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Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force **DATE:** April 2013

APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE							
3600: Research, Development, Test & Evaluation, Air Force BA 4: Advanced Component Development & Prototypes (ACD&P)					PE 0603850F: Integrated Broadcast Service - Dem/Val							
COST (\$ in Millions)	All Prior Years	FY 2012	FY 2013 [#]	FY 2014 Base	FY 2014 OCO ^{##}	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
Total Program Element	-	19.442	19.938	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	39.380
644778: Integrated Broadcast Service	-	19.442	19.938	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	39.380
Quantity of RDT&E Articles		0	0	0		0	0	0	0	0		

[#] FY 2013 Program is from the FY 2013 President's Budget, submitted February 2012

^{##} The FY 2014 OCO Request will be submitted at a later date

Note

In FY 2014, Project 644778, Integrated Broadcast Service, efforts transferred to PE 0305179F, Integrated Broadcast Service, Project Number 674779, Integrated Broadcast Service, in order to realign funds in support of transition to sustainment.

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.

This PE funds/have previously funded IBS system development as described below:

- 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 the 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.

- An XML-based Common Message Format (CMF) Data Element Dictionary (DED) that defines IBS messages for broadcast of IBS information over available communications paths including the CIB and other Global Information Grid (GIG) networks.

- A Modular Advanced TRanslation Interchange with XML (MATRIX) Reformatter that provides a modular, platform-independent, multi-use translator to support migration with legacy radios and provide a long term solution for IBS Full Operational Capability (FOC) radio users.

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Funds development of evolving suite of interoperable planning and decision support capabilities comprised of software, hardware and communication products. 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 4, Advanced Component Development and Prototypes (ACD&P) because efforts are necessary to evaluate integrated technologies, representative modes or prototype systems in a high fidelity and realistic operating environment.						
Activities also include studies and analysis to support both current program planning and execution and future program planning.						
B. Program Change Summary (\$ in Millions)		FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total
Previous President's Budget		20.046	19.938	20.389	-	20.389
Current President's Budget		19.442	19.938	0.000	-	0.000
Total Adjustments		-0.604	0.000	-20.389	-	-20.389
• Congressional General Reductions		-	0.000			
• Congressional Directed Reductions		-	0.000			
• Congressional Rescissions		0.000	0.000			
• Congressional Adds		-	0.000			
• Congressional Directed Transfers		-	0.000			
• Reprogrammings		0.000	0.000			
• SBIR/STTR Transfer		-0.604	0.000			
• Other Adjustments		0.000	0.000	-20.389	-	-20.389
Change Summary Explanation						
In FY2014, Project 644778, Integrated Broadcast Service, efforts transferred to PE 0305179F.						
C. Accomplishments/Planned Programs (\$ in Millions)				FY 2012	FY 2013	FY 2014
Title: IBS-NS (GINS/TINs) Development				14.764	16.419	0.000
Description: Continue the Phase II/System Development and Demonstration of the GINS and TINs efforts.						
FY 2012 Accomplishments:						
Continued the integration and testing of the Spiral 4 release of the GINS and TINs capabilities.						
Initiated advanced development of Spiral 4 capabilities.						
FY 2013 Plans:						

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APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>		R-1 ITEM NOMENCLATURE PE 0603850F: <i>Integrated Broadcast Service - Dem/Val</i>		
C. Accomplishments/Planned Programs (\$ in Millions)		FY 2012	FY 2013	FY 2014
Continuing the integration and testing of the Spiral 4 release of the GINS and TINs efforts and transitioning Spiral 4 IBS-NS capability to sustainment.				
Completing advanced development of Spiral 4 release of GINS and TINs.				
FY 2014 Plans: N/A				
Title: Test & Evaluation Description: Continue Test & Evaluation of the IBS system. FY 2012 Accomplishments: Conducted Integrated Test #1 and IBS Multi-Service Operational Test & Evaluation (MOT&E) FY 2013 Plans: Continuing Test and Evaluation FY 2014 Plans: N/A		1.649	1.276	0.000
Title: Enterprise Systems Eng Description: Enterprise Systems Engineering/CMF Integration/CIB Integration FY 2012 Accomplishments: Conducted Enterprise Systems Engineering/CMF Integration/CIB Integration efforts. FY 2013 Plans: Continuing Enterprise Systems Engineering/CMF Integration/CIB Integration efforts. FY 2014 Plans: N/A		0.700	0.700	0.000
Title: PMA Description: Maintain a Program Mgmt Office, including program supervision, systems engineering, finance and acquisition strategy execution. FY 2012 Accomplishments:		1.659	1.543	0.000

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C. Accomplishments/Planned Programs (\$ in Millions)									FY 2012	FY 2013	FY 2014
Maintained a Program Mgmt Office, including program supervision, systems engineering, finance and acquisition strategy execution. FY 2013 Plans: Maintaining a Program Mgmt Office, including program supervision, systems engineering, finance and acquisition strategy execution. FY 2014 Plans: N/A											
Title: CIB Engineering and Testing Description: Provide CIB Engineering Testbed and CIB related engineering/support. FY 2012 Accomplishments: Provided CIB Engineering Testbed and CIB related engineering/support. FY 2013 Plans: N/A FY 2014 Plans: N/A									0.670	0.000	0.000
Accomplishments/Planned Programs Subtotals									19.442	19.938	0.000
D. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2012	FY 2013	FY 2014 Base	FY 2014 OCO	FY 2014 Total	FY 2015	FY 2016	FY 2017	FY 2018	Cost To Complete	Total Cost
• RDTE: BA07: 0305179F: Integrated Broadcast Service	0.000	0.000	8.289		8.289	8.699	8.655	8.693	8.696	Continuing	Continuing
• OPAF: BA03: Line Item # 832070: Intelligence Comm Equipment	9.993	13.095	14.121		14.121	15.082	14.064	15.300	16.485	Continuing	Continuing
Remarks											

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E. Acquisition Strategy IBS uses an evolutionary acquisition approach. The Program Definition/Risk Reduction phase (Spiral 1) was awarded via a full and open competition. A full and open competition award to BTG/Titan/L-3Comm/L-3 National Security Solutions was awarded for the Engineering, Manufacturing and Development (EMD) phase (Spiral 2-4).		
F. 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 2014 Air Force												DATE: April 2013			
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>						R-1 ITEM NOMENCLATURE PE 0603850F: <i>Integrated Broadcast Service</i> - <i>Dem/Val</i>						PROJECT 644778: <i>Integrated Broadcast Service</i>			
Product Development (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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 Phase 2 Spiral 2 - 4 (GINS/TINs)	C/CPAF	BTG, Inc./Titan/L-3 National Security Solutions:Reston, VA	-	14.764	Nov 2011	16.419	Jan 2013	0.000		-		0.000	Continuing	Continuing	TBD
Subtotal			0.000	14.764		16.419		0.000		0.000		0.000			
Support (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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	0.000		0.000		0.000		0.000		0.000	0.000	0.000	0.000
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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 Developmental Testing	MIPR	JITC:Ft Huachuca, AZ	-	0.623	Jan 2012	0.512	Jan 2013	0.000		-		0.000	Continuing	Continuing	TBD
Responsible Test Organization (RTO)	PO	46th Test Squadron:Eglin AFB, FL	-	1.026	Mar 2012	0.764	Feb 2013	0.000		-		0.000	Continuing	Continuing	TBD
CIB Engineering/Testing	MIPR	SPAWAR - Pacific:San Diego, CA	-	0.670	Nov 2012	0.000		0.000		-		0.000	0.000	0.670	1.300
Subtotal			0.000	2.319		1.276		0.000		0.000		0.000			
Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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	-	1.541	Feb 2012	1.543	Jan 2013	0.000		-		0.000	Continuing	Continuing	TBD

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Management Services (\$ in Millions)				FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	All 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), Engineering and Technical Acquisition Support Service (ETASS), Specialized Cost Service (SCS)															
Systems Engineering	SS/CPFF	MITRE:Bedford, MA	-	0.118	Oct 2011	0.000		0.000		-		0.000	Continuing	Continuing	TBD
Enterprise Engineering/CMF Integration/CIB Integration	SS/CPFF	L-3 Comm, IS:Greenville, TX	-	0.700	Mar 2012	0.700		0.000		-		0.000	Continuing	Continuing	TBD
Subtotal			0.000	2.359		2.243		0.000		0.000		0.000			
			All Prior Years	FY 2012		FY 2013		FY 2014 Base		FY 2014 OCO		FY 2014 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			0.000	19.442		19.938		0.000		0.000		0.000			
Remarks															

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Exhibit R-4, RDT&E Schedule Profile: PB 2014 Air Force

DATE: April 2013

APPROPRIATION/BUDGET ACTIVITY

3600: Research, Development, Test & Evaluation, Air Force
BA 4: Advanced Component Development & Prototypes (ACD&P)

R-1 ITEM NOMENCLATURE

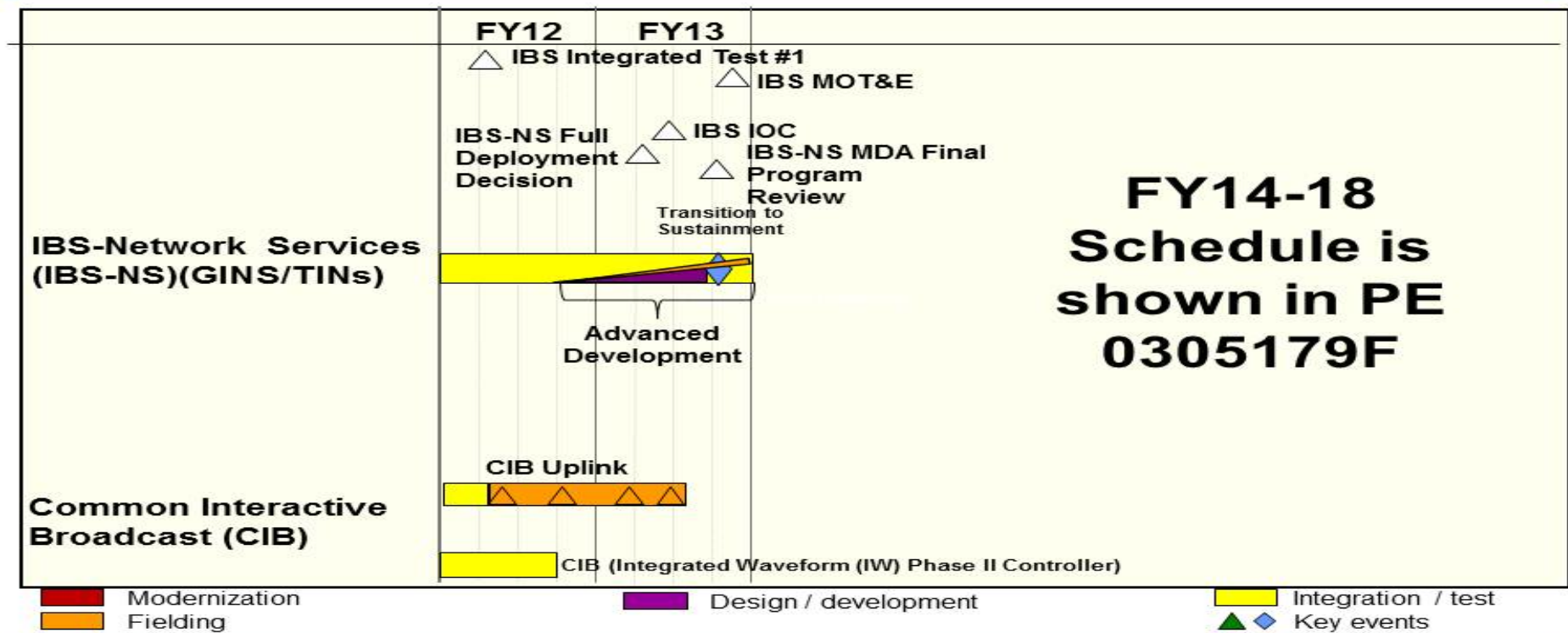
PE 0603850F: Integrated Broadcast Service
- Dem/Val

PROJECT

644778: Integrated Broadcast Service



IBS Broadcast Segment Schedule PE 0603850F



FY14 PB RDOCs

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Exhibit R-4A, RDT&E Schedule Details: PB 2014 Air Force			DATE: April 2013
APPROPRIATION/BUDGET ACTIVITY 3600: <i>Research, Development, Test & Evaluation, Air Force</i> BA 4: <i>Advanced Component Development & Prototypes (ACD&P)</i>	R-1 ITEM NOMENCLATURE PE 0603850F: <i>Integrated Broadcast Service</i> - <i>Dem/Val</i>	PROJECT 644778: <i>Integrated Broadcast Service</i>	

Schedule Details

Events	Start		End	
	Quarter	Year	Quarter	Year
IBS Integrated Test #1	2	2012	2	2012
IBS-NS (GINS/TINS) Full Deployment Decision	2	2013	2	2013
IBS IOC	2	2013	2	2013
IBS-NS MDA Final Program Review	4	2013	4	2013
IBS MOT&E	4	2013	4	2013
IBS-NS Integration and Testing	1	2012	4	2013
IBS-NS (GINS/TINS) Transition to Sustainment	4	2013	4	2013
Advanced Development of Spiral 4 IBS-NS capability	4	2012	4	2013
CIB Uplink Integration/Testing	1	2012	2	2012
CIB Uplink Fielding	2	2012	3	2013
CIB Integrated Waveform (IW) Phase II Controller Integration/Testing	1	2012	3	2012