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

R-1 Program Element (Number/Name)

Date: March 2014

Appropriation/Budget Activity
3600: Research, Development, Test & Evaluation, Air Force I BA 5: System

PE 0604426F / Space Fence

Development & Demonstration (SDD)

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	0.000	-	-	214.131	-	214.131	291.530	169.997	50.671	5.361	-	731.690
65A009: Space Fence	0.000	-	-	214.131	-	214.131	291.530	169.997	50.671	5.361	-	731.690
Quantity of RDT&E Articles	-	-	-	-	-	-	-	1.000	-	-		

MDAP/MAIS Code: 438

Note

In 2015, Project 65A009, Space Fence efforts were transistioned from PE 0604425F - Space Situational Awareness Systems, Project 65A009 in order to improve transparancy for ACAT I acquisition programs.

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. Requirements are identified in the June 2012 approved Space Fence Capabilities Development Document.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it has passed Milestone B approval and is conducting engineering and manufacturing 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	-	-	-	-	-
Current President's Budget	-	-	214.131	-	214.131
Total Adjustments	-	-	214.131	-	214.131
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
 SBIR/STTR Transfer 	-	-			
Other Adjustments	-	-	214.131	-	214.131

PE 0604426F: Space Fence

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

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

Date: March 2014

EV 2044

EV 2042

Appropriation/Budget Activity

3600: Research, Development, Test & Evaluation, Air Force I BA 5: System

Development & Demonstration (SDD)

R-1 Program Element (Number/Name) PE 0604426F / Space Fence

Change Summary Explanation

C Accomplishments/Planned Programs (\$ in Millions)

FY15: Program transistioned from PE 0604425F - SSA Systems, project 65A009 in order to improve transparancy for ACAT I acquisition programs.

C. Accomplishments/Planned Programs (\$ in Millions)	FY 2013	FY 2014	FY 2015
Title: Space Fence	-	-	214.131
Description: Develops S-band SSA radar system to provide detection and tracking capability of objects in Low Earth Orbit.			
FY 2013 Accomplishments: FY13 Funds were executed in PE 0604425F Space Situational Awareness Systems.			
FY 2014 Plans: FY14 Funds were executed in PE 0604425F Space Situational Awareness Systems.			
FY 2015 Plans: Will continue EMD, Production and Deployment activities. This includes the continued construction of Site 1 facilities; continued manufacturing and integration of radar components and assemblies; and the further development and integration of the Space Fence Operations Center (SOC) and Site 1 Radar hardware and software. SOC facility preparation will also begin.			
Accomplishments/Planned Programs Subtotals	-	-	214.131

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

			FY 2015	FY 2015	FY 2015					Cost To	
<u>Line Item</u>	FY 2013	FY 2014	Base	OCO	<u>Total</u>	FY 2016	FY 2017	FY 2018	FY 2019	Complete	Total Cost
 OPAF: BA03: Line Item 	-	-	-	-	-	-	-	-	47.000	63.800	110.800
# 836830: Space Fence											
RDTE: BA05: PE	204.062	294.624	_	-	_	_	_	_	_	_	-

0604425F: Space Situation Awareness Systems

Remarks

E. Acquisition Strategy

Lockheed Martin and Raytheon successfully completed contracts for development through a Preliminary Design Review. In FY13, 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 Engineering, Manufacturing, and Development (EMD), Production and Deployment contract will be awarded in FY14. The contract will take a single contractor through Critical Design Review (CDR), 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 Fence Operations Center

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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force		Date: March 2014
Appropriation/Budget Activity 8600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 0604426F / Space Fence	
(SOC) at a CONUS location. Increment 2 will include completion of the seconnation.	nd radar at a location which is to be determined pending	negotiations with the proposed host
F. Performance Metrics		
Please refer to the Performance Base Budget Overview Book for information Force performance goals and most importantly, how they contribute to our m		resources are contributing to Air

PE 0604426F: *Space Fence* Air Force

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Exhibit R-3, RDT&E F	Project C	ost Analysis: PB 2	.015 Air F	orce								Date:	March 20	14	
Appropriation/Budge 3600 / 5	t Activity	1				R-1 Program Element (Number/Name) PE 0604426F / Space Fence Project (Number/Name) 65A009 / Space Fence									
Product Developmen	nt (\$ in Mi	illions)		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	Total Cost	Target Value of Contract
System Development	C/FPIF	TBD : TBD,	0.000	-		-		201.910	Oct 2014	-		201.910	478.090	680.000	-
		Subtotal	0.000	-		-		201.910		-		201.910	478.090	680.000	-
Support (\$ in Millions	s)			FY 2	2013	FY:	2014		2015 ise		2015 CO	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
Various (Independent Program Assessment, site survey, travel, software, SATAF)	Various	Various : Various,	0.000	-		-		0.479	Oct 2014	-		0.479	1.483	1.962	3.21
Design Oversight and Management (Software Engineering Institute)	SS/FP	Carnegie Mellon : Pittsburgh, PA	0.000	-		-		0.478	Nov 2014	-		0.478	-	0.478	1.19
Design Oversight and Management (MITRE)	SS/FP	MITRE Corp : Bedford, MA	0.000	-		-		2.899	Oct 2014	-		2.899	11.237	14.136	31.58
Design Oversight and Management (MIT/LL)	SS/FP	MIT Lincoln Laboratory : Lexington, MA	0.000	-		-		1.438	Nov 2014	-		1.438	5.789	7.227	23.18
		Subtotal	0.000	-		-		5.294		-		5.294	18.509	23.803	59.18
Test and Evaluation	(\$ in Milli	ons)		FY 2	2013	FY:	2014		2015 ise		2015 CO	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	Total Cost	Target Value of Contract
Test - 46th Test Group	PO	46th Test Group : Eglin AFB, FL	0.000	-		-		1.918	Jan 2015	-		1.918	3.127	5.045	6.98
Test - Joint Interoperability Test Command	MIPR	Joint Interoperability Test Command : Fort Huachuca, AZ	0.000	-		-		0.023	Jan 2015	-		0.023	0.370	0.393	0.464
		Subtotal	0.000	-		-		1.941		-		1.941	3.497	5.438	7.44

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2015 Air Force

R-1 Program Element (Number/Name)

Project (Number/Name)

Date: March 2014

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PE 0604426F / Space Fence

65A009 l Space Fence

Management Service	es (\$ in M	lillions)		FY 2	2013	FY	2014		2015 ase		2015 CO	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		Total Cost	Target Value of Contract
Program Office Support (Infrastructure) (PMA)	Various	Various : Various,	0.000	-		-		2.000	Oct 2014	-		2.000	5.122	7.122	26.074
Program Office Support, Technical Studies and Analysis, Systems Engineering and Integration Management (PMA)	Various	Various : Various,	0.000	-		-		0.596	Oct 2014	-		0.596	1.859	2.455	9.067
Development Review and Management (Odyssey) (PMA)	C/CPIF	Odyssey Systems : Wakefield, MA	0.000	-		-		1.188	Dec 2014	-		1.188	4.944	6.132	13.208
Development Review and Management (Jacobs) (PMA)	C/CPFF	Jacobs Technology : Tullehoma, TN	0.000	-		-		1.202	Dec 2014	-		1.202	5.538	6.740	17.009
		Subtotal	0.000	-		-		4.986		-		4.986	17.463	22.449	65.358
			Prior					FV.	2015	FV.	2015	EV 2015	Cost To	Total	Target

	Prior Years	FY 20	013	FY 2	2014	FY 2	2015 Ise		2015 CO	FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	-		-		214.131		-		214.131	517.559	731.690	-

Remarks

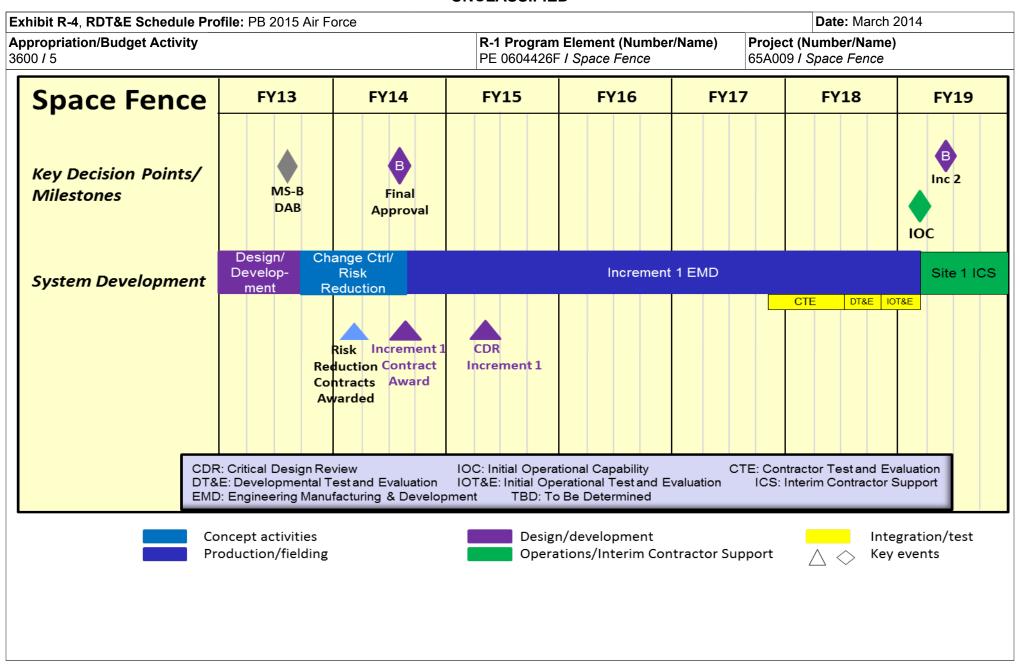
Prior to FY15 all funds were executed and reported in PE 0604225F (Space Situational Awareness Systems)

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Exhibit R-4A, RDT&E Schedule Details: PB 2015 Air Force			Date: March 2014
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
3600 / 5	PE 0604426F / Space Fence	65A009 / S	Space Fence

Schedule Details

	St	art	End		
Events	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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