

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RESEARCH DEVELOPMENT TEST &amp; EVALUATION, NAVY / BA-7</b>					R-1 ITEM NOMENCLATURE 0305206N Airborne Reconnaissance Systems			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	<b>26.675</b>	<b>14.375</b>	<b>27.918</b>	<b>17.732</b>	<b>18.227</b>	<b>18.492</b>	<b>18.739</b>	<b>19.122</b>
2694 Advanced Digital Sensors	<b>11.906</b>	<b>10.023</b>	<b>27.918</b>	<b>17.732</b>	<b>18.227</b>	<b>18.492</b>	<b>18.739</b>	<b>19.122</b>
2807 Hyperspectral Upgrade to Airborne Cameras	<b>3.951</b>	<b>3.363</b>						
9114 Electron-Optic	<b>3.458</b>							
9437 Deployable Unmanned System (DUSTER)	<b>5.137</b>							
9438 Multi-Spectral Glass Windows for Airborne	<b>2.223</b>							
9651 Passive Collision Avoidance and Recon		<b>0.989</b>						

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

In FY05, the advanced sensor developments provided the technology transition modules for operational use necessary to support the EP-3E JMOD Common Configuration (JCC) program and provide the mechanism required for timely dissemination of intelligence information to operational forces.

Provides funds for the development of sensor systems to improve present airborne reconnaissance capabilities. The developments are driven by evolving collection requirements and modern technology advances. The developments allow for the necessary changes required to meet an integrated, objective airborne reconnaissance architecture as defined in the Integrated Airborne Reconnaissance Strategy (IARS) and amplified in the Airborne Reconnaissance Information Technical Architecture (ARITA). The Advanced Sensors Development Program implements successful proof-of-concept efforts accomplished in the Advanced Technology Program, other Service/Agency developments, and Congressionally-funded initiatives leading to producible sensor systems for airborne platforms. Upon successful sensor prototype demonstration, technology sensor developments are turned over to the Services for procurement and platform integration. This effort focuses on developments, which support sensor system interoperability and standardization of multi-Service and multi-platform applications. In addition, funds provide for the development/integration and operational assessment of components for the EP-3E and Special Projects (SP) aircraft and follow-on candidate aircraft.

The two primary objectives for Advanced Technology funding is to evaluate the utility and maturity of technology for airborne reconnaissance applications and to reduce the risk of employing emerging technologies in system upgrades, new system acquisitions, or Advanced Concept Technology Demonstrations (ACTDs), by integrating and exercising them in developmental and operational tests. These technologies help satisfy the requirements of the objective architecture set forth in the Integrated Airborne Reconnaissance Strategy (IARS). These technology investments are also identified in the Airborne Reconnaissance Technology Program Plan (ARTPP), published in November 1994. Transition of sensors to AF TARS, and Navy TARPS-CD and SHARP programs have been successful.

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2, RDT&E Budget Item Justification		DATE: <b>February 2005</b>
APPROPRIATION/BUDGET ACTIVITY <b>RESEARCH DEVELOPMENT TEST &amp; EVALUATION, NAVY /BA-5</b>	R-1 ITEM NOMENCLATURE 0305206N Airborne Reconnaissance Systems	
<p>There are two primary objectives for the Advanced Technology funding: (1) to evaluate the utility and maturity of technology for airborne reconnaissance applications and (2) to reduce the risk of employing emerging technologies in system upgrades, new system acquisitions, or Advanced Concept Technology Demonstrations (ACTDs), by integrating and exercising them in developmental and operational tests. These technologies help satisfy the requirements of the objective architecture set forth in the Integrated Airborne Reconnaissance Strategy (IARS). These technology investments are also identified in the Airborne Reconnaissance Technology Program Plan (ARTPP), published in November 1994. Congress added funds in FY 2004 to (1) develop an Advanced Focal Plane Array for smaller electro-optical framing size, (2) develop an upgrade the Sensor to and 18 inch lens and integrate an existing dual banded sensor into the TARP pod, (3) to upgrade the Airborne Reconnaissance System Hyperspectral Module, and (4) prepare a plan for development of a passive collision avoidance and reconnaissance system (PCARS) that would capitalize on currently available off-the-shelf technology. Solutions would apply to both military and civilian aircraft.</p>		

R-1 SHOPPING LIST - Item No. 203

**UNCLASSIFIED**

**Exhibit R-2, RDTEN Budget Item Justification**  
(Exhibit R-2, page 2 of 21)

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>		PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME 2694 Advanced Digital Sensors			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	<b>11.906</b>	<b>10.023</b>	<b>27.918</b>	<b>17.732</b>	<b>18.227</b>	<b>18.492</b>	<b>18.739</b>	<b>19.122</b>
RDT&E Articles Qty								

**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:**

Provides funds for the development of sensor systems to improve present airborne reconnaissance capabilities. The developments are driven by evolving collection requirements and modern technology advances. The developments allow for the necessary changes required to meet an integrated, objective airborne reconnaissance architecture as defined in the Integrated Airborne Reconnaissance Strategy (IARS) and amplified in the Airborne Reconnaissance Information Technical Architecture (ARITA). The advanced sensor program includes technical analysis, systems engineering assessments, planning, and development for advanced airborne sensor systems. This effort focuses on developments which support sensor system interoperability and standardization of multi-Service and multi-platform applications. The EP-3E and Special Projects will undergo a series of incremental modifications via an evolutionary acquisition process beginning in FY 2001. The advanced sensor developments described herein will provide the technology transition modules necessary for the overall migration of the airborne fleet to JASA, (i.e., sensors, ground systems, data links, and platforms), and provide the mechanism required for timely dissemination of intelligence information to operational forces.

FY05 began the integration of JMOD Common Configuration (JCC) into all EP-3 aircraft. These efforts carry forward the developments from prior years and continue the development efforts to ensure that EP-3 aircraft maintain their interoperability and relevance to emerging threats and changing technology. This funding provides for the development of the JCC capabilities and Spirals. The JCC baseline program builds on a common baseline with two spirals. Spiral 1 (ForceNet) includes high band and special collection subsystems (Story Finder, MPEG) and data dissemination (Story Teller). Spiral 2 includes additional special collection signal capabilities, obsolescence and Story Maker. A technical refresh will provide the EP-3 with QRCs, a replacement for the obsolete low-band Radio Frequency Distribution (RFD) and Direction Finding (DF) subsystems and other special signal processing upgrades. The Special Projects Modernization and Common Configuration Baseline (MCCB) program provides rapid insertion of new capabilities including improved communications, collection and analysis capabilities and weight reduction. Additionally, MCCB addresses technology refresh and obsolescence engineering. Most of the MCCB upgrades are based on stand-alone Government-Off-The-Shelf and Commercial-Off-The-Shelf (GOTS/COTS) systems.

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification	DATE: <b>February 2005</b>
---	----------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME 2694 Advanced Digital Sensors
---	---	--

**B. Accomplishments/Planned Program**

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.700	0.000	0.000	0.000
RDT&E Articles Quantity				

Story Classic (Special Collections) ALD-9 replacement engineering study completed. Story Classic Collection Upgraded PDR & CDR. Test and integrate initial Story Classic Collection into SIL completed. Story Classic Collection upgrades and demonstration completed.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	2.684	0.000	0.000	0.000
RDT&E Articles Quantity				

Development of hardware and software interface for Story Teller upgraded; including CDL. Story Teller and Common Data Link (CDL) integration into SIL completed. Imagery development and Integration completed. Test and Evaluate Story Teller and CDL in SIL completed. Integrated Story Teller, CDL and antenna upgrade into aircraft.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.400	0.000	0.000	0.000
RDT&E Articles Quantity				

Story Finder integration and DT completed. DT slipped due to aircraft availability and required FY04 funding. Story Finder OT now included with Spiral 1 OT.

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME 2694 Advanced Digital Sensors		
<b>B. Accomplishments/Planned Program</b>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.317	0.000	0.000	0.000
RDT&E Articles Quantity				
Story Book DT/OT (including OPAL/ONYX) completed. Story Book upgraded (including CPC). Story Book signals analysis and upgrade receivers completed. Developed Story Book Analysis upgrades				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.813	0.000	0.000	0.000
RDT&E Articles Quantity				
Story Maker development, integration and demonstration completed. Story Maker into Systems Integration Lab (SIL) and performed flight test completed.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	4.643	3.432	12.024	6.920
RDT&E Articles Quantity				
JMOD Imagery engineering investigations completed. Mission system weight developed. Developed and demonstrated Special Projects (SP) Direction Finding (DF) upgrades for SP Systems Requirements Review (SRR). SP Communications/Infrastructure updated. Special Projects Modernization and Common Configuration Baseline (MCCB) program. Develop Spiral upgrades to the special collections subsystem, data communications and infrastructure. Address technology refresh and obsolescence issues.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	2.349	0.000	0.000	0.000
RDT&E Articles Quantity				
Story Finder MPEG upgrades and continued software development completed. Story Finder MPEG integration into SIL completed. Added MPEG message set to Story Teller.				

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME 2694 Advanced Digital Sensors		
<b>B. Accomplishments/Planned Program</b>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost		3.977	0.500	0.000
RDT&E Articles Quantity				
Spiral 1 integration and test includes high band and special collection subsystems (Story Finder and MPEG) and data dissemination (Story Teller), developed under 2694 in previous years.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost		2.614	8.322	3.981
RDT&E Articles Quantity				
Spiral 2 development included precision targeting capabilities, obsolescence and Story Maker. Additional special collection signal capabilities, Story Maker Data Fusion and MPEG frequency extension development.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost		0.000	7.072	6.831
RDT&E Articles Quantity				
The Technical Refresh and Obsolescence includes QRCs, low-band Radio Frequency Distribution (RFD) and Direction Finding (DF) subsystem replacement, Data Communications equipment replacement and special signal processing upgrades.				

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification		DATE:
		<b>February 2005</b>
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
<b>RDT&amp;E, N / BA-7</b>	0305206N Airborne Reconnaissance Systems	2694 Advanced Digital Sensors

**C. PROGRAM CHANGE SUMMARY:**

(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007
Previous President's Budget:	12.206	10.191	29.125	18.745
Current BES/President's Budget	11.906	10.023	27.918	17.732
Total Adjustments	-0.300	-0.168	-1.207	-1.013

Summary of Adjustments

Congressional program reductions				
Congressional undistributed reductions		-0.166		
Congressional rescissions				
SBIR/STTR Transfer				
Other adjustments		-0.002	-1.505	-1.259
Economic Assumptions			0.297	0.246
Reprogrammings	-0.300			
Congressional increases				
Subtotal	-0.300	-0.168	-1.208	-1.013

Schedule:

- T&E Milestones -
- Previously Spiral 1 and Spiral 2 DT and OT were combined.
- Spiral 1 DT extended through 1Q/06 due to program redesign.
- Spiral 2 DT moved from 1Q/06 to 3Q/06.
- Spiral 1 and 2 contract award slipped from 2Q/05 to 3Q/05 due to delay in contact negotiation.

Technical:

Not Applicable

R-1 SHOPPING LIST - Item No. 203

# UNCLASSIFIED

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>			
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>		PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME 2694 Advanced Digital Sensors					
<b>D. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
Line Item #36 APN-5 EP-3E OSIP 11-01	49.875	33.609	55.12	56.790	28.589	29.851	30.496	31.162		315.492
Line Item #47 APN-5 Special Projects Aircraft OSIP 19-97	56.014	16.551	20.762	14.330	14.697	14.997	15.356	15.722		168.429
<b>E. ACQUISITION STRATEGY:</b>										
Leverages/complements Air Force, Naval Research Laboratory, Office of Naval Research RDT&E efforts for technology insertions into EP-3E/SP productions programs.										

R-1 SHOPPING LIST - Item No. 203

**UNCLASSIFIED**

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			0305206N Airborne Reconnaissance Systems			2694 Advanced Digital Sensors						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Ancillary Hdwre Development-S.F.	SS/CPFF	BTG, Vienna, VA	0.898								0.898	0.898
AncillaryHdwre Development-S.F.	SS/CPFF	Raytheon Systems, IN/TX	4.287								4.287	4.287
Ancillary Hdwre Dev - MPEG	SS/CPFF	Lockheed Martin, CO	1.633								1.633	1.633
Ancillary Hdwre Development-S.T.	SS/CPFF	Raytheon Systems, IN	0.400								0.400	0.400
Ancillary Hdwre Development-S.B.	SS/CPFF	Raytheon Systems, TX	0.400								0.400	0.400
Ancillary Hdwre Development-CPC	SS/CPFF	Raytheon Systems, TX	1.447								1.447	1.447
Aircraft Integration	SS/CPFF	Raytheon Systems, TX	2.414								2.414	2.414
Ancillary Hdwre Development-ESM	SS/CPFF	Condor, San Jose, CA	2.868								2.868	2.868
Ancillary Hdwre Development-	SS/CPFF	CTC, Johnstown, PA	4.228								4.228	4.228
Ancillary Hdwre Development-S.C.	SS/CPFF	Raytheon Indianapolis, IN	5.162								5.162	5.162
Ancillary Hdwre Development-J2	SS/CPFF	L3Com,TX	1.148								1.148	1.148
Ancillary Hdwre Development-S.P.	SS/CPFF	Argon, VA	2.500	3.432	12/04	10.405	12/05	5.501	12/06		21.838	21.838
Ancillary Hdwre Dev - Spiral 1	SS/CPFF	L3Com,TX		2.359	04/05	0.250	12/05				2.609	2.609
Ancillary Hdwre Dev - Spiral 2	SS/CPFF	L3Com,TX		1.536	04/05	6.205	12/05	2.317	12/06	1.200	11.258	11.258
Ancillary Hdwre Dev - Obsolesescen	SS/CPFF	TBD				6.569	12/05	6.117	12/06	Continuing	Continuing	
Subtotal Product Development			27.385	7.327		23.429		13.935		Continuing	Continuing	
Remarks:												

R-1 SHOPPING LIST - Item No. 203

**UNCLASSIFIED**

Exhibit R-3, Project Cost Analysis  
(Exhibit R-3, page 9 of 21)



**UNCLASSIFIED**

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
<b>RDT&amp;E, N / BA-7</b>			0305206N Airborne Reconnaissance Systems			2694 Advanced Digital Sensors						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
DT/OT & Eval	WX	NAWC,AD Pax River, MD	0.520			0.350	12/05	0.348	12/06		1.218	
DT/OT & Eval	WX	NRL, MD	0.310			0.762	12/05	0.000	12/06		1.072	
T&E - Spiral 1	Various	Various		0.370	01/05						0.370	
T&E - Spiral 2	WX	NAWC,AD Pax River, MD				0.500	12/05	0.700	12/06	Continuing	Continuing	
Subtotal T&E			0.830	0.370		1.612		1.048		Continuing	Continuing	
Remarks:												
Systems Eng Suppt	WX	NAWC,AD Pax River, MD	1.000	0.350	01/05	0.524	12/05	0.555	12/06	Continuing	Continuing	
Travel	WX	NAWC,AD Pax River, MD	0.300	0.100	01/05	0.100	12/05	0.100	12/06	Continuing	Continuing	
ILS Suppt	WX	NAWC,AD Pax River, MD	0.150	0.050	01/05						0.200	
Subtotal Management			1.450	0.500		0.624		0.655		Continuing	Continuing	
Remarks:												
Total Cost			40.757	10.023		27.918		17.732		Continuing	Continuing	
Remarks:												

R-1 SHOPPING LIST - Item No. 203

**UNCLASSIFIED**

**Exhibit R-3, Project Cost Analysis**  
(Exhibit R-3, page 11 of 21)

# UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																										DATE: <b>February 2005</b>						
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>										PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems										PROJECT NUMBER AND NAME 2694 Advanced Digital Sensors												
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011			
	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	1	2	3	4
<b>Program Milestones</b> Milestones	SP SRR ▲																															
<b>Engineering</b> Milestones																																
<b>Test &amp; Evaluation</b> Milestones	SF DT ▲										<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Spiral 1 - DT</p> </div> <div style="text-align: center;"> <p>Spiral 2 - DT</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;"> <p>Spiral 1 - OT</p> </div> <div style="text-align: center;"> <p>Spiral 2 - OT</p> </div> </div>																					
<b>Contract</b> Milestones	Spiral 1 Contract Award										<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> </div> <div style="text-align: center;"> <p>Spiral 2 Contract Award</p> </div> </div>																					



**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems				PROJECT NUMBER AND NAME 2807 Hyperspectral Upgrade			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	<b>3.951</b>	<b>3.363</b>						
RDT&E Articles Qty								
<p><b>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b>          Efforts supports Congressional add for Modular Upgrades to Airborne Reconnaissance Sensors.</p>								

R-1 SHOPPING LIST - Item No.

203

**UNCLASSIFIED**

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME 2807 Hyperspectral Upgrade		
<b>(U) B. Accomplishments/Planned Program</b>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	2.029	0.500	0.000	0.000
RDT&E Articles Quantity				
FY 04: This effort continued the Hyperspectral upgrade to airborne cameras. FY 05: This effort will complete development of the Hyperspectral camera upgrade.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.567	1.500	0.000	0.000
RDT&E Articles Quantity				
FY 04: This effort continued development of the minispectrometer. FY 05: This effort will complete the minispectrometer and characterize the performance of the device.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	1.355	1.363	0.000	0.000
RDT&E Articles Quantity				
FY 04: This effort initiated flight testing of the Advanced Camera. FY 05: This effort will perform the testing of the Advanced Camera, particularly its long range performance.				

R-1 SHOPPING LIST - Item No.

203

# UNCLASSIFIED

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification	DATE: <b>February 2005</b>
---	----------------------------

APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME 2807 Hyperspectral Upgrade
---	---	---

**(U) C. PROGRAM CHANGE SUMMARY:**

(U) Funding:	FY 2004	FY 2005	FY 2006	FY 2007
Previous President's Budget:	3.951	0.000	0.000	0.000
Current BES/President's Budget	3.951	3.363	0.000	0.000
Total Adjustments	0.000	3.363	0.000	0

Summary of Adjustments

Congressional program reductions				
Congressional undistributed reductions				
Congressional rescissions				
SBIR/STTR Transfer				
Economic Assumptions				
Reprogrammings				
Reprioritization of requirements				
Congressional increases	0.000	3.363	0.000	0.000
Subtotal	0.000	3.363	0.000	0.000

(U) Schedule:

Not Applicable.

(U) Technical:

Not Applicable

R-1 SHOPPING LIST - Item No. 203

**Exhibit R-2a, RDTEEN Project Justification**  
(Exhibit R-2a, page 16 of 21)

# UNCLASSIFIED

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>			PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME 2807 Hyperspectral Upgrade				
<b>(U) D. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
Not applicable.										
 <b>(U) E. ACQUISITION STRATEGY:</b>										
Not applicable.										

R-1 SHOPPING LIST - Item No. 203

# UNCLASSIFIED

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, BA-7</b>		PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME 9651 Passive Collision Avoidance and Reconnaissance			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		<b>0.989</b>						
RDT&E Articles Qty								

**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:**

Effort supports Congressional add for Passive Collision Avoidance and Reconnaissance.

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME 9651 Passive Collision Avoidance and Reconnaissance		
<b>(U) B. Accomplishments/Planned Program</b>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.400	0.000	0.000
RDT&E Articles Quantity				
FY 05: This effort will assemble brassboard device				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.400	0.000	0.000
RDT&E Articles Quantity				
FY 05: This effort will perform target and background measurements.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	0.000	0.189	0.000	0.000
RDT&E Articles Quantity				
FY 05: This effort will assess the effectiveness of the target detection and false alarm rejection algorithms.				

R-1 SHOPPING LIST - Item No. 203

# UNCLASSIFIED

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDTE, N / BA-7</b>	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME 9651 Passive Collision Avoidance and Reconnaissance			
<b>(U) C. PROGRAM CHANGE SUMMARY:</b>					
(U) Funding:		FY 2004	FY 2005	FY 2006	FY 2007
Previous President's Budget:		0.000	0.000	0.000	0.000
Current BES/President's Budget		0.000	0.989	0.000	0.000
Total Adjustments		0.000	0.989	0.000	0.000
Summary of Adjustments					
Congressional program reductions					
Congressional undistributed reductions					
Congressional rescissions					
SBIR/STTR Transfer					
Economic Assumptions					
Reprogrammings					
Reprioritization of requirements					
Congressional increases		0.000	0.989		
Subtotal		0.000	0.989	0.000	0.000
(U) Schedule:					
Not Applicable.					
(U) Technical:					
Not Applicable					

R-1 SHOPPING LIST - Item No. 203

**UNCLASSIFIED**

**CLASSIFICATION:**

EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-7</b>			PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME 9651 Passive Collision Avoidance and Reconnaissance				
<b>(U) D. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
Not applicable.										
 <b>(U) E. ACQUISITION STRATEGY:</b>										
Not applicable.										

R-1 SHOPPING LIST - Item No. 203

**UNCLASSIFIED**