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.
Exhibit R-2, RDT&E Budget Item Justification: PB 2014 Air Force

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

DATE: April 2013

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)

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<tr>
<th></th>
<th>FY 2012</th>
<th>FY 2013</th>
<th>FY 2014 Base</th>
<th>FY 2014 OCO</th>
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<tr>
<td>• Congressional Rescissions</td>
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Change Summary Explanation
In FY2014, Project 644778, Integrated Broadcast Service, efforts transferred to PE 0305179F.

C. Accomplishments/Planned Programs ($ in Millions)

Title: IBS-NS (GINS/TINs) Development
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:**
### C. Accomplishments/Planned Programs ($ in Millions)

<table>
<thead>
<tr>
<th>FY 2012</th>
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<th>FY 2014</th>
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<tr>
<td><strong>Title:</strong> Test &amp; Evaluation</td>
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<td>1.276</td>
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<tr>
<td><strong>FY 2012 Accomplishments:</strong></td>
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<tr>
<td>Conducted Integrated Test #1 and IBS Multi-Service Operational Test &amp; Evaluation (MOT&amp;E)</td>
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<td></td>
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<td><strong>FY 2013 Plans:</strong></td>
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<tr>
<td>Continuing Test and Evaluation</td>
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<td><strong>FY 2014 Plans:</strong></td>
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<tr>
<td>N/A</td>
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| Title: Enterprise Systems Eng | 0.700 | 0.700 | 0.000 |
| 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 | | | |

| Title: PMA | 1.659 | 1.543 | 0.000 |
| Description: Maintain a Program Mgmt Office, including program supervision, systems engineering, finance and acquisition strategy execution. | | | |
| **FY 2012 Accomplishments:** | | | |
| | | | |
C. Accomplishments/Planned Programs ($ in Millions)

<table>
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<tr>
<th>Title</th>
<th>Description</th>
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<th>FY 2013</th>
<th>FY 2014</th>
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</thead>
<tbody>
<tr>
<td>CIB Engineering and Testing</td>
<td>Provide CIB Engineering Testbed and CIB related engineering/support.</td>
<td>0.670</td>
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</tr>
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</table>

FY 2013 Plans:
Maintaining a Program Mgmt Office, including program supervision, systems engineering, finance and acquisition strategy execution.

FY 2014 Plans:
N/A

D. Other Program Funding Summary ($ in Millions)

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<tr>
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</tbody>
</table>

Remarks

PE 0603850F: Integrated Broadcast Service - Dem/Val
**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.
### Product Development ($ in Millions)

<table>
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<th>Cost Category Item</th>
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<th>FY 2013</th>
<th>FY 2014 Base</th>
<th>FY 2014 OCO</th>
<th>FY 2014 Total</th>
<th>FY 2014 Total</th>
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</table>
|                    |                        |                               |                 | Cost    | Award Date | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost�

#### Support ($ in Millions)

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<th>FY 2014 OCO</th>
<th>FY 2014 Total</th>
<th>FY 2014 Total</th>
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#### Test and Evaluation ($ in Millions)

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<th>FY 2013</th>
<th>FY 2014 Base</th>
<th>FY 2014 OCO</th>
<th>FY 2014 Total</th>
<th>FY 2014 Total</th>
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</table>
|                    |                        |                               |                 | Cost    | Award Date | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost�

#### Management Services ($ in Millions)

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<th>Cost Category Item</th>
<th>Contract Method &amp; Type</th>
<th>Performing Activity &amp; Location</th>
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<th>FY 2013</th>
<th>FY 2014 Base</th>
<th>FY 2014 OCO</th>
<th>FY 2014 Total</th>
<th>FY 2014 Total</th>
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</table>
|                    |                        |                               |                 | Cost    | Award Date | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost       | Award Date | Cost�

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**UNCLASSIFIED**

**Exhibit R-3, RDT&E Project Cost Analysis:** PB 2014 Air Force

**DATE:** April 2013
### Management Services ($ in Millions)

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<th>Cost Category Item</th>
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<th>FY 2014 Base</th>
<th>FY 2014 OCO</th>
<th>FY 2014 Total</th>
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<th>Total Cost</th>
<th>Target Value of Contract</th>
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### Project Cost Totals

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**IBS Broadcast Segment Schedule**

**PE 0603850F**

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<th>FY12</th>
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<tr>
<td><img src="image" alt="IBS Integrated Test #1" /></td>
<td><img src="image" alt="IBS MOT&amp;E" /></td>
</tr>
<tr>
<td><img src="image" alt="IBS-NS Full Deployment Decision" /></td>
<td><img src="image" alt="IBS IOC" /></td>
</tr>
<tr>
<td><img src="image" alt="IBS-NS MDA Final Program Review" /></td>
<td>Transition to Sustainment</td>
</tr>
<tr>
<td><img src="image" alt="Advanced Development" /></td>
<td><img src="image" alt="CIB Uplink" /></td>
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<tr>
<td><img src="image" alt="CIB Upink" /></td>
<td><img src="image" alt="CIB (Integrated Waveform (IW) Phase II Controller)" /></td>
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</tbody>
</table>

**FY14-18 Schedule is shown in PE 0305179F**

- **Modernization**
- **Fielding**
- **Design / development**
- **Integration / test**
- **Key events**

**PE 0603850F: Integrated Broadcast Service - Dem/Val**

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Page 8 of 9
## Schedule Details

<table>
<thead>
<tr>
<th>Events</th>
<th>Start Quarter</th>
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<td>IBS-NS Integration and Testing</td>
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