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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force **Date:** March 2014

Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>
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COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
Total Program Element	417.076	225.838	314.625	9.462	-	9.462	13.201	36.440	67.231	135.719	Continuing	Continuing
65A006: <i>Space Based Space Surveillance</i>	0.000	3.505	1.576	-	-	-	12.311	36.440	67.231	135.719	Continuing	Continuing
65A009: <i>Space Fence</i>	363.783	204.062	294.624	-	-	-	-	-	-	-	-	862.469
65A012: <i>Net-centric Sensors and Data Sources</i>	53.293	10.471	10.771	7.092	-	7.092	-	-	-	-	-	81.627
65A026: <i>C-Band Radar</i>	0.000	7.800	7.654	2.370	-	2.370	0.890	-	-	-	Continuing	Continuing

MDAP/MAIS Code: 328

The FY 2015 OCO Request will be submitted at a later date.

Note

In FY 2015, Project 65A009 Space Fence efforts were transferred to PE 0604426F.

A. Mission Description and Budget Item Justification

Space Situational Awareness (SSA) is knowledge of all aspects of space related to operations as described in the approved SSA Initial Capabilities Document (ICD). As the foundation for space control, SSA encompasses intelligence on adversary space operations; surveillance of all space objects and activities; detailed reconnaissance of specific space assets; monitoring space environmental conditions; monitoring cooperative space assets; and conducting integrated command, control, communications, processing, analysis, dissemination, and archiving activities. This Program Element (PE) develops new Air Force sensors, and improved information capabilities for integration across the SSA network; it also includes developmental planning and technology forecasting for future blocks and emerging needs.

A companion program element, 0305940F, Space Situational Awareness Operations, fields, upgrades, operates, and sustains existing sensors and information integration capabilities within the SSA network. An additional companion program element, 0305614F, JSpOC Mission System, processes surveillance of all space objects and activities, maintains detailed reconnaissance of space assets, fuses space data, maintains awareness of cooperative space assets, and allows JFCC-Space to conduct integrated C2 of space forces.

Development activities are necessary to deploy new advanced sensors capable of searching for, tracking, and identifying the expanding number of debris objects on orbit as well as the increasing number of satellites launched by other nations, of which many are smaller and more capable than previous spacecraft. These activities are also required to better integrate the disparate elements of SSA in order to enable rapid and responsive space operations.

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Appropriation/Budget Activity 3600: <i>Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>
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The efforts in PE 0604425 are in Budget Activity 5, System Development and Demonstration, because they are conducting development tasks aimed at meeting validated requirements prior to full-rate production.

B. Program Change Summary (\$ in Millions)	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total
Previous President's Budget	267.252	400.258	385.881	-	385.881
Current President's Budget	225.838	314.625	9.462	-	9.462
Total Adjustments	-41.414	-85.633	-376.419	-	-376.419
• Congressional General Reductions	-0.304	-0.407			
• Congressional Directed Reductions	-37.100	-85.226			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-4.010	-			
• Other Adjustments	-	-	-376.419	-	-376.419

Change Summary Explanation

FY 2013: Congressional Directed Reduction: Space Fence Contract Award Delay (-\$37.1M)

FY 2014: Congressional Directed Reduction: Space Fence Contract Award Delay (-\$50M); Sequestration reduction (-\$35.226M)

FY 2015: Space Fence reduced due to Contract Award delay now planned for 3QFY 2014(-\$164.569M)

FY 2015-2019: All remaining Space Fence funding in FY15 and out has been moved to stand alone Program Element(0604426F)

FY 2015: Funds added for C-Band Radar. (+\$2.4M)

FY 2016-2019: Funds added for SBSS Follow-On (+\$251.7)

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014																														
Appropriation/Budget Activity 3600 / 5					R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>				Project (Number/Name) 65A006 / <i>Space Based Space Surveillance</i>																															
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost																												
65A006: <i>Space Based Space Surveillance</i>	-	3.505	1.576	-	-	-	12.311	36.440	67.231	135.719	Continuing	Continuing																												
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-																														
<p># The FY 2015 OCO Request will be submitted at a later date.</p> <p>A. Mission Description and Budget Item Justification The Space-Based Space Surveillance (SBSS) Block 10 satellite was launched on 25 September 2010 and is currently operational.</p> <p>The SBSS Follow-On program will develop and deliver a system that continues providing space object surveillance from space post SBSS Block 10 End-of-Life. The Follow-On program is based upon the current SSA Initial Capabilities Document (ICD) architectural requirements focused on protecting High Value Assets (HVAs) in Geosynchronous orbit (GEO). It will provide the capability to search, detect, and track objects primarily in deep space GEO from a space-based sensor. Surveillance from space augments existing ground sensors with timely 24-hour, above the weather collection of GEO satellite metric data only possible with a space based sensor and then communicates its findings to the Joint Space Operations Center (JSpOC).</p> <p>B. Accomplishments/Planned Programs (\$ in Millions)</p> <table border="1"> <thead> <tr> <th></th> <th>FY 2013</th> <th>FY 2014</th> <th>FY 2015</th> </tr> </thead> <tbody> <tr> <td>Title: SBSS Follow-On Design & Development</td> <td align="right">3.505</td> <td align="right">1.576</td> <td align="center">-</td> </tr> <tr> <td>Description: Performs space based SSA analysis, research, and development for SBSS Follow-On space vehicle (SV).</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY 2013 Accomplishments: Conducted acquisition strategy planning and Space Situational Awareness (SSA) architecture analysis to support future generation space-based SSA capabilities.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY 2014 Plans: Lawrence Livermore National Laboratory (LLNL) is studying the potential for using the Space-based Telescope for Actionable Refinement of Ephemeris (STARE) effort to observe deep space objects.</td> <td></td> <td></td> <td></td> </tr> <tr> <td>FY 2015 Plans: SBSS Follow-On activities will resume in FY16.</td> <td></td> <td></td> <td></td> </tr> <tr> <td align="right">Accomplishments/Planned Programs Subtotals</td> <td align="right">3.505</td> <td align="right">1.576</td> <td align="center">-</td> </tr> </tbody> </table> <p>C. Other Program Funding Summary (\$ in Millions) N/A</p>														FY 2013	FY 2014	FY 2015	Title: SBSS Follow-On Design & Development	3.505	1.576	-	Description: Performs space based SSA analysis, research, and development for SBSS Follow-On space vehicle (SV).				FY 2013 Accomplishments: Conducted acquisition strategy planning and Space Situational Awareness (SSA) architecture analysis to support future generation space-based SSA capabilities.				FY 2014 Plans: Lawrence Livermore National Laboratory (LLNL) is studying the potential for using the Space-based Telescope for Actionable Refinement of Ephemeris (STARE) effort to observe deep space objects.				FY 2015 Plans: SBSS Follow-On activities will resume in FY16.				Accomplishments/Planned Programs Subtotals	3.505	1.576	-
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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A006 / <i>Space Based Space Surveillance</i>

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

Remarks

D. Acquisition Strategy

The SBSS Block 10 system is currently operational.

Architectural studies have been conducted to determine the best way to provide future space-based space surveillance beyond the life of the current system.

The Acquisition Strategy for SBSS Follow-On is under development.

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.

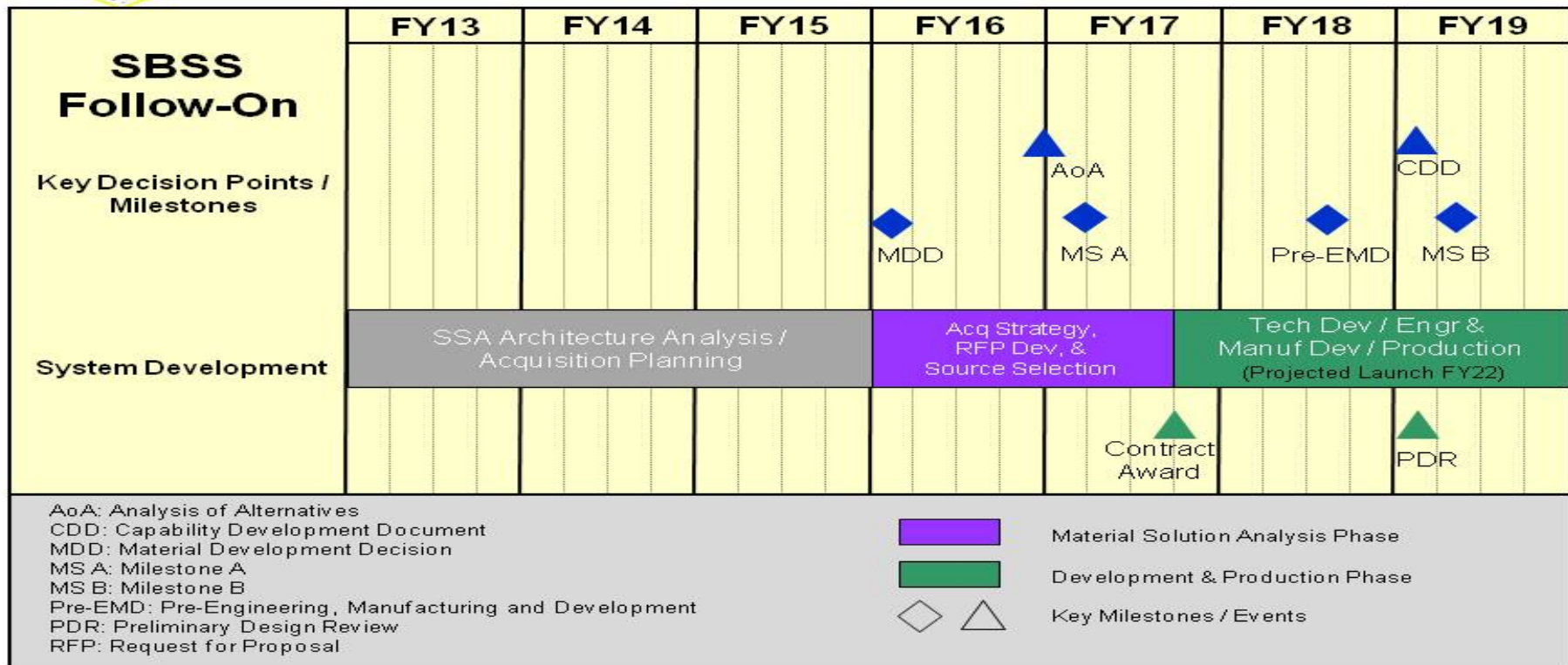
Appropriation/Budget Activity
3600 / 5

R-1 Program Element (Number/Name)
PE 0604425F / Space Situation Awareness
Systems

Project (Number/Name)
65A006 / Space Based Space Surveillance
Systems



SBSS Follow-On schedule



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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force **Date:** March 2014

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A009 / <i>Space Fence</i>
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COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
65A009: <i>Space Fence</i>	363.783	204.062	294.624	-	-	-	-	-	-	-	-	862.469
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-	-	

The FY 2015 OCO Request will be submitted at a later date.

Note

The Space Fence program (BPAC 65A009) moves to a new stand alone PE 0604426F in FY15 and beyond.

A. Mission Description and Budget Item Justification

The Space Fence effort will develop a system of ground-based sensors to improve upon the former Air Force Space Surveillance System (AFSSS), a Very High Frequency (VHF) radar operational from 1961 to 2013. The Space Fence will provide a more accurate and timely detection capability of smaller orbiting objects, primarily in low-earth orbit (LEO). The system will use higher frequency S-band radars at globally dispersed sites. As a result, it will greatly expand the uncued detection and tracking capacity of the Space Surveillance Network, from around 20,000 to up to 100,000+ objects, while working in concert with other network sensors.

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

	FY 2013	FY 2014	FY 2015
Title: Space Fence	204.062	294.624	-
Description: Develops S-band SSA radar system to provide detection and tracking capability of objects in LEO.			
FY 2013 Accomplishments: The Milestone Decision Authority (MDA) authorized release of the Request for Proposal for the Engineering, Manufacturing, and Development (EMD) contract in the first quarter of FY 2013. The program received Department approval of its candidate Critical Technology Elements and concurrence on the Technology Readiness Assessment. The Air Force conducted source selection and completed a Milestone B Defense Acquisition Board, and is currently awaiting MDA Acquisition Decision Memorandum (ADM) signature and approval to award the contract. The Air Force has awarded contracts for a Risk Reduction Study to study the flexible radar coverage capabilities of previous contractors' Preliminary Design Review (PDR) radar system designs.			
FY 2014 Plans: The EMD, Production and Deployment contract award is planned for FY 2014. The winning contractor will conduct EMD, Production and Deployment activities in support of integrated system design, culminating in a Critical Design Review (CDR) and start development of the Space Fence Operations Center (SOC) and Site 1 Radar hardware and software. The purchase of long lead items and the start of manufacturing will occur. Construction of Site 1 facilities will also begin.			
Accomplishments/Planned Programs Subtotals	204.062	294.624	-

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A009 / <i>Space Fence</i>

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

Line Item	FY 2013	FY 2014	FY 2015	FY 2015	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	Cost To	
			Base	OCO	Total					Complete	Total Cost
• RDTE: PE 0604426F: <i>Space Fence</i>	-	-	214.131	-	214.131	291.530	169.997	50.671	5.361	-	-
• OPAF: BA03: 836830: <i>Space Fence</i>	-	-	-	-	-	-	-	-	47.000	Continuing	Continuing
• N/A (2): <i>N/A (2)</i>	-	-	-	-	-	-	-	-	-	-	-

Remarks

D. Acquisition Strategy

Lockheed Martin and Raytheon successfully completed contracts for development through a Preliminary Design Review. In FY 2013, a full and open competition was conducted and Milestone B for Increment 1 was held and is pending 2366b certification and ADM approval. A single EMD, Production and Deployment contract will be awarded in FY 2014. The contract will take a single contractor through Critical Design Review, fabrication, integration, test, production and deployment, with up to two years of Interim Contractor Support (ICS). The program will utilize a two increment approach. Increment 1/Initial Operational Capability (IOC) will consist of successful operations at the first radar site located in the Kwajalein Atoll and the Space Operations Center (SOC) at a CONUS location. Increment 2 will include completion of the second radar at a location which is to be determined pending negotiations with the proposed host nation.

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 2015 Air Force **Date:** March 2014

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A009 / <i>Space Fence</i>
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Product Development (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Design and development (Lockheed Martin)	C/FFP	Lockheed Martin : Moorestown, NJ	30.000	-		-		-		-		-	-	30.000	30.000
Design and development (Northrop Grumman)	C/FFP	Northrop Grumman : Linthicum Heights, MD	16.023	-		-		-		-		-	-	16.023	15.922
Design and development (Raytheon)	C/FFP	Raytheon : Sudbury, MA	30.000	-		-		-		-		-	-	30.000	30.000
System design and prototyping (Lockheed Martin)	C/FFP	Lockheed Martin : Moorestown, NJ	111.689	-		-		-		-		-	-	111.689	111.734
System design and prototyping (Raytheon)	C/FFP	Raytheon : Sudbury, MA	111.582	-		-		-		-		-	-	111.582	111.615
System development	C/FPIF	TBD : TBD,	0.000	180.069	May 2014	278.009	May 2014	-		-		-	-	458.078	1,255.000
Risk Reduction Study (Raytheon)	C/FFP	Raytheon : Sudbury, MA	0.000	4.950	Dec 2013	-		-		-		-	-	4.950	-
Risk Reduction Study (Lockheed Martin)	C/FFP	Lockheed Martin : Moorestown, NJ	0.000	4.947	Dec 2013	-		-		-		-	-	4.947	-
Subtotal			299.294	189.966		278.009		-		-		-	-	767.269	-

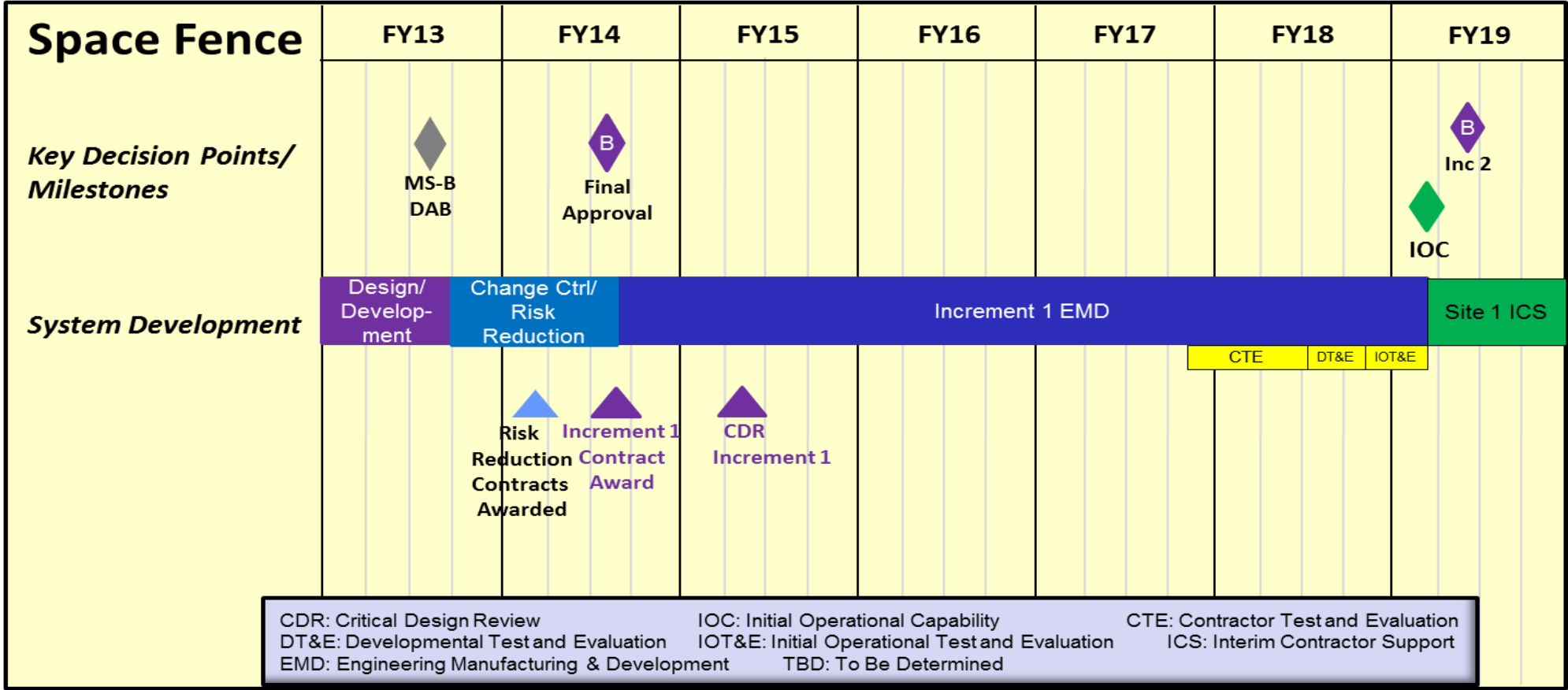
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Various (Independent Program Assessment, site survey, travel, software, SATAF)	Various	Various : Various,	1.099	0.136	Oct 2012	0.506	Oct 2013	-		-		-	-	1.741	-
Design Oversight and Management (Software Engineering Institute)	SS/FP	Carnegie Mellon University : Pittsburgh, PA	0.130	0.105	Aug 2013	0.478	Nov 2013	-		-		-	-	0.713	-
Design Oversight and Management (MITRE)	SS/FP	MITRE Corp : Bedford, MA	13.925	4.969	Nov 2012	4.934	Nov 2013	-		-		-	-	23.828	-







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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Air Force												Date: March 2014			
Appropriation/Budget Activity				R-1 Program Element (Number/Name)				Project (Number/Name)							
3600 / 5				PE 0604425F / Space Situation Awareness Systems				65A009 / Space Fence							
Support (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
Design Oversight and Management (MIT/LL)	SS/FP	MIT Lincoln Laboratory : Lexington, MA	14.125	1.300	Nov 2012	2.544	Nov 2013	-		-		-	-	17.969	-
Subtotal			29.279	6.510		8.462		-		-		-	-	44.251	-
Test and Evaluation (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
Test - 46th Test Group	PO	46th Test Group : Eglin AFB, FL	0.259	0.687	Jan 2013	0.989	Jan 2014	-		-		-	-	1.935	-
Test - Joint Interoperability Test Command	MIPR	Joint Interoperability Test Command : Fort Huachuca, AZ	0.023	-		0.023	Jan 2014	-		-		-	-	0.046	-
Subtotal			0.282	0.687		1.012		-		-		-	-	1.981	-
Management Services (\$ in Millions)				FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 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
Program Office Support (Infrastructure) (PMA)	Various	Various : Various,	13.533	2.551	Dec 2012	3.277	Oct 2013	-		-		-	-	19.361	-
Program Office Support, Technical Studies and Analysis, Systems Engineering and Integration Management (PMA)	Various	Various : Various,	5.664	0.638	Oct 2012	0.591	Oct 2013	-		-		-	-	6.893	-
Development Review and Management (Odyssey) (PMA)	C/CPFF	Odyssey Systems : Wakefield, MA	7.348	1.999	Nov 2012	1.590	Dec 2013	-		-		-	-	10.937	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A009 / <i>Space Fence</i>



 Concept activities	 Design/development	 Integration/test
 Production/fielding	 Operations/Interim Contractor Support	 Key events

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A009 / <i>Space Fence</i>

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Milestone B Increment 1	3	2013	3	2014
Contract Award Increment 1	3	2014	3	2014
Critical Design Review (CDR) Increment 1	2	2015	2	2015
Initial Operational Capability (IOC) Increment 1	1	2019	1	2019
Milestone B Increment 2	2	2019	2	2019

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600 / 5					R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>				Project (Number/Name) 65A012 / <i>Net-centric Sensors and Data Sources</i>			
COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
65A012: <i>Net-centric Sensors and Data Sources</i>	53.293	10.471	10.771	7.092	-	7.092	-	-	-	-	-	81.627
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

A. Mission Description and Budget Item Justification

Net-centric Sensors and Data Sources (N-CSDS) efforts migrate the Space Surveillance Network, non-traditional SSA sensors and data sources for use by any entity (primarily the Joint Space Operations Center (JSpOC)) into a net-centric enterprise, enabling more rapid distribution of data to the warfighter based on an AFSPC provided prioritization list. This effort will define and implement the technical architecture, and support the concept to provide the foundational data necessary to enable rapid, responsive decisions by the Commander, United States Strategic Command's Joint Functional Component Commander for Space (JFCC Space) and other national capability users to detect, evaluate, attribute space events. This effort builds upon and operationalizes the successful Extended Space Sensor Architecture Advanced Concept Technology Demonstration (ESSA ACTD) and prototypes how disparate and legacy space sensor network data can be translated into a net-centric operating environment. Data will be exposed as defined by published DoD and community interface standards to ensure technical interoperability.

Data exposed from Space Situational Awareness (SSA) sensors and other non-traditional data sources via N-CSDS effort will be integrated into the JMS program (PE 0305614F).

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

Title: SENSOR & DATA INTEGRATION & EXPOSURE	FY 2013	FY 2014	FY 2015
Description: Providing Data Exposure and Data Source Integration Net-Centrally for consumption and use by the JSpOC and other users	10.471	10.771	7.092
FY 2013 Accomplishments: Delivered final versions of source road mapping. Completed developmental test and evaluation (DT&E) for sustainable sidecar to Socorro Ground-Based Electro-Optical Deep Space Surveillance (GEODSS) site. Deployed Blue Force Status (BFS) operational version for Wideband Global SATCOM (WGS). Initiated sustainment of existing Air Force Satellite Control Network (AFSCN) Link Protection System (ALPS). Continued maturation of the common data model.			
FY 2014 Plans: Deliver STSS data and begin exposure of classified data source (Concept J) data to JSpOC. Continue maturation of the common data model. Continue effort to expose classified data source (Concept C) to JSpOC.			
FY 2015 Plans:			

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B. Accomplishments/Planned Programs (\$ in Millions)	FY 2013	FY 2014	FY 2015
Complete exposure of two classified data sources (Concept C and Concept J) and complete GEODSS net-centric delivery. Exposure of two "other" non-traditional data sources.			
Accomplishments/Planned Programs Subtotals	10.471	10.771	7.092

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
• OPAF: BA03: 836790: <i>Space Mods Space</i>	-	4.036	4.549	-	4.549	4.550	-	-	-	-	19.110

Remarks

D. Acquisition Strategy

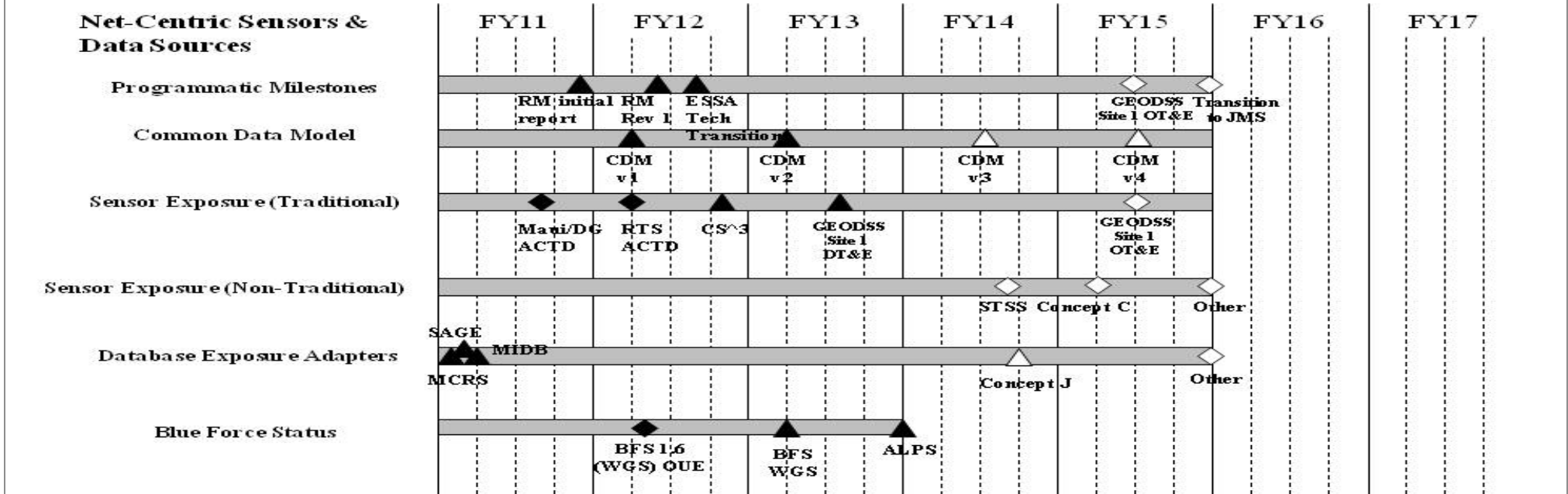
Sensor and data sources activities utilize existing engineering and study contracts and a competitively selected system engineering team.

E. Performance Metrics

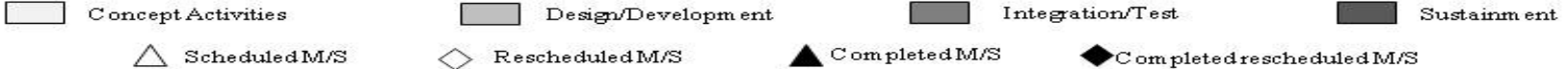
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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A012 / <i>Net-centric Sensors and Data Sources</i>



AFSCN: Air Force Satellite Control Network ALPS: AFSCN Link Protection System BFS: Blue Force Status
 CDM: Common Data Model MIDB: Modernized Integrated Database RTS: Regan Test Site
 GEODSS: Ground Based Electro-Optical Deep Space Surveillance Maui/DG: Maui/Diego Garcia (GEODSS)
 MCRS: Mission Critical Reporting System SAGE: Space Awareness & Global Exploitation
 SST: Space Surveillance Telescope STSS: Space Tracking & Surveillance System



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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force **Date:** March 2014

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A026 / <i>C-Band Radar</i>
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COST (\$ in Millions)	Prior Years	FY 2013	FY 2014	FY 2015 Base	FY 2015 OCO #	FY 2015 Total	FY 2016	FY 2017	FY 2018	FY 2019	Cost To Complete	Total Cost
65A026: <i>C-Band Radar</i>	-	7.800	7.654	2.370	-	2.370	0.890	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

The FY 2015 OCO Request will be submitted at a later date.

Note

This project received Congressional approval to begin in FY 2013 through both the FY 2013 National Defense Authorization Act and the FY 2013 Consolidated and Further Continuing Appropriations Act.

A. Mission Description and Budget Item Justification

A Memorandum of Understanding (MOU) between the United States Air Force and the Australian Department of Defence was signed by the United States Secretary of Defense and the Australian Minister for Defence on November 14, 2012 to support this international effort to provide an improved space situational awareness capability in the Australian geographic area. The MOU includes description of the need for Australian funding for part of the relocation project. The project will relocate a C-Band radar to Harold E. Holt Naval Communications Station (HEH NCS) in Australia and upgrade it to perform a Space Situational Awareness (SSA) mission. When completed, the radar will provide data for catalog maintenance, space object identification, and support for special events (e.g., space launches, satellite breakups, and maneuvers).

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it is conducting engineering and manufacturing development tasks.

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

	FY 2013	FY 2014	FY 2015
Title: C-Band Radar	7.800	7.654	2.370
Description: Relocates a C-Band Radar to HEH NCS in Australia and upgrades it to perform a Space Situational Awareness (SSA) mission.			
FY 2013 Accomplishments: MIT Lincoln Laboratory performed SSA development activities; the first of two construction phases was completed at HEH NCS.			
FY 2014 Plans: Software and hardware upgrades are continuing; The radar is being disassembled, shipped and reassembled in Australia.			
FY 2015 Plans: System upgrades will continue and Developmental Test and Evaluation will begin.			
Accomplishments/Planned Programs Subtotals	7.800	7.654	2.370

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Exhibit R-2A, RDT&E Project Justification: PB 2015 Air Force		Date: March 2014
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u> <u>Base</u>	<u>FY 2015</u> <u>OCO</u>	<u>FY 2015</u> <u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• N/A: None	-	-	-	-	-	-	-	-	-	-	-

Remarks

D. Acquisition Strategy

This project will utilize a mix of experienced contractors, FFRDC and Air National Guard resources to upgrade the C-Band system and complete the relocation to Australia.

The MOU between the United States Air Force and the Australian Department of Defence includes the need for Australian funding for part of the relocation project. Site renovation in Australia began in FY 2013 as Australian funding became available as reflected on the attached schedule.

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-4, RDT&E Schedule Profile: PB 2015 Air Force **Date:** March 2014

Appropriation/Budget Activity 3600 / 5	R-1 Program Element (Number/Name) PE 0604425F / <i>Space Situation Awareness Systems</i>	Project (Number/Name) 65A026 / <i>C-Band Radar</i>
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