6 Aircraft Integration/ Demo	C/CPFF	LMA : Palmdale, CA	-	7.000	Aug 2023	4.906	May 2024	2.352	May 2025	-		2.352	Continuing	Continuing	-
Air Force SIGINT Architecture (AFSA)	Various	AECOM : Annapolis Junction, MD	-	2.798	Jan 2023	3.138	Jan 2024	1.483	Jan 2025	-		1.483	Continuing	Continuing	-
CRESTONE	Various	DOE / SNL : Albuquerque, NM	-	2.059	Aug 2023	7.220	Jun 2024	3.000	May 2025	-		3.000	Continuing	Continuing	-
LOCUST	Various	AFRL / VTS / BRSC / NPD : Rome, NY	-	2.711	Apr 2023	6.186	Mar 2024	2.500	Mar 2025	-		2.500	Continuing	Continuing	-
Subtotal			-	33.854		43.553		21.835		-		21.835	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA	Various	Various : Dayton, OH	-	5.995	Jan 2023	4.349	Jan 2024	3.500	Jan 2025	-		3.500	Continuing	Continuing	-
Subtotal			-	5.995		4.349		3.500		-		3.500	Continuing	Continuing	N/A

			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	39.849		47.902		25.335		-		25.335	Continuing	Continuing	N/A

Remarks
- Open Architecture Technology Lab (OATL) technology development and risk reduction efforts will continue to demonstrate rapid technology insertion.

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*	**Project (Number/Name)** 675183 *I Common Development (Airborne SIGINT Development - Common Development)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
SIGINT Common Development																												
Open Architecture Technology Lab (OATL)																												
Future SIGINT Programs																												
CI-6																												
Air Force SIGINT Architecture (AFSA)																												
CRESTONE																												
LOCUST																												

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

Appropriation/Budget Activity 3600 I 7	R-1 Program Element (Number/Name) PE 0304260F I Airborne SIGINT Enterprise	Project (Number/Name) 675183 I Common Development (Airborne SIGINT Development - Common Development)

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SIGINT Common Development				
Open Architecture Technology Lab (OATL)	1	2023	4	2029
Future SIGINT Programs	1	2023	4	2029
CI-6	3	2023	4	2029
Air Force SIGINT Architecture (AFSA)	3	2023	4	2029
CRESTONE	3	2023	4	2029
LOCUST	4	2023	2	2026

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*				**Project (Number/Name)** 675185 *I COMPASS BRIGHT*			

COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675185: *COMPASS BRIGHT*	-	4.109	9.495	9.727	0.000	9.727	9.971	10.175	10.544	10.752	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The COMPASS BRIGHT program develops projects in the SIGINT and MASINT areas for transition to the RC-135 fleet, additional DoD ISR platforms, and national agencies. This program pursues SIGINT technologies for program transition, to include Communications Intelligence (COMINT), Electronic Intelligence (ELINT), Audio, Analytics, Special Signals of Interest, and Radio Frequency Measurement and Signature Intelligence (MASINT). Compass Bright will pursue MULTI-INT capabilities such as but not limited to, cross-cue and fusion from other INTs such as Geospatial Intelligence (GEOINT), in order to create a holistic Intelligence, Surveillance, and Reconnaissance (ISR) picture for the warfighter and the IC. The COMPASS BRIGHT program objective is to mature technologies for application in SIGINT and MASINT systems or subsystems. Production and integration of these developed technologies will be conducted by the appropriate programs. COMPASS BRIGHT projects are selected through an annual data call process, whereby the USAF evaluates proposals from the laboratories, platforms, and other government agencies, to select those projects that are most promising.

The program office authority extends to accomplishment of out-of-cycle COMPASS BRIGHT efforts. These tasks may be filtered through the SIGINT Capability Working Group (SCWG) outside the normal vetting process to expedite acquisition of capabilities for the warfighter.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.0M was expended for civilian pay expenses in this program element, and in FY24 $0.0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	**FY 2024**	**FY 2025**
Title: COMPASS BRIGHT Tech Development	4.109	9.495	9.727
Description: Develops projects in the SIGINT and MASINT areas for transition to the RC-135 fleet, other ISR platforms. *FY 2024 Plans:* - Initiate, continue, and complete various SIGINT projects to include enhanced ELINT exploitation, COMINT, Audio exploitation, signals of interest prosecution, and non-traditional ISR (NTISR). - FY25 Project selection process will be initiated. *FY 2025 Plans:*			

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*	**Project (Number/Name)** 675185 *I COMPASS BRIGHT*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Will continue to initiate and complete various SIGINT projects to include enhanced ELINT exploitation, COMINT, Audio exploitation, signals of interest prosecution, and non-traditional ISR (NTISR). *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increase due to slight inflationary increase in budget.			
Accomplishments/Planned Programs Subtotals	4.109	9.495	9.727

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 Line Item DARP01: *RC-135*	213.428	220.138	222.498	-	222.498	255.856	230.948	235.755	-	Continuing	Continuing
• APAF 06 Line Item DARP01: *RC-135*	44.461	55.614	56.290	-	56.290	57.200	58.499	59.716	-	Continuing	Continuing

Remarks

D. Acquisition Strategy

Air Force Life Cycle Management Center/Intelligence, Surveillance, and Reconnaissance and Special Operations Forces Directorate (AFLCMC/WI) will execute COMPASS BRIGHT and Operational Reconnaissance efforts through technology development and demonstration contracts which leverage existing laboratory relationships and other existing contractual vehicles, with future development projects emphasizing full and open competition.

On an annual basis, the SIGINT Capabilities Working Group (SCWG) reviews developmental technologies against warfighter capabilities and requirements based on strategic roadmaps. Projects advancing the technological maturity of promising sensors and processing capabilities are reviewed and prioritized into a recommended list for senior executive direction to implement for the coming fiscal year.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0304260F / Airborne SIGINT Enterprise	Project (Number/Name) 675185 / COMPASS BRIGHT

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
COMPASS BRIGHT	Various	Multiple : Various	-	1.200	Nov 2022	1.039	Nov 2023	1.350	Nov 2024	-		1.350	Continuing	Continuing	-
AFRL/RI Projects	C/CPFF	Multiple : Rome/ Griffiss	-	2.159	Nov 2022	6.102	Nov 2023	6.023	Nov 2024	-		6.023	Continuing	Continuing	-
Subtotal			-	3.359		7.141		7.373		-		7.373	Continuing	Continuing	N/A

Remarks
On an annual basis, the SIGINT Capabilities Working Group (SCWG) reviews developmental technologies against warfighter capabilities and requirements based on strategic roadmaps. Projects advancing the technological maturity of promising sensors and processing capabilities are reviewed and prioritized into a recommended list for senior executive direction to implement for the coming fiscal year.

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Compass Bright PMA	Various	Various : Various, OH	-	0.750	Jan 2023	2.354	Jan 2024	2.354	Jan 2025	-		2.354	Continuing	Continuing	-
Subtotal			-	0.750		2.354		2.354		-		2.354	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	4.109	9.495	9.727	-	9.727	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0304260F / Airborne SIGINT Enterprise	**Project (Number/Name)** 675185 / COMPASS BRIGHT

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
COMPASS BRIGHT																												
SIGINT Technologies																												
- ELINT Programs																												
- COMINT Programs																												
- Special Signals Programs																												
- Audio Programs																												
- Analytics Programs																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0304260F / *Airborne SIGINT Enterprise*	**Project (Number/Name)** 675185 / *COMPASS BRIGHT*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
COMPASS BRIGHT				
SIGINT Technologies	1	2023	4	2029
- ELINT Programs	1	2023	4	2029
- COMINT Programs	1	2023	4	2029
- Special Signals Programs	1	2023	4	2029
- Audio Programs	1	2023	4	2029
- Analytics Programs	1	2023	4	2029

Note

On an annual basis, the SCWG reviews developmental technologies against warfighter capabilities and requirements based on strategic roadmaps. Projects advancing the technological maturity of promising sensors and processing capabilities are reviewed and prioritized into a recommended list for senior executive direction to implement for the coming fiscal year. As a result, the USAF will move funds between projects periodically to develop the highest priority projects in response to urgent and emerging warfighter needs.

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*					**Project (Number/Name)** 675186 *I Special Programs (Airborne SIGINT Development - Special Platforms)*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675186: *Special Programs (Airborne SIGINT Development - Special Platforms)*	-	14.927	8.107	8.305	0.000	8.305	8.511	8.686	9.001	9.178	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project supports special SIGINT studies as well as the development and integration of advanced SIGINT capabilities for special programs including, but not limited to: quick reaction capability sensors, the processing, exploitation, and dissemination associated with these systems, and other efforts approved by the USAF SCWG. Development efforts will include, but are not limited to: new signal sets, antenna improvements, sensitivity upgrades, and data distribution upgrades, and new/advanced deployment capabilities. This project provides the war fighter with near term combat capabilities with increased capability improvements accomplished as technologies and risks achieve satisfactory levels. Sensors will be integrated and tested on various platforms including the MQ-9A remotely piloted aircraft.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: SIGINT Development *Description:* Develop, update, and test SIGINT capabilities for QRC and normalized special programs SIGINT projects. *FY 2024 Plans:* - Continue to modernize SIGINT systems used by the MQ-9A and other platforms. *FY 2025 Plans:* - Will continue to modernize SIGINT systems used by the MQ-9A and other platforms. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increase due to inflationary adjustments.	14.927	8.107	8.305
Accomplishments/Planned Programs Subtotals	14.927	8.107	8.305

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

SIGINT capabilities will be integrated to various classified platforms using an evolutionary acquisition approach. Capabilities and prototypes will be developed by Other Government Agencies and transitioned to select vendors as production needs develop.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0304260F / Airborne SIGINT Enterprise	Project (Number/Name) 675186 / Special Programs (Airborne SIGINT Development - Special Platforms)

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	Award Date	FY 2024 Cost	Award Date	FY 2025 Base Cost	Award Date	FY 2025 OCO Cost	Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Airborne SIGINT Development - Special Platforms	Various	Various : Various	-	14.590	Jan 2023	7.763	Jan 2024	7.868	Jan 2025	-		7.868	Continuing	Continuing	-
Subtotal			-	14.590		7.763		7.868		-		7.868	Continuing	Continuing	N/A

Remarks
Upgrades the quick reaction capability sensors already on the MQ-1/9 fleet

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	Award Date	FY 2024 Cost	Award Date	FY 2025 Base Cost	Award Date	FY 2025 OCO Cost	Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Flight Test	Various	Various : Various	-	0.337	May 2023	0.344	May 2024	0.437	May 2025	-		0.437	Continuing	Continuing	-
Subtotal			-	0.337		0.344		0.437		-		0.437	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	14.927	8.107	8.305	-	8.305	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*	**Project (Number/Name)** 675186 *I Special Programs (Airborne SIGINT Development - Special Platforms)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
SIGINT Development																												
MQ-9 Sensor 1 Modernization																												
MQ-9 Sensor 2 Modernization																												
MQ-9 Sensor Upgrades																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304260F *I Airborne SIGINT Enterprise*	**Project (Number/Name)** 675186 *I Special Programs (Airborne SIGINT Development - Special Platforms)*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
SIGINT Development				
MQ-9 Sensor 1 Modernization	1	2023	4	2029
MQ-9 Sensor 2 Modernization	1	2023	4	2029
MQ-9 Sensor Upgrades	1	2023	4	2029

PE 0304260F: *Airborne SIGINT Enterprise*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0304310F *I Commercial Economic Analysis*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	4.054	4.635	4.719	0.000	4.719	4.821	4.904	5.057	5.147	Continuing	Continuing
675896: *Commercial Economic Analysis*	-	4.054	4.635	4.719	0.000	4.719	4.821	4.904	5.057	5.147	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

To preserve Air Force and DoD military advantage from commercial and economic risk, the Office of Commercial Economic Analysis (OCEA) produces in-depth analytical assessments and advanced risk mitigation strategies based on commercially available industry, market, and economic information. These assessments and strategies support the decision making efforts of Service, Department of Defense, and Whole of Government to protect National Security Innovation Base equities and sustain the U.S. competitive advantage.

The funding request provides for an enterprise analytic platform providing a technical prototype which will aggregate risk data and produce mitigation strategies and impact analytic products, i.e. mature big data architecture, higher domain connectivity, continuous assessment capability and integrate external applications. The funding also supports continuous assessment of the commercially available information to ensure it is accurate, current, and relevant.

Additional classified details can be found in OSD Comptroller's classified Justification Book Volume 6.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In PY $0.00M was expended for civilian pay expenses in this program element, and in CY $0.00M 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.

PE 0304310F: *Commercial Economic Analysis*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0304310F *I Commercial Economic Analysis*	

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	4.221	4.635	4.192	0.000	4.192
Current President's Budget	4.054	4.635	4.719	0.000	4.719
Total Adjustments	-0.167	0.000	0.527	0.000	0.527
• 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	-0.167	0.000			
• Other Adjustments	0.000	0.000	0.527	0.000	0.527

Change Summary Explanation
N/A

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Commercial Economic Analysis	4.054	4.635	4.719

Description: Develop solutions to protect the National Security Innovation Base from adversary information attacks and protect the U.S. technological advantage. Research, develop, test and evaluate Commercial Economic Analysis capabilities, systems, tools, data, products, and services through a disciplined, yet agile, process that ensures commercial economic modeling pilots, risk management constructs, decision support tools, and continuous monitoring capabilities are available for Air Force sectors and segments of the National Security Innovation Base.

Additional classified details can be found in OSD Comptroller's classified Justification Book Volume 6.

FY 2024 Plans:
FY24 funding uses existing contracts and Commercial Solutions Openings (CSO) purchase orders for a continuation of modular components and data architecture framework supporting risk management, risk mitigation, and non-traditional support capabilities.

FY 2025 Plans:
Continue to use existing contracts and Commercial Solutions Openings (CSO) purchase orders for a continuation of modular components and data architecture from work supporting risk management, risk migration and non-traditional support capabilities.

FY 2024 to FY 2025 Increase/Decrease Statement:

PE 0304310F: *Commercial Economic Analysis*
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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0304310F *I Commercial Economic Analysis*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Funding increased to address programmatic corrections			
Accomplishments/Planned Programs Subtotals	4.054	4.635	4.719

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• O&M 030431F: *Commercial Economic Analysis*	20.429	20.638	22.670	-	22.670	24.102	24.831	24.952	26.151	Continuing	Continuing

Remarks

N/A

E. Acquisition Strategy

Pursue competitively awarded contracts for follow-on to existing contract and task orders, with emphasis on system integration and corresponding data architectures. IDIQ task orders and specific system integration, cloud connectivity, and data contracts are the cornerstone of OCEA RDT&E activities.

PE 0304310F: *Commercial Economic Analysis*
Air Force

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force			**Date:** March 2024	

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0304310F / *Commercial Economic Analysis*	**Project (Number/Name)** 675896 / *Commercial Economic Analysis*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Data Integration	C/FFP	Dun & Bradstreet : Reston, VA	-	1.453	May 2023	1.112	May 2024	1.140	May 2025	-		1.140	Continuing	Continuing	-
Data Applications	C/FP	Strider : Fairfax, VA	-	2.213	Jul 2023	3.135	Jul 2024	3.185	Jul 2025	-		3.185	Continuing	Continuing	-
Subtotal			-	3.666		4.247		4.325		-		4.325	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Hosting Services	SS/FFP	AWS (C2S) : Seattle, WA	-	0.388	May 2023	0.388	May 2024	0.394	May 2025	-		0.394	Continuing	Continuing	-
N/A	TBD	Not specified. : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Subtotal			-	0.388		0.388		0.394		-		0.394	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	4.054	4.635	4.719	-	4.719	Continuing	Continuing	N/A

Remarks

PE 0304310F: *Commercial Economic Analysis*
 Air Force

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304310F *I Commercial Economic Analysis*	**Project (Number/Name)** 675896 *I Commercial Economic Analysis*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
OCEA																												
Mature Big Data Architecture																												
Higher Domain Connectivity																												
Continuous Assessment Capability																												
Integrate External Applications																												

PE 0304310F: *Commercial Economic Analysis*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0304310F *I Commercial Economic Analysis*	**Project (Number/Name)** 675896 *I Commercial Economic Analysis*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
OCEA				
Mature Big Data Architecture	1	2023	4	2029
Higher Domain Connectivity	1	2023	4	2029
Continuous Assessment Capability	1	2023	4	2029
Integrate External Applications	1	2023	4	2029

PE 0304310F: *Commercial Economic Analysis*
Air Force

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| **Exhibit R-2**, RDT&E Budget Item Justification: PB 2025 Air Force | | | | | | | | | **Date:** March 2024 | | |

| **Appropriation/Budget Activity**
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7:
Operational Systems Development | **R-1 Program Element (Number/Name)**
PE 0305015F *I C2 Air Operations Suite - C2 Info Services* |

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	7.499	13.751	13.524	0.000	13.524	13.913	14.184	14.477	14.762	Continuing	Continuing
675218: *Applications Development*	-	7.499	13.751	13.524	0.000	13.524	13.913	14.184	14.477	14.762	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This budget line funds the development of the Command and Control, Incident Management, Emergency Response Application (C2IMERA), a C2 system that addresses installation commander's and staff's ability to support Airfield, Flight and Emergency Operations. C2IMERA funds provide enhanced installation C2 to improve decision speed, quality, and lethality by incorporating direct user feedback, connecting people, automating daily operations, and integrating data from myriad systems. C2IMERA receives input from users and system interfaces and displays data on the real-time, interactive Common Operating Picture (COP) and consolidated dashboards. C2IMERA also provides a theater level Higher Headquarters (HHQ) module to aggregate critical data theater-wide to improve real-time awareness. C2IMERA provides automated updates via the COP, as well as notifications via emails and alerts, alleviating the need for briefings, meetings, and radio communication(s).
The C2IMERA operational concept has three capability areas:
• C2 collaboration across the Wing - operate/fight the base
• Wing Situational Awareness
• Wing Collaboration/reporting to HHQ (i.e., Air Operations Center (AOC), the Air Force Forces (AFFOR), Command Center etc.)

Requirements also include supporting base operations, mission management and monitoring, HHQ Information Exchange Requirements (IERs), Emergency Action Messaging, Situation Report (SITREP) automation, and other key enablers supporting the operational concept.

FY25 funds will continue to support Agile DevOps enabling the delivery of new advanced features to C2IMERA following the completion of the codebase re-architecture from a monolithic codebase to a microservices based, multi-tenant application. These features will focus on interoperability and new system integrations to provide enhanced automated data workflows through creating new/expanding previous connections to authoritative data sources, new and improved UX/UI features leveraging the global federated system architecture, and expanded integration with the joint C2 network.

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 FY23 $0.676M was expended for civilian pay expenses in this program element, and in FY24 $0.275M 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.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0305015F *I C2 Air Operations Suite - C2 Info Services*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	7.708	13.751	13.500	0.000	13.500
Current President's Budget	7.499	13.751	13.524	0.000	13.524
Total Adjustments	-0.209	0.000	0.024	0.000	0.024
• 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	-0.209	0.000			
• Other Adjustments	0.000	0.000	0.024	0.000	0.024

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Command and Control, Incident Management, Emergency Response Application (C2IMERA)	7.499	13.751	13.524
Description: C2IMERA will improve Installation command and control by connecting people, integrating data, and automating daily operations. The aggregation of theater data and activities enhances Operational C2 as well as increases decision speed and operational advantage. This is accomplished by incorporating direct user feedback, connecting people, automating daily operations, and integrating data from myriad systems. C2IMERA receives input from users and system interfaces and the data is displayed on the real-time, interactive COP. C2IMERA provides automated updates via the COP, as well as notifications via emails and alerts, alleviating the need for briefings, meetings, and radio communication(s). **FY 2024 Plans:** Activities include, but are not limited to the following: -Complete microservices architecture improvements and deprecation of monolith baseline. -Modernize application architecture for growth, performance, and reliability to support greater number of users, processing larger quantities of data simultaneously, and improve user experience with less downtime and performance delay. -Improve the existing COP and expand map layer services including plotting additional data objects on the map with ability to create, update, and delete. -Begin migration to multi-tenant capabilities. -Lead and manage program through daily interaction with contractor and key stakeholders. -Identify, monitor, mitigate and report program and known risks associated with software and testing. -Expand integration with the joint C2 framework. -Enhance UI/UX functionality and features by designing for a fully federated global application			

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305015F *I C2 Air Operations Suite - C2 Info Services*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
-Explore interoperability opportunities with HHQ, Ops Center, AOC, Joint, and Coalition partner levels to support Globally Integrated Operations (GIO). -Discovery/Framing with Kessel Run's Rebel Alliance data sharing service. -Discovery/Framing with the Kessel Run All-Domain Operations Suite (KRADOS) applications. *FY 2025 Plans:* Activities include, but are not limited to the following: -Will fully implement multi-tenant capabilities for a fully federated global application. -Will expand data sets for cross domain NIPR to SIPR data transfer. -Will expand Denied, Disrupted, Intermittent, and Limited bandwidth capabilities in support of JADC2/ACE. -Will integrate with authoritative data sources to enhance interoperability. -Will enhance UI/UX functionality and features for fully federated global application. -Will expand integration with joint C2 framework. -Will continue with the automated workflow and improved system integration with continued interface. development focusing on the fusion of installation/base C2 node data with MAJCOM and HHQ level systems at the strategic levels. -Will lead and manage the program through daily interaction with contractor and key stakeholders. -Will identify, monitor, mitigate, and report program and known risks associated with software and testing. -Will integrate with external data sharing services to provide Friendly Order-of-Battle (FrOB) data to feed near real-time Common Operating Picture (COP). -Will integrate with KRADOS applications. *FY 2024 to FY 2025 Increase/Decrease Statement:* FY25 funding decreases due to the completion of the microservices architecture and multi-tenant initial operational capability, resulting in a minor reduction in required expertise.			
Accomplishments/Planned Programs Subtotals	7.499	13.751	13.524

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• RDTE 07 0604617F: *Agile Combat Support*	7.937	5.645	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	13.582

Remarks

PE 0305015F: *C2 Air Operations Suite - C2 Info Servic...*
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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305015F *I C2 Air Operations Suite - C2 Info Services*	

E. Acquisition Strategy

The acquisition strategy builds on agile software engineering methodologies and modernization of existing capabilities utilizing evolutionary acquisition. Using Section 804, timelines are reduced by modularizing both software engineering solutions and the associated contracting and funding strategies. This enables dynamic resource allocation based on current warfighter needs. The desired end state is continuous delivery of software. In FY20, the decision was made to transition from Middle Tier of Acquisition (MTA), Section 804 Rapid prototyping/Fielding to the Software Acquisition Pathway. This program is dependent on support from the All Domain Common Platform (ADCP).

Program management for the C2IMERA program is under direction of PEO Digital, located at Hanscom AFB, MA. The Air Force Life Cycle Management Center (AFLCMC) located at Hanscom AFB, MA is the contracting authority for the C2IMERA program. AFLCMC provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

PE 0305015F: *C2 Air Operations Suite - C2 Info Servic...*
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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305015F *I* C2 Air Operations Suite - C2 Info Services	**Project (Number/Name)** 675218 *I* Applications Development	

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
C2IMERA Development	C/Various	Leidos : Reston, VA	-	4.268	Jan 2023	9.432	Nov 2023	9.454	Nov 2024	-		9.454	Continuing	Continuing	-
		Subtotal	-	4.268		9.432		9.454		-		9.454	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
C2IMERA Test Support	PO	96th Test Wing : Eglin, FL	-	0.250	Jan 2023	0.265	Jan 2024	0.231	Jan 2025	-		0.231	Continuing	Continuing	-
		Subtotal	-	0.250		0.265		0.231		-		0.231	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
C2IMERA Program Support	C/Various	Not specified. : Hanscom AFB, MA	-	2.592	Jul 2023	3.245	Jan 2024	3.326	Jan 2025	-		3.326	Continuing	Continuing	-
C2IMERA Systems Engineer	SS/ Various	Not specified. : Hanscom AFB, MA	-	0.389	Oct 2022	0.809	Oct 2023	0.513	Oct 2024	-		0.513	Continuing	Continuing	-
		Subtotal	-	2.981		4.054		3.839		-		3.839	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	7.499	13.751	13.524	-	13.524	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305015F *I C2 Air Operations Suite - C2 Info Services*	**Project (Number/Name)** 675218 *I Applications Development*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Software Development																												
C2IMERA Software development																												
Test																												
C2IMERA Test																												

PE 0305015F: *C2 Air Operations Suite - C2 Info Servic...*
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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305015F *I C2 Air Operations Suite - C2 Info Services*	**Project (Number/Name)** 675218 *I Applications Development*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Software Development				
C2IMERA Software development	1	2023	4	2029
Test				
C2IMERA Test	1	2023	4	2029

Note
 See PE 0207522F, Airbase Air Defense Systems (ABADS), Project Number 675218, Applications Development for previous development events.

PE 0305015F: *C2 Air Operations Suite - C2 Info Servic...*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

| Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development* | | | | | R-1 Program Element (Number/Name)
PE 0305020F *I CCMD Intelligence Information Technology* | | | | | | | |

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	1.821	1.660	1.836	0.000	1.836	1.882	1.921	1.991	2.030	Continuing	Continuing
674901: *Ccmd Intelligence Information Technology*	-	1.821	1.660	1.836	0.000	1.836	1.882	1.921	1.991	2.030	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

 N/A

A. Mission Description and Budget Item Justification

Combatant Command Intelligence Enterprise Management Support Office (CCI EMSO) guides the development, modernization, alignment, and integration of Combatant Command Intelligence (CCI) enterprise capabilities and systems as part of the Defense Intelligence Enterprise. This program focuses on information technology (IT) and data centric gaps, and builds consensus across the Combatant Commands, Combat Service Agencies, and services to accelerate enterprise IT solutions to the Warfighter. It also provides foundational data analytics, enterprise architectural research, and modeling across the CCI community. CCI EMSO includes a cloud-based research and assessment computing environment leveraging advance computing and storage technologies. It provides data-driven research, portfolio assessment and management, and decision support to enable OUSD(I&S)'s governance and management of the CCMD Intelligence Enterprise. Combatant Commands (CCMDs) require a cohesive, flexible innovative IT enterprise that rapidly transforms and adapts to ensure intelligence content informs solution analysis, planning, warfighter operations, and strategic decision making. This program office actively engages with the CCMDs and service providers to refine requirements, identify potential solutions, and advocate for the modernization, alignment, and integration of enterprise capabilities critical to the warfighter. CCI EMSO champions CCMD Intelligence IT requirements during the implementation of DoD's Digital Transformation Strategy and OUSD(I&S) Digital Transformation Campaign Plan. The CCI EMSO is at the nexus of multiple service providers, networks, systems, applications, classification levels, and funding. The vast majority of these IT services are tailored to Intelligence Community (IC) users vice CCMD-specific missions or needs.

OUSD(I&S) and Joint Staff sponsored a capabilities based assessment resulting in an Intelligence System Initial Capability Document (IS-ICD - JROCM 094-16) and a Doctrine, Organization, Training, materiel, Logistics, Personnel, Facilities - Policy (DOTmLPF-P) Change Request (DCR - JROCM 088-17). In response, OUSD(I&S) coordinated with the Air Force to create the CCI EMSO, formerly Combatant Command Intelligence Information Technology Provisional Program Activity Office (CCIIT PPAO). OUSD(I&S) Digital Transformation Campaign Plan directs CCI EMSO to support the modernization and management of the CCI IT Enterprise for the CCMDs. This program enables long term research and evaluation of systems and processes capable of supporting the CCI Enterprise.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In PY 0.00M was expended for civilian pay expenses in this program element, and in CY 0.00M is forecasted for civilian pay expenses in this program element.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			R-1 Program Element (Number/Name) PE 0305020F *I CCMD Intelligence Information Technology*		

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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	1.751	1.660	1.832	0.000	1.832
Current President's Budget	1.821	1.660	1.836	0.000	1.836
Total Adjustments	0.070	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	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.070	0.000	0.004	0.000	0.004

Change Summary Explanation
FY 2023 and FY 2025 Adjustments are for Inflation.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Combatant Command Intelligence Information Technology (CCMD Intel IT)	1.821	1.660	1.836

Description: Development, modification, and integration of new functionality to support improved end-to-end service delivery against one or more of six validated requirements areas within the CCIIT Enterprise operational mission set.

FY 2024 Plans:
Continuation of efforts: The RDT&E funds are providing research, test and evaluation of multiple software tools and workflows impacting the CCI Enterprise. Complex research and evaluation of emerging data structures, visualization tools, and cross domain services directly address multiple Joint Requirements Oversight Council (JROC) requirements and CCMD Integrated Priority Lists (IPLs).

FY 2025 Plans:
Continuation of efforts: The RDT&E funds will be used to continue to research, test and evaluate multiple software tools and workflows impacting the CCI Enterprise. Complex research and evaluation of emerging data structures, visualization tools, and cross domain services directly address multiple Joint Requirements Oversight Council (JROC) requirements and CCMD Integrated Priority Lists (IPLs).

FY 2024 to FY 2025 Increase/Decrease Statement:

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305020F *I CCMD Intelligence Information Technology*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
CCI-EMSO anticipates an increase in Combatant Command Intelligence Program Evaluations and Information Technology Assessments in FY25.			
Accomplishments/Planned Programs Subtotals	1.821	1.660	1.836

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• O&M PE 0305020F: *CCMD Intelligence Information Technology*	13.130	10.362	13.612	-	13.612	14.056	14.312	14.598	14.888	Continuing	Continuing

Remarks

E. Acquisition Strategy

RDT&E funds will be applied as modifications to existing contract vehicles to address identified requirements and align and integrate capabilities across the enterprise critical to the warfighter.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											**Date:** March 2024		

Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0305020F / CCMD Intelligence Information Technology				**Project (Number/Name)** 674901 / Ccmd Intelligence Information Technology					

Product Development ($ in Millions)					FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			

Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
IT Cloud Hosting for Application Development	C/FFP	Other Contracting : Fairfax, VA	-	0.298	Aug 2023	0.282	Aug 2024	0.270	Aug 2025	-		0.270	Continuing	Continuing	-
Subtotal			-	0.298		0.282		0.270		-		0.270	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)					FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			

Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 for Test and Evaluation Services	C/T&M	Other Contracting : Fairfax, VA	-	1.523	Mar 2023	1.378	Dec 2023	1.566	Dec 2024	-		1.566	Continuing	Continuing	-
Subtotal			-	1.523		1.378		1.566		-		1.566	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	1.821		1.660		1.836		-		1.836	Continuing	Continuing	N/A

Remarks
 N/A

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305020F *I CCMD Intelligence Information Technology*	**Project (Number/Name)** 674901 *I Ccmd Intelligence Information Technology*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Solution Analysis																												
Research intelligence capabilities / gaps / software and develop work-flows and requirements. Program will evaluate existing and potential software.																												
Requirements Development Solution																												
Refinement of requirements to match user input for added capability																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305020F *I CCMD Intelligence Information Technology*	**Project (Number/Name)** 674901 *I Ccmd Intelligence Information Technology*

<div align="center">Schedule Details</div>

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Solution Analysis				
Research intelligence capabilities / gaps / software and develop work-flows and requirements. Program will evaluate existing and potential software.	1	2023	4	2029
Requirements Development Solution				
Refinement of requirements to match user input for added capability	1	2023	4	2029

Note
 N/A

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0305022F *I ISR Modernization & Automation Dvmt (IMAD)*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	15.138	18.680	22.909	0.000	22.909	23.533	24.032	24.875	25.388	Continuing	Continuing
675197: *Core Technology*	-	11.781	15.214	19.371	0.000	19.371	19.911	20.339	21.053	21.490	Continuing	Continuing
675306: *Analysis Enterprise*	-	3.357	3.466	3.538	0.000	3.538	3.622	3.693	3.822	3.898	Continuing	Continuing

A. Mission Description and Budget Item Justification

AF ISR Modernization, Automation and Development (IMAD) program develops and demonstrates technology required to implement Machine Learning (ML), Artificial Intelligence (AI), Cloud Computing Environment, Automation and machine intelligence on ISR systems. SECAF directed the Air Force to invest in a more automated environment to relieve strain on manpower in the out years. IMAD was started in calendar year (CY) 2020 to create ISR enterprise-wide effects using machine intelligence (AI, ML, Cloud) as described in the Next Generation ISR Dominance Flight Plan. IMAD consist of:

(1) Core Technologies in support of Algorithmic Warfare: technologies using algorithms to support USAF ISR, Joint, and the Intelligence Community (IC) operations at the scale and speed required in modern warfare against our adversaries and supports the National Defense Strategy (NDS) priority of operating at the "speed of relevance." Algorithmic technologies such as Machine Learning (ML) and Artificial Intelligence (AI) continues to reshape current sense, identify, attribute, and share Processing, Exploitation and Dissemination (PED) models to meet sustainable and effective ISR digital solutions while identifying efficiencies and thrive in a complex operating environment.

(2) Analysis Enterprise in support of Kill Chain Automation: USAF ISR must adapt large data sets and condition it into mission ready data sets, allowing personnel to discover, manage, and analyze data and transform it into real-time intelligence products. ISR Modernization, Automation and Development (IMAD) is an Air Force program managed by Air Combat Command (ACC) that funds investment in digital innovation projects submitted by the field and ISR enterprise partners. Investment funds are programmed to deliver machine learning capabilities (AI/ML). Replace manpower-intensive approaches which cannot keep pace with the future speed and volume of data. In addition, IMAD answers field ISR technologies that shift to a common cloud environment and operate at the tactical edge which applies new methodologies; advanced artificial intelligence and machine learning; ensures data is accessible, discoverable, and interoperable; and delivers decision advantage from detection to mission execution.

IMAD Supports National Defense Strategy priority of operating at the "speed of relevance."

IMAD supports Next Generation ISR Dominance Flight Plan.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0.00M was expended for civilian pay expenses in this program element, and in FY24 0.00M is forecasted for civilian pay expenses in this program element.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305022F *I ISR Modernization & Automation Dvmt (IMAD)*	

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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	13.138	18.680	23.869	0.000	23.869
Current President's Budget	15.138	18.680	22.909	0.000	22.909
Total Adjustments	2.000	0.000	-0.960	0.000	-0.960
• 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	2.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	-0.960	0.000	-0.960

Change Summary Explanation

The funding increase to BPAC 675197 Core Technology is the result of the two following actions. First, starting in FY24 the portfolio requested a re-alignment of 4.2M in Procurement funding to RDT&E to meet increasing requirements in the program. Additionally the service lowered 3600 funding in the portfolio in FY23/24 to ensure the new start was meeting execution goals. This accounts for an additional increase to the portfolio of 4M in FY25. The increase in funding will meeting growing requirements to modernize and integrate ISR competencies across the kill web delivering relevant and viable ISR and automation solutions to warfighters quickly. As time is of the essence, specifically in the INDOPACOM region, an increase in IMAD RDT&E funding now will help us move faster to get after the seven DAF operational imperatives and prepare our Airmen for peer competition, modernize and integrate our ISR competencies and posture intelligence capabilities for agile combat employment.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0305022F / *ISR Modernization & Auto mation Dvmt (IMAD)*					**Project (Number/Name)** 675197 / *Core Technology*			

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675197: *Core Technology*	-	11.781	15.214	19.371	0.000	19.371	19.911	20.339	21.053	21.490	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Core Technologies in support of Algorithmic Warfare: technologies using algorithms to support USAF ISR, Joint, and the Intelligence Community (IC) operations at the scale and speed required in modern warfare against our adversaries and supports the National Defense Strategy (NDS) priority of operating at the "speed of relevance." Algorithmic technologies such as Machine Learning (ML) and Artificial Intelligence (AI) continues to reshape current sense, identify, attribute, and share Processing, Exploitation and Dissemination (PED) models to meet sustainable and effective ISR digital solutions while identifying efficiencies and thrive in a complex operating environment.

Supports National Defense Strategy priority of operating at the "speed of relevance."

Supports Next Generation ISR Dominance Flight Plan.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0.00M was expended for civilian pay expenses in this program element, and in FY24 0.00M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Algorithmic Warfare	11.781	15.214	19.371
Description: SECAF directed the AF to invest in a more automated environment to relieve strain on manpower in the out years. Algorithmic Warfare can provide world-class ISR support to Joint Operations at the scale and speed required in modern warfare against our adversaries. This effort supports National Defense Strategy of operating at the "speed of relevance." *FY 2024 Plans:* Continue to develop ISR algorithmic Warfare - automation of tools and machine learning algorithms. Continue to investigate AI methods. *FY 2025 Plans:* Continue to develop ISR algorithmic Warfare - automation of tools and machine learning algorithms. Continue to investigate AI methods. *FY 2024 to FY 2025 Increase/Decrease Statement:*			

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305022F *I ISR Modernization & Auto mation Dvmt (IMAD)*	**Project (Number/Name)** 675197 *I Core Technology*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Funding increased due to increase in emerging requirements to ensure automation tools and machine learning algorithms meet the needs of the force as new technologies are brought on-line.			
Accomplishments/Planned Programs Subtotals	11.781	15.214	19.371

C. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

 The funding increase to BPAC 675197 Core Technology is the result of the two following actions. First, starting in FY24 the portfolio requested a re-alignment of
 4.2M in Procurement funding to RDT&E to meet increasing requirements in the program. Additionally the service lowered 3600 funding in the portfolio in FY23/24
 to ensure the new start was meeting execution goals. This accounts for an additional increase to the portfolio of 4M in FY25. The increase in funding will meeting
 growing requirements to modernize and integrate ISR competencies across the kill web delivering relevant and viable ISR and automation solutions to warfighters
 quickly. As time is of the essence, specifically in the INDOPACOM region, an increase in IMAD RDT&E funding now will help us move faster to get after the seven
 DAF operational imperatives and prepare our Airmen for peer competition, modernize and integrate our ISR competencies and posture intelligence capabilities for agile
 combat employment.

D. Acquisition Strategy

 All contracts 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 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305022F / *ISR Modernization & Automation Dvmt (IMAD)*	Project (Number/Name) 675197 / *Core Technology*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Algorithmic Warfare	TBD	HAF/A2 : Pentagon, DC	-	11.781	Nov 2022	15.214	Nov 2023	19.371	Nov 2024	-		19.371	Continuing	Continuing	-
Subtotal			-	11.781		15.214		19.371		-		19.371	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	11.781	15.214	19.371	-	19.371	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305022F / *ISR Modernization & Automation Dvmt (IMAD)*	**Project (Number/Name)** 675197 / *Core Technology*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Algorithmic Warfare																												
Begin Algorithm Development				███																							

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305022F / *ISR Modernization & Automation Dvmt (IMAD)*	**Project (Number/Name)** 675197 / *Core Technology*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Algorithmic Warfare				
Begin Algorithm Development	1	2023	4	2028

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0305022F *I ISR Modernization & Automation Dvmt (IMAD)*					**Project (Number/Name)** 675306 *I Analysis Enterprise*		

COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675306: *Analysis Enterprise*	-	3.357	3.466	3.538	0.000	3.538	3.622	3.693	3.822	3.898	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

AF ISR must adapt large data sets and condition it into mission sets, allowing personnel to discover, manage, and analyze data and transform it into living intelligence. Kill Chain Automation applies new methodologies; advances automation and machine learning algorithms; ensures data is accessible, agreeable, and interoperable; and delivers decision advantage.

Supports National Defense Strategy priority of operating at the "speed of relevance."

Supports Next Generation ISR Dominance Flight Plan.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0.00M was expended for civilian pay expenses in this program element, and in FY24 0.00M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Kill Chain Automation	3.357	3.466	3.538
Description: AF's first ISR investment to work large data sets, automation, COTS IT tolls, and data aggregation.			
FY 2024 Plans: Continue to fund software development to automate ISR analyst workflows; analysts currently spend 80 percent of their time searching for data and 20 percent of their time making sense of information. Human-machine teaming allows humans and machines to focus on activities they each do best			
FY 2025 Plans: Continue to fund software development to automate ISR analyst workflows			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding increased due to inflation.			
Accomplishments/Planned Programs Subtotals	3.357	3.466	3.538

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305022F *I ISR Modernization & Automation Dvmt (IMAD)*	**Project (Number/Name)** 675306 *I Analysis Enterprise*

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

D. Acquisition Strategy
 All contracts 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 2025 Air Force														**Date:** March 2024		

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305022F / *ISR Modernization & Automation Dvmt (IMAD)*	**Project (Number/Name)** 675306 / *Analysis Enterprise*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Kill Chain Automation	C/Various	HAF/A2 : Pentagon, DC	-	3.357	Dec 2022	3.466	Dec 2023	3.538	Dec 2024	-		3.538	Continuing	Continuing	-
		Subtotal	-	3.357		3.466		3.538		-		3.538	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	3.357	3.466	3.538	-	3.538	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305022F *I ISR Modernization & Automation Dvmt (IMAD)*	**Project (Number/Name)** 675306 *I Analysis Enterprise*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Kill Chain Automation																												
Begin automation development					████████████████████████████████████																							

PE 0305022F: *ISR Modernization & Automation Dvmt (IMA...*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305022F *I ISR Modernization & Automation Dvmt (IMAD)*	**Project (Number/Name)** 675306 *I Analysis Enterprise*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Kill Chain Automation				
Begin automation development	1	2023	4	2028

PE 0305022F: *ISR Modernization & Automation Dvmt (IMA...*
Air Force

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| **Exhibit R-2**, RDT&E Budget Item Justification: PB 2025 Air Force | | | | | | | | | | | **Date:** March 2024 | |

Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*

R-1 Program Element (Number/Name)
PE 0305099F *I Global Air Traffic Management (GATM)*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	4.727	5.031	5.151	0.000	5.151	5.283	5.390	5.586	5.695	Continuing	Continuing
674689: *Global Access Architecture*	-	4.727	5.031	5.151	0.000	5.151	5.283	5.390	5.586	5.695	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program element funds the Air Force Life Cycle Management Center (AFLCMC) Aerospace Management Systems Division (AMSD), the designated Air Force (AF) Communications, Navigation, Surveillance/Air Traffic Management (CNS/ATM) and Navigation Safety Center of Excellence (COE).

The COE provides centralized avionics expertise to Headquarters Air Force, AF Major Commands (MAJCOM), and weapon system program offices. This funding enables the COE to participate, influence, and vote in government and industry technical forums as well as U.S. and international civil aviation standards bodies such as the Federal Aviation Administration (FAA), International Civil Aviation Organization (ICAO), Radio Technical Commission for Aeronautics (RTCA), the DoD Airlines Electronic Engineering Committee (AEEC) and others. These organizations are responsible for the development and assessment of international civil aviation standards for safe and efficient flight operations in worldwide airspace. This centralized CNS/ATM technical expertise capability supports all MAJCOMs and over 30 AF weapon system program offices.

The COE develops strategies to update and implement CNS/ATM capability requirements on AF weapon systems, as well as tailor the Generic Performance Matrix (GPM) to each airframe's unique avionics architecture and operational mission. Efforts include but are not limited to performance assessment, test support, performance monitoring, interoperability testing, cybersecurity assessments, and the development of CNS/ATM capabilities for unmanned platforms. Currently, the COE supports all AF Program Office work to modernize interfaces that support GPS M-Code, ARC-210 replacements, SATCOM upgrades, and performance based navigation.

The COE performs periodic and event driven audits of National Geospatial-Intelligence Agency (NGA) Digital Aeronautical Flight Information File (DAFIF). This electronic navigation database contains critical safety of flight information used by the majority of DoD flight crews to fly Instrument Flight Rules (IFR) procedures, safely navigate airways and fly Instrument Approach Procedures (IAPs) to civil and military airfields worldwide.

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, and 0606398F. In FY23 $0.000 million was expended for civilian pay expenses in this program element, and in FY24 $0.000 million is forecast 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.

PE 0305099F: *Global Air Traffic Management (GATM)*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force					**Date:** March 2024

| Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7:
Operational Systems Development | | | R-1 Program Element (Number/Name)
PE 0305099F *I Global Air Traffic Management (GATM)* | | |

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	4.533	5.031	5.142	0.000	5.142
Current President's Budget	4.727	5.031	5.151	0.000	5.151
Total Adjustments	0.194	0.000	0.009	0.000	0.009
• 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	0.194	0.000	0.009	0.000	0.009

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: CNS/ATM COE Administration of DoD Avionics Equipment Catalog (CNS/ATM II) **Description:** In accordance with AFPAM 63-129 Section 2.7.7 and AFI 63-101 Section 5.4.6.2, maintain a centralized pre-approved products CNS/ATM II Catalog for use by implementing aircraft SPOs to include but not limited to navigation safety avionics equipment/components, navigation data, and technical engineering services for numerous DoD, US Federal Agencies, and Foreign Military Sales program offices. Provide preferred customer pricing and extended warranty. **FY 2024 Plans:** Continue development and administration of the CNS/ATM II contract. Include new transponder products and SW capability updates. **FY 2025 Plans:** Continue maintenance, update and administration of the pre-approved products for the CNS/ATM II catalog to include but not limited to new transponder products and monitor Federal and Military CNS/ATM mandates. **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding increased due to ramp up of CNS/ATM II efforts.	0.651	0.164	0.170
Title: CNS/ATM COE Digital Aeronautical Flight Information File (DAFIF) Management **Description:** Perform periodic audits of the processes and procedures utilized by organizations involved in the development and distribution of critical safety of flight electronic databases used by aircrews to fly instrument flight rules procedures worldwide. Ensures the validity of multiple sources of information critical to implementation of international performance based navigation (PBN) standards.	2.038	2.434	2.274

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305099F *I Global Air Traffic Management (GATM)*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: Continuation of efforts with DoD agencies and the FAA to audit/certify electronic navigational databases and sources; and, develop performance based procedures required to operate without restriction in the National Airspace System (NAS) and in international civil aviation environments to include but not limited to publishing procedures and update databases to ensure accuracy/performance parameters necessary to operate manned and remotely piloted aircraft globally. ***FY 2025 Plans:*** Continue interface with DoD agencies and the FAA to audit/certify electronic navigational databases and develop performance-based procedures required to operate without restriction in the National Airspace System (NAS) and in international civil aviation environments necessary for manned and remotely piloted aircraft globally. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to reduced CNS/ATM COE DAFIF Management efforts.			
Title: CNS/ATM COE Standards Bodies Engagement and Generic Performance Matrix (GPM) Development ***Description:*** Participate in technical forums to understand and influence civil aviation standards and incorporate DoD interests to ensure safe and efficient access of AF manned and unmanned aircraft to the global airspace. Create new and/or revise GPMs used by AF platform program offices to ensure aircraft comply with civil aviation requirements. Tailor GPMs for program offices to apply standards to unique aircraft avionics architectures. Assist 30+ aircraft program offices with the development of CNS/ATM related test and evaluation plans, the analysis of test/performance data, and the assessment of aircraft CNS/ATM performance through preparation of a Performance Assessment Report (PAR). ***FY 2024 Plans:*** Continue development of generic and tailored performance matrices to ensure manned and remotely piloted aircraft are proficient and certified to operate safely and effectively in worldwide civil airspace in accordance with emerging performance-based CNS/ATM requirements to include but not limited to program office test and design reviews, analysis of test/performance data, and performance assessment reports. ***FY 2025 Plans:*** Continued development of generic and tailored performance matrices to ensure Air Force manned and remotely piloted aircraft are capable and certified to operate safely and efficiently in worldwide civil airspace in accordance with emerging performance based CNS/ATM requirements, test and design reviews, analysis of test/performance data, and performance assessment reports, and provide deliverable products to include but not limited to Technical Performance Matrices (TPM) or PAR. ***FY 2024 to FY 2025 Increase/Decrease Statement:***	2.038	2.433	2.707

PE 0305099F: *Global Air Traffic Management (GATM)*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305099F *I Global Air Traffic Management (GATM)*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Funding increased due to ramp up of CNS/ATM COE Standards Bodies Engagement and GPM Development activities.			
Accomplishments/Planned Programs Subtotals	4.727	5.031	5.151

D. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

 A strategic pause was implemented to the CNS/ATM Storefront due to FY 2023 funding reduction. The COE will re-assess future goals and plans for the application to
 adequately develop and sustain the Storefront in the FYDP.

E. Acquisition Strategy

 This program provides contractor Advisory and Assistance Service (A&AS) and other technical experts support to the Air Force Life Cycle Management Center
 (AFLCMC) Aerospace Management Systems Division (AMSD), the designated Air Force (AF) Communications, Navigation, Surveillance/Air Traffic Management (CNS/
 ATM) and Navigation Safety Center of Excellence (COE).

 These services are acquired via the issuance of task/delivery orders against existing contractor support contract vehicles available to the CNS/ATM COE.

 In accordance with AFPAM 63-129 Section 2.7.7 and AFI 63-101 Section 5.4.6.2, the CNS/ATM COE maintains a centralized Indefinite Delivery Indefinite Quantity
 (IDIQ) contract which contains pre-approved products for use by implementing aircraft SPOs. navigation safety avionics equipment/components, navigation data, and
 technical engineering services to support numerous DoD, US Federal Agencies, and Foreign Military Sales program offices.

PE 0305099F: *Global Air Traffic Management (GATM)*
Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													Date: March 2024	
Appropriation/Budget Activity 3600 / 7								**R-1 Program Element (Number/Name)** PE 0305099F / *Global Air Traffic Management (GATM)*				**Project (Number/Name)** 674689 / *Global Access Architecture*		

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Prime Contracts	C/CPAF	Not specified. : TBD	-	0.361	Oct 2022	0.065	Oct 2023	0.067	Oct 2024	-		0.067	Continuing	Continuing	-
		Subtotal	-	0.361		0.065		0.067		-		0.067	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CNS/ATM Center of Excellence: Technical support for CNS/ATM requirement assessments, GPM development, DAFIF navigation data chain audits/certification, and CNS/ATM ID/IQ contract management.	C/T&M	MITRE : Bedford, MA	-	2.667	Oct 2022	2.771	Oct 2023	2.707	Oct 2024	-		2.707	Continuing	Continuing	-
CNS/ATM Center of Excellence: Technical support for operational requirement assessments, GPM development, DAFIF navigation data chain audits/certification, and CNS/ATM ID/IQ contract management.	C/CPFF	Oasis Systems : Lexington, MA	-	1.409	Jul 2023	2.095	Jul 2024	2.264	Jul 2025	-		2.264	Continuing	Continuing	-
		Subtotal	-	4.076		4.866		4.971		-		4.971	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Support Costs - (Contract Services)	C/T&M	Odyssey Systems : Lexington, MA	-	0.000	Jul 2023	-		0.000	Jul 2025	-		0.000	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024	

Appropriation/Budget Activity 3600 / 7		R-1 Program Element (Number/Name) PE 0305099F / Global Air Traffic Managem ent (GATM)		Project (Number/Name) 674689 / Global Access Architecture	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Support Costs - (Engineering Services)	C/T&M	MITRE Corporation : Bedford, MA	-	-		-		0.000	Oct 2024	-		0.000	Continuing	Continuing	-
Program Support Costs - (Other Govt Costs)	Various	Various : Bedford, MA	-	0.290	Oct 2022	0.100	Oct 2023	0.113	Oct 2024	-		0.113	Continuing	Continuing	-
Subtotal			-	0.290		0.100		0.113		-		0.113	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	4.727		5.031		5.151		-		5.151	Continuing	Continuing	N/A

Remarks

PE 0305099F: *Global Air Traffic Management (GATM)*
Air Force

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305099F / *Global Air Traffic Managem ent (GATM)*	**Project (Number/Name)** 674689 / *Global Access Architecture*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
CNS/ATM COE																												
Generic Performance Matrix Development																												
DAFIF Management																												
CNS/ATM iGATM II Contract Administration																												

PE 0305099F: *Global Air Traffic Management (GATM)*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305099F *I Global Air Traffic Management (GATM)*	**Project (Number/Name)** 674689 *I Global Access Architecture*

Schedule Details

Events by Sub Project	**Start**		**End**	
	Quarter	**Year**	**Quarter**	**Year**
CNS/ATM COE				
Generic Performance Matrix Development	3	2023	4	2029
DAFIF Management	3	2023	4	2029
CNS/ATM iGATM II Contract Administration	3	2023	2	2028

PE 0305099F: *Global Air Traffic Management (GATM)*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0305103F *I Cyber Security Initiative*						
COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.087	0.301	0.304	0.000	0.304	0.311	0.317	0.329	0.336	Continuing	Continuing
671931: *TECH SURVEIL COUNTER MEAS EQPT*	-	0.087	0.301	0.304	0.000	0.304	0.311	0.317	0.329	0.336	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Integrate MDCO network sensor collections and analytical capabilities to enable data sharing.

In FY 2022, PE 0305103F, Cyber Security Initiative, Project 671931, Tech Surveillance Counter Measures, efforts were transferred to PE 03031113F, Cyber Security Intelligence Support, Project 671931, Tech Surveillance Counter Measurement Equipment, in order to more appropriately categorize the funding according to purpose.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Cyber Security Initiative capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605831F, 0605827F, 0605828F, 0605829F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.0M was expended and in FY24 $0.0M 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.091	0.301	0.303	0.000	0.303
Current President's Budget	0.087	0.301	0.304	0.000	0.304
Total Adjustments	-0.004	0.000	0.001	0.000	0.001
• 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	-0.004	0.000			
• Other Adjustments	0.000	0.000	0.001	0.000	0.001

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force			**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0305103F *I Cyber Security Initiative*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Tech Surveill Counter Mess Equipment	0.087	0.301	0.304
Description: CI Process Exploit Dissemination (PED) ***FY 2024 Plans:*** Continue to integrate MDCO network sensor collections. ***FY 2025 Plans:*** Will continue to integrate MDCO network sensor collections. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to inflationary effects.			
Accomplishments/Planned Programs Subtotals	0.087	0.301	0.304

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

E. Acquisition Strategy

Integrate MDCO sensor collection and analysis.

Acquisition strategy for program efforts will be assessed as program requires. Competitive contracts will be used to the maximum extent possible.

PE 0305103F: *Cyber Security Initiative*
Air Force

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7							**R-1 Program Element (Number/Name)** PE 0305103F *I Cyber Security Initiative*					**Project (Number/Name)** 671931 *I TECHE SURVEIL COUNTER MEAS EQPT*		

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Integrated Sensor Collection Development	C/CPAF	Perspecta (Peraton) : Reston, VA	-	0.087	Apr 2023	0.301	Apr 2024	0.304	Apr 2025	-		0.304	Continuing	Continuing	-
		Subtotal	-	0.087		0.301		0.304		-		0.304	Continuing	Continuing	N/A

			Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
		Project Cost Totals	-	0.087		0.301		0.304		-		0.304	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305103F *I Cyber Security Initiative*	**Project (Number/Name)** 671931 *I TECH SURVEIL COUNTER MEAS EQPT*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
CI Process Exploit Dissemination (PED) System Development																												
Analysis of MDCO sensor integration																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305103F *I Cyber Security Initiative*	**Project (Number/Name)** 671931 *I TECH SURVEIL COUNTER MEAS EQPT*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
CI Process Exploit Dissemination (PED) System Development				
Analysis of MDCO sensor integration	1	2023	4	2029

Note

Integrate MDCO sensor collection and analysis.

PE 0305103F: *Cyber Security Initiative*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0305111F *I Weather Service*						
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	52.060	26.329	31.372	0.000	31.372	29.699	30.409	32.703	33.352	0.000	235.924
672738: *Weather Service*	-	52.060	26.329	31.372	0.000	31.372	29.699	30.409	32.703	33.352	0.000	235.924
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This budget activity funds the operational development necessary to acquire and modernize Air Force Weather Service [AFWS] capabilities in support of the 2022 National Defense Strategy's [NDS] three lines of effort. To improve readiness for a more lethal force, AFWS provides timely, accurate, resilient, and relevant environmental information to enable global battlespace situational awareness for the 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 information in support of decision makers to gain the asymmetric advantage during the full spectrum of air and space combat operations. AFWS 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, AFWS development efforts integrate DoD, government agency, commercial, and international partner environmental data and software with AFWS information systems 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 Department of the AF, AFWS 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, rapid 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. AFWS 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. Of these four capability areas, three (Weather Data Analysis and Dissemination, Weather Forecasting, and PTWA) are addressed by APPN 3600, BA 07, PE 0305111F, Project 672738 - Weather Service. Effective FY 2021, a portion of the APPN 3600 funding and activities from Weather Data Analysis and Dissemination and Weather Forecasting were migrated to the PTWA capability area to better address development of applications, software, command and control [C2] system integration, and web interfaces that directly impact the warfighter within the Weather Application Rapid Production [WARPspeed] program of record. For FY 2021, WDA Increment 5 and WARPspeed programs of record were approved as Software Acquisition Pathway Programs.

1. Weather Data Collection provides automated atmospheric and ground-based space environmental sensing capabilities at fixed and deployed locations worldwide. The data gathered by multiple sensor systems is exploited for environmental battlespace awareness, characterization, safety of flight, resource protection, and satellite anomaly assessments and impacts.

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305111F *I Weather Service*

2. Weather Data Analysis and Dissemination provides a multi-level security classification and cybersecure cloud computing-based platform supporting large-scale environmental data ingest, processing, and product generation, Continuous Integration/Continuous Delivery [CI/CD] and AI/ML environments for AFWS software development and deployment, and machine-to-machine dissemination of specific, mission-tailored weather data on-demand to support warfighter operations, weapon system interoperability, rapidly integrating into C2 nodes, and shortening the Combatant Commander kill chain. The Weather Data Analysis and Dissemination capability area includes activities for Weather Data Analysis Increment 5 [WDA Inc 5].

3. Weather Forecasting provides global and regional advanced scientific numerical weather and climate prediction capabilities for automated, high-resolution forecast products supporting mission planning and execution with an emphasis on clouds, theater scale weather, aerosol/chemical constituents, hydrology, machine learning, and space environmental characterization. Weather Forecasting includes activities for Numerical Weather Modeling [NWM] and Space Weather Analysis and Forecast System [SWAFS]. In FY 2023, the SWAFS portion of the APPN 3600 funding and activities from AF PE 0305111F, Weather Service, were transferred to the USSF PE 1203940SF, Space Situational Awareness Operations.

4. Product Tailoring Warfighter Applications [PTWA] provides software applications that provide and enhance environmental information to support rapid warfighter decision-making. PTWA includes the program, Weather Applications Rapid Production [WARPspeed], which is a suite of software applications developed and delivered across multiple security classification levels. WARPspeed encompasses weather workflow tools and decision aids used to tailor terrestrial and space environmental information, which include both Forecaster-in-the-Loop [FITL] and automated machine-to-machine processes enhanced by AI/ML. WARPspeed leverages the WDA Inc 5 cloud computing, data processing, and CI/CD and AI/ML platforms to rapidly develop, deliver, and sustain software capabilities, whether deployed into the AF Weather Virtual Private Cloud [AFW-VPC] or to warfighter processing nodes at the edge.

Activities include research and analysis to support current program planning. Management Service costs include Federally Funded Research and Development Centers [FFRDC] and Advisory and Assistance Service [A&AS].

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Weather Service 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 FY23 0.042M was expended for civilian pay expenses in this program element, and in FY24 0.290M is forecasted for civilian pay expenses in this program element.

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				Date: March 2024	
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B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	11.716	26.329	28.773	0.000	28.773
Current President's Budget	52.060	26.329	31.372	0.000	31.372
Total Adjustments	40.344	0.000	2.599	0.000	2.599
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	31.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	11.241	0.000			
• SBIR/STTR Transfer	-1.897	0.000			
• Other Adjustments	0.000	0.000	2.599	0.000	2.599

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

	FY 2023	FY 2024
Project: 672738: *Weather Service*		
Congressional Add: *Commercial Weather Data Pilot (CWDP) Program*	9.634	-
Congressional Add: *Research on Atmospheric Rivers*	2.410	-
Congressional Add: *Dust Emission Forecasting*	4.817	-
Congressional Add: *Air Force Weather Transformation*	7.705	-
Congressional Add: *Machine Learning Weather Forecast*	2.890	-
Congressional Add Subtotals for Project: 672738	27.456	-
Congressional Add Totals for all Projects	27.456	-

C. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025
Title: Fixed Base Weather System	0.000	0.000	0.200

Description: Integration and test of advanced sensing components to include low-level wind shear and optical turbulence.

FY 2024 Plans:
0

FY 2025 Plans:

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			**Date:** March 2024		
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C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
$200K ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Initial delivery of prototype capabilities occurs in 2025.			
Title: Expeditionary Weather - MTA Rapid Fielding (ExMet - MTA RF) ***Description:*** Funding enables rapid fielding of Air Force Weather's Joint All-Domain Command and Control (JADC2) system of systems solution that supports mission specific launch and recovery operations via multi and single person UTCs. ExMet systems and capabilities address AF expeditionary operations needs highlighted in the 2022 NDS and AF/A3 Functional Concept for Expeditionary Weather operations. FY23 funding continues integration of components and applications into ExMET systems which was previously enabled by SBIR funding. ***FY 2024 Plans:*** Funding will support component integration as well as functionality modifications and testing of the Integrated Weather Observing System (IWOS). ***FY 2025 Plans:*** Funding will support component integration as well as functionality modifications and testing of component sensor systems including but not limited to the Advanced Micro Weather Sensor (AMWS). ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Moderate decrease with less systems engineering effort for modifications AMWS as compared to FY24 IWOS modifications.	0.120	1.927	0.560
Title: Portable Doppler Radar ***Description:*** Developmental testing of phase-array weather radar prototype. ***FY 2024 Plans:*** 0 ***FY 2025 Plans:*** $200K ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Initial delivery of prototype phased-array radar occurs in 2025.	-	0.000	0.200
Title: Weather Data Analysis Increment 5 (WDA Inc 5) ***Description:*** WDA Inc 5 institutes a cloud computing-based platform enabling a transition from agile development to a CI/CD pipeline for software development and deployment efforts which will enable rapid updates to functionality and security measures.	4.612	4.184	4.966

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
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C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
The WDA Inc 5 cloud computing platform will also provide an enterprise big data analytics capability and AI/ML platform, as well as supporting and funding development and deployment of web services, data management, platform monitoring, application on-boarding, and platform user management. Finally, the program will provide both classified and unclassified cloud computing platforms that communicate directly with C2 customers. *FY 2024 Plans:* Funding will support cyber security automation, data transformations, and new satellite data integration to the AFW-VPC platform. *FY 2025 Plans:* Funding will support cyber security automation, data transformations, and new satellite data integration to the AFW-VPC platform. *FY 2024 to FY 2025 Increase/Decrease Statement:* Slight increase due to additional data transformation and satellite data integration workload.			
Title: Numerical Weather Modeling (NWM) *Description:* The NWM program transitioned High Performance Computing (HPC) System 11 into operations in early FY2022, transitioned legacy weather models to System 11 at the end of FY 2022, which enhanced and expanded the computing capability to begin supporting machine learning models' development. NWM develops and integrates physics and machine learning-based analysis and forecast models to include atmospheric, hydrology, and land characterization. NWM also provides data and products used to issue advisories and warnings for DoD resource protection, as well as DoD and IC mission planning. NWM integrates with the Air Force Weather Weapon System's Weather Data Analysis (WDA) Inc 5 processing centers to analyze and predict weather phenomena. *FY 2024 Plans:* Continue METSAT exploitation and integration efforts for cloud forecasting applications, terrain modeling, ORNL model code optimization, model blending, and hydrology prediction. Begin ML-based contrail analysis and prediction. *FY 2025 Plans:* Continue METSAT exploitation and integration efforts for cloud forecasting applications, terrain modeling, model code optimization, model blending, hydrology prediction, and ML-based contrail analysis and prediction. Begin classified modeling. *FY 2024 to FY 2025 Increase/Decrease Statement:* Moderate increase in level of effort with model blending, hydrology, and start of classified modeling.	10.221	12.101	16.799
Title: Weather Applications Rapid Production (WARPspeed) *Description:* WARPspeed develops and delivers a suite of software applications across multiple security classification levels to provide and enhance environmental intelligence to support rapid warfighter decision making. Major software developments	9.651	8.117	8.647

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I BA 7:* *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305111F *I Weather Service*		

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
include: the BIFROST Portal, Mission Services, Enterprise Workflow Applications (EWA), Climate applications, and weather C2 visualization plug-ins and integration. ***FY 2024 Plans:*** Continue BIFROST Portal development and mission-focused weather workflow applications for weather and non-weather operators, Climate applications, and C2 integration. ***FY 2025 Plans:*** Continue BIFROST Portal development and mission-focused weather workflow applications for weather and non-weather operators, Climate applications, and C2 integration. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Minor increase due to cost of software development labor			
Title: JEON EC-0015 **Description:** OSD JEON EC-0015 ***FY 2024 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A	0.000	0.000	-
Accomplishments/Planned Programs Subtotals	24.604	26.329	31.372

	FY 2023	**FY 2024**	
Congressional Add: Commercial Weather Data Pilot (CWDP) Program	9.634	-	
FY 2023 Accomplishments: Awarded the available options on contracts with the Defense Innovation Unit (DIU) and the Commercial Solutions Offerings (CSO) established during FY 22, as well as incorporated the data quality and weather model assessment into the JCSDA Data Assimilation contract. Additionally, a new effort for near-earth Radio Occultation improved sensing is pending contract award.			
Congressional Add: Research on Atmospheric Rivers	2.410	-	
FY 2023 Accomplishments: Atmospheric Rivers (AR) Phase II tasks: Task 1: Impact of AR Recon Flight-level, Dropsonde, and Buoy Data Task 2: Impact of Global Navigation Satellite System (GNSS) RO data on AR Prediction			

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305111F *I Weather Service*	

	FY 2023	**FY 2024**
Task 3: Impact of ARO data on the Prediction of ARs Task 4: Modeling Resilience During Loss of Foundational Data AR Phase 3 - Tied to FY23 funding. Roughly 50% was sent to the 53 WRS for dropsondes - leaving 2.5M in FY23. 0.354M was awarded via a CWDP option for High Altitude Balloon towards improved AR sensing in the Pacific Ocean region. The remainder was sent to the Office of Naval Research for their execution of AR-related efforts.		
Congressional Add: Dust Emission Forecasting *FY 2023 Accomplishments:* Awarded a contract to conduct research and development work with dust emission forecast analysis.	4.817	-
Congressional Add: Air Force Weather Transformation *FY 2023 Accomplishments:* Awarded one new contract and one modification to incorporate cloud migrating updates for the enterprise to continue efforts into cloud operations while enhancing software applications and security. This funding also provides capabilities into enhancing our data structure to VAULTIS which ensures we are aligned to DoD's authoritative C2 databases.	7.705	-
Congressional Add: Machine Learning Weather Forecast *FY 2023 Accomplishments:* Funding was applied to two efforts: continued development of ML-based contrails analysis and forecasts and awarded CWDP options for continued curation of commercial data to help speed development of multiple ML-based weather applications with intent to integrate them into the Air Force Weather Enterprise modeling suite and operations.	2.890	-
Congressional Adds Subtotals	27.456	-

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 Line Item 833070: *Weather Observation Forecast*	20.548	28.530	31.056	-	31.056	31.706	32.816	33.519	34.179	0.000	212.354

Remarks

E. Acquisition Strategy

 AF Weather has adopted a CI/CD approach to delivering capabilities rapidly and routinely using multiple contracts to support a family of systems through development, fielding and sustainment.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
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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. Pre-competed General Services Administration [GSA], Defense Logistics Agency, and Defense Micro-Electronics Activity [DMEA] contract vehicles are leveraged when appropriate, and competitive and small-business awards are favored.

Air Force Weather Weapons System (AFWWS) is managed by Air Force Program Executive Officer for Digital (AFPEO Digital. They manage the ground-based atmospheric sensing and data analysis, atmospheric forecast systems, and PTWA.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force | | | | | | | | | | | **Date:** March 2024 | |
|---|---|

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305111F / *Weather Service*	Project (Number/Name) 672738 / *Weather Service*

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ExMet	C/CPAF	Not specified. : TBD	-	0.000	Mar 2023	1.810	Mar 2024	0.560	Mar 2025	-		0.560	0.000	2.370	-
WDA INC 5, Develop web service, big data analytics, and ML/AI platform capabilities	C/CPAF	NextGen Federal Systems : Morgantown, WV	-	4.034	Feb 2023	3.491	Feb 2024	4.966	Feb 2025	-		4.966	0.000	12.491	-
WARPspeed (BIFROST, Mission Services, GSWR)	Various	Various : Various	-	6.854	Feb 2023	6.724	Feb 2024	7.085	Feb 2025	-		7.085	0.000	20.663	-
Commercial Weather Pilot Program	C/FFP	Various : Various	-	10.000		-		-		-		-	0.000	10.000	-
Research on Atmospheric Rivers	Various	Various : Various	-	5.000		-		-		-		-	0.000	5.000	-
Machine Learning	Various	Various : Various	-	3.000		-		-		-		-	0.000	3.000	-
AF Weather Transformation	Various	Various : Various	-	8.000		-		-		-		-	0.000	8.000	-
Dust Emission Forecasting	Various	Various : TBD	-	5.000		-		-		-		-	0.000	5.000	-
NWM 1 - Perform software enhancements to the mesoscale production model	MIPR	NCAR : Boulder, CO	-	-		-		-		-		-	0.000	0.000	-
NWM 2 - Improve land information system (LIS) application, providing earth surface boundary characterization for numerical modeling	Reqn	NASA : Greenbelt, MD	-	-		-		-		-		-	0.000	0.000	-
NWM - Develop and improve data assimilation techniques, system/ software optimization, and expanded system ingest/ integration for enhanced modeling capabilities	Various	Various : Various	-	7.443	Jan 2023	9.652	Jan 2024	14.829	Jan 2025	-		14.829	0.000	31.924	-
		Subtotal	-	49.331		21.677		27.440		-		27.440	0.000	98.448	N/A

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0305111F / *Weather Service*						**Project (Number/Name)** 672738 / *Weather Service*			

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
46th TS/JITC AFLCMC	WR	46 TS : Offutt AFB, NE	-	0.324	Dec 2022	0.511	Dec 2023	0.821	Dec 2024	-		0.821	0.000	1.656	-
Subtotal			-	0.324		0.511		0.821		-		0.821	0.000	1.656	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Not specified.	C/CPAF	Not specified. : TBD	-	-		-		-		-		-	0.000	0.000	-
Program Management Administration AFLCMC	C/CPFF	AFLCMC : Hanscom AFB, MA	-	2.405	Oct 2022	4.141	Oct 2023	3.111	Oct 2024	-		3.111	0.000	9.657	-
Subtotal			-	2.405		4.141		3.111		-		3.111	0.000	9.657	N/A

			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
	Project Cost Totals		-	52.060		26.329		31.372		-		31.372	0.000	109.761	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
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	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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																												
Weather Data Analysis Inc 5 Build A Deliveries																												
Weather Data Analysis Inc 5 Build B Deliveries																												
WARPspeed Build A Deliveries																												
WARPspeed Build B Deliveries																												
Numerical Weather Modeling Deliveries																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305111F / *Weather Service*	**Project (Number/Name)** 672738 / *Weather Service*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Weather Service				
Weather Data Analysis Inc 5 Build A Deliveries	1	2023	4	2024
Weather Data Analysis Inc 5 Build B Deliveries	1	2024	4	2028
WARPspeed Build A Deliveries	1	2023	4	2024
WARPspeed Build B Deliveries	1	2024	4	2028
Numerical Weather Modeling Deliveries	1	2023	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

| Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7:
Operational Systems Development | | | | | | R-1 Program Element (Number/Name)
PE 0305114F *I Air Traffic Control, Approach, and Landing System (ATCALS)* | | | | | |

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	6.729	8.751	15.143	0.000	15.143	17.883	13.978	11.481	11.708	Continuing	Continuing
673587: *Air Traffic Control System*	-	6.729	8.751	15.143	0.000	15.143	17.883	13.978	11.481	11.708	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

To support the Air Force worldwide flying mission, the Air Traffic Control and Landing System (ATCALS) program element funds research, development, and management of fielded and emerging air traffic control communications, surveillance, automation, positioning, and precision approach and landing systems. ATCALS programs are focused on development of technology and strategies to support Agile Combat Employment (ACE) adaptive basing and agile basing concepts of operation as well as modernizing airfield operations to ensure enduring, resilient, efficient, and safe air operations. ATCALS also pursues opportunities in the organization, training, and equipping of ATC associated career fields and any new civil ATCALS technologies that may have military utility.

ATCALS currently includes three programs: Air Traffic Control (ATC) Future Technology (AFT), development of a Man-Portable (MP) Tactical Navigation (TACAN) Electronically Scanned Antenna (ESA), and development of a Multi-Band (MB) Multi-Function Tactical Radar System (MTRS). In FY24 MB-MTRS funding was included in the AFT program line. In FY25 MB-MTRS is funded as a separate program.

1. AFT is a multi-project program focused on identifying and documenting capability gaps and associated future technologies in multiple areas of aircraft launch and recovery for both fixed and expeditionary operations. These gaps and technologies will be outlined in a bridging strategy, capability-based assessments, and capability roadmaps.

FY25 AFT research and development programs span multiple projects that include the following:

-The Man-Portable (MP) TACAN High Powered Beacon Amplifier (HPBA) project continues design qualification and verification testing of a prototype unit with increased range, coverage volume and operational capability. This technology will be incorporated into the MP-TACAN replacement program once mature and is separate from the development efforts to replace the mechanically scanned antenna with an electronically scanned antenna as discussed below.

-Lightweight Deployable Instrument Landing System (LD-ILS) and Mode-5 (Identification Friend or Foe) capable Tactical Transponder Landing System (TTLS) aims to improve existing D-ILS technology to reduce transport and set-up times.

-Multi-Band (MB), Multi-Function Tactical Radar (MTRS) will complete technology demonstration and transition to a stand-alone development program in FY25 leading to full-rate development decision in FY26.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305114F *I Air Traffic Control, Approach, and Landing System (ATCALS)*

As these and other technologies and architectures mature, any applicable fixed-base or deployable, ground-system upgrades will be coordinated and fielded concurrently with related manned and unmanned aircraft avionics capabilities as required. When implemented, these efforts will enable DoD aircraft to enhance safety, security, efficiency, and affordability of global flight operations.

2. The MP-TACAN ESA will replace the MP-TACAN mechanical rotating antenna. It will improve system reliability and reduce system weight. The MP-TACAN provides aircraft with point-to point navigating and instrument flight approaches to operating sites/landing zones and is critical to mission success in adverse weather conditions and Global positioning System denied operations.
&E and procurement of prototype units. The MP-TACAN ESA is fully funded across the Future Years Defense Program.

FY24 RDT&E funding for PE 0305114F, ATCALS MP-TACAN ESA is in compliance with budgeted end items per the approved test strategy and FY23 Omnibus, Sec. 8059.
Using FY24 funds, this effort will be complete in FY25 and integration of the electronically scanned antenna into the MP-TACAN procurement program will begin.

3. The FY25 MB-MTRS funding captures the results of the AFT MTRS development and establishes MTRS as a separate program to mature the technology and proceed to production. Funding supports a multi-band, multi-function capability, precision approach and ATC surveillance sensor to support expeditionary operations and precision approach radar, air defense, force protection and weather processing missions. Prototype system will provide a multifunction ATC radar that has lower total footprint and lifecycle cost than the current system. When developed and in production MB-MTRS will mitigate the current capability gap and support expeditionary ATC operations.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.129M was expended for civilian pay expenses in this program element, and in FY24 $0.162M 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.

PE 0305114F: *Air Traffic Control, Approach, and Landi...*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305114F *I Air Traffic Control, Approach, and Landing System (ATCALS)*

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	8.367	8.751	15.116	0.000	15.116
Current President's Budget	6.729	8.751	15.143	0.000	15.143
Total Adjustments	-1.638	0.000	0.027	0.000	0.027
• 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	-1.411	0.000			
• SBIR/STTR Transfer	-0.227	0.000			
• Other Adjustments	0.000	0.000	0.027	0.000	0.027

Change Summary Explanation

$-1.411M FY23 funding reprogrammed as follows: $900K BTR from AFT (early-to-need) to Mission Planning System program, $300K BTR from AFT to Communication, Navigation, and Surveillance Air Traffic Management program (funds excess due Multi-Function Tactical Radar System schedule slip), and $211K BTR from NOTAMS to Defense Readiness Reporting System program (funds excess as program completed early with FY23 funds).

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Air Traffic Control (ATC) Future Technologies (AFT) *Description:* Focus is on aircraft launch and recovery, airspace interoperability, expeditionary technology development and prototyping, optimization of flight capability and adherence to safety of flight mandates. AFT will continue coordination with the AF Flight Standards Agency and the FAA to develop air traffic control radar systems and evaluate technologies supporting multiple functions such as Airfield Operations and systems operating in a tactical environment. *FY 2024 Plans:* - Continues development of the Lightweight Deployable Instrument Landing System (LD-ILS) glide-slope antenna to include analysis and test and evaluation. - Awards two Multi-Band (MB) Multi-Function Tactical Radar System (MTRS) design and technical evaluation contracts which will include, but not be limited to, a wideband actively electronic scanned array to detect multiple types of air targets and export the data to multiple processing systems to enable air base defense, ATC/airspace control, and C2 information via experimentation to determine the actual size of the system, coverage capabilities, and Multi-Band (MB) MTRS effectiveness. In FY25 MB-MTRS is broken out as a program separate from AFT.	5.377	5.950	7.283

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305114F *I Air Traffic Control, Approach, and Landing System (ATCALS)*	

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Continues to develop a Man-Portable TACAN high power beacon transponder amplifier to increase range of coverage. MP-TACAN HPBA work is funded under the AFT program and is separate from work to develop an electronically scanned antenna funded as a separate program. - Completes evaluation of a reconfigured prototype Transportable Transponder Landing System (TTLS) to include Mode-5 Identification Friend or Foe (IFF) capability and a physically smaller system. ***FY 2025 Plans:*** Continue AFT Analyses and Research to drive innovation for the Airfield Operations community which include the following tasks: - Will complete the LD-ILS glide-slope antenna test and evaluation and exercise a contract option to design and analyze a LD-ILS localizer antenna. This will lead to a mechanical packaging of the complete system into a more compact, deployable end-item. - Will complete MB-MTRS design and technical evaluation and down select to one design vendor while transitioning to a stand-alone program in FY25. - Will complete the MP-TACAN HPBA amplifier design and qualification testing prior to integration with the MP-TACAN program in order to increase its range and coverage volume. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY25 funding increases by $1.318M to fund Multi-Band MTRS base contract requirements.			
Title: Man-Portable TACAN Electronically Scanned Antenna (MP-TACAN ESA) ***Description:*** Develops new electronically scanned antenna to replace the existing Man-Portable Tactical Air Navigation (TACAN) mechanical antenna. The new antenna will reduce system weight, improve reliability, and extend battery life. The Development and Test Effort includes one prototype antenna and three additional antennas for qualification testing. The Man-Portable TACAN provides aircraft with point-to-point navigation and instrument flight approaches to forward operating sites/landing zones, and is critical to mission success in adverse weather conditions. It replaces 40+ year old legacy systems that are no longer supportable. The Man-Portable TACAN also supports the 2022 NDAA and 2022 National Defense Strategy for rapidly deployable, adaptive, and scalable family of systems. A total of 68 systems will be procured (58 for the Active Duty and 10 for the Air National Guard). ***FY 2024 Plans:*** - Manufactures three qualification units	1.352	2.801	0.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			Date: March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0305114F *I Air Traffic Control, Approach, and Landing System (ATCALS)*		

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Conducts Qualification Testing - Completes Preliminary and final Qualification Test Reports - Conducts Performance Test Demonstration with Government furnished Beacon/Transponder - Conducts Validation/Verification Testing - Conducts Technical Validation - Conducts Type I Training - Conducts Operational Testing - Conducts Physical Configuration Audit - Conducts Functional Configuration Audit - System Development Complete - MTA Completion Acquisition Decision Memorandum signed - Mar 25 ***FY 2025 Plans:*** NA ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY25 decrease reflects completion of the MP-Portable TACAN ESA development program. No funds requested in FY25.			
Title: Multi-Band (MB) Multi-Function Tactical Radar (MTRS) *Description:* This is a multi-band (S, L and X) multi-function capability, precision approach and ATC surveillance, sensor to support expeditionary operations. Supports ATC surveillance and precision approach, air defense, force protection and weather processing missions. The new system will provide a multifunction Air Traffic Control (ATC) radar that has lower total footprint and lifecycle costs. The MTRS program captures the AFT MB-MTRS technology demonstration results and continues system development as a stand-alone program. ***FY 2024 Plans:*** N/A ***FY 2025 Plans:*** - Continue the development and maturation of MB-MTRS technology including, but not limited to a wideband active electronically scanned array. This array will detect multiple types of air targets and export the data to multiple processing systems in order to inform ATC/airspace control centers.	-	0.000	7.860

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305114F *I Air Traffic Control, Approach, and Landing System (ATCALS)*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Through experimentation, development efforts will determine the actual size of the system, coverage capabilities, and MB-MTRS effectiveness with respect to both ATC/airspace control and C2 information exchange. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The increased FY25 funds transition the AFT MB-MTRS program from technology assessment to a program of record to execute vendor prototyping, engineering, manufacturing, and development, and establishment of a program office.			
Accomplishments/Planned Programs Subtotals	6.729	8.751	15.143

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 0305114F: *Air Traffic Control, Approach, and Landing System*	5.971	2.503	11.349	-	11.349	11.596	12.007	12.257	12.499	0.000	68.182

Remarks

E. Acquisition Strategy

ATCALS is a basket program element with multiple programs in various stages of acquisition which provide the air traffic control infrastructure to support peacetime and wartime missions. The ATC Future Technology (AFT) portfolio is focused on fixed-based and lightweight, scalable, readily deployable ATC equipment to support the National Defense Strategy. Current contracting efforts include, but are not limited to, Man-Portable TACAN High Powered Amplifier (MPPA), Multi-Band (MB) Multi-Function Tactical Radar (MTRS), and Lightweight Deployable - Instrument Landing System (LD-ILS).

Contract types include, but are not limited to, full and open competition, Other Transaction Authority (OTA), Small Business Innovative Research (SBIR) and Small Business Technology Transfer (STTR).

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | | **Date:** March 2024

Appropriation/Budget Activity 3600 I 7	R-1 Program Element (Number/Name) PE 0305114F I *Air Traffic Control, Approach, and Landing System (ATCALS)*	Project (Number/Name) 673587 I *Air Traffic Control System*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AFT Expeditionary Technology Development and Prototyping	C/FFP	AFLCMC/HBA : Hanscom AFB, MA	-	3.318	Mar 2023	3.189	Mar 2024	4.630	Mar 2025	-		4.630	Continuing	Continuing	-
Man-Portable TACAN Electronically Scanned Antenna	C/FFP	AFLCMC/HBAA : Tinker AFB, OK	-	1.306	Jan 2023	2.490	Jan 2024	-		-		-	0.000	3.796	-
Multi-Function Tactical Radar System (MTRS)	C/CPAF	AFLCMC/HBA : Hanscom AFB, MA	-	0.000		0.000		4.917	Dec 2024	-		4.917	Continuing	Continuing	-
Subtotal			-	4.624		5.679		9.547		-		9.547	Continuing	Continuing	N/A

Remarks

AFT Expeditionary Technology Development and Prototype: line includes funding for Mode-5 capable TTLS, LD-ILS, and the MP-TACAN HPA.

Man-Portable TACAN Electronically Scanned Antenna: line funds procurement of one prototype unit and three first-article antennas for qualification testing.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AFT Research/Analysis	MIPR	FAA : Washington, DC	-	0.469	Oct 2022	1.480	Dec 2023	1.500	Dec 2024	-		1.500	Continuing	Continuing	-
AFT Travel	Various	Not specified. : TBD	-	0.030	Jan 2023	0.071	Jan 2024	0.056	Jan 2025	-		0.056	Continuing	Continuing	-
AFT Civilian Direct Cite Authorizations	Allot	AFLCMC/FZA : TBD	-	0.129	Oct 2022	0.162	Dec 2023	0.000		-		0.000	0.000	0.291	-
MTRS Research/Analysis	TBD	AFLCMC/HBA : Hanscom AFB, MA	-	-		-		1.491	Feb 2025	-		1.491	Continuing	Continuing	-
MTRS Travel	Various	Not specified. : TBD	-	-		-		0.054	Jan 2025	-		0.054	Continuing	Continuing	-
Subtotal			-	0.628		1.713		3.101		-		3.101	Continuing	Continuing	N/A

Remarks

Various contract types, performing activity and citry/states are result of the use of Military Interdepartmental Purchase Requests (MIPR), Purchase Requests (PR), Project Orders (PO), etc. that are sent to multiple agencies in support of some tasks.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			**Date:** March 2024
Appropriation/Budget Activity 3600 / 7		**R-1 Program Element (Number/Name)** PE 0305114F / *Air Traffic Control, Approach, and Landing System (ATCALS)*	**Project (Number/Name)** 673587 / *Air Traffic Control System*

Test and Evaluation ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
AFT Remote Air Traffic Control Tower Capability EOA	WR	Various : Various	-	0.015	Jul 2023	0.000	Mar 2024	0.000		-		0.000	0.000	0.015	-
AFT ATCALS Operational Test & Evaluation	WR	Various : Various	-	0.245	Jul 2023	0.139	Jul 2024	0.142	Jul 2025	-		0.142	Continuing	Continuing	-
MP TACAN Government Test	MIPR	Various : Various	-	0.041	Jun 2023	0.086	Mar 2024	-		-		-	Continuing	Continuing	-
MTRS	WR	Not specified. : TBD	-	-		-		0.184	Mar 2025	-		0.184	Continuing	Continuing	-
		Subtotal	-	0.301		0.225		0.326		-		0.326	Continuing	Continuing	N/A

Management Services ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Man-Portable TACAN Electronically Scanned Antenna Program Support Cost PSC	C/CPFF	AFLCMC/HBAA : Tinker AFB, OK	-	0.225	Jul 2023	0.225	Jul 2024	0.000		-		0.000	Continuing	Continuing	-
AFT Program Support Cost PSC Contractor Services AFLCMC/HBAG,	C/CPFF	Various : Hanscom AFB, MA	-	0.951	Jul 2023	0.909	Jul 2024	0.971	Jul 2025	-		0.971	Continuing	Continuing	-
MTRS Program Support Cost PSC Contractor Services AFLCMC	C/CPFF	Various : Hanscom AFB, MA	-	-		-		1.198	Dec 2024	-		1.198	Continuing	Continuing	-
		Subtotal	-	1.176		1.134		2.169		-		2.169	Continuing	Continuing	N/A

			Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
		Project Cost Totals	-	6.729		8.751		15.143		-		15.143	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305114F *I Air Traffic Control, Approach, and Landing System (ATCALS)*	**Project (Number/Name)** 673587 *I Air Traffic Control System*

	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	FY 2029
	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

Schedule rows:

- ***ATC Future Technology (AFT)***
- Multi-Band (MB) Multi-Function Tactical Radar System (MTRS)
- MB-MTRS Initial Design and Tech Eval Includes Two Design Contracts
- MB-MTRS Contract Award (Mar, 2024)
- Lightweight Deployable Instrument Landing System (LD-ILS)
- LD-ILS Glide Slope Antenna Development
- LD-ILS Localizer Antenna Development
- LD-ILS Mechanical Packaging
- Man-Portable TACAN High Power Beacon Amplifier (MP-TACAN HPA)
- MP-TACAN HPA Design and Development
- MP-TACAN HPA Integration with MP-TACAN: Qualification Testing Complete
- Transportable Transponder Landing System (TTLS) (Mode-5 Capable) Prototype Hardware and Software Development
- AFT Technology Development and Market Research
- ***Man-Portable TACAN Electronically Scanned Antenna***
- Hardware Development
- Prototype DT&E / Qualification Testing/Tech Orders, Training, Confiuration/Physical Audits

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force			**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7		**R-1 Program Element (Number/Name)** PE 0305114F *I Air Traffic Control, Approach, and Landing System (ATCALS)*	**Project (Number/Name)** 673587 *I Air Traffic Control System*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
MTA Completion Acquisition Decision Memorandum Signed (Mar 25)									████																			
MB MTRS																												
MB-MTRS Stand Alone Program									███████████████████████████																			
MB-MTRS Preliminary Design									██████████																			
MB-MTRS Prototyping/EMD													███████████															
MB-MTRS Prototype Government Exercise/ Test																									███████			

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force			Date: March 2024	
Appropriation/Budget Activity 3600 / 7		**R-1 Program Element (Number/Name)** PE 0305114F / Air Traffic Control, Approach, and Landing System (ATCALS)	**Project (Number/Name)** 673587 / Air Traffic Control System	

Schedule Details

Events by Sub Project	Start Quarter	Start Year	End Quarter	End Year
ATC Future Technology (AFT)				
Multi-Band (MB) Multi-Function Tactical Radar System (MTRS)	1	2023	4	2024
MB-MTRS Initial Design and Tech Eval Includes Two Design Contracts	1	2023	2	2025
MB-MTRS Contract Award (Mar, 2024)	2	2024	2	2024
Lightweight Deployable Instrument Landing System (LD-ILS)	1	2023	4	2027
LD-ILS Glide Slope Antenna Development	1	2023	2	2025
LD-ILS Localizer Antenna Development	1	2025	1	2026
LD-ILS Mechanical Packaging	1	2026	4	2027
Man-Portable TACAN High Power Beacon Amplifier (MP-TACAN HPA)	1	2023	4	2024
MP-TACAN HPA Design and Development	1	2023	3	2024
MP-TACAN HPA Integration with MP-TACAN: Qualification Testing Complete	4	2024	4	2024
Transportable Transponder Landing System (TTLS) (Mode-5 Capable) Prototype Hardware and Software Development	1	2023	4	2024
AFT Technology Development and Market Research	1	2023	4	2029
Man-Portable TACAN Electronically Scanned Antenna				
Hardware Development	1	2023	2	2023
Prototype DT&E / Qualification Testing/Tech Orders, Training, Confiuration/Physical Audits	3	2023	2	2024
MTA Completion Acquisition Decision Memorandum Signed (Mar 25)	3	2024	2	2025
MB MTRS				
MB-MTRS Stand Alone Program	1	2025	2	2029
MB-MTRS Preliminary Design	1	2025	2	2026
MB-MTRS Prototyping/EMD	3	2026	1	2028

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force			**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7		**R-1 Program Element (Number/Name)** PE 0305114F *I Air Traffic Control, Approach, and Landing System (ATCALS)*	**Project (Number/Name)** 673587 *I Air Traffic Control System*	

	Start		**End**	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MB-MTRS Prototype Government Exercise/Test	2	2028	2	2029

Note

Phase I funded under AFT program. MB-MTRS program fund events begin in FY25.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0305116F *I Aerial Targets*						
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	1.316	6.915	7.685	0.000	7.685	5.098	1.768	1.832	1.867	Continuing	Continuing
675136: *Target Systems Development*	-	1.316	6.915	7.685	0.000	7.685	5.098	1.768	1.832	1.867	Continuing	Continuing

A. Mission Description and Budget Item Justification

Full-scale Aerial Targets (FSAT), Subscale Aerial Targets (SSAT), and companion Target Control Systems (TCS) assure the effectiveness and currency of warfighter weapon systems to combat real-world enemy fighters and cruise missiles. Aerial targets support adherence to Public Law Title 10, Section 2366, which requires major systems and munitions programs to conduct live fire survivability and lethality testing before full rate production. Targets are used to validate operational missile/weapon system effectiveness and fighter Operational Flight Program (OFP) updates. Targets are required for developmental/operational testing for all air-to-air and surface-to-air missiles, and for the F-22A, F-35, F-18, F-16, F-15, among other aircraft. Funding supports simulator development and improvements on the QF-16 FSAT, BQM-167A SSAT, and updates of Target Control Systems and specialized target payload subsystems for requirements such as: missile scoring, electronic attack (EA), infrared (IR) countermeasures, radar/IR signature augmentation, and chaff and flare dispensing systems. Enables analysis, development and prototyping of threat emulations/simulations, and presentation of evolving threat scenarios and target area environments to prepare for emerging weapons development activities. Development is required to evolve aerial targets and target control capabilities to meet current and future threats. Air Force is the executive agent for full-scale aerial targets.

The Aerial Targets Program implements tenets of Open, Agile, and Digital acquisition for any new subsystem hardware or software development. Integrates the system in weapon portfolio tradespace studies by conducting trade studies, system engineering, test activities, and system modeling and simulation. Builds and refines a mission modeling framework by incorporating higher-fidelity weapon system designs and updates to the threat landscape to conduct ongoing assessment of weapon system performance against the authoritative threat. Invests in analytical, information management, data management, digital environments, and networks directly supporting development and sustainment of this program's capabilities, while leveraging DoD and DAF enterprise IT solutions.

Leverages Digital acquisition tenets of open, agile and digital. This may include providing funds to prime contractors; program office contract support; facility, security and IT upgrades; common component development with other weapon systems to reduce redundant costs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.0 million was expended for civilian pay expenses in this program element, and in FY24 $0.0 million is forecasted for civilian pay expenses in this program element.

The FY2025 funding request is to modernize the TCS, addressing current capability gaps. This includes support for increasing simultaneous target C2, mitigating frequency encroachment, adding encryption, and extending the C2 footprint with reduced infrastructure. Additionally, the funding supports the increase of operator/participant situational awareness while expanding payload combinations and enables autonomous terrain following capabilities. Furthermore, the funding supports the control and integration of future Aerial Targets.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0305116F *I Aerial Targets*		

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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	1.365	6.915	7.672	0.000	7.672
Current President's Budget	1.316	6.915	7.685	0.000	7.685
Total Adjustments	-0.049	0.000	0.013	0.000	0.013
• 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	-0.049	0.000	0.013	0.000	0.013

Change Summary Explanation
No Significant Changes

PE 0305116F: *Aerial Targets*
Air Force

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0305116F *I Aerial Targets*				**Project (Number/Name)** 675136 *I Target Systems Development*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675136: *Target Systems Development*	-	1.316	6.915	7.685	0.000	7.685	5.098	1.768	1.832	1.867	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Full-scale Aerial Targets (FSAT), Subscale Aerial Targets (SSAT), and companion Target Control Systems (TCS) assure the effectiveness and currency of warfighter weapon systems to combat real-world enemy fighters and cruise missiles.

The BQM-167A Air Force Subscale Aerial Target (AFSAT) is a reusable jet-powered target aircraft measuring approximately 20 feet long with a mission to simulate threat aircraft for testing and evaluation of surface-to-air, ship-to-air, or air-to-air missiles. The target accomplishes this mission through the use of optional payloads including chaff and flare, electronic attack (EA), and infrared (IR) devices. Funding supports continued improvement of overall performance enhancement efforts to meet evolving threats. Funding supports development, improvements, and updates of target control systems and specialized target payload subsystems for requirements to include, but not limited to: missile scoring, EA and IR countermeasures, radar and IR signature augmentation, chaff and flare dispensing systems, and overall target threat emulation.

EA payload upgrades provide new techniques and capabilities critical to subscale, mid-scale, and full-scale targets to realistically emulate current and emerging foreign threat systems in support of weapons testing.

TCS provides a myriad of sub-systems that, together, deliver the capability to control and track mission aerial targets and to track a mix of other critical mission participants (to include relay platforms, shooters, and the missile system under test). In this role, TCS ensures an optimum integrated aerial target environment that enhances both weapon system assessments and companion aircrew skills, and the full safety of mission participants throughout the conduct and fulfillment of Test and Evaluation (T&E) objectives. Funding supports continued improvement of TCS capabilities to effectively meet the multi-service T&E demands of current and future warfighter weapon systems.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2023 $0.0 million was expended for civilian pay expenses in this program element, and in FY 2024 $0.0 million 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 developmental 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 year.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305116F / *Aerial Targets*	**Project (Number/Name)** 675136 / *Target Systems Development*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: AF Subscale Aerial Target (AFSAT) Development	0.888	1.157	1.188	0.000	1.188
Description: Provide enhancements to AFSAT ability to emulate emerging threats in support of weapon testing.					
FY 2024 Plans: Continue system upgrades to support expanded AFSAT capabilities to support achieving emulation of emerging threat targets as our adversaries develop and expand their arsenals.					
FY 2025 Base Plans: FY 2025 to fund the Air Force Subscale Aerial Target (AFSAT) Integrated Flight Controller (IFC) microprocessor-based unit that controls the entire flight control functionality and maneuverability.					
FY 2025 OCO Plans: N/A.					
FY 2024 to FY 2025 Increase/Decrease Statement: FY 2025 funding increase to fund the Air Force Subscale Aerial Target (AFSAT) Integrated Flight Controller (IFC) microprocessor-based unit that controls the entire flight control functionality and maneuverability.					
Title: Target Control System (TCS)	0.329	5.758	6.497	0.000	6.497
Description: Provide system enhancements to Advance Airborne Threat Target Control System (AATTCS), formerly known as Gulf Range Drone Control System (GRDCS), for command and control and tracking of aerial targets. Funding may be utilized for development/augmentation/modification of control systems to fulfill gaps in functional capabilities identified in 2018 ACC Capabilities Analysis of target control systems. Gaps relate to creating the emulation of next generation enemy aircraft threats.					
FY 2024 Plans: Continue system upgrades to include, but not limited to, AATTCS software/hardware updates to support implementing QF-16, AFSAT, TCS enhancements and future TCS capability enhancements in order to close capability gaps identified by users.					
FY 2025 Base Plans: FY 2025 funding to modernize the target control system, addressing current capability gaps. This includes support for increasing simultaneous target C2, mitigating frequency encroachment, adding encryption, and extending the C2 footprint with reduced infrastructure. Additionally, the funding supports the increase of operator/participant situational awareness while expanding payload combinations and enables autonomous					

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305116F *I Aerial Targets*	**Project (Number/Name)** 675136 *I Target Systems Development*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
terrain following capabilities. Furthermore, the funding supports the control and integration of future Aerial Targets. *FY 2025 OCO Plans:* N/A. *FY 2024 to FY 2025 Increase/Decrease Statement:* FY 2025 funding increased to modernize the target control system, addressing current capability gaps. This includes support for increasing simultaneous target C2, mitigating frequency encroachment, adding encryption, and extending the C2 footprint with reduced infrastructure. Additionally, the funding supports the increase of operator/participant situational awareness while expanding payload combinations and enables autonomous terrain following capabilities. Furthermore, the funding supports the control and integration of future Aerial Targets.					
Title: Next Generation Aerial Target (NGAT) *Description:* NGAT seeks to conduct early systems engineering and risk reduction activities to identify and mitigate the major risks associated with developing a new aerial target for live fire surface-to-air, ship-to-air, and air-to-air missile tests. *FY 2024 Plans:* There are no NGAT activities planned for FY 2024. *FY 2025 Base Plans:* There are no NGAT activities planned for FY 2025. *FY 2025 OCO Plans:* N/A. *FY 2024 to FY 2025 Increase/Decrease Statement:* N/A.	0.099	0.000	0.000	0.000	0.000
Accomplishments/Planned Programs Subtotals	1.316	6.915	7.685	0.000	7.685

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 04 Line Item 10TRGT: *Target Drones*	128.906	74.543	61.181	-	61.181	55.043	51.562	53.309	-	0.000	424.544

PE 0305116F: *Aerial Targets*
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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force								**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0305116F *I Aerial Targets*				**Project (Number/Name)** 675136 *I Target Systems Development*		

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 06 000999: *Initials Spares*	0.401	0.641	0.653	-	0.653	0.663	0.677	0.691	-	0.000	3.726
• APAF 07 000074: *War Consumables*	4.994	5.083	5.178	-	5.178	5.261	5.375	5.483	-	0.000	31.374
• APAF 07 Line Item 000075: *Other Production Charges*	17.188	17.493	17.812	-	17.812	18.105	18.497	18.867	-	0.000	107.962

Remarks

APAF, BA 04: Target Drones 10TRGT - Full Scale and Subscale Aerial Targets assure warfighters' weapon systems will perform effectively against real-world enemy fighters and cruise missiles. Adheres to Public Law title 10, Section 2366 "Live fire/Lethality" developmental/operational test requirements.

APAF, BA 06: Initial Spares/Repair Parts - Aircraft Initial Spares are required to fill the initial pipeline or inventory for all new aircraft systems, including modifications, support equipment, and other production categories. Initial spares include peculiar repairable and consumable components, assemblies, and sub-assemblies that must be available for issues at all levels of supply in time to support newly fielded end items.

APAF, BA 07: War Consumables - AFSAT Rocket-Assisted Take-Off (RATO) requirements executed at Hill AFB. A RATO is used in the initial launch phase to obtain appropriate speed and altitude.

APAF, BA 07: Other Production Charges - ALQ-167 and/or DLQ-9 Electronic Attack (EA) payloads for target drones including support equipment. Payloads emulate threat aircraft electronic countermeasures and jamming capabilities.

D. Acquisition Strategy

The AFSAT acquisition strategy is a sole source follow-on contract. The Target Control System acquisition strategy includes several small projects to provide enhancements to TCS (to include AATTCS) and will be accomplished with other government agencies and contracts as needed. EA Payloads acquisition strategy includes several small projects managed by the US Navy program office to provide enhancements to the target payloads for aerial targets. Similarly, the acquisition strategy for NGAT includes multiple contract awards to various contractors as well as support from other government agencies.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305116F / *Aerial Targets*	**Project (Number/Name)** 675136 / *Target Systems Development*

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Air Force Subscale Aerial Target (AFSAT) Product Improvements	SS/ Various	Various : CA	-	0.886	Dec 2022	1.160	Dec 2023	1.188	Dec 2024	-		1.188	Continuing	Continuing	-
Target Control System	Various	Eglin AFB : FL	-	0.430	Nov 2022	5.755	Nov 2023	6.497	Nov 2024	-		6.497	Continuing	Continuing	-
Next Generation Aerial Target (NGAT)	Various	Various : TBD	-	0.000	Dec 2022	-		-		-		-	Continuing	Continuing	-
		Subtotal	-	1.316		6.915		7.685		-		7.685	Continuing	Continuing	N/A

			Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
		Project Cost Totals	-	1.316		6.915		7.685		-		7.685	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305116F *I Aerial Targets*	**Project (Number/Name)** 675136 *I Target Systems Development*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Target System Development																												
AFSAT Gas & Aero Development																												
AFSAT Flt Controller System Upgrade																												
TCS Software Enhancement																												
NGAT Analysis & Studies																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305116F / *Aerial Targets*	**Project (Number/Name)** 675136 / *Target Systems Development*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Target System Development				
AFSAT Gas & Aero Development	1	2025	3	2025
AFSAT Flt Controller System Upgrade	4	2023	2	2024
TCS Software Enhancement	1	2023	4	2026
NGAT Analysis & Studies	1	2023	1	2023

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305128F *I Security and Investigative Activities*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.214	0.352	0.481	0.000	0.481	0.492	0.502	0.520	0.530	Continuing	Continuing
671931: *TECH SURVEIL COUNTER MEAS EQPT*	-	0.214	0.352	0.481	0.000	0.481	0.492	0.502	0.520	0.530	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Technical Surveillance Countermeasures [TSCM] develops future technologies designed to find, fix, track, and neutralize law enforcement and counterintelligence threats to the Department of the Air Force (DAF). The technologies will enable criminal and counterintelligence investigations and operations involving high-tech crimes and cyber activities. The technologies are unique, complex, and the equipment must be continuously updated to ensure state-of-the-art capabilities are utilized to counter increasingly sophisticated threats targeting DAF equities.

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. In FY2022 $0.000M was expended for civilian pay expenses in this program element, and in FY2023 $0.000M 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.223	0.352	0.480	0.000	0.480
Current President's Budget	0.214	0.352	0.481	0.000	0.481
Total Adjustments	-0.009	0.000	0.001	0.000	0.001
• 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	-0.009	0.000			
• Other Adjustments	0.000	0.000	0.001	0.000	0.001

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I BA 7:* *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305128F *I Security and Investigative Activities*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: TSCM	0.214	0.352	0.481
Description: These funds will support development of next generation Technical Surveillance Countermeasures (TSCM) capabilities, and specialized law enforcement and counterintelligence restricted tools necessary to counter threats, and exploit cyberspace, digital media storage and mobile audio/visual/data communications for operational and felony-level investigative activities. *FY 2024 Plans:* Continued development of law enforcement and counterintelligence restricted tools. *FY 2025 Plans:* Will continue development of law enforcement and counterintelligence restricted tools. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to change in baseline.			
Accomplishments/Planned Programs Subtotals	0.214	0.352	0.481

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 Market Research and acquisition channels. These funds will support iterative development of next generation Technical Surveillance Countermeasures (TSCM) capabilities, and specialized law enforcement and counterintelligence restricted tools necessary to counter threats, and exploit cyberspace, digital media storage and mobile audio/visual/data communications for operational and felony-level investigative activities. Market research is continuously conducted jointly with partner DoD and USG entities, and once complete, acquisition channels are coordinated and deconflicted.

PE 0305128F: *Security and Investigative Activities*
Air Force

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024		

Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305128F *I Security and Investigative Activities*	**Project (Number/Name)** 671931 *I TECH SURVEIL COUNTER MEAS EQPT*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
TSCM R/D	MIPR	NRL : Washington, DC	-	0.214	Apr 2023	0.352	Apr 2024	0.481	Apr 2025	-		0.481	Continuing	Continuing	-
		Subtotal	-	0.214		0.352		0.481		-		0.481	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.214	0.352	0.481	-	0.481	Continuing	Continuing	N/A

Remarks

These funds will support development of next generation Technical Surveillance Countermeasures (TSCM) capabilities, and specialized law enforcement and counterintelligence restricted tools necessary to counter threats, and exploit cyberspace, digital media storage and mobile audio/visual/data communications for operational and felony-level investigative activities.

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305128F *I Security and Investigative Activities*	**Project (Number/Name)** 671931 *I TECH SURVEIL COUNTER MEAS EQPT*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Technical Surveillance Equipment Test & Evaluation																												
Complete Phase VIII TSCM LASER Project																												
Tech Service Ops Advanced Tool Development																												

PE 0305128F: *Security and Investigative Activities*
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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force				Date: March 2024	
Appropriation/Budget Activity 3600 I 7		R-1 Program Element (Number/Name) PE 0305128F I Security and Investigative Activities		Project (Number/Name) 671931 I TECH SURVEIL COUNTER MEAS EQPT	

Schedule Details

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Technical Surveillance Equipment Test & Evaluation				
Complete Phase VIII TSCM LASER Project	1	2023	4	2024
Tech Service Ops Advanced Tool Development	1	2023	4	2029

PE 0305128F: *Security and Investigative Activities*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0305146F *I Defense Joint Counterintelligence Activities*					

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	8.328	6.930	6.387	0.000	6.387	6.545	6.680	6.921	7.058	Continuing	Continuing
671931: *TECH SURVEIL COUNTER MEAS EQPT*	-	8.328	6.930	6.387	0.000	6.387	6.545	6.680	6.921	7.058	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Technical Surveillance Countermeasures (TSCM) develops future technologies capable of thwarting advanced hostile force and foreign intelligence technical capabilities. The technologies will provide secure environments for austere mission planning locations and theater commander centers, and will collect information for counterintelligence (CI) operations in support of DoD and AF requirements.

CI Cyber activities enable the Department of the Air Force Office of Special Investigations to detect and neutralize covert activities conducted by Foreign Intelligence Entities seeking to compromise classified or sensitive information in cyberspace. The technologies provided will enhance state of the art capabilities to detect and neutralize criminal activities targeted against sensitive and classified AF and DoD information, activities, and technology.

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. In FY23 0.0M was expended for civilian pay expenses in this program element, and in FY24 0.0M 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.

PE 0305146F: *Defense Joint Counterintelligence Activi...*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0305146F *I Defense Joint Counterintelligence Activities*		

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	8.328	6.930	6.375	0.000	6.375
Current President's Budget	8.328	6.930	6.387	0.000	6.387
Total Adjustments	0.000	0.000	0.012	0.000	0.012
• 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	0.012	0.000	0.012

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Technical Surveillance Countermeasures (TSCM) **Description:** TSCM will develop future technologies capable of thwarting advanced, hostile force technical capabilities. They will be developed to provide secure environments to austere mission planning locations, theater commander centers, and will collect information for counterthreat operations in support of DoD and AF requirements. **FY 2024 Plans:** Continue advancement of counterintelligence equipment and software. **FY 2025 Plans:** Will continue advancement of counterintelligence equipment and software. **FY 2024 to FY 2025 Increase/Decrease Statement:** Decrease due to baseline decrease.	0.527	0.412	0.382
Title: Cyber Counterintelligence Pilot **Description:** This effort builds OSI's cyber enclave to support various lines of effort, including COPPER CASTLE, JUPITER SENTINEL, and broader cyber threat pursuit activities. **FY 2024 Plans:** Continue R&D for new iterations of Cyber Threat Pursuit Activities, COPPER CASTLE, and JUPITER SENTINEL. **FY 2025 Plans:**	7.801	6.518	6.005

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I BA 7:* *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305146F *I Defense Joint Counterintelligence Activities*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Will continue R&D for new iterations of Cyber Threat Pursuit Activities, COPPER CASTLE, and JUPITER SENTINEL. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Decrease due to baseline decrease.			
Accomplishments/Planned Programs Subtotals	8.328	6.930	6.387

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 0305146F: *Defense* *Joint Counter Intelligence Program*	2.733	2.316	-	-	-	-	-	-	-	Continuing	Continuing

Remarks

E. Acquisition Strategy

Defense Joint Counterintelligence Program TSCM funds will be obligated on existing contracts with Naval Research Labs and DARPA. Counterintelligence (CI) Cyber funding will be obligated on an existing Air Force contract with MIT/Lincoln Labs, Sandia National Labs, and Air Force Research Labs.

PE 0305146F: *Defense Joint Counterintelligence Activi...*
Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024		

Appropriation/Budget Activity 3600 I 7		R-1 Program Element (Number/Name) PE 0305146F I *Defense Joint Counterintelligence Activities*	Project (Number/Name) 671931 I *TECH SURVEIL COUNTER MEAS EQPT*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Naval Research Lab	MIPR	Navy/Air Force : Washington, DC	-	0.383	Jan 2023	0.375	Mar 2024	0.375	Mar 2025	-		0.375	Continuing	Continuing	-
MIT/Lincoln Labs	MIPR	Air Force : Lexington, MA	-	3.000	Mar 2023	3.250	Mar 2024	3.250	Mar 2025	-		3.250	Continuing	Continuing	-
Carnegie Mellon University	MIPR	Air Force : Pittsburgh, PA	-	0.200	Mar 2023	-		-		-		-	Continuing	Continuing	-
Sandia National Labs	MIPR	Air Force : Albuquerque, NM	-	0.500	Dec 2022	0.500	Mar 2024	0.500	Mar 2025	-		0.500	Continuing	Continuing	-
Air Force Research Labs	MIPR	Air Force : Rome, NY	-	4.245	Mar 2023	2.805	Mar 2024	2.262	Mar 2025	-		2.262	Continuing	Continuing	-
Subtotal			-	8.328		6.930		6.387		-		6.387	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	8.328	6.930	6.387	-	6.387	Continuing	Continuing	N/A

Remarks

PE 0305146F: *Defense Joint Counterintelligence Activi...*
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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305146F / *Defense Joint Counterintelligence Activities*	**Project (Number/Name)** 671931 / *TECH SURVEIL COUNTER MEAS EQPT*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Technical Countermeasures Equipment & Cyber Research & Development																												
Develop Counterintelligence Equipment and Software																												

PE 0305146F: *Defense Joint Counterintelligence Activi...*
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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305146F / *Defense Joint Counterintelligence Activities*	**Project (Number/Name)** 671931 / *TECH SURVEIL COUNTER MEAS EQPT*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Technical Countermeasures Equipment & Cyber Research & Development				
Develop Counterintelligence Equipment and Software	1	2023	4	2029

PE 0305146F: *Defense Joint Counterintelligence Activi...*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0305158F *I Tactical Terminal*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.000	0.000	1.002	0.000	1.002	1.102	1.102	1.102	0.000	0.000	4.308
674139: *Civilian Compensation Program*	-	0.000	0.000	1.002	0.000	1.002	1.102	1.102	1.102	0.000	0.000	4.308
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 7, PE 0305158F, project 674139, Tactical Terminal Modifications/Enhancements and Support, is a new start.

A. Mission Description and Budget Item Justification

The Tactical Terminal program provides Integrated Broadcast Service (IBS)-compatible terminals (radios) that access the IBS broadcast, providing Air Force warfighters strategic, operational, and tactical intelligence and threat warning information.

The Tactical Terminal family of systems provide both airborne and ground weapons systems transmit/receive and receive-only solutions.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.00M was expended for civilian pay expenses in this program element, and in FY24 $0.000M 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.

PE 0305158F: *Tactical Terminal*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			R-1 Program Element (Number/Name) PE 0305158F *I Tactical Terminal*		

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.000	0.000	0.000	0.000	0.000
Current President's Budget	0.000	0.000	1.002	0.000	1.002
Total Adjustments	0.000	0.000	1.002	0.000	1.002
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	1.002	0.000	1.002

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Tactical Terminal Modifications/Enhancements and Support	0.000	0.000	1.002

Description: This effort funds development, testing, and support to software and hardware modifications/enhancements to tactical terminals.

FY 2024 Plans:
N/A

FY 2025 Plans:
Will perform development, testing, and support efforts for software and hardware modifications/enhancements to tactical terminals.

FY 2024 to FY 2025 Increase/Decrease Statement:
N/A

	FY 2023	FY 2024	FY 2025
Accomplishments/Planned Programs Subtotals	0.000	0.000	1.002

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 837190: *Radio Equipment*	-	15.856	16.314	-	16.314	14.124	-	-	-	Continuing	Continuing

Remarks

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305158F *I Tactical Terminal*	

E. Acquisition Strategy

This effort funds necessary development, testing, and support to software and hardware modifications/enhancements to tactical terminals. Funds will be sent to Other Government Agencies (OGAs) via Military Interdepartmental Purchase Request (MIPR) for execution.

PE 0305158F: *Tactical Terminal*
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force															Date: March 2024	
Appropriation/Budget Activity 3600 / 7							R-1 Program Element (Number/Name) PE 0305158F / Tactical Terminal					Project (Number/Name) 674139 / Civilian Compensation Program				

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Tactical Terminal Modifications/ Enhancements and Support	MIPR	OGA/Various : Multiple	-	-		-		1.002	Dec 2024	-		1.002	Continuing	Continuing	-
Subtotal			-	-		-		1.002		-		1.002	Continuing	Continuing	N/A

			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	-		-		1.002		-		1.002	Continuing	Continuing	N/A

Remarks

PE 0305158F: *Tactical Terminal*
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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305158F *I Tactical Terminal*	**Project (Number/Name)** 674139 *I Civilian Compensation Program*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Tactical Terminals																												
Tactical Terminal Modifications/ Enhancements and Support									███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███				

PE 0305158F: *Tactical Terminal*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305158F / *Tactical Terminal*	**Project (Number/Name)** 674139 / *Civilian Compensation Program*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Tactical Terminals				
Tactical Terminal Modifications/Enhancements and Support	1	2025	4	2028

PE 0305158F: *Tactical Terminal*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0305179F *I Integrated Broadcast Service (IBS)*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	14.123	21.588	16.006	0.000	16.006	19.289	19.682	20.395	20.798	Continuing	Continuing
674779: *Integrated Broadcast Service (IBS)*	-	14.123	21.588	16.006	0.000	16.006	19.289	19.682	20.395	20.798	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Integrated Broadcast Service (IBS) Broadcast fulfills the warfighter's requirements for worldwide threat warning and situational awareness information with timely production and simultaneous dissemination of Intelligence, Surveillance, and Reconnaissance (ISR) derived combat information. It also provides target tracking data to support threat avoidance, targeting, force protection, and situational awareness. This information is continually refined in near real time by strategic, operational and tactical sensors.

IBS Broadcast Baseline is comprised of the following:
- IBS Over the Air (OTA) includes a Common Interactive Broadcast (CIB) on UHF (Ultra High Frequency) satellite channel using a Common Message Format (CMF), a Military Standard (MIL-STD) common waveform, a Tactical Data Processor (TDP) to filter and display messages and data, and CMF analysis tools and an IBS-alternate path via mission partner provided satellite communications (SATCOM).
- IBS Network Services (IBS NS) includes two Global IBS Network Servers (GINS) and four Theater Interface Nodes (TINs) to support the geographic Combatant Commanders (COCOMs)
-- Two GINS receive data from each theater and integrate this data into a worldwide picture available to all network/broadcast users.
-- Four regional TINs allow local and out-of-theater users (not directly receiving IBS OTA broadcast) to still obtain access to the data disseminated over the IBS OTA broadcast. Additionally, the TIN will receive and inject data into the CIB for consumers without access to the theater CIB.

This PE funds the modernization of and/or enhancements to IBS OTA and IBS NS to include performing development and testing to ensure adequate integration with tactical terminals.

IBS is a critical data information provider supporting Joint All Domain Command and Control (JADC2) and the emerging requirements for Advanced Battle Management System (ABMS) information exchange requirements.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.056M was expended for civilian pay expenses in this program element, and in FY24 $0.453M is forecasted for civilian pay expenses in this program element.

PE 0305179F: *Integrated Broadcast Service (IBS)*
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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305179F *I Integrated Broadcast Service (IBS)*	

The FY25 funding request was reduced by $2.859 million to account for the availability of prior year execution balances.

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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	14.123	21.588	18.865	0.000	18.865
Current President's Budget	14.123	21.588	16.006	0.000	16.006
Total Adjustments	0.000	0.000	-2.859	0.000	-2.859
• 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	-2.859	0.000	-2.859

Change Summary Explanation

The FY25 funding request was reduced by $2.859 million to account for the availability of prior year execution balances.

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: IBS Over the Air (OTA) Modernization	4.675	6.580	3.928
Description: Develops/tests/supports Primary, Alternate, Contingency, and Emergency (PACE) broadcast communications pathways ***FY 2024 Plans:*** - Continues to develop and demonstrate IBS over Mobile User Objective System (MUOS) Wideband Code Division Multiple Access (WCDMA) - Continues to develop and demonstrates common waveform architecture for IBS-Alt Path and IBS-L - Performs cryptographic modernization of IBS-Alt Path - Develops IBS Command and Control (C2) capability - Develops tools to allow automated planning for active producers on the WCDMA broadcast ***FY 2025 Plans:*** - Will continue to develop and demonstrate IBS over MUOS WCDMA			

PE 0305179F: *Integrated Broadcast Service (IBS)*
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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305179F *I Integrated Broadcast Service (IBS)*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Will continue to demonstrate and begin fielding common waveform architecture for IBS-Alt Path and IBS-L - Will complete cryptographic modernization of IBS-Alt Path - Will continue to develop IBS Command and Control (C2) capability - Will continue developing tools to allow automated planning for active producers on the WCDMA broadcast ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to completion of IBS-Alt Path Crypto Modernization development and in part to account for the availability of prior year execution balances.			
Title: IBS Over the Air (OTA) Baseline Enhancement ***Description:*** Develops/tests/supports enhancements to existing Baseline OTA capabilities ***FY 2024 Plans:*** - Continues enhancement of enterprise TDP - Continues enhancement of Common Message Format Analysis Tool (CMF-AT) - Continues enhancement of uplink sites to handle operational surge increases - Continues to investigate and implement IBS architecture CMF parser library update to support increased IBS volumetric message traffic - Completes development and partial fielding of monitoring and control tools (Downlink Monitoring Element (DME)) to assist in assured dissemination tasks at COCOM uplink watch sites - Continues to upgrade the CIB Planning Tool to allow automated planning to occur for active producers ***FY 2025 Plans:*** - Will complete enterprise TDP enhancement - Will continue enhancement Common Message Format Analysis Tool (CMF-AT) - Will continue enhancement of uplink sites to handle operational surge increases - Will complete implementation of IBS architecture CMF parser library update requirements to support increased IBS volumetric message traffic - Will continue fielding of monitoring and control tools (Downlink Monitoring Element (DME)) to assist in assured dissemination tasks at COCOM uplink watch sites - Will continue to upgrade the CIB Planning Tool to allow automated planning to occur for active producers ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to completion of TDP and DME enhancement initiatives.	1.006	3.076	0.603
Title: IBS Network Services Modernization	0.926	4.070	4.388

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305179F *I Integrated Broadcast Service (IBS)*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Develops/tests/supports modernization of IBS NS enabling increased throughput, timeliness, and portability of critical intelligence data *FY 2024 Plans:* - Refactors software to enable Legacy IBS Network transition to cloud architecture - Continues to investigate AI/ML capabilities for incorporating into IBS Enterprise *FY 2025 Plans:* - Will continue to refactor software to enable Legacy IBS Network transition to cloud architecture - Will continue to investigate AI/ML capabilities for incorporating into IBS Enterprise *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to inflation and transition of software refactorization efforts from development to preliminary integration and test.			
Title: IBS Network Services Baseline Enhancements *Description:* Develops/tests/supports enhancements to existing Baseline NS capabilities *FY 2024 Plans:* - Continues to upgrade the IBS-NS capability at the CCMDs to allow automated planning to occur for active producers - Continues to upgrade volumetric increase to provide ten times performance enhancement to throughput, storage and replay to address message volume; this will increase the Enterprise output - Continues to upgrade the IBS Enterprise-level real-time and analytic views on Global and CCMDs watch floors; further integrate uplink sites with associated TIN by reducing equipment overhead and streamlining data flows - Continues to upgrade and transition current classified dissemination path to new architecture and enable SCI-level dissemination of IBS data *FY 2025 Plans:* - Will continue to upgrade the IBS-NS capability at the CCMDs to allow automated planning to occur for active producers - Will continue to upgrade volumetric increase to provide ten times performance enhancement to throughput, storage and replay to address message volume; this will increase the Enterprise output - Will continue to upgrade the IBS Enterprise-level real-time and analytic views on Global and CCMDs watch floors; further integrate uplink sites with associated TIN by reducing equipment overhead and streamlining data flows	3.165	2.010	0.250

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305179F *I Integrated Broadcast Service (IBS)*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Will continue to upgrade and transition current classified dissemination path to new architecture and enable SCI-level dissemination of IBS data *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased to account for the availability of prior year execution balances.			
Title: IBS Enterprise Support *Description:* IBS enterprise Systems Engineering and Integration and engineering expertise *FY 2024 Plans:* - Continues to perform Enterprise Systems Engineering and CMF/CIB Integration - Continues to perform exploratory studies and demonstrations for alternate broadcast dissemination pathways and advanced broadcast capabilities - Continues providing engineering expertise for IBS integration into a proliferated-Low Earth Orbit (p-LEO) constellation as a future alternate dissemination path - Continues to refine additional IS-CDD initiatives into technical requirements for acquisition strategy approval and contract award(s) - Completes enterprise and commercial cloud services market study and assists IBS enterprise in formulating cloud transition strategy *FY 2025 Plans:* - Will continue to perform Enterprise Systems Engineering and CMF/CIB Integration - Will continue to perform exploratory studies and demonstrations for alternate broadcast dissemination pathways and advanced broadcast capabilities - Will continue providing engineering expertise for IBS integration into a proliferate-Low Earth Orbit (p-LEO) constellation as a future alternate dissemination path - Will continue to refine additional IS-CDD initiatives into technical requirements for acquisition strategy approval and contract award(s). - Will continue to advise IBS enterprise on cloud transition strategy and implementation *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to inflation and to meet increased Systems Engineering and Integration and engineering expertise requirements.	3.961	4.687	5.614
Title: Test & Evaluation *Description:* Test & Evaluation of the IBS System	0.390	1.165	1.223

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305179F *I Integrated Broadcast Service (IBS)*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: - Performs Test and Evaluation activities of the IBS OTA and IBS NS systems/sub-systems components **FY 2025 Plans:** - Will perform Test and Evaluation activities of the IBS OTA and IBS NS systems/sub-systems components **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding increased due to inflation.			
Accomplishments/Planned Programs Subtotals	14.123	21.588	16.006

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 832070: *Intelligence Comm Equipment*	2.848	11.568	12.041	-	12.041	9.092	9.431	9.632	9.822	Continuing	Continuing

Remarks

E. Acquisition Strategy
 IBS acquisition leverages three existing sole source, single award, IDIQ contracts to modernize or enhance the IBS Broadcast.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											**Date:** March 2024		

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305179F / Integrated Broadcast Service (IBS)	**Project (Number/Name)** 674779 / Integrated Broadcast Service (IBS)

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
IBS OTA Modernization	Various	OGA/Various : Multiple	-	4.675	Dec 2022	6.580	Dec 2023	3.928	Dec 2024	-		3.928	Continuing	Continuing	-
IBS OTA Baseline Enhancements	Various	OGA/MEG/L3 : Multiple	-	1.006	Dec 2022	3.076	Dec 2023	0.603	Dec 2024	-		0.603	Continuing	Continuing	-
IBS NS Modernization	SS/ Various	CACI/GTRI : Multiple	-	0.926	Dec 2022	4.070	Dec 2023	4.388	Dec 2024	-		4.388	Continuing	Continuing	-
IBS NS Baseline Enhancements	SS/CPFF	CACI : Fairfax, VA	-	3.165	Dec 2022	2.010	Dec 2023	0.250	Dec 2024	-		0.250	Continuing	Continuing	-
Subtotal			-	9.772		15.736		9.169		-		9.169	Continuing	Continuing	N/A

Support ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
IBS Enterprise Support	SS/ Various	OGA/MEG/L3/GTRI : Multiple	-	3.599	Jan 2023	4.139	Jan 2024	5.053	Jan 2025	-		5.053	Continuing	Continuing	-
Subtotal			-	3.599		4.139		5.053		-		5.053	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Interoperability and Development Testing	MIPR	JITC : Ft Huachuca, AZ	-	0.390	Dec 2022	0.775	Dec 2023	0.814	Dec 2024	-		0.814	Continuing	Continuing	-
Responsible Test Organization (RTO)	PO	45th Test Sqn : Eglin AFB, FL	-	0.000	Dec 2022	0.390	Dec 2023	0.410	Dec 2024	-		0.410	Continuing	Continuing	-
Subtotal			-	0.390		1.165		1.224		-		1.224	Continuing	Continuing	N/A

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force | | **Date:** March 2024

Appropriation/Budget Activity 3600 *I* 7	R-1 Program Element (Number/Name) PE 0305179F *I Integrated Broadcast Service (IBS)*	Project (Number/Name) 674779 *I Integrated Broadcast Service (IBS)*

Management Services ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 Costs (PSC)	Various	OGA : Multiple	-	0.362	Oct 2022	0.548	Oct 2023	0.560	Oct 2024	-		0.560	Continuing	Continuing	-
Subtotal			-	0.362		0.548		0.560		-		0.560	Continuing	Continuing	N/A

	Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	14.123		21.588		16.006		-		16.006	Continuing	Continuing	N/A

Remarks

PE 0305179F: *Integrated Broadcast Service (IBS)*
Air Force

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305179F *I Integrated Broadcast Service (IBS)*	**Project (Number/Name)** 674779 *I Integrated Broadcast Service (IBS)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
IBS																												
OTA Modernization																												
OTA Baseline Enhancements																												
NS Modernization																												
NS Baseline Enhancements																												
IBS Enterprise Support																												
Test and Evaluation																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305179F / *Integrated Broadcast Service (IBS)*	**Project (Number/Name)** 674779 / *Integrated Broadcast Service (IBS)*	

Schedule Details

	Start		**End**	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
IBS				
OTA Modernization	1	2023	4	2029
OTA Baseline Enhancements	1	2023	4	2029
NS Modernization	1	2023	4	2029
NS Baseline Enhancements	1	2023	4	2029
IBS Enterprise Support	1	2023	4	2029
Test and Evaluation	1	2023	4	2029

PE 0305179F: *Integrated Broadcast Service (IBS)*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0305202F *I Dragon U-2*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	35.170	16.842	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	52.012
674820: *Sensor Development*	-	35.170	16.842	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	52.012
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The U-2S Dragon Lady platform is a high-demand/low-density aircraft equipped with modular sensor and data link systems providing flexibility and mission essential Intelligence, Surveillance, and Reconnaissance (ISR) to the Combatant Commands, Joint and Combined forces, and the Intelligence Community in peacetime and wartime. The program supports core missions such as Sensitive Reconnaissance Operations (outlined in CJCSI 3250.01) supporting the National Defense Strategy, in addition to other missions that include execution of CCMD OPLANs and CONPLANs, Humanitarian Assistance/Disaster Response (HADR), Counter Violent Extremist Organizations, and third-party treaty verification/monitoring via the OLIVE HARVEST mission.

The FY 2025 budget year is the final year that the Air Force has budgeted for the operational capability of the U-2 platform. Previously programmed funds in PE 35202F have been shifted to PE 35206F to support ASARS-2C test/eval and fielding, which will enable vastly improved collection against emerging threats through the remainder of scheduled U-2 operations. This capability and any enhancements will transferable to the broader enterprise.

Additionally, the U-2 program will continue to support emergent and/or experimental RDT&E efforts in support of Joint All-Domain Command and Control [JADC2] and Advanced Battle Management System [ABMS] as a platform surrogate for risk reduction in support of SECAF's Operational Imperative-2 as well as surrogate test for RCO capabilities and Electromagnetic Spectrum Operations technology development.

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.

PE 0305202F: *Dragon U-2*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305202F *I Dragon U-2*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	20.170	16.842	0.000	0.000	0.000
Current President's Budget	35.170	16.842	0.000	0.000	0.000
Total Adjustments	15.000	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	15.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

Change Summary Explanation

RDT&E funding has been moved to the Airborne Reconnaissance Systems PE (35206F). RDT&E may be obligated on behalf of the ARS PE to facilitate surrogate development and test related to ASARS-2C, CI-6, Wicked Crow, and IMAD efforts for auto target recognition software.

Explanations:
ASARS-2C -- test and development for an advanced synthetic aperture radar processor
CI-6 -- architecture evaluation and test for SIGINT capability
Wicked Crow -- meshed network effort for ACC evaluation
IMAD -- Air Force Research Laboratory test for automatic target recognition software development

35202 received a 4M BTR and 11M MIP reprogramming funds to support the ASARS processor development in support of the ASARS-2C explanation above.

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: U-2 Aircraft Update Block 20.1 *Description:* Aircraft and/or sensor enhancement efforts may include activities such as, but not limited to: trade studies, analysis, preliminary system engineering, system and subsystem testing or demonstrations, sensor specification development, avionics system upgrades, mission planning system software and infrastructure migration, advanced and agile systems, Open Mission Systems and Unmanned Aerospace Systems Command and Control Standard Initiative [OMS/UCI] standards compliance and integration, quick reaction capability [QRC] development, enhanced communications/SIGINT system sustainability and modernization, and tactical data-link [L-16, IBS, IFDL, MADL, etc.] efforts to meet operational requirements for the Air Force. *FY 2024 Plans:*	13.670	14.942	0.000

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305202F *I Dragon U-2*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Aircraft sustainment and/or enhancement development includes activities such as, but not limited to: development work to upgrade existing MFDs, expand capabilities of the avionics processor, common mission computers, cockpit displays, multi-level network attached storage devices, and other DMSMS components ***FY 2025 Plans:*** 35206F funds may be obligated in support of development and test related to ASARS-2C fielding and advanced mode development. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** RDT&E funds have decreased to zero for FY 2025 in anticipation of U-2 divestiture in FY 2026.			
Title: U-2 Payload Update Block 20.1 ***Description:*** Aircraft payload development supports sustainment and/or enhancement development includes activities such as, but not limited to: trade studies, analysis, preliminary system engineering, system and subsystem testing or demonstrations, sensor specification development, Advanced Synthetic Aperture Radar System [ASARS] development and test, SIGINT and multi-spectral sensor technical refresh integration and test, defensive systems, sensor range improvements, strategic and tactical data link [L-16, IBS, IFDL, MADL, etc.] design and integration. ***FY 2024 Plans:*** Integration and test of advanced backend processor with a new radar front end array / develops exportable advanced modes primarily focused on the highly contested environment ***FY 2025 Plans:*** 35206F funds may be obligated in support of development and test related to ASARS-2C fielding and advanced mode development. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** RDT&E funds have decreased to zero for FY 2025 in anticipation of U-2 divestiture in FY 2026.	21.500	1.900	0.000
Accomplishments/Planned Programs Subtotals	35.170	16.842	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 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305202F *I Dragon U-2*

E. Acquisition Strategy

Acquisition strategy for efforts to support aircraft modification and/or enhancement efforts will be assessed as required, based on current program activities.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305202F / *Dragon U-2*	Project (Number/Name) 674820 / *Sensor Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ASARS Phase 1 Enhancements Design / Mode Development	SS/CPFF	Raytheon/Lockheed Martin : El Segundo, CA	-	11.000	Sep 2023	-		-		-		-	0.000	11.000	0.000
ASARS Phase 2 Integration & Demonstration	SS/CPIF	Raytheon/Lockheed Martin : El Segundo, CA	-	5.370	Dec 2022	-		-		-		-	0.000	5.370	0.000
Flight Test Support	SS/CPFF	Lockheed Martin : Palmdale, CA	-	4.000	Jun 2023	-		-		-		-	0.000	4.000	0.000
Data Links Modernization	SS/CPFF	L3 Communications : Salt Lake City, UT	-	3.400	Dec 2022	-		-		-		-	0.000	3.400	0.000
Avionics Technical Refresh	SS/CPFF	Lockheed Martin : Palmdale, CA	-	11.400	Nov 2022	16.842	Dec 2023	-		-		-	0.000	28.242	0.000
Subtotal			-	35.170		16.842		-		-		-	0.000	52.012	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	35.170	16.842	-	-	-	0.000	52.012	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305202F *I Dragon U-2*	**Project (Number/Name)** 674820 *I Sensor Development*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
U-2 Dragon Lady																												
Advanced Synthetic Aperture Radars System (ASARS)						██████████████																						
Data Links Modernization						████																						
CI-6 Test						██████████████																						
Wicked Crow Test						██████████████																						
IMAD Test						██████████████																						

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force			**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305202F *I Dragon U-2*	**Project (Number/Name)** 674820 *I Sensor Development*	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
U-2 Dragon Lady				
Advanced Synthetic Aperture Radars System (ASARS)	1	2024	2	2025
Data Links Modernization	1	2024	2	2024
CI-6 Test	1	2024	2	2025
Wicked Crow Test	1	2024	2	2025
IMAD Test	1	2024	2	2025

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*							

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	76.139	43.158	84.363	0.000	84.363	26.910	27.166	58.433	71.164	Continuing	Continuing
672001: *Next-Generation Sensors**	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.241	26.363	Continuing	Continuing
672002: *Agile ISR*	-	14.524	8.910	8.120	0.000	8.120	8.274	8.281	8.258	0.000	Continuing	Continuing
672003: *Sensors Open System Architecture*	-	10.782	5.948	5.854	0.000	5.854	6.068	6.058	0.000	0.000	Continuing	Continuing
674818: *Imaging and Targeting Support*	-	0.000	0.000	36.468	0.000	36.468	0.000	0.000	30.642	31.247	Continuing	Continuing
674820: *Sensor Development*	-	41.949	18.928	24.274	0.000	24.274	0.000	0.000	0.000	0.000	0.000	85.151
675092: *JTC/SIL MUSE*	-	3.784	3.869	3.963	0.000	3.963	4.061	4.145	4.295	4.380	Continuing	Continuing
675291: *Gorgon Stare*	-	5.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.000
676025: *Data Compression*	-	0.100	5.503	5.684	0.000	5.684	8.507	8.682	8.997	9.174	Continuing	Continuing

*This project's R-2a exhibit has been suppressed due to funding not beginning until after FY 2025

Note

This program, BA 7, PE 0305206F, project 672002, HALE, is a new start.

A. Mission Description and Budget Item Justification

The Airborne Reconnaissance System [ARS] Program develops and integrates next generation intelligence, surveillance, and reconnaissance [ISR] capabilities. ARS includes platform-agile sensor data processing; sensor products aiding assisted target recognition algorithms and other artificial intelligence activities [e.g. geolocation models, sensor-base exploitation tools, sensor networking capabilities]; and implementation of sensor open architecture standards. The ARS Program includes the following efforts: Agile ISR [672002], Sensors Open System Architecture [672003], Imaging and Targeting Support [674818], Sensor Development [674820], JTC/SIL MUSE [675092], and Data Compression [676025].

The ARS PE is integral to developing multi-domain, multi-intelligence [multi-INT] research, development, test and evaluation [RDT&E] Program of Record [PoR] efforts in support of the National Defense Strategy (NDS) and 2018 DoD Artificial Intelligence Strategy, as applied by the Air Force in the Next Generation ISR Dominance Flight Plan. Specifically, Program Element 0305206F provides authorized and appropriated funding to multi-INT RDT&E efforts for utilization on airborne platforms. This program traditionally provides a multi-INT venue for integration of technologies matured in both the Advanced Technology & Sensors [0604257F] and Airborne SIGINT Enterprise [0304260F] programs.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*

ARS is a platform-agile suite of sensor technologies defined for the best flexibility and capability for an ever-changing scale of ISR missions. Execution of the ARS activities are founded upon three pillars: Open Standards, Artificial Intelligence [AI]/Machine Learning [ML] algorithms, and Advanced Platform-Agile Sensors. The power behind the ARS programs is an open architectural system design that enables rapid third-party software and line replicable unit insertion/replacement allowing for DevSecOps execution, onboard multi-modal and multi-INT processing real-time, sensor cross-cueing, and AI/ML application. The AI/ML algorithms will be used to enable assisted target detection and identification. ARS will anticipate and more quickly counter adversaries' future improvements in their abilities to hide from and defeat ISR sensors.

In FY23, the Next Generation Sensor activities were moved to PE 0604257F BPAC 642001 for continued prototyping, technology maturation, and risk reduction.

In FY25 HALE is a new start.

The open standards pillar of next generation capabilities is supported through Sensors Open Systems Architecture [SOSA] which coordinates advanced technologies and open architecture development for multi-INT sensor modalities. The AI/ML algorithm pillar of next generation capabilities will be supported by the Agile ISR and Data Compression efforts. Detection, Removal and Characterization Operations [DRACO] supports the development of a robust image quality improvement capability for airborne synthetic aperture radar [SAR] products. Additionally, the Reduction of Data Using Compression Enhancement [RDUCE] develops data compression algorithms, addressing current and future systems' bandwidth limitations. Algorithms are multi-INT, sensor agnostic, solutions and are submitted for formal adoption by the DOD-Intelligence Community [IC] Joint Enterprise Standards Committee [JESC] GEOINT and SIGINT standards groups. The platform agile sensors pillar of next-generation capabilities will be supported by the Sensor Development effort, which includes the Advanced Synthetic Aperture Radar System [ASARS] front-end antenna array and receiver exciter advancements [ASARS-2B], and the ASARS-2C [back end] data processing efforts. ASARS-2B follow-on RDT&E extends range, enhances SAR performance and introduces maritime capability, while laying the framework for future use of open architectures. Additional efforts that support the next generation capabilities include the Multiple Unified Simulation Environment [MUSE] Joint Technology Center/Systems Integration Lab [JTC/SIL] by supporting ISR Training.

The I&TS Ultra Long-endurance Unmanned Reconnaissance Aircraft (ULTRA) is an Air Force-led technology and concept development effort to demonstrate an Unmanned Aerial System (UAS) that is capable of multiple-day duration flights while still being extremely affordable. ULTRA leverages commercial-off-the-shelf technologies to minimize expensive custom/proprietary items while at the same time simplifying maintenance and manpower costs. The payload integration for ULTRA maintains a modular and flexible architecture to allow for rapid integration of customer-driven payload options. In 2020 ULTRA performed limited operational test and evaluation over a six-month period, the results of which informed payload and system requirements to meet current and future needs. Future operational test and evaluation in relevant operational environments is a critical next step in developing ULTRA as an affordable ultra-long endurance ISR platform that is responsive to current and future needs. The ULTRA effort is not a new start. It is a flight demonstration of the ULTRA program, which was previously executed in FY24 under Program 0305205F Endurance Unmanned Aerial Vehicles; in FY23 and prior years under Program 0604555D8Z Operational Energy Prototyping, and under Section 219 authorities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	

0606398F. In FY23, 0.209M was expended for civilian pay expenses in this program element, and in FY24 0.458M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	70.048	43.158	47.810	0.000	47.810
Current President's Budget	76.139	43.158	84.363	0.000	84.363
Total Adjustments	6.091	0.000	36.553	0.000	36.553
• 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	6.091	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	36.553	0.000	36.553

Congressional Add Details ($ in Millions, and Includes General Reductions)	**FY 2023**	**FY 2024**
Project: 675291: *Gorgon Stare*		
Congressional Add: *Wide Area Motion Imagery*	5.000	-
Congressional Add Subtotals for Project: 675291	5.000	-
Congressional Add Totals for all Projects	5.000	-

Change Summary Explanation

FY23 $5M Congressional Add for Gorgon Stare.

In FY23, PE 0304260F, Airborne SIGINT Enterprise, Project 675183, Common Development efforts were transferred to PE 0305206F, Airborne Reconnaissance Systems, Project 672002, Agile ISR, and Project 674820, Sensors Development, in order to prevent stop works.

The increase in FY25 from the previous President's Budget is due to the addition of Ultra in the I&TS BPAC and the transfer of ASARS-2C funding into the Sensors Development BPAC.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force									**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*				**Project (Number/Name)** 672002 *I Agile ISR*		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
672002: *Agile ISR*	-	14.524	8.910	8.120	0.000	8.120	8.274	8.281	8.258	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
 This program, BA 7, PE 0305206F, project 672002, HALE, is a new start.

A. Mission Description and Budget Item Justification
 The Agile ISR BPAC matures, develops, and deploys projects in support of current and future platform agnostic, non-proprietary, autonomous, multi-INT cross cueing ISR solutions based on DAF mission requirements in highly contested environments. This includes, but is not limited to, High Altitude Long Endurance (HALE) capability development, Detection Removal and Characterization Operations (DRACO), support and development of AgilePod, and other projects. Portions of the developmental efforts under Agile ISR are classified.

 In FY25 HALE is a new start. The HALE program will begin acquisition activities and support High Altitude Balloon (HAB) demonstrations.

 This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: DRACO	12.088	6.910	6.020
Description: Detection Removal and Characterization Operations (DRACO) is a robust Image Quality improvement capability for Airborne Synthetic Aperture Radar (SAR) products. The software resides in multiple locations on the ground and future efforts will migrate algorithms to airborne platforms supporting the Air Force, Army, Navy and other customers. DRACO efforts include but are not limited to development, design, fabrication, integration, demonstration, test, and transition of image quality improvement capabilities. This project originated under the I&TS program. All other details are classified. *FY 2024 Plans:* - Initiate DRACO 7.0 efforts in 1QFY24. This development effort continues the maturation of the software with upgrades being pushed incrementally to numerous Users within the DoD (i.e. AF DCGS) and larger Intelligence Community (IC) architectures. - Continue to increase interoperability by developing common standards and interfaces.			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 672002 / *Agile ISR*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Continue to respond to Warfighter operational needs to support shortfalls in multiple conflict zones. Recent events have increased IC interest in the capabilities that DRACO provides and additional requirements and funding from IC partners are expected in FY24. *FY 2025 Plans:* - Will continue with the DRACO 7.0 development effort initiated in early FY24. - Will continue to incorporate updates to address and mitigate emerging classified threats. *FY 2024 to FY 2025 Increase/Decrease Statement:* - Funding decreased due to the enhancements of the Machine Learning based tasks gained from the DRACO 6.0 prototype work.			
Title: AgilePod *Description:* AgilePod is a government-owned, open standards pod capable of multiple payloads including but not limited to ISR, communications, and EW. It consists of multiple variants and provides a rapid fielding capability for payloads to any aircraft in the DOD inventory that can carry an external store. *FY 2024 Plans:* - Continue to develop AgilePod variants to different phases of development including CDR and PDR to prepare for production capabilities. - Develop varieties of AgilePod 26 to accommodate (non)/conformal payloads. - Accelerate AgilePod 16HP CDR/PDR to support Navy Procurement to replace the current JSOW Solution. - Support Multiple Customers for production of AgilePod for mission use across various platforms. *FY 2025 Plans:* - Will develop all AgilePod variants to PDR for multi-platform use. - Will proceed to PDR with AgilePod 16V2, AgilePod 16HP and AgilePod 26. - Will continue to support multiservice operational needs via exercises & demos. *FY 2024 to FY 2025 Increase/Decrease Statement:* No increase/decrease.	2.436	2.000	2.000
Title: HALE *Description:* High Altitude Long Endurance (HALE) assets provide risk-reduction and alternative sensing capability employment options. This effort will initiate the pre-acquisition activity to develop a Family of Sensors constellation to provide wide area target detection and tracking in highly contested environments. *FY 2024 Plans:*	0.000	0.000	0.100

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 672002 / *Agile ISR*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
N/A ***FY 2025 Plans:*** - Will initiate acquisition activity for HALE programs. - Will begin acquisition analyses to include long lead item evaluation of software, hardware, and spares to begin development. - Will complete industrial base analysis of HALE commercial off the shelf candidates. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increase to initiate acquisition planning activity for HALE programs.			
Accomplishments/Planned Programs Subtotals	14.524	8.910	8.120

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

D. Acquisition Strategy
 Capabilities will be developed and integrated onto various information systems and platforms using an agile software acquisition approach. The projects will be executed
 and contracted with appropriate vendor(s) to deliver capability while driving competition where possible.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305206F / Airborne Reconnaissance Systems	Project (Number/Name) 672002 / Agile ISR

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DRACO	SS/CPFF	Lockheed Martin : King of Prussisa, PA	-	11.528	Jan 2023	5.910	Jan 2024	6.020	Dec 2024	-		6.020	Continuing	Continuing	-
AgilePod	SS/CPFF	Jacobs/Leidos : Dayton, OH	-	2.436	Jan 2023	1.000	Jan 2024	0.500	Nov 2024	-		0.500	Continuing	Continuing	-
HALE	C/CPAF	Not specified. : TBD	-	0.000		0.000		0.100	Apr 2025	-		0.100	Continuing	Continuing	-
Subtotal			-	13.964		6.910		6.620		-		6.620	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA: Other Govt Cost	Various	Various: TBD : TBD	-	0.560	Jan 2023	2.000	Jan 2024	1.500	Nov 2024	-		1.500	Continuing	Continuing	-
Subtotal			-	0.560		2.000		1.500		-		1.500	Continuing	Continuing	N/A

			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	14.524		8.910		8.120		-		8.120	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 672002 / *Agile ISR*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Agile ISR																												
DRACO 6.0																												
DRACO 7.0																												
DRACO Development																												
AgilePod*																												
HALE																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 672002 *I Agile ISR*

Schedule Details

Events by Sub Project	Start Quarter	Start Year	End Quarter	End Year
Agile ISR				
DRACO 6.0	1	2023	2	2024
DRACO 7.0	1	2024	3	2027
DRACO Development	1	2023	3	2029
AgilePod*	1	2023	4	2028
HALE	3	2025	4	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024	
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*				**Project (Number/Name)** 672003 / *Sensors Open System Architecture*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
672003: *Sensors Open System Architecture*	-	10.782	5.948	5.854	0.000	5.854	6.068	6.058	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Sensors Open System Architecture (SOSA) project develops common open (non-proprietary) standards and associated software interfaces to support the development of sensors and embedded systems to enable various modalities. These modalities include, but not limited to: RADAR, SIGINT, Electronic Warfare (EW), Communications and Electro-Optical InfraRed (EO/IR) in support of airborne, space and ground systems. In collaboration with the SOSA Consortium, this program develops, demonstrates, supports research and development, and rapid integration of open systems. The program enables the development/modification of weapon systems to stay ahead of or respond to threat and technological advances from near-peer/peer adversaries.

This program will fund and support development of the SOSA Technical Standard, the development of prototype solutions, as well as fund and operate the Open Architecture SIL (System Integration Laboratory) to mature and verify the common hardware standards and associated software interfaces. The SOSA program will also fund other supporting efforts such as SOSA development/interoperability, verification, and conformance tools and provide training/awareness.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver technology and sensor capabilities. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605831F.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Sensors Open System Architecture *Description:* Description: The Sensors Open System Architecture (SOSA) project will execute activities to develop common hardware standards and associated software interfaces. *FY 2024 Plans:* - Continue to develop prototype of SOSA multi-INT capability. - Continue to develop AgilePod internal electrical/mechanical interfaces. - Continue to implement and execute multi-INT demonstrations. - Continue to support EO/IR, Comms and multi-INT article prototyping. - Continue to develop Small Form Factor hardware demonstrator for UAS and HALE. - Continue to support security development for SOSA secure solutions. - Continue to prepare and host open standards interoperability demonstrations.	10.782	5.948	5.854

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 672003 *I Sensors Open System Architecture*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Continue to development of Conformance tooling for SOSA validation and verification. *FY 2025 Plans:* - Will continue to develop prototype of SOSA multi-INT capability. - Will continue to develop AgilePod internal electrical/mechanical interfaces. - Will continue to implement and execute hardware demonstrations. - Will continue to support EO/IR, Comms and multi-INT article prototyping. - Will continue to prepare and host open standard interoperability demonstrations. - Will continue to support security development for SOSA secure solutions. - Will continue to develop Small Form Factor hardware demonstrator for UAS and HALE. *FY 2024 to FY 2025 Increase/Decrease Statement:* Nominal funding decrease from FY24 to FY25 due to higher Air Force priorities.			
Accomplishments/Planned Programs Subtotals	10.782	5.948	5.854

C. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

D. Acquisition Strategy

 SOSA development is achieved through The Open Group SOSA Consortium, which is a Coalition of Industry, DoD, and OGA partners which develop common hardware
 standards and associated software interfaces to support sensor requirements. The acquisition initiatives consist of prototyping activities, risk reduction activities, and
 demonstrations. There will continue to be various contracting strategies, including use of existing contracts to rapidly enhance the SOSA Technical Standard baseline.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024	
Appropriation/Budget Activity 3600 **/** 7								**R-1 Program Element (Number/Name)** PE 0305206F **/** *Airborne Reconnaissance Systems*				**Project (Number/Name)** 672003 **/** *Sensors Open System Architecture*		

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
SOSA Hardware Development	SS/FFP	Dynetics (JSIL) : Huntsville, AL	-	-		0.800	Nov 2023	0.800	Nov 2024	-		0.800	Continuing	Continuing	-
SOSA Hardware Development (1)	SS/CPFF	Skayl : DC & Arizona, AZ	-	-		0.524	Dec 2023	0.524	Dec 2024	-		0.524	Continuing	Continuing	-
SOSA Hardware Development (3)	SS/CPFF	CFD : Dayton, OH	-	0.687	Dec 2022	1.183	Mar 2024	1.112	Mar 2025	-		1.112	Continuing	Continuing	-
SOSA Hardware Development (4)	SS/CPFF	GTRI Conformance : Atlanta, GA	-	-		1.291	Jul 2024	1.268	Jan 2025	-		1.268	Continuing	Continuing	-
SOSA Hardware Development (8)	SS/FFP	Leidos : Dayton, OH	-	0.000	Dec 2022	1.406	Feb 2024	1.406	Feb 2025	-		1.406	Continuing	Continuing	-
SOSA Hardware Development (9)	SS/FFP	Spectranetix/Pacific Def : El Segundo, CA	-	10.000	Aug 2023	-		-		-		-	0.000	10.000	-
Subtotal			-	10.687		5.204		5.110		-		5.110	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Administration (PMA)	Various	Not specified. : TBD	-	0.095	Aug 2023	0.744	Jan 2024	0.744	Jan 2025	-		0.744	Continuing	Continuing	-
Subtotal			-	0.095		0.744		0.744		-		0.744	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	10.782	5.948	5.854	-	5.854	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 672003 *I Sensors Open System Architecture*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Sensors Open System Architecture																												
Technical Standard Publications (Semi-Annual Deliveries)																												
SOSA Demonstration																												
SIL Activites																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 672003 *I Sensors Open System Architecture*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Sensors Open System Architecture				
Technical Standard Publications (Semi-Annual Deliveries)	1	2023	4	2029
SOSA Demonstration	1	2023	4	2029
SIL Activites	1	2023	4	2029

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*					**Project (Number/Name)** 674818 *I Imaging and Targeting Support*		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
674818: *Imaging and Targeting Support*	-	0.000	0.000	36.468	0.000	36.468	0.000	0.000	30.642	31.247	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The purpose is to develop, mature, demonstrate, and rapidly transition next-generation, persistent, wide area surveillance and common imagery reconnaissance sensor capabilities (active and passive systems), including sensor data processing for multiple airborne platforms, as well as sensor products to aid in rapid targeting (geolocation models, sensor-based exploitation tools, sensor networking capabilities).

The Ultra Long-endurance Unmanned Reconnaissance Aircraft (ULTRA) is an Air Force-led technology and concept development effort to demonstrate an Unmanned Aerial System (UAS) that is capable of multiple-day duration flights while still being extremely affordable. ULTRA leverages commercial-off-the-shelf technologies to minimize expensive custom/proprietary items while at the same time simplifying maintenance and manpower costs. The payload integration for ULTRA maintains a modular and flexible architecture to allow for rapid integration of customer-driven payload options. The initial ULTRA UAS was developed in 2018 and flight-tested in 2019. In 2020 ULTRA performed limited operational test and evaluation over a six-month period, the results of which informed payload and system requirements to meet current and future needs. Future operational test and evaluation in relevant operational environments is a critical next step in developing ULTRA as an affordable ultra-long endurance ISR platform that is responsive to current and future needs.

This effort is not a new start. It is a flight demonstration of the ULTRA program, which was previously executed in FY24 under Program 0305205F Endurance Unmanned Aerial Vehicles; in FY23 and prior years under Program 0604555D8Z Operational Energy Prototyping, and under Section 219 authorities.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025
Title: Ultra Long-endurance Unmanned Reconnaissance Aircraft (ULTRA)Flight Demonstration	-	0.000	36.468
Description: This effort is not a new start. It is a flight demonstration of the ULTRA program, which was previously executed in FY24 under Program 0305205F Endurance Unmanned Aerial Vehicles; in FY23 and prior years under Program 0604555D8Z Operational Energy Prototyping, and under Section 219 authorities. This effort conducts integration and preparation work required to prepare the ULTRA platform for flight demonstration in operationally relevant environments in response to an urgent operational			

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 674818 *I Imaging and Targeting Support*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
need. It leverages technologies and expertise from across all of the Air Force Research Laboratories, integrating and testing a variety of technologies. ***FY 2024 Plans:*** FY 2024 Plans were executed within Program 0305205F Endurance Unmanned Aerial Vehicles. ***FY 2025 Plans:*** - Will complete integration and test of commercial-off-the-shelf (COTS) turbo-charged engine to enable ULTRA altitude and airspeed for relevant geographically-constrained mission areas of interest. - Will initiate and complete integration and testing of COTS engine control unit. - Will initiate and complete integration and testing of RF SIGINT payload. - Will complete integration of ULTRA into the control system for common control of multiple unmanned aerial systems like Vigilant Spirit and flight test. - Will complete aircrew training to support extended operational testing and evaluation of ULTRA system and broaden to include sensor payloads. - Will complete development and refinement of training curriculum and documentation based on results from operational test and evaluation and adoption of Vigilant Spirit UAS command and control system. - Will complete sustainment analyses to include long lead item evaluation of hardware and spares and begin software and cyber assessments. - Will complete operational test and evaluation of ULTRA in operationally relevant environments. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to the $30.000M transfer of the ULTRA effort from Program Element 0305205F Endurance Unmanned Aerial Vehicles.			
Accomplishments/Planned Programs Subtotals	-	0.000	36.468

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

D. Acquisition Strategy
 The acquisition strategy is to maximize commercial and national development efforts and investment through multiple contracting methods, including the use of
 engineering change proposals to modify existing contracts and new contracts that were awarded both competitively and on a sole source basis.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 674818 *I Imaging and Targeting Support*

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
ULTRA Flight Demonstration	SS/CPFF	Air Force Research Labs : WPAFB, OH	-	-		-		36.468	Oct 2024	-		36.468	Continuing	Continuing	-
Subtotal			-	-		-		36.468		-		36.468	Continuing	Continuing	N/A

			Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
		Project Cost Totals	-	-		-		36.468		-		36.468	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 674818 / *Imaging and Targeting Support*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
ULTRA Flight Test																												
Commercial-off-the-shelf (COTS) Electronic Control Unit Integration							█	█	█																			
Control System Integration						█	█	█	█																			
Training curriculum and transition documentation						█	█	█	█	█	█	█																
Operational Test and Evaluation prep activities						█	█	█	█																			
Operational Assessment									█	█																		

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 674818 *I Imaging and Targeting Support*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ULTRA Flight Test				
Commercial-off-the-shelf (COTS) Electronic Control Unit Integration	3	2024	2	2025
Control System Integration	1	2024	2	2025
Training curriculum and transition documentation	1	2024	4	2025
Operational Test and Evaluation prep activities	1	2024	2	2025
Operational Assessment	3	2025	4	2025

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*					**Project (Number/Name)** 674820 *I Sensor Development*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
674820: *Sensor Development*	-	41.949	18.928	24.274	0.000	24.274	0.000	0.000	0.000	0.000	0.000	85.151
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Sensors Development project increases the range and collection capability, interoperability and processing of the Advanced Synthetic Aperture Radar Systems [ASARS] through design, development, testing, and fielding efforts. The Sensors Development efforts advance the capability of ASARS for U-2 and classified platform employment. ASARS-2B [front-end] & ASARS-2C [back-end] efforts provide critical advancements and risk reduction in SAR/Moving Target Indication capability to be implemented in the future multi-INT, platform agile capability that Next Generation Sensors will provide.

The ASARS effort is a fifth generation, deep-look, high-altitude, ISR radar that is the foundation for the radar component of the Next Generation Sensors [NGS] family of systems as outlined in the AFROC approved ASARS-2C draft Capabilities Development Document [CDD]. ASARS-2B [front-end] is the antenna and receiver exciter replacement. The ASARS-2C [back end] data processing efforts extend the ASARS-2B [front-end] radar capability using open architecture data processing and multi-platform integration. Open architecture improves performance and lowers cost by facilitating and enabling qualified third-party software vendors to incorporate future multi-ISR capability to advance interoperability across joint operations. ASARS increases current capability and addresses National Defense Strategy Key Operational Problems.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.209M was expended for civilian pay expenses in this program element, and in FY24 $0.458M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Advanced Synthetic Aperture Radar System [ASARS]-2B (front-end)	41.949	15.128	0.000
Description: Develop, design, fabricate, integrate, test and field deep look high altitude ISR radar capabilities.			
FY 2024 Plans: Complete development, design, fabrication, integration and flight test for deep look high altitude ISR radar capabilities.			
FY 2025 Plans: N/A			
FY 2024 to FY 2025 Increase/Decrease Statement:			

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 674820 *I Sensor Development*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Funding decrease due to the completion of the ASARS-2B development.			
Title: Advanced Synthetic Aperture Radar System [ASARS]-2C [back-end] *Description:* Integrate open radar processing architectures for enhanced RF capabilities and third party mode development. *FY 2024 Plans:* - Conduct development, design, fabrication, integration and flight test for deep look high altitude ISR radar capabilities. *FY 2025 Plans:* - Will continue to conduct and complete development, design, fabrication, integration and flight test for deep look high altitude ISR radar capabilities. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increase due to $24.274M ASARS-2C funding realignment from U-2 PE 0305202F.	0.000	3.800	24.274
Accomplishments/Planned Programs Subtotals	41.949	18.928	24.274

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

D. Acquisition Strategy
 ASARS / High Altitude SAR technology maturation is conducted by Air Force Life Cycle Management Center/Intelligence, Surveillance, and Reconnaissance and Special Operations Forces [AFLCMC/WIN], in conjunction and cooperation with AFLCMC/WIA [Robins AFB] for test support.

 The acquisition strategy is to maximize commercial and national development efforts and investment through multiple contracting methods, including but not limited to the use of engineering change proposals to modify existing contracts and new contracts that were awarded both competitively or on a sole source basis.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force														Date: March 2024		

Appropriation/Budget Activity
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R-1 Program Element (Number/Name)
PE 0305206F / *Airborne Reconnaissance Systems*

Project (Number/Name)
674820 / *Sensor Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ASARS-2B (front-end)	SS/CPIF	Raytheon : El Segundo, CA	-	41.799	Nov 2022	10.596	Oct 2023	-		-		-	Continuing	Continuing	-
ASARS-2C (back-end)	SS/CPFF	Raytheon : El Segundo, CA	-	-		3.843	Oct 2023	19.274	Oct 2024	-		19.274	Continuing	Continuing	-
Subtotal			-	41.799		14.439		19.274		-		19.274	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA	Various	Not specified. : TBD	-	0.150	Jan 2023	4.489	Jan 2024	5.000	Jan 2025	-		5.000	Continuing	Continuing	-
Subtotal			-	0.150		4.489		5.000		-		5.000	Continuing	Continuing	N/A

			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	41.949		18.928		24.274		-		24.274	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 674820 *I Sensor Development*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
ASARS-2B																												
ASARS-2B EMD	██	██	██	██	██	██	██																					
ASARS-2C																												
ASARS-2C	██	██	██	██	██	██	██	██	██	██	██																	
-- Tech Maturation	██	██	██	██	██	██	██	██	██	██	██																	

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 674820 *I Sensor Development*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
ASARS-2B				
ASARS-2B EMD	1	2023	4	2024
ASARS-2C				
ASARS-2C	1	2023	4	2025
-- Tech Maturation	1	2023	4	2025

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*				**Project (Number/Name)** 675092 *I JTC/SIL MUSE*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675092: *JTC/SIL MUSE*	-	3.784	3.869	3.963	0.000	3.963	4.061	4.145	4.295	4.380	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Multiple Unified Simulation Environment (MUSE) is the DoD flight simulation/training system of choice for many Unmanned Aircraft Systems (UAS), RPA, and airborne platforms. MUSE is also known as the Air Force Synthetic Environment for Reconnaissance and Surveillance (AFSERS) in its Air Force training application. The MUSE/AFSERS is a software suite that simulates UAS/RPA (e.g., MQ-9) systems, tailored air vehicle & data links, and visualization systems used for payload product outputs-including Full Motion Video (FMV), Fixed Frame Imagery (FFI), Ground Moving Target Indicator (GMTI) data, and Link 16 (J2.2 and J3.5) tracking messages. Outputs are compliant with applicable DoD standards and are continually tested against actual ground data processors to ensure DoD systems interoperability.

The Services and Combatant Commanders have a requirement for training with a system that provides a real-time simulation environment containing multiple domain systems that can be integrated with larger force-on-force simulations. The MUSE creates a realistic operational environment supporting military utility assessment, architecture, and employment concept development. Training, Tactics, Techniques and Procedures (TTP) refinement, practice Processing, Exploitation and Dissemination (PED) of multi-domain information. Conduct emerging concepts experimentation, optimizing Command, Control, Communications, and Computing (C4) with warfighting exercises and experiments. MUSE is the preferred UAS/RPA simulation system used by US Combatant Commanders and Joint Services to support command and battle staff C4 training.

The MUSE also creates a realistic operational environment that supports: an embedded training capability for new UAS/RPA system Program Managers; tools to minimize acquisition and life cycle cost and schedule impacts. MUSE conducts emerging concepts experimentation, future systems exploration, systems integration, and technology insertion; applications for Joint and Service-specific warfighting exercises; and C4 training optimization.

MUSE is currently used by all Services and most unified commands simulating MQ-1, MQ-9, RQ-4, MQ-1C, M/RQ-5, RQ-7, national and commercial satellite systems, P-3, E-8 and the U-2 during warfighting exercises. The AFSERS provides National Imagery Transmission Format (NITF) information for simulated data collection systems, supporting PED training. The MUSE is also used as a mission rehearsal tool for current, on-going military combat operations. Most of the MUSE/AFSERS software suite components are also used in multiple airborne platform system training devices. Including the MQ-9 [Medium Altitude Long Endurance Tactical (MALET) JSIL Aircrew Trainer (MJAT)] and RQ-4 [Global Hawk Sensor Operator Part Task Trainer (GHSOPTT), and Global Hawk Weapon System Trainer (WST)].

The Joint Technology Center/Systems Integration Laboratory (JTC/SIL) is the training center of excellence supporting UAS and RPA programs for the Services. JTC/SIL provides the system engineering, test and integration, interoperability, rapid technology insertion to address MUSE training requirements. The JTC/SIL combines the UAS/RPA knowledge of communications standards (such as STANAGs 4586, 4607, 4545 and 4609) with Hardware in the Loop (HIL) testing, MUSE, integrating with other DoD modeling and simulation (M&S) architectures. For those airborne assets normally not available for training, the JTC/SIL provides surrogate systems and interfaces. The JTC/SIL contributes to the distributed training environments, virtually linking participants from various locations worldwide, and are routinely supported

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 675092 / *JTC/SIL MUSE*

within the MUSE architecture. The JTC/SIL continues to develop leading edge technologies supporting the rapidly evolving UAS/RPA training requirements required to support NDS future fighting force.

MUSE project funds may be utilized to cover the GCWG Secretariat, studies and analysis activities, supporting current program planning, execution, and future program planning.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0M was expended for civilian pay expenses in this program element, and in FY24 $0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Air Force Synthetic Environment for Reconnaissance and Surveillance (AFSERS) Development	3.784	3.869	3.963

Description: DoD's simulation/training system of choice for Intelligence Surveillance and Reconnaissance (ISR)systems, sensors, and platforms. Includes AFSERS, Common Ground Station Interface, and infrastructure support.

FY 2024 Plans:
- Update sensor models and release new MUSE/AFSERS versions to reflect evolving RPA and ISR improvements to support theater level exercises such as CCPT (formerly Ulchi Freedom Guardian and Key Resolve), Yama Sakura, Talisman Saber, Pacific Sentry/Fury, Austere Challenge, and associated events.
- Rapidly respond to Cyber Security threats as they are identified.
- Modify the MUSE/AFSERS to further compliance with all CAFDMO requirements.
- Optimize software architecture and modularization to facilitate extensibility and scalability.
- Integrate a new high fidelity SAR model into the MUSE/AFSERS baseline which provides realistic imagery based upon material encoded terrain.
- Conduct integration testing with designated federations (such as ASCCE) to ensure joint interoperability with services.
- Perform DMON Integration: Support CAFDMO SPRs for AFSERS; Integration/Testing at Distributed Training Centers.
- Develop and integrate Electronic Warfare (EW) modeling and simulation capabilities to include GPS jamming effects.
- Enhance and integrate UAS Swarming modeling and simulation.
- Build new ISR platform simulations with multi-sensor capability to include P-3 ORION & P-8 POSEIDON.
- Integrate new high fidelity MTI capabilities.

FY 2025 Plans:
- Will continue to develop and update sensor models and release new MUSE/AFSERS versions to reflect evolving RPA and ISR improvements to support theater level exercises such as Ulchi Freedom Shield (Korean Theater exercises), Yama Sakura, Keen Edge, Balikatan, Pacific Sentry, Austere Challenge, and associated events.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 675092 *I JTC/SIL MUSE*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Will continue to respond rapidly to Cyber Security threats as they are identified. - Will continue to update and optimize software architecture and modularization to facilitate extensibility and scalability. - Will continue to integrate a new high fidelity SAR model into the MUSE/AFSERS baseline which provides realistic imagery based upon material encoded terrain. - Will continue to conduct integration testing with designated federations (such as ASCCE) to ensure joint interoperability with services. - Will continue to perform DMON Integration: Support CAFDMO SPRs for AFSERS; Integration/Testing at Distributed Training Centers. - Will continue to develop Electronic Warfare (EW) jamming by MUSE/AFSERS upon other aircraft simulations. - Will continue to develop and integrate swarm and kinetic (Kamikaze) UAVs/RPAs capabilities. - Will continue to build new ISR platform simulations with multi-sensor capability to include P-3 ORION & P-8 POSEIDON. - Will continue to develop and integrate weather effects upon the MUSE/AFSERS flight characteristics and sensors. - Will continue to develop physics-based IR 3D models, targets, and terrain through the use of material encoding. - Will continue to develop cloud-based MUSE/AFSERS simulation capabilities. - Will support the deployment of the AFSERS Cloud Based Infrastructure. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased nominally due to inflation.			
Accomplishments/Planned Programs Subtotals	3.784	3.869	3.963

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

D. Acquisition Strategy
 This is an enterprise services effort, jointly funded and centrally managed by the US Army. JTC/SIL falls under US Army Futures Command. US Army PE 0305204A funding ending after FY 2021. Additional continual Army funding expected from PEO STRI, JSJ7, exercise events, and other external Army users. AFLCMC/WIN MIPRs funds in support of Unmanned Aircraft Systems modeling and simulation efforts. The Air Force POC is Dr. Lillian-Campbell from AF Agency for Modeling & Simulation which falls under HAF/A3T.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024		

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / Airborne Reconnaissance Systems	**Project (Number/Name)** 675092 / JTC/SIL MUSE

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
AFSERS Development	MIPR	Redstone Arsenal : Huntsville, AL	-	3.564	Jul 2023	3.638	Dec 2023	3.720	Dec 2024	-		3.720	Continuing	Continuing	-
Subtotal			-	3.564		3.638		3.720		-		3.720	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Management Services	C/Various	Not specified. : TBD	-	0.220	May 2023	0.231	May 2024	0.243	May 2025	-		0.243	Continuing	Continuing	-
Subtotal			-	0.220		0.231		0.243		-		0.243	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	3.784	3.869	3.963	-	3.963	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 675092 / *JTC/SIL MUSE*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
JTC/SIL MUSE																												
AFSERS Development					████																							

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0305206F **/** *Airborne Reconnaissance Systems*	**Project (Number/Name)** 675092 **/** *JTC/SIL MUSE*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
JTC/SIL MUSE				
AFSERS Development	1	2023	4	2029

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 675291 / *Gorgon Stare*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675291: *Gorgon Stare*	-	5.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.000
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Gorgon Stare system is a podded airborne sensor suite that provides city-sized wide area airborne surveillance and was integrated on MQ-9 Reapers. The Air Force Requirements Oversight Council (AFROC) approved Air Combat Command's recommendation to transition Gorgon Stare from a Quick Reaction Capability (QRC) to an Air Force Enduring Capability in November 2014. Gorgon Stare's requirements are documented in the Gorgon Stare Wide Area Airborne Sensor draft Capabilities Development Document (CDD).

Development efforts in FY 2023 included completing Image Quality Enhancements Phase III efforts and MQ-9 Block 5 Integration, and additional improvements to Wide Area Motion Imagery technology.

The acquisition program manager has the authority to redirect funding as necessary to meet Gorgon Stare current and emerging Combatant Commander requirements to better meet the war fighting objectives.

There is no budget year FY25 funding requested for this project.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024
Congressional Add: Wide Area Motion Imagery	5.000	-
FY 2023 Accomplishments: Development efforts in FY 2023 include completing Image Quality Enhancements Phase III efforts and MQ-9 Block 5 Integration, and additional improvements to Wide Area Motion Imagery technology.		
Congressional Adds Subtotals	5.000	-

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 PRDTB3: MQ-9 UAS Payloads	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	0.000
• APAF 06 PRDTB3: *Gorgon Stare*	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	0.000

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0305206F **/** *Airborne Reconnaissance Systems*	**Project (Number/Name)** 675291 **/** *Gorgon Stare*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

The wide area airborne surveillance requirement is being delivered via the Gorgon Stare podded wide area motion imagery sensor suite integrated on the MQ-9 Reaper RPA. Gorgon Stare transitioned from a QRC to an Air Force Enduring Capability under AFROC authority in November 2014. The program is executed by the 645th Aeronautical Systems Group, Intelligence, Surveillance, and Reconnaissance and Special Operations Forces Directorate as a post-Milestone C program. The sensor suite will be sustained in its current configuration.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0305206F **/** *Airborne Reconnaissance Systems*	**Project (Number/Name)** 675291 **/** *Gorgon Stare*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Gorgon Stare System Development	SS/CPFF	Sierra Nevada Corporation : Sparks, NV	-	5.000	Apr 2023	-		-		-		-	0.000	5.000	12.500
Subtotal			-	5.000		-		-		-		-	0.000	5.000	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	5.000	-	-	-	-	0.000	5.000	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 675291 / *Gorgon Stare*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Gorgon Stare																												
EO/IR Co-Collect					███████																							

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 675291 / *Gorgon Stare*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Gorgon Stare				
EO/IR Co-Collect	1	2023	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*					**Project (Number/Name)** 676025 / *Data Compression*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
676025: *Data Compression*	-	0.100	5.503	5.684	0.000	5.684	8.507	8.682	8.997	9.174	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Reduction of Data Using Compression Enhancement (RDUCE) provides efficient and integrated compression of Intelligence, Surveillance, and Reconnaissance (ISR) sensor data. RDUCE develops, tests, and integrates new sensor data compression software and hardware for current and emerging airborne and space-based ISR sensors. The program develops compression capabilities for manned and unmanned platforms, associated ground stations, and the Distributed Common Ground Systems (DCGS). RDUCE data products meet standard certification for use within the Department of Defense and Intelligence Community (IC) Geospatial Intelligence (GEOINT), Signals Intelligence (SIGINT), and Measurement and Signatures Intelligence (MASINT) collection disciplines. RDUCE compression also allows for maximizing the use of limited bandwidth and delivering more data, faster to the tactical user in the field.

RDUCE activities include continuous studies, analysis, and updates to support program planning and execution. RDUCE also seeks to acquire certification of its data compression algorithms which includes acceptance into the DoD Information Technology Standards Registry (DISR). By ensuring compliance with appropriate standards governing bodies, RDUCE is always ready to satisfy new operational requirements.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Data Compression	0.100	5.503	5.684
Description: The Data Compression effort provides the warfighter capabilities to efficiently compress ISR data and to enable dissemination in near-real time to tactical, operational, and strategic users through bandwidth-limited dissemination systems, overcoming limited data storage space, and accelerating data transmission. The program focuses on current and emerging ISR sensors, including incorporation into open architectures like Common Open Architecture Radar Programs (COARPs), Future Airborne Capability Environment (FACE), and Sensor Open System Architecture (SOSA). The algorithms can be leveraged for any platform. For example, the Hyperspectral Imaging (HSI) algorithm was selected by NASA to be included in an experimental system on the ISS. Outputs will meet standards certification for use within the DoD Geospatial, Measurement and Signature, and Signals Intelligence collection disciplines. *FY 2024 Plans:*			

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305206F *I Airborne Reconnaissance Systems*	**Project (Number/Name)** 676025 *I Data Compression*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Provide continued updates and integration support for the mature Technology Readiness Levels (TRL) modalities (Synthetic Aperture Radar (SAR), HSI, SAR Phase History, Radio Frequency (RF). - Continue Field Programmable Gate Array (FPGA) hardware development to support SAR and HSI compression solutions. - Identify platform/sensor partners for initial test/integration across all sensor modes. - Update compression algorithms to address any issues or previously uncaptured use cases to ensure they are operationally relevant. - Research and develop Artificial Intelligence (AI) and Machine Learning (ML) compression techniques. - Develop Compression as a Service (CaaS) to accelerate integration efforts. - Continue development of Light Detection and Ranging (LIDAR) compression solution. - Explore Electro-Optical (EO) and Infra-red (IR) modality compression technologies. ***FY 2025 Plans:*** - Will provide continued updates and integration support for the mature TRL modalities: SAR, HSI, SAR Phase History, RF. - Will continue to identify platform/sensor partners for initial test/integration across all sensor modes. - Will continue to update compression algorithms to address any issues or previously uncaptured use cases to ensure they are operationally relevant. - Will continue development of Compression as a Service (CaaS) to accelerate integration efforts. - Will continue research and development of AI/ML compression techniques. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to minor inflationary adjustments.			
Accomplishments/Planned Programs Subtotals	0.100	5.503	5.684

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

D. Acquisition Strategy
 Data Compression program is conducted by Air Force Life Cycle Management Center/ Intelligence, Surveillance, and Reconnaissance and Special Operations Forces (AFLCMC/WIN). Acquisition strategy is to develop data compression hardware/software, and data compression standards for various ISR applications to include airborne, space, ground stations, data storage facilities, and exploitation tools. RDUCE will utilize existing contracts with full and open competition where appropriate. Integration will be accomplished by the requisite program offices.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024	
Appropriation/Budget Activity 3600 **/** 7				**R-1 Program Element (Number/Name)** PE 0305206F **/** *Airborne Reconnaissance Systems*							**Project (Number/Name)** 676025 **/** *Data Compression*		

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Compression Solution Development	Various	Various : Various	-	-		0.950	Dec 2023	0.634	Dec 2024	-		0.634	Continuing	Continuing	-
SIGzip	Various	Various : Various	-	-		-		-		-		-	Continuing	Continuing	-
Subtotal			-	-		0.950		0.634		-		0.634	Continuing	Continuing	N/A

Support ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Standardization Development	C/CPAF	Various : Various	-	0.100	Mar 2023	0.250	Dec 2023	0.250	Dec 2024	-		0.250	0.000	0.600	-
Standardization Development (FLEX)	C/CPAF	Various : Various	-	-		0.300	Dec 2023	0.300	Dec 2024	-		0.300	Continuing	Continuing	-
Standardization Development (SARzip)	C/CPAF	Various : Various	-	-		0.250	Dec 2023	0.300	Dec 2024	-		0.300	Continuing	Continuing	-
Standardization Development (zPHD)	C/CPAF	Various : Various	-	-		0.250	Dec 2023	0.300	Dec 2024	-		0.300	Continuing	Continuing	-
Standardization Development (SIGzip)	C/CPAF	Various : Various	-	-		0.250	Dec 2023	0.300	Dec 2024	-		0.300	Continuing	Continuing	-
Subtotal			-	0.100		1.300		1.450		-		1.450	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
ADDA Lab	C/CPAF	Various : Various	-	-		1.000	Dec 2023	1.300	Dec 2024	-		1.300	Continuing	Continuing	-
Integration Activities	C/CPAF	Various : Various	-	-		1.253	Dec 2023	1.300	Dec 2024	-		1.300	Continuing	Continuing	-
COMPASE Lab	C/CPAF	Various : Various	-	-		-		-		-		-	Continuing	Continuing	-
Not Specified	C/TBD	Not specified. : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Subtotal			-	-		2.253		2.600		-		2.600	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | | | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305206F / *Airborne Reconnaissance Systems*	Project (Number/Name) 676025 / *Data Compression*

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PMA: Other Govt Cost	Various	Not specified. : TBD	-	0.000	Oct 2022	1.000	Oct 2023	1.000	Dec 2024	-		1.000	Continuing	Continuing	-
Subtotal			-	0.000		1.000		1.000		-		1.000	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.100		5.503		5.684		-		5.684	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 676025 / *Data Compression*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
RDUCE																												
Compression as a Service																												
Compression Solution Development																												
SIGINT																												
ADDA Lab																												
Standardization Development																												
Standardization Development (SARzip)																												
Standardization Development (FLEX)																												
Standardization Development (zPHD)																												
Standardization Development (SIGzip)																												
AI/ML compression																												

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305206F / *Airborne Reconnaissance Systems*	**Project (Number/Name)** 676025 / *Data Compression*

Schedule Details

Events by Sub Project	**Start**		**End**	
	Quarter	**Year**	**Quarter**	**Year**
RDUCE				
Compression as a Service	2	2023	4	2025
Compression Solution Development	1	2024	4	2026
SIGINT	1	2023	2	2023
ADDA Lab	1	2023	4	2029
Standardization Development	1	2023	4	2029
Standardization Development (SARzip)	1	2023	4	2029
Standardization Development (FLEX)	1	2023	4	2029
Standardization Development (zPHD)	1	2023	4	2029
Standardization Development (SIGzip)	1	2023	4	2029
AI/ML compression	1	2023	4	2025

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0305207F *I Manned Reconnaissance Systems*							

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	14.590	14.330	16.323	0.000	16.323	16.729	17.073	17.692	18.041	0.000	114.778
674754: *RC-135 Systems*	-	14.590	14.330	16.323	0.000	16.323	16.729	17.073	17.692	18.041	0.000	114.778
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

RC-135 operational systems development and enhancement activities support design studies, engineering analysis, non-recurring engineering and other efforts associated with the integration and modification of the RC-135 programs and their specialized mission systems, both air and ground. Associated ground systems include RIVET JOINT Ground Data Processing Systems (GDPS), Distributed Mission Shelters (DMS), Mission Crew Training Systems (MCTS), Airborne Capabilities Extension System (ACES), and the Operational Flight Trainers (OFT, a.k.a. flight deck simulators). RC-135 funding also supports innovation activities to include studies, analyses, requirements definition, and quick-reaction capability prototypes/demonstrations to accelerate planning for technology transition, technology insertion and future acquisition programs. Extensive utilization of Commercial-Off-The-Shelf (COTS) based solutions allows rapid fielding of needed capabilities through upgrades and supports Diminishing Manufacturing Sources (DMS)/Vanishing Vendor Items (VVI) logistics mitigation efforts. The results of these efforts provide for preliminary assessments of technical feasibility, operability, or military utility as well as specific engineering implementations for integration into the various systems baseline configurations.

These activities are managed by the 645th Aeronautical Systems Group (645 AESG). The 645 AESG (a.k.a. BIG SAFARI) manages engineering, ground and support systems modifications, integration, flight testing, product assurance, acceptance testing, logistics, and training activities.

Aircraft, sensor systems, and associated ground support system engineering planned for FY 2025 budget includes developmental planning, execution and support for the RC-135V/W RIVET JOINT Baselines 13 and 14 (BL-13 and BL-14), the RC-135U COMBAT SENT Baselines 6 and 7 (BL-6 and BL-7), and the RC-135S COBRA BALL BL-7 and BL-14 configurations. The world-wide challenge of keeping pace against technologically agile targets used by both nation and non-nation-state adversaries and the rapid evolution of COTS technologies demands a responsive and adaptive acquisition strategy for fielding incremental spiral upgrades and baseline capabilities that are logistically supportable at all locations. The 645 AESG uses an incremental baseline strategy to mitigate risk, find affordable solutions and field needed capabilities on the aircraft and associated ground support and training systems. Obsolescence and DMS/VVI logistical concerns are addressed with each baseline upgrade and assessed annually as part of the fleet sustainment responsibilities.

RIVET JOINT BL-14 upgrades consist of, but are not limited to, providing a continuous recording capability, High Probability of Intercept (HPOI) Receiver, Corvus Digital Receiver (CDR), Communications, Navigation, and Surveillance - Air Traffic Management (CNS-ATM) avionics upgrades such as new autopilot, automated data system-broadcast (ADS-B) and Mode 5 identify friendly or foe (IFF) systems. RIVET JOINT BL-15 upgrades consist of, but are not limited to, scalable processor improvements, Wideband Agile Receiver and Pulse Detector (WARPD), Expanded Steered Beam capability, and augmented Remote Maintenance.

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305207F *I Manned Reconnaissance Systems*

COMBAT SENT BL-6 and initial BL-7 developmental enhancements consist of, but are not limited to, steerable beams for the COMINT sub-system, improved High Probability of Intercept (HPOI) capability and specific emitter identification (SEI) electronic intelligence (ELINT) sub- system, Primary Sensor Measurement System (PRISMS) merge with manual precision collections, millimeter wave and low band capabilities with PRISMS, digitizing antennas, direction finding of High Frequency signals and expanded streaming audio services and 360 degree aircraft tracking system.

COBRA BALL BL-14 developmental enhancements consist of, but are not limited to, software updates to the MASINT collection system (MCS), high-gain steerable-beam K-band antenna array, high-band direction finding (DF) antenna, High Probability of Intercept (HPOI), enhanced Signals of Interest identification and classification, digitized collection antenna (Cerberus), enhanced time accuracy, coherent CFCS collections, integration of specific Quick Reaction Capabilities (QRC), migration of the common RIVET JOINT hardware and software,

Ground Systems Baseline upgrades add the capabilities found in the corresponding RIVET JOINT Baseline upgrades (i.e., RIVET JOINT BL-13 corresponds to Ground System BL-13, RIVET JOINT BL-14 corresponds to Ground System BL-14, RIVET JOINT BL-15 corresponds to Ground System BL-15) to the Ground Systems to ensure crews receive training on the appropriate mission system configurations.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In PY 0.00M was expended for civilian pay expenses in this program element, and in CY 0.00M is forecasted for civilian pay expenses in this program element.

The FY 2024 funding request was reduced by $1.608 million to account for the availability of prior year execution balances.

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 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305207F *I Manned Reconnaissance Systems*	

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	14.590	14.330	16.294	0.000	16.294
Current President's Budget	14.590	14.330	16.323	0.000	16.323
Total Adjustments	0.000	0.000	0.029	0.000	0.029
• 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	0.029	0.000	0.029

Change Summary Explanation

Minor adjustment due to change in inflation rate.

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Manned Reconnaissance Systems	14.590	14.330	16.323

Description: Non-recurring engineering (NRE) for Baseline system developments and enhancements to improve mission capabilities of the RIVET JOINT BL-14 and BL-15, COMBAT SENT BL-6, COBRA BALL BL-7, and Ground Systems BL-13 and BL-14.

FY 2024 Plans:
Will initiate contracts to:
• Continue Engineering Analysis
• Continue NRE and other efforts associated with the integration and modification of the RC-135 primary mission equipment
• Continue Specialized Mission Systems development for the collection of both air and ground signals.

FY 2025 Plans:
Will initiate contracts to:
• Continue Engineering Analysis
• Continue NRE and other efforts associated with the integration and modification of the RC-135 primary mission equipment
• Continue Specialized Mission Systems development for the collection of both air and ground signals.

FY 2024 to FY 2025 Increase/Decrease Statement:

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305207F *I Manned Reconnaissance Systems*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Increase due to restoring to baseline funding levels following a reduction of FY 2024 funding to account for the availability of prior year execution balances.			
Accomplishments/Planned Programs Subtotals	14.590	14.330	16.323

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 Line Item DARP01: *RC-135*	213.428	220.138	222.498	-	222.498	225.856	230.948	235.755	240.428	0.000	1,589.051
• APAF 06 Line Item DARP01: *Initial Spares/Repair Parts*	44.461	55.614	56.290	-	56.290	57.200	58.499	59.716	60.900	0.000	392.680
• APAF 07 Line Item DARP01: *Aircraft Support Equipment & Facilities*	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	0.000
• OPAF 04 Line Item 846070: *DARP RC-135*	28.153	28.882	29.498	-	29.498	30.184	31.312	31.978	32.611	0.000	212.618
• RDTE 07 PE 0304260F: *Airborne SIGINT Enterprise*	42.439	43.443	41.833	-	41.833	45.662	46.702	48.392	49.351	0.000	317.822

Remarks

E. Acquisition Strategy

The RC-135 RIVET JOINT, COBRA BALL, and COMBAT SENT configured aircraft are maintained and kept technologically relevant through an incremental baseline upgrade acquisition strategy. Technology upgrades and Quick Reaction Capability (QRC) developments are acquired through the 645 AESG in accordance with the BIG SAFARI Program Management Directive (PMD) and Class Justification and Approval (J&A) document for acquisition of supplies and services using an "other than full and open competition" criteria. The supplies and services procured by 645 AESG satisfy National Security requirements (FAR 6.302-6) through the use of their standing J&A or address Unusual and Compelling Urgency requirements (FAR 6.302-2) through an individually prepared J&A supported by the BIG SAFARI Life Cycle Management Plan (LCMP) across the full spectrum of system life cycle management from developmental engineering to system retirement ("cradle to grave") support. Due to the ever changing threat and rapidly evolving electromagnetic combat environment encountered during our prolonged commitment to contingency operations, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Command (CCMD) and/or Intelligence Community (IC) requirements to better meet the war fighting objectives.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force										**Date:** March 2024		

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305207F / *Manned Reconnaissance Systems*	**Project (Number/Name)** 674754 / *RC-135 Systems*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Product Development	SS/CPAF	Not specified. : TBD	-	-		-		-		-		-	0.000	0.000	-
Operational Systems Development	SS/ Various	L3Harris Technologies : Greenville, TX	-	14.590	Dec 2022	14.330	Dec 2023	16.323	Dec 2024	-		16.323	0.000	45.243	0.000
		Subtotal	-	14.590		14.330		16.323		-		16.323	0.000	45.243	N/A

Remarks

All activity is based around the Programmed Depot Maintenance (PDM) airframe and missions systems schedule which includes multiple contracts and organizations with overlapping and continuous periods of performance. Due to the rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current stated and emerging Combatant Command (CCMD) and/or Intelligence Community (IC) requirements.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	14.590	14.330	16.323	-	16.323	0.000	45.243	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305207F *I Manned Reconnaissance Systems*	**Project (Number/Name)** 674754 *I RC-135 Systems*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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 Spiral Development

RIVET JOINT Baseline 13 Integration, Test and Fielding

RIVET JOINT Baseline 14 Integration, Test and Fielding

RIVET JOINT Baseline 15 Development

RIVET JOINT Baseline 15 Integration, Test and Fielding

RIVET JOINT Baseline 16 Development

RIVET JOINT Baseline 16 Integration, Test and Fielding

RIVET JOINT Baseline 17 Development

COMBAT SENT Baseline 6 Integration, Test and Fielding

COMBAT SENT Baseline 7 Development

COMBAT SENT Baseline 7 Integration, Test and Fielding

COBRA BALL Baseline 7 Integration, Test and Fielding

COBRA BALL Baseline 14 Development

COBRA BALL Baseline 14 Integration, Test and Fielding

COBRA BALL Baseline 15 Development

COBRA BALL Baseline 15 Integration, Test and Fielding

COBRA BALL Baseline 16 Development

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305207F *I Manned Reconnaissance Systems*	**Project (Number/Name)** 674754 *I RC-135 Systems*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Ground Systems Baseline 14 Development, Integration, Test and Fielding	███	███	███	███	███	███																						
Ground Systems Baseline 15 Development, Integration, Test and Fielding										███	███	███	███	███	███	███	███											
Ground Systems Baseline 16 Development, Integration, Test and Fielding																					███	███	███	███	███	███		

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force				Date: March 2024	
Appropriation/Budget Activity 3600 / 7		R-1 Program Element (Number/Name) PE 0305207F / Manned Reconnaissance Systems		Project (Number/Name) 674754 / RC-135 Systems	

Schedule Details

	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Baseline Spiral Development				
RIVET JOINT Baseline 13 Integration, Test and Fielding	1	2023	4	2023
RIVET JOINT Baseline 14 Integration, Test and Fielding	1	2023	3	2026
RIVET JOINT Baseline 15 Development	2	2023	2	2025
RIVET JOINT Baseline 15 Integration, Test and Fielding	2	2025	2	2029
RIVET JOINT Baseline 16 Development	1	2026	1	2028
RIVET JOINT Baseline 16 Integration, Test and Fielding	1	2028	4	2029
RIVET JOINT Baseline 17 Development	1	2029	4	2029
COMBAT SENT Baseline 6 Integration, Test and Fielding	1	2023	3	2025
COMBAT SENT Baseline 7 Development	2	2025	4	2026
COMBAT SENT Baseline 7 Integration, Test and Fielding	4	2026	4	2029
COBRA BALL Baseline 7 Integration, Test and Fielding	1	2023	3	2024
COBRA BALL Baseline 14 Development	1	2023	3	2024
COBRA BALL Baseline 14 Integration, Test and Fielding	3	2024	2	2026
COBRA BALL Baseline 15 Development	1	2024	3	2026
COBRA BALL Baseline 15 Integration, Test and Fielding	3	2026	4	2029
COBRA BALL Baseline 16 Development	4	2028	4	2029
Ground Systems Baseline 14 Development, Integration, Test and Fielding	1	2023	3	2024
Ground Systems Baseline 15 Development, Integration, Test and Fielding	2	2025	3	2027
Ground Systems Baseline 16 Development, Integration, Test and Fielding	1	2028	4	2029

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305207F *I Manned Reconnaissance Systems*	**Project (Number/Name)** 674754 *I RC-135 Systems*

Note

 Ground systems include the RIVET JOINT Mission Crew Training Systems (MCTS), Ground Data Processing System (GDPS), Modular Processing System (MPS), Airborne Capabilities Extension Systems (ACES) and Operational Flight Trainers (OFT). Baseline upgrades are determined by the aircraft programmed depot maintenance schedule. Hardware, firmware or software enhancements to the ground systems are set up to match the aircraft baseline upgrades. Typically, baseline configuration changes and enhancements are incorporated first into the MCTSs and OFTs, and then integrated into GDPS, MPS, and ACES. Delivery of the enhancements to the MCTSs and OFTs are planned to arrive concurrently, if not slightly prior, to the delivery of the first aircraft with an upgraded cockpit or mission system in a given baseline configuration to allow for aircrew and ground personnel training and qualification.

PE 0305207F: *Manned Reconnaissance Systems*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0305208F *I Distributed Common Ground/Surface Systems*						
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	26.901	88.854	86.476	0.000	86.476	84.936	117.985	95.039	96.915	Continuing	Continuing
674826: *Common Imagery Ground / Surface Systems*	-	26.901	88.854	86.476	0.000	86.476	84.936	117.985	95.039	96.915	Continuing	Continuing

A. Mission Description and Budget Item Justification

Air Force Distributed Common Ground System (AF DCGS) (AN/GSQ-272) weapon system is the Combat Air Force (CAF)'s primary Command and Control, Intelligence, Surveillance, and Reconnaissance (C2ISR) node providing global orchestration, sense-making, indications & warning, and dissemination of a multitude of sensor data. The AF DCGS mission is to provide Joint Task Force (JTF) Commanders, Joint and Combined Air Component Commanders (JFACC/CFACC), Combatant Commands, and other-directed organizations with global, time-sensitive Intelligence, Surveillance and Reconnaissance (ISR) data and fused multi-Intelligence (Multi-INT) products across the spectrum of military operations. The AF DCGS weapon system provides capabilities required to connect, direct, and exploit sensors, as well as transform multi-source/multi-domain data into actionable intelligence to find, fix, and target adversary forces and enable simultaneous kill chains at the speed and scale of peer conflict. AF DCGS is also a major component of the DoD intelligence infrastructure and a key provider/consumer of the sensing grid and Joint All Domain Command and Control (C2) (JADC2) & Advanced Battle Management System (ABMS) efforts. AF DCGS enables ABMS and JADC2 success through its resilient architecture, survivable Command and Control (C2), robust communication capabilities, and rapid sensor integration to support the Combatant Commanders.

AF DCGS is a Multi-INT, federated weapon system capable of exploiting intelligence data from manned platforms, Remotely Piloted Aircraft (RPA), non-traditional ISR platforms, national and commercial satellites, and other collection systems. AF DCGS as the primary C2ISR node has access to a multitude of sensors and data across the Intelligence Community, to include Publicly Available Information (PAI). AF DCGS Analysts leverage Artificial Intelligence (AI)/Machine Learning (ML), Automation and Augmentation (AAA) technologies to focus their review/analysis of multi-source/multi-domain intelligence across the tactical/national sensor grid and within federated databases to enable target and problem centric, sensor-agnostic analysis and exploitation to address Joint operational requirements by providing a common means to provide intelligence to field commanders and in support of the Air Operations Center (AOC) and targeting mission requirements, and supports sensor to shooter and the kill chain across the full range of military operations. The DCGS analysts use all available data sources and emerging capabilities to enhance their understanding of intelligence/targeting problem sets and provide the required intelligence.

Currently, AF DCGS is composed of eight core sites (two active duty worldwide, three active duty regional and three Air National Guard regional), six SIGINT Distributed Mission Sites (four collocated with National Mission Partner sites), three Air National Guard full-motion video sites, and four integration and test sites connected by robust, resilient communications infrastructure, to support Near-Peer competition/contested environments. AF DCGS currently supports ongoing operations from forward deployed and in-garrison CONUS and OCONUS-based locations.

In alignment with DoD and AF direction, AF DCGS migrated to an open, resilient platform as a service architecture to rapidly incorporate modern technologies and tools, hybrid cloud capabilities, new/improved sensor capabilities, and mission applications to meet emerging and urgent operational needs. Additionally, DCGS conforms with USD(I&S)'s efforts to improve data sharing through its Common Data Fabric (CDF), as well as the Space Force's efforts with its Unified Data Library (UDL). AF

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305208F *I Distributed Common Ground/Surface Systems*

DCGS integrates services and applications from both commercial-off-the-shelf and government-off-the-shelf sources to the maximum extent possible to fulfill operational requirements and data sharing requirements across the DoD DCGS community.

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, and 0606398F. In FY23, $0.460M was expended for civilian pay expenses in this program element, and in FY24, $1.132M 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	26.901	88.854	43.312	0.000	43.312
Current President's Budget	26.901	88.854	86.476	0.000	86.476
Total Adjustments	0.000	0.000	43.164	0.000	43.164
• 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	43.164	0.000	43.164

Change Summary Explanation

In FY 2025, the increase of $42.989M is for the Air Force DCGS Program to improve the Hybrid Cloud capability for on-premise and commercial cloud access to data and applications.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7					**R-1 Program Element (Number/Name)** PE 0305208F / *Distributed Common Groun d/Surface Systems*				**Project (Number/Name)** 674826 / *Common Imagery Ground / Surface Systems*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
674826: *Common Imagery Ground / Surface Systems*	-	26.901	88.854	86.476	0.000	86.476	84.936	117.985	95.039	96.915	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Program management consists of four ACAT III efforts: GEOINT Transformation, SIGINT Transformation, Multi-Intelligence, and Network Infrastructure Transformation.
1. GEOINT Transformation-1: Rapidly integrates new and updated GEOINT capabilities, enables quick/seamless integration of new sensors, data types, sensor planning, and command and control (C2) capabilities into the platform as a service architecture. Leverages mission partner methods and tools to the maximum extent possible.
2. SIGINT Transformation-1: Rapidly integrates new and updated SIGINT capabilities, enables quick/seamless integration of new sensors, data types, sensor planning, command and control (C2), and data link visualization capabilities into the platform as a service architecture. Leverages mission partner methods and tools to the maximum extent possible.
3. Multi-Intelligence-1: Rapidly integrates new and updated enterprise applications to include voice and chat communications, collaboration, and situational awareness, Multi-INT fusion, and data analytics capabilities (to include Artificial Intelligence/Machine Learning AI/ML, Automation and Augmentation (AAA)). Also includes the Intelligent Modeling and Predictive Analysis of Cyberspace Targeting (IMPACT) program, which develops concepts, Tactics/Techniques/Procedures (TTPs) and technologies for synchronizing ISR and non-kinetic capabilities. Rapidly integrates new and updated data exchange and interoperability capabilities in support of USD(I&S)'s Common Data Fabric (CDF) and Space Force's Unified Data Library (UDL) Initiatives. Addresses program office test and evaluation activities.
4. Network Infrastructure Transformation-1: Continues to update the AF DCGS network transport and platform as a service (PaaS) architecture to a cyber-resilient, open, scalable, commercial-based, architecture, improving data ingest, transfer, and storage capabilities, collaboration, and content driven discovery. AF DCGS Platform as a Service (PaaS) consists of a mix of private on-premises and public commercial cloud architecture to meet mission-assured requirements. AF DCGS leverages Unclassified, Secret and Top Secret Air Force commercial cloud environments. Network infrastructure transformation also handles integration of ground line of sight capabilities supporting ISR airborne platform assets as well as ongoing/planned efforts to converge the Air Operations Center, DCGS and Targeting into a federated, digital infrastructure.

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, and 0606398F. In FY23, $0.460M was expended for civilian pay expenses in this program element, and in FY24, $1.132M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: GEOINT Transformation-1	7.423	23.699	21.535

PE 0305208F: *Distributed Common Ground/Surface System...*
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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305208F / *Distributed Common Groun d/Surface Systems*	**Project (Number/Name)** 674826 / *Common Imagery Ground / Surface Systems*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Rapidly integrates new and updated GEOINT capabilities, enables quick/seamless integration of new sensors, data types, sensor planning, and command and control (C2) capabilities into the platform as a service architecture . Leverages mission partner methods and tools to the maximum extent possible. *FY 2024 Plans:* - Continue to develop, integrate, test and field new and updated GEOINT sensor/sensor mode command and control (C2), mission planning (Enterprise Collection Planner), sensor management and operational capabilities - Continue to develop, integrate, test and field new and updated GEOINT-specific High Altitude (HA) and Full Motion Video (FMV) operational (workflow, exploitation, etc.) and management capabilities on DCGS private on-premises and/or public commercial cloud architecture (pilot efforts for commercial cloud) *FY 2025 Plans:* - Will continue to develop, integrate, test and field new and updated GEOINT sensor/sensor mode command and control (C2), mission planning (Enterprise Collection Planner), sensor management and operational capabilities - Will continue to develop, integrate, test and field new and updated GEOINT-specific High Altitude (HA) and Full Motion Video (FMV) operational (workflow, exploitation, etc.) and management capabilities on DCGS private on-premises and/or public commercial cloud architecture (pilot efforts for commercial cloud) *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased due to reduced development of High Altitude GEOINT operator exploitation and HA FMV capabilities in the Imagery Intelligence (IMINT) Agile Release Train (ART).			
Title: SIGINT Transformation-1 *Description:* Rapidly integrates new and updated SIGINT capabilities, enables quick/seamless integration of new sensors, data types, sensor planning, command and control (C2), and data link visualization capabilities into the platform as a service architecture. Leverages mission partner methods and tools to the maximum extent possible. *FY 2024 Plans:* - Continue to develop, integrate, test and field new and updated SIGINT sensor command and control (C2), mission planning, and sensor management operational capabilities - Continue to develop, integrate, test, and field new and updated SIGINT-specific operational (workflow and exploitation) and management capabilities on DCGS private on-premises and intelligence community cloud architecture, as well as integrate new data types into the SIGINT Sensor Data Ingest (SSDI) capability. *FY 2025 Plans:*	7.000	40.047	33.315

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305208F / *Distributed Common Groun d/Surface Systems*	**Project (Number/Name)** 674826 / *Common Imagery Ground / Surface Systems*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Will continue to develop,integrate, test and field new and updated SIGINT sensor command and control (C2), mission planning, and sensor management operational capabilities as well as sensor emulator capabilities - Will continue to develop, integrate, test, and field new and updated SIGINT-specific operational (workflow and exploitation) and management capabilities, data link situational awareness capabilities, on DCGS private on-premises and intelligence community cloud architecture, as well as integrate new data types into the SSDI capability. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to decreased development of SIGINT operator exploitation capabilities and sensor integration in the SIGINT Agile Release Train.			
Title: Multi-Intelligence-1 *Description:* Rapidly integrates new and updated enterprise applications to include voice and chat communications, collaboration, and situational awareness, Multi-INT fusion, and data analytics capabilities (to include Artificial Intelligence/ Machine Learning AI/ML, Automation and Augmentation (AAA)). Also includes the Intelligent Modeling and Predictive Analysis of Cyberspace Targeting (IMPACT) program, which develops concepts, Tactics/Techniques/Procedures (TTPs) and technologies for synchronizing ISR and non-kinetic capabilities. Rapidly integrates new and updated data exchange and interoperability capabilities in support of USD(I&S)'s Common Data Fabric (CDF) and Space Force's Unified Data Library (UDL) Initiatives. Addresses program office test and evaluation activities. ***FY 2024 Plans:*** - Continue to rapidly develop, integrate, test and field new and updated Multi-INT, AAA, and visualization/situational awareness capabilities on DCGS private on-premises and/or public commercial cloud architecture - Continue to rapidly develop, integrate, test and field IMPACT program capabilities - Continue to fund test support to complete developmental test events for operational capabilities ***FY 2025 Plans:*** - Will continue to rapidly develop, integrate, test and field new and updated Multi-INT, AAA, multi-INT fusion, and visualization/ situational awareness and data access capabilities on DCGS private on-premises and/or public commercial cloud architecture - Will continue to rapidly develop, integrate, test and field IMPACT program capabilities - Will continue to fund test support to complete developmental test events for operational capabilities ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to increased development of multi-INT AAA, fusion, situational awareness and data access operational capabilities.	12.278	15.478	16.666
Title: Network Infrastructure Transformation-1	0.200	9.630	14.960

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305208F / *Distributed Common Groun d/Surface Systems*	**Project (Number/Name)** 674826 / *Common Imagery Ground / Surface Systems*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Description: Continues to update the AF DCGS network transport and platform as a service (PaaS) architecture to a cyber-resilient, open, scalable, commercial-based, architecture, improving data ingest, transfer, and storage capabilities, collaboration, and content driven discovery. AF DCGS Platform as a Service (PaaS) consists of a mix of private on-premises and public commercial cloud architecture to meet mission-assured requirements. AF DCGS leverages Unclassified, Secret and Top Secret Air Force commercial cloud environments. Network infrastructure transformation also handles integration of ground line of sight capabilities supporting ISR airborne platform assets as well as ongoing/planned efforts to converge the Air Operations Center, DCGS and Targeting into a federated, digital infrastructure. *FY 2024 Plans:* - Continue to develop, integrate and test updates to the DCGS network transport, OA Platform as a Service (PaaS) on-premises and commercial cloud infrastructure, enterprise and core shared services, and line of site capability - Continue to integrate recurring cyber security patches and develop solutions to meet AF-mandated cyber security upgrades *FY 2025 Plans:* - Will continue to develop, integrate and test updates to the DCGS network transport, OA Platform as a Service (PaaS) on-premises and commercial cloud infrastructure, enterprise and core shared services and line of site capability - Will continue to integrate recurring cyber security patches and develop solutions to meet AF-mandated cyber security upgrades - Will continue to improve DevSecOps capabilities to support development, integration and test of enterprise services, core shared services, mission applications, and cyber security patches *FY 2024 to FY 2025 Increase/Decrease Statement:* Increase due to increased integration of additional core shared services as well as additional improvements to the development, security and integration environment.			
Accomplishments/Planned Programs Subtotals	26.901	88.854	86.476

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 04 Line Item, 846080: *DCGS-AF*	136.601	56.329	26.141	-	26.141	49.643	84.479	83.982	85.638	Continuing	Continuing

Remarks

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305208F / *Distributed Common Groun d/Surface Systems*	**Project (Number/Name)** 674826 / *Common Imagery Ground / Surface Systems*

D. Acquisition Strategy

AF DCGS acquisition strategy is to use approved lean and agile industry practices and leverage to the maximum extent possible commercial off the shelf, government off the shelf, and mission partner capabilities to continuously develop and field new and improved operational capabilities hosted on its open, hybrid cloud environment to meet mission requirements. Contracting strategy involves a combination of Basic Ordering Agreements (BOAs), Indefinite Delivery/Indefinite Quantity (IDIQ) contracts awarded to execute program funds and delivery/task orders are negotiated/awarded individually.

The program is managed as four ACAT III efforts: GEOINT Transformation, SIGINT Transformation, Multi-Intelligence, and Network Infrastructure Transformation.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0305208F / *Distributed Common Groun d/Surface Systems*					**Project (Number/Name)** 674826 / *Common Imagery Ground / Surface Systems*				

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
GEOINT Transformation-1	Various	Various : Various	-	6.870	Jan 2023	20.434	Jan 2024	18.955	Jan 2025	-		18.955	Continuing	Continuing	-
SIGINT Transformation-1	Various	Various : Various	-	6.000	Dec 2022	35.522	Dec 2023	30.000	Dec 2024	-		30.000	Continuing	Continuing	-
Multi-Intelligence-1	Various	Various : Various	-	6.623	Jan 2023	7.217	Jan 2024	8.653	Jan 2025	-		8.653	Continuing	Continuing	-
Network Infrastructure Transformation-1	Various	Various : Various	-	0.200	Jun 2023	8.601	Jan 2024	14.460	Jan 2025	-		14.460	Continuing	Continuing	-
Subtotal			-	19.693		71.774		72.068		-		72.068	Continuing	Continuing	N/A

Remarks
Note on "various" entries - Contract Method, Contract Type, Performing Activity, Target Value of Contract are entered as "various" because there are multiple projects within each upgrade and depending on the type of effort to be completed determines the contract vehicle to use. There is no way on this document to delineate the contracts that support each upgrade as they are numerous.

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Multi-Intelligence-1	Various	Various : Various	-	3.195	Jan 2023	4.826	Dec 2023	4.826	Dec 2024	-		4.826	Continuing	Continuing	-
DCA Positions	Various	Various : Various	-	0.460	Mar 2023	1.132	Oct 2023	1.132	Oct 2024	-		1.132	Continuing	Continuing	-
Subtotal			-	3.655		5.958		5.958		-		5.958	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
PMA	Various	Various : Various	-	3.553	Nov 2022	11.122	Nov 2023	8.450	Nov 2024	-		8.450	Continuing	Continuing	-
Subtotal			-	3.553		11.122		8.450		-		8.450	Continuing	Continuing	N/A

Remarks
Note on "various" entries - Contract Method, Contract Type, Performing Activity, Target Value of Contract are entered as "various" because there are multiple projects within in each upgrade and depending on the type of effort to be completed determines the contract vehicle to use. There is no way on this document to delineate the contracts that support each upgrade as they are numerous.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force								Date: March 2024	

| Appropriation/Budget Activity
3600 / 7 | | | | R-1 Program Element (Number/Name)
PE 0305208F / Distributed Common Groun d/Surface Systems | | | Project (Number/Name)
674826 / Common Imagery Ground / Surface Systems | | | |

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	26.901	88.854	86.476	-	86.476	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305208F / Distributed Common Groun d/Surface Systems	**Project (Number/Name)** 674826 / Common Imagery Ground / Surface Systems

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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

AF Distributed Ground Station

GEOINT Transformation Agile Release Train (ART) and Sensor Efforts

SIGINT Transformation ART and Sensor Efforts

Multi-INT Transformation Data Analytics IPT Efforts

Multi-INT Transformation : Intelligent Modeling and Predictive Analysis of Cyberspace Targeting (IMPACT)

Network Infrastructure Transformation: Transport, Open Architecture (PaaS/ Enterprise/Cored Shared Sys) and Commercial Cloud

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305208F / Distributed Common Ground/Surface Systems	Project (Number/Name) 674826 / Common Imagery Ground / Surface Systems	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
AF Distributed Ground Station				
GEOINT Transformation Agile Release Train (ART) and Sensor Efforts	1	2023	4	2029
SIGINT Transformation ART and Sensor Efforts	1	2023	4	2029
Multi-INT Transformation Data Analytics IPT Efforts	1	2023	4	2029
Multi-INT Transformation : Intelligent Modeling and Predictive Analysis of Cyberspace Targeting (IMPACT)	1	2023	4	2029
Network Infrastructure Transformation: Transport, Open Architecture (PaaS/Enterprise/ Cored Shared Sys) and Commercial Cloud	1	2023	4	2029

PE 0305208F: Distributed Common Ground/Surface System...
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0305220F *I RQ-4 UAV*						
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	0.000	36.791	1.242	9.516	0.000	9.516	0.000	0.000	0.000	0.000	0.000	47.549
675149: *RQ-4 Capability Enhancements*	0.000	36.791	1.242	9.516	0.000	9.516	0.000	0.000	0.000	0.000	0.000	47.549
Program MDAP/MAIS Code: 252												

A. Mission Description and Budget Item Justification

The RQ-4B Global Hawk is a high-altitude, long-endurance, all-weather, day/night Intelligence, Surveillance and Reconnaissance (ISR) platform delivering Synthetic Aperture Radar (SAR)-based Ground Moving Target Indicator (GMTI) capabilities to the warfighter.

To win high-end conflict, the future force design must deliver ISR capabilities and concepts of operation that can survive against peer/near-peer threats in highly contested environments. To accomplish this, in FY25 the USAF will focus its investment efforts on maximizing the Block 40's value to the DoD until divestiture. The RQ-4 will divest when space-based capabilities and Concept of Operations (CONOPS) become available and in place to meet Combatant Commanders' (CCMD) needs in accordance with the National Defense Strategy (NDS).

When judged feasible and affordable, this program will participate in operational testing, and implementation of international standards to enhance joint, allied, and coalition interoperability. Studies and activities may be initiated to further explore the utility of incorporating the emerging architectural standards such as the USAF Unmanned Aerial Systems (UAS) Command and Control Initiative (UCI) or the DoD's Unmanned Control Segment standards (UCS) and Open Mission Systems (OMS).

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 FY2023 4.200M was expended for civilian pay expenses in this program element. In FY2024, 0.100M is forecasted for civilian pay expenses in this program element.

This program element may include necessary emergent or unanticipated civilian pay expenses required to manage, execute, and deliver RQ-4 program 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 0605827F.

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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				**Date:** March 2024

Appropriation/Budget Activity	**R-1 Program Element (Number/Name)**
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	PE 0305220F *I RQ-4 UAV*

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	68.801	1.242	12.570	0.000	12.570
Current President's Budget	36.791	1.242	9.516	0.000	9.516
Total Adjustments	-32.010	0.000	-3.054	0.000	-3.054
• 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	-32.010	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	-3.054	0.000	-3.054

Change Summary Explanation

FY23 $32.010M excess due to Ground Segment Modernization Program (GSMP) termination, amount reprogrammed to support AF priorities.
FY25 $3.054M decrease due to maturing divestment profile and to support higher AF priorities.

PE 0305220F: *RQ-4 UAV*
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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0305220F *I* RQ-4 UAV				**Project (Number/Name)** 675149 *I* RQ-4 Capability Enhancements			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675149: *RQ-4 Capability Enhancements*	0.000	36.791	1.242	9.516	0.000	9.516	0.000	0.000	0.000	0.000	0.000	47.549
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Funding in this project supports design, development, integration, and testing of capabilities needed to maintain Block 40 capabilities and maximize system performance until divestment, including reliability and maintainability improvements. Funding also supports continuing aircraft airframe updates, aircraft operations surety, cybersecurity, information assurance, and mission critical repair of Government Furnished Equipment (GFE).

This project will include systems engineering/program management, configuration and data management, test and evaluation, management services, Deficiency Report (DR)/Military Intelligence Program (MIP) Investigations, studies and analysis and fielding support for RQ-4 aircraft and Ground Segment/Communication Systems while remaining compliant with DoD cybersecurity network requirements to operate in the DoD Information Network (DoDIN). This reflects contracting/acquisition strategy for these common elements within the Global Hawk program to provide efficiencies.

Activities include required airspace, interoperability and communication updates, periodic Operational Flight Program releases, airframe and software upgrades, sensor enhancements including data distribution and storage, enhancements to support multi-domain contested environment operations, Authority to Operate surety enhancements, and studies and analysis supporting system maintenance and divestment.

The RQ-4 program will maintain interoperability with system of systems partners and continue to incorporate applicable synergies with other platforms, other RPA weapon systems, and Processing, Exploitation & Dissemination (PED) elements. The networking capability for intelligence dissemination is required to provide the data transport interface between the Weapons System, Operations Centers, and external Intelligence Community customers.

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 FY2023 4.200M was expended for civilian pay expenses in this program element. In FY2024, 0.100M is forecasted for civilian pay expenses in this program element.

This program element may include necessary emergent or unanticipated civilian pay expenses required to manage, execute, and deliver RQ-4 program 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 0605827F.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025
Title: RQ-4 Ground Segment Modernization Program (GSMP)	2.524	0.000	0.000

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305220F *I RQ-4 UAV*	**Project (Number/Name)** 675149 *I RQ-4 Capability Enhancements*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Description: GSMP resolves fleet grounding DMS and obsolescence issues associated with ground segment equipment and provides critical warfighter capabilities such as building-based multi-aircraft control. It will also enhance interoperability data dissemination as well as provide training capability. Program was terminated in FY23, no funding in FY24 or FY25 *FY 2024 Plans:* N/A *FY 2025 Plans:* N/A			
Title: RQ-4 Infrastructure *Description:* RQ-4 Infrastructure includes system engineering, program management, and logistics support for all RQ-4 projects as well as safety of flight-related Operational Flight Program (OFP) updates and releases and Other Government Costs (OGC). *FY 2024 Plans:* -Supporting engineering efforts required to maintain RQ-4 operations. *FY 2025 Plans:* -Will continue to support engineering efforts required to maintain RQ-4 operations. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increase due to engineering support baselining, FY2024 was partially funded with FY2023 GSMP cancellation carryover. FY2025 returns to baseline funding needs.	34.267	1.242	9.516
Accomplishments/Planned Programs Subtotals	36.791	1.242	9.516

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 Line Item HAWK00: *RQ-4 Mods*	1.286	0.000	0.000	-	0.000	0.000	0.000	-	-	0.000	1.286
• APAF 07 Line Item RQ4DIS: *RQ-4 Post Production Support*	40.845	0.000	0.000	-	0.000	-	-	-	-	0.000	40.845

Remarks

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305220F *I RQ-4 UAV*	**Project (Number/Name)** 675149 *I RQ-4 Capability Enhancements*

D. Acquisition Strategy

The RQ-4 program uses an evolutionary acquisition strategy to provide the warfighter with a near-term combat capability with increased time-phased capability improvements as technology and risk achieve satisfactory levels. Northrop Grumman Corporation is the prime contractor developing and delivering the system to the warfighter. A suite of contract vehicles is used: primarily, Indefinite Delivery, Indefinite Quantity (IDIQ) contracts that cover development, system upgrade, production, retrofit, fielding, and sustainment efforts. The acquisition strategy will focus on supporting the Block 40 fleet until divestiture including contract closeout actions.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												Date: March 2024		
Appropriation/Budget Activity 3600 **/** 7				**R-1 Program Element (Number/Name)** PE 0305220F **/** RQ-4 UAV						**Project (Number/Name)** 675149 **/** RQ-4 Capability Enhancements				

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
RQ-4 Ground Segment Modernization Program (GSMP)	SS/CPIF	Northrop Grumman Integrated Systems : San Diego, CA	0.000	2.524	Aug 2023	-	-	-	-	-		-	0.000	2.524	414.785
RQ-4 Infrastructure	Various	Various : Various	0.000	22.827	Oct 2022	0.250	Dec 2023	0.250	Dec 2024	-		0.250	0.000	23.327	203.878
		Subtotal	0.000	25.351		0.250		0.250		-		0.250	0.000	25.851	N/A

Remarks
 Target Value of the RQ-4 EMD, IDIQ, Infrastructure and EPIC Contracts are not segregated by Budget Project Number.
 GSMP terminated 28 Sept 2022. No additional requirements in Budget Project Number 675147, RQ-4 Grnd Segment/Comm System

Support ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Non Prime Technical Support	Various	Various : Dayton, OH	0.000	0.500	Jan 2023	0.100	Jan 2024	0.200	Jan 2025	-		0.200	0.000	0.800	-
Direct Cite Authority Civilian Pay	TBD	Not specified. : TBD	0.000	4.205	Jan 2023	0.100	Jan 2024	1.200	Jan 2025	-		1.200	0.000	5.505	-
		Subtotal	0.000	4.705		0.200		1.400		-		1.400	0.000	6.305	N/A

Remarks
 Target Value of the RQ-4 effort is not segregated by Budget Project Number.

Test and Evaluation ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Flight Test & Evaluation	MIPR	412 TW : Edwards AFB, CA	0.000	3.139	Feb 2023	-		-		-		-	0.000	3.139	-
		Subtotal	0.000	3.139		-		-		-		-	0.000	3.139	N/A

Remarks
 Target Value of the RQ-4 effort is not segregated by Budget Project Number.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity 3600 *I* 7	R-1 Program Element (Number/Name) PE 0305220F *I* RQ-4 UAV	Project (Number/Name) 675149 *I* RQ-4 Capability Enhancements

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSC: A&AS	Various	Various : Dayton, OH	0.000	1.475	Apr 2023	0.100	Oct 2023	5.517	Oct 2024	-		5.517	0.000	7.092	-
PSC: Other Government Costs	Various	Various : Dayton, OH	0.000	2.121	Oct 2022	0.692	Oct 2023	2.349	Oct 2024	-		2.349	0.000	5.162	-
Subtotal			0.000	3.596		0.792		7.866		-		7.866	0.000	12.254	N/A

Remarks
 Target Value of the RQ-4 effort is not segregated by Budget Project Number.

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	36.791	1.242	9.516	-	9.516	0.000	47.549	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305220F *I RQ-4 UAV*	**Project (Number/Name)** 675149 *I RQ-4 Capability Enhancements*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
RQ-4 Capability Enhancement																												
RQ-4 Infrastructure	██	██	██	██	██	██	██																					
GSMP Development and Test	██	██	██																									

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305220F *I RQ-4 UAV*	**Project (Number/Name)** 675149 *I RQ-4 Capability Enhancements*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
RQ-4 Capability Enhancement				
RQ-4 Infrastructure	1	2023	4	2025
GSMP Development and Test	1	2023	4	2023

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0305221F *I Network-Centric Collaborative Targeting*							

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	17.564	12.496	8.952	0.000	8.952	9.095	9.283	9.619	9.807	Continuing	Continuing
675197: *NCCT Core Technology*	-	17.564	12.496	8.952	0.000	8.952	9.095	9.283	9.619	9.807	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Network Centric Collaborative Targeting (NCCT) is the Department of the Air Force's (DAF) program of record performing platform agnostic, tactical, cooperative geo-location against time sensitive targets. At its core, NCCT is a cloud-based, Joint, multi-intelligence (multi-INT) sensor network which provides the warfigher fused target locations and enables sensor command and control (C2) through machine-to-machine interfaces.

Operationally, NCCT is currently deployed on a variety of DAF aircraft, the DCGS, and other DoD assets. NCCT's utilization of intelligent sensor mesh networks, multi-INT fusion, and its cross-domain information sharing and sensor C2 are key contributions to the Sensing Grid's sensing, sense making, integration, and global orchestration thrusts.

NCCT research and development funding supports development of the NCCT message set, network management systems, and technology modernization specific to network and fusion architecture design. Development funds also support software modifications required for development and integration with new and emerging platforms, and incorporation of new data fusion algorithms while satisfying DoD standards and Information Assurance requirements.

Specifically, FY 2025 funding will be dedicated to no more than one major capability release and one minor release, which are planned to include the following capabilities: 1) integration with new and emerging platforms, 2) optimization of automation gained through synaptic intelligence-based AI/ML, 3) upgrading of fusion engines to leverage classified techniques, and 4) fielding of "NCCT Fusion Forward" with the RC-135 fleet.

FY 2024 funding is focused on continued cloud utilization, the testing and deployment of a new user interface with a modernized and automated front end and initiate a study to integrate publicly available information (PAI). Finally, FY 2024 funding will continue National to Tactical tip and cue integration, and complete airborne moving target indication (AMTI) to SIGINT data fusion algorithms, while preserving rapid software delivery based on continuous user feedback.

FY 2023 funding was dedicated to one major capability release, and two minor releases. These releases continued development of new and emerging multi-INT use cases, integration with additional platforms such as Over the Horizon Radar (OTH-R), Joint Interface Capabilities Document - ELINT (JEL) and USAF/RAAF E-7 Wedgetail. FY 2023 also started development of automation gained through synaptic intelligence-based AI/ML, "fusion on the edge" development with the RC-135 fleet, and preserved rapid software delivery capability based on continuous user feedback. Funding also continued cloud utilization efforts and initialized a User Interface modernization effort. Finally, FY 2023 funding continued development on airborne moving target indication (AMTI) to SIGINT data fusion algorithms, and supported rapid iteration across the enterprise with Joint All-Domain Command and Control (JADC2) platforms/systems, enabling the Air Force Sensing Grid.

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305221F *I Network-Centric Collaborative Targeting*

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2023 $0M was expended for civilian pay expenses in this program element, and in FY 2024 $0M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	17.564	12.496	8.936	0.000	8.936
Current President's Budget	17.564	12.496	8.952	0.000	8.952
Total Adjustments	0.000	0.000	0.016	0.000	0.016
• 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	0.016	0.000	0.016

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: Core Technology *Description:* Accomplishments and planned efforts include development and upgrade of NCCT; technical support to users, fielding new user capabilities, and management activities *FY 2024 Plans:* FY 2024 funding is dedicated to at least one major capability release and two minor releases, which are planned to include the following capabilities: - Integration with new and emerging platforms such as THRESHER & USAF/RAAF E-7 Wedgetail - Continued refinement of OTHR integration - Implementation of automation gained through synaptic intelligence-based AI/ML - Refine, through iterative development, NCCT's "Fusion Forward" capability with the RC-135 operational	17.564	12.496	8.952	0.000	8.952

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0305221F *I Network-Centric Collaborative Targeting*		

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
community at multiple test events and exercises. - Testing and initial deployment of a new user interface (UI) with a modernized and automated front end - Initiates a study to integrate publicly available information (PAI) - Continues National to Tactical tip and cue integration - Completes airborne moving target indication (AMTI) to SIGINT data fusion algorithms All while preserving rapid software delivery based on continuous user feedback. **FY 2025 Base Plans:** FY 2025 funding will be dedicated to one major capability release and one minor release, which are planned to include the following capabilities: - Will continue integration with new and emerging platforms - Will optimize automation gained through synaptic intelligence-based AI/ML - Will upgrade fusion engines to leverage classified techniques and inputs - Will field NCCT's "Fusion Forward" capability with the RC-135. Finally, FY 2025 funding will preserve rapid software delivery based on continuous user feedback and emerging requirements. **FY 2025 OCO Plans:** N/A **FY 2024 to FY 2025 Increase/Decrease Statement:** FY2025 funding was reduced to support higher AF priorities. FY2025 will continue FY2024 development areas at reduced capability deployment rates.					
Accomplishments/Planned Programs Subtotals	17.564	12.496	8.952	0.000	8.952

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 Line Item 832070: *Intelligence Comm Equipment*	1.889	3.405	2.838	-	2.838	3.472	3.601	3.679	3.752	Continuing	Continuing

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305221F *I Network-Centric Collaborative Targeting*	

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost

Remarks

E. Acquisition Strategy

The 645 AESG, Wright Patterson AFB OH, manages the Cost Plus Fixed Fee (CPFF) contracts used for the agile software development of NCCT Core Technology. 645 AESG will develop NCCT software on common hardware for systems and platforms designated to field this ISR capability. Individual platform program management offices may contract directly with their prime contractors or through the 645 AESG for integration of NCCT capabilities on their respective systems and platforms.

Due to the rapidly changing threat environment, NCCT's DevSecOps and Agile software processes, and operational demand from platforms leveraging NCCT capabilities, the acquisition program manager has the authority to redirect funding as necessary to meet currently stated and/or emerging/evolving/urgent operational requirements. Activities encompassed within PME upgrade may include, but not limited to, assembly, test and checkout; mission system upgrades, external communications upgrades, software development, systems engineering, and program support costs (PSC).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305221F / *Network-Centric Collaborative Targeting*	**Project (Number/Name)** 675197 / *NCCT Core Technology*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Core Technology Development (Agile)	SS/CPFF	L-3 ComCept : Rockwall, TX	-	9.328	Mar 2023	5.505	Oct 2023	5.000	Oct 2024	-		5.000	Continuing	Continuing	-
UI/UX development	SS/FFP	Anduril : Los Angeles, CA	-	4.000	Jun 2023	3.000	Jun 2024	2.134	Jun 2025	-		2.134	Continuing	Continuing	-
AI/ML Development	SS/Various	NaraLogics : Boston, MA	-	1.591	Aug 2023	1.300	Aug 2024	1.200	Aug 2025	-		1.200	Continuing	Continuing	-
Subtotal			-	14.919		9.805		8.334		-		8.334	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Cloud Hosting Services	Reqn	16th AF M2O : JBSAL, TX	-	1.052	Jul 2023	1.052	Jul 2024	-		-		-	Continuing	Continuing	-
Cloud Migration	SS/Various	CACI : Sarasota, FL	-	1.493	May 2023	1.539	May 2024	0.500	May 2025	-		0.500	Continuing	Continuing	-
Subtotal			-	2.545		2.591		0.500		-		0.500	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSC	Allot	645 AESG : Dayton, OH	-	0.100	Mar 2023	0.100	Mar 2024	0.118	Mar 2025	-		0.118	Continuing	Continuing	-
Subtotal			-	0.100		0.100		0.118		-		0.118	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	17.564	12.496	8.952	-	8.952	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305221F *I Network-Centric Collaborative Targeting*	**Project (Number/Name)** 675197 *I NCCT Core Technology*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
UI/UX Development																												
Lattice Operating System Integration																												
AI/ML Development																												
Synaptic Intelligence Platform Development & Integration																												
Core Development																												
Major Release - Capability Development, Test, Integration																												
Minor Release - Development, Test, Integration, Security Updates																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force				**Date:** March 2024
Appropriation/Budget Activity 3600 / 7		**R-1 Program Element (Number/Name)** PE 0305221F / Network-Centric Collaborative Targeting	**Project (Number/Name)** 675197 / NCCT Core Technology	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
UI/UX Development				
Lattice Operating System Integration	1	2023	4	2025
AI/ML Development				
Synaptic Intelligence Platform Development & Integration	1	2023	4	2029
Core Development				
Major Release - Capability Development, Test, Integration	1	2023	4	2029
Minor Release - Development, Test, Integration, Security Updates	1	2023	4	2029

PE 0305221F: *Network-Centric Collaborative Targeting*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0305238F *I NATO AGS*						
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	0.826	0.002	0.865	0.000	0.865	0.886	0.904	0.936	0.955	Continuing	Continuing
676001: *NATO AGS*	-	0.826	0.002	0.865	0.000	0.865	0.886	0.904	0.936	0.955	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

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A. Mission Description and Budget Item Justification

This program funds the U.S. support to the Alliance Ground Surveillance (AGS) system, a North Atlantic Treaty Organization (NATO) program. AGS is an airborne ground surveillance capability that provides continuous, wide area surveillance in all weather conditions. It provides NATO decision makers with near real time information and situational awareness concerning friendly, neutral and opposing ground and maritime forces to support mission planning and execution, including force protection and targeting. All NATO nations have access to AGS collection data, creating opportunities for burden sharing with the processing and exploitation of Intelligence, Surveillance, and Reconnaissance (ISR) data.

The AGS program includes both air and ground segments. The air segment consists of five (5) air vehicles based on unique exportable configurations of the United States Air Force Global Hawk air frame, Navy Triton command and control architecture and the U.S. Multi-Platform Radar Technology Insertion Program (MP-RTIP) radar. The U.S. integrated a new Maritime Moving Target and Inverse Synthetic Aperture Radar capability into the MP-RTIP radar for NATO AGS. The ground segment consists of fixed site and transportable/mobile ground stations for air vehicle Command and Control (C2), data exploitation and distribution. Operations and continuing In-Service Support is funded through the NATO Military Commanders' Capability Package within the NATO Security Investment Program (NSIP).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver NATO AGS. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In PY 24 $0.0M was expended for civilian pay expenses in this program element, and in CY 25 $0.0M 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0305238F *I NATO AGS*		

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.826	0.002	0.863	0.000	0.863
Current President's Budget	0.826	0.002	0.865	0.000	0.865
Total Adjustments	0.000	0.000	0.002	0.000	0.002
• 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	0.002	0.000	0.002

Change Summary Explanation
- N/A

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Design / Development of NATO Alliance Ground Surveillance (AGS)	0.200	0.001	0.000	0.000	0.000
Description: U.S. contribution to NATO for AGS development acquisition and initial fielding. Supports configuration changes at a system level and air vehicle exportability modifications.					
FY 2024 Plans: - Supports U.S. Government's contribution to NATO AGS Management Agency (NAGSMA) closeout costs.					
FY 2025 Base Plans: - N/A					
FY 2025 OCO Plans: - N/A					
FY 2024 to FY 2025 Increase/Decrease Statement: - In FY 2025 funding decreased due to completion of Design / Development of NATO AGS and NATO acquisition program office liquidation.					
Title: Technical Support for NATO Alliance Ground Surveillance (AGS)	0.626	0.001	0.865	0.000	0.865

PE 0305238F: *NATO AGS*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force				**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*				**R-1 Program Element (Number/Name)** PE 0305238F *I NATO AGS*		

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Description: Provide engineering and logistics support for NATO AGS deferred capabilities and obsolescence studies. *FY 2024 Plans:* - Continue studies, analysis, and support related to mission security and exportability. *FY 2025 Base Plans:* - Will continue studies, analysis, and support related to mission security and exportability. Will provide support for NATO AGS participation in NATO's UNIFIED VISION series. *FY 2025 OCO Plans:* - N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* - FY 25 funding increased due to recovery from prior year execution reduction.					
Accomplishments/Planned Programs Subtotals	0.826	0.002	0.865	0.000	0.865

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• RDTE 07 PE 0305220F: *RQ-4 UAV*	96.477	13.888	12.497	-	12.497	0.000	0.000	0.000	-	Continuing	Continuing

Remarks

E. Acquisition Strategy

Acquisition of the AGS system was accomplished via a single delivery strategy. The system was delivered via a fixed price direct commercial sale contract between Northrop Grumman Integrated System Sector International, Incorporated (NGISSII) & NATO, which was signed on 20 May 2012. The NATO acquisition program office closed out and liquidated in December 2023.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024		

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305238F / *NATO AGS*	**Project (Number/Name)** 676001 / *NATO AGS*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	Award Date	FY 2024 Cost	Award Date	FY 2025 Base Cost	Award Date	FY 2025 OCO Cost	Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NATO AGS Design / Development	SS/FFP	NATO AGS Management Agency : Brussels, Belgium	-	0.200	Dec 2022	0.001	Dec 2023	0.000		0.000		0.000	0.000	0.201	0.000
Subtotal			-	0.200		0.001		0.000		0.000		0.000	0.000	0.201	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	Award Date	FY 2024 Cost	Award Date	FY 2025 Base Cost	Award Date	FY 2025 OCO Cost	Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
NATO AGS Technical Support	SS/FFP	Multiple : WPAFB, OH	-	0.626	Dec 2022	0.001	Dec 2023	0.865	Dec 2025	0.000		0.865	Continuing	Continuing	0.863
Subtotal			-	0.626		0.001		0.865		0.000		0.865	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.826	0.002	0.865	0.000	0.865	Continuing	Continuing	N/A

Remarks
Provides engineering and logistics support for NATO AGS through studies and analysis.

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305238F / *NATO AGS*	**Project (Number/Name)** 676001 / *NATO AGS*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
NATO AGS																												
Design and Development - NATO AGS	████████████																											
FOC (November 2024)									██																			
Tech Support - NATO AGS	██																											

PE 0305238F: *NATO AGS*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305238F / *NATO AGS*	**Project (Number/Name)** 676001 / *NATO AGS*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
NATO AGS				
Design and Development - NATO AGS	1	2023	1	2024
FOC (November 2024)	1	2025	1	2025
Tech Support - NATO AGS	1	2023	4	2029

PE 0305238F: *NATO AGS*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0305240F *I Support to DCGS Enterprise*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	28.774	31.589	30.932	0.000	30.932	31.396	32.008	33.127	33.782	Continuing	Continuing
674826: *Common Imagery Ground / Surface Systems*	-	2.389	2.400	2.409	0.000	2.409	2.466	2.514	2.602	2.654	Continuing	Continuing
675265: *Common Imagery Processor (CIP)*	-	26.385	29.189	28.523	0.000	28.523	28.930	29.494	30.525	31.128	Continuing	Continuing

A. Mission Description and Budget Item Justification

This Program Element funds the Imagery Processing effort which consists of the Virtual Imagery Processing Capability (VIP-C) program and associated Imagery Processing Research and Development.

1) The Imagery Processing effort develops the Virtual Imagery Processing Capability (VIP-C) and the High Performance Compute (HPC) Environment within the Support to DCGS architecture. The VIP-C and HPC environment provides mission critical image processing capabilities to include raw data ingest, initial image formation, and data conditioning/normalization to optimize ISR data for exploitation by humans and machines, value-added algorithmic processing, and configurable analytic workflows. It also covers Machine Assisted Geospatial Intelligence (GEOINT) Exploitation (MAGE), which is a comprehensive program to employ advanced technologies, automation, and augmentation at speed and scale to close the gap between image collection and actionable intelligence. Current efforts are focused on enabling support for new sensors/data types and developing/ scaling core MAGE components.

2)The DCGS Enterprise Interoperability and Cyber Defense efforts provide support to the Office of the Under Secretary of Defense for Intelligence and Security (OUSD(I&S)), AF DCGS and NATO interoperability efforts. This includes the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.150M was expended for civilian pay expenses in this program element, and in FY24 $1.100M 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.

PE 0305240F: *Support to DCGS Enterprise*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0305240F *I Support to DCGS Enterprise*		
B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	28.774	31.589	30.878	0.000	30.878
Current President's Budget	28.774	31.589	30.932	0.000	30.932
Total Adjustments	0.000	0.000	0.054	0.000	0.054
• 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	0.054	0.000	0.054

PE 0305240F: *Support to DCGS Enterprise*
Air Force

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0305240F / *Support to DCGS Enterprise*				**Project (Number/Name)** 674826 / *Common Imagery Ground / Surface Systems*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
674826: *Common Imagery Ground / Surface Systems*	-	2.389	2.400	2.409	0.000	2.409	2.466	2.514	2.602	2.654	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This project element funds the Common Imagery Ground / Surface Systems enterprise support capabilities. This includes support to OUSD(I&S) and AF DCGS priority efforts.

The funding provides support to OUSD(I&S), AF DCGS and NATO interoperability efforts. This includes the development, testing, and implementation of international standards (to include NATO standardization agreements) to ensure joint, allied, and coalition interoperability.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: DCGS Enterprise Interoperability *Description:* Provide support to OUSD(I&S), AF DCGS and NATO Interoperability Enterprise efforts. *FY 2024 Plans:* Continue to support OUSD(I&S), AF DCGS and NATO Interoperability Enterprise efforts. *FY 2025 Plans:* Will continue to support OUSD(I&S), AF DCGS and NATO Interoperability Enterprise efforts. *FY 2024 to FY 2025 Increase/Decrease Statement:* Increase is an adjustment for inflation.	2.389	2.400	2.409
Accomplishments/Planned Programs Subtotals	2.389	2.400	2.409

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

D. Acquisition Strategy

The Air Force uses an incremental acquisition approach with development cycles and sprints to develop, field, and upgrade the system and structure contracts for the improved capabilities through full and open competition to the maximum extent possible.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												Date: March 2024		
Appropriation/Budget Activity 3600 / 7					**R-1 Program Element (Number/Name)** PE 0305240F / *Support to DCGS Enterprise*						**Project (Number/Name)** 674826 / *Common Imagery Ground /* *Surface Systems*			

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
DCGS Enterprise Interoperability	C/Various	Various : Various	-	2.389	Apr 2023	2.400	Apr 2024	2.409	Apr 2025	-		2.409	Continuing	Continuing	-
Subtotal			-	2.389		2.400		2.409		-		2.409	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	2.389		2.400		2.409		-		2.409	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305240F / *Support to DCGS Enterprise*	**Project (Number/Name)** 674826 / *Common Imagery Ground / Surface Systems*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
DCGS Enterprise Interoperability																												
Support to OUSD(I&S), AF DCGS and NATO Interoperability Enterprise	██																											

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305240F / *Support to DCGS Enterprise*	**Project (Number/Name)** 674826 / *Common Imagery Ground / Surface Systems*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
DCGS Enterprise Interoperability				
Support to OUSD(I&S), AF DCGS and NATO Interoperability Enterprise	1	2023	4	2029

PE 0305240F: *Support to DCGS Enterprise*
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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0305240F / *Support to DCGS Enterprise*					**Project (Number/Name)** 675265 / *Common Imagery Processor (CIP)*			

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675265: *Common Imagery Processor (CIP)*	-	26.385	29.189	28.523	0.000	28.523	28.930	29.494	30.525	31.128	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Imagery Processing effort develops the Virtual Imagery Processing Capability (VIP-C) within the DCGS architecture. VIP-C accepts airborne imagery data, processes it into an exploitable format, and provides it to other elements within the weapon system and/or the DCGS Enterprise. Current efforts include further developing the virtual software capability to improve processing across the enterprise and testing, development, and demonstrations integrating updated and new/ emerging sensors into DCGS. In addition, the project involves improving the Machine Assisted Geospatial Intelligence (GEOINT) Exploitation (MAGE) capability to employ advanced technologies, automation, and augmentation at speed and scale to close the gap between image collection and actionable intelligence.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23, $0.150M was expended for civilian pay expenses in this program element, and in FY24, $1.100 M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Imagery Processor *Description:* Continue developing VIP-C to keep pace with growing sensor baseline and enhance imagery data quality. *FY 2024 Plans:* Continue to upgrade and improve VIP-C to enable better geo-coordinate accuracy, facilitate automated intelligence discovery and integrate new algorithms. This includes developing and integrating into a Cloud infrastructure and improving cyber defense. Continue to refine and scale foundational components and begin developing more advanced technologies (e.g. automated site monitoring, explainable AI/ML, adversarial attack detection/mitigation, etc.). Integration of these advanced technologies will prove critical in a high-end fight. *FY 2025 Plans:* Will continue to upgrade and improve VIP-C to enable better geo-coordinate accuracy, facilitate automated intelligence discovery and integrate new algorithms. This includes developing and integrating into a Cloud infrastructure and improving cyber defense.	26.385	29.189	28.523

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305240F *I Support to DCGS Enterprise*	**Project (Number/Name)** 675265 *I Common Imagery Processor (CIP)*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Will continue to refine and scale foundational components and begin developing more advanced technologies (e.g. automated site monitoring, explainable AI/ML, adversarial attack detection/mitigation, etc.). Integration of these advanced technologies will prove critical in a high-end fight. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to requirements moving into sustainment			
Accomplishments/Planned Programs Subtotals	26.385	29.189	28.523

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 04 Line Item 846080: *DCGS-AF*	79.742	73.326	33.310	-	33.310	29.837	30.951	31.609	32.236	Continuing	Continuing

Remarks

D. Acquisition Strategy

For imagery processing capabilities, the Air Force uses an incremental acquisition approach with development cycles and spirals to develop, field, and upgrade the system. Contracts are structured for full and open competition to the maximum extent possible. Additionally, strategic partnerships and agreements with National Laboratories and other agencies are utilized.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force													**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7							**R-1 Program Element (Number/Name)** PE 0305240F *I Support to DCGS Enterprise*						**Project (Number/Name)** 675265 *I Common Imagery Processor (CIP)*		

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Imagery Processing Software Development	Various	Various : Various	-	26.235	Dec 2022	28.089	Oct 2023	27.423	Oct 2024	-		27.423	Continuing	Continuing	-
		Subtotal	-	26.235		28.089		27.423		-		27.423	Continuing	Continuing	N/A

Support ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Direct Cite Authority Civilian Pay	C/CPAF	Not specified. : TBD	-	0.150	Dec 2022	1.100	Dec 2023	1.100	Dec 2024	-		1.100	Continuing	Continuing	-
		Subtotal	-	0.150		1.100		1.100		-		1.100	Continuing	Continuing	N/A

		Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
	Project Cost Totals	-	26.385		29.189		28.523		-		28.523	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305240F / *Support to DCGS Enterprise*	**Project (Number/Name)** 675265 / *Common Imagery Processor (CIP)*

PE 0305240F: *Support to DCGS Enterprise*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305240F *I Support to DCGS Enterprise*	**Project (Number/Name)** 675265 *I Common Imagery Processor (CIP)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
VIP-C/ MAGE				
Machine Assisted GEOINT Exploitation Capability Development	1	2023	4	2029
SW Release 3.68	1	2023	1	2023
SW Release 3x consists of 2-3 fieldings throughout FY24	1	2024	1	2025
SW Release 3x consists of 2-3 fieldings throughout FY25	1	2025	1	2026
SW Release 3x consists of 2-3 fieldings throughout FY26	1	2026	1	2027
SW release 3x consists of 2-3 fieldings throughout FY27	1	2027	1	2028
SW release 3x consists of 2-3 fieldings throughout FY28	1	2028	1	2028
SW release 3x consists of 2-3 fieldings throughout FY29	1	2029	4	2029

PE 0305240F: *Support to DCGS Enterprise*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0305600F *I International Intelligence Technology and Architectures*							

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	25.036	15.322	18.670	0.000	18.670	19.009	19.367	20.009	20.373	Continuing	Continuing
675898: *International Intelligence Technology and Arc*	-	25.036	15.322	18.670	0.000	18.670	19.009	19.367	20.009	20.373	Continuing	Continuing

A. Mission Description and Budget Item Justification

International Intelligence Technology and Architectures oversees, manages, and provides the United States (US) component of the multi-national Battlefield Information Collection and Exploitation System (US BICES) with a collaborative environment and intelligence sharing enterprise required for processing and disseminating critical intelligence information between and among US, North Atlantic Treaty Organization (NATO), allied and coalition forces. The US BICES program procures and maintains a standing intelligence information sharing capability across Department of Defense (DoD), Combat Support Agencies, and multiple Combatant Commands (CCMD) for the Under Secretary of Defense, Intelligence (USD (I)). At the request of USD (I), US BICES is extended beyond U.S. European Command (USEUCOM) into all CCMDs and is known as US BICES Extended (US BICES-X). US BICES provides an "enduring" US and Coalition interoperable intelligence sharing multi-level secure technical architecture utilizing releasable elements of the Defense Intelligence Information Enterprise (DI2E) framework and functions to support the full spectrum of intelligence operations and dissemination throughout the DoD community. Also, it enables instantiation of US BICES/BICES-X as the intelligence contribution to the Mission Partner Environment (MPE).

Research and Development funding will:
- Provide increased intelligence information sharing capabilities in support of US and coalition forces utilizing the US BICES and NATO virtual networks within all theaters of operations and provide increased database information via Distributed Common Ground System - Army.
- Provide an increase in intelligence disciplines (Imagery Intelligence, Signal Intelligence, and potential Human Intelligence) in support of US and Allied/Coalition forces that currently is very limited to the warfighter. Increased intelligence advanced analytics tools will be migrated from Joint Intelligence Operation Center-IT and DI2E developments and will significantly increase the timeliness of intelligence and bring US BICES/NATO Special Operations Forces Headquarters/NATO Intelligence Fusion Center capabilities into the current technology baselines.
- Developing and providing a federated Trusted Network Environment (TNE) that incorporates the Asian Pacific intelligence Information Network being developed to support the National Defense Strategy as we transition into the Pacific.
- Provide multi-level security intelligence bi-laterals and multi-laterals to meet Combatant Commander Integrated Priority Lists.
- Developing the Coalition Partner Network for CENTCOM, the Coalition Information Exchange Network for SOUTHCOM, and the Coalition Partner Network for EUCOM and AFRICOM.
- Developing the US BICES connections with these bi-lateral and multi-lateral federated TNEs that make up the US BICES-X Enterprise Network in support of Commander SOCOM requirements for conventional and coalition operations.
-Continue developing the Trusted Network Environment (TNE) Enterprise Cross Domain Solution (ECDS) that connects 65+ network,85+ partner nations and 69+ Communities of interest (COI) within four operational TNE installation.

PE 0305600F: *International Intelligence Technology an...*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305600F *I International Intelligence Technology and Architectures*

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0.0M was expended for civilian pay expenses in this program element and in FY24 0.0M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	25.036	15.322	17.047	0.000	17.047
Current President's Budget	25.036	15.322	18.670	0.000	18.670
Total Adjustments	0.000	0.000	1.623	0.000	1.623
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	1.623	0.000	1.623

Change Summary Explanation

FY2025 change due to internal realignment.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0305600F *I International Intelligence Technology and Architectures*				**Project (Number/Name)** 675898 *I International Intelligence Technology and Arc*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675898: *International Intelligence Technology and Arc*	-	25.036	15.322	18.670	0.000	18.670	19.009	19.367	20.009	20.373	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

International Intelligence Technology and Architectures (IITA) oversees, manages, and provides the United States (US) component of the multi-national US Battlefield Information Collection and Exploitation Systems - Extended (US BICES-X). The continued development effort of IITA will provide a collaborative environment and intelligence sharing enterprise required for processing and disseminating critical intelligence information across Department of Defense (DoD), Combat Support Agencies (CSA), North Atlantic Treaty Organization (NATO), allied and coalition forces and multiple Combatant Commands (CCMD) for the Office of the Under Secretary of Defense, Intelligence and Security (OUSD(I&S)).

The US BICES RDT&E activities include the following:
1) Assessing new and existing intelligence sharing technologies being developed within DoD and the intelligence community.
2) Defining which technologies can significantly advance intelligence sharing capabilities of US and Allied/Coalition forces.
3) Integrating technologies into the current US BICES-X enterprise and emerging US international intelligence architectures and systems consistent with the Defense Intelligence Information Enterprise (DI2E) framework and Mission Partner Environment (MPE) supporting global operations.
4) US BICES-X responds to CCMDs and military services to develop solutions for enhanced intelligence information sharing capabilities and provisions US BICES-X equipment to US and allied/partner location. IITA is assessing potential impacts of new intelligence architectures to support the CCMDs and services. The IITA program also includes the DoD intelligence document exploitation system (Harmony), Multi-Domain Dissemination System of Joint Worldwide Intelligence Communications System (JWICS), Secure Internet Protocol Router Network (SIPRNET) access to US BICES, and Full Motion Video (FMV).

Research and Development funding will:
- Provide increased intelligence information sharing capabilities in support of US and coalition forces utilizing the US BICES and NATO virtual networks and provide increased database information via Distributed Common Ground System Family of Systems.
- Expand available intelligence disciplines (Geospatial Intelligence, Signal Intelligence, and potentially Human Intelligence) to support US and allied/coalition forces.
- Support increased intelligence advanced analytics tools, Joint Intelligence Operation Center-IT and DI2E developments to significantly improve the timeliness of intelligence and bring US BICES/NATO Special Operations Forces Headquarters/NATO Intelligence Fusion Center capabilities into the current technology baselines.
- Develop and enhance a federated Trusted Network Environment (TNE) that incorporates Foreign Partner information sharing networks globally to support the National Defense Strategy.
- Develop multi-level security intelligence bi-laterals and multi-laterals to meet Combatant Commander Integrated Priority Lists.
- Expand capabilities for bi-lateral and multi-lateral federated TNEs in support of CCMD requirements.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0305600F I *International Intelligence Technology and Architectures*	**Project (Number/Name)** 675898 I *International Intelligence Technology and Arc*

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.00M was expended for civilian pay expenses in this program element, and in FY24 $0.00M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: International Intelligence Technology and Architectures	15.036	15.322	18.670
Description: Research and development in emerging and maturing technologies and capabilities for modernizing and transforming US BICES/US BICES-X for improved agility, scalability, access, cybersecurity, and data and information sharing tools and infrastructure. *FY 2024 Plans:* To develop US BICES-X capabilities to include integration of TNE into the MPE, and development and testing of coalition ISR coalition capabilities. These efforts will enable the modernization and transformation of the US BICES/BICES-X worldwide enterprise to enable instantiation or interconnection of any partner network to support any operation. *FY 2025 Plans:* Continuing to develop US BICES-X capabilities including further integration of TNE into the MPE, and development and testing of coalition ISR coalition capabilities. These efforts will enable the modernization and transformation of the US BICES/BICES-X worldwide enterprise to enable instantiation or interconnection of any partner network to support any operation *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increase due to Combatant Command (US DoD) changing requirements.			
Title: FY 2023 Congressional Add	10.000	0.000	-
Description: Congressional add in FY2023 to fund Low-power High Frequency (HF) multi-function communications / PNT (Positioning, Navigation and Timing) *FY 2024 Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* N/A			
Accomplishments/Planned Programs Subtotals	25.036	15.322	18.670

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force									Date: March 2024	

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305600F / International Intelligence Technology and Architectures	Project (Number/Name) 675898 / International Intelligence Technology and Arc

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• O&M BA 01 PE 0305600F: *International Intelligence Technology and Architecture*	138.462	139.134	136.249	-	136.249	140.155	142.772	145.628	148.552	Continuing	Continuing
• OPAF 03 Line item 832050: *International Intelligence Technology and Architecture*	7.043	5.393	5.611	-	5.611	5.842	6.025	6.134	6.237	Continuing	Continuing

Remarks

D. Acquisition Strategy

Utilize existing General Dynamics Mission Systems (GDMS) contract number FA8240-18-D-0360. The contract is structured as an Indefinite Delivery Indefinite Quantity (IDIQ) contract with a period of performance beginning 1 April 2018 through 31 March 2024. US BICES also utilizes the Air Force Research Laboratory as required for all third-party lab-based security assessments of TNE upgrade releases.

This work will continue beyond the end of the current contract. An acquisition effort is started and a follow-on contract will be in place prior to the 31 March 2024 end date for the current contract period of performance.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											Date: March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0305600F / *International Intelligence Technology and Architectures*					**Project (Number/Name)** 675898 / *International Intelligence Technology and Arc*		

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
TNE Development	Various	AFRL, GDMS AZ, TX : Rome, NY	-	15.036	Feb 2023	15.322	Feb 2024	18.670	Feb 2025	-		18.670	Continuing	Continuing	-
Low Power HF/ PNT	C/Various	AFRL, GDMS AZ, TX : Rome, NY	-	10.000	Jul 2023	-		-		-		-	Continuing	Continuing	-
		Subtotal	-	25.036		15.322		18.670		-		18.670	Continuing	Continuing	N/A

			Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
		Project Cost Totals	-	25.036		15.322		18.670		-		18.670	Continuing	Continuing	N/A

Remarks
 N/A

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305600F / *International Intelligence Technology and Architectures*	**Project (Number/Name)** 675898 / *International Intelligence Technology and Arc*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Trusted Network Environment Software Version 5.0 features cloud-based implementation and virtualized connection methods, and updates to FMV																												
TNE																												
Low-power High Frequency (HF) / PNT (Positioning, Navigation and Timing)																												
PNT																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0305600F / *International Intelligence Technology and Architectures*	**Project (Number/Name)** 675898 / *International Intelligence Technology and Arc*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Trusted Network Environment Software Version 5.0 features cloud-based implementation and virtualized connection methods, and updates to FMV				
TNE	3	2023	4	2029
Low-power High Frequency (HF) / PNT (Positioning, Navigation and Timing)				
PNT	4	2023	4	2024

Note
 GAL - Global Address List
 OS - Operating System
 VDI - Virtual Desktop Infrastructure
 VoIP - Voice of IP
 UX - User Experience
 FMV - Full Motion Video
 HD/VTC - High Definition / Video Teleconferencing

PE 0305600F: *International Intelligence Technology an...*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305881F *I Rapid Cyber Acquisition*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	3.636	8.830	0.000	0.000	0.000	0.000	0.000	0.000	10.746	0.000	23.212
670374: *Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt*	-	3.636	8.830	0.000	0.000	0.000	0.000	0.000	0.000	10.746	0.000	23.212
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2025, PE 0305881F, (Rapid Cyber Acquisition), Project 670374, (Electronic Combat Support C3 Protection/Multi-Mission, Technology and Support) efforts were transferred to PE 0208087F, (Distributed Cyber Warfare Operations), Project 674543, (AF Offensive Cyber Operations), in order to consolidate Air Force Offensive Cyber development.

A. Mission Description and Budget Item Justification

The Rapid Cyber Acquisition (RCA) initiative is a materiel (hardware, software, and tool development) and non-materiel (technical support) effort to enable delivery of new cyber capabilities at the pace of warfighting relevance. Combatant and Joint Force Commanders require up-to-date, tailored cyber capabilities to win in the highly-dynamic cyberspace domain.

The RCA initiative expedites cyber development and modifications of USAF cyber capabilities through integration with and technical support to other Service and Government Agency activities to leverage select Air Force-developed technologies and/or operational capabilities. RCA provides for rapid development of materiel and non-materiel cyber solutions necessary to conduct rapid prototyping, integration, and transition activities of cyber capabilities. Activities include but are not limited to development of software/hardware systems, integration and transition of lab-developed cyber capabilities, developmental testing, operational evaluation, manpower, studies, analysis, pilots, demonstrations, and risk reduction efforts for emerging technologies.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M is forecasted for civilian pay expenses in this program element.

The FY24 funding request increased $5.733 million due to mission infrastructure and emerging technology efforts and the associated acquisition costs.

The FY24 funding request was reduced by $0.642 million to account for the availability of prior year execution balances.

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.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0305881F *I Rapid Cyber Acquisition*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	3.739	8.830	9.705	0.000	9.705
Current President's Budget	3.636	8.830	0.000	0.000	0.000
Total Adjustments	-0.103	0.000	-9.705	0.000	-9.705
• 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	-0.103	0.000			
• Other Adjustments	0.000	0.000	-9.705	0.000	-9.705

Change Summary Explanation

In FY 2025, PE 0305881F, (Rapid Cyber Acquisition), Project 670374, (Electronic Combat Support C3 Protection/Multi-Mission, Technology and Support) efforts were transferred to PE 0208087F, (Distributed Cyber Warfare Operations), Project 674543, (AF Offensive Cyber Operations), in order to consolidate Air Force Offensive Cyber development.

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: Rapid Cyber Acquisition (RCA)	3.636	8.830	0.000	0.000	0.000
Description: Effort utilizes hardware, software, and technical support services to deliver the tools and environments required to perform rapid prototyping, integration, and transition activities for cyber capabilities, enabling quick reaction fielding of up-to-date capabilities required by Combatant and Joint Force Commanders. *FY 2024 Plans:* - Continue to maintain and execute multidisciplinary targeting, target systems analysis, and developmental planning capabilities in support of the USAF cyber mission - Continue to utilize developed solutions to plan standardized environments, add hardware-in-the-Loop capabilities, deploy to edge devices, and build an authoritative pipeline solution to meet cyber operator requirements - Continue to host and facilitate skilled cyberweapon development teams to prototype and deliver capabilities, and perform quick look operational and technical assessments					

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0305881F *I Rapid Cyber Acquisition*		

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
- Continue to research, develop, test, and deliver new features to improve new and existing cyber warfare capabilities ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreases due to transfer of PE 0305881F, (Rapid Cyber Acquisition), Project 670374, (Electronic Combat Support C3 Protection/Multi-Mission, Technology and Support) efforts to PE 0208087F, (Distributed Cyber Warfare Operations), Project 674543, (AF Offensive Cyber Operations).					
Accomplishments/Planned Programs Subtotals	3.636	8.830	0.000	0.000	0.000

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 The Rapid Cyber Acquisition (RCA) initiative utilizes a tailorable acquisition strategy that facilitates rapid delivery of material and nonmaterial solutions to solve operational cyber equirements. This approach allows flexibility for solutions to enter the acquisitions process at any phase of the acquisition life cycle. RCA provides the rapid development environment and secure DevOps capacity to meet urgent operational needs/requirements.

PE 0305881F: *Rapid Cyber Acquisition*
Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force														**Date:** March 2024		

Appropriation/Budget Activity 3600 *I* 7	R-1 Program Element (Number/Name) PE 0305881F *I Rapid Cyber Acquisition*	Project (Number/Name) 670374 *I Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Rapid Cyber Acquisition Development	Various	Various : Various	-	3.636	Nov 2022	8.830	Mar 2024	-		-		-	0.000	12.466	12.466
Subtotal			-	3.636		8.830		-		-		-	0.000	12.466	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	3.636	8.830	-	-	-	0.000	12.466	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305881F *I Rapid Cyber Acquisition*	**Project (Number/Name)** 670374 *I Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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 Cyber Acquisition																												
RCA Activities	███				███																							

PE 0305881F: *Rapid Cyber Acquisition*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305881F *I Rapid Cyber Acquisition*	**Project (Number/Name)** 670374 *I Electronic Combat Spt, C3 Protection/Multi-Mission, Technology and Spt*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Rapid Cyber Acquisition				
RCA Activities	1	2023	4	2024

PE 0305881F: *Rapid Cyber Acquisition*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	

| Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I BA 7:*
Operational Systems Development | | | | | R-1 Program Element (Number/Name)
PE 0305984F *I Personnel Recovery Command & Ctrl (PRC2)* | | | | | | | |

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	3.123	2.764	2.831	0.000	2.831	2.901	2.960	3.068	3.129	Continuing	Continuing
675221: *Personnel Recovery Command and Control (PRC2)*	-	3.123	2.764	2.831	0.000	2.831	2.901	2.960	3.068	3.129	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This budget line funds the Personnel Recovery Command and Control (PRC2) program, which develops and delivers tools and services for planning, collaborating and managing search and rescue efforts, as well as disseminating related information to all personnel recovery (PR) mission coordinators across the PR network. PRC2 provides an adaptive and networked system, delivering timely situational awareness information supporting personnel accountability and recovery mission management worldwide. PRC2 delivers a globally accessible, collaborative, interoperable and integrated set of capabilities to prevent, prepare for and respond to joint/coalition military personnel recovery activities, and civilian rescue missions. The Joint Personnel Recovery (JPR) Initial Capability Document (ICD) (2012) articulates capabilities needed for PRC2. Personnel Recover Mission Manager (PRMM) 3.1 continues to develop using Agile Development, Security and Operations (DevSecOps). Annex A to the PRMM 3.1 is the requirement document for improvements until Full Operational Capability (FOC) criteria is achieved.

The system collects, stores and delivers personnel/identity biometric data, emergency locator beacon registrations, Isolated Personnel (IP) reports, evasion plans of action, incident reports and other information management capabilities. The information is used for predictive, preventive and personnel vulnerability analysis and assessment in support of PR across the Department of Defense and other national and international entities. Activities also include studies and analysis to support both current program planning and execution, as well as future program planning.

In FY25, PRMM 3.1 modifications will continue to use an Agile DevSecOps strategy to develop and test capability in two-week increments (sprints) after fielding Configuration Control Board (CCB) approval from Major Command (MAJCOM). The modifications will improve/validate IP events/alerts and enable case files for Defense Prisoner of War/Missing Personnel Office (DPMO) and Joint Personnel Recovery Agency (JPRA). PRMM 3.1 modifications will reflect the requirements and priorities identified by Air Combat Command (ACC) as the personnel recovery environment evolves to meet the needs of the warfighter and personnel recovery efforts.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY23, $0.000M was expended for civilian pay expenses in this program element, and in FY24 $0.000M 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.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0305984F *I Personnel Recovery Command & Ctrl (PRC2)*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	2.702	2.764	2.825	0.000	2.825
Current President's Budget	3.123	2.764	2.831	0.000	2.831
Total Adjustments	0.421	0.000	0.006	0.000	0.006
• 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	0.421	0.000	0.006	0.000	0.006

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: PRC2 - PRMM Development	2.923	2.539	2.581
Description: PRC2 will use an Agile DevSecOps strategy to test and field tools and services for planning and managing search and rescue efforts, and disseminate the related information for personnel recovery. *FY 2024 Plans:* PRC2 PRMM development support with FY24 funding included the following: - Modifications to PRMM 3.1 using Agile DevSecOps in two-week increments - Increase automation to shorten reporting timeline for Isolated Person (IP) events and locator beacon alerts - Improve architecture to include code structure, performance, and stability - Integrate with National Geospatial-Intelligence Agency's (NGA) Map of the World to improve geospatial tracking - Increase interfaces with Combat Survivor Evader Locator (CSEL) Common Distress Reporting Systems (CDRS) - Review opportunities to utilize commercial cloud service providers for cost/schedule/performance to fit better with other PR enterprise tools - Integrate with Theater Battle Management Core Systems (TBMCS) to pull Air Tasking Orders - Improve human-machine interface based on feedback from the personnel recovery community - Increase secure communications paths to recovery coordinators and recovery team - Establish pathway to zero trust architecture that secures PII and PHI material *FY 2025 Plans:* - Will continue development of modifications to PRMM 3.1 using Agile DevSecOps in two-week increments - Will continue to increase automation to shorten reporting timeline for IP events and locator beacon alerts			

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305984F *I Personnel Recovery Command & Ctrl (PRC2)*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Will continue to integrate with NGA's Map of the World to improve geospatial tracking - Will continue to increase interfaces with CSEL CDRS - Will continue to integrate with TBMCS to pull Air Tasking Orders - Will continue to improve architecture to include code structure, performance, and stability - Will increase capabilities to include the Mission Execution Tool and the PR 15-Line Execution Brief Redesign - Will review opportunities to utilize commercial cloud service providers for cost/schedule/performance to fit better with other PR enterprise tools - Will continue to work application programming interfaces (API) with other government agencies to interface required and future inputs/outputs ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased to account for inflation adjustments.			
Title: PRC2 - PRMM Test and Evaluation ***Description:*** Test and Evaluation ***FY 2024 Plans:*** Testing and Evaluation of PRMM 3.1.X.X Versions: - Internal testing through CI/CD pipeline to comply with ATO - Functional Testing - Cyber Security Testing - Developmental Testing - Operational Testing ***FY 2025 Plans:*** Will continue Testing and Evaluation of PRMM 3.1.X.X Versions: - Internal testing through CI/CD pipeline to comply with ATO - Functional Testing - Cyber Security Testing - Developmental Testing - Operational Testing ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased to account for inflation adjustments.	0.200	0.225	0.250
Accomplishments/Planned Programs Subtotals	3.123	2.764	2.831

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force									**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0305984F *I Personnel Recovery Command & Ctrl (PRC2)*

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 834520: *Theater Battle Mgt C2 System*	0.275	0.000	0.433	-	0.433	0.443	0.458	0.468	0.477	Continuing	Continuing

Remarks

E. Acquisition Strategy

PRC2 product support is provided to the program office by the 517th Software Engineering Squadron (517 SWES), Hill AFB, UT, in accordance with a memorandum of agreement and on a fee-for-service basis. This strategy to utilize the 517 SWES for agile product development and sustainment was reviewed and approved by the Air Force Program Executive Officer (PEO) for Digital and implemented in mid-FY 2014. The work done by the 517 SWES includes, but is not limited to, modernization development, sustainment support services, and software maintenance of the PRC2 system.

Program management for the PRC2 program is under direction of PEO Digital, located at Hanscom AFB, MA. The Air Force Life Cycle Management Center (AFLCMC) located at Hill AFB, UT is the contracting authority for the PRC2 program. AFLCMC provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													Date: March 2024	
Appropriation/Budget Activity 3600 / 7					**R-1 Program Element (Number/Name)** PE 0305984F / *Personnel Recovery Command & Ctrl (PRC2)*					**Project (Number/Name)** 675221 / *Personnel Recovery Command and Control (PRC2)*				

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PRC2 - PRMM Agile Software Development	PO	Ogden ALC : Hill AFB, UT	-	2.923	Dec 2022	2.544	Dec 2023	2.581	Dec 2024	-		2.581	0.000	8.048	-
		Subtotal	-	2.923		2.544		2.581		-		2.581	0.000	8.048	N/A

Test and Evaluation ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total		
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PRC2 - PRMM Test and Evaluation	PO	45th Test Squadron : Eglin AFB, FL	-	0.200	Dec 2022	0.220	Dec 2023	0.250	Dec 2024	-		0.250	0.000	0.670	-
		Subtotal	-	0.200		0.220		0.250		-		0.250	0.000	0.670	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	3.123	2.764	2.831	-	2.831	0.000	8.718	N/A

Remarks

PE 0305984F: *Personnel Recovery Command & Ctrl (PRC2)*
Air Force

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305984F *I Personnel Recovery Command & Ctrl (PRC2)*	**Project (Number/Name)** 675221 *I Personnel Recovery Command and Control (PRC2)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
PRC2 Software Development																												
PRMM Software Development																												
PRC2 Test																												
PRMM Testing																												

PE 0305984F: *Personnel Recovery Command & Ctrl (PRC2)*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0305984F *I Personnel Recovery Command & Ctrl (PRC2)*	**Project (Number/Name)** 675221 *I Personnel Recovery Command and Control (PRC2)*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
PRC2 Software Development				
PRMM Software Development	1	2023	4	2029
PRC2 Test				
PRMM Testing	1	2023	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0307577F *I Intelligence Mission Data (IMD)*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	6.332	7.090	3.658	0.000	3.658	3.743	3.816	3.949	4.028	Continuing	Continuing
675306: *Analysis Enterprise*	-	6.332	7.090	3.658	0.000	3.658	3.743	3.816	3.949	4.028	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Product Development
IMD Production Tools Development Contract Type : *Contract Type are primarily Time and Material with some Firm Fixed Price.

A. Mission Description and Budget Item Justification

Intelligence Mission Data efforts in BPAC 675306 fund RDT&E to enable Advanced Non-cooperative Target Recognition [NCTR] collection, Operational Reconnaissance and traditional ELINT capabilities, advanced all-source analysis and production of IMD across EWIR, C&P, M&S, and Signatures to inform acquisition efforts, enable combat ID and ensure survivability for air superiority and global strike platforms.

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. In FY2023 $0 was expended for civilian pay expenses in this program element, and in FY2024 $0 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	6.332	7.090	3.651	0.000	3.651
Current President's Budget	6.332	7.090	3.658	0.000	3.658
Total Adjustments	0.000	0.000	0.007	0.000	0.007
• 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	0.007	0.000	0.007

PE 0307577F: *Intelligence Mission Data (IMD)*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			Date: March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0307577F *I Intelligence Mission Data (IMD)*		

Change Summary Explanation

Decrease in RDT&E to support higher Air Force priorities. Decrease in funding will slow the production of IMD tools, databases, and modeling and simulation.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: IMD Production Tools	6.332	7.090	3.658
Description: Creation of automated tools to process data and develop improved analysis, production, and dissemination tools to support centralized data warehousing & data discover-ability enabling streamlined rapid reprogramming for operational & acquisition end users. *FY 2024 Plans:* Continue development of automated tools. *FY 2025 Plans:* Continue development of automated tools. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased to support higher Air Force priorities.			
Accomplishments/Planned Programs Subtotals	6.332	7.090	3.658

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 030577F: *Intelligence Mission Data*	0.000	0.000	-	-	-	-	-	-	-	Continuing	Continuing

Remarks

E. Acquisition Strategy

Contract type and strategy will be assessed each year; however, it is anticipated that there will be a mix of contract types.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		**Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0307577F / Intelligence Mission Data (I MD)	Project (Number/Name) 675306 / Analysis Enterprise

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	TBD	AFMC : WPAFB, OH	-	-		-		-		-		-	Continuing	Continuing	-
IMD Production Tools Development	Various	NASIC : WPAFB, OH	-	6.332	Feb 2023	7.090	Feb 2024	3.658	Feb 2025	-		3.658	Continuing	Continuing	-
		Subtotal	-	6.332		7.090		3.658		-		3.658	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	6.332	7.090	3.658	-	3.658	Continuing	Continuing	N/A

Remarks
Contract award is expected 90 days after budget authority for FY25.

PE 0307577F: Intelligence Mission Data (IMD)
Air Force

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0307577F / *Intelligence Mission Data (IMD)*	**Project (Number/Name)** 675306 / *Analysis Enterprise*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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

NCTR and IMD Tool Development

SIGINT/EWIR Tools Development

SIGNATURE Tool Development

C&P Tool Development

M&S Tool Development

PE 0307577F: *Intelligence Mission Data (IMD)*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0307577F / *Intelligence Mission Data (I MD)*	**Project (Number/Name)** 675306 / *Analysis Enterprise*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
NCTR and IMD Tool Development				
SIGINT/EWIR Tools Development	1	2023	4	2028
SIGNATURE Tool Development	1	2023	4	2028
C&P Tool Development	1	2023	4	2028
M&S Tool Development	1	2023	4	2028

PE 0307577F: *Intelligence Mission Data (IMD)*
Air Force

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| Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force | | | | | | | | | | | Date: March 2024 | |

Appropriation/Budget Activity	R-1 Program Element (Number/Name)
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	PE 0401115F *I C-130 Airlift Squadron*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.392	5.427	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.819
675250: *C-130H Avionics Modernization Program (AMP) Increment 2*	-	0.392	5.427	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.819

A. Mission Description and Budget Item Justification

The C-130H is a medium sized tactical transport aircraft providing multi-purpose theater support throughout the globe. The C-130H fleet supports several diverse Air Force roles, including but not limited to tactical and inter-theater airlift and airdrop support, Arctic resupply, special operations support, aeromedical evacuation, aerial spraying, firefighting duties, and natural disaster and humanitarian relief missions.

Previous funding provides weapon system modifications and upgrades to meet USAF mission requirements for the LC/C-130H fleets.

C-130H AMP Increment 2 includes digital avionics upgrades (e.g. Flight Management System, improved navigation), cockpit modernization (e.g. glass/engine flight displays) and resolves select obsolescence and Diminishing Manufacturing Source (DMS) issues. RDT&E efforts cover software development, design, integration, developmental and operational test, studies and risk reduction efforts, trial kit buy and installation, technical order development validation and verification, spares and peculiar support equipment in support of trial kit installs, Systems Integration Laboratory (SIL) development, type 1 training and C-130H aircrew and maintenance training systems and courseware development efforts, program office support and other efforts necessary to fulfill program requirements. Project 672030, MUOS/SATURN, is now included in project 675250, AMP Increment 2. The MUOS/SATURN radio addresses future DMS/integration issues and incorporates MUOS/SATURN capabilities.

The AMP Increment 2 program experienced significant software development and flight test planning issues in FY 2022. These issues led to the program being rebaselined; Milestone C is now planned for March 2025.

This funding includes Rapid Global Mobility (RGM) platform related activities including but not limited to prototyping, capability development, process activities, planning analysis and systems engineering activities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY 2023 $0.000 million was expended for civilian pay expenses in this program element, and in FY 2024 $0.000 million is forecast 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.

PE 0401115F: *C-130 Airlift Squadron*
Air Force
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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401115F *I C-130 Airlift Squadron*	

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	0.407	5.427	0.000	0.000	0.000
Current President's Budget	0.392	5.427	0.000	0.000	0.000
Total Adjustments	-0.015	0.000	0.000	0.000	0.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.015	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

PE 0401115F: *C-130 Airlift Squadron*
Air Force

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024	
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0401115F / C-130 Airlift Squadron					**Project (Number/Name)** 675250 / C-130H Avionics Modernization Program (AMP) Increment 2		

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675250: *C-130H Avionics Modernization Program (AMP) Increment 2*	-	0.392	5.427	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	5.819
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The C-130H AMP Increment 2 upgrades the C-130H fleet with comprehensive avionics and cockpit modernization which replaces aging unreliable equipment and adds combat capability enhancements. It also updates radios due to future Diminishing Manufacturing Sources (DMS)/integration issues and incorporates MUOS/SATURN radio capabilities. It also addresses select obsolescence and DMS issues with solutions that may include life of type buys or bridge buys. DMS efforts to include removal of end-of-life software/hardware within simulators systems and move to a modular, common open system architecture that is sustainable and cyber-resilient. Implement requirements and standards defined under the Simulator Common Architecture Requirements and Standards (SCARS) initiative.

Previous funding provides weapon system modifications and upgrades to meet USAF mission requirements for the LC/C-130H fleets.

RDT&E efforts include but are not limited to software development, design, integration, development and operational test, studies and risk reduction efforts, trial kit buy and installation, technical order development validation and verification, peculiar support equipment and spares in support of trial kit installs, SIL development, type 1 training, and C-130H aircrew and maintenance training systems and courseware development efforts, program office support and other efforts required to fulfill requirements. Project 672030, MUOS/SATURN, is now included in project 675250, AMP Increment 2. The MUOS/SATURN radio addresses future DMS/integration issues and incorporates MUOS/SATURN capabilities.

The C-130H AMP Increment 2 program modifies up to 80 C-130H USAF owned aircraft consisting of H3s, H2.5s, H2s, and LC-130H aircraft. The modification effort includes three prototype aircraft representative of variations in the mission designs and required for accomplishment of the Engineering and Manufacturing Development (EMD) phase with the remaining aircraft modified in the production phase.

The program experienced significant software development and flight test planning issues in FY 2022. These issues led to the program being rebaselined; Milestone C is now planned for March 2025.

This funding includes Rapid Global Mobility (RGM) platform related activities including but not limited to prototyping, capability development, process activities, planning analysis and systems engineering activities.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0401115F *I* C-130 Airlift Squadron	**Project (Number/Name)** 675250 *I* C-130H Avionics Modernization Program (AMP) Increment 2

and 0606398F. In FY2023, $0.000 million was expended for civilian pay expenses in this program element, and in FY2024 $0.000 is forecast for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: C-130H Avionics Modernization Program (AMP) Increment 2	0.392	5.427	0.000
Description: The program is currently executing the Engineering and Manufacturing Development (EMD) phase activities. *FY 2024 Plans:* Complete EMD activities, primarily related to development and operational test completion and weapon system trainer and courseware completion. Other remaining actions may include but are not limited to Joint Mission Planning System and other supporting system updates, studies and risk reduction efforts, technical order development validation and verification, SIL activities, type 1 training, and other efforts. Required to fulfill program requirements. *FY 2025 Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased due to completion of AMP Inc 2 EMD.			
Accomplishments/Planned Programs Subtotals	0.392	5.427	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 Line Item C13000: *C-130*	165.703	71.177	102.519	-	102.519	148.348	113.742	63.564	74.658	Continuing	Continuing
• APAF 06 Line Item 000999: *Initial Spares/Repair Parts*	0.000	0.695	3.871	-	3.871	3.213	3.317	3.386	-	Continuing	Continuing

Remarks
None

D. Acquisition Strategy

C-130H AMP Increment 2 contract was awarded 3rd quarter of 2019. Current efforts are primarily focused on the Engineering and Manufacturing Development (EMD) activities under a Fixed-Price Incentive (Firm) contract structure.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024	

Appropriation/Budget Activity 3600 I 7	R-1 Program Element (Number/Name) PE 0401115F I C-130 Airlift Squadron	Project (Number/Name) 675250 I C-130H Avionics Modernization Program (AMP) Increment 2

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C-130H AMP Increment 2 EMD Contract	C/FPIF	L3Harris : Waco, TX	-	0.392	Jun 2023	4.427	Apr 2024	-		-		-	0.000	4.819	91.739
Subtotal			-	0.392		4.427		-		-		-	0.000	4.819	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Other Government Costs	TBD	Not specified. : TBD	-	-		0.100	May 2024	-		-		-	0.000	0.100	3.777
Direct Cite Civilian Pay	C/CPAF	Not specified. : TBD	-	-		-		-		-		-	0.000	0.000	0.960
Subtotal			-	-		0.100		-		-		-	0.000	0.100	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C-130H AMP Increment 2 PSC Contractor Services	Various	Not Specified : TBD	-	-		-		-		-		-	0.000	0.000	14.238
C-130H AMP Increment 2 PSC - Government Cost	Various	Not Specified : TBD	-	-		0.900	Feb 2024	-		-		-	0.000	0.900	0.773
Subtotal			-	-		0.900		-		-		-	0.000	0.900	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	0.392	5.427	-	-	-	0.000	5.819	N/A

Remarks

FINANCIAL PERFORMANCE: AMP Increment 2 is evaluated against traditional Research and Development (R&D) program expenditure benchmarks. Unlike many traditional R&D programs, however, the AMP Increment 2 EMD phase contract is an Fixed Price Incentive Fee (FPIF) contract with progress payments. Twenty percent (20%) 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 health.

PE 0401115F: C-130 Airlift Squadron
Air Force

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0401115F I C-130 Airlift Squadron	**Project (Number/Name)** 675250 I C-130H Avionics Modernization Program (AMP) Increment 2

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
C-130H AMP Increment 2																												
Development Testing - Phase 1				███	███	███																						
Development Testing - Phase 2									██																			
Milestone C									██																			

PE 0401115F: *C-130 Airlift Squadron*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0401115F *I* C-130 Airlift Squadron	**Project (Number/Name)** 675250 *I* C-130H Avionics Modernization Program (AMP) Increment 2

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
C-130H AMP Increment 2				
Development Testing - Phase 1	4	2023	4	2024
Development Testing - Phase 2	1	2025	1	2025
Milestone C	2	2025	2	2025

PE 0401115F: *C-130 Airlift Squadron*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity					R-1 Program Element (Number/Name)							
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					PE 0401119F *I C-5 Airlift Squadrons (IF)*							

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	3.095	29.502	33.003	0.000	33.003	51.939	19.737	50.032	68.031	0.000	255.339
671307: *C-5 REPLACE MULTIFUNCT CONTROL AND DISPLAY (RMCD)*	-	3.095	26.502	32.800	0.000	32.800	32.925	0.000	0.000	0.000	0.000	95.322
671308: *C-5 Modernization Efforts*	-	0.000	3.000	0.203	0.000	0.203	19.014	19.737	50.032	68.031	0.000	160.017

Note

This program, BA 7, PE 0401119F, project 671308, C-5 Modernization Efforts, is a new start.

A. Mission Description and Budget Item Justification

The C-5M carries outsized and heavy cargo (tanks, helicopters, etc.) between main operating bases. Additionally, the aircraft is capable of carrying 73 troops and 36 standard 463-L pallets. There are 52 C-5 aircraft in the Air Force fleet. The fleet was delivered to the Air Force between 1969 and 1989. Initial service life for the aircraft was 30,000 flight hours. Service life is extended out to 2040 as a result of the reliability enhancement and re-engining program (RERP) modification. C-5M RDT&E efforts are the C-5M Replace Multi-functional Controls and Display (RMCD) program and C-5 Modernization.

RMCD is a modification to mitigate the obsolescence of the current control and display units.

C-5 Modernization is to develop future solutions for needed upgrades to combat obsolescence, safety of flight, and reliability/availability/maintainability issues to include but not limited to Mobile User Objective System (MUOS) Antenna upgrades, Second Generation Anti-Jam Tactical UHF Radio for NATO (SATURN), and viability improvement initiatives. Modernization upgrades include a new family of system aircraft concepts to provide U.S. forces with an improved radio resistant to jamming through fast-frequency hopping and digital modulation techniques to ensure integrate and accomplish rapid cargo delivery, survivability, and connectivity to assure Joint partner delivery in contested environments.

Efforts will include initial capabilities studies and analysis, risk reduction efforts, and studies and analysis to address Diminishing Manufacturing Sources (DMS).

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2023 $0.000 million was expended for civilian pay expenses in this program element, and in FY 2024 $0.000 million is forecast 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.

PE 0401119F: *C-5 Airlift Squadrons (IF)*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0401119F *I C-5 Airlift Squadrons (IF)*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	3.100	29.502	33.612	0.000	33.612
Current President's Budget	3.095	29.502	33.003	0.000	33.003
Total Adjustments	-0.005	0.000	-0.609	0.000	-0.609
• 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	-0.005	0.000			
• Other Adjustments	0.000	0.000	-0.609	0.000	-0.609

Change Summary Explanation

The FY 2025 funding request was reduced by $0.667 million to account for the availability of prior year execution balances.

PE 0401119F: *C-5 Airlift Squadrons (IF)*
Air Force

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600 I 7				**R-1 Program Element (Number/Name)** PE 0401119F I C-5 Airlift Squadrons (IF)				**Project (Number/Name)** 671307 I C-5 REPLACE MULTIFUNCT CONTROL AND DISPLAY (RMCD)				
COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
671307: *C-5 REPLACE MULTIFUNCT CONTROL AND DISPLAY (RMCD)*	-	3.095	26.502	32.800	0.000	32.800	32.925	0.000	0.000	0.000	0.000	95.322
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The C-5M Replace Multi-functional Controls and Display (RMCD) program is a modification to mitigate the obsolescence of the current control and display units. The RMCD program is also a comprehensive effort to ensure appropriate RMCD Line Replaceable Units (LRU) are developed and installed on the C-5M allowing aircraft operation in accordance with civil airspace access mandates for both US National Airspace System (NAS) and international civil airspace.

This effort centers on modifying the current display units to support legacy inputs and integration of new system capabilities with margin for growth by upgrading displays power solution. Use of mixed displays (current and new) is not permissible due to obsolescence and human factors considerations.

This modification may include software development, data, cyber security, testing, installation, spares, Systems Integration Lab (SIL), prototypes, and other program support activities. Funding may be used to address Diminishing Manufacturing Sources (DMS). The modification helps to maintain aircraft availability as the new multi-functional controls and displays replaces the current controls and displays. Funding supports studies and analysis, risk reduction efforts, Advisory and Assistance Services (A&AS), program support costs, change orders, and other government costs such as travel, directorate support, government furnished equipment (GFE), and over and above costs.

Current RMCD funding required for development activities through FY 2027. Initial procurement funds not required until FY 2026.

During FY 2023, the program completed the following milestones: Hardware Critical Design Review, Software Preliminary Design Review, and Milestone B.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY 2023 $0.000M was expended for civilian pay expenses in this program element, and in FY 2024 $0.000M is forecast for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: C-5 Replace Multi-Functional Controls and Display	3.095	26.502	32.800
Description: Replace Multi-Functional Controls and Display will enable the C-5M to achieve wartime mission requirements by maintaining fleet availability (mission capable rate).			

PE 0401119F: *C-5 Airlift Squadrons (IF)*
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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0401119F *I C-5 Airlift Squadrons (IF)*	**Project (Number/Name)** 671307 *I C-5 REPLACE MULTIFUNCT CONTROL AND DISPLAY (RMCD)*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
FY 2024 Plans: EMD activities to include but not limited to software development, data, cyber security, testing, installation, spares, Systems Integration Lab (SIL), prototypes, and other program support activities. Continue hardware and engineering development activities to deliver Engineering Units for Displays and Graphics Processor Units.			
FY 2025 Plans: Continue EMD activities to include but not limited to software development, data, cyber security, testing, installation, spares, Systems Integration Lab (SIL), prototypes, and other program support activities. Continue hardware and engineering development activities to deliver Engineering Units for Displays, testing within System Integration Lab and Graphics Processor Units.			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding increased due to a full year (12 months) of EMD efforts.			
Accomplishments/Planned Programs Subtotals	3.095	26.502	32.800

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 Line Item C00500: *C-5 Mods*	17.533	27.637	45.361	-	45.361	32.417	33.153	33.843	-	38.980	228.924
• APAF 06 Line Item C00500: *Initial Spares*	1.269	2.053	3.166	-	3.166	0.000	0.000	0.000	-	0.000	6.488
• APAF 05 Line Item C00500 (2)...: *Training PE 0401897F*	3.633	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	3.633
• APAF 07 Line Item C00500: *Post Production Support*	18.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	18.000

Remarks

D. Acquisition Strategy

Program Acquisition Strategy Panel (ASP) approved program's acquisition strategy on 4 Apr 20. This strategy approved executing an Other Transaction Authority (OTA) contract to procure proof of concept hardware for test/analysis, award a Sole Source EMD contract to Lockheed Martin Aerospace for system software and hardware tech insertion, system integration, data management, systems engineering, logistics, test and training to modify 2 aircraft. At completion of EMD, the program would move into Milestone C for LRIP and production to follow.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0401119F *I C-5 Airlift Squadrons (IF)*	**Project (Number/Name)** 671307 *I C-5 REPLACE MULTIFUNCT CONTROL AND DISPLAY (RMCD)*

Delta ASP #1 to add risk reduction for hardware development and contractor software development oversight/metrics to use Agile development processes approved 08 Oct 20.

Delta ASP #2 to exercise OT Hardware Amendment 1 approved 17 Dec 21.

Delta ASP #3 approved 12 May 22 to align EMD contractor requirements based on limited funding in FY23/24 and to update software development strategy.

Delta ASP #4 approved 29 Sep 23 to restructure EMD contractor requirements and include increased scope based on limited funding in FY23/24

PE 0401119F: *C-5 Airlift Squadrons (IF)*
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0401119F / C-5 Airlift Squadrons (IF)	Project (Number/Name) 671307 / C-5 REPLACE MULTIFUNCT CONTROL AND DISPLAY (RMCD)

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Integration Contract	SS/CPIF	Lockheed Martin : Marietta, GA	-	-		15.559	Jan 2024	18.000	Jan 2025	-		18.000	0.000	33.559	-
Phase 0 / Integration Contract	SS/CPIF	Lockheed Martin : Marietta, GA	-	3.095	Mar 2023	-		-		-		-	0.000	3.095	-
Other Transaction Authority (OTA)	SS/FP	SOSSEC, Inc : Salem, NH	-	-		4.985	Jan 2024	-		-		-	0.000	4.985	-
		Subtotal	-	3.095		20.544		18.000		-		18.000	0.000	41.639	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSC-OGCs	Various	WPAFB/RobinsAFB : TBD	-	-		2.542	Apr 2024	5.600	Apr 2025	-		5.600	0.000	8.142	-
		Subtotal	-	-		2.542		5.600		-		5.600	0.000	8.142	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Contractor Test	PO	AFLCMC/WLS : Robins AFB, GA	-	-		2.200	Jan 2024	5.000	Jan 2025	-		5.000	0.000	7.200	-
SIL	MIPR	AFMC 578 SWES/ MXDPAA : Robins AFB, GA	-	-		1.216	Jan 2024	4.200	Jan 2025	-		4.200	0.000	5.416	-
		Subtotal	-	-		3.416		9.200		-		9.200	0.000	12.616	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	3.095	26.502	32.800	-	32.800	0.000	62.397	N/A

PE 0401119F: *C-5 Airlift Squadrons (IF)*
Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force								Date: March 2024	
Appropriation/Budget Activity 3600 *I* 7			**R-1 Program Element (Number/Name)** PE 0401119F *I* C-5 Airlift Squadrons (IF)			**Project (Number/Name)** 671307 *I* C-5 REPLACE MULTIFUNCT CONTROL AND DISPLAY (RMCD)			

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Remarks									

PE 0401119F: *C-5 Airlift Squadrons (IF)*
Air Force

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0401119F *I C-5 Airlift Squadrons (IF)*	**Project (Number/Name)** 671307 *I C-5 REPLACE MULTIFUNCT CONTROL AND DISPLAY (RMCD)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Replace Multi-Functional Control & Display																												
Phase 0 / Integration Contract																												
PDR																												
Milestone B																												
EMD																												
SIL Testing																												
CDR																												
Developmental Test																												
Milestone C																												

PE 0401119F: *C-5 Airlift Squadrons (IF)*
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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0401119F I *C-5 Airlift Squadrons (IF)*	**Project (Number/Name)** 671307 I *C-5 REPLACE MULTIFUNCT CONTROL AND DISPLAY (RMCD)*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Replace Multi-Functional Control & Display				
Phase 0 / Integration Contract	1	2023	4	2026
PDR	2	2023	2	2023
Milestone B	3	2023	3	2023
EMD	3	2023	4	2026
SIL Testing	1	2024	3	2025
CDR	4	2024	4	2024
Developmental Test	4	2025	1	2026
Milestone C	4	2026	4	2026

PE 0401119F: *C-5 Airlift Squadrons (IF)*
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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0401119F / *C-5 Airlift Squadrons (IF)*				**Project (Number/Name)** 671308 / *C-5 Modernization Efforts*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
671308: *C-5 Modernization Efforts*	-	0.000	3.000	0.203	0.000	0.203	19.014	19.737	50.032	68.031	0.000	160.017
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note
 This program, BA 7, PE 0401119F, project 671308, C-5 Modernization Efforts, is a new start.

A. Mission Description and Budget Item Justification
 The C-5 Modernization Efforts will develop future solutions for needed upgrades to combat obsolescence, safety of flight, and reliability/availability/maintainability issues to include but not limited to Mobile User Objective System (MUOS) Antenna upgrades, Second Generation Anti-Jam Tactical UHF Radio for NATO (SATURN), and viability improvement initiatives. The modernization upgrades include a new family of aircraft system concepts to provide U.S. forces with an improved radio resistant to jamming through fast-frequency hopping and digital modulation techniques. Efforts will also include initial capabilities studies and analysis, risk reduction efforts, and studies and analysis to address Diminishing Manufacturing Sources (DMS).

 C-5 Modernization Efforts may include but not limited to studies and analyses, risk reduction efforts, and software development, Mobile User Objective System (MUOS) Antenna upgrades, Second Generation Anti-Jam Tactical UHF Radio for NATO (SATURN), and viability improvement initiatives. Upon completion, the Next Generation Airlift (NGAL) initial capability studies will determine requirements and technologies available to support the next generation airlift family of systems to integrate and accomplish rapid cargo delivery, survivability, and connectivity to assure Joint partner delivery in contested environments.

 This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY 2023 $0.000 million and in FY 2024 $0.000 million was expended for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Next Generation Airlift (NGAL)	0.000	3.000	0.000
Description: Initial Study of Capabilities			
FY 2024 Plans: Funding supports initial capability studies for the Next Generation Airlift (NGAL).			
FY 2025 Plans: N/A			
FY 2024 to FY 2025 Increase/Decrease Statement:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7		**R-1 Program Element (Number/Name)** PE 0401119F / *C-5 Airlift Squadrons (IF)*		**Project (Number/Name)** 671308 / *C-5 Modernization Efforts*	
B. Accomplishments/Planned Programs ($ in Millions)			**FY 2023**	**FY 2024**	**FY 2025**
Funding decreased due to ramp down of initial capabilities studies.					
Title: C-5 Modernization Efforts			-	0.000	0.203
Description: C-5 modernization efforts to include but not limited to Mobile User Objective System (MUOS) Antenna upgrades, Second Generation Anti-Jam Tactical UHF Radio for NATO (SATURN), and viability improvement initiatives. The upgrade to SATURN will provide U.S. forces with an improved radio resistant to jamming through fast-frequency hopping and digital modulation techniques. *FY 2024 Plans:* N/A *FY 2025 Plans:* Initial planning for C-5 communications upgrades to include but not limited to Second Generation Anti-Jam Tactical Ultra-High Frequency Radio (SATURN). *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased to support initial studies and planning for C-5 modernization efforts.					
		Accomplishments/Planned Programs Subtotals	0.000	3.000	0.203

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

D. Acquisition Strategy
 The acquisition strategies for NGAL and individual C-5 modernization efforts will be informed and determined by the recommendations and results from the initial capabilities studies.

PE 0401119F: *C-5 Airlift Squadrons (IF)*
Air Force

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024		

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401119F / C-5 Airlift Squadrons (IF)	**Project (Number/Name)** 671308 / C-5 Modernization Efforts

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Studies	PO	FFRDC Study : TBD	-	-		3.000	Nov 2023	-		-		-	Continuing	Continuing	-
		Subtotal	-	-		3.000		-		-		-	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Support Costs	C/TBD	Not specified. : TBD	-	-		-		0.203	May 2025	-		0.203	Continuing	Continuing	-
		Subtotal	-	-		-		0.203		-		0.203	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	3.000	0.203	-	0.203	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024

| Appropriation/Budget Activity
3600 / 7 | R-1 Program Element (Number/Name)
PE 0401119F / C-5 Airlift Squadrons (IF) | Project (Number/Name)
671308 / C-5 Modernization Efforts |

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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 Generation Airlift

Studies & Analysis

C-5 Modernization

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0401119F *I* C-5 Airlift Squadrons (IF)	**Project (Number/Name)** 671308 *I* C-5 Modernization Efforts	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Next Generation Airlift				
Studies & Analysis	3	2024	2	2025
C-5 Modernization	3	2025	4	2029

PE 0401119F: *C-5 Airlift Squadrons (IF)*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* I BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0401130F I *C-17 Aircraft (IF)*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	25.387	2.753	17.395	0.000	17.395	27.998	82.177	127.463	129.980	0.000	413.153
672569: *C-17A Aircraft*	-	25.387	2.753	17.395	0.000	17.395	27.998	82.177	127.463	129.980	0.000	413.153
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 7, PE 0401130F, project 672569, Databus Collection & Analytics (DBCA), is a new start.
This program, BA 7, PE 0401130F, project 672569, Aircraft Connectivity, is a new start.

A. Mission Description and Budget Item Justification

The four-engine C-17 is the only aircraft capable of routine delivery of outsize cargo (tanks, helicopters, etc.) to short, austere airfields. The aircraft can carry up to 102 troops, 36 litter patients or 18 standard 463-L pallets. The C-17 can perform the entire spectrum of airlift missions and is specifically designed to operate effectively and efficiently in both strategic and theater environments. Not only can the C-17 deliver outsize cargo to austere tactical environments, but it also reduces ground time during air and land operations.

Strategic Airlift provides essential flexibility when responding to contingencies on short notice anywhere in the world. It is a major element of America's national security strategy and constitutes the most responsive means of meeting mobility requirements.   Specific tasks associated with the airlift mission include deployment, employment, sustaining support, retrograde, aeromedical evacuation, and combat redeployment. The C-17 will perform this airlift mission well into this century.

C-17 Research, Development, Test & Evaluation (RDT&E) funding efforts support, but are not limited to: Aircraft performance improvements, aircraft mission execution and airspace access mandates (i.e., Communications/Navigation Improvements); flight test activities and facilities; development of solutions for obsolescence and safety of flight issues; systems engineering/program support; support for avionics laboratories; software development, test and integration; block development/ change management; developments of solutions for needed upgrades to combat obsolescence and safety of flight issues; and proposal preparation for new projects. Funding supports efforts to include but not limited to Flight Deck Replacement (FDR), Beyond Line of Sight (BLOS), Databus Collection and Analytics (DBCA), Aircraft Connectivity, fuel efficiency and emissions reduction, and studies to assess survivability effects of different defensive systems not equipped on C-17 aircraft.

This funding includes Rapid Global Mobility (RGM) platform-related rapid capability development process activities including early planning, analysis and systems engineering activities which provide linkages between operational needs, system performance requirements, technology needs and opportunities, potential lifecycle costs and enabling the technical foundation for material development.

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

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

PE 0401130F: *C-17 Aircraft (IF)*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0401130F *I C-17 Aircraft (IF)*

0606398F. In FY 2023 $0.750M was expended for civilian pay expenses in this program element, and in FY 2024 $1.878M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	25.387	2.753	12.373	0.000	12.373
Current President's Budget	25.387	2.753	17.395	0.000	17.395
Total Adjustments	0.000	0.000	5.022	0.000	5.022
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	-5.000	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	0.000	0.000			
• Other Adjustments	0.000	0.000	5.022	0.000	5.022

Congressional Add Details ($ in Millions, and Includes General Reductions)	**FY 2023**	**FY 2024**
Project: 672569: *C-17A Aircraft*		
Congressional Add: *Aircraft Protective Systems Development*	5.000	0.000
Congressional Add Subtotals for Project: 672569	5.000	0.000
Congressional Add Totals for all Projects	5.000	0.000

Change Summary Explanation

FY 2023 funding request decrease of $5.000 million due to Congressional Directed Reduction for "BLOS under-execution and program growth."

FY 2025 funding request increase for $5.022 million to support Flight Deck Replacement acquisition activities, Databus Collection and Analytics, and Aircraft Connectivity efforts.

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Beyond Line of Sight (BLOS)	18.721	0.779	0.200

PE 0401130F: *C-17 Aircraft (IF)*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* I BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401130F I *C-17 Aircraft (IF)*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Description: Beyond Line-Of-Sight (BLOS) modernization modification is a development, integration, and retrofit program for C-17 communications. BLOS modifies and improves hardware and software for voice and data communications on the C-17. The program will modify both integrated aircraft avionics as well as back-end mission communications and could utilize both military and commercial satellite systems to extend communication ranges. The current efforts include but are not limited to Aero-I/Aero-H modernizations and Comm Mod. It includes support for on-going C-17 flight test programs, software labs, and system engineering activities including Aircraft Protective Systems Development (APSD) for C-17 research and development programs. *FY 2024 Plans:* BLOS program continues Test & Evaluation activities and certification efforts. *FY 2025 Plans:* Continuation of BLOS Test & Evaluation activities and certification efforts. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased due to reduced BLOS testing efforts.			
Title: Roll-On Conference Capsule (ROCC) *Description:* ROCC is a program to replace current Silver Bullet Capsules and includes development/design. Effort will allow US Government senior leaders and staff to work, communicate, and rest in airworthy capsules during long range missions into threat areas, with the protection of the C-17A Globemaster III's defensive systems capability. Specifically, the development phase of the ROCC, (formerly referred to as the Silver Bullet Replacement (SBR) program) will require non-recurring engineering, manufacture of the first article and testing. Support for flight test, software labs, system engineering, program management and engineering/acquisition studies not related to requirements generation are included in the overall cost. *FY 2024 Plans:* N/A *FY 2025 Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* N/A	1.666	0.000	0.000
Title: Databus Collection & Analytics (DBCA) *Description:* Databus Collection and Analytics (DBCA), previously Databus Reporting System (DBRS), has been renamed to highlight both the hardware and analytics capabilities instead of focusing primarily on hardware. DBCA will capture and apply	-	0.000	5.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0401130F *I C-17 Aircraft (IF)*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
analytics to all data present across all databuses on the C-17 aircraft to provide and drive efficiencies in predictive maintenance, operations, training, safety considerations and cybersecurity concerns. This comprehensive aircraft data collection system will record, transfer and retain, process and analyze, and provide aircraft and fleet recommendations. Data analysis to be comprehensive enough to forecast/trend root-cause analysis, drive predictive maintenance decisions, accomplish propulsion/APU health trending programs, and provide sortie reconstruction for operator training/debriefing. **FY 2024 Plans:** N/A **FY 2025 Plans:** Pre-acquisition contracting activities to support contract award. **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding increased due to startup of pre-acquisition planning and contracting activities.			
Title: Aircraft Connectivity **Description:** Aircraft Connectivity is a requirement for Line-of-Sight (LOS) and Beyond-Line-of-Sight (BLOS) connectivity capability on the C-17. This will enable maximum Mobility Air Forces (MAF) connectivity and real-time secure command and control for aircrew situational awareness. **FY 2024 Plans:** N/A **FY 2025 Plans:** Pre-acquisition contracting activities to support contract award. **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding increased due to startup of pre-acquisition planning and contracting activities.	-	0.000	0.200
Title: Flight Deck Replacement (FDR) **Description:** Flight Deck Replacement (FDR) is a development, integration, and retrofit program seeking to modernize the C-17 fight deck. The program replaces the obsolete mission flight computer (core integrated processors (CIP)), multi-function displays (MFD), standby engine displays (SED), video integrated processor (VIP), and provides updates for the affected simulators/ trainers/labs. The program's capabilities provide an open systems architecture enabling future modular "plug and play", advancing C-17 flight deck components to current industry standards.	0.000	1.974	11.995

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401130F *I C-17 Aircraft (IF)*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
FY 2024 Plans: Pre-acquisition activities to support contract award. ***FY 2025 Plans:*** Start of engineering and manufacturing development activities to include but not limited to software development, data, cyber security, testing, integration laboratory updates, and other program support activities. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to startup of development activities.			
Accomplishments/Planned Programs Subtotals	20.387	2.753	17.395

	FY 2023	**FY 2024**
Congressional Add: Aircraft Protective Systems Development	5.000	0.000
FY 2023 Accomplishments: Began study to assess survivability benefits and secondary effects of different defensive systems not currently equipped on C-17 aircraft. ***FY 2024 Plans:*** N/A		
Congressional Adds Subtotals	5.000	0.000

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 Line Item C01700: *C-17A*	133.779	140.560	103.306	-	103.306	139.078	140.810	181.645	209.181	0.000	1,048.359
• APAF 06 Line Item 000999: *Initial Spares/Repair Parts*	7.210	11.637	10.405	-	10.405	2.549	6.473	7.992	8.151	0.000	54.417

Remarks

E. Acquisition Strategy

The C-17 Acquisition Strategy is based on several separate contracts to support the entire scope of the C-17 weapon system. Globemaster Operational Enhancement (GLOBE) is an indefinite delivery, indefinite quantity (IDIQ) contract used to purchase services and research articles (through delivery orders) to support all RDT&E with our prime contractor. In addition, purchase orders are used to support flight test activities within the projects at Edwards AFB. Additional contract vehicles could be utilized as required.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401130F / *C-17 Aircraft (IF)*	**Project (Number/Name)** 672569 / *C-17A Aircraft*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C-17 BLOS- Beyond Line of Sight	Various	Boeing : Long Beach, CA	-	22.871	Nov 2022	0.779	Feb 2024	0.200	Nov 2024	-		0.200	Continuing	Continuing	72.136
C-17 ROCC- Roll -On Conference Capsule	Various	Select Tech : Centerville, OH	-	1.766	Dec 2022	-		-		-		-	Continuing	Continuing	10.788
C-17 FDR- Flight Deck Replacement	SS/CPFF	Boeing : Long Beach, CA	-	-		0.096	Mar 2024	10.218	Dec 2024	-		10.218	Continuing	Continuing	-
C-17 DBCA - Databus Collection and Analytics	TBD	Not specified. : TBD	-	-		-		5.000	Mar 2025	-		5.000	Continuing	Continuing	-
C-17 Aircraft Connectivity	TBD	Not specified. : TBD	-	-		-		0.200	Feb 2025	-		0.200	Continuing	Continuing	-
Subtotal			-	24.637		0.875		15.618		-		15.618	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Direct Cite Authority Civilian Pay	Various	Not specified. : TBD	-	0.750	Dec 2022	1.878	Mar 2024	1.777	Oct 2024	-		1.777	Continuing	Continuing	-
Subtotal			-	0.750		1.878		1.777		-		1.777	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	25.387	2.753	17.395	-	17.395	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401130F / C-17 Aircraft (IF)	**Project (Number/Name)** 672569 / C-17A Aircraft

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
C-17																												
Beyond Line of Sight (BLOS)																												
Roll-On Conference Capsules (ROCC)																												
Flight Deck Replacement (FDR)																												
Databus Collection and Analytics																												
Aircraft Connectivity																												
Aircraft Protective Systems Development																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0401130F *I* C-17 Aircraft (IF)	**Project (Number/Name)** 672569 *I* C-17A Aircraft

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
C-17				
Beyond Line of Sight (BLOS)	1	2023	4	2025
Roll-On Conference Capsules (ROCC)	1	2023	1	2025
Flight Deck Replacement (FDR)	2	2024	4	2029
Databus Collection and Analytics	2	2025	2	2027
Aircraft Connectivity	2	2025	4	2028
Aircraft Protective Systems Development	4	2023	4	2024

PE 0401130F: *C-17 Aircraft (IF)*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0401132F *I C-130J Program*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	0.000	9.782	19.100	34.423	0.000	34.423	32.469	17.216	15.691	16.000	Continuing	Continuing
675061: *C-130J*	0.000	9.354	15.181	11.349	0.000	11.349	3.797	5.403	5.188	4.058	Continuing	Continuing
675305: *C-130J Prog*	0.000	0.428	3.919	23.074	0.000	23.074	28.672	11.813	10.503	11.942	0.000	90.351

Program MDAP/MAIS Code: 220

A. Mission Description and Budget Item Justification

The C-130J is a medium-sized transport aircraft capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments. The C-130J aircraft, with its extended (by 15 feet) fuselage, provides additional cargo carrying capacity for the USAF combat delivery mission compared with legacy C-130E/H and the C-130J (short). Special mission variants of the C-130J conduct airborne weather reconnaissance (WC-130J), search and rescue (HC-130J), and special operations (MC-130J and AC-130J). All aircraft variants must be capable of worldwide operations.

This project provides RDT&E funding for required capabilities that are grouped as "Block" upgrades or "Capability" or "Enhancement and Deficiencies" (EnD) updates. Content/requirements for block modifications is documented in International Program Directives (IPDs) and as determined in the Cooperative Systems and Software Upgrade Requirements Management (COSSURM) prioritized requirements process. This project will integrate the common-core capabilities developed under this program into the C-130J.

The C-130J program also includes Communication Modification 1 (Comm Mod 1) and Communication Modification 2 (Comm Mod 2). This effort includes but not limited to development, integration, and test of the new radio and communication systems including but not limited to Mobile User Objective System (MUOS), Second-generation Anti-jam Tactical UHF Radio for NATO (SATURN), Joint Range Extension Application Protocols (JREAP) to modernize Military Satellite Communications), Ultra High Frequency (UHF) and High Frequency (HF) radios, special mission processing, and data link messaging. These systems will provide secure, global Line of Sight (LOS) and Beyond Line of Sight (BLOS) satellite voice and data connectivity utilizing modern satellite constellations.

"C-130J requirements support the performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D".

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY 2023 $0.000 million was expended for civilian pay expenses in this program element, and in FY 2024 $0.000 million is forecast 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.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0401132F *I C-130J Program*		
B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	10.060	19.100	19.350	0.000	19.350
Current President's Budget	9.782	19.100	34.423	0.000	34.423
Total Adjustments	-0.278	0.000	15.073	0.000	15.073
• 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	-0.278	0.000			
• Other Adjustments	0.000	0.000	15.073	0.000	15.073

Change Summary Explanation

FY 2025 funding request increased by 15.073 million due initial startup of Comm Mod Phase II efforts.

PE 0401132F: *C-130J Program*
Air Force

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 / 7				**R-1 Program Element (Number/Name)** PE 0401132F / C-130J Program				**Project (Number/Name)** 675061 / C-130J			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675061: *C-130J*	0.000	9.354	15.181	11.349	0.000	11.349	3.797	5.403	5.188	4.058	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The C-130J is a medium-sized transport aircraft capable of performing a variety of combat delivery (tactical airlift) operations across a broad range of mission environments. The C-130J aircraft, with its extended (by 15 feet) fuselage, provides additional cargo carrying capacity for the USAF combat delivery mission compared with legacy C-130E/H and the C-130J (short). Special mission variants of the C-130J conduct weather reconnaissance (WC-130J), search and rescue (HC-130J), and special operations (MC-130J and AC-130J). All aircraft variants must be capable of worldwide operations.

This project also provides RDT&E funding for required capabilities that are grouped as "Block" upgrades or "Capability" or "Enhancement and Deficiencies" (EnD) updates. Content/requirements for these efforts is documented in International Program Directives (IPDs) as determined through the Cooperative Systems and Software Upgrade Requirements Management (COSSURM) process or other approved C-130J Joint User Group (JUG) processes. Activities required to complete development and integration of the common-core capabilities for all United States' variants are included in this project. In addition, this project includes early acquisition and engineering studies and initiatives related to the C-130J such as, but not limited to, capability gap resolution, emerging technology assessments, exploration and adaptation, systems integration assessments and technology transition; to include digital transformation.

This project also provides RDT&E funding for requirements that are outside of the "Block" upgrades, "Capability" updates, "Enhancement and Deficiencies" (EnD) updates, or COSSURM process. These efforts may include, but are not limited to, communication, data link, Global Positioning Systems (GPS), electronic warfare, formation flight system, digital pathfinder initiatives and mission support system updates. The requirements are identified and concurred between the C-130J Program Office and Air Mobility Command (AMC). Requirements are documented through the C-130J Program Office approval process.

This project provides RDT&E funding for studies and risk reduction activities and Program Support Costs (PSC).

This project includes RDT&E funding for the following C-130J aircraft variants: C-130J stretch aircraft, C-130J short aircraft, and WC-130J aircraft.

This project includes RDT&E funding for Rapid Global Mobility (RGM) platform related activities including, but not limited to, prototyping, capability development, process activities, planning analysis, digital acquisition and systems engineering activities.

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

The FY 2025 funding request was reduced by 4.423 million to account for the availability of prior year execution balances.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0401132F **/** C-130J Program	**Project (Number/Name)** 675061 **/** C-130J

and and 0606398F. In FY 2023 0.000 million was expended for civilian pay expenses in this program element, and in FY 2024 0.000 million is forecast for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Test & Evaluation	1.196	0.516	0.150
Description: Test and evaluation planning, conduct and support for developmental and operational testing of C-130J programs; to include, but not limited to the Block 8.1 and CMU 2 (8.1.2) programs. **FY 2024 Plans:** Continuation of CMU 2 (8.1.2) testing execution phase requirements. **FY 2025 Plans:** Continued CMU 2 (8.1.2) testing execution phase requirements. **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding decreased due to ramp down of CMU 2 (8.1.2) testing execution phase efforts.			
Title: Capability Management Update (CMU)	0.459	2.000	0.000
Description: CMU 1 (8.1.1) and CMU 2 (8.1.2) refine and build on Block upgrade modifications that improve operational effectiveness, satisfy emerging operational needs, and enhance Human Machine Interface (HMI) to allow a workload that meets human factors standards and maintains the present crew complement. Subsystems and software impacted includes, but is not limited to, the Mission Computer (MC), Bus Interface Unit (BIU), Communications Navigation Identification - System Processor (CNI-SP), Special Mission Display Processor (SMDP), and Data Transfer and Diagnostic System (DTADS). **FY 2024 Plans:** Continuation of CMU 2 program Block 8.1.2 activities. **FY 2025 Plans:** N/A **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding decreased due to completion of CMU 2 program Block 8.1.2 activities.			
Title: Enhancement & Deficiencies (EnD)	0.500	3.500	8.490
Description: EnD 1 (8.1.3) and EnD 2 (8.1.4) refine and build on Block upgrade modifications that improve operational effectiveness, satisfy emerging operational needs, and enhance Human Machine Interface (HMI) to allow a workload that meets human factors standards and maintains the present crew complement. Subsystems and software impacted includes, but is not limited to, the Mission Computer (MC), Bus Interface Unit (BIU), Communications Navigation Identification - System Processor (CNI-SP), Special Mission Display Processor (SMDP), and Data Transfer and Diagnostic System (DTADS).			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			Date: March 2024		
Appropriation/Budget Activity 3600 / 7		**R-1 Program Element (Number/Name)** PE 0401132F / C-130J Program	**Project (Number/Name)** 675061 / C-130J		

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
FY 2024 Plans: Continuation of EnD 1 (Block 8.1.3) activities. ***FY 2025 Plans:*** Continuation of EnD 1 (Block 8.1.3) activities and contract award efforts. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to ramp up of contracting activities for projected contract award of EnD 1 (Block 8.1.3).			
Title: Cooperative Systems and Software Upgrade Requirements Management (COSSURM) ***Description:*** Continuing effort to collect potential requirements for inclusion into a Capability Management Update, or Enhancement and Deficiencies (EnD) Common Non-Recurring Engineering (CNRE) effort. ***FY 2024 Plans:*** Continuation of COSSURM planning and development of EnD requirements and JUG website. ***FY 2025 Plans:*** Continuation of COSSURM planning and development of EnD requirements and JUG website. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased because of economic adjustments to support to COSSURM planning and development activities.	0.280	0.230	0.240
Title: Other Inititatives ***Description:*** C-130J Initiatives/Studies and digital transformation efforts. ***FY 2024 Plans:*** Continuation of Pod Study, digital transformation efforts, SMDP Pathfinder, and future initiatives. ***FY 2025 Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to completion of initiative/studies contracts.	5.197	6.645	0.000
Title: C-130J/International Programs Office (IPO) Support ***Description:*** C-130J and C-130J IPO support of programmatic activities. ***FY 2024 Plans:***	1.722	2.290	2.469

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0401132F **/** C-130J Program	**Project (Number/Name)** 675061 **/** C-130J

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Continuation of program support activities.			
FY 2025 Plans: Continuation of program support activities.			
FY 2024 to FY 2025 Increase/Decrease Statement: Funding increased due to amplified contract activities and program support efforts.			
Accomplishments/Planned Programs Subtotals	9.354	15.181	11.349

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 Line Item C1300J: *C-130J Mods*	112.299	121.258	182.089	-	182.089	187.717	172.058	186.737	-	409.124	1,371.282

Remarks

D. Acquisition Strategy

The C-130J aircraft will be modified using a "block upgrade" strategy. The Communication, Navigation, and Surveillance and Air Traffic Management (CNS/ATM), navigation safety requirement initially met in three block upgrades (Block 6.0, Block 7.0 and Block 8.1). In order to better manage the fleet, the USAF combined the Block 7 and Block 8.1 mods. This allows aircraft and trainers to be modified one time.

Subsequently, C-130J modifications will be grouped into smaller updates known as Capability Management Updates (CMU) or Enhancement and Deficiencies (EnD). Other AMC initiatives are upgrades to hardware and software that have arisen after the formation of the block upgrades and CMUs.

The proportion of CNS/ATM and navigation safety requirements allocated to Blocks 6.0 through 8.1 was determined via a design trade study conducted by Lockheed Martin (the C-130J prime contractor) and verified by the C-130J system program office and AMC. The development costs are being shared via a global Project Arrangement (PA) by the United States (USAF, USMC, USCG), Italy, Australia, Denmark, Canada, and Norway. An International Program Office (IPO), with USAF lead (Wright Patterson AFB, OH), manages the block upgrades development and CMU efforts. Retrofit of a Block on the aircraft is the responsibility of each nation.

In order to meet four DoD technology refresh mandates before end of year 2024, the communications modernization program will develop and field a federated and integrated communications system to Blocks 6.0 and 8.1 C-130J variants.

In order to comply with FAA mandated frequency remapping and National Security Agency mandated crypto-modernization, the aircraft Link 16 receiver transmitter will need to be upgraded to a next generation receiver. One example of the next generation receiver is the Multifunctional Information Distribution System Joint Tactical Radio System (LINK 16) (MIDS-JTRS) terminal. CMU 2 will allow the utilization of MIDS-JTRS.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											**Date:** March 2024			

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401132F / C-130J Program	**Project (Number/Name)** 675061 / C-130J

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
C-130J Capability Management Upgrades (CMU), Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH	SS/CPFF	Lockheed Martin Aero : Marietta, GA	0.000	0.459	Jun 2023	2.000	Apr 2024	-		-		-	0.000	2.459	20.480
C-130J AMC-Initiatives, Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH	SS/ Various	Lockheed Martin Aero : Marietta, GA	0.000	5.197	May 2023	6.645	Apr 2024	0.000	Apr 2025	-		0.000	0.000	11.842	14.730
C-130J Enhancement & Deficiencies (EnD), Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH	SS/CPIF	Lockheed Martin Aero : Marietta, GA	0.000	0.500	Jun 2023	3.500	Jun 2024	8.490	Apr 2025	-		8.490	0.000	12.490	-
C130J Cooperative Systems and Software Upgrade Requirements Management (COSSURM), Air Force Life Cycle Mgmt Ctr (AFMC), WPAFB, OH	SS/ Various	Lockheed Martin Aero : Marietta, GA	0.000	0.100	May 2023	0.050	Nov 2023	0.060	Nov 2024	-		0.060	0.000	0.210	-
Subtotal			0.000	6.256		12.195		8.550		-		8.550	0.000	27.001	N/A

Remarks

C-130J Block 8.1 Total Cost is below Target Value of Contract to account for the expected cost reduction initiatives on this Cost Plus Award Fee Contract.

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test and Evaluation	PO	Not specified. : EGLIN, FL	0.000	1.196	Nov 2022	0.516	Nov 2023	0.150	Nov 2024	-		0.150	0.000	1.862	-
Subtotal			0.000	1.196		0.516		0.150		-		0.150	0.000	1.862	N/A

PE 0401132F: *C-130J Program*
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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force											**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0401132F / C-130J Program					**Project (Number/Name)** 675061 / C-130J		

Management Services ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
C-130J IPO Support	TBD	N/A : NV	0.000	0.927	Feb 2023	1.295	Feb 2024	1.431	Feb 2025	-		1.431	0.000	3.653	15.014
C-130J COSSURM	TBD	N/A : NV	0.000	0.180	Feb 2023	0.180	Feb 2024	0.180	Feb 2025	-		0.180	0.000	0.540	16.548
C-130J Support	TBD	N/A : OH	0.000	0.795	Feb 2023	0.995	Feb 2024	1.038	Feb 2025	-		1.038	0.000	2.828	15.014
Subtotal			0.000	1.902		2.470		2.649		-		2.649	0.000	7.021	N/A

	Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	0.000	9.354		15.181		11.349		-		11.349	0.000	35.884	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401132F / *C-130J Program*	**Project (Number/Name)** 675061 / *C-130J*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
C-130J																												
CMU 2		█	█	█	█	█	█																					
EnD								█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█		
COSSURM			█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█

PE 0401132F: *C-130J Program*
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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401132F / *C-130J Program*	**Project (Number/Name)** 675061 / *C-130J*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
C-130J				
CMU 2	2	2023	1	2025
EnD	4	2024	4	2029
COSSURM	3	2023	4	2029

PE 0401132F: *C-130J Program*
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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7				**R-1 Program Element (Number/Name)** PE 0401132F *I C-130J Program*				**Project (Number/Name)** 675305 *I C-130J Prog*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675305: *C-130J Prog*	0.000	0.428	3.919	23.074	0.000	23.074	28.672	11.813	10.503	11.942	0.000	90.351
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program includes funding for Communication Modernization (phase 1 and phase 2) which meets Crypto Mandate 1. This effort is for the development and integration of the new radio and communication systems including, but not limited to, Mobile User Objective System (MUOS), Second-generation Anti-jam Tactical UHF Radio for NATO (SATURN), Joint Range Extension Application Protocols (JREAP) to modernize Military Satellite Communication System (MILSATCOM), Ultra High Frequency (UHF), High Frequency (HF), special mission processing, and data link messaging. These systems will provide secure, global Line of Sight (LOS) and Beyond Line of Sight (BLOS) satellite voice and data connectivity utilizing modern satellite constellations and waveforms. These systems will also be integrated into other C-130J capabilities, such as Radio Frequency (RF) components including ALR-69A and DRFM (Digital Radio Frequency Memory Countermeasure).

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

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY 2023 $0.000 million was expended for civilian pay expenses in this program element, and in FY 2024 $0.000 million is forecast for civilian pay expenses in this program element

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Communication Modernization	0.428	3.919	23.074
Description: Communication Modernization development, integration, and testing of the new radio and communication systems to provide secure, global Line of Sight (LOS) and Beyond Line of Sight (BLOS) satellite voice and data connectivity utilizing modern satellite constellations and waveforms. These systems will also be integrated into other C-130J capabilities. The program will include all 12 product support elements, including but not limited to, updating Support Equipment and Technical Data as required. *FY 2024 Plans:* Continuation of Communication Modernization Phase 1 Mod NRE. *FY 2025 Plans:* Continuation of Comm Mod 1 and beginning Comm Mod phase 2 efforts. *FY 2024 to FY 2025 Increase/Decrease Statement:*			

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401132F / *C-130J Program*	**Project (Number/Name)** 675305 / *C-130J Prog*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Funding increased due to ramp up of Comm Mod Phase 2 contracting activities.			
Accomplishments/Planned Programs Subtotals	0.428	3.919	23.074

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 C1300J: *C-130J Mods*	112.299	121.258	182.089	-	182.089	187.717	172.058	186.737	-	409.124	1,371.282

Remarks

D. Acquisition Strategy

In order to meet SecAF Crypto Mandate 1, the communications modernization program has developed a plan to field a federated (Comm mod phase 1) and integrated (Comm mod phase 2) communications system to Blocks 6.0 and 8.1 C-130J variants.

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force | | **Date:** March 2024

| Appropriation/Budget Activity
3600 / 7 | R-1 Program Element (Number/Name)
PE 0401132F / C-130J Program | Project (Number/Name)
675305 / C-130J Prog |

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C-130J Digital HUD and Enhanced Vision System, Air Force Life Cycle Mgmt Ctr (AMFC), WPAFB, OH	SS/ Various	Collins Aero/ Lockheed : Marietta, GA	0.000	0.000		-		-		-		-	0.000	0.000	-
C-130J Communication Modernization, Air Force Life Cycle Mgmt Ctr (AMFC), WPAFB, OH	SS/CPFF	Lockheed Martin Aero : Marietta, GA	0.000	0.428	Jul 2023	3.269	Dec 2023	21.388	Dec 2024	-		21.388	0.000	25.085	-
Subtotal			0.000	0.428		3.269		21.388		-		21.388	0.000	25.085	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C-130J Support	TBD	N/A : OH	0.000	-		0.650	Feb 2024	1.686	Feb 2025	-		1.686	0.000	2.336	2.336
Subtotal			0.000	-		0.650		1.686		-		1.686	0.000	2.336	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.428	3.919	23.074	-	23.074	0.000	27.421	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401132F / *C-130J Program*	**Project (Number/Name)** 675305 / *C-130J Prog*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
C-130J																												
DHUD/EVS					▮▮▮																							
Communication Modernization (MILSATCOM)					▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮▮																						

PE 0401132F: *C-130J Program*
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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0401132F *I* C-130J Program	**Project (Number/Name)** 675305 *I* C-130J Prog

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
C-130J				
DHUD/EVS	4	2023	2	2024
Communication Modernization (MILSATCOM)	4	2023	3	2029

PE 0401132F: *C-130J Program*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										Date: March 2024	

Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development*

R-1 Program Element (Number/Name)
PE 0401134F *I Large Aircraft IR Countermeasures (LAIRCM)*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	2.820	5.982	7.768	0.000	7.768	0.000	0.000	0.000	0.000	Continuing	Continuing
674942: *Large Aircraft Infrared Counter Measures (LAIRCM)*	-	2.820	5.982	7.768	0.000	7.768	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Large Aircraft Infrared Countermeasures (LAIRCM) system is an evolutionary acquisition program that provides significantly improved defensive systems capability for DoD aircraft to counter the man-portable air-defense systems (MANPADS) missile threat. The system is currently installed on 54 aircraft types and over 1200 aircraft.

The current LAIRCM system configuration consists of missile warning sensors (MWS), a laser transmitter assembly, control interface unit and processors to detect, track, jam and counter incoming missiles. The number of sensors and transmitter assemblies per aircraft is determined by the size and signature of the aircraft. The system is fully autonomous following system power-up. LAIRCM requirements are documented in the multi-command Operational Requirements Document (ORD) LAIRCM ORD 314-92, validated on 03 Aug 98.

The baseline development program is complete. Follow-on efforts are continuous in order to address and counter new and emerging threats, as well as ensure integration onto new aircraft types and existing LAIRCM platforms. Additional efforts include design changes to improve Reliability Maintainability & Availability and system improvements.

LAIRCM upgrades include, but are not limited to: hardware and software upgrades, as well as testing of the LAIRCM system to maintain defensive capability against new and emerging threats.

Current and future efforts include AFRL Threat Analysis; Modeling, Simulation and Test; Virtual System Integration Lab (SIL) Development; and Studies and Analysis.

AFRL Threat Analysis: AFRL Threat Analysis encompasses the activities to support threat exploitation analysis of a variety of threats (both known and emerging) against the current LAIRCM jam code with the intent of determining if jam code updates are required. Typical threat analysis activities include: threat seeker characterization; model development for advanced threat IR seekers; development and testing of new infrared countermeasures concepts, techniques, and hardware; new technology assessment for potential incorporation into the LAIRCM system, and the evaluation/exploitation of new threats and threat characteristics relative to infrared countermeasures (IRCM).

Modeling, Simulation, and Test: Modeling, Simulation, and Test activities verify and validate the information obtained from the threat analysis activities. These activities include: evaluation of (IRCM) techniques used in defeating real threat hardware; developing and evaluating jam code; validating and verifying integration of LAIRCM

PE 0401134F: *Large Aircraft IR Countermeasures (LAIRC...*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401134F *I Large Aircraft IR Countermeasures (LAIRCM)*	

system components to newly developed jam codes, software and/or hardware; evaluating system effectiveness; performing platform integration support tests; hardware and software upgrades required to accredit test facility; and conducting predictive risk reduction tests prior to Live Missile Fire Test (LMFT) or on aircraft flight testing.

Virtual SIL Development: Incrementally design, develop, integrate, and test software code and purchase associated infrastructure (i.e., computers, servers, commercial off-the-shelf (COTS) software, etc.) necessary to develop and implement a virtual SIL providing a critical capability for testing the LAIRCM system to ensure continued effectiveness against current and emerging threats.

Studies and Analysis: Includes logistics, programmatic, and engineering studies and analysis activities to ensure continued system viability and sustainability and compliance with acquisition directives. These activities may include the evaluation of low cost/high payback opportunities to reduce software development/ implementation cost, enhance production efficiency, and improve life cycle costs through increased reliability and reduced repair and return cost.

Program support cost efforts consist of, but are not limited to, contract services and government costs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY 2023 $0.000 million was expended for civilian pay expenses in this program element, and in FY 2024 $0.000 million is forecast 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	2.909	5.982	0.000	0.000	0.000
Current President's Budget	2.820	5.982	7.768	0.000	7.768
Total Adjustments	-0.089	0.000	7.768	0.000	7.768
• 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	-0.089	0.000			
• Other Adjustments	0.000	0.000	7.768	0.000	7.768

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401134F *I Large Aircraft IR Countermeasures (LAIRCM)*	

Change Summary Explanation
FY 2025 funding request increased by $7.768 million for LAIRCM Threat Analysis and Modeling, Simulation, and Test efforts at the AFRL Integrated Threat Warning Lab (ITWL).

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: LAIRCM AFRL Threat Analysis **Description:** Encompasses activities to support threat exploitation analysis and updates against a variety of threats for the current LAIRCM jam code with the intent of determining if jam code updates are required. **FY 2024 Plans:** Threat analysis, test support and system effectiveness efforts with Air Force Research Laboratory (AFRL). **FY 2025 Plans:** Continuation of threat analysis, test support, and system effectiveness efforts with Air Force Research Laboratory (AFRL). **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding increased due to ramp up of Integrated Threat Warning Lab (ITWL) Jam Code testing efforts.	2.461	5.707	6.251
Title: LAIRCM Modeling, Simulation, and Test **Description:** Activities that verify and validate the information obtained from threat analysis activities. **FY 2024 Plans:** Modeling, Simulation, and Test analysis efforts. **FY 2025 Plans:** Continuation of Modeling, Simulation, and Test analysis efforts. **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding increase from FY24 Base supports continuous Evolving Threat Analysis validation at Guided Weapons Evaluation Facility (GWEF) starting in FY25.	0.359	0.275	1.517
Accomplishments/Planned Programs Subtotals	2.820	5.982	7.768

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 Line Item LAIRCM: *Large Aircraft Infrared Countermeasures*	44.743	21.723	52.117	-	52.117	20.738	21.208	21.648	22.078	Continuing	Continuing

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* I BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401134F I *Large Aircraft IR Countermeasures (LAIRCM)*	

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost

Remarks

E. Acquisition Strategy

Efforts awarded on an annual basis, exercising existing contract options, funding government led threat analysis, and system effectiveness studies. The LAIRCM program office partners with the Air Force Research Laboratory (AFRL), the 46th Test Squadron, and the Guided Weapon Evaluation Facility (GWEF) to conduct threat analysis research and Modeling, Simulation, and Test. AFRL provides hardware-in-the-loop developmental test simulation capability on a level-of-effort (LOE) basis. The current LAIRCM Annual Lot Buy contract may be used to award multiple various study efforts.

PE 0401134F: *Large Aircraft IR Countermeasures (LAIRC...*
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401134F / *Large Aircraft IR Counterm easures (LAIRCM)*	**Project (Number/Name)** 674942 / *Large Aircraft Infrared Counter Measures (LAIRCM)*	

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
LAIRCM ETA Modeling, Simulation, and Test	PO	GWEF : Eglin AFB, FL	-	0.009	Aug 2023	0.275	Nov 2023	1.517	Nov 2024	-		1.517	Continuing	Continuing	-
LAIRCM ETA Modeling, Simulation, and Test (Test Support)	Various	AFRL/RYF-Test Support : WPAFB, OH	-	0.350	Oct 2022	-		-		-		-	Continuing	Continuing	-
LAIRCM ETA AFRL Threat Analysis	Various	AFRL/RYF-DIME-ITWL : WPAFB, OH	-	1.304	Jan 2023	5.707	Feb 2024	6.251	Dec 2024	-		6.251	Continuing	Continuing	-
LAIRCM ETA Threat Analysis (System Cabling/ Live Fire)	SS/TBD	NGC : Rolling Meadows, IL	-	0.074	Jan 2023	-		-		-		-	Continuing	Continuing	-
LAIRCM ETA Threat Analysis (Dugway Live Fire)	MIPR	Dugway : Dugway, UT	-	1.083	Nov 2022	-		-		-		-	Continuing	Continuing	-
Subtotal			-	2.820		5.982		7.768		-		7.768	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	2.820		5.982		7.768		-		7.768	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401134F / *Large Aircraft IR Counterm easures (LAIRCM)*	**Project (Number/Name)** 674942 / *Large Aircraft Infrared Counter Measures (LAIRCM)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
LAIRCM																												
AFRL Threat Analysis	██	██	██	██	██	██	██	██	██	██																		
Modeling, Simulation, and Test	██	██	██	██	██	██	██	██	██	██	██																	

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0401134F *I Large Aircraft IR Counterm easures (LAIRCM)*	**Project (Number/Name)** 674942 *I Large Aircraft Infrared Counter Measures (LAIRCM)*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
LAIRCM				
AFRL Threat Analysis	1	2023	4	2025
Modeling, Simulation, and Test	1	2023	1	2026

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force* I BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0401218F I *KC-135s*							

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	18.409	51.105	31.977	0.000	31.977	49.847	93.235	12.826	12.825	0.000	270.224
675261: *KC-135 Upgrades*	-	18.409	51.105	31.977	0.000	31.977	49.847	93.235	12.826	12.825	0.000	270.224
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY 2024, PE 0604858F, Tech Transition Program, Project 645351, Prototyping effort was transferred to PE 0401218F, KC-135s, Project 675261, KC-135 Upgrades in order to Integrate and Test on the KC-135.

A. Mission Description and Budget Item Justification

The KC-135 is the US Air Force's aerial refueling workhorse. In FY 2023, USAF KC-135s offloaded 64,946,367 gallons of fuel and refueled 38,360 aircraft in support of global operations. The KC-135 provides air refueling through either the refueling boom or drogue. As a cargo aircraft, the C/KC-135 can carry six (6) standard 463-L pallets. KC-135 modernization funding is vital to ensure the KC-135 fleet can support global aerial refueling operations to 2050 and beyond. RDT&E efforts include but are not limited to Mobile User Objective System, COMM2 Crypto & Data, High Frequency Modernization, Center Console Refresh, and Winglets.

Mobile User Objective System (MUOS): Integration and test for MUOS-capable radios on Block 45 aircraft in the COMM 3 position with Beyond Line-of-Sight (BLOS) Integrated Waveform (IW) and LOS SATURN capability with HAVE QUICK II backward compatibility. The KC-135 fleet must comply with the National Security Agency (NSA) mandate or will lose secure communications, which significantly degrades its ability to support worldwide operations. The ARC-210 Gen 3 radios have Diminishing Manufacturing Sources and Material Shortages (DMSMS) and will become obsolete on the CEASEKEY date. Requirement: AMC's 10-050 Crypto, 15-046 MUOS, 16-053 SATURN, and 17-039 IW. This modification is part to the USAF RCMP for crypto modernization as directed by CSAF in Nov 2022 and DoD CIO in 2016.

Center Console Refresh (CCR) replaces the Flight Display System (FDS) and Fuel System (FS) that is facing parts obsolescence issues and will render the aircraft non mission capable. The Integrated Fuel Management Panel (IFMP) and Fuel Management Advisory Computer (FMAC) are no longer procurable with limited repair capability. The Multi-Function Displays (MFD) are out of production with a limited cache of Liquid Crystal Display (LCD) glass. The A11 card within the Control Display Unit (CDU) is obsolete and no repair capability exists at this time. Current organizational maintenance efforts to cannibalize and repair have negated the impact so far. CCR fleet impacts will be experienced with the with the IFMP as early as 4QFY23 and with the CDU 2QFY25 to the effect of up to 30 aircraft per quarter. Requirement: AMC's 22-009

High Frequency (HF) Modernization: Integration and test to replace legacy HF radio with a modernized HF radio on KC-135 aircraft. A modernized HF communications capability is necessary to enable future sustainability and growth to operate in satellite communications (SATCOM)-denied environment while maintaining global, secure voice and data between Mobility Air Forces' aircraft and command and control (C2) agencies to exchange classified information. Requirement: AMC's 18-100 Modernized HF. This modification is part to the USAF RCMP for crypto modernization as directed by CSAF in Nov 2022 and DoD CIO in 2016.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0401218F I *KC-135s*

COMM2 Crypto and Data: Integration and test for ARC-210 Gen 3 radio replacement in the COMM 2 position with secure voice and SATURN capability with HAVE QUICK II backward compatibility, and a replacement solution for the Very High Frequency (VHF) Data Link (VDL)-2000. The KC-135 fleet must comply with the NSA mandate or will lose secure communications which significantly degrades its ability to support worldwide operations. The ARC-210 Gen 3 radios have DMSMS and become obsolete on the CEASEKEY date. VDL replacement is required for civil airspace compliance. Requirement: AMC's 10-050 Crypto, 16-053 SATURN, 22-033 VDL Solution. This modification is part to the USAF RCMP for crypto modernization as directed by CSAF in Nov 2022 and DoD CIO in 2016.

Winglets: Research and development of winglets for KC-135 aircraft to increase operational energy. This effort continues Air Force Research Laboratory's initial prototyping.

MAF Connectivity: Capabilities using the KC-135 to develop MAF Connectivity path forward as the tanker needs to be able to connect to the Joint fight to close kill chains and logistics chains. Possible capabilities include, but are not limited to, intelligent gateways, antennas, radios, software updates, crew displays, and multiple aperture array housings.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY 2023, $0.360M was expended for civilian pay expenses in this program element, and in FY 2024, $1.910M is forecast 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	12.955	51.105	33.084	0.000	33.084
Current President's Budget	18.409	51.105	31.977	0.000	31.977
Total Adjustments	5.454	0.000	-1.107	0.000	-1.107
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	6.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-0.546	0.000			
• Other Adjustments	0.000	0.000	-1.107	0.000	-1.107

Change Summary Explanation

FY 2025 funding request was reduced by $1.163 million to account for the availability of prior year execution balances.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401218F *I KC-135s*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: KC-135 MUOS radio	6.288	7.713	0.000	0.000	0.000
Description: The KC-135 COMM 3 position requires an upgraded radio with MUOS (Mobile User Objective System), IW (Integrated Waveform), SATURN (Second-generation Anti-jam Tactical UHF Radio for NATO) capabilities and BLOS and LOS secure voice and data connectivity. This upgrade derives from an NSA cryptographic modernization mandate and DoD MUOS/SATURN transition directive.					
If requirements are not met, the KC-135 will not have secure military Satellite Communications (SATCOM) radio capability needed to communicate with the Joint Force, other MAF aircraft, and C2 agencies.					
The KC-135 MUOS radio program replaces the existing ARC-210 Gen 3 radio with a cryptographic modernized, MUOS-capable, ARC-210 Gen 6 radio. Integration of this new radio requires remote control unit, high power amplifier, low noise amplifier, SATCOM antenna, software and associated wiring and hardware.					
FY 2024 Plans: Complete integration efforts with software release.					
FY 2025 Base Plans: NA					
FY 2025 OCO Plans: Funding decreased due to transition from Engineering, Manufacturing, and Development phase to Procurement.					
FY 2024 to FY 2025 Increase/Decrease Statement: NA					
Title: KC-135 Winglets	-	13.429	0.000	-	0.000
Description: This program adds winglets to the left and right outboard wing section of KC-135 aircraft. The winglets use Active Load Alleviation Control System (ALACS) that will decrease stress loads throughout the entire wing body. Winglets reduce aircraft drag and increase fuel efficiency. Scope: TBD fleet size. Air Force Research Laboratory (AFRL) projects fuel savings of approximately $35-56M annually, based on simulations and anticipated improved operational benefits.					
FY 2024 Plans:					

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force			**Date:** March 2024		
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0401218F *I KC-135s*		

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Integration, preliminary design and test efforts ongoing at the AFRL. *FY 2025 Base Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased due to transition from Engineering, Manufacturing, and Development phase to Procurement.					
Title: Center Console Refresh *Description:* Center Console Refresh (CCR) replaces the Flight Display System (FDS) and Fuel System (FS) that is facing parts obsolescence issues and will render the aircraft non mission capable. The Integrated Fuel Management Panel (IFMP) and Fuel Management Advisory Computer (FMAC) are no longer procurable with limited repair capability. The Multi-Function Displays (MFD) are out of production with a limited cache of Liquid Crystal Display (LCD) glass. The A11 card within the Control Display Unit (CDU) is obsolete and no repair capability exists at this time. Current organizational maintenance efforts to cannibalize and repair have negated the impact so far. CCR fleet impacts will be experienced with the with the IFMP as early as 4QFY23 and with the CDU 2QFY25 to the effect of up to 30 aircraft per quarter. *FY 2024 Plans:* CCR contracting activities to include source selection and development for five line replaceable units (LRUs) within the Fuel System and Flight Display Systems. *FY 2025 Base Plans:* CCR contracting activities to include phase 2 development and prototype for five line replaceable units (LRUs) within the Fuel System and Flight Display Systems. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to increased EMD 2nd year development efforts.	1.610	14.120	23.485	-	23.485
Title: High Frequency Modernization *Description:* This modification replaces the legacy HF radio with a modernized HF radio on KC-135 aircraft to operate in a SATCOM-denied environment while maintaining global, secure voice/data between Mobility Air Forces' aircraft and command and control (C2) agencies to exchange classified information. This complies with DoD directive to modernize HF capability.	0.072	3.000	0.000	-	0.000

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0401218F *I KC-135s*		

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
If requirements are not met, then KC-135 aircraft loses BLOS communication capability with MAF aircraft and C2 agencies if satellite connectivity is lost. Additionally, KC-135 aircraft loses the capability to use HF for Air Traffic Control communication during transoceanic flights. This form fit radio replaces the current ARC-190 radio with the new ARC-260 radio. *FY 2024 Plans:* Initial integration contract award and support of modernized HF radio and communications capabilities integration. *FY 2025 Base Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased due to transition from Engineering, Manufacturing, and Development phase to Procurement.					
Title: COMM2 Crypto and Data Program. *Description:* This effort replaces the ARC-210 Gen 3 radio in the COMM 2 position with secure voice and SATURN capability with HAVE QUICK II backward compatibility, and a replacement solution for the VDL-2000. ARC-210 Gen 3 radios on KC-135 aircraft have DMSMS and are approaching end of life, becoming obsolete on the NSA-mandated CEASEKEY date. VDL replacement is required for civil airspace compliance. This effort complies with the Cryptographic Mandate. If requirements are not met, KC-135 aircraft risk ineffective communications via unsecure voice, lose data communications, anti-jam capabilities, and realize limited maintenance capabilities to support legacy radios. This will significantly degrade the ability to support worldwide operations. This modification will include Integration and Test of updated Operating Flight Plan software and Prototype; ARC-210 Gen 6 to replace the current Gen 3; removal of VDL, integrate and replace with VHF-4000E. *FY 2024 Plans:* EMD activities (contract award, SRR, Upfront SIL testing) *FY 2025 Base Plans:*	4.615	2.189	8.492	0.000	8.492

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0401218F *I KC-135s*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
EMD activities (CDR, DT/OT and software release) ***FY 2025 OCO Plans:*** Complete EMD ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to transition from Engineering, Manufacturing, and Development phase to Procurement.					
Title: MAF Connectivity *Description:* Congressional Add received Oct 2023: Capabilities using the KC-135 to develop MAF Connectivity path forward as the tanker needs to be able to connect to the Joint fight to close kill chains and logistics chains. Possible capabilities include, but are not limited to, intelligent gateways, antennas, radios, software updates, crew displays, and multiple aperture array housings. ***FY 2024 Plans:*** Contract awards, development, integration/testing and research (phase 2) ***FY 2025 Base Plans:*** N/A ***FY 2025 OCO Plans:*** N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A	5.824	10.654	0.000	0.000	0.000
Accomplishments/Planned Programs Subtotals	18.409	51.105	31.977	0.000	31.977

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• APAF 05 C13500: *C-135*	144.557	153.595	146.564	-	146.564	175.454	139.928	206.590	171.045	455.100	1,592.833
• APAF 06 C13500: *Initial Spares*	2.024	2.591	3.240	-	3.240	4.857	6.350	6.285	4.424	0.000	29.771

Remarks

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401218F *I KC-135s*	

E. Acquisition Strategy

KC-135 MUOS acquisition strategy addresses cryptographic modernization mandates and DoD directives by executing a 28 month, Sole Source, Cost Plus Fixed Fee EMD contract followed by a three-year production and installation effort.

KC-135 MUOS Radio Major Events/Milestones: Critical Design Review 3QFY23; Development Testing/Operational Testing 4QFY24; Milestone-C 1QFY25

Center Console Refresh (CCR)
Planned ASP approval 2QFY24
Planned Award 1QFY25

KC-135 HF radio acquisition strategy addresses HF modernization mandates and DoD directives by executing a 12 month, Sole Source, Cost Plus Fixed Fee EMD contract followed by a three-year procurement (AFLCMC/WNY will maintain the production contract with BAE) and installation effort.

High Frequency Modernization Major events: Program start-up, Early Strategy and Issues Session 2QFY24

COMM2 Crypto & Data acquisition strategy addresses crypto modernization mandates and DoD directives by executing a 15 month, Sole Source, Cost Plus Fixed Fee EMD contract followed by a three-year production and installation effort.

KC-135 Winglets
Planned ASP approval 3QFY24
Planned Award 4QFY24

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											**Date:** March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 0401218F / *KC-135s*						**Project (Number/Name)** 675261 / *KC-135 Upgrades*		

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
MUOS Radios Product Development (Integration)	SS/CPFF	Collins Aerospace : Cedar Rapids, IA	-	6.270	Mar 2023	5.400	Mar 2024	-		-		-	Continuing	Continuing	-
COMM 2 Crypto and Data Radio Product Development (Integration & Test)	SS/CPFF	Collins Aerospace : Cedar Rapids, IA	-	4.000	Jan 2024	1.821	Jun 2024	7.982		-		7.982	Continuing	Continuing	-
COMM 2 Crypto and Data EMD Kits	MIPR	Not specified. : TBD	-	0.615	Jul 2023	-		-		-		-	Continuing	Continuing	-
HF Radio Modernization Integration	SS/CPFF	Not specified. : TBD	-	-		3.000	Jul 2024	-		-		-	Continuing	Continuing	-
Center Console Refresh Product Development	C/FPIF	Not specified. : TBD	-	-		10.850	Jun 2024	15.175	Nov 2024	-		15.175	Continuing	Continuing	-
Winglets Development	C/CPAF	Not specified. : TBD	-	-		10.000	Mar 2024	-		-		-	Continuing	Continuing	-
MAF Connectivity	TBD	Not specified. : TBD	-	5.824	Sep 2024	10.653	Dec 2024	-		-		-	Continuing	Continuing	-
		Subtotal	-	16.709		41.724		23.157		-		23.157	Continuing	Continuing	N/A

Support ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**		
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
MUOS Support	Various	Not specified. : TBD	-	0.018	Mar 2024	0.027	May 2024	-		-		-	Continuing	Continuing	-
HFM (Travel)	Various	Not specified. : TBD	-	0.072	Sep 2023	-		-		-		-	Continuing	Continuing	-
CCR Support	Various	Not specified. : TBD	-	1.030	Mar 2024	0.460	Jan 2024	2.129	Jan 2025	-		2.129	Continuing	Continuing	-
COMM2 (Travel+Shipping)	Various	Not specified. : TBD	-	-		0.054	Jul 2024	-		-		-	Continuing	Continuing	-
Winglets Support	Various	Not specified. : TBD	-	-		0.582	Mar 2024	-		-		-	Continuing	Continuing	-
MAF Connectivity	Various	Not specified. : TBD	-	-		0.001		0.001		-		0.001	Continuing	Continuing	-
		Subtotal	-	1.120		1.124		2.130		-		2.130	Continuing	Continuing	N/A

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force											**Date:** March 2024		
Appropriation/Budget Activity 3600 **/** 7						**R-1 Program Element (Number/Name)** PE 0401218F **/** KC-135s					**Project (Number/Name)** 675261 **/** KC-135 Upgrades		

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Winglets Flight Test and Certification	TBD	Not specified. : TBD	-	-		2.500	Mar 2024	-		-		-	Continuing	Continuing	-
CCR Edwards Testing	C/CPAF	Not specified. : TBD	-	0.220	Jul 2023	-		1.200	Feb 2025	-		1.200	Continuing	Continuing	-
Subtotal			-	0.220		2.500		1.200		-		1.200	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
CCR Dir Cite Auth Civ Pay	Various	System Program Office : Tinker AFB, OK	-	0.360	Mar 2023	1.910		2.260	Oct 2024	-		2.260	Continuing	Continuing	-
CCR PSC	Various	System Program Office : Tinker AFB, OK	-	-		0.900	Feb 2024	2.720		-		2.720	Continuing	Continuing	-
MUOS (PSC)	Various	Not specified. : TBD	-	0.000	Sep 2023	2.163	Jul 2024	-		-		-	Continuing	Continuing	-
MUOS OGC	Various	Not specified. : TBD	-	0.000	Oct 2023	0.123	Apr 2024	-		-		-	Continuing	Continuing	-
HF (PSC)	Various	Not specified. : TBD	-	0.000	Apr 2023	0.000	Mar 2024	-		-		-	Continuing	Continuing	-
COMM 2 CRYPTO PSC	Various	Not specified. : TBD	-	0.000	Oct 2023	0.314	Jun 2024	-		-		-	Continuing	Continuing	-
COMM2 CRYPTO OGC	Various	Not specified. : TBD	-	0.000	Oct 2023	0.000	Jan 2024	0.510		-		0.510	Continuing	Continuing	-
Winglets (PSC)	Various	Not specified. : TBD	-	-		0.347	Mar 2024	-		-		-	Continuing	Continuing	-
Subtotal			-	0.360		5.757		5.490		-		5.490	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	18.409	51.105	31.977	-	31.977	Continuing	Continuing	N/A

Remarks

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Air Force

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0401218F / *KC-135s*	Project (Number/Name) 675261 / *KC-135 Upgrades*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
KC-135 MUOS Radio																												
EMD, Test, and MS C				████████████████																								
COMM 2 Crypto and Data																												
Contract award, EMD and Test							██████████																					
HF Modernization																												
Contract award, EMD and test							██████████																					
Center Console Refresh (CCR)																												
Contract award, EMD and Test									█████████████████████████																			
Winglets																												
Contract award, EMD and Test							██████																					
MAF Connectivity																												
Contract award, Integration/Test/Reserch				██████████																								

PE 0401218F: *KC-135s*
Air Force

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0401218F *I KC-135s*	**Project (Number/Name)** 675261 *I KC-135 Upgrades*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
KC-135 MUOS Radio				
EMD, Test, and MS C	1	2023	1	2025
COMM 2 Crypto and Data				
Contract award, EMD and Test	3	2024	4	2025
HF Modernization				
Contract award, EMD and test	3	2024	4	2025
Center Console Refresh (CCR)				
Contract award, EMD and Test	1	2025	3	2028
Winglets				
Contract award, EMD and Test	3	2024	2	2025
MAF Connectivity				
Contract award, Integration/Test/Reserch	4	2023	4	2024

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0401318F *I CV-22*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	177.789	9.678	18.127	26.249	0.000	26.249	30.865	26.018	21.878	21.099	Continuing	Continuing
676033: *CV-22 RDT&E POST PRODUCTION*	177.789	9.678	18.127	26.249	0.000	26.249	30.865	26.018	21.878	21.099	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Program MDAP/MAIS Code: 212
Project MDAP/MAIS Code(s): N42

A. Mission Description and Budget Item Justification

The CV-22 is the Air Force Special Operations Forces (SOF) variant of the joint multi-mission V-22 tilt rotor aircraft. The CV-22 provides long-range, high-speed infiltration, exfiltration, personnel recovery, and resupply to Special Forces teams in hostile, denied, and politically sensitive areas. The Navy is the lead service for the Joint V-22 program. The Joint Program Manager is responsible for managing all variants of the V-22. Department of the Navy (DoN) funds the development of the MV-22 and CMV-22. The Air Force funds the service common portion of the CV-22 while United States Special Operations Command (USSOCOM) funds the development and procurement of SOF peculiar systems. CV-22 RDT&E funding provides for the development, integration, and testing of service-common, mission critical aircraft modifications to improve operational effectiveness, platform survivability, and aircraft availability.

Airframe Enhancements: RDT&E funds the design, development, and testing of improvements to airframe structures, aircraft electro-mechanical and hydraulic hardware, and dynamic components to counteract the effects of structural fatigue and improve the durability and readiness of V-22 aircraft. Refinement of aircraft system's components to improve longevity and/or maintainability while protecting their performance are meant to allow continued CV-22 operation as the aircraft ages.

Enhanced Self-Deployment: RDT&E funding provides for the design, development, and testing of aircraft modifications to improve aircraft self-deployment capabilities (e.g. operating range, global response time) to mitigate emerging threats to the aircraft and mission accomplishment, and to identify and assess emerging air vehicle, propulsion system, avionics architecture, electronic warfare, situational awareness, and other weapon system solutions to meet CV-22 Block 20 operational requirements.

CV-22 funding also supports innovation activities to include studies, analyses, requirements definition, and quick-reaction capability prototypes/demonstrations to accelerate planning for technology transition, technology insertion and future acquisition programs.

This funding may include emerging requirements to support Program Support Costs (PSC), Advisory and Assistant Service (A&AS), system integration lab, trainers, equipment and other government costs.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401318F *I CV-22*	

and 0606398F. In FY 2023 $0.000 million was expended for civilian pay expenses in this program element, and in FY 2024 $0.000 million is forecast 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	10.121	18.127	16.444	0.000	16.444
Current President's Budget	9.678	18.127	26.249	0.000	26.249
Total Adjustments	-0.443	0.000	9.805	0.000	9.805
• 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	-0.326	0.000			
• Other Adjustments	-0.117	0.000	9.805	0.000	9.805

Change Summary Explanation

FY 2025 funding request was increased by 9.805 million to support obsolescence redesigns and enhanced self-deployment capabilities.

The FY 2025 funding request was reduced by $0.185 million to account for the availability of prior year execution balances.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Airframe Enhancement	6.578	4.551	11.444
Description: Airframe Enhancements funds the improvement of airframe structures, aircraft electro-mechanical hardware, and dynamic components to counteract the effects of structural fatigue and improve the durability and readiness of V-22 aircraft to include design, development, and testing of V-22 Nacelle components. This RDT&E funding provides for the design, development, and testing of redesign support or loadbearing airframe elements to provide structural reinforcement and improved longevity. Enhanced armor protective performance with reduced weight and space impacts are a possible area for development. Airframe Enhancement funds also provide for refinements of hydraulic, landing gear, or fuel system component to improve and protect their performance. Items such as pumps, lines, tanks/reservoirs/bladders and/or struts may receive enhancements to extend their life and improve their maintainability. Finally, Airframe Enhancements funds target exploring improvements to all V-22			

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0401318F *I CV-22*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
dynamic components, from rotor blades and heads to gearboxes and flight control surfaces with the goals of protecting them from vibrational and frictional wear and enhancing their reliability and readiness. ***FY 2024 Plans:*** Continue design, development, and testing of Airframe Enhancements. ***FY 2025 Plans:*** Planned Projects to include but not limited to Fuel Cell Obsolescence/Redesign. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to ramp up of obsolescence redesign efforts.			
Title: Enhanced Self-Deployment Capabilities *Description:* Develops capabilities to enhance self-deployment, such as improved ice protection, engine performance, performance buyback, navigation, communications, and battle space awareness/networking capabilities/airborne mission networking (ABMN); situational awareness; electronic warfare; weapons systems; defensive avionics systems and architecture; weight reduction initiatives; modular avionics/cyber security implementation and other changes to the underlying aircraft systems necessary to enable these capabilities. ***FY 2024 Plans:*** Continue design and development activities, but not limited to the following: Support for ABMN Systems, JARVIS Mission Computer, Flight Computer Redesigns, PNT Modernizations, Platform Data Service (PDS) Development, and Control Display Unit (CDU). ***FY 2025 Plans:*** Planned Projects include, but not limited to the following: Support for ABMN Systems, JARVIS Mission Computer, Flight Computer Redesigns, and Control Display Unit (CDU). ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to redesigns and AbMN efforts.	3.100	13.576	14.805
Accomplishments/Planned Programs Subtotals	9.678	18.127	26.249

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0401318F *I CV-22*

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• RDTE 07 PE 1160403BB: *Special Operations, Aviation Systems*	11.757	21.619	15.727	-	15.727	19.064	19.445	19.834	20.231	Continuing	Continuing
• PAAF 02 Line Item 1000CV2200: *Defense-Wide 0300D SOCOM*	78.726	75.981	49.403	-	49.403	19.719	17.551	52.281	53.538	Continuing	Continuing
• APAF 05 Line Item V02200: *CV-22 Mods*	153.026	153.006	42.795	-	42.795	100.356	96.582	79.524	65.408	Continuing	Continuing
• APAF 07 C0V220: *CV-22 Post Production Support*	0.000	0.000	12.024	-	12.024	7.087	7.078	7.014	7.014	Continuing	Continuing
• APAF 06 Line Item 000999: *CV-22 Initial Spares/Repair Parts*	2.254	3.989	3.738	-	3.738	5.421	6.037	5.776	5.010	Continuing	Continuing

Remarks

E. Acquisition Strategy

The V-22 Joint Program Office - Naval Air Systems Command - NAVAIRSYSCOM, PMA-275 is developing new capabilities for the V-22 in block increments.

Airframe Enhancements: Fuel Cell Obsolescence Redesign will utilize a combination of sole source and competitive contracts.

Enhanced Self-Deployment Capabilities: Flight Control System Redesign, JARVIS Mission Computer, Control Display Unit Redesign, and support for Airborne Mission Networking Systems will utilize a combination of sole source and competitive contracts.

Development activities for the V-22 program to date have been primarily performed by the prime contractor, Bell-Boeing, on a sole-source basis. Bell-Boeing is a strategic partnership between Bell Helicopter and Boeing Integrated Defense Systems. Efforts are underway to continue increasing competition where feasible, depending primarily on the level of platform integration required and Government rights to technical data.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											Date: March 2024		

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0401318F / CV-22	Project (Number/Name) 676033 / CV-22 RDT&E POST PRODUCTION

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
V-22 Airframe Enhancements	Various	Various : TBD	91.609	2.378	Mar 2023	1.400	Mar 2024	8.255	Mar 2025	-		8.255	10.300	113.942	-
CV-22 Osprey Enhanced Self-Deployment Capability	Various	Various : TBD	58.308	3.100	Jun 2023	11.901	Jun 2024	10.679	Jun 2025	-		10.679	47.060	131.048	-
Subtotal			149.917	5.478		13.301		18.934		-		18.934	57.360	244.990	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CV-22 Osprey Engineering Technical Support and Studies	Various	Various : TBD	11.567	1.900	Mar 2023	2.345	Mar 2024	2.574	Mar 2025	-		2.574	5.948	24.334	-
Subtotal			11.567	1.900		2.345		2.574		-		2.574	5.948	24.334	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CV-22 Osprey Test & Evaluation Technical Support	Various	Various : TBD	14.723	2.100	Dec 2022	2.240	Dec 2023	2.500	Dec 2024	-		2.500	3.634	25.197	-
Subtotal			14.723	2.100		2.240		2.500		-		2.500	3.634	25.197	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
CV-22 Osprey Program Support Costs	Various	Various : TBD	1.582	0.200	Dec 2022	0.241	Dec 2023	2.241	Dec 2024	-		2.241	1.496	5.760	-
Subtotal			1.582	0.200		0.241		2.241		-		2.241	1.496	5.760	N/A

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force | | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0401318F / CV-22	Project (Number/Name) 676033 / CV-22 RDT&E POST PRODUCTION

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	177.789	9.678	18.127	26.249	-	26.249	68.438	300.281	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401318F / CV-22	**Project (Number/Name)** 676033 / CV-22 RDT&E POST PRODUCTION

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Airframe Enhancement																												
Prop-rotor Blade Improvements**																												
Infrared Suppressors **																												
Dynamic Components Redesign																												
Airframe Obsolescence Redesign**																												
Fuel Cell Redesign																												
Next Block Mods - NRE Systems**																												
HCE PRGB Input Quill / Clutch Redesign**																												
Enhanced Self-Deployment																												
AbMN - JARVIS Mission Computer **																												
Flight Control System Re-design Step 1																												
Flight Control System Re-design Step 2																												
Control Display Unit Keyboard Re-design																												
Cockpit Modernization																												
Required Navigation Precision (RNP-RNAV)																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0401318F / CV-22	**Project (Number/Name)** 676033 / CV-22 RDT&E POST PRODUCTION

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Airframe Enhancement				
Prop-rotor Blade Improvements**	1	2023	4	2024
Infrared Suppressors **	1	2023	4	2029
Dynamic Components Redesign	1	2023	4	2029
Airframe Obsolescence Redesign**	1	2025	4	2029
Fuel Cell Redesign	1	2024	4	2027
Next Block Mods - NRE Systems**	1	2027	4	2029
HCE PRGB Input Quill / Clutch Redesign**	1	2024	4	2029
Enhanced Self-Deployment				
AbMN - JARVIS Mission Computer **	1	2023	4	2026
Flight Control System Re-design Step 1	1	2023	4	2026
Flight Control System Re-design Step 2	1	2026	4	2029
Control Display Unit Keyboard Re-design	1	2024	4	2025
Cockpit Modernization	1	2026	4	2029
Required Navigation Precision (RNP-RNAV)	1	2026	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0408011F *I Special Tactics / Combat Control*						

COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	6.163	9.198	9.421	0.000	9.421	9.655	9.854	10.211	10.413	Continuing	Continuing
675138: *ST System Development*	-	6.163	9.198	9.421	0.000	9.421	9.655	9.854	10.211	10.413	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Special Tactics (ST) System Development project focuses on modernization development for the Special Warfare Acquisition Growth and Refresh (SWAGR). SWAGR will develop, test, train, and modernize the existing and future Family of Systems (FoS) that provide a state-of-the-art Command, Control, Communications, Computer, Intelligence, Surveillance, and Reconnaissance (C4ISR) capability. It also provides a suite of systems for all Air Force Specialty Codes supporting the ST community within the Air Force Special Operations Command's (AFSOC's) Special Warfare operators. ST System Development focuses on reducing the risk of fratricide and substantially reducing size and weight of the equipment carried through various core capabilities, which include but are not limited to: Human Machine Interface (HMI), Line of Sight (LOS) targeting, medical monitoring, Machine-to-Machine (M2M) C4ISR System, Electromagnetic Spectrum awareness/defensive/offensive capabilities and all other ST capability needs.

This program will develop and enhance technologies for Special Warfare ST operators to recognize, identify, range, nominate, and designate targets during both day and night operations. SWAGR will also significantly reduce the time required to find, track, fix targets, and engage the enemy by attacking adversary signals of interest, providing highly accurate target grid coordinates in three dimensions, generating target imagery both pre- and post-strike, and transmitting target data to Command and Control centers. SWAGR systems are light, compact, and portable for use by dismounted Special Warfare ST operators. FY25 SWAGR funding will provide significant improvements in operational capability, situational awareness, and precision lethality in the battle space while continuing to build and enhance the SWAGR family of systems. This may be conducted through industry technology demonstrations, prototypes, and associated engineering support to posture the SWAGR for technology insertion. These efforts will deliver enhanced capability for the dismounted soldier in terms of dramatic weight reduction and increase mission effectiveness across the conflict spectrum. SWAGR also supports AFSOC Tactical Command and Control (TAC C2) programs to develop and enhance communications systems and equipment essential for ST combat controllers, pararescue, special reconnaissance, and tactical air controller parties within AFSOC to perform their mission. The ST operators use this equipment to gather and transmit assault zone suitability and weather data and to perform tactical airfield/assault landing/drop zone operations. Due to the rapidly changing threat environment, the acquisition program manager has the authority to redirect funding as necessary to meet current slated and emerging requirements. The above efforts may change based on the need to support current Air Force mission requirements.

SWAGR funding also supports innovation activities to include studies, analyses, requirements definition, and quick-reaction capability prototypes/demonstrations to accelerate planning for technology transition, technology insertion and future acquisition programs.

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,

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0408011F *I Special Tactics / Combat Control*

0606398F. In FY23 $1.986M was expended for civilian pay expenses in this program element, and in FY24 $0.000M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	6.297	9.198	9.404	0.000	9.404
Current President's Budget	6.163	9.198	9.421	0.000	9.421
Total Adjustments	-0.134	0.000	0.017	0.000	0.017
• 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	-0.134	0.000	0.017	0.000	0.017

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Human Machine Interface (HMI)	1.600	2.000	2.052

Description: HMI is a system of systems that provides integrated operator interface between all the machine components by using unified visual and auditory displays and controls, such as head-mounted displays, tactical earplug connectivity with man pack or handheld communications, integrated tactical computing solution, electromagnetic spectrum Awareness, defensive/offensive capabilities and power generation and management systems.

FY 2024 Plans:
- Support digitally aided combat close air support operations. Plan to develop and operate tests or full spectrum certification (Joint Interoperable Test Command (JITC), Air Force System Interoperability Test (AFSIT), and Authority to Operate (ATO)).
- Define requirements for implementation of the Iridium waveform granting DoD dedicated airtime.
- Upgrade HMI efforts which reduce the Size, Weight, and Power required to be carried by the Special Tactics Community. Specifically includes wireless technology.
- Mature available technology for future dismounted communication contract in order to meet the requirements of the user.

FY 2025 Plans:

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0408011F *I Special Tactics / Combat Control*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Will continue to support digitally aided combat close air support operations. Plan to develop and operate tests or full spectrum certification JITC, AFSIT, and ATO. - Will continue to explore and define requirements for implementation of the Iridium waveform granting DoD dedicated airtime. - Will upgrade HMI efforts which reduce the size, weight and power required to be carried by the Special Tactics Community. Specifically includes wireless technology. - Will require maturation of available technology for future dismounted communication contract in order to meet the requirements of the user. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased to account for inflation adjustments			
Title: Line of Sight ***Description:*** Line of Sight (LOS) targeting enables the Special Warfare ST operators to find, fix, track, target and engage the enemy at close range during day or night operations by providing highly accurate target coordinates in three dimensions. LOS generates vital imagery both pre and post-strike at a fraction of the weight and is more efficient than legacy equipment carried by the operator. Non Line of sight (XLOS) targeting device exploration and development will help capture future capabilities to the Special Tactics community. XLOS devices allow for a remote expendable reporting environmental sensor that enhances AFSOC Special Tactics Team's ability to provide timely, accurate, and critical deep battle space weather reconnaissance and intelligence. ***FY 2024 Plans:*** - Explore and develop future XLOS targeting device capabilities and capabilities for sensing (passive and active) enemy activity within the electromagnetic spectrum (RF communication) and jamming effectiveness (EMS awareness), develop and integrate Low-Probability Intercept/Low-Probability Detection (LPI/LPD) capabilities, and Small UAS comm relay systems for Special Tactics community. ***FY 2025 Plans:*** - Will continue to explore and develop future Non Line of sight (XLOS) targeting device capabilities and capabilities for sensing (passive and active) enemy activity within the electromagnetic spectrum (RF communication) and jamming effectiveness (EMS awareness), develop and integrate LPI/LPD capabilities, and Small UAS comm relay systems for Special Tactics community. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased to account for inflation adjustments	0.222	0.250	0.262
Title: Machine-to-Machine (M2M) Software Development	4.341	6.948	7.107

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0408011F *I Special Tactics / Combat Control*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Description: This program is a Modern Software Development Program (MSDP). The software acquisition uses a modern software development methodology and is not primarily in sustainment. It has no objective system and will use iterative development across the project's lifecycles. A suite of map-centric software applications that enables M2M transfer of precision targeting, information management, C4ISR and situational awareness information. Provides the Special Warfare ST operators the ability to find, fix, track, target, and engage the enemy which greatly reduces the kill chain and drastically decreases the possibility of fratricide by enhancing the operator's SA on the battlefield. *FY 2024 Plans:* - Explore requirements to address future FoS capability gaps. - Research, develop and test efforts to support requirements in BAO FoS CDD, which includes but is not limited to Assault Zones, precision approach, Fires, Weather, Personnel Recovery, electromagnetic spectrum awareness/defensive/offensive and enabling capabilities. *FY 2025 Plans:* - Will continue to explore requirements to address future FoS capability gaps. - Will continue research, develop and test efforts to support requirements in BAO FoS CDD, which includes but is not limited to Assault Zones, precision approach, Fires, Weather, Personnel Recovery, electromagnetic spectrum awareness/defensive/ offensive and enabling capabilities. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased to account for inflation adjustments			
Accomplishments/Planned Programs Subtotals	6.163	9.198	9.421

D. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 Line Item 837100: *Tactical C-E Equipment*	18.033	17.311	24.814	-	24.814	20.555	21.401	26.855	40.637	Continuing	Continuing
• OPAF 04 Line Item 842990: *Personal Safety and Rescue Equipment*	12.496	2.469	5.054	-	5.054	4.592	3.675	5.283	14.543	Continuing	Continuing

Remarks

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0408011F *I Special Tactics / Combat Control*

E. Acquisition Strategy

Special Warfare Acquisition Growth and Refresh (SWAGR) awarded a competitive contract in May FY23 to continue machine-to-machine (M2M) software development. This effort includes system engineering, design, integration, and fielding support for M2M software. The above efforts may change based on the need to support current Air Force mission requirements. Program management for the SWAGR program is under direction of the Program Executive Office Intelligence, Surveillance, Reconnaissance (ISR) and Special Operations Forces (SOF), Air Force Life Cycle Management Center (AFLCMC) Air Force Materiel Command, at Wright-Patterson Air Force Base, Ohio. AFLCMC provides contracting, legal, comptroller, programmatic, engineering, test, and logistics support.

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0408011F / *Special Tactics / Combat Control*	Project (Number/Name) 675138 / *ST System Development*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Human Machine Interface (HMI)	C/Various	Various : Various	-	1.035	Dec 2022	1.500	Dec 2023	1.525	Dec 2024	-		1.525	Continuing	Continuing	-
Line of Sight	SS/ Various	Phsyical Optics Corporation : Torrance, CA	-	0.002	Nov 2022	0.250	Nov 2023	0.262	Nov 2024	-		0.262	Continuing	Continuing	-
Machine-To-Machine (M2M) Software Development	C/CPFF	General Dynamics IT : Dayton, OH	-	0.600	Oct 2022	-		-		-		-	0.000	0.600	-
Machine-To-Machine (M2M) Software Development(New Contract)	C/CPFF	General Dynamics IT : Dayton, OH	-	1.602	Feb 2023	4.418	Oct 2023	4.481	Oct 2024	-		4.481	Continuing	Continuing	-
Subtotal			-	3.239		6.168		6.268		-		6.268	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Direct Cite Civilian Pay	WR	TBD : WP AFB, OH	-	0.770	Oct 2022	0.787	Oct 2023	0.800	Oct 2024	-		0.800	Continuing	Continuing	-
DCA Civilian Pay	WR	TBD : Hurlburt Field, FL	-	0.924	Oct 2022	0.943	Oct 2023	1.043	Oct 2024	-		1.043	Continuing	Continuing	-
Subtotal			-	1.694		1.730		1.843		-		1.843	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Test Agency Support	Various	46 TS : Eglin AFB, FL	-	0.800	Jan 2023	0.862	Jan 2024	0.870	Jan 2025	-		0.870	Continuing	Continuing	-
Subtotal			-	0.800		0.862		0.870		-		0.870	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0408011F *I Special Tactics / Combat Control*	**Project (Number/Name)** 675138 *I ST System Development*

Management Services ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 Costs	Various	Various : Various, NV	-	0.430	Dec 2022	0.438	Dec 2023	0.440	Dec 2024	-		0.440	Continuing	Continuing	-
Subtotal			-	0.430		0.438		0.440		-		0.440	Continuing	Continuing	N/A

		Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals		-	6.163		9.198		9.421		-		9.421	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0408011F / *Special Tactics / Combat Control*	**Project (Number/Name)** 675138 / *ST System Development*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
ST System Development																												
Human Machine Interface (HMI)																												
Line of Sight																												
Machine-To-Machine Software Development																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0408011F / *Special Tactics / Combat Control*	**Project (Number/Name)** 675138 / *ST System Development*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ST System Development				
Human Machine Interface (HMI)	1	2023	4	2029
Line of Sight	1	2023	4	2029
Machine-To-Machine Software Development	1	2023	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*				**R-1 Program Element (Number/Name)** PE 0708055F *I Maintenance, Repair & Overhaul System*							

COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	18.313	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.313
675329: *MAINTENANCE REPAIR AND OVERHAUL INTIATIVE*	-	18.313	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.313

Program MDAP/MAIS Code: 523

Note

In FY24, MRO development budget controls have been realigned from Research, Development, Test & Evaluation (RDT&E) Program Element (PE) 0708055F Project 675329 to Department of Air Force (DAF) Working Capital Fund (WCF) Capital Investment Program (CIP) funding for Minimal Viable Product (MVP) 5 and MVP 6 as identified in the Capital Investment Recovery Surcharge Line, Fund 9a.

As a result of the transition form DoDI 5000.02 to DoDI 5000.75, MRO was reclassified to a BCAT II program as reflected in the 11 Apr 2018 MRO Milestone B ADM.

In CY23, MRO was reclassified to a BCAT I program due to increased funding in DAF WCF CIP funding for FY23-FY25. Additionally, program name changed from MROi to MRO as program is no longer an initiative.

A. Mission Description and Budget Item Justification

Starting in FY24, funding for this project is realigned to DAF WCF CIP funding identified in Capital Investment Surcharge Line, Fund 9a. AFSC/FM memo for MRO Funding Determination moves development efforts of Minimal Viable Product (MVP) 5 and MVP 6 as these MVPs of MRO are WCF, Consolidated Sustainment Activity-Maintenance (CSAG-M) specific. Per DoD FMR, Vol 2B, Ch. 9, 090103, para b. Software amounts included in the DAF WCF capital budget submissions should include those software development or acquisition efforts for the benefit of DAF WCF activity. Types of cost to be included in a software development project include total labor and non-labor costs.

The MRO program is a Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities and Policies (DOTMLPF-P) transformation and standardization of both the business processes and enabling materiel solution. MRO will provide Air Force Sustainment Center (AFSC) with an integrated capability for planning, scheduling, and executing organic depot maintenance to support agile planning, optimized workload assignment, resource allocation, integrated quality, and maintenance-driven Air Force Working Capital Fund (AFWCF) financials auditability. This integrated capability, by definition, represents a critical step forward toward resolution of the Air Force's Integrated Financial Systems Material Weakness.

MRO will implement a configured Oracle Enterprise Business Suite (EBS) commercial off-the-shelf (COTS) software product with required report, interface, conversion, extension, and workflow (RICE-W) objects.

PE 0708055F: *Maintenance, Repair & Overhaul System*
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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708055F *I Maintenance, Repair & Overhaul System*

MRO will implement throughout all AFSC commodities, electronics, missile, propulsion, aircraft, software, and maintenance support groups. MRO's implementation will include transitional interfaces with various legacy systems to support continuous operations within the depot maintenance and supporting financials environment.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 0.358M was expended for civilian pay expenses in this program element, and in FY24 0.0M is forecasted for civilian pay expenses in this program element.

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

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	19.892	0.000	0.000	0.000	0.000
Current President's Budget	18.313	0.000	0.000	0.000	0.000
Total Adjustments	-1.579	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	-1.054	0.000			
• SBIR/STTR Transfer	-0.525	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

Change Summary Explanation
No change

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7					**R-1 Program Element (Number/Name)** PE 0708055F *I Maintenance, Repair & Overhaul System*				**Project (Number/Name)** 675329 *I MAINTENANCE REPAIR AND OVERHAUL INTIATIVE*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675329: *MAINTENANCE REPAIR AND OVERHAUL INTIATIVE*	-	18.313	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.313
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY24, MRO development budget controls have been realigned from Research, Development, Test & Evaluation (RDT&E) Program Element (PE) 0708055F Project 675329 to Department of Air Force (DAF) Working Capital Fund (WCF) Capital Investment Program (CIP) funding for MVP 5 and MVP 6 as identified in the Capital Investment Recovery Surcharge Line, Fund 9a.

As a result of the transition form DoDI 5000.02 to DoDI 5000.75, MRO was reclassified to a BCAT II program as reflected in the 11 Apr 2018 MRO Milestone B ADM.

In CY23, MRO was reclassified to a BCAT I program due to increased funding in DAF WCF CIP funding for FY23-FY25. Additionally, program name changed from MROi to MRO as program is no longer an initiative.

A. Mission Description and Budget Item Justification

Starting in FY24, funding for this project is realigned to DAF WCF CIP funding identified in Capital Investment Surcharge Line, Fund 9a. AFSC/FM memo for MRO Funding Determination moves development efforts of MVP 5 and MVP 6 as these MVPs of MRO are WCF, Consolidated Sustainment Activity-Maintenance (CSAG-M) specific. Per DoD FMR, Vol 2B, Ch. 9, 090103, para b. Software amounts included in the DAF WCF capital budget submissions should include those software development or acquisition efforts for the benefit of DAF WCF activity. Types of cost to be included in a software development project include total labor and non-labor costs.

The MRO program is a Doctrine, Organization, Training, Materiel, Leadership, Personnel, Facilities and Policies (DOTMLPF-P) transformation and standardization of both the business processes and enabling materiel solution. MRO will provide Air Force Sustainment Center (AFSC) with an integrated capability for planning, scheduling, and executing organic depot maintenance to support agile planning, optimized workload assignment, resource allocation, integrated quality, and maintenance-driven Air Force Working Capital Fund (AFWCF) financials auditability. This integrated capability, by definition, represents a critical step forward toward resolution of the Air Force's Integrated Financial Systems Material Weakness.

MRO will implement a configured Oracle Enterprise Business Suite (EBS) commercial off-the-shelf (COTS) software product with required report, interface, conversion, extension, and workflow (RICE-W) objects.

MRO will implement throughout all AFSC commodities, electronics, missile, propulsion, aircraft, software, and maintenance support groups. MRO's implementation will include transitional interfaces with various legacy systems to support continuous operations within the depot maintenance and supporting financials environment.

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0708055F / Maintenance, Repair & Overhaul System	Project (Number/Name) 675329 / MAINTENANCE REPAIR AND OVERHAUL INTIATIVE

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.358M was expended for civilian pay expenses in this program element, and in FY24 $0.0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Product Development	18.313	0.000	0.000	0.000	0.000

Description: The MRO transformation effort will create an enterprise capability for agile planning, scheduling, and depot maintenance. Additionally it will, integrate the capture of auditable financial transactions at the point of work and optimize workload assignments and resource allocations.

FY 2024 Plans:
None, see Capital Investment Recovery Surcharge Line, Fund 9a

N/A

FY 2025 Base Plans:
None, see Capital Investment Recovery Surcharge Line, Fund 9a

N/A

FY 2025 OCO Plans:
N/A

FY 2024 to FY 2025 Increase/Decrease Statement:
None, see Capital Investment Recovery Surcharge Line, Fund 9a

N/A

Accomplishments/Planned Programs Subtotals	18.313	0.000	0.000	0.000	0.000

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 834480: Maintenance Repair & Overhaul Initiative	0.000	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	0.000

PE 0708055F: *Maintenance, Repair & Overhaul System*
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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0708055F *I Maintenance, Repair & Overhaul System*	**Project (Number/Name)** 675329 *I MAINTENANCE REPAIR AND OVERHAUL INTIATIVE*

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost

Remarks

D. Acquisition Strategy

MRO uses an agile, incremental build-release acquisition strategy to deliver capability. The program used a competitive, best value strategy to select a system implementer utilizing the existing NETCENTS-2 Small Business Application Services contract for the original contract, which was awarded 11 Jul 2018 and concluded 16 Sep 2020. For the follow-on effort, the program used a competitive, best value strategy to select a system implementer utilizing the existing NETCENTS-2 Full and Open Large Business Application Services contract, awarded in Sep 20. Hosting Infrastructure is planned to be provided through the Enterprise Resource Planning - Common Services (ERP-CS) but MRO will fund program unique hosting infrastructure costs starting in FY23, as required.

•Development Contract Strategy
-Directed use of NETCENTS II Application Services IDIQ
--Competitive, Best Value Full Trade-off procedures
--Own technical baseline
--Tech Stack Licenses
--Follow-on increments with financial integration to be performed by large business

PE 0708055F: *Maintenance, Repair & Overhaul System*
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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force													**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7							**R-1 Program Element (Number/Name)** PE 0708055F *I Maintenance, Repair & Over haul System*					**Project (Number/Name)** 675329 *I MAINTENANCE REPAIR AND OVERHAUL INTIATIVE*			

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Maintenance, Repair and Overhaul: Configuration System Implementer	C/Various	NETCENTS-2 : WPAFB, OH	-	7.029	Nov 2022	-		-		-		-	Continuing	Continuing	-
Maintenance, Repair and Overhaul: PMO Oracle Support	C/CPFF	Various : WPAFB, OH	-	0.529	Dec 2022	-		-		-		-	Continuing	Continuing	-
Maintenance, Repair and Overhaul: Legacy Systems Interface Development	MIPR	Various : WPAFB, OH	-	0.787	Dec 2022	-		-		-		-	Continuing	Continuing	-
Maintenance, Repair and Overhaul: Oracle Trusted Agent	C/Various	DLT Solution, LLC : Gunter Annex, AL	-	0.309	Nov 2022	-		-		-		-	Continuing	Continuing	-
Maintenance, Repair and Overhaul: EAS	C/FFP	Bowhead : Gunter Annex, AL	-	0.303	Nov 2022	-		-		-		-	Continuing	Continuing	-
Maintenance, Repair and Overhaul: Data platforms, services, integration, transformation and curation	C/FFP	TACG : WPAFB, OH	-	1.192	Nov 2022	-		-		-		-	Continuing	Continuing	-
		Subtotal	-	10.149		-		-		-		-	Continuing	Continuing	N/A

Support ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Maintenance, Repair, and Overhaul: EPASS	C/CPFF	AFLCMC/AZS : Hanscom, MA	-	3.444	Nov 2022	-		-		-		-	Continuing	Continuing	-
		Subtotal	-	3.444		-		-		-		-	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			**Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0708055F / Maintenance, Repair & Overhaul System	Project (Number/Name) 675329 / MAINTENANCE REPAIR AND OVERHAUL INTIATIVE

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Maintenance, Repair and Overhaul: LDTO Test Support	PO	96th Test Wing : Eglin, FL	-	1.026	Nov 2022	-	-	-	-	-	-	-	Continuing	Continuing	-
Maintenance, Repair and Overhaul: Cybersecurity Test Support	PO	47th Test Wing : Eglin, FL	-	0.325	Aug 2023	-	-	-	-	-	-	-	Continuing	Continuing	-
Maintenance, Repair and Overhaul: Joint Interoperability Test Command (JITC) Support	MIPR	GSA : WPAFB, OH	-	0.034	Dec 2022	-	-	-	-	-	-	-	Continuing	Continuing	-
Subtotal			-	1.385		-		-		-		-	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Maintenance, Repair, and Overhaul: PMA	Various	Various : TBD	-	1.669	Nov 2022	-	-	-	-	-	-	-	Continuing	Continuing	-
Maintenance, Repair and Overhaul: OCI Hosting Environment	C/CPFF	SAIC : Hanscom, MA	-	0.835	May 2023	-	-	-	-	-	-	-	Continuing	Continuing	-
Maintenance, Repair, and Overhaul: License Renewal	C/FP	V3 Gate : Gunter Annex, AL	-	0.831	Mar 2023	-	-	-	-	-	-	-	Continuing	Continuing	-
Subtotal			-	3.335		-		-		-		-	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	18.313	-	-	-	-	Continuing	Continuing	N/A

Remarks

PE 0708055F: Maintenance, Repair & Overhaul System
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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0708055F I *Maintenance, Repair & Over haul System*	**Project (Number/Name)** 675329 I *MAINTENANCE REPAIR AND OVERHAUL INTIATIVE*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Maintenance, Repair and Overhaul																												
Government Integrated Test (MVP 4)						▮▮																						

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

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0708055F / Maintenance, Repair & Overhaul System	Project (Number/Name) 675329 / MAINTENANCE REPAIR AND OVERHAUL INTIATIVE

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Maintenance, Repair and Overhaul				
Government Integrated Test (MVP 4)	2	2024	3	2024

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Technology (LOGIT)*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	15.882	17.520	11.895	0.000	11.895	18.854	10.094	16.384	19.366	Continuing	Continuing
675207: *Logistics IT System Modernization*	-	15.882	17.520	11.895	0.000	11.895	18.854	10.094	16.384	19.366	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The AF requires an integrated logistics capability that provides timely, accurate and reliable information to decision makers at all levels of command and across the full range of military operations.

Log IT is a portfolio of programs that currently addresses Transformation, Remediation, and Modernization of Operational Systems. Transformation focuses on transforming the Logistics IT enterprise to a more efficient, cost-effective integrated IT infrastructure. Remediation entails modifying operational Logistics software systems to address congressionally-mandated Financial Improvement & Audit Readiness requirements and remediating critical IT risks. Modernization concentrates on software upgrades for operational systems to increase functional capabilities, reduce sustainment costs, meet statutory IT compliance requirements and improve user performance.

Transformation:

- The AF must transform its logistics business processes and transition away from using numerous custom stovepipe systems and processes that perform similar tasks. Eliminating process redundancies across the logistics enterprise will enable the AF to execute more secure, resilient, efficient, cost-effective and integrated logistics. The objective of transformation is to conduct Business Process Re-engineering (BPR) to identify and eliminate overlaps in business processes across core logistics systems and, where appropriate, implement new IT systems that employ best commercial practices and modern cloud-based architectures.

- The AF will take full advantage of the flexibilities provided by DoDI 5000.75, Business Systems Requirements and Acquisition guidance, as well as Agile development methodologies to identify requirements across the spectrum of Doctrine, Organization, Training, Materiel, Leadership and Education, Personnel, Facilities and Policy (DOTMLPF-P); and to acquire and deploy approved material solutions in the most efficient and effective manner possible utilizing the 5-phased Business Capability Acquisition Cycle (BCAC). The BCAC phases are structured to optimize a joint responsibility of functional and acquisition activities, leading to the successful delivery of the business capability. There will be an emphasis placed on acquisition of business systems aligned to commercial best practices utilizing commercial off-the-shelf (COTS), government off-the-shelf (GOTS) solutions, and modern platforms that support continuous integration and continuous deployment (CI/CD) following a development, security, and operations (DevSecOps) methodology.

- The AF logistics enterprise is comprised of multiple overarching functional areas, to include base and depot-level maintenance, end-to-end supply chain management, and predictive analysis and forecasting. The AF will standardize its business processes within each major logistics functional area through Transformational Capability

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Technology (LOGIT)*	

Initiatives (TCIs). These TCIs include, but are not limited to: Maintenance, Repair and Overhaul Initiative (MROi PE 0708055F), Foundational Logistics Information Technology Enterprise System (FLITES), Supply Capability Initiative, Air Force Product Lifecycle Management Capability Initiative (AF-PLM), and Field Maintenance Capability Initiative. There may be one or more specific initiatives aligned to each of the major CI areas referenced above.

Transformation Capability Initiatives (TCI):

- TCI Foundational Logistics Information Technology Enterprise System (FLITES) provides the capability to manage comprehensive, accurate, reliable item master data (e.g., accurate identification and authorization of owners and users of items). FLITES is a key component of the Air Force (AF) Logistics Capability Transformation Plan. It will provide Item standardization and configuration management from a single authoritative source, ensuring foundational logistics processes are executed in concert to support the A4 logistics baseline. It will enable key integration and transformation capabilities, including Item Unique Identification (IUID) association to business transactions; streamlined management of part item attributes across supply, finance, engineering, technology, transportation, maintenance, and vendor communities; and provide translation capabilities between functional and technical business communities and systems.

- TCI Supply Capability Initiative is focused on enabling simplified, standardized processes to fundamentally enhance the business operations and provide total asset visibility across the supply chain. These improvements have been identified in the USAF Logistics Capabilities Transformation Plan.
• Procurement: Encompasses all business functions necessary to obtain goods (both inventory and expense) and services, sourced internally and externally through strategic partnerships with Trading Partners.
• Order Management: Encompasses all business functions necessary to accept and process customer orders (internal/external) for services and/or inventory held for sale or internal consumption.
• Inventory Management: Encompasses all business functions necessary to establish and manage inventory for all types of items (repairable, consumable, expense items and other low cost items) including Air Force owned inventory and other items that are sent to the Air Force for repair (Foreign Military Sales and other Services).
• Asset Management: Encompasses all business functions necessary to establish in-use accountability and life-cycle management of capital, centrally managed, and local purchased assets.
• Financial Management: Encompasses all accounting functions necessary to record and produce auditable financial statements (for GF and WCF)

- TCI Field Maintenance Logistics Capability Initiative (LCI) will improve the AF field maintenance capabilities across the Mission Generation Network (MGN) and Repair Network (RN) functionalities supports USAF Strategic Master Plan, Vector 1: Provide Effective 21st-Century Deterrence and Vector 3: Ensure a Full-Spectrum Capable, High-End Focused Force. It also directly supports the future vision of Air Force maintenance being divided between Mission Generation, which takes place on the flight line, and repair networks that provides support to Mission Generation as outlined in the 2015-2025 Enterprise Logistics Flight Plan (ELFP).

MGN will address the cumulative effort required to launch, recover, configure, inspect and repair aircraft. It includes activities covering the planning, scheduling and execution of aircraft preparation and maintenance to support sortie production and is predominantly accomplished in an on-equipment environment. MGN and RN will standardize processes where appropriate, allowing for optimization of resources, enhanced visibility of assets, reduced rework, reduced variability, improved documentation and configuration management, all allowing for more rapid and informed decision-making at the base and enterprise level.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Technology (LOGIT)*

- Funds will be used to perform studies, analysis, assessments, and innovative integration efforts for common technology capabilities such as cloud migration, technology development and mobile applications that cross and support all of the aforementioned initiatives.

Remediation and Modernization:

- Remediation and modernization of core logistics systems is necessary for the AF to meet statutory Financial Improvement Audit Readiness (FIAR) requirements and align with the Joint Chiefs of Staff J-4 Concept for Logistics, and the AF Portfolio Board's approved Logistics Flight Plan. Concurrently, the AF sustain and modify identified logistics systems to achieve FIAR remediation by the statutory deadline; execute software upgrades to reduce high operating costs and meet evolving operational demands; implement statutory compliance requirements; improve system performance; and enable system consolidation efforts that lower the cyber threat space and reduce long-term portfolio costs.

- Identified systems include, but are not limited to, the Integrated Logistics System-Supply (ILS-S), Enhanced Technical Information Management System (ETIMS), Integrated Maintenance Data System (IMDS), and Reliability and Maintainability Information System (REMIS). Additional logistics systems may be included as financial audits are completed and system consolidation efforts mature.

- This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 $0.001M was expended for civilian pay expenses in this program element, and in FY2024 $0.15M is forecasted for civilian pay expenses in this program element.

- This program element may include necessary emergent or unanticipated civilian pay expenses required to manage, execute, and deliver Logistics IT Systems 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 0505829F.

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

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Technology (LOGIT)*	

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	17.271	17.520	10.165	0.000	10.165
Current President's Budget	15.882	17.520	11.895	0.000	11.895
Total Adjustments	-1.389	0.000	1.730	0.000	1.730
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	-0.886	0.000			
• SBIR/STTR Transfer	-0.503	0.000			
• Other Adjustments	0.000	0.000	1.730	0.000	1.730

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 675207: *Logistics IT System Modernization*		
Congressional Add: *Modernized, integrated, secured digital supply chain initiative*	9.703	-
Congressional Add: *Tagless IUID*	0.000	-
Congressional Add Subtotals for Project: 675207	9.703	-
Congressional Add Totals for all Projects	9.703	-

Change Summary Explanation

The FY25 request was increased in order to fund additional provisioning and testing actives that resulted from unforeseen interface complexities and will support the delivery of MVP1 in FY26.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Enhanced Technical Information Management System Enhancements (ETIMS Enhancements)	1.839	4.939	4.296
Description: Modify ETIMS to enhance user capability/functionality. Modifications may include improvements of services and capabilities to support electronic Tech Order (TO) distribution and viewing, deployment of the ETIMS Mobile Application, improvements to support online viewing of IETMs, interface with Technical Order Authoring and Publishing (TOAP), TO Change Requests processes and Computer Program Identification Numbers (CPIN) management, incorporate Classified TOs into ETIMS, subsume Security Assistance Technical Order Distribution System (SATODS) functionality, system changes to			

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Technology (LOGIT)*	

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
subsume functionality of other systems in support of terminating duplicate capability, system enhancements to meet compliance requirements, and enhancements for information technology modernization. *FY 2024 Plans:* - Will continue limited deployments and achieve full deployment of mobile app v01.04 - Will award development contract for ETIMS v01.05 - Will begin development and testing of ETIMS v01.05 *FY 2025 Plans:* - Will continue development and testing of ETIMS v01.05 - Will begin pre-acquistion activities ETIMS v01.06 *FY 2024 to FY 2025 Increase/Decrease Statement:* The decrease from FY2024 to FY2025 reflects a rephasing of ETIMS program requirements.			
Title: Transformation Capability Initiative -Foundational Logistics Information Technology Enterprise System (FLITES) *Description:* FLITES will provide comprehensive Item Catalog and Provisioning functions for the Logistics business systems, and will replace the Item Management Control System (IMCS) suite of legacy systems, at a minimum. It will be the central repository for the Item core business objects, providing standardization of Item cataloging processes, structure, attributes, propagation, and standardized views for all applicable Item types. Additionally, FLITES will receive product structure input from an engineering Product Lifecycle Management (PLM) type system. FLITES will contain the Item data that is the core underlying information for each Transformation Capability Initiative (TCI), and as such, will integrate with many logistics enterprise systems. FLITES is a pilot program within NDAA Section 873, "Agile or Iterative Development Methods to Tailor Major Software-Intensive Warfighting Systems and Defense Business Systems pilot program." In FY21, the program name was changed from Item Master Logistics Capability Initiative (IMLCI) to Foundational Logistics Information Technology Enterprise System (FLITES). *FY 2024 Plans:* - Will continue tuning commercial platform on Cloud-One and Dev/Test environments to continue work towards Full Deployment of FLITES - Will continue configuration of commercial platform to provide foundational logistics capability - Will conduct recurring cyber-security and system performance testing concurrent with configuration - Will develop and test interfaces and data exchanges to other Logistics Systems, as needed	4.340	12.581	7.599

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Technology (LOGIT)*	

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Will continue fielding capability to pre-production environment for user familiarization and for use in production ***FY 2025 Plans:*** - Will continue tuning commercial platform on Cloud-One and Dev/Test environments to continue work towards Full Deployment of FLITES, staring with MVP 1.0 to replace the legacy IMCS. - Will continue configuration of commercial platform to provide foundational logistics capability - Will conduct recurring cyber-security and system performance testing concurrent with configuration - Will continue developing and testing interfaces and data exchanges to other Logistics Systems, as needed - Begin developing and integrating the next FLITES MVP, MVP 1.1, to replace the legacy Part Number Supply Support Request System (PNSSR) and the Contractor Supported Weapon Systems (CWSS) ***FY 2024 to FY 2025 Increase/Decrease Statement:*** The decrease from FY2024 to FY2025 reflects the reduction in work planned for FY25 as most of the development for MVP1 will have been finalized and the remaining efforts consist primarily of finalizing the provisioning capability followed by system testing leading up to the deployment.			
Accomplishments/Planned Programs Subtotals	6.179	17.520	11.895

	FY 2023	FY 2024
Congressional Add: Modernized, integrated, secured digital supply chain initiative	9.703	-
FY 2023 Accomplishments: Develop modern IT architectures, integrate data and data systems, and enhance cybersecurity capabilities for Air Force logistics systems		
Congressional Add: Tagless IUID	0.000	-
FY 2023 Accomplishments: Assessing program activities and prioritization		
Congressional Adds Subtotals	9.703	-

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 Air Force Program Executive Office - Business and Enterprise Systems (AFPEO-BES) is evaluating systems under the DoDI 5000.75 to approve Authority To Proceed (ATP) for each core logistics system remediation/modification project.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Technology (LOGIT)*	

Agile development practices transform IT acquisitions by incrementally delivering capabilities faster and responding more effectively to changes in operations, technology, and budgets. The four objectives of Agile software development are: 1. Focusing on small, frequent capability releases; 2. Valuing working software over comprehensive documentation; 3. Responding rapidly to changes in operations, technology, and budgets; 4. Actively involving users throughout development to ensure high operational value. In addition, exploitation of emerging cloud-native and containerized deployment on modern platforms will greatly enhance speed of delivery to users in a secure, scalable, and flexible manner.

The Logistics IT program utilizes the Agile software development methodology in the acquisition of these projects. Log IT supports multiple lines of effort and will employ multiple acquisition strategies to achieve the 3 Log IT objectives of FIAR and Software Upgrades, Transformation, and Transformation Capability Initiatives. Agile development, continuous integration and deployment are preferred methodologies that will be employed to the greatest extent possible to achieve maximum flexibility and cyber-resiliency, using an appropriate mix of contractor and government personnel.

Contract strategies will require multiple approaches with a focus on best value and rapid execution using contracts like the pre-competed Small Business Enterprise Application Solutions (SBEAS) multi-vendor indefinite delivery/indefinite quantity (ID/IQ) vehicle.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024	
Appropriation/Budget Activity 3600 I 7					**R-1 Program Element (Number/Name)** PE 0708610F I *Logistics Information Techno logy (LOGIT)*						**Project (Number/Name)** 675207 I *Logistics IT System Modernization*		

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ETIMS Enhancements- Prime Intergration Incrementally Funded FY23 Reqts (ECP v.01.04)	C/CPAF	KIRA Info Solutions : WPAFB, OH	-	-		0.641	Dec 2023	-		-		-	Continuing	Continuing	-
ETIMS Enhancements - Prime Integration	C/CPAF	KIRA Info Solutions, : WPAFB, OH	-	1.443	Apr 2023	3.811	Jun 2024	3.799	Sep 2025	-		3.799	Continuing	Continuing	-
ETIMS Enhancements - Mobile Development	C/FFP	BESPIN : MAFB-Gunter Annex, AL	-	0.069	Apr 2023	0.071	Mar 2024	0.073	Mar 2025	-		0.073	Continuing	Continuing	-
FLITES - Development/ Production Software Tools	Various	Various : WPAFB, OH	-	0.140	Dec 2022	0.144	Dec 2023	0.146	Dec 2024	-		0.146	Continuing	Continuing	-
FLITES - Hosting and Hybrid Support (C1)	C/CPFF	SAIC : WPAFB, OH	-	0.001	Dec 2022	0.358	Dec 2023	1.029	Dec 2024	-		1.029	Continuing	Continuing	-
FLITES - Technical Service Contract	C/FFP	One Network : WPAFB, OH	-	1.371	Apr 2023	4.053	Apr 2024	1.558	Apr 2025	-		1.558	Continuing	Continuing	-
FLITES - Development Licenses	C/FFP	One Network : WPAFB, OH	-	2.209	Oct 2022	4.023	Apr 2024	2.136	Apr 2025	-		2.136	Continuing	Continuing	-
FLITES - Java Developers	C/FFP	Arcticom LLC : WPAFB, OH	-	0.362	Jan 2023	1.567	Nov 2023	0.835	Nov 2024	-		0.835	Continuing	Continuing	-
FLITES - Development/ Testing (Congressional Add)	C/FFP	One Network : WPAFB, OH	-	3.185	Aug 2023	-		-		-		-	Continuing	Continuing	-
AF-PLM - Development/ Integration (Congressional Add)	MIPR	NCMS : TBD	-	6.518	Sep 2023	-		-		-		-	Continuing	Continuing	-
Subtotal			-	15.298		14.668		9.576		-		9.576	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ETIMS Enhancements - SME	C/FFP	DATUM : WPAFB, OH	-	0.256	Jul 2023	0.266	Jul 2024	0.273	Jul 2025	-		0.273	Continuing	Continuing	-

PE 0708610F: *Logistics Information Technology (LOGIT)*
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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024		

Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Techno logy (LOGIT)*	**Project (Number/Name)** 675207 *I Logistics IT System Modernization*

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
ETIMS Enhancements - ISP	C/FFP	Bowhead : WPAFB, OH	-	0.071	Dec 2022	0.150	Nov 2023	0.151	Dec 2024	-		0.151	Continuing	Continuing	-
FLITES - DME SME/Help Desk	C/FFP	TACG, LLC : WPAFB, OH	-	0.001	Apr 2023	0.868	Dec 2023	0.421	Dec 2024	-		0.421	Continuing	Continuing	-
FLITES - Enterprise Architecture	C/FFP	Bowhead : WPAFB, OH	-	0.017	Jan 2023	0.338	Dec 2023	0.251	Dec 2024	-		0.251	Continuing	Continuing	-
Program Support (DCA)	Various	AFLCMC : MAFB-Gunter, AL	-	0.001	Sep 2023	0.150	Oct 2023	0.149	Oct 2024	-		0.149	Continuing	Continuing	-
Subtotal			-	0.346		1.772		1.245		-		1.245	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
FLITES - LDTO	PO	96th Test Wing : Eglin AFB, FL	-	0.000	Nov 2022	0.142	Nov 2023	0.126	Nov 2024	-		0.126	Continuing	Continuing	-
Subtotal			-	0.000		0.142		0.126		-		0.126	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
				Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
FLITES - PMO Travel	Various	PEO : WPAFB, OH	-	0.020	Jan 2023	0.000	Jan 2024	-		-		-	Continuing	Continuing	-
FLITES - EPASS	C/CPFF	Oasis : WPAFB, OH	-	0.218	Mar 2023	0.937	Mar 2024	0.947	Mar 2025	-		0.947	Continuing	Continuing	-
PMA	TBD	TBD : WPAFB, OH	-	-		0.001	Mar 2024	0.001	Mar 2025	-		0.001	Continuing	Continuing	-
Subtotal			-	0.238		0.938		0.948		-		0.948	Continuing	Continuing	N/A

			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
	Project Cost Totals		-	15.882		17.520		11.895		-		11.895	Continuing	Continuing	N/A

PE 0708610F: *Logistics Information Technology (LOGIT)*
Air Force

Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Techno logy (LOGIT)*	**Project (Number/Name)** 675207 *I Logistics IT System Modernization*

	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**

Remarks

PE 0708610F: *Logistics Information Technology (LOGIT)*
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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Technology (LOGIT)*	**Project (Number/Name)** 675207 *I Logistics IT System Modernization*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
ETIMS Enhancements																												
ETIMS Enhancements (v01.04) - Development / Testing / Prod																												
ETIMS Enhancements (v01.04) - Limited Deployment																												
ETIMS Enhancements (v01.04) - Full Deployment																												
ETIMS Enhancements (v01.05) - Pre-Acquisition Activities																												
ETIMS Enhancements (v01.05) - Development / Testing / Prod																												
ETIMS Enhancements (v01.05) - Full Deployment																												
ETIMS Enhancements (v01.06) - Pre-Acquisition Activities																												
ETIMS Enhancements (v01.06) - Development/Testing/Prod																												
ETIMS Enhancements (V01.06) - Full Development																												
FLITES																												
FLITES - Development/Testing																												
FLITES- Limited Deployment ATP (includes MVP 1.0)																												
FLITES - Limited Deployments (includes MVPs 1.1 and 1.2)																												
FLITES- Full Deployment ATP (includes MVP 2.0)																												

PE 0708610F: *Logistics Information Technology (LOGIT)*
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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0708610F *I Logistics Information Technology (LOGIT)*	**Project (Number/Name)** 675207 *I Logistics IT System Modernization*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
ETIMS Enhancements				
ETIMS Enhancements (v01.04) - Development / Testing / Prod	1	2023	3	2024
ETIMS Enhancements (v01.04) - Limited Deployment	4	2023	2	2024
ETIMS Enhancements (v01.04) - Full Deployment	3	2024	3	2024
ETIMS Enhancements (v01.05) - Pre-Acquisition Activities	4	2023	3	2024
ETIMS Enhancements (v01.05) - Development / Testing / Prod	3	2024	2	2026
ETIMS Enhancements (v01.05) - Full Deployment	2	2026	2	2026
ETIMS Enhancements (v01.06) - Pre-Acquisition Activities	3	2025	3	2026
ETIMS Enhancements (v01.06) - Development/Testing/Prod	3	2026	4	2027
ETIMS Enhancements (V01.06) - Full Development	4	2027	4	2027
FLITES				
FLITES - Development/Testing	1	2023	4	2028
FLITES- Limited Deployment ATP (includes MVP 1.0)	4	2026	4	2026
FLITES - Limited Deployments (includes MVPs 1.1 and 1.2)	3	2027	2	2028
FLITES- Full Deployment ATP (includes MVP 2.0)	4	2028	4	2028

PE 0708610F: *Logistics Information Technology (LOGIT)*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 0801380F *I AF LVC Operational Training (LVC-OT)*						
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	0.000	25.144	29.815	0.000	29.815	28.904	29.502	30.491	31.089	Continuing	Continuing
674567: *Modeling and Simulation Foundations - MSF*	-	0.000	7.637	12.197	0.000	12.197	13.951	14.404	14.793	15.080	Continuing	Continuing
675135: *Warfighter Readiness*	-	0.000	17.507	17.618	0.000	17.618	14.953	15.098	15.698	16.009	Continuing	Continuing

Note

In FY2024, PE 0207601F, USAF Modeling and Simulation, Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness, efforts were transferred to PE 0801380F, AF LVC Operational Training (LVC-OT), Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness.

A. Mission Description and Budget Item Justification

Modeling and Simulation support to our Warfighter's Readiness is a United States Air Force (USAF) corporate imperative to ensure air, space, cyberspace training, and mission rehearsal activities are supported with realistic, interoperable, and readily available tools, data, services and environments. Warfighter readiness supports Department of Defense (DoD) Training Transformation (T2) and Joint National Training Capability (JNTC) along with the USAF priorities and core functions. Activities also include studies and analysis to support both current program planning, execution, and future program planning.

It includes several complimentary programs, initiatives and areas for investment: Warfighter and Joint Training Integration supports the Chief of Staff of the Air Force (CSAF) directed Live, Virtual, and Constructive (LVC) integration efforts and is a critical piece to the USAF's implementation of the Strategic Plan for Transforming DoD Training. The goal of LVC training and mission rehearsal is to prepare our warfighters for the full range of military operations and maintain the combat readiness levels required by the Combatant Commanders. This can only be accomplished by training and rehearsing in realistic operational environments. These environments include live training ranges and virtual simulators enhanced with constructive entities. Specific training and mission rehearsal events can include some or all of these simultaneously; making the ability to integrate LVC capabilities a necessity.

The Air, Space, and Cyberspace Constructive Environment (ASCCE) is the USAF's authoritative federation of constructive training models and tools realistically representing the tactical and operational capabilities the USAF brings to the joint fight. Project 675135, Warfighter Readiness, provides for the Command & Control Simulation Environment for Training (C2SET) development effort, which is modernizing the authoritative representation of AF and joint theater-level air and space power for training Air and Space Operations Center (AOC) personnel and Combatant Commanders' battle staffs. The primary models in development for C2SET are based on the AF common Advanced Framework for Simulation, Integration, and Modeling (AFSIM). C2SET will replace the current Air Force Modeling and Simulation Training Toolkit (AFMSTT).

The program element also contains Project 674567, M&S Foundations, the Air, Space and Cyberspace Collaborative Environment - Information Operations Suite (ACE-IOS). ACE-IOS is a federation of constructive models for the authoritative representation of Air Force Intelligence, Surveillance, and Reconnaissance (ISR), Electronic Warfare (EW), Information Operations (IO), and Cyber Effects on AF combat operations. The program supports multifaceted training and mission rehearsal for the Air

PE 0801380F: *AF LVC Operational Training (LVC-OT)*
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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0801380F *I AF LVC Operational Training (LVC-OT)*	

Force at multiple training tiers, Joint Task Force commanders, and Combatant Commanders' battle staffs covering training from the AF schoolhouse through the Air Combatant Commander staff via Joint and Service exercises, tests, and experiments. This program also supports the DoD Training Transformation Initiative.

This program is part of the overarching Kessel Run portfolio and is leveraging the All Domain Common Platform (ADCP). The ADCP provides an extensible cloud based Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform built to deliver highly resilient mission applications and data to Airmen deployed around the world.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23, 0.0M was expended for civilian pay expenses in this program element and in FY24, $1.743M is forecasted for civilian pay expenses.

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

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	0.000	25.144	26.921	0.000	26.921
Current President's Budget	0.000	25.144	29.815	0.000	29.815
Total Adjustments	0.000	0.000	2.894	0.000	2.894
• 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	2.894	0.000	2.894

Change Summary Explanation

The FY25 total adjustment accounts for increased projected support required in ACEIOS. Current follow-on contract requirements in ACEIOS are expected to ramp up due to increased development in support of exercises in FY25.

PE 0801380F: *AF LVC Operational Training (LVC-OT)*
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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600 I 7					**R-1 Program Element (Number/Name)** PE 0801380F I AF LVC Operational Training (LVC-OT)				**Project (Number/Name)** 674567 I Modeling and Simulation Foundations - MSF		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
674567: *Modeling and Simulation Foundations - MSF*	-	0.000	7.637	12.197	0.000	12.197	13.951	14.404	14.793	15.080	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY2024, PE 0207601F, USAF Modeling and Simulation, Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness, efforts were transferred to PE 0801380F, AF LVC Operational Training (LVC-OT), Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness. This is not a new start.

A. Mission Description and Budget Item Justification

Modeling and Simulation Foundations (MSF) focuses on integrating foundational capabilities needed to improve the usefulness of Modeling and Simulation (M&S) capabilities derived from the Warfighter Readiness (WR) thrust. The efforts supporting MSF include both concept exploration and development. MSF provides the capability to rapidly and efficiently create realistic and accurate synthetic operational battlespaces to support the full spectrum of activities associated with concept development to acquisition and testing through composite training and mission rehearsals.

ACE-IOS project is a federation of constructive models for the authoritative representation of Air Force ISR and Information Operations. ACE-IOS provides simulation modeling and stimulation systems, software, and contract support in support of ISR/Cyber training from the AF ISR Schoolhouse to Joint mission rehearsal for the Air Force, Joint Task Force commanders, and Combatant Commands battle staffs during Joint and Service exercises, tests and experiments.

ACE-IOS provides ISR and Cyber live-virtual-constructive (LVC) environments to support the Joint training of offensive and defensive ISR/Cyber capabilities for the AF, DoD, select Coalition, and national agencies. AF Joint ISR operational training is conducted by the AF Simulation centers worldwide using the ACE-IOS M&S models and stimulations with specific extensions in support of the Air Force Cyber Simulation Center (CSC) and the AF ISR schoolhouse. Overall development and integration efforts of the ACE-IOS program are imperative to ensure that air, space, and cyberspace training and mission rehearsal activities are supported with realistic, interoperable, and readily available tools, data, and services. Specific ACE-IOS capability enhancements are built in direct support of the Distributed Mission Operations Center for Cyberspace (DMOC-C) and the AF ISR schoolhouse. The specific cyber effects software extensions for DMOC-C are in support of the training and exercising of tactical cyber mission forces (CMF), cyber service providers (CSP), and operational-level command and control, intelligence, and cyber planners and operators supporting global operations.

LVC environments today are used as one of the most cost effective and practical means to meet mission needs. These efforts enable more efficient delivery of effective capabilities to the warfighter while reducing the time and resources required for design, development, test, and evaluation, maintainability and sustainment.

Authorization and Accreditation and Networthiness is maintained via the Information Technology (IT) systems Risk Management Framework (RMF) for seven classified ACE-IOS configuration and two supported cross domain solutions, which includes codes and ruleset development, testing, and fielding, and meets AF Joint Worldwide

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0801380F *I AF LVC Operational Training (LVC-OT)*	**Project (Number/Name)** 674567 *I Modeling and Simulation Foundations - MSF*

Intelligence Communications Systems (JWICS), AF Secret Protocol Router Network (SIPRNET) and AF and Joint Staff training network net worthiness standards and evaluation.

This program also supports the DoD Transformation Initiative.

This program is part of the overarching Kessel Run portfolio and is assessing the extent to which All Domain Common Platform (ADCP) will be leveraged. The ADCP provides an extensible cloud based Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform built to deliver highly resilient mission applications and data to Airmen deployed around the world.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23, 0.000M was expended for civilian pay expenses in this program element and in FY24 0.290M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)

	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Title: Air, Space and Cyberspace Constructive Environment - Information Operations Suite (ACE-IOS)	0.000	7.637	12.197	-	12.197

Description: Provides the authoritative representation of the AF ACE-IOS program. ACE- IOS is comprised of models that
support training and mission rehearsal for the Air Force, Joint Task Force commanders, and Combatant Commander battle staffs during Joint and Service exercises and experimentations. Also supports shared ACE-IOS development in support of the AF ISR schoolhouse and DMOC-C extensions.

FY 2024 Plans:
-Continue to deliver ACE-IOS version & deployment
-Continue ACE-IOS agile development
-Continue integration with C2SET program and M&S support to Kessel Run common development

FY 2025 Base Plans:
-Will continue to deliver ACE-IOS version & deployment
-Will continue ACE-IOS agile development
-Will continue integration with C2SET program and M&S support to Kessel Run common development

FY 2024 to FY 2025 Increase/Decrease Statement:

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0801380F / AF LVC Operational Training (LVC-OT)	**Project (Number/Name)** 674567 / Modeling and Simulation Foundations - MSF

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Funding increased to an increase in the number of required Air Constructive Environment - Information Operations Suite (ACEIOS) mission cases beyond the original plan. This will also fund development for interoperability with C2SET.					
Accomplishments/Planned Programs Subtotals	0.000	7.637	12.197	-	12.197

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 833140: Strategic Command And Control	30.738	9.991	5.426	-	5.426	1.859	1.903	28.647	29.215	0.000	107.779
• RDTE 07 0303248F: AF Command and Control (C2) Common Platform	46.540	71.296	88.470	-	88.470	87.400	92.399	88.645	90.402	0.000	565.152

Remarks

D. Acquisition Strategy

The Acquisition goals of the Air, Space and Cyberspace Constructive Environment - Information Operations Suite (ACE-IOS) are achieved through incremental development of the project's M&S activities; all contracts are awarded using full and open competition. In order to meet evolving M&S technology and requirements and its modernization effort, the ACE-IOS program will leverage commercial best practices for agile software development.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force | | **Date:** March 2024

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0801380F / AF LVC Operational Training (LVC-OT)	Project (Number/Name) 674567 / Modeling and Simulation Foundations - MSF

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Air, Space and Cyberspace Constructive Environment - Information Operations Suite (ACE-IOS)(1)	TBD	TBD : TBD	-	-		6.519	Dec 2023	11.387	Dec 2024	-		11.387	Continuing	Continuing	-
Subtotal			-	-		6.519		11.387		-		11.387	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
ACE-IOS Civilian Direct Cite Authorizations for Product Development	Allot	TBD : TBD	-	-		0.290	Oct 2023	0.290	Oct 2024	0.000	Oct 2024	0.290	Continuing	Continuing	-
Subtotal			-	-		0.290		0.290		0.000		0.290	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration	C/Various	AFLCMC : Hanscom AFB, MA	-	-		0.828	Oct 2023	0.520	Oct 2024	-		0.520	Continuing	Continuing	-
Subtotal			-	-		0.828		0.520		-		0.520	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	7.637	12.197	0.000	12.197	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0801380F I AF LVC Operational Trainin g (LVC-OT)	**Project (Number/Name)** 674567 I Modeling and Simulation Foundations - MSF

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Air, Space and Cyberspace Constructive Environment - Information Operations Suite(ACE-IOS)																												
- ACE-IOS v5.0.24																												
- ACE-IOS v5.0.25																												
- ACE-IOS v5.0.26																												
- ACE-IOS v5.0.27																												
- ACE-IOS v5.0.28																												
- ACE-IOS v5.0.29																												
-ACE-IOS v6.0.30																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0801380F / AF LVC Operational Training (LVC-OT)	**Project (Number/Name)** 674567 / Modeling and Simulation Foundations - MSF	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Air, Space and Cyberspace Constructive Environment - Information Operations Suite(ACE-IOS)				
- ACE-IOS v5.0.24	1	2023	4	2023
- ACE-IOS v5.0.25	1	2024	4	2024
- ACE-IOS v5.0.26	1	2025	4	2025
- ACE-IOS v5.0.27	1	2026	4	2026
- ACE-IOS v5.0.28	1	2027	4	2027
- ACE-IOS v5.0.29	1	2028	4	2028
-ACE-IOS v6.0.30	1	2029	4	2029

PE 0801380F: *AF LVC Operational Training (LVC-OT)*
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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600 I 7				**R-1 Program Element (Number/Name)** PE 0801380F I *AF LVC Operational Training (LVC-OT)*					**Project (Number/Name)** 675135 I *Warfighter Readiness*			
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675135: *Warfighter Readiness*	-	0.000	17.507	17.618	0.000	17.618	14.953	15.098	15.698	16.009	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

In FY2024, PE 0207601F, USAF Modeling and Simulation, Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness, efforts were transferred to PE 0801380F, AF LVC Operational Training (LVC-OT), Project 674567, M&S Foundations, and Project 675135, Warfighter Readiness, to meet higher priority AF Operational Readiness and Training efficiencies.

A. Mission Description and Budget Item Justification

Modeling and Simulation support to our Warfighter's Readiness is a United States Air Force (USAF) corporate imperative to ensure air, space, cyberspace training, and mission rehearsal activities are supported with realistic, interoperable, and readily available, tools, data, services and environments. Warfighter Readiness supports Department of Defense (DoD) Training Transformation (T2) and Joint National Training Capability (JNTC) along with the USAF priorities and core functions. Activities also include studies and analysis to support both current program planning, execution, and future program planning.

It includes several complimentary programs, initiatives and areas for investment: Warfighter and Joint Training Integration supports the Chief of Staff of the Air Force (CSAF) directed Live, Virtual, and Constructive (LVC) integration efforts and is a critical piece to the USAF's implementation of the Strategic Plan for Transforming DoD Training. The goal of LVC training and mission rehearsal is to prepare our warfighters for the full range of military operations and maintain the combat readiness levels required by the Combatant Commands. This can only be accomplished by training and rehearsing in realistic operational environments. These environments include live training ranges and virtual simulators enhanced with constructive entities. Specific training and mission rehearsal events can include some or all of these simultaneously; making the ability to integrate LVC capabilities a necessity.

The Air, Space, and Cyberspace Constructive Environment (ASCCE) is the USAF's authoritative federation of constructive training models and tools realistically representing the tactical and operational capabilities the USAF brings to the joint fight. This includes development effort for Command & Control Simulation Environment for Training (C2SET), which provides the authoritative representation of AF and Joint theater-level air and space power and is used to train Air and Space Operations Center (AOC) personnel and Combatant Commanders' battle staffs. C2SET is replacing the AFMSTT models with the proven core Advanced Framework for Simulation, Integration, and Modeling (AFSIM) scientific engine. The goal is toward a fully scalable and more scientific based modeling, simulation, and training stimulation to the Combined Forces Air Component Commander (CFACC). AFMSTT entered full sustainment in FY21 and continues to receive operational updates to maintain operational currency until C2SET fully replaces.

This program is part of the overarching Kessel Run portfolio and is leveraging the All Domain Common platform (ADCP). The ADCP provides an extensible cloud based Infrastructure and Platform as a Service (IaaS/PaaS) hosting platform built to deliver highly resilient mission applications and data to Airmen deployed around the world.

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0801380F *I AF LVC Operational Training (LVC-OT)*	**Project (Number/Name)** 675135 *I Warfighter Readiness*

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23, 0.0M was expended for civilian pay expenses in this program element and in FY24 1.453M is forecasted for civilian pay expenses.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: Command & Control Simulation Environment for Training (C2SET)	0.000	17.507	17.618	-	17.618
Description: C2SET will replace AFMSTT & C2WSPTT legacy systems with modernized training & rehearsal capability to warfighters across various AOCs. C2SET models deliver capability for scalable, interoperable exercises to users across Sim Centers at Osan & Hickam ABs. Furthermore, the C2SET environment creates high fidelity training scenarios for the operators at the 505th Command and Control Wing, Hurlburt Field AFB, FL ***FY 2024 Plans:*** -Continue slice testing to deliver modernized capabilities of AFMSTT, ensuring system remains compatible with both Block 20 & 10.1. -Continue to leverage DAF M&S & operational and analysis communities to deliver next generation training environments to AOC/CC Exercise Participants, Goodfellow Schoolhouse students & DMOC-C & KRADOS users. ***FY 2025 Base Plans:*** -Will continue deployment of modernized simulation capabilities providing realistic behavior simulation for current and future ATO and C5ISR mission sets by providing a substantially modernized core M&S engine around a common USAF framework compatible with Block 20 & 10.1 -Will continue to expand on its capability to plan and execute a simulated exercise scaled to the number of missions, mission types, threats, and number of partners required to meet the Combined/Joint Force Commander's (C/JFC) desired training objectives for AOC/CC exercise participants -Will continue to work and deliver individual training to stimulate and simulate Block 20 systems necessary to provide initial & mission qualification training (IQT & MQT) ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased to meet required development objectives for the third year of execution, and to provide for continued fielding under the CI/CD process.					
Accomplishments/Planned Programs Subtotals	0.000	17.507	17.618	-	17.618

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0801380F / AF LVC Operational Trainin g (LVC-OT)	**Project (Number/Name)** 675135 / Warfighter Readiness

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 833140: *Strategic Command And Control*	30.738	9.991	5.426	-	5.426	1.859	1.903	28.647	29.215	0.000	107.779
• RDTE 07 0303248F: *AF Command and Control (C2) Common Platform*	46.540	71.296	88.470	-	88.470	87.400	92.399	88.645	90.402	0.000	565.152

Remarks
 N/A

D. Acquisition Strategy

 The Acquisition goals of the Command & Control Simulation Environment for Training (C2SET) are achieved through incremental development of the project's M&S activities; all contracts are awarded using full and open competition. C2SET operates under authority of a Software Acquisition Pathway following DoDI 5000.87, Operation of a Software Acquisition Pathway Guidance. The desired end state is continuous delivery of all C2SET software.

PE 0801380F: *AF LVC Operational Training (LVC-OT)*
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0801380F / *AF LVC Operational Training (LVC-OT)*	**Project (Number/Name)** 675135 / *Warfighter Readiness*

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C2SET (FSO)	C/T&M	Full Spectrum Operations : Fairfax, VA	-	-		5.836	Jul 2024	4.531	Jul 2025	-		4.531	Continuing	Continuing	-
C2SET (Omni)	C/T&M	Omni Federal : Gainesville, VA	-	-		7.694	Jul 2024	5.416	Jul 2025	-		5.416	Continuing	Continuing	-
Subtotal			-	-		13.530		9.947		-		9.947	Continuing	Continuing	N/A

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
C2SET Direct Mission Support	C/TBD	Various : TBD	-	-		0.000	Oct 2023	4.371	Oct 2024	-		4.371	Continuing	Continuing	-
C2SET Civilian Direct Cite Authorizations for Product Development	Allot	AFLCMC/FZA : TBD	-	-		1.453	Oct 2023	1.482	Oct 2024	-		1.482	Continuing	Continuing	-
Subtotal			-	-		1.453		5.853		-		5.853	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Program Management Administration	C/Various	AFLCMC : HANSCOM AFB, MA	-	-		2.107	Oct 2023	1.393	Oct 2024	-		1.393	Continuing	Continuing	-
Systems Engineering	SS/ Various	MITRE : Bedford, MA	-	-		0.417	Oct 2023	0.425	Oct 2024	-		0.425	Continuing	Continuing	-
Subtotal			-	-		2.524		1.818		-		1.818	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	-	17.507	17.618	-	17.618	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force									**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7			**R-1 Program Element (Number/Name)** PE 0801380F *I AF LVC Operational Training (LVC-OT)*			**Project (Number/Name)** 675135 *I Warfighter Readiness*			
	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0801380F / *AF LVC Operational Training (LVC-OT)*	**Project (Number/Name)** 675135 / *Warfighter Readiness*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Air, Space, and Cyberspace ConstructiveEnvironment (ASCCE)																												
C2SET																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0801380F *I AF LVC Operational Training (LVC-OT)*	**Project (Number/Name)** 675135 *I Warfighter Readiness*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Air, Space, and Cyberspace ConstructiveEnvironment (ASCCE)				
C2SET	1	2024	4	2029

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0804743F *I Other Flight Training*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	1.908	2.265	2.319	0.000	2.319	2.379	2.427	0.939	0.958	0.000	13.195
675304: *Aviation Resource Management System (ARMS)*	-	1.908	2.265	2.319	0.000	2.319	2.379	2.427	0.939	0.958	0.000	13.195
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This program, BA 7, PE 0804743F, project 675304, Aviation Resource Tool Enterprise Mission Information System (ARTEMIS), is a new start.

A. Mission Description and Budget Item Justification

Aviation Resource Tool Enterprise Mission Information System (ARTEMIS) seeks to migrate ancient Air Force operations-related information technology (IT) systems into a common operational enterprise-wide architecture. This common architecture ensures data versatility, permitting common architecture across multiple programs/ applications yielding real-time analytics for aircrew, missileer and parachutist training, readiness, and electronic flying hours reports. It will fully incorporate the capabilities of the Aviation Resource Management System (ARMS), for all aircrew and parachutist management (including flight and jump pay) covering 65,000 Aircrew/ Parachutists and used by 2,800 1C0X2 Career Field members with 2.2M transactions per week.

ARTEMIS will provide a cloud-based solution and ensure indefinite, secure integration w/existing operations systems. It will provide dashboards and data analytics support decision making for informing readiness assessments. The sustainment of these capabilities and the introduction of new capabilities follows an agile development process. The cloud environment provides the Continuous Integration and Continuous Deployment (CI/CD) pipeline required to constantly deliver software in and agile framework, following the required DevSecOps methodology. The migration to the cloud environment and the DevSecOps methodology will transform ARMS into a scalable and flexible system capable of meeting all information requirements of the Aviation Resource Management community.

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

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program elements 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY 2023 $0.000 million was expended for civilian pay expenses in this program element, and in FY 2024 $0.000 million is forecast 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.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0804743F *I Other Flight Training*	

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	2.214	2.265	2.315	0.000	2.315
Current President's Budget	1.908	2.265	2.319	0.000	2.319
Total Adjustments	-0.306	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	-0.224	0.000			
• SBIR/STTR Transfer	-0.082	0.000			
• Other Adjustments	0.000	0.000	0.004	0.000	0.004

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Aviation Resource Management System (ARMS) *Description:* Hardware/software development to update ARMS, adding functionality and system interfaces. *FY 2024 Plans:* Continue migrating legacy ARMS capabilities from DISA platform to Cloud One platform; deliver patches as needed to correct system deficiencies or apply required upgrades; and, continue updates to system design, configuration, test, and training. *FY 2025 Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased due to decommissioning of software.	1.908	2.265	0.000
Title: Aviation Resource Tool Enterprise Mission Information System (ARTEMIS) *Description:* Software development to update Aircrew Resource Management System through ARTEMIS, adding functionality and system interfaces. *FY 2024 Plans:* N/A *FY 2025 Plans:*	0.000	0.000	2.319

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0804743F *I Other Flight Training*

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Modifying Aircrew Resource Management Systems (ARMS) capabilities to a Cloud One based platform (ARTEMIS); deliver patches as needed to correct system deficiencies, integrate with other platforms, apply required upgrades; and, continue updates to system design, configuration, test, and training. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding increased due to ramp up of ARTEMIS efforts.			
Accomplishments/Planned Programs Subtotals	1.908	2.265	2.319

D. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

E. Acquisition Strategy

 ARTEMIS utilizes Agile development methodologies to incrementally develop and field enhancements to the existing system. The ARMS PMO utilizes contract programmers for code development/sustainment and government civilians providing program management, engineering, and information technology support. The AF has partnered with the USAF Business Enterprise Systems (BES) Directorate's Business Enterprise Systems Programming Innovation (BESPIN) office to acquire contractor resources that are experts at agile software development in a cloud environment. BESPIN has acquired current contractor support via Section 8a direct award using the United States Digital Services guide and templates on agile development which allowed for an agile acquisition.

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| **Exhibit R-3**, **RDT&E Project Cost Analysis:** PB 2025 Air Force | | | | | | | | | | **Date:** March 2024 | | |
| **Appropriation/Budget Activity**
3600 *I* 7 | | | | | **R-1 Program Element (Number/Name)**
PE 0804743F *I Other Flight Training* | | | | | **Project (Number/Name)**
675304 *I Aviation Resource Management System (ARMS)* | | |

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Deloitte	C/TBD	TBD : Arlington, VA	-	-		0.000		2.319	Jan 2025	-		2.319	Continuing	Continuing	-
Subtotal			-	-		0.000		2.319		-		2.319	Continuing	Continuing	N/A

Support ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 Assessment	SS/FFP	Cloud to Decommission : Maxwell AFB-Gunter Annex, AL	-	1.064	Apr 2023	1.415	Apr 2024	-		-		-	0.000	2.479	-
Subtotal			-	1.064		1.415		-		-		-	0.000	2.479	N/A

Management Services ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
ARMS PSC Other Govt Costs	C/TBD	TBD : TBD	-	0.844	Jan 2023	0.850	Jan 2024	0.000	Jan 2025	-		0.000	Continuing	Continuing	-
Subtotal			-	0.844		0.850		0.000		-		0.000	Continuing	Continuing	N/A

	Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	1.908		2.265		2.319		-		2.319	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0804743F *I Other Flight Training*	**Project (Number/Name)** 675304 *I Aviation Resource Management System (ARMS)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
ARTEMIS EXHIBIT R-4																												
ARMS Program Assessment																												
ARMS Cloud Development/Migration																												
ARTEMIS Flight module																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0804743F *I Other Flight Training*	**Project (Number/Name)** 675304 *I Aviation Resource Management System (ARMS)*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
ARTEMIS EXHIBIT R-4				
ARMS Program Assessment	1	2023	1	2024
ARMS Cloud Development/Migration	2	2024	4	2024
ARTEMIS Flight module	1	2025	4	2029

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0901202F *I Joint Personnel Recovery Agency*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	1.805	2.266	2.320	0.000	2.320	2.380	2.429	2.517	2.567	Continuing	Continuing
675196: *Joint Technology Exploitation*	-	1.805	2.266	2.320	0.000	2.320	2.380	2.429	2.517	2.567	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Funding supports development of innovative capabilities to address Personnel Recovery in Large Scale Combat Operations, Multi-Domain Operations and anti-access/ area denial environments for Combatant Commanders and the Services. Joint personnel Recovery Agency [JPRA] developmental efforts address Personnel Recovery capability gaps and shortfalls identified in the Personnel Recovery Initial Capabilities Document approved by the Joint Requirements Oversight Council memorandum 120-12 on 8 Aug 2012, and subsequent supporting documents approved in the Joint Capabilities Integration Development System. Activities include funding for research and development, support equipment, contract services and all associated costs specifically identified to support the JPRA headquarters Ft. Belvoir, VA and other agency operating locations.

Development and transition to sustainment of an enterprise level information data system [Personnel Recovery Information Data System [PRIDS] to enable DoD data management, analysis and collaboration. Funds also provide USAF Platform One/Cloud One housing for PRIDS. DODI 3002.1 directed JPRA capability.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605832F, 0605833F, 0605898F, 0606398F. In FY23 $0.0M was expended for civilian pay expenses in this program element and in FY24 $0.0M 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.

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0901202F *I Joint Personnel Recovery Agency*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	1.885	2.266	2.316	0.000	2.316
Current President's Budget	1.805	2.266	2.320	0.000	2.320
Total Adjustments	-0.080	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	0.000	0.000			
• SBIR/STTR Transfer	-0.080	0.000			
• Other Adjustments	0.000	0.000	0.004	0.000	0.004

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Personnel Recovery Information Data System [PRIDS] **Description:** Development of the Personnel Recovery Information Data System **FY 2024 Plans:** Continue to work an enterprise level information data system Personnel Recovery Information Data System [PRIDS] to enable DoD data management, analysis and collaboration. **FY 2025 Plans:** Continue to work an enterprise level information data system Personnel Recovery Information Data System [PRIDS] to enable DoD data management, analysis and collaboration. **FY 2024 to FY 2025 Increase/Decrease Statement:** Funding increased due to inflation	1.805	2.266	2.320
Title: Optimal Search Study **Description:** Assess and evaluate technologies for personnel recovery geospatial data visualization, predictive and real-time planning capabilities.	0.000	-	-
Title: Analysis of Alternatives **Description:** Systems analysis to support a future program of record to satisfy the report and locate requirement gaps as identified by the combatant commands [CCMDs].	0.000	-	-

PE 0901202F: *Joint Personnel Recovery Agency*
Air Force

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0901202F *I Joint Personnel Recovery Agency*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: DOD Support to Personnel Recovery in a Chief of Mission Environment [DSPRCE] - Automated Development Tool. *Description:* Internet accessible database that addresses personnel recovery roles, responsibilities, and activities to develop a DOD Personnel Recovery Supplement to a U.S. diplomatic post's emergency action plan.	0.000	-	-
Title: Smartphone Initiative *Description:* Develop capabilities to enable Service members to use their smartphones as Personnel Recovery aids.	0.000	-	-
Accomplishments/Planned Programs Subtotals	1.805	2.266	2.320

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 Projects will leverage existing program contracts. In the rare instance where a contract does not already exist, contracts will be awarded through full and open competition.

PE 0901202F: *Joint Personnel Recovery Agency*
Air Force

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7							**R-1 Program Element (Number/Name)** PE 0901202F *I Joint Personnel Recovery Agency*					**Project (Number/Name)** 675196 *I Joint Technology Exploitation*		

Product Development ($ in Millions)

				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			Target Value of Contract
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	
Product Development	C/CPAF	Not specified. : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Common Distress Reporting System	SS/TBD	AFLCMC/HBZ : Huntington Beach, CA	-	1.022	Mar 2023	1.067	Mar 2024	1.097	Mar 2025	-		1.097	Continuing	Continuing	-
Optimal Search Study	Various	Various : NV	-	-		-		-		-		-	Continuing	Continuing	-
Collaborative Personnel Recovery Planning Systems & PR Capabilities Development	Various	Various : NV	-	0.783	Mar 2023	1.199	Mar 2024	1.223	Mar 2025	-		1.223	Continuing	Continuing	-
Personnel Recovery Modeling and simulation development	Various	Various : NV	-	-		-		-		-		-	Continuing	Continuing	-
Subtotal			-	1.805		2.266		2.320		-		2.320	Continuing	Continuing	N/A

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	1.805	2.266	2.320	-	2.320	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901202F *I Joint Personnel Recovery Agency*	**Project (Number/Name)** 675196 *I Joint Technology Exploitation*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Personnel Recovery Information Data System																												
Common Distress Reporting System	██																											
Optimal Search Study	██																											
Collaborative Personnel Recovery planning systems	██																											

PE 0901202F: *Joint Personnel Recovery Agency*
Air Force

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901202F *I Joint Personnel Recovery Agency*	**Project (Number/Name)** 675196 *I Joint Technology Exploitation*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Personnel Recovery Information Data System				
Common Distress Reporting System	1	2023	4	2028
Optimal Search Study	1	2023	4	2028
Collaborative Personnel Recovery planning systems	1	2023	4	2028

PE 0901202F: *Joint Personnel Recovery Agency*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0901218F *I Civilian Compensation Program*						

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	3.461	4.006	4.267	0.000	4.267	4.369	4.453	4.609	4.699	Continuing	Continuing
674139: *Civilian Compensation Program*	-	3.461	4.006	4.267	0.000	4.267	4.369	4.453	4.609	4.699	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

This program element provides for payment of civilian compensation benefits for disability due to personal injury sustained while in the performance of duty or due to employment-related disease according to the Federal Employees Compensation Act [FECA] under Title 5 U.S.C., Chapter 81. The Department of Labor [DOL] administers this program and charges the Department of the Air Force for its employee costs; therefore, this is a MUST PAY bill for Air Force. The Program Element[PE] excludes manpower authorizations and costs. This PE is in Budget Activity 7 in support of payment of civilian compensation benefits for disability due to personal injury sustained while in the performance of duty or due to employment-related disease according to FECA under Title 5 U.S.C., Chapter 81.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 $0 was expended for civilian pay expenses in this program element, and in FY2024 $0 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	4.098	4.006	4.259	0.000	4.259
Current President's Budget	3.461	4.006	4.267	0.000	4.267
Total Adjustments	-0.637	0.000	0.008	0.000	0.008
• 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	-0.637	0.000			
• SBIR/STTR Transfer	0.000	0.000			
• Other Adjustments	0.000	0.000	0.008	0.000	0.008

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0901218F *I Civilian Compensation Program*	

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Civilian Compensation	3.461	4.006	4.267
Description: Program compensates employees assigned to RDT&E facilities for work-related injuries or occupational diseases. *FY 2024 Plans:* Continue to provide compensation to employees assigned to RDT&E facilities for work-related injuries or occupational diseases, and implement services to expedite the return of employees back to work. *FY 2025 Plans:* Continue to provide compensation to employees assigned to RDT&E facilities for work-related injuries or occupational diseases, and implement services to expedite the return of employees back to work. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding increased due to inflation.			
Accomplishments/Planned Programs Subtotals	3.461	4.006	4.267

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 Not Applicable.

PE 0901218F: *Civilian Compensation Program*
Air Force

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Exhibit R-3, **RDT&E Project Cost Analysis:** PB 2025 Air Force													**Date:** March 2024		
Appropriation/Budget Activity 3600 *I* 7								**R-1 Program Element (Number/Name)** PE 0901218F *I Civilian Compensation Program*				**Project (Number/Name)** 674139 *I Civilian Compensation Program*			

Product Development ($ in Millions)				**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Continue development of compensation plan	RO	AF/A1 : Pentagon, DC	-	3.461	Apr 2023	4.006	Apr 2024	4.267	Apr 2025	-		4.267	Continuing	Continuing	-
Subtotal			-	3.461		4.006		4.267		-		4.267	Continuing	Continuing	N/A

	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	3.461	4.006	4.267	-	4.267	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0901218F / *Civilian Compensation Program*	**Project (Number/Name)** 674139 / *Civilian Compensation Program*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Civilian Compensation Program																												
Compensation program																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901218F *I Civilian Compensation Program*	**Project (Number/Name)** 674139 *I Civilian Compensation Program*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
Civilian Compensation Program				
Compensation program	1	2023	4	2027

PE 0901218F: *Civilian Compensation Program*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity
3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*

R-1 Program Element (Number/Name)
PE 0901220F *I Personnel Administration*

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	2.883	3.078	3.163	0.000	3.163	3.243	3.310	3.381	3.448	Continuing	Continuing
675194: *Force Development Transformation*	-	2.883	3.078	3.163	0.000	3.163	3.243	3.310	3.381	3.448	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Force Development Transformation program contains two independent DAF initiatives addressing vital personnel issues: Personnel Services Delivery and the Total Integration Mobilization Execution System.

Personnel Services Delivery:
Personnel Services Delivery (PSD), under the Personnel Administration program, funds operational developments necessary to acquire, field, and modify business processes to transform the delivery of Human Resources (HR) capabilities through the structured redesign of the Total Force Personnel Community's people (Active Duty, Reserve, Guard, and Civilians), processes, and technologies. PSD Transformation fundamentally shifts the way personnel services are provided, transitioning from primarily face-to-face interactions with a personnelist to a tiered model with services delivered through online self-service, contact centers, and reduced in-person interactions. PSD supports the migration of legacy applications and other information technologies from on premises data centers to a more sustainable cloud-based hosting solution and flexible services-based architecture as defined by the Defense Enterprise Service Management Framework (DESMF). In addition, funds will be used to perform studies and innovative integration efforts for common technology capabilities such as cloud migration, technology development, and mobile application.

Total Integration Mobilization Execution System:
The Total Integration Mobilization Execution System (TIMES) will be a cloud-based software suite utilized to modernize the Air Force's processes to mobilize (i.e., activate) the 178,000 Guard and Reserve Airmen under Title 10 orders in support of the Active Duty mission. Current mobilization processes include coordination through 32 disparate information systems and numerous databases (e.g., MS SharePoint, Excel) and often results in delays to issuing orders. TIMES will streamline the planning, allocation, and execution process by automating activation processes to enable rapid and accurate information flow from requirements generation, resource planning, identifying an Airman to fulfill a requirement, orders processing and delivery, and finally to initiating pay and benefits. TIMES will have the capability to rapidly adjust to a changing mission environment while minimizing operating costs by utilizing cloud hosting and an agile software development methodology (DevSecOps). It will increase Air Force Guard and Reserve members' confidence that when called to serve, their families will be taken care of.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0901220F *I Personnel Administration*	

0606398F. In FY 2023 $0.000M was expended for civilian pay expenses in this program element, and in FY 2024 $0.000M 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 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	3.191	3.078	3.158	0.000	3.158
Current President's Budget	2.883	3.078	3.163	0.000	3.163
Total Adjustments	-0.308	0.000	0.005	0.000	0.005
• 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	-0.200	0.000			
• SBIR/STTR Transfer	-0.108	0.000			
• Other Adjustments	0.000	0.000	0.005	0.000	0.005

Change Summary Explanation
No significant change to FY25 funding request.

C. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: PSD - Human Resource Systems (HRS) Transition	1.410	2.014	2.153

Description: The HRS Transition supports the DAF Human Resources Digital Transformation initiative by identifying and documenting human resource legacy systems for modernization, transition and/or decommission; supporting the consolidation of human resource legacy applications and other information technologies utilizing Commercial-off-the-Shelf (COTS) solutions, Agile incremental delivery, and rapid prototyping; ensuring solutions utilize a flexible services-based architecture as defined by the DoD Enterprise Service Management Framework (DESMF); executing risk reduction activities, prototyping, and developing solutions to update or replace legacy human resource systems.

FY 2024 Plans:
- Start migrating applications as part of Phase 2 to the HCM Cloud
- Continue to support all aspects of engineering, including software and systems engineering, requirements analysis, configuration management, and database administration

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0901220F *I Personnel Administration*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
- Build roadmap for architecture migrating applications to HCM Cloud - Build additional required boundary cloud access point (BCAP) integrations and connections ***FY 2025 Plans:*** - Will continue migrating applications to the HCM Cloud - Will support all aspects of engineering, including software and systems engineering, requirements analysis, configuration management, and database administration - Will continue to Build additional required boundary cloud access point (BCAP) integrations and connections ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Increase due to inflation			
Title: TIMES Development ***Description:*** TIMES will establish a cloud-based operating environment to modify existing Army Mobilization Common Operating Picture (MOBCOP) software into the Air Force's TIMES software. Overall development will involve establishing automated data pushes and pulls between Air Force systems of record and the TIMES database, establishing necessary virtual servers and cybersecurity compliance in the cloud-hosted environment, and automating the flow of data from the Headquarters Air Force and Major Command level down to the Guard and Reserve unit level. TIMES will move the process from legacy, manual inputs to automated and streamlined inputs in order to eliminate unnecessary bureaucracy and redundancy in the Air Reserve Component utilization process. ***FY 2024 Plans:*** Continue the expansion of TIMES capabilities to the Guard and Reserve-level functions of the mobilization process, continued improvement of applications in production environment, and monitoring of the cloud environment for efficiency. -Maintain and improve on ARCORT and AFMMS-S/N applications based on feedback from Airmen -Maintain compliance with Authority to Operate certification -Expand automated inputs from Joint and Air Force systems of record -Modify MOBCOP Mobilization Deployment Integrated System (MDIS) to provide a data-driven decision tool for mobilization, deployment, and rotation decisions -Promote TIMES SIPR applications and go live for Air Force use -Eliminate manual process steps and non-system of record communication involved with mobilization actions ***FY 2025 Plans:***	1.473	1.064	1.010

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0901220F *I Personnel Administration*

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Continue to add capability to TIMES by integrating with the Guard and Reserve orders writing systems and expanding the ability to source capable and qualified volunteers from across the force to match with mission requirements. Examples of lines of effort include: - Will improve on all live applications based on user feedback - Will establish automated interfaces with the orders writing systems (AROWS and AROWS-R) - Will gather user requirements for modification of the MOBCOP Tour of Duty application - Will develop TIMES Tour of Duty equivalent, solicit user feedback, and field capability ***FY 2024 to FY 2025 Increase/Decrease Statement:*** No significant change.			
Accomplishments/Planned Programs Subtotals	2.883	3.078	3.163

D. Other Program Funding Summary ($ in Millions)
 N/A
Remarks

E. Acquisition Strategy
 PSD:
 Personnel Services Delivery employs an evolutionary acquisition strategy to deliver incremental Information Technology and Human Resources capabilities with
 development contracts that are awarded in a competitive environment. Technology demonstrations will be used to reduce technology risks, assess Commercial-Off-
 The-Shelf (COTS) products, and produce technology insertion and migration strategies. In 2022, the government conducted a Full and Open competition for Human
 Resources System Technical Support and awarded a contract to provide PSD with development and test/technical support. Air Force Program Executive Officer (PEO)
 for Business and Enterprise Systems (AFPEO BES) is the PEO and Milestone Decision Authority (MDA) for PSD. Air Force Life Cycle Management Center (AFLCMC)
 is the contracting authority for the PSD Program and provides contracts, legal and comptroller support.

 TIMES:
 The Army MOBCOP system has proven capability in reducing system-wide redundancy and speeding up the delivery of orders for soldiers. The DAF's strategy has
 awarded a contract to modify the Army's software to work with Air Force data and processes. The DAF's strategy also includes establishing a Task Order with the
 Platform One, Cloud One, and ODIN contracts for cloud hosting and DevSecOps environment.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			Date: March 2024	

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0901220F / Personnel Administration	Project (Number/Name) 675194 / Force Development Transformation

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSD: HRS Transition HCM Phase 2	C/Various	AST, LLC : San Antonio, TX	-	1.375	May 2023	1.471	May 2024	-		-		-	Continuing	Continuing	-
PSD: HRS Transition HCM Phase 3	C/Various	AST, LLC : San Antonio, TX	-	-		-		1.565	May 2025	-		1.565	Continuing	Continuing	-
PSD: Cloud 1 Hosting	C/CPAF	SAIC : Lexington, MA	-	0.035	Dec 2022	0.116	Dec 2023	0.123	Dec 2024	-		0.123	Continuing	Continuing	-
TIMES: System Developer	SS/FFP	MKGCS, LLC : Herndon, VA	-	1.404	Jun 2023	1.002	Jun 2024	0.945	Jun 2025	-		0.945	Continuing	Continuing	-
TIMES: Cloud Hosting	MIPR	Various : Various	-	0.069	Jun 2023	0.062	Jun 2024	0.065	Jun 2025	-		0.065	Continuing	Continuing	-
Subtotal			-	2.883		2.651		2.698		-		2.698	Continuing	Continuing	N/A

Remarks
TIMES: Cloud Hosting is comprised of three elements - Platform One (AF/AFLCMC), Cloud One (AF/AFLCMC), and ODIN (AF/A2/6)

Support ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSD: Engineering, Professional, and Administrative Support Services (EPASS)	C/CPFF	Torch : Huntsville, AL	-	0.000	Mar 2023	0.400	Mar 2024	0.435	Mar 2025	-		0.435	Continuing	Continuing	-
Subtotal			-	0.000		0.400		0.435		-		0.435	Continuing	Continuing	N/A

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
PSD: Program Support Costs	Various	Various : Various	-	0.000	Mar 2023	0.027	Mar 2024	0.030	Mar 2025	-		0.030	Continuing	Continuing	-
Subtotal			-	0.000		0.027		0.030		-		0.030	Continuing	Continuing	N/A

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force								**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7			**R-1 Program Element (Number/Name)** PE 0901220F *I Personnel Administration*			**Project (Number/Name)** 675194 *I Force Development Transformation*			

	Prior Years	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	2.883	3.078	3.163	-	3.163	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0901220F / *Personnel Administration*	**Project (Number/Name)** 675194 / *Force Development Transformation*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Personnel Services Delivery (PSD)																												
HRS Transition Phase 2 Contract award HCM and start application migration to the HCM Cloud																												
HRS Transition Phase 3 Contract award and complete application migration to HCM Cloud																												
TIMES Development																												
Optimize live modules based on user feedback																												
Modify and go live for TIMES ARCORT module																												
Sunset legacy ARCORT																												
Modify and go live for TIMES AFFMS module																												
Sunset legacy AFFMS module																												
Maintain Cloud Hosting environment and cybersecurity controls																												
Data integration with orders writing systems																												
Modify and go live for TIMES MDIS module																												
Sunset legacy mobilization decision tools																												
Data integration with TRICARE, DEERS																												
Data integration with ASIMS, VRS, ARCNet, DMDC																												
Plan, develop, and Go live for TIMES Tour of Duty module																												
Sunset legacy volunteer sourcing tools																												
Connect TIMES to financial systems																												

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force																									**Date:** March 2024				

Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0901220F / *Personnel Administration*	**Project (Number/Name)** 675194 / *Force Development Transformation*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Modernize TIMES database code to reduce license costs																					███	███	███					

PE 0901220F: *Personnel Administration*
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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 **/** 7	**R-1 Program Element (Number/Name)** PE 0901220F **/** *Personnel Administration*	**Project (Number/Name)** 675194 **/** *Force Development Transformation*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Personnel Services Delivery (PSD)				
HRS Transition Phase 2 Contract award HCM and start application migration to the HCM Cloud	1	2023	4	2024
HRS Transition Phase 3 Contract award and complete application migration to HCM Cloud	1	2025	4	2028
TIMES Development				
Optimize live modules based on user feedback	1	2023	4	2028
Modify and go live for TIMES ARCORT module	1	2023	4	2023
Sunset legacy ARCORT	4	2024	1	2025
Modify and go live for TIMES AFFMS module	1	2023	1	2023
Sunset legacy AFFMS module	1	2023	2	2023
Maintain Cloud Hosting environment and cybersecurity controls	1	2023	4	2028
Data integration with orders writing systems	4	2023	4	2024
Modify and go live for TIMES MDIS module	1	2023	4	2023
Sunset legacy mobilization decision tools	4	2023	4	2023
Data integration with TRICARE, DEERS	1	2024	3	2024
Data integration with ASIMS, VRS, ARCNet, DMDC	4	2024	4	2025
Plan, develop, and Go live for TIMES Tour of Duty module	3	2024	1	2026
Sunset legacy volunteer sourcing tools	2	2026	3	2026
Connect TIMES to financial systems	3	2026	2	2028
Modernize TIMES database code to reduce license costs	1	2028	4	2028

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					R-1 Program Element (Number/Name) PE 0901226F *I Air Force Studies and Analysis Agency*							

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	-	0.866	5.309	18.937	0.000	18.937	19.500	20.265	20.735	20.862	Continuing	Continuing
676009: *M & S DEVELOPMENT*	-	0.866	5.309	18.937	0.000	18.937	19.500	20.265	20.735	20.862	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Leads, conducts, reviews, and ensures the analytic integrity of studies and analysis across air, space, and cyberspace domains to inform enterprise-level decisions for the DAF per HAFMD 1-58. Evaluates USAF and USSF force structure options, and capability/capacity tradeoffs, to address Force Planning guidance of 2022 NDS. Supports OIs to include continued analytical efforts examining issues, identifying high return on investment solutions for strategic capability gaps. Implements SECAF approved MI#3 recommendations focused on strengthening the analytical capacity across the DAF. Enables DAF M&S Ecosystem deployment and sustainment, providing enterprise tools, models, and computing processing to AF and SF organizations in a cost-efficient manner. Implements Project PHALANX recommendations approved by SECAF in PAD 22-03. Enables DAF M&S Ecosystem deployment and sustainment, providing enterprise tools, models and computing processing to AF and SF organizations in a cost-efficient manner.

As new technologies are introduced to the battlefield (Digital Electronic Jammers, maneuvering Surface-to-Surface Missiles, Directed Energy Weapons, etc.) along with evolving warfighting techniques and support operations, the range of capabilities that needs to be covered by analytic tools needs to expand as well. M&S creation and enhancement can require extensive research in how to properly implement the emerging weapons capabilities as well as demand development of software techniques to implement the changes. Additionally, emerging and continuing focus areas such as Space, Irregular Warfare, Information Operations, Cyber warfare and ISR demand specific tools of their own for new exploration and development. Provides for development and enhancement of modeling and simulation (M&S) tools for strategic planning, operational requirements, modernization and recapitalization of systems and programs, as well as the Planning, Programming, Budgeting and Execution (PPBE) processes for the AF Analytic Community and Secretary of the Air Force Standard Analysis Toolkit in support of AF Senior Leadership. These focus areas require examination in isolation as well as cross-domain making the problem more complex and increasing the R&D challenges to field new decision support tools.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 0M was expended for civilian pay expenses in this program element, and in FY2024 0M 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.

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force				**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*			**R-1 Program Element (Number/Name)** PE 0901226F *I Air Force Studies and Analysis Agency*		

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	0.899	5.309	13.702	0.000	13.702
Current President's Budget	0.866	5.309	18.937	0.000	18.937
Total Adjustments	-0.033	0.000	5.235	0.000	5.235
• 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	-0.033	0.000			
• Other Adjustments	0.000	0.000	5.235	0.000	5.235

Change Summary Explanation

Increase in 3600 funding was to correct PDM II Analysis Working Group (AWG) funding erroneously programmed as 3400 in FY23. There is a direct correlation in funding reducing 3400 for the program.

C. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Modeling and Simulation Development	0.866	5.309	18.937
Description: Develop and Update Modeling & Simulation (M&S) tools. *FY 2024 Plans:* Continue research and development of M&S tools *FY 2025 Plans:* Continue research and development of M&S tools *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased due to decrease in requirements			
Accomplishments/Planned Programs Subtotals	0.866	5.309	18.937

D. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A.

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Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force	**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 0901226F *I Air Force Studies and Analysis Agency*

E. Acquisition Strategy

 Previous and planned future efforts have been/will be awarded under existing Task Order contracts.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024		

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0901226F / Air Force Studies and Analysis Agency	Project (Number/Name) 676009 / M & S DEVELOPMENT

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	C/CPAF	Not specified. : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Software Development	Various	Not specified. : NV	-	0.866	Mar 2023	5.309	Mar 2024	18.937	Mar 2025	-		18.937	Continuing	Continuing	-
Subtotal			-	0.866		5.309		18.937		-		18.937	Continuing	Continuing	N/A

			Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	0.866		5.309		18.937		-		18.937	Continuing	Continuing	N/A

Remarks

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Air Force

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901226F *I Air Force Studies and Analysis Agency*	**Project (Number/Name)** 676009 *I M & S DEVELOPMENT*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
M&S Development																												
Modeling & Simulation Development																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901226F *I Air Force Studies and Analysis Agency*	**Project (Number/Name)** 676009 *I M & S DEVELOPMENT*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
M&S Development				
Modeling & Simulation Development	1	2023	4	2028

Note

A9 anticipates work continuing in the following areas: (1) research into how to better model new friendly and enemy weapons systems, (2) development of tools to better examine evolving weapons technologies and (3) development of new models to better populate the data requirements of existing tools.

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force										Date: March 2024	

Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						R-1 Program Element (Number/Name) PE 0901538F *I Financial Management Information Systems Development*					

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
Total Program Element	0.000	4.922	4.279	5.634	0.000	5.634	5.776	5.895	6.011	5.975	Continuing	Continuing
675177: *Cost Estimating Modeling (CEM)*	0.000	4.922	4.279	5.634	0.000	5.634	5.776	5.895	6.011	5.975	Continuing	Continuing

Program MDAP/MAIS Code: N87

A. Mission Description and Budget Item Justification

This program element develops upgrades to existing financial management systems and development of cost estimating datasets, methods, and tools and knowledge-based studies. These upgrades are required to improve efficiencies in financial management and cost analysis. This program element also supports studies and analysis to improve future program planning and execution.

Cost Estimating Modeling (CEM) provides and enhances Air Force-wide cost estimating capabilities by developing current cost estimating datasets and methods and tools, data architectures/structures, and other cost estimating method/tool gap-filling initiatives. In collaboration with the OSD Cost Assessment Data Enterprise (CADE) project (the Department of Defense's (DoD) unified information system and initiative to collect, organize, store, and use contractor and acquisition data more efficiently), CEM products improve the quality, timeliness, and effectiveness of acquisition program cost estimates in support of Department of Air Force (DAF) and DoD acquisition decisions, programming and execution decisions, and Congressional mandates. The partnership between CEM and CADE is a leading example of a data initiative designed as a response to a Congressional-expressed desire for better outcomes in acquisition. CEM research ensures DAF datasets, analysis, estimating tools, and institutional knowledge availability at cost analyst's fingertips rather than an inefficient, ad hoc, and decentralized development.

CEM ensures the DAF continuously improves cost estimating capabilities for broad cross-cutting areas, as well as specific to each weapon system type. This project performs knowledge-based studies to include organizing complete datasets, analyzing historical data, and studying changing technologies/programmatic information to develop new estimating methods (e.g., statistical tools, cost estimating relationships) across hundreds of product work breakdown structure elements and functional cost elements. CEM delivers valuable datasets, methods, and analytical tools in support of higher quality/credible estimates required by statute and regulation allowing for more realistic cost-conscious decisions on over $200B of critical warfighter capability.

Changing technologies, acquisition laws, policy directives, and initiatives drive the continuous requirement for revised cost estimating processes, methods, and tools. Critical policy requirements for which CEM research facilitates implementation and compliance are:
- Statute (e.g., Title 10, section 167; USC 3221, 3227, 4251, 4252, 4253, and 4328)
- Policy directives (DoDI 5000.73, DoDI 5000.74, DoDI 5000.75, DoDI 5000.80, DoDI 5000.85, DoDI 5000.87)
- FY2016/17/18/21 NDAA reports (PL 114-92/114-328/115-91/116-283) including provisions relating to Major Defense Acquisition Programs (Section 804 of the FY16 NDAA authorized rapid prototyping and rapid fielding of defense systems)
- Annual life-cycle cost estimation requirements
- Weapon System Acquisition Reform Act (WSARA) (provisions related to improving cost estimating quality and affordability analysis)

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0901538F *I Financial Management Information Systems Development*

- Secretary of the Air Force acquisition excellence plans (priorities to improve cost estimating capability and affordability analysis)
- Office of the Secretary of Defense policy (initiatives on enhanced trade-off analysis, affordability analysis, and cost reduction initiatives)

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, and 0606398F. In FY2023 $0.0M was expended for civilian pay expenses in this program element, and in FY2024 $0.0M is forecasted for civilian pay expenses in this program element.

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

This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	5.121	4.279	5.624	0.000	5.624
Current President's Budget	4.922	4.279	5.634	0.000	5.634
Total Adjustments	-0.199	0.000	0.010	0.000	0.010
• 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	-0.199	0.000			
• Other Adjustments	0.000	0.000	0.010	0.000	0.010

Change Summary Explanation

No significant change to FY25 funding request.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force											Date: March 2024	
Appropriation/Budget Activity 3600 I 7					**R-1 Program Element (Number/Name)** PE 0901538F I Financial Management Information Systems Development					**Project (Number/Name)** 675177 I Cost Estimating Modeling (CEM)		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
675177: Cost Estimating Modeling (CEM)	0.000	4.922	4.279	5.634	0.000	5.634	5.776	5.895	6.011	5.975	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Cost Estimating Modeling (CEM) provides and enhances Air Force-wide cost estimating capabilities by developing current cost estimating datasets and methods and tools, data architectures/structures, and other cost estimating method/tool gap-filling initiatives. In collaboration with the OSD Cost Assessment Data Enterprise (CADE) project (the Department of Defense's (DoD) unified information system and initiative to collect, organize, store, and use contractor and acquisition data more efficiently), CEM products improve the quality, timeliness, and effectiveness of acquisition program cost estimates in support of Department of Air Force (DAF) and DoD acquisition decisions, programming and execution decisions, and Congressional mandates. The partnership between CEM and CADE is a leading example of a data initiative designed as a response to a Congressional-expressed desire for better outcomes in acquisition. CEM research ensures DAF datasets, analysis, estimating tools, and institutional knowledge availability at analyst's fingertips rather than an inefficient, ad hoc, and decentralized approach.

CEM ensures the DAF continuously improves cost estimating capabilities for broad cross-cutting areas, as well as specific to each weapon system type. This project performs knowledge-based studies to include organizing complete datasets, analyzing historical data, and studying changing technologies/programmatic information to develop new estimating methods (e.g., statistical tools, cost estimating relationships) across hundreds of product work breakdown structure elements and functional cost elements. CEM delivers valuable datasets, methods, and analytical tools in support of higher quality/credible estimates required by statute and regulation allowing for more realistic cost-conscious decisions on over $200.0B of critical warfighter capability.

Changing technologies, acquisition laws, policy directives, and initiatives drive the continuous requirement for revised cost estimating processes, methods, and tools. Critical policy requirements for which CEM research facilitates implementation and compliance are:
- Statute (e.g., Title 10, section 167; USC 3221, 3227, 4251, 4252, 4253, and 4328)
- Policy directives (DoDI 5000.73, DoDI 5000.74, DoDI 5000.75, DoDI 5000.80, DoDI 5000.85, DoDI 5000.87)
- FY2016/17/18/21 NDAA reports (PL 114-92/114-328/115-91/116-283) including provisions relating to Major Defense Acquisition Programs (Section 804 of the FY16 NDAA authorized rapid prototyping and rapid fielding of defense systems)
- Annual life-cycle cost estimation requirements
- Weapon System Acquisition Reform Act (WSARA) (provisions related to improving cost estimating quality and affordability analysis)
- Secretary of the Air Force acquisition excellence plans (priorities to improve cost estimating capability and affordability analysis)
- Office of the Secretary of Defense policy (initiatives on enhanced trade-off analysis, affordability analysis, and cost reduction initiatives)

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901538F *I Financial Management Information Systems Development*	**Project (Number/Name)** 675177 *I Cost Estimating Modeling (CEM)*

and 0606398F. In FY2023 $0.0M was expended for civilian pay expenses in this program element, and in FY2024 $0.0M is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Title: CEM	4.922	4.279	5.634	0.000	5.634
Description: Perform knowledge-based studies (KBS) — Develop/modernize cost datasets/databases, data collection process improvements, analysis to develop new estimating methods/tools (e.g., statistical and modeling tools, cost estimating relationships (CERs), schedule estimating relationships (SERs), technical estimating relationships (TERs)), and perform other gap filling studies for aircraft, UAVs, ballistic and tactical missiles, munitions, electronics and aircraft modifications, ground stations and automated information systems, space systems, launch vehicles, and crosscutting areas. ACCOMPLISHMENTS: - Updated the plan and resource summaries to complete cost research across all Air Force weapon system commodities aligned to the SAF/FMC cost research plan. - Updated the aircraft systems engineering/ program management dataset. Analyzed data to develop cost estimating benchmark methods. - Updated the missile/munitions relational database/tool with detailed cost reports; updated the handbook summarizing these cost tools. - Compiled a cost dataset to build and sustain a software factory program including its operational infrastructure. - Developed payload and bus satellite sizing relationships accounting for recent technological trends, including commercial satellite data. - Collected cost, schedule, and technical data on resilient end-to-end ground systems and developed models to estimate the cost of these by cost elements such as software, hardware, and systems engineering/program management. - Laid out the effort to develop curated datasets and databases mapped into a standard structure for use by the cost community in the Cost Analysis Data Operating Model effort, part of the SAF/FM Strategic Plan. - Worked with OSD CADE team to implement process improvements, and data design and structure requirements into the CADE system. - Assembled and analyzed data on the timing, drivers, and cost of upgrades to mission computers found in Air Force and Navy aircraft to inform future modernization planning and decision-making efforts. - Integrated finalized products into CADE system repository for sharing with the Air Force and DoD cost community.					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0901538F / *Financial Management Information Systems Development*	**Project (Number/Name)** 675177 / *Cost Estimating Modeling (CEM)*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
FY 2024 Plans: - Continue to develop and share curated datasets and databases mapped into a standard structure for use by the cost analysis community in support of designing and implementing the Cost Analysis Data Operating Model objectives in the FM Strategic Plan. - Scrape contract modifications data and use this to develop a benchmark tool that estimates the cost of engineering change orders in the development and production phases of acquisition programs. Ingest this data into a cloud-based solution and develop data visualizations using business intelligence tools. - Update the dataset of contracts capturing cost growth as a function of time and identify potential drivers of cost growth phasing. Develop this into a model to predict a phasing profile accounting uniquely for contract cost growth. - Collect historical program data to fill gaps against defined data collection requirements from previous year efforts and integrate historical data collected into CADE system for central access to all DoD. - Continue to work with OSD CADE team to implement data design and structure requirements and visual analysis tool requirements into CADE system. - Conduct weekly reviews with technical/cost teams and quarterly contractor progress reviews with government cost community. *FY 2025 Base Plans:* - Will continue efforts in support of the Cost Analysis Data Operating Model by prioritizing capability gaps for future development and evaluating current CEM tools that would benefit by migration to an enterprise solution. - Will continue to collect historical program data to fill gaps against defined data collection requirements from previous year efforts and integrate historical data collected into CADE system for central access to all DoD. - Will direct research to develop integrated datasets with embedded CERs and benchmarks, but with structures that let cost analysts easily and quickly re-normalize data for specialized relationships and benchmarks. - Will initiate studies that are topical/timely or surface from prior research. - Will continue to work with OSD CADE team to implement data design and structure requirements as well as visual analysis tool requirements into CADE system. - Will conduct weekly reviews with technical/cost teams and quarterly contractor progress reviews with entire government cost community. *FY 2025 OCO Plans:* N/A *FY 2024 to FY 2025 Increase/Decrease Statement:*					

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 I 7	**R-1 Program Element (Number/Name)** PE 0901538F I *Financial Management Information Systems Development*	**Project (Number/Name)** 675177 I *Cost Estimating Modeling (CEM)*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Funding increased to align with scheduled activities.					
Accomplishments/Planned Programs Subtotals	4.922	4.279	5.634	0.000	5.634

C. Other Program Funding Summary ($ in Millions)

 N/A

Remarks

 N/A

D. Acquisition Strategy

 The CEM program performs studies to continuously develop updated cost datasets/databases and estimating methods and tools, data architectures/structures, and gap filling initiatives. Knowledge-based studies are organized by those that span all acquisition initiatives as well as by the following weapon system types: manned aircraft, UAVs, ballistic missiles, tactical missiles, munitions, electronics and aircraft modifications, ground stations and automated information systems, and space systems and launch vehicles.

 The DAF's CEM collaboration with the OSD CADE information system and the design objectives for the DAF Cost Analysis Data Operating model provide enhanced and current data/analysis/methods/tools and institutional knowledge at the analyst's fingertips versus an inefficient, ad hoc, and decentralized approach.

 CEM contracts are firm-fixed price, cost plus, or hybrid as a combination of fixed price and cost plus, and are awarded through full and open competition following Federal Acquisition Regulation (FAR) guidelines. The DAF provides contract management oversight and direction. Contracted knowledge-based studies progress will be reviewed on a quarterly basis and adjusted as appropriate.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													**Date:** March 2024	
Appropriation/Budget Activity 3600 I 7							**R-1 Program Element (Number/Name)** PE 0901538F I *Financial Management Information Systems Development*					**Project (Number/Name)** 675177 I *Cost Estimating Modeling (CEM)*		

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**Prior Years**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Award Date**	**Cost**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
CEM - CADE System Development/Cost Studies	MIPR	OSD(CAPE) : Pentagon, VA	0.000	2.411	Feb 2023	2.070	Feb 2024	2.544	Feb 2025	-		2.544	Continuing	Continuing	-
CEM - Other Knowledge-Based Studies	MIPR	Various : Various	0.000	0.600	Jan 2023	0.207	Nov 2023	0.744	Jan 2025	-		0.744	Continuing	Continuing	-
Cost Estimating Modeling (CEM) Development	C/Various	Tecolote Research : Goleta, CA	0.000	1.911	Sep 2023	2.002	Sep 2024	2.346	Sep 2025	-		2.346	Continuing	Continuing	-
Subtotal			0.000	4.922		4.279		5.634		-		5.634	Continuing	Continuing	N/A

	Prior Years	FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	0.000	4.922		4.279		5.634		-		5.634	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901538F *I Financial Management Information Systems Development*	**Project (Number/Name)** 675177 *I Cost Estimating Modeling (CEM)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
CEM																												
Commodity Specific Knowledge-Based Studies (KBS)	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███					
Populate Data Templates w/ Commodity Specific KBS findings (ongoing)	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███					
Develop CERs/Estimating Tools/Models	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███	███					
Data / CERs / Tools / Models Deliverables (Feb 2023)	███																											
Data / CERs / Tools / Models Deliverables (Sept 2023)		███																										
Data / CERs / Tools / Models Deliverables (Feb 2024)				███																								
Data / CERs / Tools / Models Deliverables (Sept 2024)						███																						
Data / CERs / Tools / Models Deliverables (Feb 2025)								███																				
Data / CERs / Tools / Models Deliverables (Sept 2025)										███																		
Data / CERs / Tools / Models Deliverables (Feb 2026)												███																
Data / CERs / Tools / Models Deliverables (Sept 2026)														███														
Data / CERs / Tools / Models Deliverables (Feb 2027)																███												
Data / CERs / Tools / Models Deliverables (Sept 2027)																		███										

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Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901538F *I Financial Management Information Systems Development*	**Project (Number/Name)** 675177 *I Cost Estimating Modeling (CEM)*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Data / CERs / Tools /Models Deliverables (Feb 2028)																					██							
Data / CERs / Tools / Models Deliverables (Sept 2028)																								██				
Data / CERs / Tools / Models Deliverables (Feb 2029)																									██			
Data / CERs / Tools / Models Deliverables (Sept 2029)																											██	

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		**Date:** March 2024	
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901538F *I Financial Management Information Systems Development*	**Project (Number/Name)** 675177 *I Cost Estimating Modeling (CEM)*	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
CEM				
Commodity Specific Knowledge-Based Studies (KBS)	1	2023	4	2029
Populate Data Templates w/ Commodity Specific KBS findings (ongoing)	1	2023	4	2029
Develop CERs/Estimating Tools/Models	1	2023	4	2029
Data / CERs / Tools / Models Deliverables (Feb 2023)	2	2023	2	2023
Data / CERs / Tools / Models Deliverables (Sept 2023)	4	2023	4	2023
Data / CERs / Tools / Models Deliverables (Feb 2024)	2	2024	2	2024
Data / CERs / Tools / Models Deliverables (Sept 2024)	4	2024	4	2024
Data / CERs / Tools / Models Deliverables (Feb 2025)	2	2025	2	2025
Data / CERs / Tools / Models Deliverables (Sept 2025)	4	2025	4	2025
Data / CERs / Tools / Models Deliverables (Feb 2026)	2	2026	2	2026
Data / CERs / Tools / Models Deliverables (Sept 2026)	4	2026	4	2026
Data / CERs / Tools / Models Deliverables (Feb 2027)	2	2027	2	2027
Data / CERs / Tools / Models Deliverables (Sept 2027)	4	2027	4	2027
Data / CERs / Tools /Models Deliverables (Feb 2028)	2	2028	2	2028
Data / CERs / Tools / Models Deliverables (Sept 2028)	4	2028	4	2028
Data / CERs / Tools / Models Deliverables (Feb 2029)	2	2029	2	2029
Data / CERs / Tools / Models Deliverables (Sept 2029)	4	2029	4	2029

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*					**R-1 Program Element (Number/Name)** PE 0901554F *I Defense Enterprise Acntng and Mgt Sys (DEAMS)*							
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	43.111	45.925	57.689	0.000	57.689	47.553	55.538	48.363	49.474	Continuing	Continuing
675178: *Def Enter Acct Mgt Sys (Deams) Incr 2*	-	43.111	45.925	57.689	0.000	57.689	47.553	55.538	48.363	49.474	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Defense Enterprise and Accounting System (DEAMS) program element develops required capability and functionality to existing financial management systems in order to comply with audit and transparency requirements in addition to other upgrades that provide efficiencies in processing financial transactions. This program element also supports studies and analysis to improve future program planning and execution.

DEAMS is an Enterprise Resource Planning (ERP) program based on Oracle e-Business Suite (EBS), a commercial-off-the-shelf (COTS) solution, that provides an auditable, modern accounting and finance management capability. It is the Department of the Air Force's (DAF) core accounting and financial management solution and is a key component of the DAF's long-term business process improvements needed to sustain auditability and correct financial system weaknesses.

DEAMS replaces numerous inefficient and/or obsolete legacy accounting and finance systems and provides core funds execution management functions consistent with financial management laws, regulations and policy, general ledger, funds management, payments, receivables, cost and revenues, and fiduciary reporting under mission description and budget item justification. DEAMS supports 17,000 users at 170 installations world-wide supporting all Air Force Major Commands, the U.S. Space Force, and Unified Commands where the DAF is the executive agent.

The DAF is preparing to transition DEAMS to the fifth and final phase of the Business Capability Acquisition Cycle (BCAC) process known as Capability Support. System requirements are managed through the program backlog by the Program Management Office (PMO) and Functional Management Office (FMO) and released on a regular cadence as usable capability via Agile methodology. The PMO construct, along with the application of Agile principles, allows the program to properly plan system requirements, deliver capability to the end users early and often, achieve early return on investment of taxpayer dollars, mitigate risk, reduce waste, effectively respond to change, and continuously improve processes.

The DAF will deploy DEAMS to the acquisition community to include acquisition program executive offices, laboratories, test centers, and air logistics complexes. These deployments will add an additional 4,500 users for a total of 21,500 users.

DEAMS is compliant with the Clinger-Cohen Act and the DoD's Business Enterprise Architecture (BEA). DEAMS is key to DAF compliance with the Financial Improvement and Audit Readiness (FIAR) requirement. This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program's funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F,

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*		**R-1 Program Element (Number/Name)** PE 0901554F *I Defense Enterprise Acntng and Mgt Sys (DEAMS)*

0606398F. In FY23, $0.755M was expended for civilian pay expenses in this program element, and in FY24, $1.241M 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	48.199	45.925	57.587	0.000	57.587
Current President's Budget	43.111	45.925	57.689	0.000	57.689
Total Adjustments	-5.088	0.000	0.102	0.000	0.102
• 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	-3.500	0.000			
• SBIR/STTR Transfer	-1.588	0.000			
• Other Adjustments	0.000	0.000	0.102	0.000	0.102

Change Summary Explanation

No significant change to FY25 funding request.

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force										Date: March 2024	

Appropriation/Budget Activity 3600 *I* 7				R-1 Program Element (Number/Name) PE 0901554F *I Defense Enterprise Acntng and Mgt Sys (DEAMS)*				Project (Number/Name) 675178 *I Def Enter Acct Mgt Sys (Deams) Incr 2*			

COST ($ in Millions)	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
675178: *Def Enter Acct Mgt Sys (Deams) Incr 2*	-	43.111	45.925	57.689	0.000	57.689	47.553	55.538	48.363	49.474	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Defense Enterprise and Accounting System (DEAMS) program element develops required capability and functionality to existing financial management systems in order to comply with audit and transparency requirements, in addition to, other upgrades that provide efficiencies in processing financial transactions. This program element also supports studies and analysis to improve future program planning and execution.

DEAMS is a commercial-off-the-shelf (COTS) Enterprise Resource Planning (ERP) solution based on the Oracle e-Business Suite (EBS). It provides an auditable, modern accounting and finance management capability that replaces numerous inefficient and/or obsolete legacy accounting and finance systems and provides core funds execution management functions consistent with financial management laws, regulations and policy, general ledger, funds management, payments, receivables, cost and revenues, and fiduciary reporting" under mission description and budget item justification.

The DAF is preparing to transition DEAMS to the fifth and final phase of the Business Capability Acquisition Cycle (BCAC) process known as Capability Support. System requirements are managed through the program backlog by the Program Management Office (PMO) and Functional Management Office (FMO) and released on a regular cadence as usable capability via Agile methodology. The PMO construct, along with the application of Agile principles, allows the program to properly plan system requirements, deliver capability to the end users early and often, achieve early return on investment of taxpayer dollars, mitigate risk, reduce waste, effectively respond to change, and continuously improve processes.

The DAF will deploy DEAMS to the acquisition community to include acquisition program executive offices, laboratories, test centers, and air logistics complexes. These deployments will add an additional 4,500 users for a total of 21,500 users.

DEAMS is compliant with the Clinger-Cohen Act and the DoD's Business Enterprise Architecture (BEA). DEAMS is key to DAF compliance with the Financial Improvement and Audit Readiness (FIAR) requirement. This requirement supports performance of a full financial audit as required by title 10 U.S.C. Chapter 9A, Sec 240-D.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program's funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY 2023 $0.755M was expended for civilian pay expenses in this program element, and in FY 2024 $1.241M is forecasted for civilian pay expenses in this program element.

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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901554F *I Defense Enterprise Acntng and Mgt Sys (DEAMS)*	**Project (Number/Name)** 675178 *I Def Enter Acct Mgt Sys (Deams) Incr 2*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: DEAMS Continuous Capability Development (CCD) Product Development	43.111	45.925	57.689

Description: DEAMS CCD system capabilities will be developed and enhanced through completion of iterative development cycles in accordance with an Agile software development strategy. The DAF is implementing a steady-state incremental development tempo that is more complimentary to the Agile software development process. Development activities include requirements analysis, design, build, test, data conversion, migration from legacy system as required, implementation into the DEAMS baseline, and the resolution of deficiency reports and defects. Activities also include various Advisory and Assistance Services (A&AS) and Program Management Administration (PMA) activities to support the aforementioned development efforts.

FY 2024 Plans:
FY24 Plans:
-Continue to release new capability into production using Agile methodology and established cadence
-Continue to onboard Scaled Agile Framework (SAFe) methodology and continue to implement the scalable requirements
-Continue the burn-down of cyber vulnerabilities
-Continue to optimize performance by conducting tuning activities and removing unused code and interfaces
-Continue to deploy fixes to address defects and user identified problems
-Continue to ensure system security and support the Risk Management Framework (RMF) through continuous monitoring activities
-Continue to improve system efficiency by supporting continuous processes to secure development and delivery of capabilities (DevOps) and posturing the production system architecture for cloud migration
-Develop production environment for migration to Cloud One Oracle Cloud Infrastructure (OCI)
-Complete the Tech Stack Upgrade
-Continue implementation of Security Information and Event Management Splunk Automation
-Continue software delivery of the G-Invoicing solution to facilitate inter-governmental transactions
-Continue Defense Information Systems Agency (DISA) Joint Interoperability Test Command (JTIC) Support; interoperability test and certification, Section 508 and Standard Financial Information System (SFIS) test and evaluation support
-Continue Lead Development Test Organization (LDTO) Support; independent developmental test Operational Test Agency (OTA) Support; independent operational test for system effectiveness, suitability, and cyber survivability
-Develop management data base solution for the Audit Remediation and Capability Integration (ARCI) enterprise toolset
-Develop and install E-Business Suite (EBS) 12.2.10 upgrade
-Complete Treasury Direct Disbursing (TDD) Grant payments
-Complete Reporting Go Live
-Complete SFIS 11.2 Upgrade

FY 2025 Plans:

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901554F *I Defense Enterprise Acntng and Mgt Sys (DEAMS)*	**Project (Number/Name)** 675178 *I Def Enter Acct Mgt Sys (Deams) Incr 2*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
FY25 Plans: -Will continue to release new capability into production using Agile methodology via established cadence -Will continue to optimize performance by conducting tuning activities and removing unused code and interfaces -Will continue to deploy fixes to address defects and user-identified problems -Will continue to ensure system security and support the Risk Management Framework (RMF) through continuous monitoring activities -Will continue to improve system efficiency by supporting continuous processes for secure development and delivery of capabilities (DevOps) and posturing the production system architecture for cloud migration -Will continue to utilize Scaled Agile Framework (SAFe) methodology and continue to implement the scalable requirements -Will complete production environment migration to Cloud One Oracle Cloud Infrastructure (OCI) and decommission the DISA tenancies -Will continue to Implement the Identity, Credential, and Access Management (ICAM) Solution -Will continue the burn-down of cyber vulnerabilities -Will complete Treasury Direct Disbursing (TDD) Interfund Payments -Will integrate Audit Remediation and Capability integration enterprise tools and solutions including Security Information and Event Management -Will develop and deploy additional user requirements, functionalities, and enhancements including integration with logistics, payroll, asset accounting, foreign military sales, budget distribution, and personnel travel management systems -Will declare full operational capability of G-invoicing for Enterprise Business Suite 12.2.10 implementation ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY25 funding increase of $11.7M, adds 3 additional agile teams that will accelerate development of Civ Pay accounting, logistics integration, and asset accounting while continuing to address audit controls and findings.			
Accomplishments/Planned Programs Subtotals	43.111	45.925	57.689

C. Other Program Funding Summary ($ in Millions)

Line Item	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	FY 2026	FY 2027	FY 2028	FY 2029	Cost To Complete	Total Cost
• OPAF 03 834470: *Defense Enterprise Accounting & Mgt Sys*	0.116	0.000	1.235	-	1.235	0.699	0.000	0.000	0.000	0.000	2.050

Remarks

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901554F *I Defense Enterprise Acntng and Mgt Sys (DEAMS)*	**Project (Number/Name)** 675178 *I Def Enter Acct Mgt Sys (Deams) Incr 2*

D. Acquisition Strategy

The DAF concluded Increment I deployment and has begun preparation for the Business Capability Acquisition Cycle's (BCAC) Capability Support Phase. Implementation is accomplished via the Continuous Capability Development program in which requirements are prioritized by the associated Program and Functional Management Offices and organized in the requirements backlog. DEAMS capabilities are developed and sustained in accordance with the selected Agile software implementation strategy. Development activities include requirements analysis, design, build, test, data conversion, migration from legacy system as required, implementation into the DEAMS baseline, and the resolution of deficiency reports and defects. Sustainment activities include day-to-day operations and support, production environment management, and numerous system performance improvement initiatives. This strategy has been refined to enable continual enhancements and process improvements for the life of the system.

The DEAMS program will develop functionality on cadence and release on demand. User experience and mission impact will be considered when determining release dates during the execution cycle.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			Date: March 2024	

Appropriation/Budget Activity 3600 I 7	R-1 Program Element (Number/Name) PE 0901554F I Defense Enterprise Acntng and Mgt Sys (DEAMS)	Project (Number/Name) 675178 I Def Enter Acct Mgt Sys (Deams) Incr 2

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DEAMS: Rapid Acquisition	C/Various	CACI, Inc/BCSS (ISSM) : Various	-	10.503	Jun 2023	12.391	Jun 2024	18.366	Jun 2025	-		18.366	Continuing	Continuing	-
DEAMS: SME Support, General Ledger Reports and Analysis, Business Process Analysis, Master Data Conversion and Training Development	C/T&M	Kearney & Co/Help Desk : Various	-	14.311	Aug 2023	8.063	Aug 2024	13.146	Feb 2025	-		13.146	Continuing	Continuing	-
DEAMS: ERP Solution Architecture services	C/FP	Lintech Global Inc. (DTS) : Farmington Hills, MI	-	3.717	May 2023	4.141	May 2024	5.509	May 2025	-		5.509	Continuing	Continuing	-
DEAMS: Direct mission Support (Development, Integration Environments)	Various	DCIDS/other/DATS : Various	-	4.846	May 2023	10.574	May 2024	10.251	May 2025	-		10.251	Continuing	Continuing	-
DEAMS: Oracle Software Solutions	Various	Various : Various	-	0.283	May 2023	0.435	May 2024	0.216	Nov 2024	-		0.216	Continuing	Continuing	-
DEAMS: ERP DBA Development and Support Services	C/FFP	DDCIT-DIS (DINE Sources) : Albuquerque, NM	-	2.096	Apr 2023	4.650	Apr 2024	1.266	Nov 2024	-		1.266	Continuing	Continuing	-
Subtotal			-	35.756		40.254		48.754		-		48.754	Continuing	Continuing	N/A

Test and Evaluation ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2023 Cost	FY 2023 Award Date	FY 2024 Cost	FY 2024 Award Date	FY 2025 Base Cost	FY 2025 Base Award Date	FY 2025 OCO Cost	FY 2025 OCO Award Date	FY 2025 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
DEAMS: Test Services from AFOTEC, JITC, LDTO and other miscellaneous Test services	C/CPAF	Various : Various	-	1.129	Jul 2023	0.762	Jul 2024	1.363	Jul 2025	-		1.363	Continuing	Continuing	-
Subtotal			-	1.129		0.762		1.363		-		1.363	Continuing	Continuing	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force												**Date:** March 2024		
Appropriation/Budget Activity 3600 I 7						**R-1 Program Element (Number/Name)** PE 0901554F I *Defense Enterprise Acntng and Mgt Sys (DEAMS)*						**Project (Number/Name)** 675178 I *Def Enter Acct Mgt Sys (Deams) Incr 2*		

Management Services ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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 Costs (PSC)	C/Various	Various : Various	-	6.226	Aug 2023	4.909	Aug 2024	7.572	Dec 2024	-		7.572	Continuing	Continuing	-
Subtotal			-	6.226		4.909		7.572		-		7.572	Continuing	Continuing	N/A

	Prior Years	**FY 2023**		**FY 2024**		**FY 2025 Base**		**FY 2025 OCO**		**FY 2025 Total**	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	43.111		45.925		57.689		-		57.689	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901554F *I Defense Enterprise Acntng and Mgt Sys (DEAMS)*	**Project (Number/Name)** 675178 *I Def Enter Acct Mgt Sys (Deams) Incr 2*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
DEAMS CCD																												
Tech Stack Upgrades																												
12.2.10 Upgrade & Install																												
G-Invoicing																												
ICAM																												
Treasury Direct Disbursing																												
Budget Distribution, Future TDY, PCS, TMS																												
Capability Support Authority to Proceed (CS-ATP)																												
AFIPPS Mil Pay Accrual/Receivables & Civ Pay																												
JOCAS, Logistics & Supply																												
Capability Support Phase																												
Adversarial Testing/Cooperative Vulnerability & Penetration Testing																												
DISA to Oracle Cloud Infrastructure																												
Data Initiative and Conversions																												
Asset Accounting																												
Foreign Military Sales (FMS)																												

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Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 0901554F *I Defense Enterprise Acntng and Mgt Sys (DEAMS)*	**Project (Number/Name)** 675178 *I Def Enter Acct Mgt Sys (Deams) Incr 2*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
DEAMS CCD				
Tech Stack Upgrades	1	2023	4	2023
12.2.10 Upgrade & Install	2	2023	3	2024
G-Invoicing	1	2023	1	2025
ICAM	3	2023	4	2025
Treasury Direct Disbursing	1	2023	1	2026
Budget Distribution, Future TDY, PCS, TMS	3	2023	2	2028
Capability Support Authority to Proceed (CS-ATP)	2	2024	2	2024
AFIPPS Mil Pay Accrual/Receivables & Civ Pay	2	2024	2	2027
JOCAS, Logistics & Supply	2	2024	2	2027
Capability Support Phase	3	2024	4	2028
Adversarial Testing/Cooperative Vulnerability & Penetration Testing	4	2024	2	2026
DISA to Oracle Cloud Infrastructure	1	2025	1	2025
Data Initiative and Conversions	1	2025	2	2028
Asset Accounting	2	2025	4	2026
Foreign Military Sales (FMS)	3	2026	2	2028

PE 0901554F: *Defense Enterprise Acntng and Mgt Sys (D...*
Air Force

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Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force											**Date:** March 2024	
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*						**R-1 Program Element (Number/Name)** PE 1202140F *I Service Support to SPACECOM Activities*						
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
Total Program Element	-	13.418	9.778	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
672486: *JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES*	-	6.616	8.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
67A011: *Space Analysis and Application Development*	-	6.802	1.742	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing

A. Mission Description and Budget Item Justification

The Space Analysis and Application Development program integrates space based effects into Department's 'Model of Record' for joint campaign analysis. Current modeling and simulation [M&S] models are inadequate to represent the contribution that U.S space capabilities make to the air, sea, and land fight and do not accurately portray current and future space threats. This line of effort integrates effects of space capabilities into mission and campaign-level M&S tools. Enhanced space M&S will enable the DoD to make informed decisions regarding the direction of U.S. Space Doctrine, Tactics, Techniques, Procedures, and Resource Decisions. The DoD requires the ability to conduct campaign-level analysis to quantify the holistic operational impacts of adversary space actions on military campaigns and U.S. global operations.

Navigation Warfare [NAVWAR] is deliberate defensive and offensive action to assure and prevent positioning, navigation, and timing [PNT] information through coordinated employment of space, cyberspace, and electronic warfare [EW] operations. Funds are used to create and maintain NAVWAR knowledge and ensure NAVWAR superiority across the DoD. IAW the most recent Unified Command Plan, USSPACECOM is responsible for [a] [U] Advocating for requirements and capabilities supporting NAVWAR operations and joint resilient PNT for the DoD, and [b] [U] Providing contingency and operations support to CCMDs for NAVWAR and joint resilient PNT planning.   USSPACECOM will research, develop, test, assess and evaluate NAVWAR options IOT advocate across Services and the other CCMDs to achieve PNT overmatch. Funds are used to create and maintain NAVWAR knowledge. NAVWAR expertise is developed in part by execution of PNT Operational Field Assessments [POFAs] that assess Red and Blue PNT-related capabilities, limitations, and vulnerabilities. GYPSY POFA's are linked to Commander USSPACECOM's Joint Exercise Program [JEP] and nested within the Chairman's Exercise Program [CEP]and Combatant Commander's [CCMD] Tier 1 exercises [PACIFIC SENTRY AND AUSTERE CHALLENGE are examples] and provide operationally realistic threat-representative, PNT-contested environments for analytical assessment of air, ground, maritime, space & cyberspace mission capability. FORTUNE POFAs are PNT capability and vulnerability assessments associate with a Service exercise or mission event. PRISM POFAs encompass all other Operations, Actions, and Activities [OAAs] and other assessments to include evaluation of rapid innovative NAVWAR capabilities and/or solutions. Assessments inform materiel and non-materiel solutions, service acquisition decisions, capability gaps, intelligence gaps and tactics, techniques and procedures [TTP] development and implementation to mitigate effects on warfighter operations in the anticipated theater NAVWAR threat environments. JNWC assesses department wide PNT posture through the PNT Biennial assessment IAW DoDI 4650.08.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver Space Analysis and Application Development capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F,

Exhibit R-2, **RDT&E Budget Item Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600: *Research, Development, Test & Evaluation, Air Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1202140F *I Service Support to SPACECOM Activities*	

0605833F, 0605898F, 0606398F. In FY2023 $0 was expended in this program element and in FY2024 $0 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 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**
Previous President's Budget	13.418	9.778	15.644	0.000	15.644
Current President's Budget	13.418	9.778	0.000	0.000	0.000
Total Adjustments	0.000	0.000	-15.644	0.000	-15.644
• 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	-15.644	0.000	-15.644

PE 1202140F: *Service Support to SPACECOM Activities*
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Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force				**Date:** March 2024						

Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 1202140F *I Service Support to SPACE COM Activities*	**Project (Number/Name)** 672486 *I JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES*

COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**
672486: *JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES*	-	6.616	8.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

Navigation Warfare [NAVWAR] is deliberate defensive and offensive action to assure and prevent positioning, navigation, and timing [PNT] information through coordinated employment of space, cyberspace, and electronic warfare [EW] operations. Funds are used to create and maintain NAVWAR knowledge and ensure NAVWAR superiority across the DoD. IAW the most recent Unified Command Plan, USSPACECOM is responsible for [a] [U] Advocating for requirements and capabilities supporting NAVWAR operations and joint resilient PNT for the DoD, and [b] [U] Providing contingency and operations support to CCMDs for NAVWAR and joint resilient PNT planning.   USSPACECOM will research, develop, test, assess and evaluate NAVWAR options IOT advocate across Services and the other CCMDs to achieve PNT overmatch. Funds are used to create and maintain NAVWAR knowledge. NAVWAR expertise is developed in part by execution of PNT Operational Field Assessments [POFAs] that assess Red and Blue PNT-related capabilities, limitations, and vulnerabilities. GYPSY POFA's are linked to Commander USSPACECOM's Joint Exercise Program [JEP] and nested within the Chairman's Exercise Program [CEP]and Combatant Commander's [CCMD] Tier 1 exercises [PACIFIC SENTRY AND AUSTERE CHALLENGE are examples] and provide operationally realistic threat-representative, PNT-contested environments for analytical assessment of air, ground, maritime, space & cyberspace mission capability. FORTUNE POFAs are PNT capability and vulnerability assessments associate with a Service exercise or mission event. PRISM POFAs encompass all other Operations, Actions, and Activities [OAAs] and other assessments to include evaluation of rapid innovative NAVWAR Capabilities and/or solutions. Assessments inform materiel and non-materiel solutions, service acquisition decisions, capability gaps, intelligence gaps and tactics, techniques and procedures [TTP] development and implementation to mitigate effects on warfighter operations in the anticipated theater NAVWAR threat environments. JNWC assesses department wide PNT posture through the PNT Biennial assessment IAW DoDI 4650.08.

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. In 2023 $0 was expended for civilian pay expenses in the program element and in FY2024 $0 is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: PNT Operational Assessments	6.616	8.036	-
Description: The JNWC will investigate, operationally assess, and simulate current, emerging, and potential threats and mitigation strategies for denial of blue force PNT capabilities as well as preventing the hostile use of PNT information. Major Performers - Best value to the government selected contractors, universities, government facilities, federally funded research and development centers, laboratories, or other organizations.			

Exhibit R-2A, **RDT&E Project Justification:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 1202140F *I Service Support to SPACE COM Activities*	**Project (Number/Name)** 672486 *I JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES*

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
FY 2024 Plans: Execution of operational assessments in live open-air, laboratory hardware in the loop, simulation, and anechoic chamber environments to assess advanced and potential PNT threats and assist in development of tactics, techniques and procedures [TTP] to mitigate these threats. Continued evaluation of innovative technologies to prevent the hostile use of PNT information and rapidly develop and present NAVWAR playbook options for the joint force; including modeling and simulation tools to enable NAVWAR operations. *FY 2024 to FY 2025 Increase/Decrease Statement:* Funding decreased due to decrease in requirements			
Accomplishments/Planned Programs Subtotals	6.616	8.036	-

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

D. Acquisition Strategy
 New contracts will be awarded using competitive procedures to the maximum extent possible.

PE 1202140F: *Service Support to SPACECOM Activities*
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force											Date: March 2024		
Appropriation/Budget Activity 3600 / 7						**R-1 Program Element (Number/Name)** PE 1202140F / *Service Support to SPACE COM Activities*					**Project (Number/Name)** 672486 / *JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES*		

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			
Cost Category Item	**Contract Method & Type**	**Performing Activity & Location**	**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	C/Various	Not specified. : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Position Navigation and Timing Operational Field Assessments	Various	Multiple, Kirtland AFB NM : Kirtland, NM	-	6.616	Oct 2022	8.036	Oct 2023	-		-		-	Continuing	Continuing	-
Subtotal			-	6.616		8.036		-		-		-	Continuing	Continuing	N/A

Remarks

Prior to the FY20 PB cycle, The Joint Navigation and Warfare Center (JNWC) was reported under PE 1201921F, WSC 672486. Beginning in FY20, the program will be reported under the newly created PE 1202140F, Service Support to U.S. SPACECOM Activities

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	**Cost To Complete**	**Total Cost**	**Target Value of Contract**
Project Cost Totals	-	6.616	8.036	-	-	-	Continuing	Continuing	N/A

Remarks

Exhibit R-4, **RDT&E Schedule Profile:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 1202140F / *Service Support to SPACE COM Activities*	**Project (Number/Name)** 672486 / *JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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
Navigation Warfare (NAVWAR)																												
NAVWAR Operational Field Assessments - Continuing																												
Create / Maintain NAVWAR Knowledge - Continuing																												
NAVWAR Operational and CONOPS Events - Continuing																												

Exhibit R-4A, **RDT&E Schedule Details:** PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 1202140F *I Service Support to SPACE COM Activities*	**Project (Number/Name)** 672486 *I JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES*

Schedule Details

Events by Sub Project	Start		End	
	Quarter	**Year**	**Quarter**	**Year**
Navigation Warfare (NAVWAR)				
NAVWAR Operational Field Assessments - Continuing	1	2023	4	2028
Create / Maintain NAVWAR Knowledge - Continuing	1	2023	4	2028
NAVWAR Operational and CONOPS Events - Continuing	1	2023	4	2028

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force												**Date:** March 2024	
Appropriation/Budget Activity 3600 I 7						**R-1 Program Element (Number/Name)** PE 1202140F I *Service Support to SPACE COM Activities*					**Project (Number/Name)** 67A011 I *Space Analysis and Application Development*		
COST ($ in Millions)	**Prior Years**	**FY 2023**	**FY 2024**	**FY 2025 Base**	**FY 2025 OCO**	**FY 2025 Total**	**FY 2026**	**FY 2027**	**FY 2028**	**FY 2029**	**Cost To Complete**	**Total Cost**	
67A011: *Space Analysis and Application Development*	-	6.802	1.742	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing	
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-			

A. Mission Description and Budget Item Justification

The Space Analysis and Application Development program integrates space based effects into Department's 'Model of Record' for joint campaign analysis. Current modeling and simulation [M&S] models are inadequate to represent the contribution that U.S space capabilities make to the air, sea, and land fight and do not accurately portray current and future space threats. This line of effort integrates effects of space capabilities into mission and campaign-level M&S tools. Enhanced space M&S will enable the DoD to make informed decisions regarding the direction of U.S. Space Doctrine, Tactics, Techniques, Procedures, and Resource Decisions. The DoD requires the ability to conduct campaign-level analysis to quantify the holistic operational impacts of adversary space actions on military campaigns and U.S. global operations.

This program element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in program element 0605827F, 0605828F, 0605829F, 0605831F, 0605832F, 0605833F, 0605898F, 0606398F. In FY2023 $0 was expended for civilian pay expenses in the program element and in FY2024 $0 is forecasted for civilian pay expenses in this program element.

B. Accomplishments/Planned Programs ($ in Millions)	**FY 2023**	**FY 2024**	**FY 2025**
Title: Space Campaign Modeling and Simulation, Development/Modification/Verification/Validation	6.802	1.742	-
Description: Developed, modifies, verifies, and validates new models for Space mission areas and modifies existing models to portray new capabilities *FY 2024 Plans:* Continue priority integration of 22 Joint Mission Threads, space-based capabilities, and counter-space effects on the Warfighter in STORM - Continue to develop change request proposals and submit to STORM Configuration Control Board [CCB] to improve instantiation of potential future and denied/degraded space-based capabilities and their effects on the Warfighter in STORM - In coordination with HAF A/9 [HQ Air Force Studies, Analysis, and Assessments], develop schedule to identify requirements toward implementation of approved change requests and instantiation of space and contested space capabilities in STORM			

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Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 1202140F *I Service Support to SPACE COM Activities*	**Project (Number/Name)** 67A011 *I Space Analysis and Application Development*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
- Develop and modify user-friendly, front-end campaign-level M&S software and tools supporting sufficiently accurate and very timely exploratory analytics to optimize more costly campaign-level STORM M&S, operational planning, gaming, and concept development - Continue development of software and tools to model Red on Blue contested space [one versus one, many versus many, and space campaign-level] and analyze/assess results to determine impact/effects on U.S. military campaigns and global operations - Coordinate and update current and future Blue space order of battle data, Red counter-space order of battle data, Red counter-space CONOPS, future Blue and Red CONOPs to support integration of contested space into mission and campaign-level M&S - Continue updates to software, tools, models, and data at the mission- and campaign-level to inform senior leaders evolving inquiries and decisions on space investments, requirements, acquisition, operational COAs, operational risk, and future planning - Continue to assess and integrate enterprise-level model data for SATCOM capabilities into campaign-level modeling - In coordination with European Command, Indo-Pacific Command, other combatant commands, and respective USSPACECOM Integrated Planning Elements; explore improved integrated risk analysis with new campaign-level M&S capabilities ***FY 2024 to FY 2025 Increase/Decrease Statement:*** Funding decreased due to decrease in requirements.			
Accomplishments/Planned Programs Subtotals	6.802	1.742	-

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

D. Acquisition Strategy
 Any new projects funded in this program will be awarded using competitive procedures to the maximum extent possible.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force													Date: March 2024		

Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 1202140F / Service Support to SPACE COM Activities	Project (Number/Name) 67A011 / Space Analysis and Application Development

Product Development ($ in Millions)				FY 2023		FY 2024		FY 2025 Base		FY 2025 OCO		FY 2025 Total			Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	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	C/CPAF	Not specified. : TBD	-	-		-		-		-		-	Continuing	Continuing	-
Model Space effects for two mission tasks and integrate into STORM for joint campaign analysis	C/CPAF	TBD : TBD	-	6.802	Oct 2022	1.742	Oct 2023	-		-		-	Continuing	Continuing	-
		Subtotal	-	6.802		1.742		-		-		-	Continuing	Continuing	N/A

Remarks
Prior to the FY20 PB cycle, The Space Analysis and Application Development Program was reported under PE 1201921F, WSC 67A011. Beginning in FY20, the program will be reported under the newly created PE 1202140F, USSPACECOM

	Prior Years	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	6.802	1.742	-	-	-	Continuing	Continuing	N/A

Remarks

PE 1202140F: *Service Support to SPACECOM Activities*
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Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		**Date:** March 2024
Appropriation/Budget Activity 3600 *I* 7	**R-1 Program Element (Number/Name)** PE 1202140F *I Service Support to SPACE COM Activities*	**Project (Number/Name)** 67A011 *I Space Analysis and Application Development*

	FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028				FY 2029			
	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 Analysis Modeling and Simulation																												
Run improved STORM model and update integrated risk analysis with Combatant Commands	███	██																										
Develop software and tools to model Red on Blue contested space environment. Develop space playbook to define Red counter-space threat					██	██																						
Update mission and campaign level M&S to inform senior leaders evolving inquiries and decisions on innovation, space investments, rapid acquisition, operational COAs, risk, and planning									███	██	██	██	██	██	██	██	██	██	██	██	██	██	██					

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Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force				Date: March 2024
Appropriation/Budget Activity 3600 / 7		**R-1 Program Element (Number/Name)** PE 1202140F / Service Support to SPACE COM Activities	**Project (Number/Name)** 67A011 / Space Analysis and Application Development	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space Analysis Modeling and Simulation				
Run improved STORM model and update integrated risk analysis with Combatant Commands	1	2023	4	2023
Develop software and tools to model Red on Blue contested space environment. Develop space playbook to define Red counter-space threat	1	2024	4	2024
Update mission and campaign level M&S to inform senior leaders evolving inquiries and decisions on innovation, space investments, rapid acquisition, operational COAs, risk, and planning	1	2025	4	2028

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