Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Army											Date: March 2019	
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army* / BA 4: *Advanced Component Development & Prototypes (ACD&P)*					R-1 Program Element (Number/Name) PE 1206308A / *Army Space Systems Integration*							
COST ($ in Millions)	**Prior Years**	**FY 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
Total Program Element	-	30.121	38.307	104.996	-	104.996	23.168	18.653	17.373	18.396	Continuing	Continuing
FE5: *Space And Missile Defense Integration*	-	15.655	17.213	104.996	-	104.996	23.168	18.653	17.373	18.396	Continuing	Continuing
FE6: *Army Space System Enhancement/Integration*	-	14.466	21.094	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	35.560

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).

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 (COCOMs), Joint Task Forces (JTFs), and Coalition Partners. The MMC injects real-time J-FFT information into the COP for COCOMs, 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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	20.432	38.319	22.277	-	22.277
Current President's Budget	30.121	38.307	104.996	-	104.996
Total Adjustments	9.689	-0.012	82.719	-	82.719
• Congressional General Reductions	-0.006	-0.012			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	10.000	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.305	-			
• Adjustments to Budget Years	-	-	82.719	-	82.719

Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Army	Date: March 2019
Appropriation/Budget Activity 2040: *Research, Development, Test & Evaluation, Army I* BA 4: *Advanced Component Development & Prototypes (ACD&P)*	**R-1 Program Element (Number/Name)** PE 1206308A *I Army Space Systems Integration*

Change Summary Explanation

FY 2020 funding increase supports the Low Earth Orbit strategy as well as efforts to address Narrowband Consolidated SATCOM System Expert (C-SSE) enterprise level capability to monitor, detect, and assess UHF SATCOM interference.

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army			Date: March 2019
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 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
FE5: *Space And Missile Defense Integration*	-	15.655	17.213	104.996	-	104.996	23.168	18.653	17.373	18.396	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

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 continues 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.

B. Accomplishments/Planned Programs ($ in Millions)	FY 2018	FY 2019	FY 2020
Title: Architecture Development, Wargames and Demonstrations	12.705	10.440	9.535

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019
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 2018	FY 2019	FY 2020
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. ***FY 2019 Plans:*** 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 (ICD) or Capability Development Documents (CDD), and Capability Production Documents (CPD) to update system Operational Requirements Documents (ORD). Develop a space superiority Capability Production Document (CPD) and continue to develop the JCIDS documentation required to Integrate space and high altitude capabilities into Multi-Domain Task Force (MDTF). ***FY 2020 Plans:*** Expand upon FY19 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			

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019
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 2018	FY 2019	FY 2020
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 FY2020. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** FY2019 to FY2020 decrease attributed to economic factors and to support the Army's modernization priorities in support of the National Defense Strategy.			
Title: Joint Friendly Force Tracking (J-FFT) Testbed ***Description:*** Funding is provided for integration of the Joint Friendly Force Tracking (J-FFT) into Combat Commanders' friendly force tracking requirements, developing the J-FFT Testbed, leveraging network enabled command and control system enhancements, and continuing to support development of FFT capabilities for deployed and coalition forces.. ***FY 2019 Plans:*** Support the full integration of Joint Friendly Force Tracking (J-FFT) into Combat Commanders' friendly force tracking requirements. Continue to develop the J-FFT Testbed for its use in integrating hardware and software prior to its deployment to the field. Leverage network enabled command and control system enhancements and continue to support development of Friendly Force Tracking (FFT) capabilities for deployed and coalition forces. Continue to transition Force Tracking Advanced Management System (FTAMS) to FFT-Mission Management Center (MMC). The J-FFT Division coordinates and executes USSTRATCOM-directed FFT tasks in order to assure continuous 24/7 FFT data services support to authorized users to include the Combatant Commands, the Services, agencies, allies, and coalition partners in order to improve their situational awareness (SA), enhance command and control (C2) to reduce fratricide in combat, homeland defense, civil and contingency operations. Gain Army approval of a Joint Capabilities Integration and Development System (JCIDS) document for JFFT. ***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 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	2.950	2.526	2.225

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019
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 2018	FY 2019	FY 2020
and other coalition assessments and exercises that advance US and coalition FFT interoperability. USASMDC/ARSTRAT Future Warfare Center will execute these funds in FY2020. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** FY2019 to FY2020 decrease attributed to economic factors and to support the Army's modernization priorities in support of the National Defense Strategy.			
Title: Organizationational Development as Part of the SRC40 Proponecy Mission ***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. ***FY 2019 Plans:*** Participate in the Force Design Update (FDU) process. FWC 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 (O&O) Concept Papers, Organization Design Papers, Cost Benefit Analyses, Unit Reference Sheets (URS), and Manpower Requirements Criteria (MARC) determination. Participate in the Total Army Analysis (TAA), the Army's annual process to examine the projected Army force qualitatively and quantitatively. SMDC/ARSTRAT will support TAA Rule of Allocation (ROA) development, Capability Demand Analysis (CDA) and Resourcing phases to ensure SRC40 units are properly accounted for in the future POM force. This is performed to analyze the projected Army Force against future demands and levels of funding/authorizations to build the POM Force. SMDC/ARSTRAT FWC will review the SMDC Troops, Organization and Equipment (TOE) requirements documents conducted as part of a cyclic process as well as when needed during other Force Design processes (i.e., Basis of Issue Plan (BOIP) Modernization Path (MODPATH) reviews, Notification of Change (NOFC) reviews, SSN-LIN Automated Management and Integrating System (SLAMIS) reviews, etc.). Participate in BOIP Development, which is a collection of processes including the cyclic review of Army-wide BOIPs under development, development of Feeder Data for SMDC proponent item BOIPs, and validation of BOIP MODPATHs to SMDC TOEs. Complete the Space Forces Force Structure Review (FSR) which is a CBA-like structured three-phased process consisting of a Needs Analysis (NA), Gap Analysis (GA), and Solutions Analysis (SA) 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. ***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) Future Warfare Center (FWC) 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,	-	1.450	1.050

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019
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 2018	FY 2019	FY 2020
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 FWC 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 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 FY2020. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** FY2019 to FY2020 decrease attributed to economic factors and to support the Army's modernization priorities in support of the National Defense Strategy.			
Title: Position, Navigation, and Timing Navigation Warfare (PNT/NAVWAR) ***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. Supporting 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. USASMDC/ARSTRAT Future Warfare Center will execute these funds in FY2020. ***FY 2019 Plans:*** Identify and advocate 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. ***FY 2020 Plans:***	-	2.410	1.810

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019
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 2018	FY 2019	FY 2020
Based on the results of our efforts in 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. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** FY2019 to FY2020 decrease attributed to economic factors and to support the Army's modernization priorities in support of the National Defense Strategy.			
Title: Narrowband C-SSE enterprise level capability to monitor, detect, and assess UHF SATCOM interference ***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. ***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, 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 FY2020. ***FY 2019 to FY 2020 Increase/Decrease Statement:*** The increase from FY2019 to FY 2020 is the result of the Narrowband C-SSE SATCOM requirement	-	-	11.600
Title: Low Earth Orbit Strategy ***Description:*** New Classified effort Low Earth Orbit. ***FY 2020 Plans:*** Low Earth Orbit Strategy ***FY 2019 to FY 2020 Increase/Decrease Statement:*** New effort Low Earth Orbit.	-	-	78.776
Title: FY2019 SBIR/STTR Transfer	-	0.387	-

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army		Date: March 2019
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 2018	FY 2019	FY 2020
Description: FY2019 SBIR/STTR adjustment. ***FY 2019 Plans:*** FY2019 SBIR/STTR Transfer ***FY 2019 to FY 2020 Increase/Decrease Statement:*** N/A			
Accomplishments/Planned Programs Subtotals	15.655	17.213	104.996

C. Other Program Funding Summary ($ in Millions)

N/A

Remarks

N/A

D. Acquisition Strategy

N/A

E. Performance Metrics

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Army			Date: March 2019
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*	

Management Services ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Personnel and operations support.	TBD	SMDC/ARSTRAT Huntsville, AL and Colorado Springs : SMDC/ARSTRAT Huntsville, AL and Colorado Springs	-	-		16.826		7.726		-		7.726	0.000	24.552	-
FY2019 SBIR/STTR Transfer	TBD	TBD : TBD	-	-		0.387		-		-		-	0.000	0.387	-
		Subtotal	-	-		17.213		7.726		-		7.726	0.000	24.939	N/A

Remarks

N/A

Product Development ($ in Millions)

Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
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		-		18.494		-		18.494	0.000	34.149	-
Low Earth Orbit	TBD	TBD : TBD	-	-		-		78.776		-		78.776	0.000	78.776	-
		Subtotal	-	15.655		-		97.270		-		97.270	0.000	112.925	N/A

	Prior Years	FY 2018 Cost	FY 2018 Award Date	FY 2019 Cost	FY 2019 Award Date	FY 2020 Base Cost	FY 2020 Base Award Date	FY 2020 OCO Cost	FY 2020 OCO Award Date	FY 2020 Total Cost	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	-	15.655		17.213		104.996		-		104.996	0.000	137.864	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army		Date: March 2019
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*

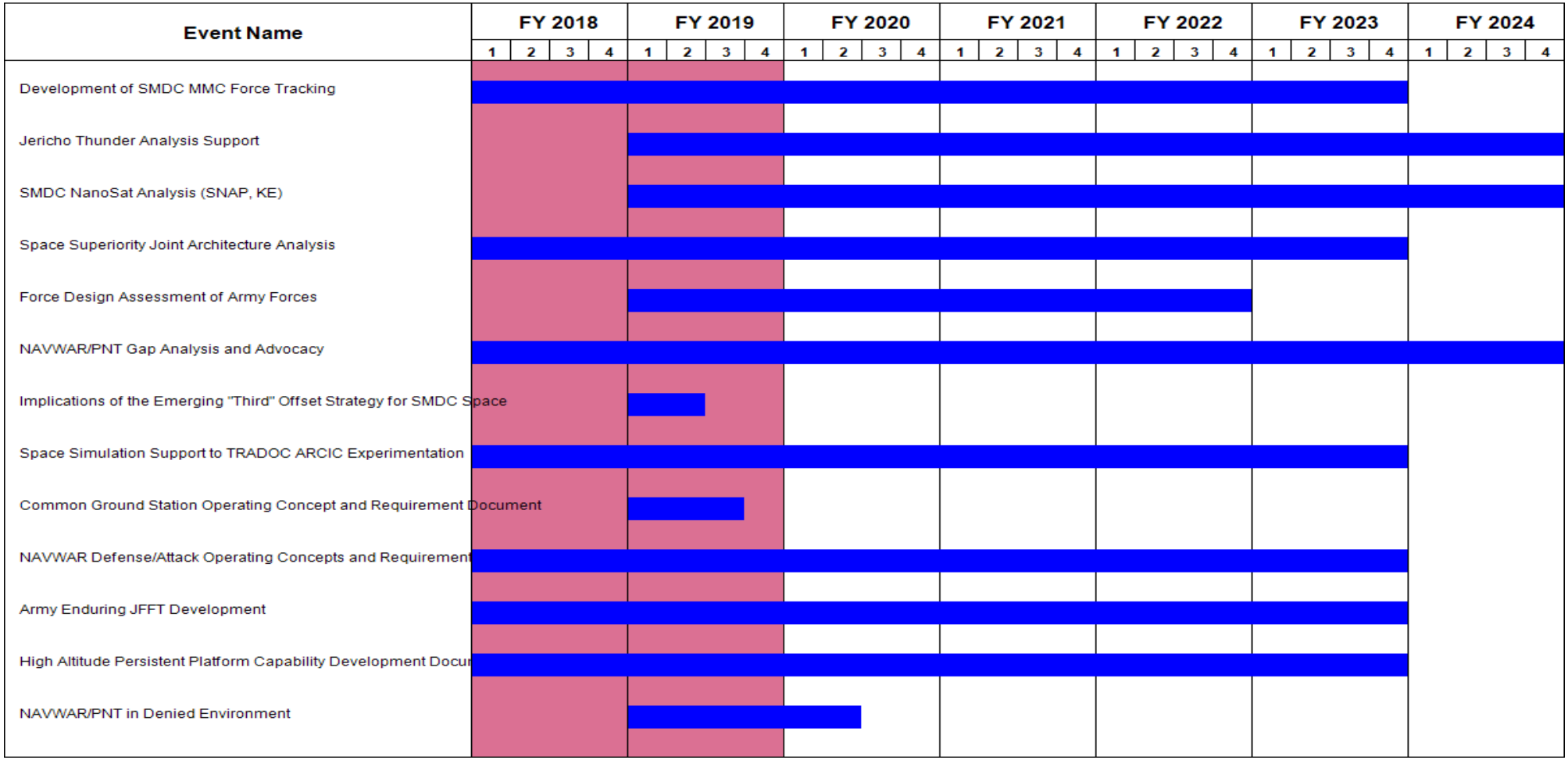

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Army		Date: March 2019
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 1206308A / *Army Space Systems Integration*	**Project (Number/Name)** FE5 / *Space And Missile Defense Integration*

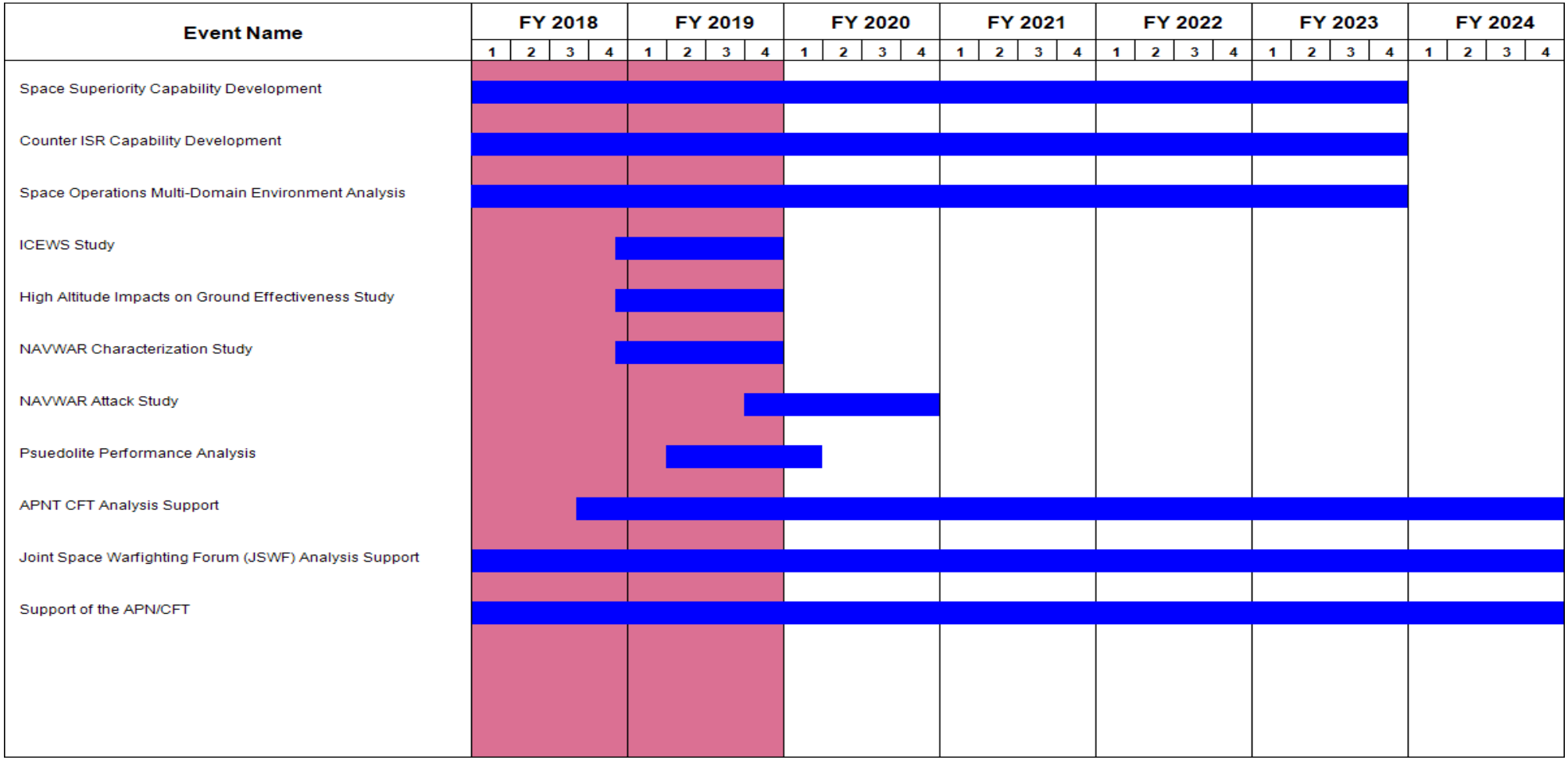

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army		Date: March 2019
Appropriation/Budget Activity 2040 / 4	**R-1 Program Element (Number/Name)** PE 1206308A / *Army Space Systems Integration*	**Project (Number/Name)** FE5 / *Space And Missile Defense Integration*

Schedule Details

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Development of SMDC MMC Force Tracking	1	2018	4	2023
Jericho Thunder Analysis Support	1	2019	4	2024
SMDC NanoSat Analysis (SNAP, KE)	1	2019	4	2024
Space Superiority Joint Architecture Analysis	1	2018	4	2023
Force Design Assessment of Army Forces	1	2019	4	2022
NAVWAR/PNT Gap Analysis and Advocacy	1	2018	4	2024
Implications of the Emerging "Third" Offset Strategy for SMDC Space	1	2019	2	2019
Space Simulation Support to TRADOC ARCIC Experimentation	1	2018	4	2023
Common Ground Station Operating Concept and Requirement Document	1	2019	3	2019
NAVWAR Defense/Attack Operating Concepts and Requirements Documentation	1	2018	4	2023
Army Enduring JFFT Development	1	2018	4	2023
High Altitude Persistent Platform Capability Development Document	1	2018	4	2023
NAVWAR/PNT in Denied Environment	1	2019	2	2020
Space Superiority Capability Development	1	2018	4	2023
Counter ISR Capability Development	3	2017	4	2023
Space Operations Multi-Domain Environment Analysis	4	2017	4	2023
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	2024

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Army		Date: March 2019
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*

	Start		End	
Events	**Quarter**	**Year**	**Quarter**	**Year**
Joint Space Warfighting Forum (JSWF) Analysis Support	1	2018	4	2024
Support of the APN/CFT	1	2018	4	2024

Exhibit R-2A, RDT&E Project Justification: PB 2020 Army											Date: March 2019	
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 2018**	**FY 2019**	**FY 2020 Base**	**FY 2020 OCO**	**FY 2020 Total**	**FY 2021**	**FY 2022**	**FY 2023**	**FY 2024**	**Cost To Complete**	**Total Cost**
FE6: *Army Space System Enhancement/Integration*	-	14.466	21.094	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	35.560
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).