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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Air Force										Date: February 2019		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1201921F I Service Support to STRATCOM - Space Activities							
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	-	13.769	14.161	0.988	0.000	0.988	0.996	1.006	1.015	1.024	Continuing	Continuing
670373: DCIP	-	0.475	0.487	0.488	0.000	0.488	0.496	0.506	0.515	0.524	Continuing	Continuing
672486: JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES	-	7.199	7.427	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
67A011: Space Analysis and Application Development	-	6.095	6.247	0.500	0.000	0.500	0.500	0.500	0.500	0.500	Continuing	Continuing

Note

Prior to the FY20 PB cycle, The Space Analysis and Application Development Program (WSC 67A011), the Joint Navigation and Warfare Center (WSC 672486), along with the Data Integration and Fusion Center (WSC 67A011), and the Defense Critical Infrastructure Program (WSC 670373) funding were all reported under PE 1201921F. Beginning in FY20, the Space Analysis and Application Development program and the Joint Navigation Warfare Center will be reported under the newly created PE 1202140F, USSPACECOM. Leaving only the Data Integration and Fusion Center and the Defense Critical Infrastructure Program being reported under PE 1201921F.

A. Mission Description and Budget Item Justification

The USSTRATCOM Data Integration and Fusion Center (DIFC) is an innovative organization developing and experimenting innovative concepts designed to validate both material and non-material methodologies to overcome data isolation in order to enable kill chains in the Joint Battlespace. Funds are necessary to update current government-owned software to ingest and disseminate new data sources from Title 10 and Title 50 sensors. The DIFC efforts at COCOM sponsored experimentation events will inform service acquisition decisions, capability gaps, intelligence gaps and tactics, techniques and procedures (TTP) development and implementation to mitigate effects on warfighter operations.

The USSTRATCOM Defense Critical Infrastructure Protection program (DCIP) is a risk management program that seeks to ensure the availability of networked assets critical to USSTRATCOM and other DoD missions. Critical infrastructure assets can include installations, facilities, antennas, vehicles, computing systems, and communications links. DCIP is directed by the Office of the Assistant Secretary of Defense (Homeland Defense & Americas' Security Affairs) [OASD (HD&ASA)]. DCIP manages the identification, prioritization, assessment, and assurance of Critical Infrastructure as a comprehensive program that includes the development of adaptive plans and procedures to mitigate risk, restore capability in the event of loss or degradation, support incident management, and protect defense critical infrastructure.

As directed in the FY 2018 NDAA, Sec 825, amendment to PL 114-92 FY 2016 NDAA, Sec 828 Penalty for Cost Overruns, the FY 2018 Air Force penalty total is \$14.373M. The calculated percentage reduction to each research, development, test and evaluation and procurement account will be allocated proportionally from all programs, projects, or activities under such account.

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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development</i>	R-1 Program Element (Number/Name) PE 1201921F / <i>Service Support to STRATCOM - Space Activities</i>
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This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary (\$ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	14.255	14.161	15.001	0.000	15.001
Current President's Budget	13.769	14.161	0.988	0.000	0.988
Total Adjustments	-0.486	0.000	-14.013	0.000	-14.013
• 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	0.000	0.000			
• Other Adjustments	-0.486	0.000	-14.013	0.000	-14.013

Change Summary Explanation

In FY20 the decrease is associated with the funding for the Joint Navigation Warfare Center, and the USSTRATCOM Space Modeling and Simulation moving into the newly created USSPACECOM PE 1202140F. The only RDT&E funding remaining in 1201921F will be for the Data Integration and Fusion Center (~\$500K per year) and the Defense Critical Infrastructure Program (DCIP) (\$488K in FY20).

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Air Force										Date: February 2019		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 1201921F / Service Support to STRATCOM - Space Activities				Project (Number/Name) 670373 / DCIP			
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
670373: DCIP	-	0.475	0.487	0.488	0.000	0.488	0.496	0.506	0.515	0.524	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
An October 2014 memorandum of agreement between USSTRATCOM and Deputy Assistant Secretary of Defense for Defense Continuity and Mission Assurance transferred budget authority for DCIP funding to USSTRATCOM beginning in FY16. THIS IS NOT A NEW START.												
A. Mission Description and Budget Item Justification												
The USSTRATCOM Defense Critical Infrastructure Protection program (DCIP) is a risk management program that seeks to ensure the availability of networked assets critical to USSTRATCOM and other DoD missions. Critical infrastructure assets can include installations, facilities, antennas, vehicles, computing systems, and communications links. DCIP is directed by the Office of the Assistant Secretary of Defense (Homeland Defense & Americas' Security Affairs) [OASD (HD&ASA)]. DCIP manages the identification, prioritization, assessment, and assurance of Critical Infrastructure as a comprehensive program that includes the development of adaptive plans and procedures to mitigate risk, restore capability in the event of loss or degradation, support incident management, and protect defense critical infrastructure.												
B. Accomplishments/Planned Programs (\$ in Millions)								FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Defense Critical Infrastructure Program								0.475	0.487	0.488	-	0.488
Description: The USSTRATCOM Defense Critical Infrastructure Protection program (DCIP) is a risk management program that seeks to ensure the availability of networked assets critical to USSTRATCOM and other DoD missions. Critical infrastructure assets can include installations, facilities, antennas, vehicles, computing systems, and communications links. DCIP is directed by the Office of the Assistant Secretary of Defense (Homeland Defense & Americas' Security Affairs) [OASD (HD&ASA)]. DCIP manages the identification, prioritization, assessment, and assurance of Critical Infrastructure as a comprehensive program that includes the development of adaptive plans and procedures to mitigate risk, restore capability in the event of loss or degradation, support incident management, and protect defense critical infrastructure.												
FY 2019 Plans:												
Continued support of analysis, studies and research of critical infrastructure assets and dependencies supporting all USSTRATCOM assigned missions, to include focusing efforts of future critical infrastructure vulnerability assessments and researching the various sources to perform threats and hazards assessments.												

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Air Force			Date: February 2019			
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 1201921F / <i>Service Support to STRATCOM - Space Activities</i>	Project (Number/Name) 670373 / DCIP				
B. Accomplishments/Planned Programs (\$ in Millions)						
		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
No OCO requested FY 2020 Base Plans: DCIP will continue to support of analysis, studies and research of critical infrastructure assets and dependencies supporting all USSTRATCOM assigned missions, to include focusing efforts of future critical infrastructure vulnerability assessments and researching the various sources to perform threats and hazards assessments. No OCO requested FY 2019 to FY 2020 Increase/Decrease Statement: FY19 to FY20 increase is due to inflation						
Accomplishments/Planned Programs Subtotals		0.475	0.487	0.488	-	0.488
C. Other Program Funding Summary (\$ in Millions) N/A						
Remarks The Defense Critical Infrastructure Program is an on-going program, cost to complete is N/A						
D. Acquisition Strategy Projects funded through DCIP will be awarded using competitive contracts to the maximum extent possible.						
E. Performance Metrics Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.						

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Air Force												Date: February 2019			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 1201921F / <i>Service Support to STRATCOM - Space Activities</i>				Project (Number/Name) 670373 / <i>DCIP</i>					

Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost		Cost To Complete	Total Cost	Target Value of Contract
Asset Dependency and Risk Characterization Research	C/Various	TBD : TBD	-	0.475	Jan 2018	0.487	Jan 2019	0.488	Jan 2020	0.000		0.488		Continuing	Continuing	-
Subtotal			-	0.475		0.487		0.488		0.000		0.488		Continuing	Continuing	N/A

			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	0.475		0.487		0.488		0.000		0.488	Continuing	Continuing	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Air Force										Date: February 2019																			
Appropriation/Budget Activity 3600 / 7										R-1 Program Element (Number/Name) PE 1201921F / Service Support to STRATCOM - Space Activities										Project (Number/Name) 670373 / DCIP									

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Defense Critical Infrastructure Program																												
Asset Dependency, Risk Mitigation, Ops Research, Design/Development, Modeling and Simulation, Test and Evaluation...this is an on-going effort																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Air Force		Date: February 2019
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 1201921F / Service Support to STRATCOM - Space Activities	Project (Number/Name) 670373 / DCIP

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Defense Critical Infrastructure Program				
Asset Dependency, Risk Mitigation, Ops Research, Design/Development, Modeling and Simulation, Test and Evaluation...this is an on-going effort	1	2018	4	2024

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Air Force										Date: February 2019		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 1201921F / Service Support to STRATCOM - Space Activities				Project (Number/Name) 672486 / JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES			
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
672486: JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES	-	7.199	7.427	0.000	0.000	0.000	0.000	0.000	0.000	0.000	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Beginning in FY20 all funding moved to PE 1202140F - USSPACECOM PE

A. Mission Description and Budget Item Justification

Navigation Warfare (Navwar) is deliberate defensive and offensive action to assure positioning, navigation, and timing (PNT) information through coordinated employment of space, cyberspace, and electronic warfare (EW) operations. Funds are used to create and maintain NAVWAR knowledge. Navwar expertise is developed in part by execution of PNT Operational Field Assessments (POFAs). GYPSY POFA's are linked to Combatant Commander's (CCMD) Tier 1 exercises and provide operational realistic threat-representative, GPS-contested environments for analytical assessment of air, ground, maritime, space & cyberspace mission capability. MODORD to OPERATION OLYMPIC DEFENDER calls for the execution of GPS-contested environments as part of the Joint Combat Capability in Contested Environment Assessments (JC3EA). FORTUNE POFAs are PNT capability and vulnerability assessments associated with a Service exercise or mission event. PRISM POFAs encompass all Operations, Actions, and Activities (OAAs) associated with events outside of specific CCMD and/or service exercises or mission events. Assessments inform service acquisition decisions, capability gaps, intelligence gaps and tactics, techniques and procedures (TTP) development and implementation to mitigate effects on warfighter operations in the anticipated theater Navwar threat environments. JNWC assesses Department wide PNT posture through the PNT Annual assessment IAW DoDI 4650.08.

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

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: PNT Operational Field Assessments	7.199	7.427	0.000	0.000	0.000
Description: The JNWC will investigate, operationally assess, and simulate potential threats and mitigation strategies for denial of blue force PNT capabilities as well as preventing the hostile use of PNT information. Major Performers - Best value to the government selected contractors, universities, government facilities, federally funded research and development centers, laboratories, or other organizations					
FY 2019 Plans: Operational assessments - Simulate potential threats and mitigation strategies for potential denial of blue force PNT capabilities - Continuing development to prevent the hostile use of Positioning, Navigation and Timing (PNT) information.					

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Air Force			Date: February 2019																										
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 1201921F / <i>Service Support to STRATCOM - Space Activities</i>	Project (Number/Name) 672486 / <i>JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES</i>																											
B. Accomplishments/Planned Programs (\$ in Millions)																													
<table border="1"> <thead> <tr> <th></th> <th>FY 2018</th> <th>FY 2019</th> <th>FY 2020 Base</th> <th>FY 2020 OCO</th> <th>FY 2020 Total</th> </tr> </thead> <tbody> <tr> <td>No OCO requested</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> <i>FY 2020 Base Plans:</i> Continuing Operational assessments - Simulate potential threats and mitigation strategies for potential denial of blue force PNT capabilities - Continuing development to prevent the hostile use of Positioning, Navigation and Timing (PNT) information. <i>FY 2020 OCO Plans:</i> No OCO Requested <i>FY 2019 to FY 2020 Increase/Decrease Statement:</i> FY19 to FY20 increase is due to inflation. FY18 PDM plussed up JNWC RDT&E to current level. </td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td align="right">Accomplishments/Planned Programs Subtotals</td> <td align="center">7.199</td> <td align="center">7.427</td> <td align="center">0.000</td> <td align="center">0.000</td> <td align="center">0.000</td> </tr> </tbody> </table>							FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	No OCO requested						<i>FY 2020 Base Plans:</i> Continuing Operational assessments - Simulate potential threats and mitigation strategies for potential denial of blue force PNT capabilities - Continuing development to prevent the hostile use of Positioning, Navigation and Timing (PNT) information. <i>FY 2020 OCO Plans:</i> No OCO Requested <i>FY 2019 to FY 2020 Increase/Decrease Statement:</i> FY19 to FY20 increase is due to inflation. FY18 PDM plussed up JNWC RDT&E to current level.						Accomplishments/Planned Programs Subtotals	7.199	7.427	0.000	0.000	0.000
	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total																								
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Accomplishments/Planned Programs Subtotals	7.199	7.427	0.000	0.000	0.000																								
C. Other Program Funding Summary (\$ in Millions)																													
N/A																													
Remarks																													
Beginning in FY20, the program will be reported under the newly created PE 1202140F, USSPACECOM																													
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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Air Force												Date: February 2019			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 1201921F / Service Support to STRATCOM - Space Activities				Project (Number/Name) 672486 / JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES					
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
PNT Operational Field Assessments	PO	Multiple : Kirtland AFB, NM	-	7.199	Oct 2017	7.427	Oct 2018	0.000		0.000		0.000	Continuing	Continuing	-
Subtotal			-	7.199		7.427		0.000		0.000		0.000	Continuing	Continuing	N/A
Remarks Beginning in FY 2018 the JNWC portfolio transferred out of PE 15921F in to PE 120921F.															
			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	7.199		7.427		0.000		0.000		0.000	Continuing	Continuing	N/A
Remarks 															

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Air Force										Date: February 2019									
Appropriation/Budget Activity					R-1 Program Element (Number/Name)					Project (Number/Name)									
3600 / 7					PE 1201921F / Service Support to STRATCOM - Space Activities					672486 / JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES									

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
Navigation Warfare (NAVWAR)																												
NAVWAR Operational Field Assessments																												
Create Maintain NAVWAR Knowledge - PNTAA																												
NAVWAR Operations & CONOPS Events																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Air Force			Date: February 2019
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 1201921F / <i>Service Support to STRATCOM - Space Activities</i>	Project (Number/Name) 672486 / <i>JOINT NAVWAR CENTER (JNWC) SPACE ACTIVITIES</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Navigation Warfare (NAVWAR)</i>				
NAVWAR Operational Field Assessments	1	2018	4	2024
Create Maintain NAVWAR Knowledge - PNTAA	2	2018	2	2024
NAVWAR Operations & CONOPS Events	1	2018	4	2024

Note

Joint Navigation Warfare Center (JNWC) conducts PRISM, FORTUNE, and GYPSY operational field assessments on an on-going, annual basis.

PRISM events encompass all Operations, Actions, and Activities (OAAs) associated with events outside of specific Combatant Command and/or Service exercise or mission event.

FORTUNE events are Positioning, Navigation, and Timing (PNT) vulnerability field assessments and are small scale technical risk assessments or can be risk reduction events for larger GYPSY events.

GYPSY events are larger than FORTUNE PNT related events and involve other coalition partners, and multiple US services in direct support of Geographic Combatant Command requirements.

JNWC uses the Major Range and Test Facility Base (MRTFB) program, administered by USD (AT&L). Requirements dictate which MRTFB facility will be contracted to host a GYPSY or FORTUNE event.

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Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 1201921F / Service Support to STRATCOM - Space Activities				Project (Number/Name) 67A011 / Space Analysis and Application Development			
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
67A011: Space Analysis and Application Development	-	6.095	6.247	0.500	0.000	0.500	0.500	0.500	0.500	0.500	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

Note

Prior to the FY20 PB cycle, The Space Analysis and Application Development Program was reported under PE 1201921F, WSC 67A011. Beginning in FY20, the program will be reported under the newly created PE 1202140F, USSPACECOM. Leaving only the Data Integration and Fusion Center being reported in WSC/BPAC 67A011, PE 1201921F

A. Mission Description and Budget Item Justification

The USSTRATCOM Data Integration and Fusion Center (DIFC) is an innovative organization developing and experimenting innovative concepts designed to validate both material and non-material methodologies to overcome data isolation in order to enable kill chains in the Joint Battlespace. Funds are necessary to update current government-owned software to ingest and disseminate new data sources from Title 10 and Title 50 sensors. The DIFC efforts at COCOM sponsored experimentation events will inform service acquisition decisions, capability gaps, intelligence gaps and tactics, techniques and procedures (TTP) development and implementation to mitigate effects on warfighter operations.

The Space Analysis and Application Development program Integrates space based effects into Department's 'Model of Record' for joint campaign analysis. Current modeling and simulation (M&S) models are inadequate to represent the contribution that U.S space capabilities make to the air, sea, and land fight and do not accurately portray current and future space threats. This line of effort integrates effects of space capabilities into the Synthetic Theater Operations Research Model (STORM) and other mission and campaign-level M&S tools. Enhanced space M&S will enable the DoD to make informed decisions regarding the direction of U.S. Space Doctrine, Tactics, Techniques, Procedures, and Resource Decisions. The DoD requires the ability to conduct campaign-level analysis to quantify the holistic operational impacts of adversary space actions on military campaigns and U.S. global operations.

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

	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Data Integration and Fusion Center	0.818	0.800	0.500	0.000	0.500
Description: USSTRATCOM/J8 Data Integration and Fusion Center (DIFC) is an innovative organization developing and experimenting innovative concepts designed to validate both material and non-material methodologies to overcome data isolation in order to enable kill chains in the Joint Battlespace. The DIFC will work to update current government-owned software to ingest and disseminate new data sources from Title 10 and Title 50 sensors. The DIFC efforts at COCOM sponsored experimentation events will inform					

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B. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
service acquisition decisions, capability gaps, intelligence gaps and tactics, techniques and procedures (TTP) development and implementation to mitigate effects on warfighter operations.						
FY 2019 Plans: The DIFC continues to investigate, experiment, and disseminate various Title 10 and Title 50 data sources from collection through dissemination to tactical platforms using machine to machine solutions to move data more efficiently and affect kill chain timelines.						
FY 2020 Base Plans: The DIFC will continue to investigate, experiment, and disseminate various Title 10 and Title 50 data sources from collection through dissemination to tactical platforms using machine to machine solutions to move data more efficiently and affect kill chain timelines.						
FY 2020 OCO Plans: No OCO Requested						
FY 2019 to FY 2020 Increase/Decrease Statement: FY17 RMD 700A1 programmed funding decrease between years FY19 and FY20 from \$800K in FY19 to \$500K in FY20 and out.						
Title: Space Analysis and Application Development		5.277	5.447	0.000	0.000	0.000
Description: The Space Analysis and Application Development program Integrates space based effects into Department's 'Model of Record' for joint campaign analysis. Current modeling and simulation (M&S) models are inadequate to represent the contribution that U.S space capabilities make to the air, sea, and land fight and do not accurately portray current and future space threats. This line of effort integrates effects of space capabilities into the Synthetic Theater Operations Research Model (STORM) and other mission and campaign-level M&S tools. Enhanced space M&S will enable the DoD to make informed decisions regarding the direction of U.S. Space Doctrine, Tactics, Techniques, Procedures, and Resource Decisions. The DoD requires the ability to conduct campaign-level analysis to quantify the holistic operational impacts of adversary space actions on military campaigns and U.S. global operations.						
FY 2019 Plans: - Conduct mission-level modeling and analysis to quantify the effects of US and adversary space interactions, with focus on six of the Joint Mission Threads (JMTs) developed in FY17						

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Appropriation/Budget Activity 3600 / 7		R-1 Program Element (Number/Name) PE 1201921F / Service Support to STRATCOM - Space Activities		Project (Number/Name) 67A011 / Space Analysis and Application Development		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
<ul style="list-style-type: none">- Review and update JMTs focused on the Sea Domain, and account for evolved Techniques, Tactics, and Procedures (TTPs) for those missions.- In coordination with European Command and Pacific Command, identify and select 4 joint missions for mission-level analysis and integration into campaign-level modeling- Analyze/assess modeling results to determine impact/effects of space activities on U.S. military campaigns and global operations- Assess and integrate enterprise-level model data for Environmental Monitoring and ISR space-based capabilities into campaign-level modeling- Coordinate and update Blue space order of battle data, Red counterspace order of battle data, and Red counterspace CONOPS to support integration of space into mission and campaign-level M&S- Support cost-benefit analyses of Offensive Space Control alternatives with quantifiable impacts to warfighter operations- Develop change request proposals and submit to STORM Configuration Control Board (CCB) to improve instantiation of denied/degraded Intelligence, Surveillance, and Reconnaissance (ISR) space-based capability and its effects on the Warfighter in STORM- In coordination with HAF/A9 (Headquarters Air Force Studies, Analyses and Assessments), develop schedule and identify funding requirements and sources toward implementation of approved change requests and improved instantiation of space and contested space capabilities in STORM- Provide Modeling, Simulation, and Analysis support to inform Air Force Space Command's Space Enterprise Vision (SEV) <p>No OCO Requested</p> <p>FY 2020 Base Plans: Beginning in FY20 the RDT&E funding portfolio for the Space Analysis and Application Development program within USSTRATCOM transfers to the newly created PE 1202140F, USSPACECOM.</p> <p>FY 2020 OCO Plans: Please see BA07, PE1202140F, BPAC 67A011</p> <p>FY 2019 to FY 2020 Increase/Decrease Statement:</p>						

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Air Force				Date: February 2019	
Appropriation/Budget Activity 3600 / 7		R-1 Program Element (Number/Name) PE 1201921F / <i>Service Support to STRATCOM - Space Activities</i>		Project (Number/Name) 67A011 / <i>Space Analysis and Application Development</i>	
B. Accomplishments/Planned Programs (\$ in Millions)				FY 2018	FY 2019
See above					
Accomplishments/Planned Programs Subtotals				6.095	6.247
				FY 2020 Base	FY 2020 OCO
				0.500	0.000
				FY 2020 Total	0.500
C. Other Program Funding Summary (\$ in Millions)					
N/A					
Remarks					
Space Campaign Modeling and Simulation funding moved to the newly created USSPACECOM PE 1202140F beginning in FY20. All that will remain in BPAC 67A011 PE 1201921F is the Data Integration and Fusion Center RDT&E funding. It will be an on-going program. Cost to complete is N/A					
D. Acquisition Strategy					
Any new projects funded in this program will be awarded using competitive procedures to the maximum extent possible.					
Best value to the government selected contractors, universities, government facilities, federally funded research and development centers, laboratories, or other organizations					
E. Performance Metrics					
Please refer to the Performance Base Budget Overview Book for information on how Air Force resources are applied and how those resources are contributing to Air Force performance goals and most importantly, how they contribute to our mission.					

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Air Force												Date: February 2019			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 1201921F / Service Support to STRATCOM - Space Activities				Project (Number/Name) 67A011 / Space Analysis and Application Development					
Product Development (\$ in Millions)				FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Model Space effects and evaluate current campaign models to determine feasibility to incorporate into space architectures	TBD	TBD : TBD	-	5.277	Oct 2017	5.447	Oct 2018	0.000		-		0.000	Continuing	Continuing	-
Data Integration and Fusion Center	C/Various	Multiple Gov/Civ Agencies : Schriever AFB, CO	-	0.818	Oct 2017	0.800	Oct 2018	0.500	Oct 2018	-		0.500	Continuing	Continuing	-
Subtotal			-	6.095		6.247		0.500		-		0.500	Continuing	Continuing	N/A
Remarks															
Best value to the government selected contractors, universities, government facilities, federally funded research and development centers, laboratories, or other organizations															
			Prior Years	FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	6.095		6.247		0.500		-		0.500	Continuing	Continuing	N/A
Remarks															
Beginning in FY20 the RDT&E funding in the USSTRATCOM Space Analysis and Application Development program is transferring into the newly created PE 1202140F, USSPACECOM															

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Air Force

Date: February 2019

Appropriation/Budget Activity

3600 / 7

R-1 Program Element (Number/Name)

PE 1201921F / Service Support to
STRATCOM - Space Activities

Project (Number/Name)

67A011 / Space Analysis and Application
Development

	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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 Analysis Modeling and Simulation																												
Conduct operational risk analysis with Combatant Commands on impacts of contested Space to OPLAN missions and tasks; identify priority risk areas																												
Coordinate Implementation and schedule to implement modification proposals for improved space and counter-space effects in STORM																												
Data Integration and Fusion Center																												
Develop and experiment concepts designed to validate material and non-material methodologies to overcome data isolation																												
Continue to develop concepts to overcome data isolation																												
On-going effort to develop concepts to overcome data isolation in order to enable kill chains in the Joint Battlespace																												
Experimentation with current government owned software to inject and disseminate new data sources from Title 10 and Title 50 sensors																												
Continue to investigate, experiment, and disseminate various Title 10 and Title 50 data sources from collection through dissemination to tactical platforms																												
Continue to investigate, develop, experiment and disseminate Title 10 and Title 50 data																												

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Exhibit R-4, RDT&E Schedule Profile: PB 2020 Air Force																							Date: February 2019					
Appropriation/Budget Activity 3600 / 7										R-1 Program Element (Number/Name) PE 1201921F / Service Support to STRATCOM - Space Activities										Project (Number/Name) 67A011 / Space Analysis and Application Development								
	FY 2018				FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024			
	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
sources from collection through distribution to tactical platforms																												
Continue to investigate, develop, experiment and disseminate Title 10 & Title 50 sources from collection through distribution to the Warfighter in the field	<div></div>																											

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Air Force			Date: February 2019
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 1201921F / <i>Service Support to STRATCOM - Space Activities</i>	Project (Number/Name) 67A011 / <i>Space Analysis and Application Development</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Space Analysis Modeling and Simulation</i>				
Conduct operational risk analysis with Combatant Commands on impacts of contested Space to OPLAN missions and tasks; identify priority risk areas	1	2018	4	2018
Coordinate Implementation and schedule to implement modification proposals for improved space and counter-space effects in STORM	1	2019	4	2019
<i>Data Integration and Fusion Center</i>				
Develop and experiment concepts designed to validate material and non-material methodologies to overcome data isolation	1	2018	4	2018
Continue to develop concepts to overcome data isolation	1	2019	4	2019
On-going effort to develop concepts to overcome data isolation in order to enable kill chains in the Joint Battlespace	1	2020	4	2020
Experimentation with current government owned software to ingest and disseminate new data sources from Title 10 and Title 50 sensors	1	2021	4	2021
Continue to investigate, experiment, and disseminate various Title 10 and Title 50 data sources from collection through dissemination to tactical platforms	1	2022	4	2022
Continue to investigate, develop, experiment and disseminate Title 10 and Title 50 data sources from collection through distribution to tactical platforms	1	2023	4	2023
Continue to investigate, develop, experiment and disseminate Title 10 & Title 50 sources from collection through distribution to the Warfighter in the field	1	2024	4	2024

Note

Beginning in FY20 the funding portfolio for the Space Analysis Modeling and Simulation program within USSTRATCOM will transfer to the newly created PE 1202140F, USSPACECOM