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

Appropriation/Budget Activity 3620F: <i>Research, Development, Test & Evaluation, Space Force I BA 8: Software and Digital Technology Pilot Programs</i>	R-1 Program Element (Number/Name) PE 1203614SF / <i>JSpOC Mission System</i>
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COST (\$ in Millions)	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	FY 2025	FY 2026	FY 2027	FY 2028	Cost To Complete	Total Cost
Total Program Element	0.000	150.287	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	150.287
68A035: <i>SSA/BMC2</i>	0.000	150.287	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	150.287
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

Program MDAP/MAIS Code: N82

A. Mission Description and Budget Item Justification

In FY 2023, PE 1203614SF, Project 68A035 SSA/BMC2 efforts was transferred to PE 1208248SF, Enterprise Space BMC2, Project 68A035 SSA/BMC2, for Space C2 software program transparency.

The FY 2018 National Defense Authorization Act (Sections 873/874) directed the Office of the Secretary of Defense (OSD) to streamline software development. The Space Command and Control (C2) program is an OSD pilot initiative in which all lifecycle funding is tracked under Budget Activity 08 (BA08), Software and Digital Technology Pilot Programs, beginning in FY 2021. Pilot programs enable the execution of modern software development practices encompassing development, procurement, modification and maintenance activities. This program includes Research, Development, Test & Evaluation (RDT&E), Space Procurement, and Operations and Maintenance funds transferred from within PE 1203614F, JSpOC Mission Systems and consolidated into the RDT&E appropriation.

The Space Force is developing a Space C2 and Space Domain Awareness (SDA) capability for the Combined Force Space Component Commander (CFSCC) and the Joint Task Force - Space Defense (JTF-SD). The Space C2 program provides a collaborative environment that will enhance and modernize SDA and Battle Management C2 (BMC2) capabilities; create decision-relevant views of the space and multi-domain environment; rapidly detect, track and characterize objects of interest; identify / exploit traditional and non-traditional sources; perform space threat analysis; and enable efficient distribution of data across the Space Surveillance Network (SSN). The program maintains enterprise infrastructure, platform and data services, and develops mission applications to enable responsive, resilient operational-level Space C2 capabilities for the National Space Defense Center (NSDC), Combined Space Operations Center (CSpOC), 18th Space Control Squadron (SPCS) and other C2 centers. Employing an agile-based Rapid Delivery Framework with a 90-day Program Increment (PI) construct fosters a collaborative and integrated environment for the community to effectively plan and deliver C2 capabilities. The enterprise-wide system will provide a common government infrastructure and standards for rapid prototyping of dynamic SDA and BMC2 applications to address the evolving and dynamic threat. The system will provide a collaborative environment that will enhance and modernize SDA and BMC2 capabilities. Funding includes technical studies, development, experimentation, integration and related support costs.

Space acquisition must respond with speed and agility to emerging adversary threats. Space Systems Command (SSC) has transformed the organization and implementation of space acquisition to an enterprise approach, to increase innovation and resiliency, leveraging international, commercial, and mission partnerships, and managing program/project priorities according to an integrated unclassified/classified enterprise space architecture. Expanding the appropriate acquisition authorities and contract mechanisms to deliver capability sooner, SSC will strategically execute experimentation, prototyping, risk reduction, and other efforts to develop new or repurpose existing capabilities.

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This Program Element may include necessary civilian pay expenses required to manage, execute, and deliver weapon system capability. The use of such programs funds would be in addition to the civilian pay expenses budgeted in Program Elements 1206392SF and 1206398SF. In PY 120K was expended for civilian pay expenses in this Program Element, and in CY 0 is forecasted for civilian pay expenses in this Program Element.

This program is in Budget Activity 8, Software and Digital Technology Pilot Program because this Budget Activity includes funding provided for expenses necessary for Agile Development, Test & Evaluation, Procurement, Production and Modification, and the Operation and Maintenance of these programs.

This program is in Budget Activity 8, Software and Digital Technology Pilot Program because this budget activity includes funding provided for expenses necessary for agile development, test and evaluation, procurement, production and modification, and the operation and maintenance of these programs.

B. Program Change Summary (\$ in Millions)	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total
Previous President's Budget	154.529	0.000	0.000	0.000	0.000
Current President's Budget	150.287	0.000	0.000	0.000	0.000
Total Adjustments	-4.242	0.000	0.000	0.000	0.000
• Congressional General Reductions	0.000	0.000			
• Congressional Directed Reductions	0.000	0.000			
• Congressional Rescissions	0.000	0.000			
• Congressional Adds	0.000	0.000			
• Congressional Directed Transfers	0.000	0.000			
• Reprogrammings	0.000	0.000			
• SBIR/STTR Transfer	-4.242	0.000			
• Other Adjustments	0.000	0.000	0.000	0.000	0.000

Change Summary Explanation

FY 2022: -4.242M SBIR transfer.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2022	FY 2023	FY 2024
Title: Enterprise Space BMC2 Development	94.086	0.000	0.000
Description: This program delivers a robust and responsive Space Domain Awareness (SDA) and Battle Management Command and Control (BMC2) capability to meet emerging threats. The program will deliver capability for decision makers trying to prevent a conflict from extending to space, or winning it if it does. Capabilities and associated infrastructure include, but are not limited to, the following: SDA, Indications & Warning (I&W), Transmit/Receive, Space Control, Tactical Operations and Common Data Management Layer, Platforms and Infrastructure; and Cyber and Threat Warning. The program maintains foundational DevSecOps enablers such as, but not limited to, Data as a Service, Platform Support, Continuous Improvement/Continuous			

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C. Accomplishments/Planned Programs (\$ in Millions)		FY 2022	FY 2023	FY 2024
<p>Deployment (CI/CD) toolchain, and infrastructure and inherent sustainment efforts that are an integral part of the agile software development process. Other activities include dedicated Systems Engineering & Integration (SE&I), Test & Evaluation (T&E), Model Based Systems Engineering (MBSE) and prototype Validation & Verification to support these efforts.</p> <p>FY 2023 Plans: N/A</p> <p>N/A</p> <p>FY 2024 Plans: N/A</p>				
<p>Title: Space C2 Sustainment</p> <p>Description: The program maintains existing capability for the CSpOC, NSDC and other C2 centers. These tasks include maintaining the Commercial Off The Shelf (COTS) software database, removing and canceling decommissioned systems and unused tools, adding new tools required for ongoing support of the system, maintaining data support systems, and maintaining day to day software operations which continuously ensures and optimizes reliability, security, resiliency, availability, flexibility and scalability of the warfighter tools. The program maintains foundational DevSecOps enablers such as, but not limited to, Data as a Service, Platform Support, Continuous Improvement/Continuous Deployment (CI/CD) toolchain, and infrastructure and inherent sustainment efforts that are an integral part of the agile software development process.</p> <p>FY 2023 Plans: N/A</p> <p>FY 2024 Plans: N/A</p>		56.201	0.000	0.000
Accomplishments/Planned Programs Subtotals		150.287	0.000	0.000
D. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
E. Acquisition Strategy				
The Space Force is employing agile software development practices such as flexible requirements, frequent user interaction, and rapid delivery and deficiency retirement. The program acquires tools and capabilities through an agile-based Rapid Delivery Framework that delivers and sustains new features and capabilities				

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Appropriation/Budget Activity
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R-1 Program Element (Number/Name)
PE 1203614SF / *JSpOC Mission System*

through a CI/CD pipeline with 90-day Program Increments. This strategy focuses on rapidly delivering capability to warfighters and leveraging commercial, industry and government partners. Currently there are multiple contractors performing on competitively-awarded contracts with no single prime contractor responsible for the entire ecosystem.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Air Force **Date:** March 2023

Appropriation/Budget Activity 3620F / 8	R-1 Program Element (Number/Name) PE 1203614SF / JSpOC Mission System	Project (Number/Name) 68A035 / SSA/BMC2
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Product Development (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Space C2 Technical Mission Analysis (WS) Development	RO	Aerospace : El Segundo, CA	0.000	1.711	Dec 2021	-		-		-		-	0.000	1.711	-
Space C2 Enterprise Systems Engineering & Integration Development	Various	Various : various	0.000	6.405	Nov 2021	-		-		-		-	0.000	6.405	-
Space C2 Applications Development	Various	Various : Various	0.000	78.932	Nov 2021	-		-		-		-	0.000	78.932	-
Space C2 Platform Sustainment	Various	Various : Various	0.000	20.915	Dec 2021	-		-		-		-	0.000	20.915	-
Space C2 Infrastructure Sustainment	Various	Various : Various	0.000	3.588	Dec 2021	-		-		-		-	0.000	3.588	-
Legacy System Sustainment	Various	Various : Various	0.000	2.957	Nov 2021	-		-		-		-	0.000	2.957	-
Space C2 Data Management Sustainment	SS/FFP	Palantir : Denver, CO	0.000	24.500	Nov 2021	-		-		-		-	0.000	24.500	-
Subtotal			0.000	139.008		-		-		-		-	0.000	139.008	N/A

Test and Evaluation (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Test	Various	Various : Various	0.000	2.322	Dec 2021	-		-		-		-	0.000	2.322	-
Subtotal			0.000	2.322		-		-		-		-	0.000	2.322	N/A

Management Services (\$ in Millions)				FY 2022		FY 2023		FY 2024 Base		FY 2024 OCO		FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
A&AS	C/CPAF	Various : Various	0.000	3.453	Nov 2021	-		-		-		-	0.000	3.453	-
FFRDC	RO	Various : Various	0.000	5.098	Dec 2021	-		-		-		-	0.000	5.098	-
Other	Various	Various : Various	0.000	0.406	Oct 2021	-		-		-		-	0.000	0.406	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Air Force **Date:** March 2023

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	FY 2022				FY 2023				FY 2024				FY 2025				FY 2026				FY 2027				FY 2028			
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4

Space C2	
Platform/Infrastructure	
Program Increments 12-15	
Data Management	
Space C2 sustainment (maintain existing capability)	

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Air Force **Date:** March 2023

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Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Space C2				
Platform/Infrastructure	1	2022	4	2022
Program Increments 12-15	1	2022	4	2022
Data Management	1	2022	4	2022
Space C2 sustainment (maintain existing capability)	1	2022	4	2022