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 0208006F / *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.

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 0208006F / *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.

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) 675302 / *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 / 7	**R-1 Program Element (Number/Name)** PE 0208006F / *Mission Planning Systems*	**Project (Number/Name)** 675302 / *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 / 7	R-1 Program Element (Number/Name) PE 0208006F / *Mission Planning Systems*	Project (Number/Name) 675302 / *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

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)*

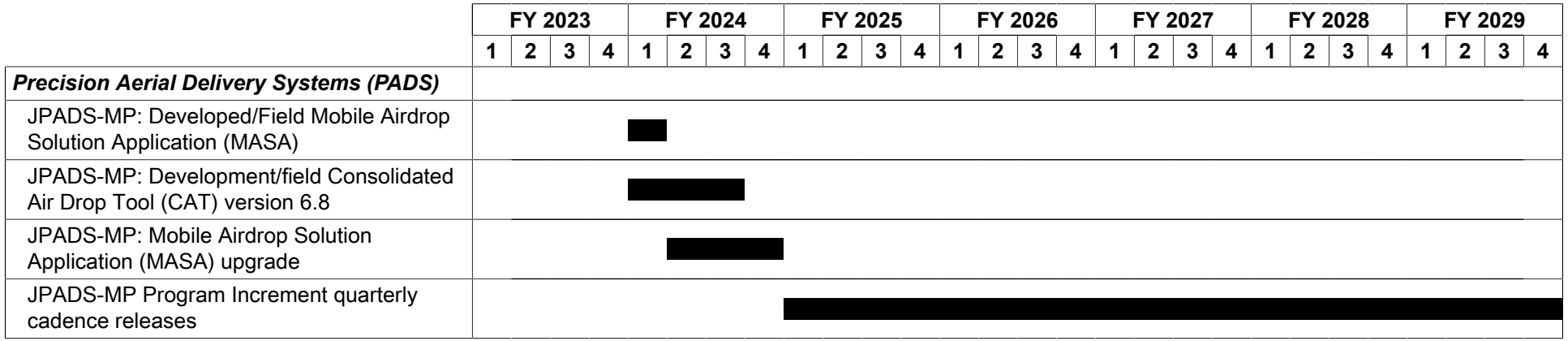

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208006F / *Mission Planning Systems*	**Project (Number/Name)** 675302 / *Precision Aerial Delivery Systems (PADS)*

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

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*	

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

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.

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*

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	10.019	9.036	8.814
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.			
Title: F-22 Modernization	8.903	7.512	9.505
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,			

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 / 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
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

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.

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 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
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 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 : 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 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	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 / 7	**R-1 Program Element (Number/Name)** PE 0208006F / *Mission Planning Systems*	**Project (Number/Name)** 675380 / *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*

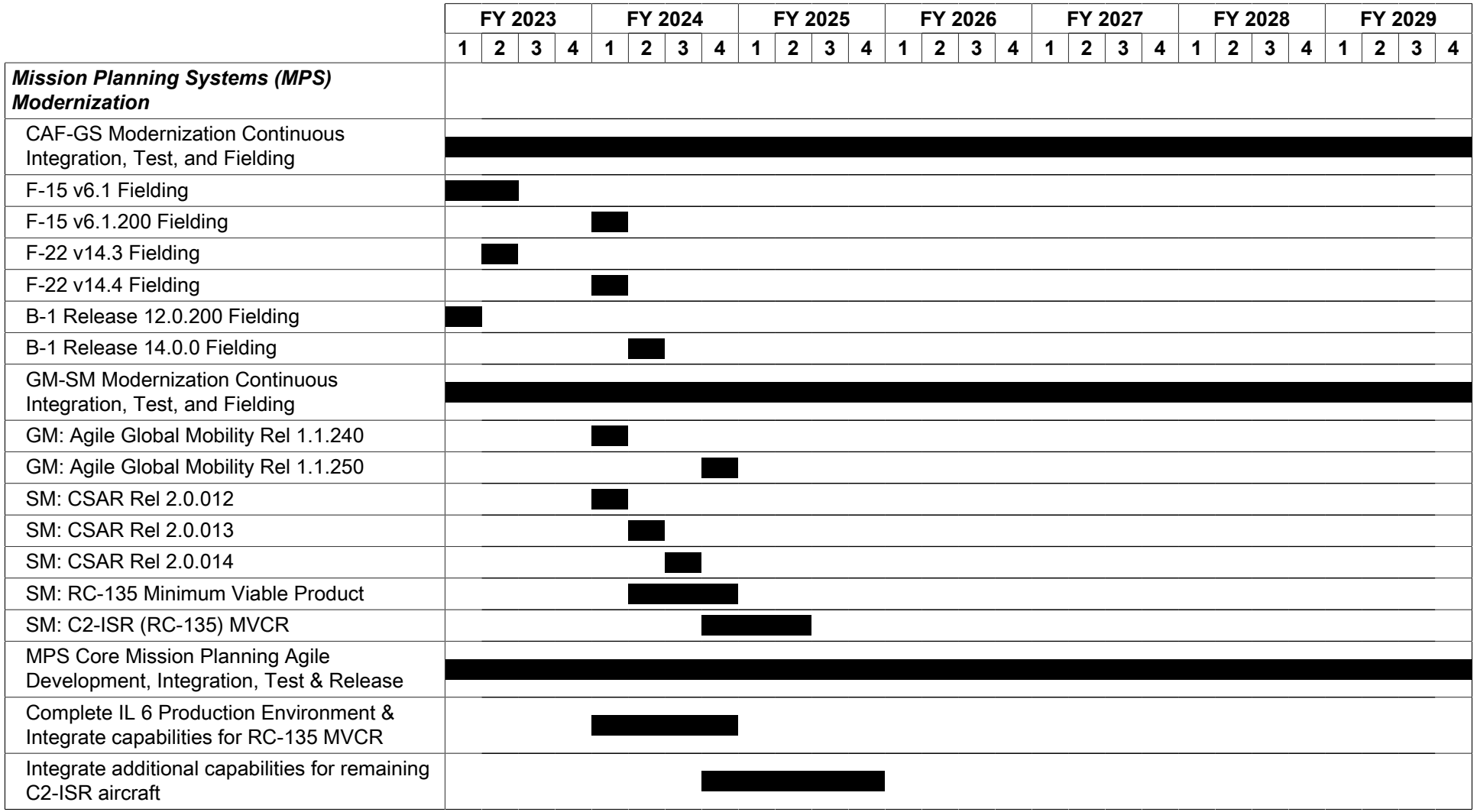

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3600 / 7	**R-1 Program Element (Number/Name)** PE 0208006F / *Mission Planning Systems*	**Project (Number/Name)** 675380 / *Mission Planning Systems (MPS) Modernization*

Schedule Details

	Start		End	
Events by Sub Project	**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