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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Space Development Agency **Date:** March 2023

Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</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	1,160.227	0.000	0.000	-	0.000	0.000	0.000	0.000	-	-	-
001: <i>Transport</i>	0.000	265.064	0.000	0.000	-	0.000	0.000	0.000	0.000	-	-	-
002: <i>Sensing</i>	0.000	758.905	0.000	0.000	-	0.000	0.000	0.000	0.000	-	-	-
003: <i>Integration and Battle Management</i>	0.000	136.258	0.000	0.000	-	0.000	0.000	0.000	0.000	-	-	-

Note

This program and funding continue in FY 2023 forward under Appropriation 3620, Research, Development, Test & Evaluation, Space Force, PE 1206410SF. In accordance with the William M. (Mac) Thornberry National Defense Authorization Act (NDAA) for FY 2021, effective on October 1, 2022, Space Development Agency (SDA) is an element of the U.S. Space Force (USSF), and reports to Assistant Secretary of the Air Force (ASAF) for Space Acquisition and Integration (ASAF/SA&I) with respect to acquisition decisions and directly to the Chief of Space Operations with respect to requirements decisions, personnel decisions, and any other matter not covered by ASAF/SA&I.

A. Mission Description and Budget Item Justification

SDA is responsible for developing and demonstrating the next generation space architecture to enable U.S. military operations to be responsive to emerging multi-domain threats against our national security. To achieve that goal, SDA will help inform the Department of Defense (DoD)'s decision to develop and implement a proliferated architecture enabled by lower-cost, mass-produced spacecraft and routine space access; shift the DoD to a development organization focused on experimentation, prototyping, and accelerated fielding. SDA will manage, direct, and execute the development of the space capabilities for the joint warfighter in accordance with DoD's Space Vision and field space capabilities at speed and scale, with the following goals:

- Bold breakthroughs designed to out-pace our competitors,
- Technology maturation and systems engineering,
- Lean engineering, manufacturing, and support,
- Industrial base expansion; streamlined development and acquisition process, and
- Increased acquisition cooperation with the National Reconnaissance Office (NRO).

SDA will rapidly deploy critical elements of next-generation space capabilities, initially focusing on these essential capabilities:

- Persistent global surveillance for advanced missile targeting,
- Indications, warnings, targeting, and tracking for defense against advanced missile threats,
- Alternate position, navigation, and timing (PNT) for a navigation warfare (NAVWAR) resilient environment,
- Global and near-real time space situational awareness,

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- Responsive, resilient, common ground-based space support infrastructure (e.g., ground stations and launch capability),
- Cross-domain, networked, node-independent battle management command, control, and communications (BMC3), and
- Highly-scaled, low-latency, persistent, artificial intelligence-enabled global surveillance.

The establishment of a data transport layer in Low Earth Orbit (LEO) is essential to developing a new, responsive space architecture, and will be SDA's primary initial focus within the Proliferated Warfighter Space Architecture (PWSA). SDA will develop an initial set of sub-constellations on this Transport Layer to provide additional capabilities, such as advanced missile warning.

This program element funds efforts to develop and demonstrate a prototype proliferated Low Earth Orbit (pLEO) communications and data transport layer and its sub-constellations in support of the DoD Space Vision.

B. Program Change Summary (\$ in Millions)	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024 Base</u>	<u>FY 2024 OCO</u>	<u>FY 2024 Total</u>
Previous President's Budget	1,204.179	0.000	0.000	-	0.000
Current President's Budget	1,160.227	0.000	0.000	-	0.000
Total Adjustments	-43.952	0.000	0.000	-	0.000
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-43.952	-			

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 001: *Transport*

Congressional Add: *Laser Communication Router Demonstration System*

Congressional Add Subtotals for Project: 001

Project: 002: *Sensing*

Congressional Add: *Missile Tracking Demonstration (Tracking Layer)*

Congressional Add Subtotals for Project: 002

Project: 003: *Integration and Battle Management*

Congressional Add: *Space Networking Centers*

	<u>FY 2022</u>	<u>FY 2023</u>
Congressional Add Subtotals for Project: 001	12.000	-
Congressional Add Subtotals for Project: 002	550.000	-
Congressional Add Subtotals for Project: 003	18.000	-

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Exhibit R-2, RDT&E Budget Item Justification: PB 2024 Space Development Agency	Date: March 2023
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Appropriation/Budget Activity 0400: <i>Research, Development, Test & Evaluation, Defense-Wide I BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>
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Congressional Add Details (\$ in Millions, and Includes General Reductions)

	FY 2022	FY 2023
Congressional Add Subtotals for Project: 003	18.000	-
Congressional Add Totals for all Projects	580.000	-

Change Summary Explanation

Starting in FY 2023, the program and funding for PE 1206410SDA has been transferred to Appropriation 3620, RDT&E, Space Force, PE 1206410SF.

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Space Development Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 001 / <i>Transport</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
001: <i>Transport</i>	0.000	265.064	0.000	0.000	-	0.000	0.000	0.000	0.000	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	-

Note

Funding in FY 2023 and future years has been transferred to Program Element (PE) 1206410SF under the U.S. Space Force (USSF).

A. Mission Description and Budget Item Justification

SDA is developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and a new acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including low-latency tactical communication enabling beyond line of sight targeting and advanced missile tracking. SDA is orchestrating the rapid development and fielding of the Proliferated Warfighter Space Architecture (PWSA), a resilient military sensing and data transport capability via a proliferated space architecture in LEO. This program element funds the development and demonstration of space technologies to deliver low-latency data transport and alternate position, navigation, and timing capabilities to U.S. joint warfighting forces in bi-annual tranches, beginning in FY 2022.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2022	FY 2023	FY 2024
Title: Transport	253.064	-	-
Description: Rapidly develop, deploy and demonstrate prototypes that enable a resilient and unified military data transport layer, sensor capabilities, and alternate position, navigation, and timing (APNT) capabilities enabled by a proliferated Low Earth Orbit (pLEO) architecture. This effort will define, demonstrate, and deliver the architectures and standards necessary to rapidly prototype and field new satellite capabilities in LEO.			
Accomplishments/Planned Programs Subtotals	253.064	-	-

	FY 2022	FY 2023
Congressional Add: Laser Communication Router Demonstration System	12.000	-
FY 2022 Accomplishments: Conducting Space-to-Air Free Space Optical demonstration, called STALLION, utilizing laser communication capabilities from a General Atomics (GA) produced laser communication terminal mounted on a MQ-9. Completed final design review in December 2022 and is on track to complete system integration in July 2023. STALLION, mounted to a MQ-9 Reaper for the airborne asset, will test with SDA's Tranche 0 experimental space vehicles (launching March 2023). Additionally, planning the design, development and integration for two satellites that will demonstrate free space optical communication terminals that are		

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Space Development Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 001 / <i>Transport</i>
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	FY 2022	FY 2023
modular, scalable, high bandwidth and long range. These satellites will interoperate with SDA's Tranche 1 experimental space vehicles (launching September 2024) as well as planned surface receivers for fielded forces.		
Congressional Adds Subtotals	12.000	-

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

Partners for these activities included Missile Defense Agency (MDA), Space Systems Command (SSC), DoD research centers, small businesses, large defense contractors, commercial space providers, Federally Funded Research and Development Centers, and University Affiliated Research Centers. Tranche 1 has been approved to Middle Tier of Acquisition, enabling rapid prototyping.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Space Development Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 001 / <i>Transport</i>
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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			
Transport Tranche 0	C/FFP	Lockheed Martin : Littleton, CO	0.000	98.924	Oct 2021	0.000		-		-		-	-	-	-
Transport Tranche 0	C/FFP	York Space Systems : Denver, CO	0.000	50.943	Jan 2022	0.000		-		-		-	-	-	-
Transport Tranche 1	C/FFP	Lockheed Martin : Littleton, CO	0.000	36.958	Feb 2022	0.000		-		-		-	-	-	-
Transport Tranche 1	C/FFP	York Space Systems : Denver, CO	0.000	22.023	Feb 2022	0.000		-		-		-	-	-	-
Transport Tranche 1	C/FFP	Northrop Grumman : Redondo Beach, CA	0.000	7.353	Jun 2022	0.000		-		-		-	-	-	-
Transport Tranche 1	MIPR	Naval Research laboratory : Washington, DC	0.000	0.277	Jan 2023	0.000		-		-		-	-	-	-
Transport Tranche 1	MIPR	96th Test Wing : Eglin AFB, FL	0.000	0.030	Oct 2022	0.000		-		-		-	-	-	-
Transport Tranche 1	C/FFP	United Launch Services : Centennial, CO	0.000	0.440	Jul 2022	0.000		-		-		-	-	-	-
Transport Tranche 1	C/FFP	SpaceX : Hawthorne, CA	0.000	2.491	Jul 2022	0.000		-		-		-	-	-	-
Tranche 1 Crypto Risk Reduction	SS/TBD	Missile Defense Agency (MDA) : Ft. Belvoir, VA	0.000	1.541	Mar 2022	0.000		-		-		-	-	-	-
Transport Tranche 1 Operations & Integration	C/CPFF	General Dynamics Mission Systems : Scottsdale, AZ	0.000	33.092	May 2022	0.000		-		-		-	-	-	-
Laser Communication Router Demonstration System	C/FFP	General Atomics : San Diego, CA	0.000	9.837	Nov 2022	0.000		-		-		-	-	-	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Space Development Agency		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 001 / <i>Transport</i>

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

Transport	
Complete the development of Transport Tranche 0 space vehicles.	
Launch and early operations of Tranche 0 Transport satellites.	
Begin design and development of Tranche 1 Transport Layer space vehicle systems.	
Begin design and development of Tranche 1 Transport Layer ground systems and operations plans.	
Laser Communication Router Demonstration System	
Perform technology evaluations to inform requirements for space to air capabilities and laser communication router demonstration system.	
Develop laser communication router demonstration system.	
Test and evaluate developed laser communication router demonstration system.	

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Space Development Agency		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 001 / <i>Transport</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Transport</i>				
Complete the development of Transport Tranche 0 space vehicles.	1	2022	4	2023
Launch and early operations of Tranche 0 Transport satellites.	2	2023	3	2023
Begin design and development of Tranche 1 Transport Layer space vehicle systems.	2	2022	4	2023
Begin design and development of Tranche 1 Transport Layer ground systems and operations plans.	3	2022	4	2023
<i>Laser Communication Router Demonstration System</i>				
Perform technology evaluations to inform requirements for space to air capabilities and laser communication router demonstration system.	3	2022	2	2023
Develop laser communication router demonstration system.	2	2023	3	2023
Test and evaluate developed laser communication router demonstration system.	3	2023	4	2023

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Space Development Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 002 / <i>Sensing</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
002: <i>Sensing</i>	0.000	758.905	0.000	0.000	-	0.000	0.000	0.000	0.000	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Funding in FY 2023 and future years has been transferred to Program Element (PE) 1206410SF under the U.S. Space Force (USSF).

A. Mission Description and Budget Item Justification

SDA is developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and a new acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including advanced missile tracking and global surveillance enabling beyond-line-of-sight targeting. SDA will orchestrate the rapid development and fielding of the Proliferated Warfighter Space Architecture (PWSA), a resilient military sensing and data transport capability via a proliferated space architecture in LEO. This program element funds the development and demonstration of space technologies to deliver advanced missile tracking, global surveillance, and enhanced space domain awareness and deterrence capabilities to U.S. joint warfighting forces in bi-annual tranches, beginning in FY 2022.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2022	FY 2023	FY 2024
Title: Sensing	208.905	-	-
Description: Develop and demonstrate payload prototypes compatible with a proliferated Low Earth Orbit (pLEO) architecture. This effort focused on developing and demonstrating sensors for beyond-line-of-sight targeting, space-to-space data links, space-to-tactical data links, and advanced missile warning/missile tracking capabilities to enable enhanced space domain awareness. On-orbit demonstrations will be tied to existing mission-specific ground infrastructure, when it exists. Ground infrastructure will be linked or developed to support payload integration and data processing.			
Accomplishments/Planned Programs Subtotals	208.905	-	-

	FY 2022	FY 2023
Congressional Add: Missile Tracking Demonstration (Tracking Layer)	550.000	-
FY 2022 Accomplishments: Awarded Tranche 1 (T1) Tracking Other Transaction Authority (OTA) agreements to multiple vendors to develop a total of 28 Wide Field of View (WFOV) satellites. Awarded T1 Medium Field of View (MFOV) demonstration OTAs to multiple vendors leveraging prototypes from MDA's HBTSS program to accelerate fire control integration into future PWSA tranches. Completed WFOV and MFOV program kick-offs and System Requirement Reviews (SRRs). Completed sub-system Preliminary Design Reviews for WFOV and MFOV subsystems for IR payloads, space vehicle busses, and command and control systems. Awarded		

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Exhibit R-2A, RDT&E Project Justification: PB 2024 Space Development Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 002 / <i>Sensing</i>
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	FY 2022	FY 2023
option to integrate Tracking Ground systems into T1 Operations & Integration (O&I) contract. Began integration activities between Real-time Transfer Service (RTS) and T1 Tracking Layer Ground Stations.		
Congressional Adds Subtotals	550.000	-

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

Partners for these activities may include Missile Defense Agency (MDA), Space Systems Command (SSC), DoD Combatant Commands, DoD research centers, small businesses, large defense contractors, commercial space providers, Federally Funded Research and Development Centers, and University Affiliated Research Centers.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2024 Space Development Agency **Date:** March 2023

Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / Space Technology Development and Prototyping	Project (Number/Name) 002 / Sensing
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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			
Tracking Prototype Infrared Payload	C/FFP	Northrop Grumman : Redondo Beach, CA	0.000	0.366	Oct 2021	0.000		-		-		-	-	-	-
Tracking Tranche 0	C/FFP	L3Harris : Palm Bay, FL	0.000	128.667	Nov 2021	0.000		-		-		-	-	-	-
Tracking Tranche 0	C/FFP	SpaceX : Hawthorne, CA	0.000	99.947	Oct 2021	0.000		-		-		-	-	-	-
Tracking Tranche 1	C/FFP	L3Harris : Palm Bay, FL	0.000	269.461	Jul 2022	0.000		-		-		-	-	-	-
Tracking Tranche 1	C/FFP	Northrop Grumman : Redondo Beach, CA	0.000	239.344	Jul 2022	0.000		-		-		-	-	-	-
Tracking Tranche 1	C/CPFF	General Dynamics Mission Systems : Scottsdale, AZ	0.000	14.454	Aug 2022	0.000		-		-		-	-	-	-
Tracking Tranche 1	C/FFP	United Launch Services : Centennial, CO	0.000	0.672	Feb 2023	0.000		-		-		-	-	-	-
Tracking Tranche 1	C/FFP	SpaceX : Hawthorne, CA	0.000	3.491	Jan 2023	0.000		-		-		-	-	-	-
Tracking Tranche 1	MIPR	TBD : TBD	0.000	2.503	Feb 2023	0.000		-		-		-	-	-	-
Subtotal			0.000	758.905		0.000		-		-		-	-	-	N/A

	Prior Years	FY 2022	FY 2023	FY 2024 Base	FY 2024 OCO	FY 2024 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	758.905	0.000	-	-	-	-	-	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Space Development Agency			Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 002 / <i>Sensing</i>	

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

Sensing	
Complete the development of Tracking Tranche 0 space vehicles.	
Launch, integration with Transport Layer, and early operations of Tranche 0 Tracking satellites.	
Begin planning activities for follow-on tranche capabilities.	
Develop multi-INT data fusion and dissemination algorithms.	
Missile Tracking Demonstration (Tracking Layer)	
Develop Tranche 1 Tracking satellites	
Develop Tranche 1 Tracking payload data management	
Develop Tranche 1 Tracking Ground Stations	
Integrate into Real-time Transfer Service (RTS)	

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Exhibit R-4A, RDT&E Schedule Details: PB 2024 Space Development Agency		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 002 / <i>Sensing</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Sensing</i>				
Complete the development of Tracking Tranche 0 space vehicles.	1	2022	2	2023
Launch, integration with Transport Layer, and early operations of Tranche 0 Tracking satellites.	2	2023	3	2023
Begin planning activities for follow-on tranche capabilities.	1	2022	4	2023
Develop multi-INT data fusion and dissemination algorithms.	1	2022	4	2023
<i>Missile Tracking Demonstration (Tracking Layer)</i>				
Develop Tranche 1 Tracking satellites	4	2022	2	2025
Develop Tranche 1 Tracking payload data management	4	2022	2	2025
Develop Tranche 1 Tracking Ground Stations	4	2022	2	2025
Integrate into Real-time Transfer Service (RTS)	4	2022	2	2025

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Appropriation/Budget Activity 0400 / 4					R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>				Project (Number/Name) 003 / <i>Integration and Battle Management</i>			
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
003: <i>Integration and Battle Management</i>	0.000	136.258	0.000	0.000	-	0.000	0.000	0.000	0.000	-	-	-
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Funding in FY 2023 and future years has been transferred to Program Element (PE) 1206410SF under the U.S. Space Force (USSF).

A. Mission Description and Budget Item Justification

SDA is developing and demonstrating next generation space capabilities for the joint warfighter enabled by proliferation of satellites in Low Earth Orbit (LEO) and a new acquisition model utilizing rapid spiral development. SDA is developing capabilities to address a wide range of Department of Defense (DoD) space needs as stated in the National Defense Strategy and DoD Space Vision, including space-based battle management and a ground support infrastructure. SDA will orchestrate the rapid development and fielding of the Proliferated Warfighter Space Architecture (PWSA), a resilient military sensing and data transport capability via a proliferated space architecture in LEO. This program element funds the development and demonstration of space technologies to deliver space-based command and control, tasking, mission processing and dissemination capabilities, as well as an integrated, resilient network of ground support capabilities, to U.S. joint warfighting forces in bi-annual tranches, beginning in FY 2023.

B. Accomplishments/Planned Programs (\$ in Millions)

	FY 2022	FY 2023	FY 2024
Title: Integration and Battle Management	118.258	-	-
Description: Deliver capabilities to U.S. joint warfighting forces in two-year enhanced capability tranches, beginning in FY 2023. Products include but are not limited to performing trade studies, technical analyses, or modeling and simulation; identifying and maturing enabling technologies; defining and conducting ground-based and on-orbit risk reduction demonstrations, prototyping hardware or software systems; and exploring novel concepts for future warfighting capabilities augmented by a resilient proliferated Low Earth Orbit (pLEO) satellite architecture.			
Accomplishments/Planned Programs Subtotals	118.258	-	-

Congressional Add: Space Networking Centers

FY 2022 Accomplishments: Finalized plans for SDA Space Networking Centers (SNCs) and Ground Entry Points with host installations. Modification/reassembly of facility space for SDA's networking and operations centers underway at both SNC-North (Grand Forks, ND) and SNC-South (Redstone Arsenal, AL). Assessed existing utilities (HVAC, power, water, etc..) for SDA operations and upgrades are in progress. Upgrades in

FY 2022	FY 2023
18.000	-

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	FY 2022	FY 2023
progress for host installation operational/administrative terrestrial networking services. Conducting development and integration/functionality testing for mission readiness. Preparing SDA's SNCs (North and South) for Tranche 1 network operations. Establishing SDA ground capability and preparing for Tranche 1 network operations.		
Congressional Adds Subtotals	18.000	-

C. Other Program Funding Summary (\$ in Millions)

N/A

Remarks

D. Acquisition Strategy

Partners for these activities included a large defense contractor, United States Army Corps of Engineers (USACE), United States Army Garrison Redstone Arsenal, and the Defense Information Systems Agency (DISA).

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Exhibit R-4, RDT&E Schedule Profile: PB 2024 Space Development Agency		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 003 / <i>Integration and Battle Management</i>

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

<i>Integration and Battle Management</i>	
Complete the development of an initial battle management architecture.	[REDACTED]
Complete the development of Tranche 0 ground support infrastructure.	[REDACTED]
Manage Tranche 0 constellation operations.	[REDACTED]
Begin planning activities for follow-on tranche capabilities.	[REDACTED]
<i>Space Networking Centers</i>	
Modify/reassemble facility space, and upgrade existing utilities and terrestrial networking services for SDA's networking and operations centers.	[REDACTED]
Prepare Space Networking Centers and establish SDA ground capability for Tranche 1 network operations.	[REDACTED]

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2024 Space Development Agency		Date: March 2023
Appropriation/Budget Activity 0400 / 4	R-1 Program Element (Number/Name) PE 1206410SDA / <i>Space Technology Development and Prototyping</i>	Project (Number/Name) 003 / <i>Integration and Battle Management</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Integration and Battle Management</i>				
Complete the development of an initial battle management architecture.	1	2022	4	2023
Complete the development of Tranche 0 ground support infrastructure.	1	2022	4	2023
Manage Tranche 0 constellation operations.	2	2023	4	2023
Begin planning activities for follow-on tranche capabilities.	1	2022	4	2023
<i>Space Networking Centers</i>				
Modify/reassemble facility space, and upgrade existing utilities and terrestrial networking services for SDA's networking and operations centers.	3	2022	4	2023
Prepare Space Networking Centers and establish SDA ground capability for Tranche 1 network operations.	4	2022	4	2023