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Exhibit R-2, RDT&E Budget Item Justification: PB 2015 Air Force										Date: March 2014		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 5: System Development & Demonstration (SDD)					R-1 Program Element (Number/Name) PE 0605431F I Advanced EHF MILSATCOM (SPACE)							
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	-	265.634	314.378	-	314.378	258.378	246.915	226.868	668.545	Continuing	Continuing
657103: Advanced MILSATCOM	0.000	-	183.134	192.038	-	192.038	63.861	21.485	-	-	-	460.518
657104: Evolved AEHF MILSATCOM (EAM)	0.000	-	82.500	122.340	-	122.340	194.517	225.430	226.868	668.545	Continuing	Continuing
MDAP/MAIS Code: 261												
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
In FY2015, Project 657104, Evolved AEHF MILSATCOM, includes one new start effort.												
In FY2014, Project 657103, Advanced MILSATCOM, and Project 657104, Evolved AEHF MILSATCOM, efforts transferred from PE 0603430F, Advanced EHF MILSATCOM (Space), Project 644050, Advanced MILSATCOM, and Project 64A030, Evolved AEHF MILSATCOM, in order to transition to Budget Activity 5.												
A. Mission Description and Budget Item Justification												
Develop and acquire Advanced Extremely High Frequency (AEHF) Military Satellite Communications (MILSATCOM) satellites, mission control segment and cryptography for survivable, anti-jam, worldwide, secure communications for the strategic and tactical warfighters. AEHF satellites will replenish the existing EHF system (Milstar) providing much higher capacity and data rate (5x increase over Milstar II) capabilities. AEHF is a cooperative program that includes International Partners (Canada, the United Kingdom, and the Kingdom of the Netherlands).												
Space Vehicle-1 (SV-1) launched on 14 August 2010. SV-1 experienced a propulsion anomaly and was raised to its geostationary orbit using alternative orbit raising techniques. SV-1 completed on-orbit test and transitioned to operations in March 2012. SV-2 launched on 4 May 2012, successfully completed on-orbit testing in October 2012, and is under operational control as of 7 Nov 2012.												
With SV-1 and SV-2 launched, the AEHF program has nearly completed its development phase and is now addressing obsolescence, production continuity, supplier stability and industrial base issues. AEHF SV 5-6 are being procured using the Department of Defense (DoD) Efficient Space Procurement (ESP) concept. The ESP concept is a procurement approach which seeks stable production and efficient sub-contractor product management through the block buy of two space vehicles at one time (as described in Advanced EHF MILSATCOM P-40 Exhibit).												
In addition, the ESP concept includes use of RDT&E funding for a MILSATCOM Space Modernization Initiative (SMI), to fund engineering activities to reduce future production costs through manufacturing and producibility enhancements, improve capabilities through insertion of new technologies, and replace obsolete parts, crypto and materials. The SV-6 crypto redesign funding is reported in the AEHF (SV 5-6 Subprogram) Acquisition Program Baseline; the remaining SMI efforts are not part of the AEHF Major Defense Acquisition Program. The SMI efforts will provide opportunities for competition to develop potential technology upgrades at the component												

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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 0605431F / <i>Advanced EHF MILSATCOM (SPACE)</i>
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and system level for future satellites of the current or any follow-on system. SMI efforts will include obsolescence management and mitigation, technology maturation, new components' qualification, subsystem and component prototyping, architecture and system concept studies (to include hosted payloads), and pathfinder efforts to address MILSATCOM capability gaps identified in the Joint Space Communications Layer (JSCL) Initial Capabilities Document (ICD) and the "Resilient Basis for SATCOM in Joint Operations" study, and currently being assessed in the Protected Satellite Communications Services (PSCS) Analysis of Alternatives (AoA). The purpose of the PSCS AoA is to evaluate alternative space and control segment architectures, along with the associated user segment, to address the required protected satellite communications capabilities in the nuclear, contested, and benign operating environments.

This program is in Budget Activity 5, System Development and Demonstration (SDD) because it 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	-	272.872	236.934	-	236.934
Current President's Budget	-	265.634	314.378	-	314.378
Total Adjustments	-	-7.238	77.444	-	77.444
• Congressional General Reductions	-	-0.238			
• Congressional Directed Reductions	-	-7.000			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-	-			
• Other Adjustments	-	-	77.444	-	77.444

Change Summary Explanation

FY14 Congressional Directed Reduction: -\$7.0M, ahead of need / excess growth in hosted payload and business operations support.

FY15 Other Adjustment row: +\$58.367M for Interim Contractor Support (ICS) extension required due to Initial Operational Capability (IOC) slip from Dec 2014 to Jun 2015; +\$17.0M to fully fund the SMI Protected Tactical demonstration; +\$6.0M to initiate the Evolved AEHF Strategic only effort (FY15 new start), -\$3.923M inflation adjustment

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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 0605431F / Advanced EHF MILSATCOM (SPACE)				Project (Number/Name) 657103 / Advanced MILSATCOM			
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
657103: Advanced MILSATCOM	-	-	183.134	192.038	-	192.038	63.861	21.485	-	-	-	460.518
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
In FY2014, Project 657103, Advanced MILSATCOM, efforts were transferred from PE 0603430F, Advanced EHF MILSATCOM (Space), Project 644050, Advanced MILSATCOM, in order to transition to Budget Activity 5.												
A. Mission Description and Budget Item Justification												
Develop and acquire Advanced Extremely High Frequency (AEHF) Military Satellite Communications (MILSATCOM) satellites, mission control segment and cryptography for survivable, anti-jam, worldwide, secure communications for the strategic and tactical warfighters. AEHF satellites will replenish the existing EHF system (Milstar) providing much higher capacity and data rate (5x increase over Milstar II) capabilities.												
AEHF is a cooperative program that includes International Partners (Canada, the United Kingdom, and the Kingdom of the Netherlands).												
Space Vehicle-1 (SV-1) launched on 14 August 2010. SV-1 experienced a propulsion anomaly and was raised to its geostationary orbit using alternative orbit raising techniques. SV-1 completed on-orbit test and transitioned to operations in March 2012. SV-2 launched on 4 May 2012, successfully completed on-orbit testing in October 2012, and is under operational control as of 7 Nov 2012.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015	
Title: AEHF SVs 1-2, MCS									-	9.256	-	
Description: Maintain AEHF MILSATCOM satellites, mission control segment, and cryptography												
FY 2013 Accomplishments: Not applicable.												
FY 2014 Plans: Funds System Development and Demonstration (SDD) contract Incentive Fee and continue program office support and related activities, and conduct studies/analyses, as required.												
FY 2015 Plans: Not applicable.												
Title: AEHF Interim Contractor Support (ICS)									-	115.078	125.172	

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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 0605431F / Advanced EHF MILSATCOM (SPACE)	Project (Number/Name) 657103 / Advanced MILSATCOM		
B. Accomplishments/Planned Programs (\$ in Millions)		FY 2013	FY 2014	FY 2015
Description: Funds ICS for AEHF satellites, Mission Control Segment (MCS), Cryptography, and AEHF Calibration Facility (ACF) until Initial Operational Capability (IOC) declaration FY 2013 Accomplishments: Not applicable. FY 2014 Plans: Conduct ICS for SV-1 and SV-2 on-orbit support, MCS, AEHF Key Management Architecture (KMA) and ACF sustainment. FY 2015 Plans: Continue ICS for AEHF satellites' on-orbit support, MCS, AEHF KMA, and ACF leading to a 3QFY2015 IOC.				
Title: AEHF Key Management Infrastructure (KMI) transition Description: Develop and conduct systems engineering, integration and test of the Protected Key Management Architecture (PKMA). National Security Agency (NSA) will lead the development of the PKMA centralized elements. Enable testing and integration of AEHF Local Key Management functionality within the KMI client with the AEHF system. Initiate PKMA integration activities with the AEHF prime contractor and the Enhanced Polar System (EPS) Control and Planning Segment (CAPS) contractor. FY 2013 Accomplishments: Not applicable FY 2014 Plans: Develop and conduct systems engineering, integration and test of the Protected Key Management Architecture (PKMA). SPO will transfer funds to NSA for the development of the PKMA centralized elements, and will enable testing and integration of the AEHF Local Key Management functionality within the KMI client with the AEHF system. SPO will also initiate PKMA integration activities with the AEHF prime contractor, Lockheed Martin, and the EPS CAPS contractor, Northrop Grumman Information Systems. FY 2015 Plans: Continue KMI transition. Develop and conduct systems engineering, integration and test of the Protected Key Management Architecture (PKMA). SPO will transfer funds to NSA for the development of the PKMA centralized elements, and will continue testing and integration of the AEHF Local Key Management functionality within the KMI client with the AEHF system. SPO will continue PKMA integration activities with the AEHF prime contractor, Lockheed Martin, and the EPS CAPS contractor, Northrop Grumman Information Systems.		-	58.800	66.866
Accomplishments/Planned Programs Subtotals		-	183.134	192.038

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Appropriation/Budget Activity 3600 / 5				R-1 Program Element (Number/Name) PE 0605431F / Advanced EHF MILSATCOM (SPACE)				Project (Number/Name) 657103 / Advanced MILSATCOM			
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
• RDT&E: BA04: PE 0603430F: Advanced EHF MILSATCOM (Space)	138.183	-	-	-	-	-	-	-	-	-	138.183
• MPAF: BA05: Line Item # ADV555: Advanced EHF TOA	476.575	328.350	298.890	-	298.890	335.786	656.455	57.794	29.784	47.650	2,231.284
• RDT&E: BA05: PE 0605433F: Wideband Global SATCOM (Space)	-	12.489	16.425	-	16.425	16.615	17.727	18.275	18.624	Continuing	Continuing
Remarks											
Wideband Global SATCOM (Space) funding is within the Command and Control System - Consolidated (CCS-C) project.											
D. Acquisition Strategy											
The Advanced MILSATCOM, also known as Advanced EHF (AEHF), program is a sole source acquisition to a contractor team comprised of Lockheed Martin (prime/integrator) and Northrop-Grumman (provider of the satellite payload). This team will perform the Advanced Component Development and Prototypes (ACD&P) and Systems Development and Demonstration (SDD) of two RDT&E-funded satellites and associated mission command and control ground capabilities under Cost Plus Award Fee line items on the contract. AEHF will incorporate lessons learned and improvements from Milstar and commercial SATCOM practices into the next generation EHF secure, anti-jam military communications satellite system.											
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 0605431F / Advanced EHF MILSATCOM (SPACE)				Project (Number/Name) 657103 / Advanced MILSATCOM					
Product Development (\$ 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
Crypto Interim Contractor Support	MIPR	Cryptologic Sys Group : San Antonio, TX	0.000	-		10.200	Mar 2014	10.200	Mar 2015	-		10.200	-	20.400	-
AEHF Interim Contractor Support	SS/CPIF	Lockheed Martin : Sunnyvale, CA	0.000	-		94.260	Dec 2013	98.406	Dec 2014	-		98.406	-	192.666	-
GFP - AEHF Calibration Facility (ACF)	Various	Lincoln Labs : Lexington, MA	0.000	-		10.618	Dec 2013	10.618	Dec 2014	-		10.618	-	21.236	-
New KMI component development	MIPR	NSA : Ft Meade, MD	0.000	-		46.300	Dec 2013	52.243	Dec 2014	-		52.243	62.094	160.637	-
Install/Integrate/Test new AEHF KMI components	SS/FP	Lockheed Martin : Sunnyvale, CA	0.000	-		4.700	Sep 2014	5.136	Dec 2014	-		5.136	7.515	17.351	-
Install/Integrate/Test new EPS KMI components	SS/CPAF	Northrop Grumman Information Systems : Redondo Beach, CA	0.000	-		3.800	Sep 2014	4.345	Dec 2014	-		4.345	5.439	13.584	-
Test new KMI hardware/ software	MIPR	AFLCMC : San Antonio, TX	0.000	-		3.500	Apr 2014	4.642	Dec 2014	-		4.642	9.298	17.440	-
Subtotal			0.000	-		173.378		185.590		-		185.590	84.346	443.314	-
Remarks FY14 funds transferred from PE 0603430F, Project 644050.															
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
Subtotal			-	-		-		-		-		-	-	-	-

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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 0605431F / <i>Advanced EHF MILSATCOM (SPACE)</i>				Project (Number/Name) 657103 / <i>Advanced MILSATCOM</i>					

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
Development Test and Evaluation support	Various	Various : Various,	0.000	-		0.250	Dec 2013	-		-		-	-	0.250	-
Subtotal			0.000	-		0.250		-		-		-	-	0.250	-

Remarks FY14 funds transferred from PE 0603430F, Project 644050.															
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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
AEHF FFRDC (PMA)	RO	The Aerospace Corporation : El Segundo, CA	0.000	-		5.019	Dec 2013	3.789	Dec 2014	-		3.789	1.000	9.808	-
Business Operating Support Services & Acquisition Mission Support (PMA)	Various	Various : Various,	0.000	-		4.487	Dec 2013	2.659	Dec 2014	-		2.659	-	7.146	-
Subtotal			0.000	-		9.506		6.448		-		6.448	1.000	16.954	-

Remarks FY14 funds transferred from PE 0603430F, Project 644050.															
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			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		183.134		192.038		-		192.038	85.346	460.518	-

Remarks															
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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)

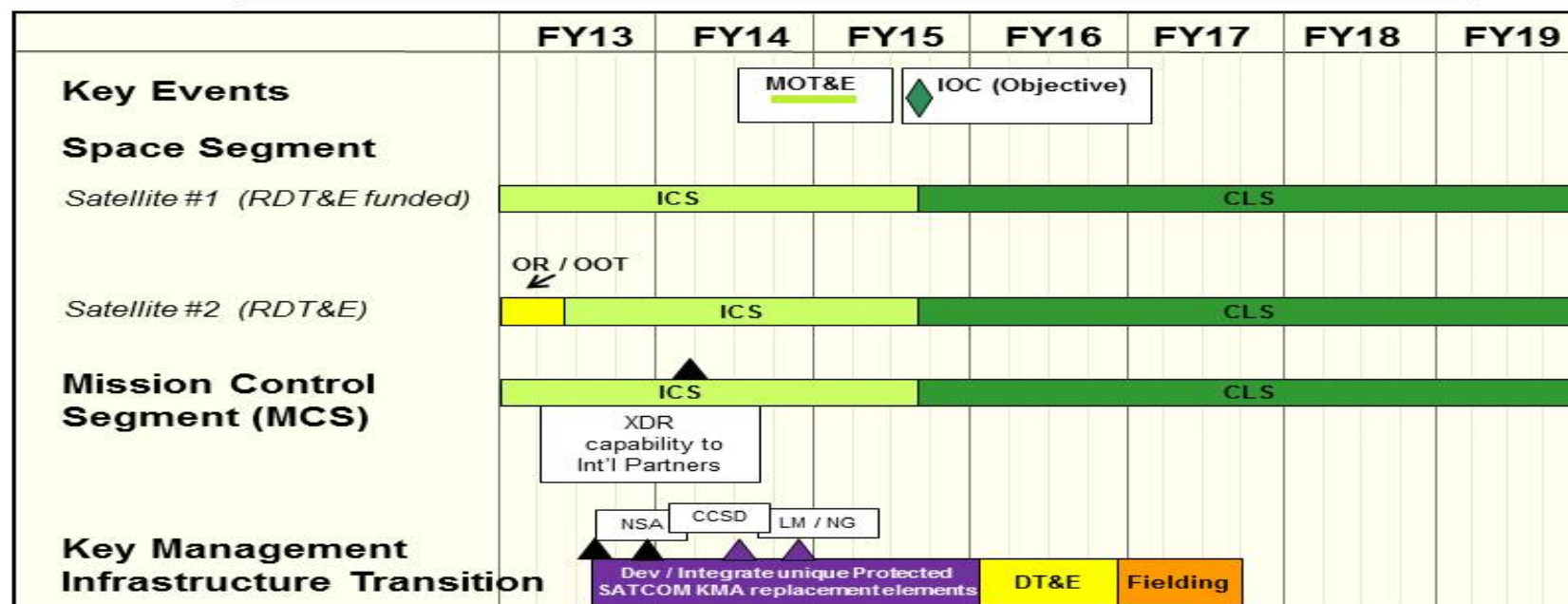
PE 0605431F / Advanced EHF

MILSATCOM (SPACE)

Project (Number/Name)

657103 / Advanced MILSATCOM

These efforts are funded in Project 657103 beginning FY14.
Prior to FY14 these efforts are funded in Project 644050.



CCSD: Cryptologic & Cyber Systems Division
ICS: Interim Contractor Support
LM: Lockheed Martin
NSA: National Security Agency
XDR: eXtended Data Rate

CLS: Contractor Logistics Support
IOC: Initial Operational Capability
MOT&E: Multiservice Operational Test & Evaluation
OR/OOT: Orbit Raising /On-orbit Test

DT&E: Developmental Test & Evaluation
KMA: Key Management Architecture
NG: Northrop Grumman
SATCOM: Satellite Communications

△◇ 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 0605431F / <i>Advanced EHF MILSATCOM (SPACE)</i>	Project (Number/Name) 657103 / <i>Advanced MILSATCOM</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Deliver Ground Segment Software Increment 7.5 (eXtended Data Rate capability to International Partners)	1	2014	1	2014
Award Cryptologic & Cyber Systems Division (CCSD) PKMA contract	3	2014	3	2014
Award LM/NG PKMA Integration & Test contract	4	2014	4	2014
Multiservice Operational Test and Evaluation (MOT&E)	4	2014	1	2015
Initial Operational Capability (IOC) objective	3	2015	3	2015
PKMA development complete	3	2016	3	2016
Operations Transition to PKMA	2	2017	2	2017
Operations Acceptance of PKMA	4	2017	4	2017

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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 0605431F / Advanced EHF MILSATCOM (SPACE)				Project (Number/Name) 657104 / Evolved AEHF MILSATCOM (EAM)			
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
657104: Evolved AEHF MILSATCOM (EAM)	-	-	82.500	122.340	-	122.340	194.517	225.430	226.868	668.545	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
# The FY 2015 OCO Request will be submitted at a later date.												
Note												
In FY 2015, the Evolved AEHF Strategic only effort is a New Start.												
In FY2014, Project 657104, efforts were transferred from PE 0603430F, Advanced EHF MILSATCOM (Space), Project 64A030, Evolved AEHF MILSATCOM, in order to transition to Budget Activity 5.												
A. Mission Description and Budget Item Justification												
This project funds the MILSATCOM Space Modernization Initiative (SMI) strategy. The main focus of the SMI strategy is to achieve a more affordable and flexible Protected Communications enterprise that will be capable of meeting near-term and future protected MILSATCOM warfighting mission requirements. This enterprise will incorporate engineering and acquisition concepts that will achieve a more resilient protected communications payload(s), develop affordable terminals and define viable ground systems requirements. The SMI strategy will also invest in a variety of promising new technologies and engineering concepts that will evolve current and future MILSATCOM technologies. These efforts will include conducting an assortment of protected communication demonstrations, identifying practicable capabilities that will reduce parts and obsolescence risk to the AEHF constellation and explore reasonable acquisition approaches that will expand the commercial transponder coverage that is capable of meeting current and future wideband SATCOM demand.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015	
Title: AEHF SV-6 Flight Crypto & Future AEHF Parts Obsolescence Mitigation									-	20.000	20.000	
Description: AEHF SV-6 flight cryptographic equipment redesign effort and future AEHF parts obsolescence mitigation effort												
FY 2013 Accomplishments:												
Not applicable.												
FY 2014 Plans:												
Continues efforts such as SV-6 flight crypto redevelopment and mitigation of identified parts obsolescence that may affect the future stability of the AEHF product line, particularly the payload.												
FY 2015 Plans:												

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Appropriation/Budget Activity 3600 / 5		R-1 Program Element (Number/Name) PE 0605431F / <i>Advanced EHF MILSATCOM (SPACE)</i>		Project (Number/Name) 657104 / <i>Evolved AEHF MILSATCOM (EAM)</i>	
B. Accomplishments/Planned Programs (\$ in Millions)			FY 2013	FY 2014	FY 2015
Complete SV-6 flight crypto redevelopment and mitigation of AEHF parts/obsolescence efforts.					
Title: AEHF Capabilities Insertion Program (CIP) Description: Develop software that will increase the current AEHF constellation capacity by 10% and increase current AEHF terminal data rates with adaptive coding algorithms FY 2013 Accomplishments: Not applicable. FY 2014 Plans: Award AEHF CIP effort and conduct AEHF CIP System Design Review (SDR) and Demo. MIT/LL will conduct the Critical Design Review (CDR) for the Terminal Adaptive Coding Accelerator, an effort that builds upon previous study results to develop prototype boxes to interface with both the Navy's Navy Multiband Terminal (NMT) and the Army's SMART-T terminals to increase terminal data rates by up to 800%. Adaptive coding will be completed in FY14. FY 2015 Plans: AEHF CIP Preliminary Design Review (PDR), CDR and frequency reuse demo. Develop software simulations.			-	19.450	46.710
Title: Protected MILSATCOM "Design for Affordability" Description: Perform design for affordability studies, demonstrations, and technology risk reduction on critical technology elements for the space payload, terminals and networking segments, with a focus on the Protected Tactical Waveform. FY 2013 Accomplishments: Not applicable. FY 2014 Plans: Validate the Protected Broad Agency Announcement (BAA) Phase II results, develop Protected Tactical Waveform (PTW) compatibility test plan, conduct PTW modem tests, conduct PTW hardware demo and award follow on contract for the Protected BAA Phase III effort. FY 2015 Plans: Conduct component level PTW demonstrations on contractor provided modems, demonstrate TRL6 and above protected tactical modem software simulations, mature the PTW, generate viable PTW modem test reports, continue to develop the PTW interface control documents (ICD).			-	43.050	21.325
Title: Protected Tactical Demonstration			-	-	23.795

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B. Accomplishments/Planned Programs (\$ in Millions)									FY 2013	FY 2014	FY 2015
Description: Previously funded in the Protected MILSATCOM "Design for Affordability" effort, the Protected Tactical Demonstration will develop and evaluate the Space, Ground (Mission Management and Gateway), Terminal and Information Assurance components that provide the foundation of a future protected tactical MILSATCOM program. Demonstrate Anti-Jam (AJ) and Low Probability of Intercept (LPI)/Low Probability of Detection (LPD) for tactical users. Design, build and operate ground and mission management assets necessary to support the space and terminal segment demonstrations. Design, build, and operate representative user terminal(s) to demonstrate the protected tactical waveform's application and operations concepts. Design and build representative crypto units that can demonstrate affordable Information Assurance design/implementation.											
FY 2014 Plans: Not applicable.											
FY 2015 Plans: Award contract, refine system and payload requirements, conduct SDR and prepare for PDR.											
Title: Evolved AEHF (E-AEHF) Strategic only									-	-	10.510
Description: The Evolved AEHF (E-AEHF) provides nuclear survivable, protected military satellite communications (MILSATCOM) to strategic users only. E-AEHF supports strategic mission requirements such as Presidential National Voice Conferencing (PNVC), Nuclear Command and Control (NC2) strategic networks, terminal reportback, and Emergency Action Message (EAM) dissemination.											
FY 2014 Plans: Not applicable.											
FY 2015 Plans: Define system and payload definitions.											
Accomplishments/Planned Programs Subtotals									-	82.500	122.340
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
• RDT&E: BA04: PE 0603430F: Advanced EHF MILSATCOM (Space)	73.449	-	-	-	-	-	-	-	-	-	73.449
• MPAF: BA05: Line Item # ADV555: Advanced EHF	476.575	328.350	298.890	-	298.890	335.786	656.455	57.794	29.784	47.650	2,231.284

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C. Other Program Funding Summary (\$ in Millions)											
			<u>FY 2015</u>	<u>FY 2015</u>	<u>FY 2015</u>					<u>Cost To</u>	
<u>Line Item</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>Base</u>	<u>OCO</u>	<u>Total</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>Complete</u>	<u>Total Cost</u>
<u>Remarks</u>											
D. Acquisition Strategy											
MILSATCOM SMI will include parts obsolescence redesign and incremental capability upgrades for potential future block buys contracted with current Prime contractor team. Enterprise studies, system design for affordability, and risk reduction efforts for next generation capabilities will include full and open competition efforts.											
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 0605431F / Advanced EHF MILSATCOM (SPACE)				Project (Number/Name) 657104 / Evolved AEHF MILSATCOM (EAM)					
Product Development (\$ 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
AEHF SV-6 Flight Crypto and Future Parts Obsolescence Mitigation	Various	Various : Various,	0.000	-		20.000	Dec 2013	20.000	Dec 2014	-		20.000	-	40.000	-
AEHF Capabilities Insertion Program (CIP)	SS/ Various	Lockheed Martin : Sunnyvale, CA	0.000	-		17.040	Jun 2014	46.300	Jan 2015	-		46.300	Continuing	Continuing	-
Protected MILSATCOM "Adaptive Coding"	Various	MIT/LL : ,	0.000	-		2.000	Jan 2014	-		-		-	-	2.000	-
Protected MILSATCOM "Design for Affordability" Phase 3 BAA #1	C/FFP	The Boeing Company : El Segundo, CA	0.000	-		5.996	Feb 2014	-		-		-	-	5.996	-
Protected MILSATCOM "Design for Affordability" Phase 3 BAA #2	C/FFP	Loral : Palo Alto, CA	0.000	-		6.675	Feb 2014	-		-		-	-	6.675	-
Protected MILSATCOM "Design for Affordability" Phase 3 BAA #3	C/FFP	Raytheon : Marlborough, MA	0.000	-		3.981	Feb 2014	-		-		-	-	3.981	-
Protected MILSATCOM "Design for Affordability" Phase 3 BAA #4	C/FFP	L3 COM - West : Salt Lake City, UT	0.000	-		3.374	Feb 2014	-		-		-	-	3.374	-
Protected Tactical Demonstration	TBD	TBD : TBD,	0.000	-		-		17.460	May 2015	-		17.460	-	17.460	-
Evolved AEHF (E-AEHF)	Various	Various : Various,	0.000	-		-		6.180	Dec 2014	-		6.180	Continuing	Continuing	-
Protected Testbed	Various	MIT/LL : Various,	0.000	-		8.874	Dec 2013	14.200	Dec 2014	-		14.200	Continuing	Continuing	-
Subtotal			0.000	-		67.940		104.140		-		104.140	-	-	-
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
Enterprise Systems Engineering and Integration	Various	Various : Various,	0.000	-		4.120	Dec 2013	6.185	Dec 2014	-		6.185	Continuing	Continuing	-

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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 0605431F / <i>Advanced EHF MILSATCOM (SPACE)</i>				Project (Number/Name) 657104 / <i>Evolved AEHF MILSATCOM (EAM)</i>					
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
Subtotal			0.000	-		4.120		6.185		-		6.185	-	-	-
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
Subtotal			-	-		-		-		-		-	-	-	-
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
FFRDC to support MILSATCOM Enterprise (PMA)	Various	Various : Various,	0.000	-		9.280	Jan 2014	10.415	Jan 2015	-		10.415	Continuing	Continuing	-
Program Office Support & Other Related Activities (PMA)	Various	Various : Various,	0.000	-		0.060	Dec 2013	0.100	Dec 2014	-		0.100	Continuing	Continuing	-
Business Operating Support Services & Acquisition Mission Support (PMA)	Various	Various : Various,	0.000	-		1.100	Dec 2013	1.500	Dec 2014	-		1.500	Continuing	Continuing	-
Subtotal			0.000	-		10.440		12.015		-		12.015	-	-	-
			Prior Years	FY 2013		FY 2014		FY 2015 Base		FY 2015 OCO		FY 2015 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	-		82.500		122.340		-		122.340	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2015 Air Force

Date: March 2014

Appropriation/Budget Activity

3600 / 5

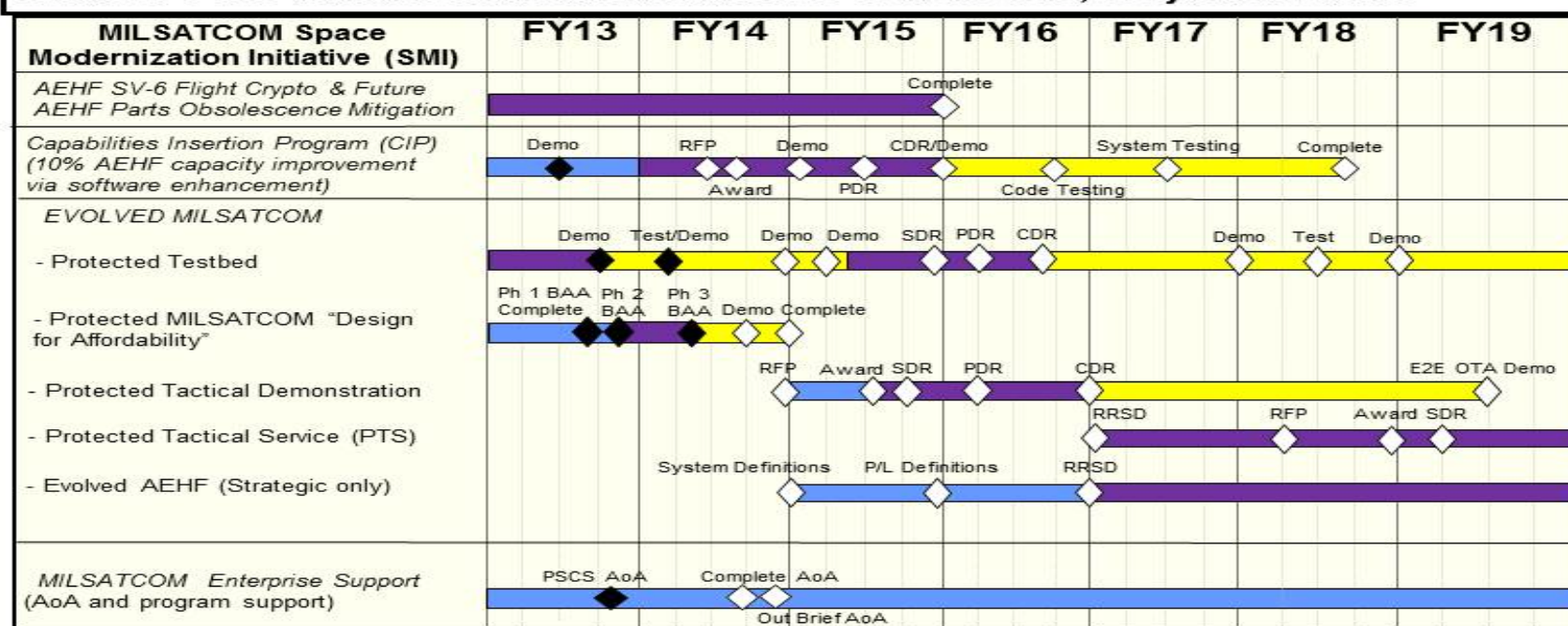
R-1 Program Element (Number/Name)

PE 0605431F / Advanced EHF
MILSATCOM (SPACE)

Project (Number/Name)

657104 / Evolved AEHF MILSATCOM
(EAM)

These efforts are funded in PE 0605431F, Project 657104 beginning FY14. Prior to FY14 these efforts are funded in PE 0603430F, Project 64A030.



BAA: Broad Agency Announcement
PDR: Preliminary Design Review
SDR: System Design Review

CDR: Critical Design Review
PSCS: Protected SATCOM Services

E2E: End To End
RFP: Request for Proposal

OTA: Over The Air
RRSD: Risk Reduction & System Definition

Concept activities

Design / development

Integration / test

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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 0605431F / <i>Advanced EHF MILSATCOM (SPACE)</i>	Project (Number/Name) 657104 / <i>Evolved AEHF MILSATCOM (EAM)</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
Award Phase 3 options for Protected MILSATCOM "Design for Affordability"	2	2014	2	2014
Award AEHF CIP contract	3	2014	3	2014
Outbrief Protected AoA	4	2014	4	2014
Initiate Evolved AEHF (Strategic only) system definitions	1	2015	1	2015
Conduct AEHF CIP Preliminary Design Review (PDR)	2	2015	2	2015
Award Protected Tactical Demonstration	3	2015	3	2015
Initiate Protected Tactical Service (PTS) Risk Reduction and System Definition (RRSD)	1	2017	1	2017
Initiate Evolved AEHF (Strategic only) RRSD	1	2017	1	2017
Award PTS contract	4	2018	4	2018
Conduct Protected Tactical End to End Over the Air Demonstration	3	2019	3	2019