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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 0305179F I Integrated Broadcast Service (IBS)							
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	-	6.954	8.592	7.860	-	7.860	8.921	8.806	8.712	8.869	Continuing	Continuing
674779: Integrated Broadcast Service	-	6.954	8.592	7.860	-	7.860	8.921	8.806	8.712	8.869	Continuing	Continuing
Quantity of RDT&E Articles	-	-	-	-	-	-	-	-	-	-		

A. Mission Description and Budget Item Justification

The Integrated Broadcast Service (IBS) fulfills the warfighter's requirements for worldwide threat warning and situational awareness information with timely production and simultaneous dissemination of Intelligence, Surveillance, and Reconnaissance (ISR) derived combat information. It also provides target tracking data to support threat avoidance, targeting, force protection, and situational awareness. This information is continually refined in near real time by strategic, operational and tactical sensors.

IBS is comprised of the following:

- A Common Interactive Broadcast (CIB) on UHF satellite channel using a Common Message Format (CMF) and a MIL-STD Demand Assigned Multiple Access (DAMA) compliant waveform and Line of Sight (LOS) using the Wideband Networking Waveform (WNW) and Joint Tactical Terminal (JTT).
- IBS-Network Services (IBS-NS) includes two Global IBS Network Servers (GINS) and four Theater Interface Nodes (TINs) to support the geographic Combatant Commanders, all built to validated warfighter requirements.
- Two GINS receive data from each theater and integrate this data into a worldwide picture available to all network/broadcast users.
- Four regional TINs allow local and out-of-theater users (not directly receiving IBS broadcast) to receive the CIB information broadcast. Additionally, the TIN will receive and inject data into the CIB for producers without access to the theater CIB.

This PE funds:

- Completion of Advanced Development for IBS-NS, providing increased throughput capabilities
- Modernization of IBS (IBS-NS, CIB, and CMF)

This project will identify and implement an open, scalable system architecture that will accommodate growth as the virtual world grows and cyber operations change.

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.

The FY2016 funding request was reduced by \$0.643M to account for the availability of prior execution balances.

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B. Program Change Summary (\$ in Millions)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Previous President's Budget		6.954	8.592	8.556	-	8.556
Current President's Budget		6.954	8.592	7.860	-	7.860
Total Adjustments		-	-	-0.696	-	-0.696
• Congressional General Reductions		-	-			
• Congressional Directed Reductions		-	-			
• Congressional Rescissions		-	-			
• Congressional Adds		-	-			
• Congressional Directed Transfers		-	-			
• Reprogrammings		-	-			
• SBIR/STTR Transfer		-	-			
• Other Adjustments		-	-	-0.696	-	-0.696
Change Summary Explanation						
The FY2016 funding request was reduced by \$0.696M to account for the availability of prior execution balances (\$0.643M) and for inflation (\$0.053M).						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2014	FY 2015	FY 2016
Title: Advanced Development - Integrated Broadcast Service (IBS) - Network Services (NS)				0.648	-	-
Description: Continue Advanced Development of IBS-NS.						
FY 2014 Accomplishments: Completed Advanced Development of IBS-NS.						
Title: Modernization of Integrated Broadcast Service (IBS-NS, CIB, and CMF)				4.866	7.192	6.660
Description: Modernizes IBS (IBS-NS, CIB, and CMF).						
FY 2014 Accomplishments: Initiated providing resiliency for IBS CIB UHF Satellite Communications (SATCOM) Broadcast and development of equipment to monitor health and welfare of CIB.						
FY 2015 Plans: Enabling SCI-level dissemination of data, continuing MIL-STD compliant implementation in IBS-NS, continue providing resiliency to IBS CIB UHF Broadcast, providing resiliency to the CIB by utilizing the Mobile User Objective System (MUOS) Wideband Code Division Multiple Access (WCDMA) SATCOM payload, connecting COCOM CIB and Integrated Waveform (IW) Planning functions to automate planning codes across security domains, and integrating new CMF data fields into enterprise components.						
FY 2016 Plans:						

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C. Accomplishments/Planned Programs (\$ in Millions)							FY 2014	FY 2015	FY 2016		
Will initiate development of the IBS ISR Cloud Interface which provides a long term searchable data store for IBS information, initiate integration of the CIB Planning Tool and IBS-NS capability at the COCOMs to allow automated planning to occur for active producers, and continue CMF Updates.											
Title: Enterprise Systems Engineering Description: Enterprise Systems Engineering/CMF Integration/CIB Integration. FY 2014 Accomplishments: Continued Enterprise Systems Engineering/CMF Integration/CIB Integration. FY 2015 Plans: Continuing Enterprise Systems Engineering/CMF Integration/CIB Integration. FY 2016 Plans: Will continue Enterprise Systems Engineering/CMF Integration/CIB Integration.							0.578	0.700	0.700		
Title: Test & Evaluation Description: Tests & Evaluates the IBS system. FY 2014 Accomplishments: Tested & evaluated the IBS system. FY 2015 Plans: Testing & evaluating the IBS system. FY 2016 Plans: Will test & evaluate the IBS system.							0.862	0.700	0.500		
Accomplishments/Planned Programs Subtotals							6.954	8.592	7.860		
D. Other Program Funding Summary (\$ in Millions)											
Line Item	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
• OPAF: BA03: Line Item # 832070: Intelligence Comm Equipment	14.121	14.949	11.411	-	11.411	16.588	17.249	16.545	16.839	Continuing	Continuing
Remarks											

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<u>E. Acquisition Strategy</u> The IBS acquisition continued with a Sole Source Award to L-3 National Security Solutions for the Advanced Development and its transition to sustainment in the FY14 timeframe. For Modernization efforts, another Sole Source contract was awarded to L-3 National Security Solutions. <u>F. Performance Metrics</u> 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 0305179F / Integrated Broadcast Service (IBS)				Project (Number/Name) 674779 / Integrated Broadcast Service					
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
IBS-NS Advanced Development of Spiral 4 release of GINS/TINs	SS/CPIF	L-3 National Security Solutions : Reston, VA	-	0.209	Jan 2014	-		-		-		-	-	0.209	-
IBS (IBS-NS, CIB, and CMF) Modernization	Various	L-3 National Security Systems/L-3 Comm, IS/Other Government Agency : Various,	-	4.866	Oct 2013	6.892	Oct 2014	6.360	Oct 2015	-		6.360	-	18.118	-
Subtotal			-	5.075		6.892		6.360		-		6.360	-	18.327	-
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
Subtotal			-	-		-		-		-		-	-	-	-
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
Interoperability and Development Testing	MIPR	JITC : Ft Huachuca, AZ	-	0.479	Oct 2013	0.574	Oct 2014	0.410	Oct 2015	-		0.410	-	1.463	-
Responsible Test Organization (RTO)	PO	46th Test Squadron : Eglin AFB, FL	-	0.383	Oct 2013	0.126	Oct 2014	0.090	Oct 2015	-		0.090	-	0.599	-
Subtotal			-	0.862		0.700		0.500		-		0.500	-	2.062	-
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
SPO/Professional Acquisition Support	C/FP	Various : Bedford, MA	-	0.439	Jan 2014	-		-		-		-	-	0.439	-

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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
Services (PASS) and Engineering and Technical Acquisition Support Service (ETASS)															
Program Management/ Engineering Support	C/FFP	Creedence : Warner Robins, GA	-	-		0.300	Apr 2015	0.300	Nov 2015	-		0.300	-	0.600	-
Enterprise Engineering/ CMF Integration/CIB Integration	SS/CPFF	L3 Comm, IS : Greenville, TX	-	0.578	Mar 2014	0.700	Jan 2015	0.700	Jan 2016	-		0.700	-	1.978	-
Subtotal			-	1.017		1.000		1.000		-		1.000	-	3.017	-

	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	-	6.954	8.592	7.860	-	7.860	-	23.406	-

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Exhibit R-4, RDT&E Schedule Profile: PB 2016 Air Force			Date: February 2015		
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	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
IBS (IBS-NS, CIB, and CMF) IOC	■																											
Advanced Development - IBS-NS Integrated Test #4			■																									
Advanced Development - IBS-NS MDA Program Review				■																								
Advanced Development - IBS-NS Transition to Sustainment				■																								
IBS (IBS-NS, CIB, and CMF) FOC																												
Modernization of IBS (IBS-NS, CIB, and CMF)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Enterprise Systems Engineering of IBS (IBS-NS, CIB, and CMF)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
Testing and Evaluation of IBS (IBS-NS, CIB, and CMF)	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

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Exhibit R-4A, RDT&E Schedule Details: PB 2016 Air Force			Date: February 2015
Appropriation/Budget Activity 3600 / 7	R-1 Program Element (Number/Name) PE 0305179F / <i>Integrated Broadcast Service (IBS)</i>	Project (Number/Name) 674779 / <i>Integrated Broadcast Service</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
IBS (IBS-NS, CIB, and CMF) IOC	1	2014	1	2014
Advanced Development - IBS-NS Integrated Test #4	3	2014	3	2014
Advanced Development - IBS-NS MDA Program Review	4	2014	4	2014
Advanced Development - IBS-NS Transition to Sustainment	4	2014	4	2014
IBS (IBS-NS, CIB, and CMF) FOC	4	2019	4	2019
Modernization of IBS (IBS-NS, CIB, and CMF)	1	2014	4	2020
Enterprise Systems Engineering of IBS (IBS-NS, CIB, and CMF)	1	2014	4	2020
Testing and Evaluation of IBS (IBS-NS, CIB, and CMF)	1	2014	4	2020