

## UNCLASSIFIED

PE NUMBER: 0603850F

PE TITLE: Integrated Broadcast Service (DEM/VAL)

Exhibit R-2, RDT&E Budget Item Justification								DATE May 2009		
BUDGET ACTIVITY 04 Advanced Component Development and Prototypes (ACD&P)					PE NUMBER AND TITLE 0603850F Integrated Broadcast Service (DEM/VAL)					
Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
Total Program Element (PE) Cost	20.873	21.020	20.739	0.000	0.000	0.000	0.000	0.000	0.000	0.000
4778 Integrated Broadcast Service	20.873	21.020	20.739	0.000	0.000	0.000	0.000	0.000	0.000	0.000

**(U) 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 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 Radio System (JTRS).
- IBS-Network Services (IBS-NS) includes two Global IBS Network Servers (GINS) and four (4) Theater Interface Nodes (TINs) to support the geographic Combatant Commanders; all built to validated warfighter requirements.
  - Two GINS that receive data from each theater and integrate this data into a worldwide picture available to all network/broadcast users.
  - 4 regional TINs, where out-of-theater (and local) users not directly receiving the broadcast can receive the information broadcast on the CIB. 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.

Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in budget activity 4 because it includes demonstrating and validating the use of technologies to create an operational integrated broadcast service.

## Exhibit R-2, RDT&amp;E Budget Item Justification

DATE

May 2009

## BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&amp;P)

## PE NUMBER AND TITLE

0603850F Integrated Broadcast Service (DEM/VAL)

(U) B. Program Change Summary (\$ in Millions)

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Previous President's Budget	20.873	21.105	21.094
(U) Current PBR/President's Budget	20.873	21.020	20.739
(U) Total Adjustments	0.000	-0.085	
(U) Congressional Program Reductions			
Congressional Rescissions		-0.085	
Congressional Increases			
Reprogrammings			
SBIR/STTR Transfer			
(U) <u>Significant Program Changes:</u>			

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## Exhibit R-2a, RDT&amp;E Project Justification

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## BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&amp;P)

## PE NUMBER AND TITLE

0603850F Integrated Broadcast Service (DEM/VAL)

## PROJECT NUMBER AND TITLE

4778 Integrated Broadcast Service

Cost (\$ in Millions)	FY 2008 Actual	FY 2009 Estimate	FY 2010 Estimate	FY 2011 Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost to Complete	Total
4778 Integrated Broadcast Service	20.873	21.020	20.739	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0		

(U) **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 IBS system development as described below.

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- Two GINS that receive data from each theater and integrate this data into a worldwide picture available to all network/broadcast users.
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Activities also include studies and analysis to support both current program planning and execution and future program planning.

This program is in budget activity 4 because it includes demonstrating and validating the use of technologies to create an operational integrated broadcast service.

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
(U) Continue systems engineering, including development of architectures, system of systems management through the Joint Broadcast Configuration Control Board (JBCCB), and risk reduction studies using Simulation Based Acquisition (SBA) tools	2.422	1.184	1.650
(U) Continue the Phase II/System Development and Demonstration of the GINS and TINs	13.335	14.981	15.034
(U) Continue Test & Evaluation	0.771	1.128	1.250
(U) Maintain a Program Management Office, including program supervision, finance and acquisition strategy execution	1.545	1.910	2.105
(U) Joint Tactical Radio System (JTRS) Modular Advanced TRanslation and Interchange with XML (MATRIX)	2.100	1.220	

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Exhibit R-2a (PE 0603850F)

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## Exhibit R-2a, RDT&amp;E Project Justification

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## BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&amp;P)

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Service (DEM/VAL)

## PROJECT NUMBER AND TITLE

4778 Integrated Broadcast Service

(U) **B. Accomplishments/Planned Program (\$ in Millions)**

Reformatter

FY 2008

FY 2009

FY 2010

(U) Enterprise Systems Engineering/CMF Integration/CIB Integration

0.700

0.597

0.700

(U) Total Cost

20.873

21.020

20.739

(U) **C. Other Program Funding Summary (\$ in Millions)**FY 2008FY 2009FY 2010FY 2011FY 2012FY 2013FY 2014FY 2015Cost toTotal CostActualEstimateEstimateEstimateEstimateEstimateEstimateEstimateComplete

(U) OPAF/PE 0305179F

20.634

18.382

12.653

Continuing

TBD

(U) O&amp;M/PE 0305179F

17.601

17.406

16.284

Continuing

TBD

(U) **D. Acquisition Strategy**

IBS used an evolutionary acquisition approach with a Program Definition/Risk Reduction phase (Spiral 1), followed by a full and open competition award to BTG/Titan/L-3Comm to complete the Engineering, Manufacturing and Development (EMD) phase (Spiral 2-N).

MATRIX used an initial requirements definition phase followed by evolutionary acquisition approach for development by means of a sole-source contract award to L3-Comm IS.

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## Exhibit R-3, RDT&amp;E Project Cost Analysis

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BUDGET ACTIVITY				PE NUMBER AND TITLE				PROJECT NUMBER AND TITLE				
<b>04 Advanced Component Development and Prototypes (ACD&amp;P)</b>				<b>0603850F Integrated Broadcast Service (DEM/VAL)</b>				<b>4778 Integrated Broadcast Service</b>				
(U) <u>Cost Categories</u> (Tailor to WBS, or System/Item Requirements) (\$ in Millions)	<u>Contract Method &amp; Type</u>	<u>Performing Activity &amp; Location</u>	<u>Total Prior to FY 2008 Cost</u>	<u>FY 2008 Cost</u>	<u>FY 2008 Award Date</u>	<u>FY 2009 Cost</u>	<u>FY 2009 Award Date</u>	<u>FY 2010 Cost</u>	<u>FY 2010 Award Date</u>	<u>Cost to Complete</u>	<u>Total Cost</u>	<u>Target Value of Contract</u>
(U) <u>Product Development</u> Phase 2 Spiral II - N	C/CPAF	BTG, Inc./Titan/L-3 Comm (Reston, VA)		13.335	Jan-08	14.981	Jan-09	15.034	Jan-10	Continuing	TBD	TBD
JTRS MATRIX Reformatter	C/FFP	L-3 Comm, ISD (Greenville, TX)	4.672	2.100	Mar-08	1.220	Mar-09			0.000	7.992	7.992
Subtotal Product Development			4.672	15.435		16.201		15.034		Continuing	TBD	TBD
Remarks:												
(U) <u>Test &amp; Evaluation</u> Interoperability and Developmental Testing	MIPR/Project Order	JITC (Ft Huachuca, AZ) & 46th OSS (Eglin AFB, FL)		0.771	Jan-08	1.128	Jan-09	1.250	Jan-10	Continuing	TBD	TBD
Subtotal Test & Evaluation			0.000	0.771		1.128		1.250		Continuing	TBD	TBD
Remarks:												
(U) <u>Management</u> SPO/Professional Acquisition Support Service (PASS)	Various	Local Area (Bedford, MA)/Washington DC Area		1.545	Mar-08	1.910	Mar-09	2.105	Mar-10	Continuing	TBD	TBD
MITRE	SS/CPFF (FFRDC)	Bedford, MA		2.422	Oct-07	1.184	Oct-08	1.650	Oct-09	Continuing	TBD	TBD
Enterprise Engineering/CMF Integration/CIB Integration	SS/CPFF	L-3 Comm, IS (Greenville, TX)		0.700	Mar-08	0.597	Mar-09	0.700	Mar-10		1.997	
Subtotal Management			0.000	4.667		3.691		4.455		Continuing	TBD	TBD
Remarks:												
(U) Total Cost			4.672	20.873		21.020		20.739		Continuing	TBD	TBD

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Exhibit R-3 (PE 0603850F)

## Exhibit R-4, RDT&amp;E Schedule Profile

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BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&amp;P)

PE NUMBER AND TITLE

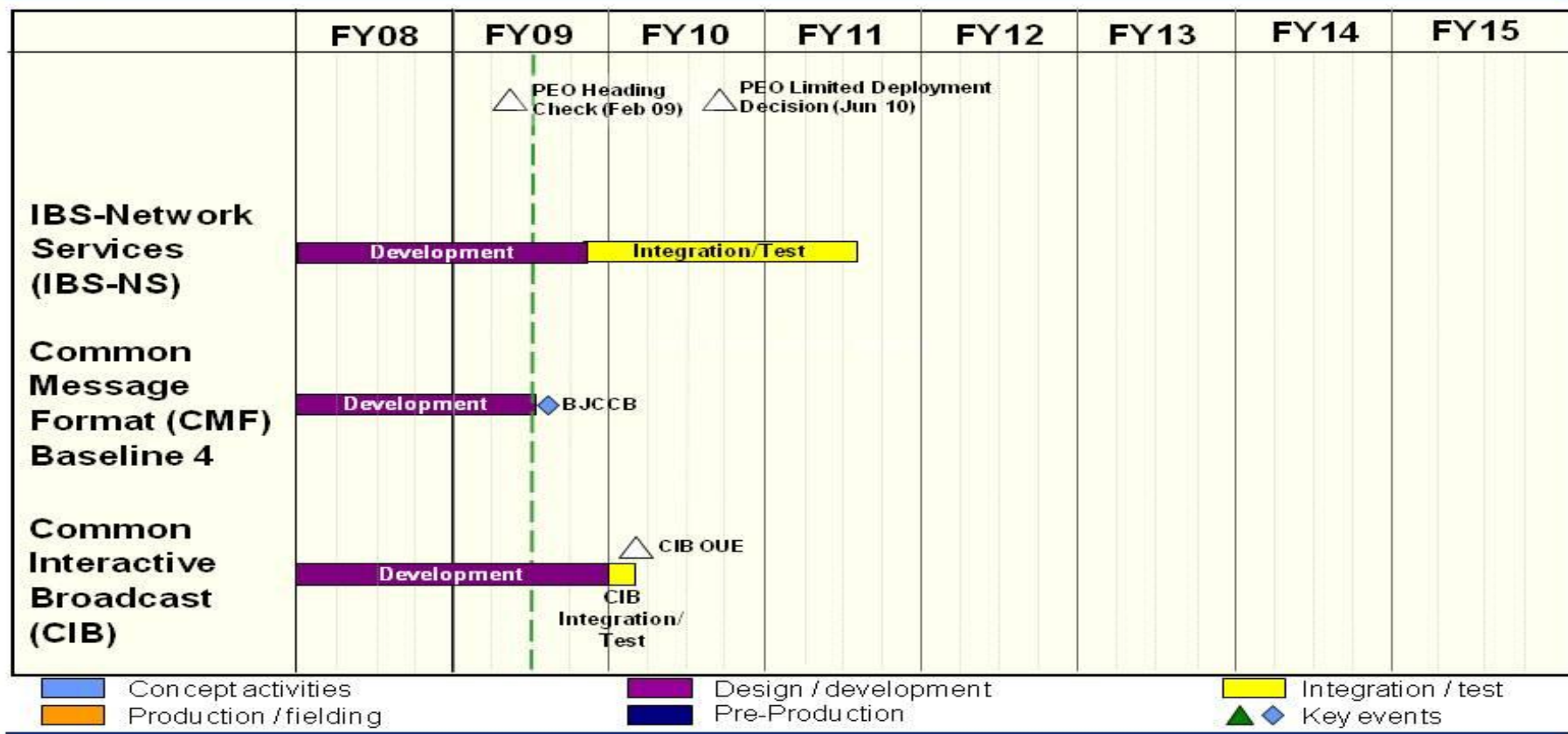
0603850F Integrated Broadcast Service (DEM/VAL)

PROJECT NUMBER AND TITLE

4778 Integrated Broadcast Service



## IBS Broadcast Segment Schedule



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Exhibit R-4 (PE 0603850F)

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## Exhibit R-4a, RDT&amp;E Schedule Detail

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## BUDGET ACTIVITY

04 Advanced Component Development and Prototypes (ACD&amp;P)

## PE NUMBER AND TITLE

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Service (DEM/VAL)

## PROJECT NUMBER AND TITLE

4778 Integrated Broadcast Service

(U) Schedule ProfileFY 2008FY 2009FY 2010

(U) IBS-NS Development

1-4Q

1-4Q

(U) IBS-NS Integration/Test

4Q

1-4Q

(U) IBS-NS PEO Heading Check

2Q

(U) CMF BJCCB Configuration Control

3Q

(U) CIB Development/Test

1-4Q

1-4Q

1Q

(U) CIB Operational Utility Event (OUE)

1Q

(U) PEO Limited Deployment Decision

3Q

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