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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Army **Date:** February 2020

Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 1206308A / <i>Army Space Systems Integration</i>
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	-	45.420	104.996	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
FE5: <i>Space And Missile Defense Integration</i>	-	24.326	104.996	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
FE6: <i>Army Space System Enhancement/Integration</i>	-	21.094	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	21.094

A. Mission Description and Budget Item Justification

This Program Element (PE) funds space systems integration efforts performed by the US Army Space and Missile Defense Command/Army Forces Strategic Command (USASMDC/ARSTRAT) and the Program Executive Office for Intelligence, Electronic Warfare (PEO IEW&S) to develop and field space superiority capabilities.

Project FE5: Funds USASMDC/ARSTRAT to integrate warfighting concepts and technologies, validate concepts, and identify capabilities needed to implement the validated concepts, and develop DOTMLPF solutions to realize those space and high altitude related capabilities. Provide engineering support to the Joint Friendly Force Tracking (J-FFT) Mission Management Center (MMC) through an associated test-bed for both operational and developmental injection and integration of real-time J-FFT information into the Common Operating Picture (COP) for Combatant Commanders (CCMDs), Joint Task Forces (JTFs), and Coalition Partners. The MMC injects real-time J-FFT information into the COP for CCMDs, JTFs and Coalition partners. USSTRATCOM, in accordance with CJCSI 3910.01 (reference V.4.) is designated one of three coordinating agencies for J-FFT within DoD. CJCSI 3910.01 directs eight Force Modernization tasks to USSTRATCOM. USSTRATCOM SI 534-5 (reference V.6.) and annually published USSTRATCOM operations orders have designated USASMDC/ARSTRAT as the lead USSTRATCOM component command for Friendly Force Tracking (FFT).

Project FE6: Details of this program are reported in accordance with Title 10, United States Code, Section 119 (a)(1).

B. Program Change Summary (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	38.307	104.996	23.168	-	23.168
Current President's Budget	45.420	104.996	0.000	-	0.000
Total Adjustments	7.113	0.000	-23.168	-	-23.168
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	7.113	-			
• SBIR/STTR Transfer	-	-			
• Adjustments to Budget Years	-	-	-23.168	-	-23.168

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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Army		Date: February 2020
Appropriation/Budget Activity 2040: <i>Research, Development, Test & Evaluation, Army / BA 4: Advanced Component Development & Prototypes (ACD&P)</i>	R-1 Program Element (Number/Name) PE 1206308A / <i>Army Space Systems Integration</i>	
<p><u>Change Summary Explanation</u> FY2020 FWC direct funding (\$14.62M) supports the assured position, navigation and timing cross functional team (APNT CFT) Low Earth Orbit tactical space layer strategy (\$58.776M); capability development support to the assured APNT CFT efforts to develop PNT situational awareness, develop alternative PNT sources and deny adversary use of PNT (\$20.0M); and, TF EAGLE's execution of Consolidated SATCOM System Expert (CSS-E) System Tool (\$11.6M). The overall FWC decrease is a function of balancing between the FWC and APNT CFT funding for FY2020. Once Project FE5 funding transfers to Project 990 in FY2021 (see separate 990 R-Form), FWC is expected to realize an increase of \$2.789M for the APNT bridging effort plus fact-of-life inflationary adjustments.</p>		

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Army										Date: February 2020		
Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems Integration				Project (Number/Name) FE5 / Space And Missile Defense Integration			
COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
FE5: Space And Missile Defense Integration	-	24.326	104.996	0.000	-	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

This project transitions to 0603308A / 990.

A. Mission Description and Budget Item Justification

The Friendly Force Data Integration and Management (FFDIM) Capability Definition Package (CDP), a Joint Capabilities Integration and Development System (JCIDS) requirements document (October 2017) validated the Joint Friendly Force Tracking (JFFT) Testbed's development, testing and integration capabilities and Friendly Force Tracking (FFT) System Expert support provided by U.S. Army Space and Missile Defense Command/Army Forces Strategic Command (USASMDC/ARSTRAT) as U.S. Strategic Command's (USSTRATCOM's) Army Service Component Command (ASCC). In addition, Chairman of the Joint Chiefs of Staff Instruction 3910 (FFT Operations Guidance) directs USSTRATCOM's ASCC to execute eight specified FFT mission support responsibilities that include providing a testing and development capability to support joint, interagency and coalition partners FFT operations. USASMDC/ARSTRAT: Headquarters, Department of the Army General Order 37, dated 16 October 2006, designated USASMDC/ARSTRAT as the Army proponent for space, the Army integrator for global missile defense (GMD), and the Army Service Component Command (ASCC) of the USSTRATCOM. Army Regulation (AR) 10-87, Army Commands, Army Service Component Commands, and Direct Reporting Units, dated 4 September 2007, and AR 5-22, The Army Force Modernization Proponent System, dated 19 August 2009, designated USASMDC/ARSTRAT as the Army specified proponent for Space/High Altitude capabilities. As the Army proponent for space and high altitude, USASMDC/ARSTRAT is responsible for developing warfighting concepts, conduct warfighting experiments to validate those concepts, identify capabilities needed to implement the validated concepts, and develop Doctrine, Organizations, Training, Material, Leadership & Education, Personnel, Facilities and Policy (DOTMLPF-P) solutions.

Project FE5 funds USASMDC/ARSTRAT efforts to develop, analyze and mature warfighting concepts, and conduct warfighting experiments for space and high altitude capabilities. USASMDC/ARSTRAT is the proponent for space/high altitude capabilities and is responsible for determining and integrating DOTMLPF-P for the Army. The program also funds development and integration of new data sources and services into the JFFT Mission Management Center (MMC), providing users FFT information system services at the highest Mission Assurance Category level (MAC 1). Software products developed and deployed by the JFFT Testbed into the MMC enable the receipt, integration and dissemination of real-time FFT information to the Common Operating Picture (COP) displays for Combatant Commanders, Joint Task Forces and coalition partners. JFFT Subject Matter Expert support to critical FFT interoperability assessments and development activities with coalition partners are supporting DOD's priority of strong alliances and partnerships. Integrated FFT data solutions developed by JFFT Testbed enable FFT data for COP display and Situational Awareness between Army forces and Unified Action Partners. The JFFT Testbed will continue to leverage FFT systems expertise and reduce Department of Defense costs by supporting numerous efforts, including the joint Personnel Recovery community response to a Joint Urgent Operational Needs Statement to resolve critical issues in isolated persons reporting and locating.

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Army		Date: February 2020		
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems Integration	Project (Number/Name) FE5 / Space And Missile Defense Integration		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2019	FY 2020	FY 2021
<p>Title: Architecture Development, Wargames and Demonstrations</p> <p>Description: Funding is provided for planning, developing, and executing architectures and combat development solutions for Army integration of space systems, space control capabilities, missile defense, and high altitude systems.</p> <p>FY 2020 Plans: Expand upon FY 2019 developments to plan, develop, and execute architectures and combat development solutions for Army integration of space systems, space control capabilities, and high altitude systems. As the Army Executive Agent for Space Program Assessments, represent Army positions and defend Army equities relative to space and high altitude domains in Joint/ DoD and inter-Service forums. Plan and execute wargames to evaluate emerging concepts within the space and high altitude domains as well as participate and provide support to Army and Joint wargames and experiments where space and high altitude capabilities and technologies can be integrated and evaluated in the most realistic operating environment possible. Ensure that space, high altitude and cyber capability gaps are identified and capabilities are correctly represented so that the Army's use of these capabilities is explored and where possible, exploited. Develop space modernization strategies and sponsor exploration of future space and high altitude warfighting concepts. USASMDC/ARSTRAT Future Warfare Center (FWC) will continue efforts to enhance the resiliency and effectiveness of critical space-based assets and JCIDS capability development activities for space superiority, high altitude persistent platforms, nano-satellites and tactical launch systems. Will develop Space and High Altitude JCIDS documents including Initial Capabilities Documents or Capability Development Documents, and Capability Production Documents (CPD) to update system Operational Requirements Documents. Develop a space superiority CPD and continue to develop the JCIDS documentation required to Integrate space and high altitude capabilities into Multi-Domain Task Force (MDTF). USASMDC/ARSTRAT Future Warfare Center will execute these funds in FY 2020.</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Funds decreased as FE5 restructured to PE 0603308A 990 in FY 2021</p>		10.440	8.797	-
<p>Title: Joint Friendly Force Tracking (J-FFT) Testbed</p> <p>Description: Funding is provided to enable the Joint Friendly Force Tracking (J-FFT) Testbed to develop and integrate Combat Commanders' FFT and Hostile Force Tagging, Tracking, and Locating (HF TTL) requirements into existing and future command and control network architectures, leveraging network enabled command and control system enhancements, and continuing to support development of FFT capabilities for deployed and coalition forces.</p> <p>FY 2020 Plans: The JFFT Testbed will provide agile capabilities development and integrated solutions to validated requirements that enable interoperable force tracking data exchange and satisfy joint, agency and coalition warfighting needs for timely, accurate Common Operational Picture (COP) displays and decision making. JFFT development will continue to respond to the growth in FFT device</p>		2.526	1.487	-

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Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems Integration	Project (Number/Name) FE5 / Space And Missile Defense Integration

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2019	FY 2020	FY 2021
<p>use by enabling the number of device types supported by the MMC and increased data architectures, expanding user groups. For operational deployment to the Joint Force Tracking Mission MMC's 24/7 data services, the JFFT Testbed is scheduled to develop and deliver new capabilities including command and control messaging, new data sources and devices, and the ratified NATO message standard for FFT. Also planned is the re-design and implementation of needed upgrades to the Force Tracking Web product, fulfilling requirements for added functionality in data visualization and management. JFFT will continue to exploit, expand and provide mission owners with approved infrastructures (classified and unclassified) that achieve improved performance and reduce costs. JFFT Testbed will remain a key contributor to support North Atlantic Treaty Organization Capability Team activities and other coalition assessments and exercises that advance US and coalition FFT interoperability. USASMDC/ARSTRAT Future Warfare Center will execute these funds in FY 2020.</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Funds decreased as FE5 restructured to PE 0603308A 990 in FY 2021</p>			
<p>Title: Organizational Development as Part of the SRC40 Proponecy Mission</p> <p>Description: Continue participation in the Force Design Update (FDU) process. Development of Operational & Organizational (O&O) Concept Papers, Organization Design Papers, Cost Benefit Analyses, Unit Reference Sheets (URS), and Manpower Requirements Criteria (MARC) determination.</p> <p>FY 2020 Plans: Continue to participate in the Force Design Update (FDU) process. The U.S. Army Space and Missile Defense Command/ Army Forces Strategic Command (USASMDC/ARSTRAT) Space and Missile Defense Center of Excellence (SMDCoE) will participate in the recurring process used to gain HQDA approval of organizational structure changes and designs through the FDU and FDU Jr. processes. This includes the development of Operational & Organizational Concept Papers, Organization Design Papers, Cost Benefit Analyses, Unit Reference Sheets, and Manpower Requirements Criteria determination. Participate in the Total Army Analysis (TAA), the Army's annual process to examine the projected Army force qualitatively and quantitatively. USASMDC/ARSTRAT will support TAA Rule of Allocation development, Capability Demand Analysis and Resourcing phases to ensure SRC40 units are properly accounted for in the future Program Objectives Memorandum (POM) Force. This is performed to analyze the projected Army Force against future demands and levels of funding/authorizations to build the POM Force. USASMDC/ARSTRAT SMDCOE will review the USASMDC/ARSTRAT Troops, Organization and Equipment (TOE) requirements documents conducted as part of a cyclic process as well when needed during other Force Design processes (i.e.-Basis of Issue Plan (BOIP) Modernization Path (MODPATH) reviews, Notification of Change reviews, SSN-LIN Automated Management and Integrating System (SLAMIS) reviews, etc.). Participate in BOIP Development. BOIP Development is collection of processes including the cyclic review of Army-wide BOIPs under development, development of Feeder Data for USASMDC/ARSTRAT proponent item BOIPs, and validation of BOIP MODPATHs to USASMDC/ARSTRAT TOEs. Complete the Space Forces Force Structure Review which is a Cost-Benefit Analysis-like structured three-phased process consisting of a Needs Analysis, Gap</p>	1.450	0.312	-

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Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems Integration	Project (Number/Name) FE5 / Space And Missile Defense Integration		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2019	FY 2020	FY 2021
<p>Analysis, and Solutions Analysis to identify and document organizational based capability needs and gaps, develop a prioritized list of those gaps, and identify potential materiel and/or non-materiel solutions. USASMDC/ARSTRAT Future Warfare Center will execute these funds in FY 2020.</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Funds decreased as FE5 restructured to PE 0603308A 990 in FY 2021</p>				
<p>Title: Position, Navigation, and Timing Navigation Warfare (PNT/NAVWAR)</p> <p>Description: Identifying and advocating for positioning, navigation, and timing (PNT) and Navigation Warfare (NAVWAR) requirements through CDR USSTRATCOM to the Joint Staff to establish and formalize joint NAVWAR requirements, in the Joint Capabilities Integration and Development System (JCIDS) process. Continuing to identify and advocate for PNT and NAVWAR emerging requirements through Commander, U.S. Strategic Command to the Joint Staff to establish and formalize joint NAVWAR requirements, in the JCIDS process and supporting the Army Assured Positioning Navigation and Timing (APNT) Cross Functional Team by conducting required capability analysis and developing JCIDS documents for its three Lines of Effort: Assured PNT, Navigation Warfare, and Space. USASMDC/ARSTRAT Future Warfare Center will execute these funds in FY 2020.</p> <p>FY 2020 Plans: Based on the results of our efforts in FY 2019 the Future Warfare Center will continue to identify and advocate for PNT and NAVWAR emerging requirements through Commander, U.S. Strategic Command to the joint staff to establish and formalize joint NAVWAR requirements, in the JCIDS process. Support the Army Assured Positioning Navigation and Timing (APNT) Cross Functional Team by conducting required capability analysis and developing JCIDS documents for APNT Enabling systems and APNT Situational Awareness.</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Funds decreased as FE5 restructured to PE 0603308A 990 in FY 2021</p>		2.410	1.072	-
<p>Title: Narrowband C-SSE enterprise level capability to monitor, detect, and assess UHF SATCOM interference</p> <p>Description: Developing and deploying Narrowband Consolidated SATCOM System Expert (C-SSE) SATCOM Tools that will allow the U.S. Army to fight SATCOM. The USASMDC/ARSTRAT NB C-SSE Division executes the SATCOM electromagnetic interference (EMI) mission in support of CCMDs, Services, Agencies, and Warfighters. Two critical elements of that support are to provide NB EMI management and Space Situation Awareness. Once fully developed and operational, coupled with a sustainment plan, this will improve the joint commander's ability to "fight SATCOM" in a contested environment.</p> <p>FY 2020 Plans: Fully develop and deploy Narrowband C-SSE SATCOM Tools that will allow the U.S. Army to fight SATCOM. The USASMDC/ARSTRAT NB C-SSE Division executes the SATCOM electromagnetic interference (EMI) mission in support of CCMDs, Services,</p>		-	10.862	-

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2019	FY 2020	FY 2021
<p>Agencies, and Warfighters. Two critical elements of that support are to provide NB EMI management and Space Situation Awareness. Once fully developed and operational, coupled with a sustainment plan, this will improve the joint commander's ability to "fight SATCOM" in a contested environment. USASMDC/ARSTRAT will execute these funds in FY 2020.</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: No funding in FY 2021.</p>				
<p>Title: Low Earth Orbit Strategy</p> <p>Description: A dedicated constellation of small satellites to provide resilient, persistent LEO capability to address shortfalls in current reconnaissance, surveillance, and target acquisition (RSTA) and PNT systems. Provides the ability to identify and locate targets of interest in denied and contested environments actionable to the tactical warfighter. This includes the Battle Management, Command and Communication (BMC2) capability required to task payloads and fuse data, as well as algorithms to enhance, analyze, and disseminate this data to the tactical warfighter via existing Army systems and networks in support of Sensor-to-Shooter demonstrations directly supporting Long Range Precision Fires (LRPF).</p> <p>FY 2020 Plans: Low Earth Orbit (LEO) Strategy Begin validation of demonstration constellation in a realistic operational environment. Evaluate the integrated RSTA, PNT, BMC2, and communications technologies to identify and locate targets of interest in denied and contested environments actionable to the tactical warfighter. Amount of this effort in FY 2020 - 59,500. Title: APNT Integrated Space Communications Description: Development of a unique advanced space communications capability to explore advanced ground based space communications technologies and concepts utilizing bi-static Radio Frequency (RF) scattering and propagation with precision frequency, phase, and power management. This space communications capability will develop and demonstrate multiple advanced Army LEO space communications concepts and will also assess interfacing with multiple Joint Service space communication missions. FY 2020 Plans: Assess performance of space communications capabilities of multiple advanced Army LEO space communications concepts and interfacing with multiple Joint Services. FY 2020 Amount 20,000</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Funds decreased as FE5 restructured to PE 0604035A BX7 in FY 2021</p>		7.500	78.039	-
<p>Title: FY 2020 SBIR/STTR Transfer</p> <p>Description: Funding transferred in accordance with Title 15 USC ?638</p> <p>FY 2020 Plans:</p>		-	4.427	-

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Army		Date: February 2020		
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems Integration	Project (Number/Name) FE5 / Space And Missile Defense Integration		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2019	FY 2020	FY 2021
Funding transferred in accordance with Title 15 USC ?638				
FY 2020 to FY 2021 Increase/Decrease Statement:				
Funding transferred in accordance with Title 15 USC ?638				
Accomplishments/Planned Programs Subtotals		24.326	104.996	-
C. Other Program Funding Summary (\$ in Millions)				
N/A				
Remarks				
N/A				
D. Acquisition Strategy				
N/A				

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Army **Date:** February 2020

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems Integration	Project (Number/Name) FE5 / Space And Missile Defense Integration
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Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
Government Personnel and operations support.	TBD	SMDC/ARSTRAT Huntsville, AL and Colorado Springs : SMDC/ARSTRAT Huntsville, AL and Colorado Springs	-	16.826		6.250		-		-		-	0.000	23.076	-
FY 2020 SBIR/STTR Transfer	TBD	Various : Various	-	-		4.427		-		-		-	0.000	4.427	-
Subtotal			-	16.826		10.677		-		-		-	0.000	27.503	N/A

Remarks
N/A

Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 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			
Contracts for Experiments & technology enhancements of prototypes/tools and analysis	Various	SMDC/ARSTRAT Huntsville, AL and Colorado Springs : SMDC/ARSTRAT Huntsville, AL and Colorado Springs	15.655	-		17.018		-		-		-	0.000	32.673	-
Low Earth Orbit	C/Various	Various : Huntsville AL, Wilmngton, MA, Boulder CO, VA	-	7.500		77.301		-		-		-	0.000	84.801	-
Subtotal			15.655	7.500		94.319		-		-		-	0.000	117.474	N/A

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract	
Project Cost Totals		15.655	24.326	104.996	-	-	-	0.000	144.977	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2021 Army		Date: February 2020
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems Integration	Project (Number/Name) FE5 / Space And Missile Defense Integration

Event Name	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025			
	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
Development of SMDC MMC Force Tracking	█				█																							
Jericho Thunder Analysis Support	█				█																							
SMDC NanoSat Analysis (SNAP, KE)	█				█																							
Space Superiority Joint Architecture Analysis	█				█																							
Force Design Assessment of Army Forces	█				█																							
NAVWAR/PNT Gap Analysis and Advocacy	█				█																							
Implications of the Emerging "Third" Offset Strategy for SMDC S	█				█																							
Space Simulation Support to TRADOC ARCIC Experimentation	█				█																							
Common Ground Station Operating Concept and Requirement D	█				█																							
NAVWAR Defense/Attack Operating Concepts and Requirement	█				█																							
Army Enduring JFFT Development	█				█																							
High Altitude Persistent Platform Capability Development Docu	█				█																							
NAVWAR/PNT in Denied Environment	█				█																							

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Exhibit R-4, RDT&E Schedule Profile: PB 2021 Army		Date: February 2020
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems Integration	Project (Number/Name) FE5 / Space And Missile Defense Integration

Event Name	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025			
	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 Superiority Capability Development	█				█																							
Counter ISR Capability Development	█				█																							
Space Operations Multi-Domain Environment Analysis	█				█																							
ICEWS Study	█				█																							
High Altitude Impacts on Ground Effectiveness Study	█				█																							
NAVWAR Characterization Study	█				█																							
NAVWAR Attack Study					█																							
Pseudolite Performance Analysis	█				█																							
APNT CFT Analysis Support	█				█																							
Joint Space Warfighting Forum (JSWF) Analysis Support	█				█																							
Support of the APN/CFT	█				█																							
Own Earth Orbit	█				█																							

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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Army		Date: February 2020
Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems Integration	Project (Number/Name) FE5 / Space And Missile Defense Integration

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Development of SMDC MMC Force Tracking	1	2018	4	2020
Jericho Thunder Analysis Support	1	2019	4	2020
SMDC NanoSat Analysis (SNAP, KE)	1	2019	4	2020
Space Superiority Joint Architecture Analysis	1	2018	4	2020
Force Design Assessment of Army Forces	1	2019	4	2020
NAVWAR/PNT Gap Analysis and Advocacy	1	2018	2	2020
Implications of the Emerging "Third" Offset Strategy for SMDC Space	1	2019	4	2020
Space Simulation Support to TRADOC ARCIC Experimentation	1	2018	4	2020
Common Ground Station Operating Concept and Requirement Document	1	2019	3	2020
NAVWAR Defense/Attack Operating Concepts and Requirements Documentation	1	2018	4	2020
Army Enduring JFFT Development	1	2018	4	2020
High Altitude Persistent Platform Capability Development Document	1	2018	4	2020
NAVWAR/PNT in Denied Environment	1	2019	2	2020
Space Superiority Capability Development	1	2018	4	2020
Counter ISR Capability Development	3	2017	4	2020
Space Operations Multi-Domain Environment Analysis	4	2017	4	2020
ICEWS Study	4	2018	4	2019
High Altitude Impacts on Ground Effectiveness Study	4	2018	4	2019
NAVWAR Characterization Study	4	2018	4	2019
NAVWAR Attack Study	4	2019	4	2020
Psuedolite Performance Analysis	2	2019	1	2020
APNT CFT Analysis Support	3	2018	4	2020

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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Army **Date:** February 2020

Appropriation/Budget Activity 2040 / 4	R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems <i>Integration</i>	Project (Number/Name) FE5 / Space And Missile Defense <i>Integration</i>
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Events	Start		End	
	Quarter	Year	Quarter	Year
Joint Space Warfighting Forum (JSWF) Analysis Support	1	2018	4	2020
Support of the APN/CFT	1	2018	4	2020
Ow Earth Orbit	1	2020	4	2020

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Appropriation/Budget Activity 2040 / 4					R-1 Program Element (Number/Name) PE 1206308A / Army Space Systems Integration				Project (Number/Name) FE6 / Army Space System Enhancement/ Integration			
COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
FE6: Army Space System Enhancement/Integration	-	21.094	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	21.094
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The details of this program are reported in accordance with Title 10, United States Code, Section 119(a)(1).