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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 1203940F I Space Situation Awareness Operations							
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	-	23.416	93.802	99.984	0.000	99.984	50.241	23.140	23.557	22.668	Continuing	Continuing
670004: Other STRATCOM Activities	-	0.000	73.652	71.340	0.000	71.340	30.522	2.673	2.712	2.775	Continuing	Continuing
67A017: Sensor Service Life Extension Program	-	23.416	20.150	28.644	0.000	28.644	19.719	20.467	20.845	19.893	0.000	153.134

## Note

In FY2018, PE 0305940F, BA07, Space Situational Awareness Operations efforts were transferred to PE 1203940F, BA07, Space Situational Awareness Operations due to the creation of a new Major Force Program for Space. FY2016 and FY2017 funding is now documented in the exhibits for PE 1203940F.

## A. Mission Description and Budget Item Justification

Space Situational Awareness (SSA) is knowledge of all aspects of space related to operations. As the foundation for space control, SSA encompasses surveillance of all space objects and activities; detailed reconnaissance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering intelligence on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. This program element fields, upgrades, operationalizes, operates and maintains Air Force sensors and information integration capabilities within the SSA network while companion program element 1206425F, Space Situational Awareness Systems, develops new network sensors and improved information integration capabilities across the network. Activities funded in this program element (1203940F) focus on surveillance of objects in earth orbit to aid tasks including satellite tracking; space object identification; tracking and cataloging; satellite attack warning; notification of satellite flyovers to U.S. forces; space treaty monitoring; and technical intelligence gathering.

The Sensor Life Extension Programs (SLEPs) project funds efforts to upgrade, operationalize and extend the life of operational SSA sensors, as needed. These SLEPs include, but are not limited to, programs which extend the serviceable life of assets and maintain critical capability by replacing aging and increasingly unsustainable components with modern and sustainable equipment. SLEPs may incorporate equipment which inherently includes technological advances resulting in enhanced or increased capabilities. In addition, the SLEP itself may be designed to increase capabilities not currently realized. The on-going Ground-based Electro Optics Deep Space Surveillance (GEODSS) Phase II is representative of sensor system upgrades in the SLEP project. As the need arises in the execution year, funds in this project may be used to begin sensor life extension programs on additional efforts.

Global Sensor Watch Program provides an integrated SSA Tip and Cue capability that implements a survivable architecture which provides overlapping, assured, and viable surveillance options for executing event response (demonstrated by the SSA Ops Demo), multiple level security processing of SSA data and automated cross-sensor tipping and cueing around the globe.

Beginning in FY17 this program element will begin fielding and sustaining the Joint Interagency Combined Space Operations Center (JICSpOC) infrastructure in response to US Strategic Command Joint Emergent Operational Need (ST-0006). The JICSpOC seeks to improve unity of effort and information sharing across the

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national security space community to effectively respond to potential future space threat events and will have the capability to develop, test, and integrate new space system tactics, techniques and procedures (TTPs) in support of both DoD and Intelligence Community operations.						
In FY18 this program element will continue a series of Ground Radar Upgrades designed to improve the sensitivity, search capability and CONOPS of existing SSA sensors to better support fire control timelines.						
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 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget		20.016	35.002	22.803	0.000	22.803
Current President's Budget		23.416	93.802	99.984	0.000	99.984
Total Adjustments		3.400	58.800	77.181	0.000	77.181
• 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		3.903	0.000			
• SBIR/STTR Transfer		-0.503	0.000			
• Other Adjustments		0.000	58.800	77.181	0.000	77.181
Change Summary Explanation						
FY 2016: Increase due to higher Air Force prioritization of SSA Operations activities due to emerging threats.						
FY 2017: \$58.800M FY17 Request for Additional Appropriations (RAA) to address emergency warfighting readiness requirements						
FY 2018: \$8.291M Increase due to higher Air Force prioritization of SSA Operations activities due to emerging threats. \$0.09M inflation adjustment. \$68.8m to support NSDC. Total increase of \$77.181M.						

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 1203940F / Space Situation Awareness Operations				Project (Number/Name) 670004 / Other STRATCOM Activities			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
670004: Other STRATCOM Activities	-	0.000	73.652	71.340	0.000	71.340	30.522	2.673	2.712	2.775	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
The National Space Defense Center (NSDC), formerly the Joint Interagency Combined Space Operations Center (JICSpOC), seeks to improve unity of effort and information sharing across the national security space community to effectively respond to potential future space threat events. The NSDC requires effective battle management, command and control (BMC2) to integrate and synchronize space and cyber forces and the intelligence community with efforts across all domains and to execute unity of effort through the core command and control functions of: situation monitoring, planning, decision making, space force management and space force direction. The NSDC will have the capability to develop, test, and integrate new space system tactics, techniques and procedures (TTPs) in support of both DoD and Intelligence Community (IC) operations. Lessons learned from NSDC experimentation will inform requirements development for future BMC2 architectures.												
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2016	FY 2017	FY 2018
Title: NSDC Infrastructure										0.000	73.652	31.340
Description: Develop and field space battle management, command and control (BMC2) infrastructure.												
FY 2016 Accomplishments: N/A												
FY 2017 Plans: Design, develop and field a communications architecture and suite of decision support and analytical tools to support space BMC2.												
FY 2018 Plans: Conduct space defense experimentation and exercises to further refine necessary capabilities and tactics, techniques, and procedures to enable the NSDC to conduct the space defense mission. Continue prototyping efforts to develop tools to fill capability gaps uncovered in experimentation.												
Title: SpODC Development										-	-	40.000
Description: Development of the Space Operations Development Center (SpODC) modeling and simulation infrastructure												
FY 2018 Plans:												

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 7				R-1 Program Element (Number/Name) PE 1203940F / Space Situation Awareness Operations				Project (Number/Name) 670004 / Other STRATCOM Activities				
B. Accomplishments/Planned Programs (\$ in Millions)										FY 2016	FY 2017	FY 2018
Build hardware and software applications to create capability to perform future space experimentation, technology maturation, and operating training.												
Accomplishments/Planned Programs Subtotals										0.000	73.652	71.340
C. Other Program Funding Summary (\$ in Millions)												
Line Item	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost	
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-	
Remarks												
D. Acquisition Strategy												
The Accelerated Space BMC2 JEON (ST-0006) is led by AFRL/RV and will utilize existing contracts (e.g. Space Security and Defense Program (SSDP) and SMC/SY) and provide funds to other AF/DoD organizations to execute on their contracts. Additionally, AFRL/RV will initiate and utilize commercial consortiums to deliver capabilities.												
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: FY 2018 Air Force												Date: May 2017			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 1203940F / Space Situation Awareness Operations				Project (Number/Name) 670004 / Other STRATCOM Activities					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
SYSTEM ENGINEERING AND INTEGRATION	Various	VARIOUS : COLORADO SPRINGS, CO	-	0.000		3.425	Oct 2016	6.425	Oct 2017	0.000		6.425	Continuing	Continuing	-
SPACE OPERATIONAL DEVELOPMENT CENTER DESIGN AND EXPERIMENTATION	Various	VARIOUS : COLORADO SPRINGS, CO	-	0.000		64.652	Oct 2016	34.590	Oct 2017	0.000		34.590	Continuing	Continuing	-
COMMUNICATIONS ARCHITECTURE DESIGN AND DEVELOPMENT	Various	VARIOUS : COLORADO SPRINGS, CO	-	0.000		3.575	Oct 2016	4.575	Oct 2017	0.000		4.575	Continuing	Continuing	-
APPLICATION DEVELOPMENT	Various	VARIOUS : COLORADO SPRINGS, CO	-	0.000		0.000		22.750	Oct 2017	0.000		22.750	Continuing	Continuing	-
Subtotal			-	0.000		71.652		68.340		0.000		68.340	-	-	-
Remarks FY17 includes \$58.8M Request for Additional Appropriations for emergency warfighting readiness requirements.															
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Subtotal			-	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Subtotal			-	-		-		-		-		-	-	-	-

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<b>Exhibit R-3, RDT&amp;E Project Cost Analysis: FY 2018 Air Force</b>													<b>Date:</b> May 2017		
<b>Appropriation/Budget Activity</b> 3600 / 7							<b>R-1 Program Element (Number/Name)</b> PE 1203940F / <i>Space Situation Awareness Operations</i>				<b>Project (Number/Name)</b> 670004 / <i>Other STRATCOM Activities</i>				

  

Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
A&AS	Various	VARIOUS : COLORADO SPRINGS, CO	-	0.000		0.500	May 2017	1.000	Oct 2017	0.000		1.000	Continuing	Continuing	-
FFRDC	SS/FP	MITRE : COLORADO SPRINGS, CO	-	0.000		1.500	Oct 2016	2.000	Oct 2017	0.000		2.000	Continuing	Continuing	-
<b>Subtotal</b>			-	0.000		2.000		3.000		0.000		3.000	-	-	-

  

	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
<b>Project Cost Totals</b>	-	0.000	73.652	71.340	0.000	71.340	-	-	-

  

**Remarks**

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> FY 2018 Air Force		<b>Date:</b> May 2017	
<b>Appropriation/Budget Activity</b> 3600 / 7		<b>R-1 Program Element (Number/Name)</b> PE 1203940F / <i>Space Situation Awareness Operations</i>	<b>Project (Number/Name)</b> 670004 / <i>Other STRATCOM Activities</i>

  

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	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
NSDC Infrastructure Development																												
NSDC Experimentation																												
NSDC Capabiity Development																												
SpODC Development																												

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<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Air Force			<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1203940F / <i>Space Situation Awareness Operations</i>	<b>Project (Number/Name)</b> 670004 / <i>Other STRATCOM Activities</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
NSDC Infrastructure Development	1	2017	4	2022
NSDC Experimentation	1	2017	4	2022
NSDC Capabiity Development	1	2017	4	2022
SpODC Development	1	2017	4	2022



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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force										Date: May 2017		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 1203940F / Space Situation Awareness Operations				Project (Number/Name) 67A017 / Sensor Service Life Extension Program			
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
67A017: Sensor Service Life Extension Program	-	23.416	20.150	28.644	0.000	28.644	19.719	20.467	20.845	19.893	0.000	153.134
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

**A. Mission Description and Budget Item Justification**

Space Situational Awareness (SSA) is knowledge of all aspects of space related to operations. As the foundation for space control, SSA encompasses surveillance of all space objects and activities; detailed reconnaissance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; gathering intelligence on adversary space operations; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. SSA also encompasses the integration, exploitation and delivery of data sources to facilitate the battle management and command and control of space forces. This program element fields, upgrades, modifies, modernizes, operationalizes, operates and maintains Air Force sensors and information integration capabilities within the SSA Space Surveillance network (SSN) while companion program element 1206425F, Space Situational Awareness Systems, develops new network sensors and improved information integration capabilities across the network. Activities funded in this program element (1203940F) focus on surveillance of objects in earth orbit to aid tasks including satellite tracking; space object identification; tracking and cataloging; satellite attack warning; notification of satellite flyovers to U.S. forces; space treaty monitoring; and technical intelligence gathering.

The 67A017 project funds efforts to upgrade, operationalize and extend the life of operational SSA sensors, as needed. Through Service Life Extension Programs (SLEPs) the following types of activities are performed, but is not limited to, programs that extend the serviceable life of assets and maintain critical capability by replacing aging and increasingly unsustainable components with modern and sustainable equipment. In addition, the SLEP itself may be designed to increase capabilities not currently realized. As the need arises in the execution year, funds in this project may be used to begin SLEPs on additional efforts.

Global Sensor Watch Program provides an integrated SSA Tip and Cue capability that implements a survivable architecture which provides overlapping, assured, and viable surveillance options for executing event response (demonstrated by the SSA Ops Demo), multiple level security processing of SSA data and automated cross-sensor tipping and cueing around the globe. Other efforts to support Battle Management Command & Control (BMC2) in space include developing & deploying advanced software algorithms to identify, acquire, characterize, and maintain custody of deep space (S)High Inclination Orbits(HIO); optimizing intelligence community & Missile Defense Agency (MDA) sensors to better support BMC2; developing & executing Joint Functional Component Command (JFCC) for Space exercises such as Joint Space Operations Center (JSPOC) Experimentation, Test and Training Initiative (JETTI) to test & optimize Space Control capabilities, concept of operations (CONOPS) development to increase probability of survival for blue assets, and refining requirements across space enterprise; enhancing sensor performance to close the solar exclusion gap leveraging technologies such as optical daylight tracking; and improving legacy communication paths to support bi-directional machine-to-machine sensor communications enabling a more complete BMC2 capability.

Ground Based Radar Upgrades improve the sensitivity, search capabilities and CONOPS of existing SSA sensors to better support custody and fire control timelines.

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Air Force		Date: May 2017		
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 1203940F / Space Situation Awareness Operations	Project (Number/Name) 67A017 / Sensor Service Life Extension Program		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2016	FY 2017	FY 2018
<p><b>Title:</b> Global Sensor Watch Program</p> <p><b>Description:</b> Global Sensor Watch Program provides an integrated SSA Tip and Cue capability that implements a survivable architecture which provides overlapping, assured, and viable surveillance options for executing event response (demonstrated by the SSA Ops Demo), multiple level security processing of SSA data and automated cross-sensor tipping and cueing around the globe. Other efforts to support Battle Management Command &amp; Control (BMC2) in space include developing &amp; deploying advanced software algorithms to identify, acquire, characterize, and maintain custody of deep space (S)HIOs; optimizing intelligence community &amp; MDA sensors to better support BMC2; developing &amp; executing JFCC Space exercises such as JETTI to test &amp; optimize Space Control capabilities, CONOPS development to increase probability of survival for blue assets, and refining requirements across space enterprise; enhancing sensor performance to close the solar exclusion gap leveraging technologies such as optical daylight tracking; and improving legacy communication paths to support bi-directional machine-to-machine sensor communications enabling a more complete BMC2 capability.</p> <p><b>FY 2016 Accomplishments:</b> Developed tip and cue software upgrades and began preparations for follow-on test/demonstration.</p> <p><b>FY 2017 Plans:</b> Continue to develop tip and cue software upgrades and conduct follow-on test/demonstration.</p> <p><b>FY 2018 Plans:</b> Provide findings from SSA Operations Demonstration to the Office of the Secretary of Defense/Cost Assessment and Program Evaluation Office (OSD/CAPE), refine processing algorithms, address communications network findings, refine CONOPS/TTPs with operational community, and deliver final report.</p>		9.360	10.350	18.616
<p><b>Title:</b> GEODSS SLEP</p> <p><b>Description:</b> The GEODSS effort extends the operational life of the Ground Based Electro-Optical Deep Space Surveillance System (GEODSS). It replaces the aging Sensor Controller Group (SCG), Data Processing Group (DPG), Data Communications Group (DCG), and other unsupportable subsystems as required to maintain Space Surveillance Network (SSN) tracking capabilities for objects in deep space and geosynchronous orbits.</p> <p><b>FY 2016 Accomplishments:</b> Conducted Preliminary Design Review (PDR) and obtained milestone B decision to enter Engineering and Manufacturing Development (EMD). Began EMD, conduct Critical Design Review (CDR), purchased hardware, conducted software development and began integration.</p>		14.056	-	-
<p><b>Title:</b> Ground Radar Upgrades</p>		-	9.800	10.028

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<b>Exhibit R-2A, RDT&amp;E Project Justification:</b> FY 2018 Air Force								<b>Date:</b> May 2017			
<b>Appropriation/Budget Activity</b> 3600 / 7				<b>R-1 Program Element (Number/Name)</b> PE 1203940F / <i>Space Situation Awareness Operations</i>				<b>Project (Number/Name)</b> 67A017 / <i>Sensor Service Life Extension Program</i>			

  

<b>B. Accomplishments/Planned Programs (\$ in Millions)</b>	<b>FY 2016</b>	<b>FY 2017</b>	<b>FY 2018</b>
<p><b>Description:</b> This effort improves the sensitivity, search capability and CONOPS of existing SSA sensors to better support fire control timelines</p> <p><b>FY 2017 Plans:</b> Begin prototyping L-Band solid-state transmitter, operationalize UHF transmitter/receiver upgrade and field a COTS-based L-band high voltage power supply.</p> <p><b>FY 2018 Plans:</b> Field capability improvements for existing SSA sensors and system tactics to improve custody of resident space objects (RSOs). Continue program office and other related support activities that may include, but are not limited to studies, technical analysis, etc.</p>			
<b>Accomplishments/Planned Programs Subtotals</b>	23.416	20.150	28.644

  

<b>C. Other Program Funding Summary (\$ in Millions)</b>											
<u>Line Item</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u> <u>Base</u>	<u>FY 2018</u> <u>OCO</u>	<u>FY 2018</u> <u>Total</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021</u>	<u>FY 2022</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• N/A: N/A	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	-	-
<b>Remarks</b>											
<p><b>D. Acquisition Strategy</b></p> <p>The GEODSS SLEP was awarded as an Engineering Change Proposal on the SENSOR contract. The GEODSS SLEP uses a phased development and deployment strategy to reduce risk.</p> <p>The acquisition strategies for SSA Operations Demo and Ground Based Radar Upgrades include a mix of modifications to existing Air Force contracts and directing funds to other AF or DoD organizations for contract support.</p>											
<p><b>E. Performance Metrics</b></p> <p>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.</p>											

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Exhibit R-3, RDT&E Project Cost Analysis: FY 2018 Air Force												Date: May 2017			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 1203940F / <i>Space Situation Awareness Operations</i>				Project (Number/Name) 67A017 / <i>Sensor Service Life Extension Program</i>					
Product Development (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
GEODSS design, development and life extension	C/CPIF	Exelis/TBD : Colorado Springs, CO	-	12.848	Feb 2016	0.000		0.000		0.000		0.000	0.000	12.848	-
Global Sensor Watch Program	C/TBD	Exelis/TBD : Colorado Springs, CO	-	7.196	May 2016	7.935	Mar 2017	16.370	Oct 2017	0.000		16.370	Continuing	Continuing	-
Global Sensor Watch Enterprise Systems Engineering and Integration	Various	MITRE : Various	-	0.000		0.700	Oct 2016	0.000		0.000		0.000	Continuing	Continuing	-
Enterprise Systems Engineering and Integration	Various	MITRE : Various	-	0.350	Jan 2016	0.000		0.000		0.000		0.000	Continuing	Continuing	-
Ground Radar Upgrades - L-Band	Various	MIT/LL : Various, MA	-	0.000		3.383	Oct 2016	3.300	Oct 2017	0.000		3.300	Continuing	Continuing	-
Ground Radar Upgrades - UHF Radar Transmitter/ Receiver	C/TBD	Execlis/TBD : Colorado Springs, CO	-	0.000		6.000	Oct 2016	5.836	Oct 2017	0.000		5.836	Continuing	Continuing	-
Subtotal			-	20.394		18.018		25.506		0.000		25.506	-	-	-
Support (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Subtotal			-	-		-		-		-		-	-	-	-
Test and Evaluation (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
Subtotal			-	-		-		-		-		-	-	-	-

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Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 1203940F / Space Situation Awareness Operations				Project (Number/Name) 67A017 / Sensor Service Life Extension Program					
Management Services (\$ in Millions)				FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 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
FFRDC	SS/FP	MIT Lincoln Labaoratory : Lexington, MA	-	1.014	Dec 2015	0.000		1.050	Oct 2017	0.000		1.050	Continuing	Continuing	-
A&AS	C/Various	Various : Various	-	1.993	Jan 2016	2.090	Jan 2017	1.858	Oct 2017	0.000		1.858	Continuing	Continuing	7.788
Other Support	Various	AFLCMC : Lexington,MA ColSpgs,CO	-	0.015	Jan 2016	0.042	Mar 2017	0.230	Oct 2017	0.000		0.230	Continuing	Continuing	16.626
Subtotal			-	3.022		2.132		3.138		0.000		3.138	-	-	-
			Prior Years	FY 2016		FY 2017		FY 2018 Base		FY 2018 OCO		FY 2018 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			-	23.416		20.150		28.644		0.000		28.644	-	-	-
Remarks															

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<b>Exhibit R-4, RDT&amp;E Schedule Profile:</b> FY 2018 Air Force							<b>Date:</b> May 2017													
<b>Appropriation/Budget Activity</b> 3600 / 7							<b>R-1 Program Element (Number/Name)</b> PE 1203940F / <i>Space Situation Awareness Operations</i>							<b>Project (Number/Name)</b> 67A017 / <i>Sensor Service Life Extension Program</i>						

  

	FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				FY 2021				FY 2022			
	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
GEODSS Phase II Development																												
Global Sensor Watch Program																												
Ground Radar Upgrades																												

**UNCLASSIFIED**

<b>Exhibit R-4A, RDT&amp;E Schedule Details:</b> FY 2018 Air Force			<b>Date:</b> May 2017
<b>Appropriation/Budget Activity</b> 3600 / 7	<b>R-1 Program Element (Number/Name)</b> PE 1203940F / <i>Space Situation Awareness Operations</i>	<b>Project (Number/Name)</b> 67A017 / <i>Sensor Service Life Extension Program</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
GEODSS Phase II Development	1	2016	4	2016
Global Sensor Watch Program	2	2016	2	2022
Ground Radar Upgrades	2	2017	4	2019