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Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600: Research, Development, Test & Evaluation, Air Force I BA 7: Operational Systems Development					R-1 Program Element (Number/Name) PE 0303601F I MILSATCOM Terminals							
COST (\$ in Millions)	Prior Years ⁽⁺⁾	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	2,035.495	125.924	54.678	-	-	-	-	-	-	-	Continuing	Continuing
672490: Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)	0.000	125.924	54.678	-	-	-	-	-	-	-	Continuing	Continuing
Program MDAP/MAIS Code: 199												
⁽⁺⁾ The sum of all Prior Years is \$2035.495 million less than the represented total due to several projects ending												
Note												
In FY2016, PE 0303601F, MILSATCOM Terminals, Project 672490, Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) was transferred to PE 0303001F, FAB-T, Project 672490 FAB-T for improved visibility of ACAT I programs.												
FAB-T was funded FY13 and prior in PE 0303601F, Project Number 672487 and Project Number 672489. In FY14 it was transferred to Project Number 672490 in the same PE.												
A. Mission Description and Budget Item Justification												
The Military Satellite Communications (MILSATCOM) terminals program develops and fields equipment enabling users to communicate via legacy and future systems to include Milstar, Advanced Extremely High Frequency (AEHF), Ultra High Frequency (UHF) Follow-On (UFO), Wideband Global SATCOM (WGS), Defense Satellite Communication System (DSCS), Enhanced Polar Systems (EPS), and other military and commercial satellites, to support tactical Air and Space Expeditionary Force requirements and maintain essential connectivity for strategic forces. Program RDT&E currently includes the following efforts:												
1) Development work to identify commercial/military technology solutions to improve MILSATCOM terminal capabilities for the warfighters. Focus includes, but is not limited to, increasing throughput, facilitating sustainability, reducing footprint on existing user platforms and future concept terminals to provide more resilient and/or higher data rate satellite communications to warfighters.												
2) The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program replaces legacy Milstar Command Post Terminals (CPT) and will provide Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential National Voice Conferencing (PNVC). FAB-T will provide this new, highly secure, state-of-the-art capability for DoD platforms to include strategic platforms and airborne/ground command posts via Milstar, AEHF, and Enhanced Polar System (EPS) satellites. FAB-T terminals will also support the critical command and control (C2) of the Milstar, AEHF, and EPS satellite constellations. In FY15, the Air Force continued development of the FAB-T terminal.												
3) The Joint Terminal Engineering Office (JTEO) provides tri-service coordination of terminal development, acquisition and fielding activities.												

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This program is in Budget Activity 7, Operational System Development because this budget activity includes development efforts to upgrade systems that have been fielded or have received approval for full rate production and anticipate production funding in the current or subsequent fiscal year.

B. Program Change Summary (\$ in Millions)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget	129.829	55.208	3.933	-	3.933
Current President's Budget	125.924	54.678	-	-	-
Total Adjustments	-3.905	-0.530	-3.933	-	-3.933
• Congressional General Reductions	-	-0.530			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-3.905	-			
• Other Adjustments	-	-	-3.933	-	-3.933

Change Summary Explanation

In FY16 FAB-T was transferred from PE 0303601F, MILSATCOM Terminals, Project 672490, Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) to PE 0303001F, Family of Advanced Beyond Line-of-Sight Terminals, Project 672490 for improved visibility.

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Exhibit R-2A, RDT&E Project Justification: PB 2016 Air Force										Date: February 2015		
Appropriation/Budget Activity 3600 / 7					R-1 Program Element (Number/Name) PE 0303601F / MILSATCOM Terminals				Project (Number/Name) 672490 / Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
672490: Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)	-	125.924	54.678	-	-	-	-	-	-	-	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		
Note												
In FY2016, PE 0303601F, MILSATCOM Terminals, Project 672490, Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) was transferred to PE 0303001F, FAB-T, Project 672490 FAB-T for improved visibility of ACAT I programs.												
FAB-T was funded FY13 and prior in PE 0303601F, Project Number 672487 and Project Number 672489. In FY14 it was transferred to Project Number 672490 in the same PE.												
A. Mission Description and Budget Item Justification												
The Family of Advanced Beyond Line-of-Sight Terminals (FAB-T) program replaces legacy Milstar Command Post Terminals (CPT) and will provide Extremely High Frequency (EHF), protected high data rate communication for nuclear and conventional forces to include Presidential National Voice Conferencing (PNVC). FAB-T will provide this new, highly secure, state-of-the-art capability for DoD platforms to include strategic platforms and airborne/ground command posts via Milstar, AEHF, and Enhanced Polar System (EPS) satellites. FAB-T terminals will also support the critical command and control (C2) of the Milstar, AEHF, and EPS satellite constellations.												
B. Accomplishments/Planned Programs (\$ in Millions)									FY 2014	FY 2015	FY 2016	
Title: FAB-T Development									125.924	54.678	-	
Description: The FAB-T program will provide EHF voice and data MILSATCOM for nuclear and conventional forces as well as airborne and ground command posts with connectivity to Milstar, AEHF, and EPS satellites.												
FY 2014 Accomplishments: Government completed close out of Boeing development CLINs. AF down-selected Raytheon as Prime Contractor for production, June 2014. Raytheon continued development of the FAB-T Terminal, and continued functional and qualification testing and initial Engineering Development Model (EDM) deliveries.												
FY 2015 Plans: Raytheon continued development activities, and completed Functional Configuration Audit (FCA)/ Physical Configuration Audit (PCA), and Engineering Development Model (EDM) deliveries to support government Milestone C decision.												
Accomplishments/Planned Programs Subtotals									125.924	54.678	-	

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

<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u> <u>Base</u>	<u>FY 2016</u> <u>OCO</u>	<u>FY 2016</u> <u>Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APAF: BA05, OTHACF: <i>Other Aircraft</i>	1.920	32.106	-	-	-	-	-	-	-	Continuing	Continuing
• OPAF: BA03, 836700: <i>MILSATCOM Space</i>	105.674	60.230	-	-	-	-	-	-	-	Continuing	Continuing
• OPAF: BA05, 86190A: <i>Spares and Repair Parts</i>	-	12.112	-	-	-	-	-	-	-	Continuing	Continuing
• APAF: BA05: <i>FBLOST</i>	-	21.784	-	-	-	-	-	-	-	Continuing	Continuing
• APAF: BA06: <i>Aircraft</i> <i>Spares and Repair Parts</i>	-	5.540	-	-	-	-	-	-	-	Continuing	Continuing

Remarks

Other program funding listed in FY14-15 is only for the FAB-T program. In FY16, all of the listed Other Program Funding in PE 030601F will transfer to PE 0303001F.

D. Acquisition Strategy

In September 2002 the program office awarded Boeing the System Development and Demonstration (SDD) Cost Plus Award Fee (CPAF) contract; in April 2012 the contract was converted to a Firm Fixed Price (FFP). In 2012 the government introduced competition into the acquisition strategy to reduce risk in delivering this capability as well as to drive down production costs. In September 2012 the program office awarded a System Development and Demonstration (SDD) contract to Raytheon, Firm Fixed Price (FFP). To ensure best value to the government, the Air Force awarded production contracts in September 2013 to both contractors (Boeing and Raytheon). The production contracts began with production planning for both contractors. In June 2014, the Air Force down-selected to Raytheon for development and production of FAB-T Command Post Terminals. Production contract options to produce CPT terminals will be exercised after a successful Milestone C.

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 2016 Air Force												Date: February 2015			
Appropriation/Budget Activity 3600 / 7						R-1 Program Element (Number/Name) PE 0303601F / MILSATCOM Terminals				Project (Number/Name) 672490 / Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
FAB-T Development (Prior down-select)	C/FFP	Boeing : Huntington Beach, CA	0.000	12.536	Oct 2013	-		-		-		-	-	12.536	-
FAB-T Development	C/FFP	Raytheon : Marlborough, MA	0.000	83.010	Oct 2013	29.493	Oct 2014	-		-		-	Continuing	Continuing	-
Subtotal			0.000	95.546		29.493		-		-		-	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Engineering DMS (FFRDC)	SS/CPAF	MITRE : Bedford, MA	0.000	4.079	Oct 2013	5.283	Oct 2014	-		-		-	Continuing	Continuing	-
GFE	MIPR	Various : Various,	0.000	0.290	Oct 2013	0.300	Oct 2014	-		-		-	Continuing	Continuing	-
Engineering DMS	MIPR	Linquest : El Segundo, CA	0.000	1.447	Nov 2013	1.000	Nov 2014	-		-		-	Continuing	Continuing	-
SW Engineering DMS (FFRDC)	SS/CPAF	SEI : Pittsburgh, PA	0.000	0.200	Oct 2013	0.200	Dec 2014	-		-		-	Continuing	Continuing	-
Crypto Support	MIPR	NSA : Ft Meade, MD	0.000	1.392	Oct 2013	1.433	Oct 2014	-		-		-	Continuing	Continuing	-
SATSIM	SS/TBD	MIT Lincoln Labs : Lexington, MA	0.000	3.025	Dec 2013	1.050	Oct 2014	-		-		-	Continuing	Continuing	-
Subtotal			0.000	10.433		9.266		-		-		-	-	-	-
Remarks SATSIM contract is Cost Reimbursable, it is not in drop-down menu.															
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Government Test & RTO Support	Various	Various : Various,	0.000	1.902	Oct 2013	1.400	Oct 2014	-		-		-	Continuing	Continuing	-

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Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Developmental Test Support	SS/CPAF	MIT/LL : Bedford, MA	0.000	8.800	Nov 2013	7.000	Oct 2014	-		-		-	Continuing	Continuing	-
Subtotal			0.000	10.702		8.400		-		-		-	-	-	-
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 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
Systems Engineering Support	SS/CPAF	MITRE : Bedford, MA	0.000	5.280	Apr 2014	-		-		-		-	Continuing	Continuing	-
FFRDC SE Support	MIPR	Aerospace : Los Angeles, CA	0.000	0.684	Oct 2013	0.684	Oct 2014	-		-		-	Continuing	Continuing	-
ETASS (Engineering & Technology Acq Spt Services) (PMA)	C/CPFF	Jacobs : Lincoln, MA	0.000	1.050	Mar 2014	0.886	Nov 2014	-		-		-	Continuing	Continuing	-
PASS (Professional Acq Spt Services) (PMA)	C/CPFF	Oasis : Lexington, MA	0.000	1.450	Mar 2014	1.082	Dec 2014	-		-		-	Continuing	Continuing	-
SCS (Specialized Cost Services) (PMA)	C/CPFF	Tecolote : Bedford, MA	0.000	-		-		-		-		-	Continuing	Continuing	-
SPO Cost & Indirect (PMA)	Various	Various : Various,	0.000	0.779	Nov 2013	4.867	Oct 2014	-		-		-	Continuing	Continuing	-
Subtotal			0.000	9.243		7.519		-		-		-	-	-	-
Remarks PASS recompile 1st quarter FY15. ETASS recompile 3rd quarter FY15.															
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	125.924		54.678		-		-		-	-	-	-
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force			Date: February 2015		
Appropriation/Budget Activity 3600 / 7		R-1 Program Element (Number/Name) PE 0303601F / MILSATCOM Terminals		Project (Number/Name) 672490 / Family of Advanced Beyond Line-of-Sight Terminals (FAB-T)	

	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020			
	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
FAB-T Raytheon Development Contract																												
Boeing and Raytheon Production Contract Awards																												
FAB-T Production Downselect Decision																												
Milestone C Decision																												
FAB-T Production Contract Options																												

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force			Date: February 2015
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Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
FAB-T Raytheon Development Contract	1	2014	1	2016
Boeing and Raytheon Production Contract Awards	1	2014	2	2015
FAB-T Production Downselect Decision	3	2014	3	2014
Milestone C Decision	4	2015	4	2015
FAB-T Production Contract Options	4	2015	4	2020