Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	Date: March 2024
Appropriation/Budget Activity 3620F: *Research, Development, Test & Evaluation, Space Force* / BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*

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	740.105	267.791	317.309	217.224	0.000	217.224	22.875	6.628	6.867	7.003	0.000	1,585.802
67A021: *OCX*	740.105	185.812	200.452	153.909	0.000	153.909	0.000	0.000	0.000	0.000	0.000	1,280.278
67A023: *OCX Block 3F*	0.000	81.979	116.857	63.315	0.000	63.315	22.875	6.628	6.867	7.003	0.000	305.524

A. Mission Description and Budget Item Justification

The Global Positioning System (GPS) is a space based Positioning, Navigation and Timing (PNT) distribution system which operates through all weather. GPS supports both civil and military users in air, space, sea and land operations. GPS is a satellite-based radio navigation system that serves military and civil users worldwide. GPS users process satellite signals to determine accurate position, velocity and time. GPS must comply with Title 10 United States Code (USC) Sec 2281 which requires that the Secretary of Defense (SECDEF) ensures the continued sustainment and operation of GPS for military and civilian purposes, and 51 USC Sec 50112, which requires that GPS complies with certain standards and facilitates international cooperation. GPS also includes the Nuclear Detonation (NUDET) Detection System (NDS). The Government is responsible for the integration of the GPS Segments such that they provide worldwide GPS capability to support the warfighter and over four billion national security, civil, Allied, and commercial GPS users.

Program Element (PE) 1206423SF funds Research, Development, Test and Evaluation (RDT&E) for the Next Generation Operational Control System (OCX), which includes OCX Blocks 0, 1, and 2, and the upgrade to OCX called OCX Block 3F (OCX 3F), which incorporates Regional Military Protection (RMP) and command and control functionality for GPS III Follow-on (GPS IIIF) satellites. GPS Enterprise Integrator (EI) activities are systems engineering and integration activities conducted across the space, user, and ground segments. This activity formerly resided in the OCX PE and was switched to the GPS III Follow-on (GPS IIIF) PE in FY 2023.

OCX acquisition was established to 1) provide command and control of legacy and GPS III satellites, 2) incorporate situational awareness to support Navigation Warfare (NAVWAR) and signal monitoring, 3) enable mission capability upgrades to support a warfighter effects-based approach to operations, and 4) integrate Department of Defense (DoD) information assurance and cybersecurity controls and capabilities. OCX 3F will upgrade OCX to provide RMP, a high-powered military signal which strengthens U.S. and allied forces' GPS resiliency in contested on tested environments to mitigate future jamming threats. OCX 3F also provides the ability to rapidly reconfigure GPS IIIF satellites to create time-critical warfighter effects.

OCX and OCX 3F funds support efforts such as engineering studies and analyses, architectural engineering studies, trade studies, technology needs forecasting, modernization initiatives, systems engineering, system development, resolving obsolescence issues, test and evaluation efforts, pre-operational support activities, and interim contractor support. These activities support upgrades and product improvements for military and civil applications necessary to enable efforts to protect the United States Military and Allies' use of GPS. Additionally, funds ensure OCX and OCX Block 3F efforts meet Joint Requirements Oversight Council (JROC) approved required capabilities.

OCX Block 1 and 2 primary development concludes at system acceptance executed via DoD Form DD 250 (planned for late 4th Quarter FY 2024). Pre-Operational Support (pre-ops acceptance) and Interim Contractor Support (ICS) (post-ops acceptance) is the final contract phase that completes development, achieves the

program's final Acquisition Program Baseline (APB) milestone Ready to Transition to Operations (RTO), supports Operational Acceptance (OA), and transitions OCX to long-term sustainment. Specifically, ICS provides contractor support services to sustain and provide capability insertions, maintain system performance requirements, and participate in government led events such as maintenance, integrated supply support, security, and launch activities. RDT&E funded government activities include Development Test and Evaluation (DT&E), GPS Constellation Transfer (CTX), Operational Test and Evaluation (OT&E), and OA. Upon completion of those activities, OCX will prepare for, and transition to O&M funded Contractor Logistics Support (CLS). In FY 2023, the contractor conducted ICS proposal activities in preparation for contract modification for the final contract phase planned in FY 2024.

OCX 3F, which achieved Milestone B May 2022, is required to launch and operationally command and control GPS IIIF space vehicles. OCX 3F will upgrade OCX with new capabilities to synchronize with GPS IIIF Space Segment and Military GPS User Equipment (MGUE) Increment 2 capabilities. This includes master control station development, GPS system simulator modification, launch and mission planning development, training simulators, integrated logistics support products, test resources, systems engineering required to meet the Government's obligations to the international, military and civil communities, and system requirements verification. OCX 3F will maintain backward compatibility to support the legacy constellation develop solutions necessary to command, control and monitor GPS IIIF, to include integration of RMP high power regional M-code signals, rapid warfighter effects and support to GPS auxiliary payloads.

This PE may include necessary civilian pay expenses required to manage, execute, and deliver OCX and OCX 3F weapon system capability. The use of such program funds would be in addition to the civilian pay expenses budgeted in PEs 1206392SF and 1206398SF.

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

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	277.052	317.309	82.385	0.000	82.385
Current President's Budget	267.791	317.309	217.224	0.000	217.224
Total Adjustments	-9.261	0.000	134.839	0.000	134.839
• 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	-9.261	0.000			
• Other Adjustments	0.000	0.000	134.839	0.000	134.839

Exhibit R-2, RDT&E Budget Item Justification: PB 2025 Air Force	Date: March 2024
Appropriation/Budget Activity 3620F: *Research, Development, Test & Evaluation, Space Force I* BA 7: *Operational Systems Development*	**R-1 Program Element (Number/Name)** PE 1206423SF *I Global Positioning System III - Operational Control Segment*

Change Summary Explanation

FY 2025: +$134.425M to fix ICS must pay support to global monitoring stations, OCX SW (Software) updates, cyber patches, augmented crew ops, and OT&E (Operational Test & Evaluation) effort. Supports GPS constellation & maintains space/user segment alignment. Achieves OA and supports transition to Contractor Logistic Support (CLS).

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1206423SF / *Global Positioning System III - Operational Control Segment*	Project (Number/Name) 67A021 / *OCX*	

COST ($ in Millions)	Prior Years	FY 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
67A021: *OCX*	740.105	185.812	200.452	153.909	0.000	153.909	0.000	0.000	0.000	0.000	0.000	1,280.278
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Prior Years Funding $4,366.725M was executed in PE 1206423F.

A. Mission Description and Budget Item Justification

The Global Positioning System (GPS) is a space based Position, Navigation and Timing (PNT) distribution system which operates through all weather. This project funds the research and development for the Next Generation Operational Control System (OCX). This includes, but is not limited to: advanced concept development, systems engineering and analysis, modernized control segment and mission planning development, modernization/deployment of 17 monitor stations, training simulators, integrated logistics support products, and test resources.

OCX acquisition was established to: 1) provide command and control of legacy and GPS III satellites; 2) incorporate situational awareness to support Navigation Warfare (NAVWAR) and signal monitoring; 3) enable mission capability upgrades to support a warfighter effects-based approach to operations; and 4) integrate DoD information assurance and cybersecurity controls and capabilities. OCX funds will support efforts such as engineering studies and analyses, architectural engineering studies, trade studies, technology needs forecasting, technology development, systems engineering, system development, test and evaluation efforts, pre-operational support activities, and interim contractor support, in support of upgrades and product improvements for military and civil applications necessary to support efforts to protect the United States military and Allies' use of GPS. Additionally, funds will ensure efforts to meet Joint Requirements Oversight Council (JROC) approved required capabilities.

OCX Block 0 is the Launch and Checkout System (LCS) intended to conduct Launch and Early Orbit (LEO) operations and the on-orbit checkout of all GPS III satellites. The 2nd Space Operations Squadron (2SOPS) can also call upon OCX Block 0 capabilities at any time to support GPS III anomaly resolution activities. OCX Block 0 is a subset of OCX Block 1.

OCX Block 1 fields the operational capability to control all legacy satellites, the legacy civil signal (L1C/A), the legacy military signals (L1P(Y), L2P(Y)) as well as the GPS III satellites and the modernized civil signal (L2C) and the aviation safety-of-flight signal (L5). In addition, Block 1 will field the basic operational capability to control the modernized military signals (L1M and L2M M-Code), and the globally compatible signal (L1C). It also fully meets information assurance/cyber defense requirements.

OCX Block 2 fields the advanced operational capability to control the advanced features of the modernized military signals (L1M and L2M M-Code). Blocks 1 & 2 are being delivered concurrently as a result of the Oct 2016 Nunn-McCurdy review.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: OCX Development	170.012	185.391	144.717

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A021 / *OCX*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Description: Development of OCX system to launch GPS III, operate a mixed GPS II and GPS III constellation, and provide for a robust Information Assurance system. ***FY 2024 Plans:*** Continue contractor support of the OCX Block 0 baseline that is supporting the launch checkout, and anomaly support for GPS III satellites. For Blocks 1/2, address and resolve technical challenges that have delayed completion of formal qualification and system acceptance testing and DD250 into 4th Quarter FY 2024; also study and implement updates and operational procedures to meet the intent of multiple Positioning Signal Integrity and Continuity Assurance (PSICA) related requirements. In support of those activities, continue software fixes, version updates, software patches, and support the global monitor stations. Prepare closeout activities post-DD250 for applicable contract line items. Begin activities to achieve Blocks 1/2 OA. Planned activities include: Development Testing (Integrated System Test 3-1 (IST 3-1)), contractor performed crew operations, supporting additional crew, training, performing transition rehearsals that validate the procedures to transition the GPS satellite constellation to OCX, transferring the GPS Constellation from the legacy Operational Control System (OCS) to OCX, troubleshooting issues and/or rectifying deficiency reports levied by the operational community in connection with Operational Test and Evaluation (OT&E), and conducting OT&E that culminates with Operational Acceptance (OA). Award and begin Pre-Operational Support (pre-ops acceptance) and Interim Contractor Support (ICS) activities for OCX Block 0 and Blocks 1/2. Pre-Operational support activities occur with the program office's system acceptance via DD250 but prior to the warfighter's OA. The contractor will provide extensive critical support to certify OCX as ready for Operational Testing (OT): training, demonstrations, readiness campaigns, and enterprise level tests among ground, space, and users. Continue to rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to: program office support, studies, technical analysis, experimentation, prototyping, etc. ***FY 2025 Plans:*** Focus on completing Pre-Ops Support/ICS contract line items (i.e., on-going ICS for OCX Blocks 0 and Blocks 1/2). Continue supporting the launch checkout and anomaly resolution of GPS III satellites. Continue to perform maintenance activities for Blocks 1 and 2, provide contractor staff to support government activities, and conduct pre-planned system updates to align ground capabilities with GPS enterprise changes involving the space and user segments. Complete activities to achieve Blocks 1/2 OA such as Factory Engineering, Development Testing (Integrated System Test 3-1 (IST 3-1)), contractor performed crew operations, supporting additional crew, training, performing transition rehearsals that validate the procedures to transition the GPS satellite constellation to OCX, transferring the GPS Constellation from the legacy Operational Control System (OCS) to OCX, troubleshooting issues and/or rectifying deficiency reports levied by the operational community in connection with Operational Test and Evaluation (OT&E), and conducting OT&E that culminates with OA. Upon OA and transition to ICS, the contractor will continue maintenance and pre-planned system updates providing contractor crew operators, support to crew training, and support for other GPS constellation activities. Rapidly respond to implement system resiliency and situational awareness necessary to			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A021 / *OCX*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2025 decreased due to ramp-down of OCX development activity and system delivery to support pre-operations.			
Title: Technical Support ***Description:*** Development of the Standardized Space Trainer (SST) to provide GPS III operator training. Development of Enterprise Mission Planning Systems. Facilities upgrades for Control Stations and associated equipment and servers. Systems Engineering (SE) including Technical Mission Analysis (TMA), Modernization SE and Technical Support, and Test and Evaluation (T&E). ***FY 2024 Plans:*** Continue data collection and tuning of the monitoring stations equipment as needed. Continue witnessing contractor testing in support of system acceptance. Perform SE and technical support and analysis for planning government led development testing, and operational acceptance testing. Provide contract technical support and assistance as required. Continue support towards OCX Block 1 and 2 Ready to Transition to Operation milestone. ***FY 2025 Plans:*** Complete data collection and tuning of the monitoring stations equipment as needed. Complete Systems Engineering and technical support and analysis for Government led testing, and operational demonstrations, exercises, and training. Assist with plans for transition to sustainment, provide contract technical support, and assist with closeout activities as required. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2025 decreased due to ramp down of technical support effort after system delivery.	15.800	15.061	9.192
Accomplishments/Planned Programs Subtotals	185.812	200.452	153.909

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
• RDTE 07 1203265F: *GPS III Space Segment*	1.467	0.000	0.000	-	0.000	0.000	0.000	0.000	-	0.000	1.467
• RDTE 05 1203269SF: *GPS III Follow-on*	232.783	247.278	181.057	-	181.057	124.075	93.555	61.027	35.989	142.362	1,118.126

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A021 / *OCX*

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
• SPSF 01 GPSIII: *GPS III Space Segment*	103.340	121.770	68.205	-	68.205	29.723	2.812	0.000	0.000	0.000	325.850
• SPSF 01 GPS03C: *GPSIII Follow On*	616.962	119.700	647.165	-	647.165	710.019	744.030	759.736	775.039	1,358.809	5,731.460

Remarks

D. Acquisition Strategy

The Space Force is pursuing a "Block" approach for OCX in order to respond to warfighter capability requirements. Enterprise studies will ensure GPS Enterprise synchronization across space and ground segments.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A021 / *OCX*

Product Development ($ in Millions)

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
GPS OCX Phase B OCX Block 1 & 2 Development	C/CPAF	Raytheon : Aurora, CO	522.315	153.997	Oct 2022	154.751	Oct 2023	-		-		-	0.000	831.063	4,062.303
GPS OCX Pre Operational and Interim Contractor Support	SS/CPIF	Raytheon : Aurora, CO	0.000	2.973	Sep 2023	14.505	May 2024	132.691	Oct 2024	-		132.691	0.000	150.169	-
GPS OCX SBIR/STTR	Various	Various : Various	0.000	-		7.216	Mar 2024	5.541	Mar 2025	-		5.541	0.000	12.757	-
GPS OCX Block 3F Development	Various	Various : Various	131.019	-		-		-		-		-	0.000	131.019	-
GPS OCX Technical Mission Analysis	Various	Various : Various	21.148	6.319	Nov 2022	3.540	Nov 2023	2.718	Nov 2024	-		2.718	0.000	33.725	-
GPS OCX Enterprise SE&I	C/CPAF	TASC : El Segundo, CA	14.031	1.093	Nov 2022	0.536	Nov 2023	0.523	Nov 2024	-		0.523	0.000	16.183	-
GPS OCX Modernization/ SE & Tech Support	Various	Various : Various	6.364	9.481	Nov 2022	10.522	Nov 2023	6.474	Nov 2024	-		6.474	0.000	32.841	-
GPS OCX Standardized Space Trainer (SST)	C/CPAF	Sonalyst, Inc. : Waterford, CT	6.316	-		-		-		-		-	0.000	6.316	-
GPS OCX Enterprise Mission Planning	MIPR	Various : Various	11.700	-		-		-		-		-	0.000	11.700	-
		Subtotal	712.893	173.863		191.070		147.947		-		147.947	0.000	1,225.773	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
GPS OCX T&E	C/Various	Various : Various	4.355	0.000	Nov 2022	1.000	Nov 2023	-		-		-	0.000	5.355	-
		Subtotal	4.355	0.000		1.000		-		-		-	0.000	5.355	N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A021 / *OCX*

Management Services ($ in Millions)

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
GPS OCX FFRDC	Various	Various : Various	5.090	1.291	Oct 2022	1.192	Oct 2023	0.916	Nov 2024	-		0.916	0.000	8.489	-
GPS OCX A&AS	Various	Various : Various	16.964	10.200	Nov 2022	6.590	Nov 2023	4.646	Nov 2024	-		4.646	0.000	38.400	-
GPS OCX Other Support	Various	Various : Various	0.803	0.458	Oct 2022	0.600	Oct 2023	0.400	Oct 2024	-		0.400	0.000	2.261	-
		Subtotal	22.857	11.949		8.382		5.962		-		5.962	0.000	49.150	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	740.105	185.812		200.452		153.909		-		153.909	0.000	1,280.278	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A021 / *OCX*

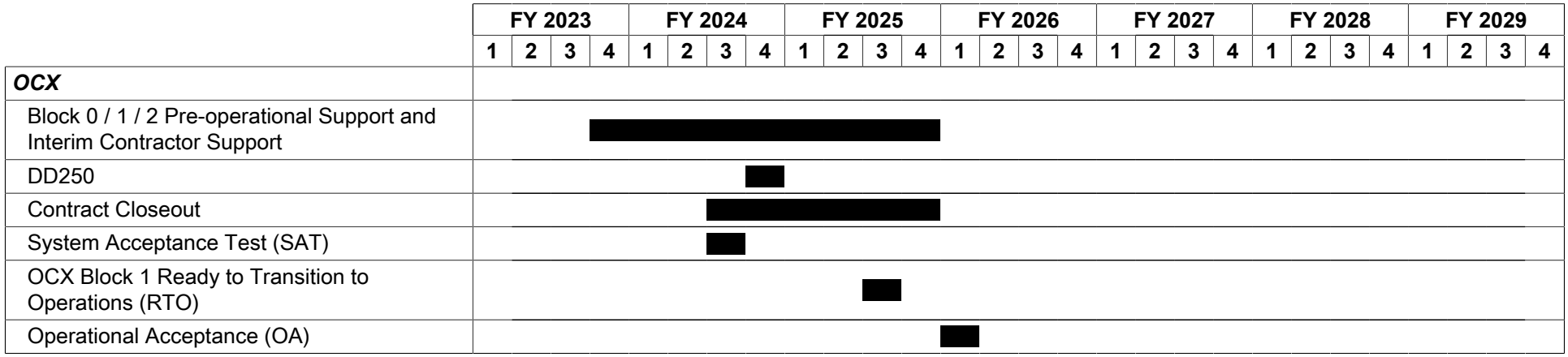

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A021 / *OCX*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
OCX				
Block 0 / 1 / 2 Pre-operational Support and Interim Contractor Support	4	2023	4	2025
DD250	4	2024	4	2024
Contract Closeout	3	2024	4	2025
System Acceptance Test (SAT)	3	2024	3	2024
OCX Block 1 Ready to Transition to Operations (RTO)	3	2025	3	2025
Operational Acceptance (OA)	1	2026	1	2026

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3620F / 7	R-1 Program Element (Number/Name) PE 1206423SF / *Global Positioning System III - Operational Control Segment*	Project (Number/Name) 67A023 / *OCX Block 3F*	

COST ($ in Millions)	Prior Years	FY 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
67A023: *OCX Block 3F*	0.000	81.979	116.857	63.315	0.000	63.315	22.875	6.628	6.867	7.003	0.000	305.524
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

OCX Block 3 Follow-on (OCX 3F) will modify OCX Command and Control (C2) for new Global Positioning System (GPS) III Follow-On (GPS IIIF) satellites and Military GPS User Equipment (MGUE) system capabilities, including Regional Military Protection (RMP) high-powered military signal to strengthen U.S. and allied forces' GPS resiliency in contested environments to mitigate future threats, and the ability to rapidly reconfigure GPS IIIF satellites to create time-critical warfighter effects. OCX 3F will maintain backward compatibility with the existing OCX capabilities to support the legacy GPS constellation as well as GPS IIIF. OCX 3F includes critical functions necessary to launch, command, control, and monitor GPS IIIF spacecraft, collect and integrate RMP high-power regional Military Code (M-Code) signals for rapid warfighter effects, and support GPS IIIF auxiliary payloads, including Search and Rescue (SAR) and Nuclear Detonation (NUDET) Detection System (NDS).

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: OCX Block 3F	81.979	116.857	63.315
Description: OCX Block 3F upgrades OCX Block 1 & 2 with new capabilities in support of GPS IIIF and incorporate RMP to handle future threats. OCX 3F will maintain backward compatibility to support the legacy constellation develop solutions necessary to command, control and monitor GPS IIIF, to include advance collection and integration of RMP high power regional M-code signals, rapid warfighter effects and support to GPS auxiliary payloads.			
FY 2024 Plans: Deliver initial OCX 3F Launch and Checkout System (LCS) software to support enterprise integration risk reduction events with GPS IIIF space vehicles. Initiate refresh of LCS hardware to support Enterprise events. Continue system development, integration and test, and training capabilities to support GPS IIIF launch, checkout, and on-orbit operations. Continue software coding and development of C2 capabilities for RMP and RWE. Finalize accreditation of and complete upgrades to the OCX 3F GPS System Simulator and work on development of the Global Positioning, Navigation, and Timing (PNT) critical capability. Support GPS Systems Integration (SI) Demonstrations to mitigate risks for key interfaces and functionality between the GPS space, ground and user equipment segments. Continue cybersecurity resiliency development and test and support Tabletop exercises to identify and mitigate cybersecurity threats. Incorporate Enterprise Mission Planning Systems capability into OCX 3F baseline. The Enterprise Mission Planning Systems enable Over the Air Rekey capability and other navigation warfare effects taskings. Develop OCX 3F upgrades for SST to support OCX 3F C2 operator training. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to: program office support, studies, technical analysis, experimentation, prototyping, etc.			
FY 2025 Plans:			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A023 / *OCX Block 3F*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Complete software development for C2 capabilities for Global PNT, Regional Military Protection (RMP) checkout and RWE initial operations. Continue integration activities that support the validation of requirements with use of the OCX 3F GPS System Simulator. Initiate and complete functional and physical control audits for final delivery of OCX 3F baseline. Prepare and begin coordination for System Integration Testing (SIT) of OCX 3F into the Operationally Accepted (OA) OCX baseline. Continue to support early GPS Enterprise integration testing in support of Mission Readiness Campaign (MRC) for GPS IIIF SV-11. Continue to incorporate Enterprise Mission Planning Systems capability into OCX 3F baseline. The Enterprise Mission Planning Systems enable Over the Air Rekey capability and other navigation warfare effects taskings. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities.			
FY 2024 to FY 2025 Increase/Decrease Statement: FY 2025 decreased due to software development activities ramp down for integration and testing efforts.			
Accomplishments/Planned Programs Subtotals	81.979	116.857	63.315

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
• SPSF 01 GPSIII: *GPS III Space Segment*	103.340	121.770	68.205	-	68.205	29.723	2.812	0.000	0.000	0.000	325.850
• SPSF 01 GPS03C: *GPSIII Follow On*	616.962	119.700	647.165	-	647.165	710.019	744.030	759.736	775.039	1,358.809	5,731.460
• RDTE 07 1203265F: *GPS III Space Segment*	1.467	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1.467
• RDTE 05 1203269SF: *GPS III Follow-On (GPS IIIF)*	232.783	247.278	181.057	-	181.057	124.075	93.555	61.027	35.989	142.362	1,118.126

Remarks

D. Acquisition Strategy

OCX Block 3F is a separate, tailored Acquisition Category (ACAT) II program. It is part of the overall GPS Enterprise Modernization effort. The OCX 3F development contract was awarded sole source to Raytheon Intelligence and Space in 3rd Quarter FY 2021. The OCX 3F program uses an agile software development approach to upgrade the OCX system to support the first GPS IIIF satellite launch, while also maintaining backwards compatibility for C2 of the existing GPS satellite constellation.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A023 / *OCX Block 3F*	

Product Development ($ in Millions)

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
OCX 3F Development	C/CPAF	Raytheon : Aurora, CO	0.000	66.659	Oct 2022	86.906	Oct 2023	43.379	Oct 2024	-		43.379	Continuing	Continuing	-
OCX 3F SBIR/STTR	Various	Various : Various	0.000	-		4.090	Mar 2024	2.279	Mar 2025	-		2.279	Continuing	Continuing	-
OCX 3F Technical Mission Analysis	Various	Various : Various	0.000	3.859	Nov 2022	4.589	Nov 2023	3.142	Nov 2024	-		3.142	Continuing	Continuing	-
OCX 3F Enterprise SE&I	C/CPAF	TASC : El Segundo, CA	0.000	0.622	Nov 2022	2.890	Nov 2023	1.268	Nov 2024	-		1.268	Continuing	Continuing	-
OCX 3F Enterprise Mission Planning	MIPR	Various : Various	0.000	2.700	Jan 2023	7.000	Jan 2024	2.000	Jan 2025	-		2.000	Continuing	Continuing	-
OCX 3F Modernization/SE & Tech Support	Various	Various : Various	0.000	-		1.214	Nov 2023	3.322	Nov 2024	-		3.322	Continuing	Continuing	-
OCX 3F Standardized Space Trainer (SST)	C/CPAF	Sonalyst, Inc : Waterford, CT	0.000	-		3.471	Feb 2024	3.193	Nov 2024	-		3.193	Continuing	Continuing	-
		Subtotal	0.000	73.840		110.160		58.583		-		58.583	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
OCX 3F FFRDC	RO	Aerospace : El Segundo, CA	0.000	0.775	Oct 2022	1.041	Oct 2023	1.059	Oct 2024	-		1.059	Continuing	Continuing	-
OCX 3F A&AS	Various	Various : Various	0.000	7.246	Nov 2022	5.356	Nov 2023	3.373	Nov 2024	-		3.373	Continuing	Continuing	-
OCX 3F Other Support	Various	Various : Various	0.000	0.118	Oct 2022	0.300	Oct 2023	0.300	Oct 2024	-		0.300	Continuing	Continuing	-
		Subtotal	0.000	8.139		6.697		4.732		-		4.732	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	81.979		116.857		63.315		-		63.315	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A023 / *OCX Block 3F*

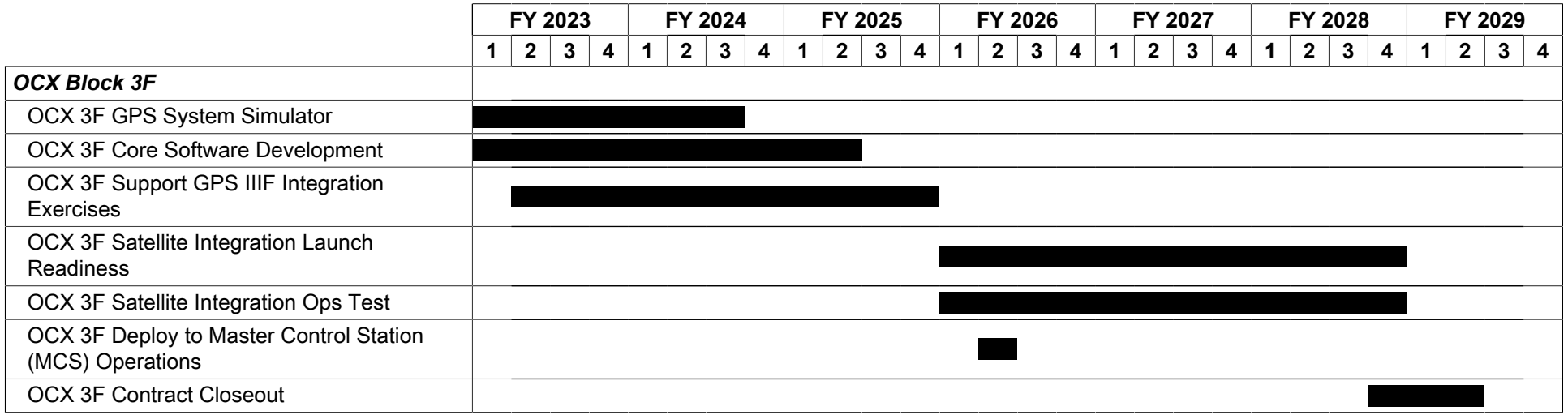

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 7	**R-1 Program Element (Number/Name)** PE 1206423SF / *Global Positioning System III - Operational Control Segment*	**Project (Number/Name)** 67A023 / *OCX Block 3F*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
OCX Block 3F				
OCX 3F GPS System Simulator	1	2023	3	2024
OCX 3F Core Software Development	1	2023	2	2025
OCX 3F Support GPS IIIF Integration Exercises	2	2023	4	2025
OCX 3F Satellite Integration Launch Readiness	1	2026	4	2028
OCX 3F Satellite Integration Ops Test	1	2026	4	2028
OCX 3F Deploy to Master Control Station (MCS) Operations	2	2026	2	2026
OCX 3F Contract Closeout	4	2028	2	2029