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 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 1206438SF / *Space Control 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	-	48.560	58.374	62.195	0.000	62.195	62.590	63.563	65.854	67.153	Continuing	Continuing
642611: *Technology Insertion Planning and Analysis*	-	48.560	31.621	36.187	0.000	36.187	36.190	36.937	38.271	39.025	Continuing	Continuing
646438: *Joint Space Integration Technology*	-	0.000	26.753	26.008	0.000	26.008	26.400	26.626	27.583	28.128	Continuing	Continuing

A. Mission Description and Budget Item Justification

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

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

Specific OCS activities include disruption, denial, or degradation (and associated Electronic Support) of adversary space systems that may be used for purposes hostile to U.S. national security interests. Rapid Reaction Capabilities in response to immediate warfighter needs in the Space Control mission area are developed within the Rapid Reaction Branch (RRB). Depending on the magnitude of Combatant Command Urgent Operational Needs (UON), this program may not include necessary funding for all contingency deployments. As required, necessary funding will be requested through established Joint Urgent Operational Need (JUON) and Overseas Contingency Operations (OCO) processes.

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

In FY 2024, a portion of Project 642611, Technology Insertion Planning and Analysis efforts was transferred to Project 646438, Joint Space Integration Technology for transparency.

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 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 1206438SF *I Space Control Technology*

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

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

B. Program Change Summary ($ in Millions)	FY 2023	FY 2024	FY 2025 Base	FY 2025 OCO	FY 2025 Total
Previous President's Budget	50.303	58.374	62.086	0.000	62.086
Current President's Budget	48.560	58.374	62.195	0.000	62.195
Total Adjustments	-1.743	0.000	0.109	0.000	0.109
• 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	-1.743	0.000			
• Other Adjustments	0.000	0.000	0.109	0.000	0.109

Congressional Add Details ($ in Millions, and Includes General Reductions)	FY 2023	FY 2024
Project: 642611: *Technology Insertion Planning and Analysis*		
Congressional Add: *NEXT-C Gridded Ion Thruster Development*	1.930	-
Congressional Add Subtotals for Project: 642611	1.930	-
Congressional Add Totals for all Projects	1.930	-

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / *Space Control Technology*	Project (Number/Name) 642611 / *Technology Insertion Planning and Analysis*	

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
642611: *Technology Insertion Planning and Analysis*	-	48.560	31.621	36.187	0.000	36.187	36.190	36.937	38.271	39.025	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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

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

Specific OCS activities include disruption, denial, or degradation (and associated Electronic Support) of adversary space systems that may be used for purposes hostile to U.S. national security interests. Rapid Reaction Capabilities in response to immediate warfighter needs in the Space Control mission area are developed within the Rapid Reaction Branch (RRB). Depending on the magnitude of Combatant Command Urgent Operational Needs (UON), this program may not include necessary funding for all contingency deployments. As required, necessary funding will be requested through established Joint Urgent Operational Need (JUON) and Overseas Contingency Operations (OCO) processes.

Joint Space Integration Technology leverages knowledge of the space environment and impacts on weapon systems to prototype, develop, test, and field joint multi-domain software and modeling solutions to fill capability gaps for Combatant Commanders. Military Application of the Space Environment (MASE) project consolidates and integrates current space environment science and technology advancements to provide capability for joint force systems in all domains to address immediate and evolving threats to U.S. forces operating in harm's way. The data provided supports rapid and agile demonstrations, exercises, and war games that provide essential validation of delivered capabilities to improve operational effectiveness. In FY 2024, the Joint Space Integration Technology effort was transferred out of Project 642611 into a new Project 646438 for transparency.

In FY 2024, a portion of Project 642611, Technology Insertion Planning and Analysis efforts was transferred from Project 646438, Joint Space Integration Technology for transparency.

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

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 642611 / *Technology Insertion Planning and Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Rapid Reaction Branch	12.177	18.672	22.081

Description: Develops advanced capabilities for rapid prototyping and integration into space control programs of record and, if requested, to warfighter UONs and JUONs. Conducts prototype capability development, testing, training and rapid transition of technology and techniques to space control systems. Sustains deployed quick reaction capabilities until transition to program of record or mission completion.

FY 2024 Plans:
Develop, test, train, field, transition and sustain advanced rapid reaction capabilities in response to emergent requirements from multiple Combatant Commands. Conduct initial technical development and integration activities against relevant threat systems and technologies in preparation for operational requirements. Develop and test advanced prototypes in support of activities within the Space Control Technology portfolio. Based on technological advances relevant to the mission area, develop, integrate and evaluate next generation capabilities into Ground Reference Architecture (GRA) Increment 6. Develop, test, train, deliver and sustain urgent/emergent operational needs using Increment 5 or Increment 6 GRA technologies as appropriate for urgent need timelines, and start Increment 6. Integrate information assurance constructs and controls into developmental platforms and architecture to expedite fielding. Execute remote and field development & test activities using remote development sites to verify system performance in the operational environment and stay abreast of emerging technologies. Enhance fielded rapid reaction capabilities in response to evolving threats and operator feedback.

Additionally, FY 2024 funding will support three remote development site activities located in the USEUCOM, USCENTCOM, and USINDOPACOM AORs further enabling the program to pace the threat and rapidly deliver critical warfighting capabilities in the contested space domain. Activities may include, but are not limited to: on-site security and communications support, technical analysis, risk reduction experiments and prototyping, development, integration and test of C2 architecture, travel and administrative office and laboratory support.

FY 2025 Plans:
Develop, test, train, field, transition and sustain advanced rapid reaction capabilities in response to emergent requirements from multiple Combatant Commands. Conduct initial technical development and integration activities against relevant threat systems and technologies in preparation for operational requirements. Develop and test advanced prototypes in support of activities within the Space Control Technology portfolio. Based on technological advances relevant to the mission area, develop, integrate, and evaluate next generation capabilities into Ground Reference Architecture (GRA) Increment 6. Develop, test, train, deliver and sustain urgent/emergent operational needs using Increment 6 GRA technologies for urgent need timelines. Integrate information assurance constructs and controls into developmental platforms and architecture to expedite fielding. Execute remote and field development & test activities using remote development sites to verify system performance in the operational environment and

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 642611 / *Technology Insertion Planning and Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
stay abreast of emerging technologies. Enhance fielded rapid reaction capabilities in response to evolving threats and operator feedback. Additionally, FY 2025 funding will allow the program to support DevSecOps activities fully utilizing all three remote development sites located in the USEUCOM, USCENTCOM, and USINDOPACOM AORs further enabling the program to pace the threat and rapidly deliver critical warfighting capabilities in the contested space domain. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain, leveraging commercial and international opportunities, if appropriate. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, etc. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2025 increased due to the addition of three remote development sites supporting research and development activities in an operational environment to further speed development and delivery of capabilities to the warfighter.			
Title: Integration and Technology Futures	14.239	12.949	14.106
Description: Foundational architecture and prototype development to enable the integration, interoperability and compatibility of new Space Control Technology into space systems. Funds sensor and other capability technologies for transition into programs to meet space control mission requirements. ***FY 2024 Plans:*** Capture OCS and DCS enterprise capabilities in digital engineering models that represent the space enterprise assets, operations, related key performance characteristics, and threat response. Exercise the digital engineering models and establish secure networks for data sharing with mission partners to analyze the performance, operational capabilities, and interdependencies of space systems at the enterprise level to inform the counter-space mission areas. Define standards and perform various digital engineering functions, tools, procedures, and best practices to accelerate acquisition of successful and affordable counter-space systems. Conduct IRON JAR space experimentation activities with programs of record and mission partners to demonstrate and evaluate space technologies, mature space operations processes, conduct operator training, develop tactics, techniques, and procedures (TTPs), and validate digital engineering models. Identify and prioritize solution development of new space technologies. FY 2024 funding will allow the program to rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain.			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 642611 / *Technology Insertion Planning and Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Activities may include, but are not limited to: studies, technical analysis, risk reduction experiments, prototype development, technology transition, integration and test of command and control (C2), resiliency measures and mission partner interfaces, space test/combat range events, and office support etc. ***FY 2025 Plans:*** Conduct IRON JAR space experimentation activities with programs of record and mission partners to demonstrate and evaluate space technologies, mature space operations processes, conduct operator training, develop TTPs and validate digital engineering models. Identify and prioritize solution development of new space technologies. FY 2025 funding will allow warfighter test and training activities utilizing an on-orbit asset to refine the DCS mission. Conduct systems engineering activities to allow Space Systems Command (SSC) to link its individual space defense programs into one combined "system of systems" capable of fighting a war together. Conduct Battle Management Kill Chain (BMKC) modeling, including Campaign or Performance-level analyses for Space Domain Awareness and Combat Power (SDACP). This will allow SSC to conduct BMKC modeling, update threat information, and incorporate Space Domain Awareness (SDA) and Command and Control (C2) updates into the existing BMKC model. Additionally, SSC will be able to model the complete "protect and defend" architecture for the National Security Space Enterprise (NSSE). Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2025 increased due to inclusion of BMKC modeling activities.			
Title: Military Application of the Space Environment (MASE) ***Description:*** MASE provides commanders an operational risk assessment tool to improve air and maritime campaign mission effectiveness. Develops, tests, and delivers weapon system tailored visualizations/decision aids supporting operational level mission planning and tactical execution. ***FY 2024 Plans:*** N/A ***FY 2025 Plans:***	20.214	0.000	0.000

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 642611 / *Technology Insertion Planning and Analysis*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
N/A ***FY 2024 to FY 2025 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	46.630	31.621	36.187

	FY 2023	FY 2024
Congressional Add: NEXT-C Gridded Ion Thruster Development	1.930	-
FY 2023 Accomplishments: Project will continue partnership with NASA to develop and improve gridded ion thruster hardware based on the NASA Evolutionary Xenon Thruster - Commercial (NEXT-C) hardware development contract. The objective for the project is to develop and test key components of a higher Thrust-to-Power (T/P) NEXT derivative for dual commercial and military applications. Development is planned to include the two key components of a propulsion system, including NEXT-C electric propulsion device and the associated higher power processing unit (PPU).		
Congressional Adds Subtotals	1.930	-

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

All contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible. NEXT-C Gridded Ion Thruster Development will be awarded on existing NASA Glenn Research Center contract.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 642611 / *Technology Insertion Planning and Analysis*

Product Development ($ in Millions)

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
SCT Counterspace Technology Prototyping/ Rapid Reaction Development	Various	Various : Various	-	11.543	Dec 2022	16.606	Oct 2023	19.694	Oct 2024	-		19.694	Continuing	Continuing	-
SCT Integration and Technology Futures	C/Various	Various : Various	-	14.104	Dec 2022	12.282	Oct 2023	13.315	Oct 2024	-		13.315	Continuing	Continuing	-
NEXT-C Gridded Ion Thruster Development	MIPR	NASA Glenn Research Ctr : Cleveland, OH	-	1.930	Jan 2024	-		-		-		-	0.000	1.930	-
MASE	Various	Various : Various	-	19.153	Nov 2022	-		-		-		-	0.000	19.153	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		1.107	Oct 2023	1.303	Oct 2024	-		1.303	Continuing	Continuing	-
		Subtotal	-	46.730		29.995		34.312		-		34.312	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
A&AS	Various	Various : Various	-	1.416	Jan 2023	1.626	Jan 2024	1.775	Jan 2025	-		1.775	Continuing	Continuing	-
FFRDC	RO	Aerospace : El Segundo, CA	-	0.255	Apr 2023	-		-		-		-	0.000	0.255	-
Other Support	Various	Various : El Segundo, CA	-	0.159		-		0.100	Nov 2024	-		0.100	Continuing	Continuing	-
		Subtotal	-	1.830		1.626		1.875		-		1.875	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	-	48.560		31.621		36.187		-		36.187	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 642611 / *Technology Insertion Planning and Analysis*

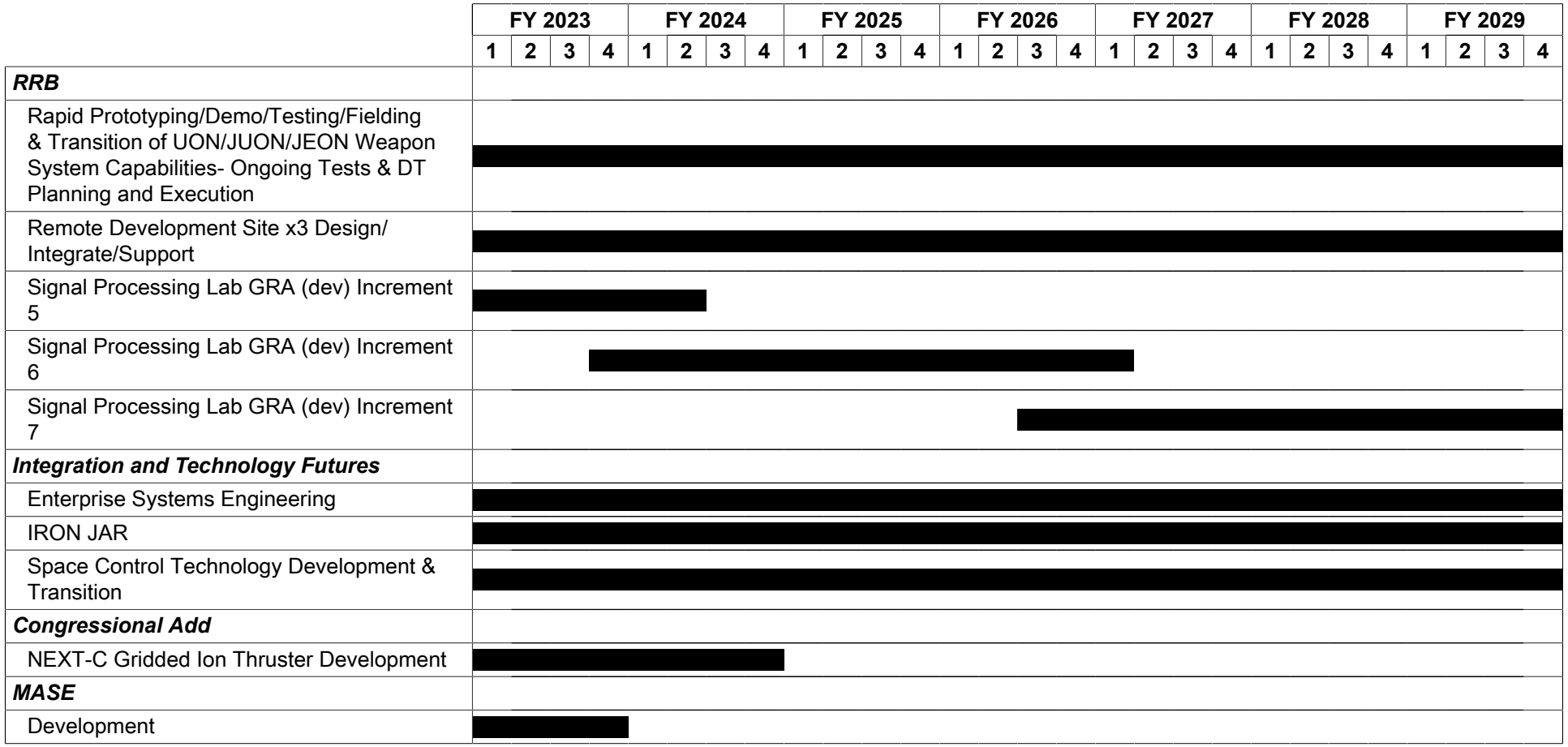

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 642611 / *Technology Insertion Planning and Analysis*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
RRB				
Rapid Prototyping/Demo/Testing/Fielding & Transition of UON/JUON/JEON Weapon System Capabilities- Ongoing Tests & DT Planning and Execution	1	2023	4	2029
Remote Development Site x3 Design/Integrate/Support	1	2023	4	2029
Signal Processing Lab GRA (dev) Increment 5	1	2023	2	2024
Signal Processing Lab GRA (dev) Increment 6	4	2023	1	2027
Signal Processing Lab GRA (dev) Increment 7	3	2026	4	2029
Integration and Technology Futures				
Enterprise Systems Engineering	1	2023	4	2029
IRON JAR	1	2023	4	2029
Space Control Technology Development & Transition	1	2023	4	2029
Congressional Add				
NEXT-C Gridded Ion Thruster Development	1	2023	4	2024
MASE				
Development	1	2023	4	2023

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / *Space Control Technology*	Project (Number/Name) 646438 / *Joint Space Integration 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
646438: *Joint Space Integration Technology*	-	0.000	26.753	26.008	0.000	26.008	26.400	26.626	27.583	28.128	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

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

In FY 2024, the MASE portion of Project 642611, Technology Insertion Planning and Analysis efforts was transferred to Project 646438, Joint Space Integration Technology for transparency.

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

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
Title: Military Application of the Space Environment (MASE)	0.000	26.753	26.008
Description: The goal, mission and purpose of the Military Application of the Space Environment (MASE) Program is to design, develop, and field a decision aid to support air and maritime scheme of maneuver in a battlespace and satisfy the needs of multiple combatant commanders, service components, and the intelligence community. MASE provides commanders an operational risk assessment tool to improve air and maritime campaign mission effectiveness. Develops, tests, and delivers weapon system tailored visualizations/decision aids supporting operational level mission planning and tactical execution. ***FY 2024 Plans:*** Research, develop and validate software for enhanced modeling and simulation of regional ionospheric and signal propagation effects to forecast space domain impacts on joint force weapon systems. Integrate model output into weapon system tailored visualizations to improve multi-domain mission planning and execution. Complete software development of Major Release 1.3 and begin development of software for Major Release 1.4 of new capabilities and validate results during campaign planning, exercises,			

Exhibit R-2A, RDT&E Project Justification: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 646438 / *Joint Space Integration Technology*

B. Accomplishments/Planned Programs ($ in Millions)	FY 2023	FY 2024	FY 2025
and war games. Develop, test, and provide training for new or updated tactics, techniques, and procedures enhanced by MASE for operational users. Integrate new traditional and non-traditional data sources into models to improve space warfighting decision processes. Rapidly develop, test, and deploy new system features in response to continuously evolving threats to U.S. forces. ***FY 2025 Plans:*** Research, develop and validate software for enhanced modeling and simulation of regional ionospheric and signal propagation effects to forecast space domain impacts on joint force weapon systems. Integrate model output into weapon system tailored visualizations to improve multi-domain mission planning and execution. Complete software development of Major Release 1.4, and begin development of software for Major Release 1.5 of new capabilities and validate results during campaign planning, exercises, and war games. Expand MASE accessibility to Top Secret networks. Develop, test, and provide training for new or updated tactics, techniques, and procedures enhanced by MASE for operational users. Integrate new traditional and non-traditional data sources into models to improve space warfighting decision processes. Rapidly develop, test, and deploy new system features in response to continuously evolving threats to U.S. forces. Rapidly respond to implement system resiliency and situational awareness necessary to operate in the contested space domain. Activities may include, but are not limited to program office support, studies, technical analysis, experimentation, prototyping, and activities that may leverage commercial and international opportunities. ***FY 2024 to FY 2025 Increase/Decrease Statement:*** FY 2025 decreased due to partial completion of developmental test requirements.			
Accomplishments/Planned Programs Subtotals	0.000	26.753	26.008

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

D. Acquisition Strategy

All contracts funded in this program element will be awarded using competitive procedures to the maximum extent possible. The SE&I contract uses the Defense Technical Information Center (DTIC) Information Analysis Center (IAC) Multiple Award Contract (MAC) and runs March 2020-March 2025. The current year software development uses the Modeling, Simulation & Analysis (MS&A) for Space and Cyberspace Capabilities (MSCC) contract through 2024. The USSF plans to use a Small Business Innovation Research Phase 3 contract to extend the effort into 2028. All modeling, simulation and demonstration contracts are awarded through the Air Force Research Lab's (AFRL) competitive processes. The application infrastructure/online services are a combination of MACs through the USAF Platform One Program, the Department of the Air Force Cloudworks Program and the USAF Commercial Cloud Enterprise (C2E) Program. Test and evaluation tasks will be accomplished on existing competitively awarded USSF, USAF, and USN contracts.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 646438 / *Joint Space Integration 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
MASE Systems Engineering & Integration (SE&I)	Various	Various : Colorado Springs, CO	-	-		5.933	Oct 2023	6.520	Nov 2024	-		6.520	Continuing	Continuing	-
MASE Software Development	Various	DSoft Technologies : Colorado Springs, CO	-	-		2.134	Oct 2023	4.279	Nov 2024	-		4.279	Continuing	Continuing	-
MASE Modeling, Simulation and Demonstration	Various	Various : Various	-	-		11.679	Oct 2023	10.928	Nov 2024	-		10.928	Continuing	Continuing	-
MASE Application Infrastructure/Online Services	Various	Various : Various	-	-		1.412	Oct 2023	1.390	Oct 2024	-		1.390	Continuing	Continuing	-
Technical Mission Analysis	RO	Not specified. : TBD	-	-		-		0.268	Oct 2024	-		0.268	Continuing	Continuing	-
SBIR/STTR	Allot	Not specified. : TBD	-	-		0.936	Oct 2023	0.936	Oct 2024	-		0.936	Continuing	Continuing	-
		Subtotal	-	-		22.094		24.321		-		24.321	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
MASE Developmental/ Operational Testing	Various	Various : Various	-	-		3.467	Dec 2023	0.361	Oct 2024	-		0.361	Continuing	Continuing	-
		Subtotal	-	-		3.467		0.361		-		0.361	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
A&AS	Various	Various : El Segundo, CA	-	-		0.832	Nov 2023	0.912	Mar 2025	-		0.912	Continuing	Continuing	-
FFRDC	RO	Aerospace Corp. : El Segundo, CA	-	-		0.260	Nov 2023	0.386	Jan 2025	-		0.386	Continuing	Continuing	-

Exhibit R-3, RDT&E Project Cost Analysis: PB 2025 Air Force			Date: March 2024
Appropriation/Budget Activity 3620F / 4	R-1 Program Element (Number/Name) PE 1206438SF / *Space Control Technology*	Project (Number/Name) 646438 / *Joint Space Integration Technology*	

Management Services ($ in Millions)

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 Support	Various	Various : El Segundo, CA	-	-		0.100	Oct 2023	0.028	Nov 2024	-		0.028	Continuing	Continuing	-
		Subtotal	-	-		1.192		1.326		-		1.326	Continuing	Continuing	N/A

	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
Project Cost Totals	-	-		26.753		26.008		-		26.008	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 646438 / *Joint Space Integration Technology*

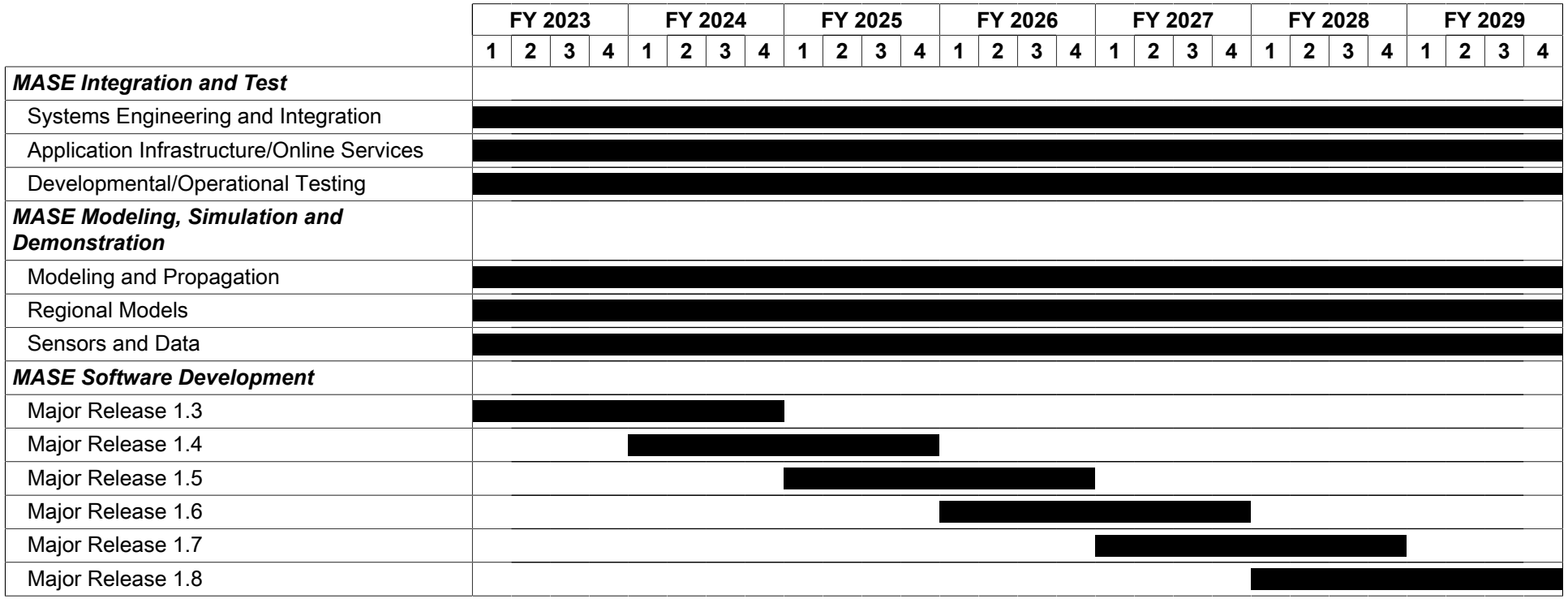

Exhibit R-4A, RDT&E Schedule Details: PB 2025 Air Force		Date: March 2024
Appropriation/Budget Activity 3620F / 4	**R-1 Program Element (Number/Name)** PE 1206438SF / *Space Control Technology*	**Project (Number/Name)** 646438 / *Joint Space Integration Technology*

Schedule Details

	Start		End	
Events by Sub Project	**Quarter**	**Year**	**Quarter**	**Year**
MASE Integration and Test				
Systems Engineering and Integration	1	2023	4	2029
Application Infrastructure/Online Services	1	2023	4	2029
Developmental/Operational Testing	1	2023	4	2029
MASE Modeling, Simulation and Demonstration				
Modeling and Propagation	1	2023	4	2029
Regional Models	1	2023	4	2029
Sensors and Data	1	2023	4	2029
MASE Software Development				
Major Release 1.3	1	2023	4	2024
Major Release 1.4	1	2024	4	2025
Major Release 1.5	1	2025	4	2026
Major Release 1.6	1	2026	4	2027
Major Release 1.7	1	2027	4	2028
Major Release 1.8	1	2028	4	2029