

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification							DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7					R-1 ITEM NOMENCLATURE 0305206N Airborne Reconnaissance Systems			
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total PE Cost	17.272	16.171	13.345	10.313	29.290	18.871	19.226	19.578
	*							
H2694 Advanced Digital Sensors	8.099	2.521	13.345	10.313	29.290	18.871	19.226	19.578
	**							
R2476 Framing Reconnaissance Camera	9.173	2.817						
R2807 Hyperspectral Upgrade to Airborne Cameras		3.416						
R9114 Electro-Optical Framing Reconnaissance Camera		4.977						
R9115 NRL Applied Optics Reconnaissance Technology		2.440						

*The FY2002 budget reflects Congressional adds for Mission System Weight Development (\$2.5M) executed under H9129; which has been reduced by \$.022M for Congressional undistributed adjustments. **The FY2002 includes Congressional adds reflecting Hyperspectral Modular Upgrades (\$2.6M) executed under R2746 and Electro-Optical (EO) Framing Technologies (\$6.6M) executed under R2676.

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 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. The advanced sensor developments will provide the technology transition modules for operational use necessary for the overall migration of the airborne fleet (manned and unmanned) to a Joint Airborne SIGINT Architecture (JASA) (i.e., sensors, ground systems, data links, and platforms), and provide the mechanism required for timely dissemination of intelligence information to operational forces. In addition, funds provide for the development/integration and operational assessment of JASA compliant components for the EP-3E and Special Projects (SP) aircraft. Coordinated and complementary airborne sensor development across the military Services and the Defense and Intelligence Agencies are being established for inclusion into the JASA. 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.

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Exhibit R-2, RDTEN Budget Item Justification
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EXHIBIT R-2, RDT&E Budget Item Justification		DATE: February 2003
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY /BA-5	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. Transition of sensors to AF TARS, and Navy TARPS-CD and SHARP programs has been successful. Congress added funds in FY 2001 to (1) develop and Advanced Focal Plane Array for smaller electro-optical framing size, (2) develop and upgrade the Sensor to and 18 inch lens and integrate an existing dual banned sensor into the TARP pod, and (3) to upgrade the Airborne Reconnaissance System Hyperspectral Module.</p>		

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EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME H2694 Advanced Digital Sensors			
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	8.099*	2.521	13.345	10.313	29.290	18.871	19.226	19.578

*The FY2002 budget reflects a (\$2.5M) Congressional add for Mission System Weight Development executed under H9129; which has been reduced by \$.022M for Congressional undistributed adjustments.

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 analyses, 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.

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME H2694 Advanced Digital Sensors		
(U) B. Accomplishments/Planned Program				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.692	0.386	0.811	2.432
RDT&E Articles Quantity				
Story Classic (Special Collections) ALD-9 replacement engineering study. Story Classic Collection Upgrade PDR & CDR. Test and integrate initial Story Classic Collection into SIL. Story Classic Collection upgrades and demonstration.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.520	0.733	3.084	1.047
RDT&E Articles Quantity				
Development of hardware and software interface for Story Teller upgrades; including CDL. Story Teller and Common Data Link (CDL) integration into SIL. Imagery development and Integration. Test and Evaluate Story Teller and CDL in SIL. Integrate Story Teller, CDL and antenna upgrade into aircraft.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.100	0.462	0.000	0.000
RDT&E Articles Quantity				
Story Finder integration and DT/OT.				

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME H2694 Advanced Digital Sensors		
(U) B. Accomplishments/Planned Program				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.400	0.000	0.317	0.725
RDT&E Articles Quantity				
Story Book DT/OT (including OPAL/ONYX). Story Book upgrade (including CPC). Story Book signals analysis and upgrade receivers. Development of Story Book Analysis upgrades				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	1.306	0.450	1.841	0.427
RDT&E Articles Quantity				
Story Maker development, integration and demonstration. Story Maker into Systems Integration Lab (SIL) and perform flight test.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	2.677	0.000	4.943	3.575
RDT&E Articles Quantity				
JMOD Imagery engineering investigations. Mission system weight development. Develop and demonstrate Special Projects (SP) DF upgrade for SP Systems Requirements Review (SRR). Special Projects Communications/Infrastructure update.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	2.404	0.490	2.349	2.107
RDT&E Articles Quantity				
Story Finder MPEG upgrades and continued software development. Story Finder MPEG integration into SIL. Story Finder MPEG integration on TKI. Add MPEG message set to Story Teller.				

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<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 35%;">(U) Funding:</th> <th style="text-align: right; width: 15%;">FY 2002</th> <th style="text-align: right; width: 15%;">FY 2003</th> <th style="text-align: right; width: 15%;">FY 2004</th> <th style="text-align: right; width: 15%;">FY 2005</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget:</td> <td style="text-align: right;">8.163</td> <td style="text-align: right;">2.582</td> <td style="text-align: right;">13.713</td> <td style="text-align: right;">21.602</td> </tr> <tr> <td>Current BES/President's Budget</td> <td style="text-align: right;">8.099</td> <td style="text-align: right;">2.521</td> <td style="text-align: right;">13.345</td> <td style="text-align: right;">10.313</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-0.064</td> <td style="text-align: right; border-top: 1px solid black;">-0.061</td> <td style="text-align: right; border-top: 1px solid black;">-0.368</td> <td style="text-align: right; border-top: 1px solid black;">-11.289</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td> Congressional program reductions</td> <td></td> <td style="text-align: right;">-0.015</td> <td></td> <td></td> </tr> <tr> <td> Congressional undistributed reductions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Congressional rescissions</td> <td style="text-align: right;">-0.017</td> <td></td> <td></td> <td></td> </tr> <tr> <td> SBIR/STTR Transfer</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Economic Assumptions</td> <td style="text-align: right;">-0.023</td> <td style="text-align: right;">-0.046</td> <td style="text-align: right;">-0.308</td> <td style="text-align: right;">-0.222</td> </tr> <tr> <td> Reprogrammings</td> <td style="text-align: right;">-0.024</td> <td></td> <td></td> <td></td> </tr> <tr> <td> Other Navy/OSD Adjustments</td> <td></td> <td></td> <td style="text-align: right;">-0.060</td> <td style="text-align: right;">-11.067</td> </tr> <tr> <td> Reprioritization of requirements</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Congressional increases</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Subtotal</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">-0.064</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">-0.061</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">-0.368</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">-11.289</td> </tr> </tbody> </table> <p style="margin-top: 20px;">(U) Schedule:</p> <p>Program Milestones - The FY02 JMOD 1 LRIP milestone was moved to 3Q/02 to reflect the rebaseline of the EP-3E JMOD 1 program, due to addition of Baseline Update. JMOD1 FRP milestone moved from 2Q/06 to 3Q/04 due to Acquisition Strategy Review (ASR) approval. Engineering Milestones - The FY02 PDR moved to 2Q/03 and the CDR to 4Q/03 to reflect the late JMOD contract award due to loss of USAF JASPO funds. T&E Milestones - The FY03 JMOD DT completes 4Q/03 and OT completes in 1Q/04. The FY05 Story Maker DT/OT was moved to 4Q/06 to reflect the Sponsor Adjustment. Contract Milestones - The 4Q/02 TKI R&D contract award was moved from 1Q/02 to 4Q/02 to reflect the baseline for the EP-3E program.</p> <p style="margin-top: 20px;">(U) Technical:</p> <p>Not Applicable</p>					(U) Funding:	FY 2002	FY 2003	FY 2004	FY 2005	Previous President's Budget:	8.163	2.582	13.713	21.602	Current BES/President's Budget	8.099	2.521	13.345	10.313	Total Adjustments	-0.064	-0.061	-0.368	-11.289	Summary of Adjustments					Congressional program reductions		-0.015			Congressional undistributed reductions					Congressional rescissions	-0.017				SBIR/STTR Transfer					Economic Assumptions	-0.023	-0.046	-0.308	-0.222	Reprogrammings	-0.024				Other Navy/OSD Adjustments			-0.060	-11.067	Reprioritization of requirements					Congressional increases					Subtotal	-0.064	-0.061	-0.368	-11.289
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EXHIBIT R-2a, RDT&E Project Justification								DATE: February 2003		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7			PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME H2694 Advanced Digital Sensors				

(U) D. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2002</u>	<u>FY 2003</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>To Complete</u>	<u>Total Cost</u>
Line Item #35 APN-5 EP-3E OSIP 11-01	50.652	57.704	31.506	38.821	55.728	62.520	62.47	63.56	448.218	871.179
Line Item #46 APN-5 Special Projects Aircraft OSIP 19-97	0.000	10.866	49.601	21.037	31.834	24.313	24.753	25.159	0.000	187.563

(U) E. ACQUISITION STRATEGY:

Leverages/complements Air Force, Naval Research Laboratory, Office of Naval Research RDT&E efforts for technology insertions into EP-3E/SP productions programs.

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Exhibit R-3 Cost Analysis (page 1)								DATE: February 2003				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			0305206N Airborne Reconnaissance Systems			H2694 Advanced Digital Sensors						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 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	0.977	0.386	12/02	0.270	12/03	1.300	12/04	0.496	3.429	3.429
Ancillary Hdwre Development-S.T.	SS/CPFF	Raytheon Systems, IN		0.100	12/02	0.300	12/03	1.047	12/04	0.750	2.197	2.197
Ancillary Hdwre Development-S.B.	SS/CPFF	Raytheon Systems, TX		0.400	12/02					2.000	2.400	2.400
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
Weight Reduction, Congressional												
Ancillary Hdwre Development-S.C.	SS/CPFF	Raytheon Indianapolis, IN				6.301	12/03	2.123	12/04	18.271	26.695	26.695
Ancillary Hdwre Development-J2	SS/CPFF	L3Com,TX				1.148	12/03	0.923	12/04		2.071	2.071
Ancillary Hdwre Development-S.P.	SS/CPFF	Argon, VA				2.500	12/03				2.500	2.500
Ancillary Hdwre Development-S.P.	SS/CPFF	L3Com,TX						2.224	12/04		2.224	2.224
Ancillary Hdwre Development	SS/CPFF	Raytheon Systems, TX						0.000		12.897	12.897	12.897
Subtotal Product Development			17.119	0.886		10.519		7.617		34.414	70.555	
Remarks:												

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Exhibit R-3, Project Cost Analysis
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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)										DATE: February 2003		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7			PROGRAM ELEMENT 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME H2694 Advanced Digital Sensors						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
DT/OT & Eval	WX	NAWC,AD Pax River, MD	0.250			0.270	11/03	0.250	11/04	Continuing	Continuing	
DT/OT & Eval	WX	NRL, MD	0.100	0.100	11/02	0.110	11/03	0.120	11/04	Continuing	Continuing	
Subtotal T&E			0.350	0.100		0.380		0.370		Continuing	Continuing	
Remarks:												
Systems Eng Suppt	WX	NAWC,AD Pax River, MD	0.788	0.139	11/02	0.350	11/03	0.350	11/04	Continuing	Continuing	
Travel			0.100	0.100	11/02	0.100	11/03	0.100	11/04			
ILS Suppt			0.050	0.050	11/02	0.050	11/03	0.050	11/04			
Subtotal Management			0.938	0.289		0.500		0.500		Continuing	Continuing	
Remarks:												
Total Cost			26.307	2.521		13.345		10.313		Continuing	Continuing	
Remarks:												

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Exhibit R-3, Project Cost Analysis
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EXHIBIT R4, Schedule Profile																								DATE:				February 2003				
APPROPRIATION/BUDGET ACTIVITY									PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-7									0305206N Airborne Reconnaissance Systems												H2694 Advanced Digital Sensors											
Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009			
	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				
Program Milestones			LRIP			FRP (MS III)				SP SRR	FRP																					
Milestones			▲			△				△	△																					
Engineering						PDR		CDR																								
Milestones						△		△																								
Test & Evaluation																																
Milestones																																
Development Test																																
Operational Test																																
Contract																																
Milestones																																

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* Not required for Budget Activities 1, 2, 3, and 6

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Exhibit R-4, Schedule Profile
(Exhibit R-4, page 11 of 46)

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Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 12 of 46)

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7		PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems				PROJECT NUMBER AND NAME R2476 Framing Reconnaissance Camera		
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	*							
	9.218	2.817						
RDT&E Articles Qty								
<p>*The FY2002 includes Congressional adds reflecting Hyperspectral Modular Upgrades (\$2.6 million) which will be executed under R2476 and Electro-Optical (EO) Framing Technologies (\$6.6 million) which will be executed under R2676.</p> <p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <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. Transition of sensors to AF TARS, and Navy TARPS-CD and SHARP programs has been successful. Congress added funds in FY 2001 to (1) develop and Advanced Focal Plane Array for smaller electro-optical framing size, (2) develop and upgrade the Sensor to and 18 inch lens and integrate an existing dual banned sensor into the TARP pod, and (3) to upgrade the Airborne Reconnaissance System Hyperspectral Module.</p>								

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME R2476 Framing Reconnaissance Camera		
(U) B. Accomplishments/Planned Program				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.500	0.000	0.000
RDT&E Articles Quantity				
Demonstration of JPEG 2000 Image Decompression Boards.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.656	0.500	0.000	0.000
RDT&E Articles Quantity				
Hyperspectral Target Cueing Demonstration. End-to-end demonstration using JPEG 2000 Boards.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.317	0.000	0.000
RDT&E Articles Quantity				
EO Framing Camera Upgrades for Precision Strike. Real time data fusion processor.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	1.500	0.000	0.000
RDT&E Articles Quantity				
Airborne Image Exploitation System upgrades.				

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EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2003																																																																												
APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME R2476 Reconnaissance Camera																																																																													
<p>(U) C. PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 35%;">(U) Funding:</th> <th style="text-align: right; width: 15%;">FY 2002</th> <th style="text-align: right; width: 15%;">FY 2003</th> <th style="text-align: right; width: 15%;">FY 2004</th> <th style="text-align: right; width: 15%;">FY 2005</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget:</td> <td style="text-align: right;">9.218</td> <td style="text-align: right;">2.887</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> </tr> <tr> <td>Current BES/President's Budget</td> <td style="text-align: right;">9.218</td> <td style="text-align: right;">2.817</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> <td style="text-align: right; border-top: 1px solid black;">-0.070</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> <td style="text-align: right; border-top: 1px solid black;">0.000</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td> Congressional program reductions</td> <td></td> <td style="text-align: right;">-0.054</td> <td></td> <td></td> </tr> <tr> <td> Congressional undistributed reductions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Congressional rescissions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> SBIR/STTR Transfer</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Economic Assumptions</td> <td></td> <td style="text-align: right;">-0.016</td> <td></td> <td></td> </tr> <tr> <td> Reprogrammings</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Other Navy/OSD Adjustments</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Reprioritization of requirements</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Congressional increases</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td> Subtotal</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">0.000</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">-0.070</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">0.000</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">0.000</td> </tr> </tbody> </table> <p style="margin-top: 20px;">(U) Schedule: Not Applicable.</p> <p style="margin-top: 20px;">(U) Technical: Not Applicable</p>					(U) Funding:	FY 2002	FY 2003	FY 2004	FY 2005	Previous President's Budget:	9.218	2.887	0.000	0.000	Current BES/President's Budget	9.218	2.817	0.000	0.000	Total Adjustments	0.000	-0.070	0.000	0.000	Summary of Adjustments					Congressional program reductions		-0.054			Congressional undistributed reductions					Congressional rescissions					SBIR/STTR Transfer					Economic Assumptions		-0.016			Reprogrammings					Other Navy/OSD Adjustments					Reprioritization of requirements					Congressional increases					Subtotal	0.000	-0.070	0.000	0.000
(U) Funding:	FY 2002	FY 2003	FY 2004	FY 2005																																																																											
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Subtotal	0.000	-0.070	0.000	0.000																																																																											

R-1 SHOPPING LIST - Item No. 206

Exhibit R-2a, RDTE Project Justification
(Exhibit R-2a, page 15 of 46)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2003																									
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5			PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME R2476 Framing Reconnaissance Camera																										
<p>(U) D. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Line Item No. & Name</th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2002</th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2003</th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2004</th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2005</th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2006</th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2007</th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2008</th> <th style="text-align: center; border-bottom: 1px solid black;">FY 2009</th> <th style="text-align: center; border-bottom: 1px solid black;">To Complete</th> <th style="text-align: center; border-bottom: 1px solid black;">Total Cost</th> </tr> </thead> <tbody> <tr> <td style="padding-top: 10px;">PE 0305207N, DARP, Special Project A/C</td> <td style="text-align: center; padding-top: 10px;">27.443</td> <td style="text-align: center; padding-top: 10px;">29.335</td> <td style="text-align: center; padding-top: 10px;">10.649</td> <td style="text-align: center; padding-top: 10px;">10.939</td> <td style="text-align: center; padding-top: 10px;">11.410</td> <td style="text-align: center; padding-top: 10px;">11.589</td> <td></td> <td></td> <td style="text-align: center; padding-top: 10px;">11.764</td> <td style="text-align: center; padding-top: 10px;">113.129</td> </tr> </tbody> </table> <p style="margin-top: 40px;">(U) E. ACQUISITION STRATEGY:</p> <p style="margin-left: 20px;">The program is to develop framing reconnaissance camera technology to support improved capabilities for programs such as SHARP.</p>											Line Item No. & Name	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Cost	PE 0305207N, DARP, Special Project A/C	27.443	29.335	10.649	10.939	11.410	11.589			11.764	113.129
Line Item No. & Name	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To Complete	Total Cost																						
PE 0305207N, DARP, Special Project A/C	27.443	29.335	10.649	10.939	11.410	11.589			11.764	113.129																						

R-1 SHOPPING LIST - Item No. 206

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE:				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			February 2003						
RDT&E, N / BA-7			0305206N Airborne Reconnaissance Advanced Develo			R2476 Framing Reconnaissance Camera						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
IR Array	C/CPFF	Recon Opt., Barrington, IL	1.661								1.661	1.661
Dual Band Camera	C/CPFF	Recon Opt., Barrington, IL	12.212								12.212	12.212
Long Range Camera	C/CPFF	Recon Opt., Barrington, IL	2.000								2.000	2.000
Hyperspectral Module	C/CPFF	Recon Opt., Barrington, IL	1.500								1.500	1.500
Camera for Hyperspectral	C/CPFF	Recon Opt., Barrington, IL	1.000								1.000	1.000
Visible and SWIR Modules	C/CPFF	ITS, Honolulu, HI	3.300								3.300	3.300
Precision Strike System	C/CPFF	Recon Opt., Barrington, IL	1.250								1.250	1.250
Flight Tests	WR	NRL, Wash DC	2.290								2.290	2.290
Compression board development	C/CPFF	Space Dyn. Lab. Logan, UT	3.400								3.400	3.400
Precision Strike camera	C/CPFF	Recon Opt., Barrington, IL	1.290								1.290	1.290
100 Megapixel Camera Test	C/CPFF	Recon Opt., Barrington, IL	4.513								4.513	4.513
Hyperspectral Modular Upgrades	CPFF	Recon Opt., Barrington, IL	6.500								6.500	6.500
Development Upgrade Integrate Sensor	CPFF	Recon Opt., Barrington, IL	4.980								4.980	4.980
Develop advanced focal plane shutter	WR	MIT Lincoln Lab, Bedford MA	0.170								0.170	0.170
Hyperspectral Target Cueing Demo	CPFF	Recon Opt., Barrington, IL	0.656	0.500	06/03						1.156	1.156
EO Framing Camera Upgrades	CPFF	Recon Opt., Barrington, IL	5.903	0.317	10/03						6.220	6.220
Decompression Board Development	CPFF	Space Dyn. Lab. Logan, UT	0.800								0.800	0.800
Real Time Data Fusion Processor	TBD	TBD									0.000	0.000
Flight Test Support	CPFF	Recon Opt., Barrington, IL	0.940								0.940	0.940
Decompression Board Demonstration	CPFF	Space Dyn. Lab. Logan, UT		0.500	03/03							
ARIES Upgrades	CPFF	Space Dyn. Lab. Logan, UT		1.500	03/03							
Subtotal Product Development			54.365	2.817		0.000		0.000			57.182	55.182
Remarks:												

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Exhibit R-3 Project Cost Analysis
(Exhibit R-3, page 17 of 46)

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: February 2003			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT				PROJECT NUMBER AND NAME						
RDT&E, BA-7			0305206N Airborne Reconnaissance Advanced Develop				R2476 Framing Reconnaissance Camera						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Camera test support	C/CPFF	NRL, Wash, DC	0.672							0.000	0.672	0.672	
Subtotal T&E			0.672							0.000	0.672		
Remarks:													
Contractor Engineering Support	C/CPFF	Various	4.234								4.234	4.234	
Systems Support	WR	NRL, Wash, DC	1.114								1.114	1.114	
Subtotal Management			5.348	0.000				0.000			5.348		
Remarks:													
Total Cost			60.385	2.817		0.000		0.000			63.202		
Remarks: This program has no support costs.													

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Exhibit R-3 Project Cost Analysis
(Exhibit R-3, page 18 of 46)

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CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:											
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-7												0305206N Airborne Reconnaissance Systems												R2476 Framing Reconnaissance Cameras											
Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009						
	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			
Program Milestones																																			
Engineering																																			
Milestones																																			
Test & Evaluation																																			
Milestones																																			
Development Test																																			
Operational Test																																			
Contract																																			
Milestones																																			

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CLASSIFICATION:

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R-1 SHOPPING LIST - Item No. 206

Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 20 of 46)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems				PROJECT NUMBER AND NAME R2807 Hyperspectral Upgrade to Airborne Cameras			
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	0.000	3.416						
RDT&E Articles Qty								

*The FY2003 includes Congressional adds reflecting Hyperspectral Upgrades to Airborne Cameras (\$3.416 million) which will be executed under R2807 .

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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. Transition of sensors to AF TARS, and Navy TARPS-CD and SHARP programs has been successful. Congress added funds in FY 2001 to (1) develop and Advanced Focal Plane Array for smaller electro-optical framing size, (2) develop and upgrade the Sensor to and 18 inch lens and integrate an existing dual banned sensor into the TARP pod, and (3) to upgrade the Airborne Reconnaissance System Hyperspectral Module.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME R2807 Hyperspectral Upgrade to Airborne Cameras		
(U) B. Accomplishments/Planned Program				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	3.416	0.000	0.000
RDT&E Articles Quantity				
Hyperspectral upgrade to airborne cameras.				

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME R2807 Hyperspectral Upgrade to Airborne Cameras		

(U) C. PROGRAM CHANGE SUMMARY:

	FY 2002	FY 2003	FY 2004	FY 2005
(U) Funding:				
Previous President's Budget:	0.000	0.000	0.000	0.000
Current BES/President's Budget	0.000	0.000	0.000	0.000
Total Adjustments	0.000	0.000	0.000	0.000
Summary of Adjustments				
Congressional program reductions				
Congressional undistributed reductions				
Congressional rescissions				
SBIR/STTR Transfer				
Economic Assumptions				
Reprogrammings				
Other Navy/OSD Adjustments				
Reprioritization of requirements				
Congressional increases		3.416		
Subtotal	0.000	3.416	0.000	0.000

(U) Schedule:

Not Applicable.

(U) Technical:

Not Applicable

R-1 SHOPPING LIST - Item No. 206

Exhibit R-2a, RDTEEN Project Justification
(Exhibit R-2a, page 23 of 46)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2003			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME R2807 Hyperspectral Upgrade to Airborne Cameras					
(U) D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2002</u>	<u>FY 2003</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>To Complete</u>	<u>Total Cost</u>
PE 0305207N, DARP, Special Project A/C	27.443	29.335	10.649	10.939	11.410	11.589			11.764	113.129
 (U) E. ACQUISITION STRATEGY:										
The program is to develop framing reconnaissance camera technology to support improved capabilities for programs such as SHARP.										

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R-1 SHOPPING LIST - Item No. 206

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 25 of 46)

Exhibit R-3 Cost Analysis (page 1)						DATE: February 2003						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			0305206N Airborne Reconnaissance Advanced Develop			R2807 Hyperspectral Upgrade to Airborne Cameras						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Hyperspectral Modular Upgrades	C/CPFF	TBD		3.000	06/03						3.000	3.000
Technical Support	WR	NRL, Wash DC		0.208							0.208	0.208
Subtotal Product Development				3.208							3.208	3.208
Remarks:												

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)							DATE: February 2003					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-7			0305206N Airborne Reconnaissance Advanced Develop			R2807 Hyperspectral Upgrade to Airborne Cameras						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Camera test support	C/CPFF	NRL, Wash, DC	0.672	0.208						0.000	0.880	0.880
Subtotal T&E			0.672	0.208						0.000	0.880	
Remarks:												
											0.000	0.000
											0.000	0.000
Subtotal Management			0.000	0.000				0.000			0.000	
Remarks:												
Total Cost			0.672	3.416		0.000		0.000			4.088	
Remarks: This program has no support costs.												

R-1 SHOPPING LIST - Item No. 206

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CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE: February 2003								
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7										PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems										PROJECT NUMBER AND NAME R2807 Hyperspectral Upgrade to Airborne Cameras												
Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009			
	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				
Program Milestones																																
Engineering					Hyperspectral Module				Camera Upgrade																							
Milestones																																
Test & Evaluation																																
Milestones																																
Development Test																																
Operational Test																																
Contract																																
Milestones																																

R-1 SHOPPING LIST - Item No. 206

* Not required for Budget Activities 1, 2, 3, and 6

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R-1 SHOPPING LIST - Item No. 206

Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 28 of 46)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems				PROJECT NUMBER AND NAME R9114 Electro-Optical Framing Reconnaissance Camera			
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	0.000	4.977						
RDT&E Articles Qty								

*The FY2003 includes Congressional adds reflecting Electro-Optical Framing Reconnaissance Cameras (\$4.977 million) which will be executed under R9114 .

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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. Transition of sensors to AF TARS, and Navy TARPS-CD and SHARP programs has been successful. Congress added funds in FY 2001 to (1) develop and Advanced Focal Plane Array for smaller electro-optical framing size, (2) develop and upgrade the Sensor to and 18 inch lens and integrate an existing dual banned sensor into the TARP pod, and (3) to upgrade the Airborne Reconnaissance System Hyperspectral Module.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME R9114 Electro-Optical Framing Reconnaissance Camera		
(U) B. Accomplishments/Planned Program				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.250	0.000	0.000
RDT&E Articles Quantity				
Electro-Optical Framing Reconnaissance Cameras. Improve the producibility of large format infrared focal plane array detectors.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.450	0.000	0.000
RDT&E Articles Quantity				
Electro-Optical Framing Reconnaissance Cameras. Develop zoom lens capability.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	2.277	0.000	0.000
RDT&E Articles Quantity				
Electro-Optical Framing Reconnaissance Cameras. Develop CMOS imager.				

R-1 SHOPPING LIST - Item No.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2003																
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME R9114 Electro-Optical Framing Reconnaissance Camera																	
(U) B. Accomplishments/Planned Program																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 25%;"></th><th style="width: 15%;">FY 02</th><th style="width: 15%;">FY 03</th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td style="text-align: center;">0.000</td><td style="text-align: center;">0.400</td><td style="text-align: center;">0.000</td><td style="text-align: center;">0.000</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table>						FY 02	FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost	0.000	0.400	0.000	0.000	RDT&E Articles Quantity				
	FY 02	FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost	0.000	0.400	0.000	0.000															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; height: 40px; margin-top: 10px;"></div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 25%;"></th><th style="width: 15%;">FY 02</th><th style="width: 15%;">FY 03</th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td style="text-align: center;">0.000</td><td style="text-align: center;">1.600</td><td style="text-align: center;">0.000</td><td style="text-align: center;">0.000</td></tr><tr><td>RDT&E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table>						FY 02	FY 03	FY 04	FY 05	Accomplishments/Effort/Subtotal Cost	0.000	1.600	0.000	0.000	RDT&E Articles Quantity				
	FY 02	FY 03	FY 04	FY 05															
Accomplishments/Effort/Subtotal Cost	0.000	1.600	0.000	0.000															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; height: 60px; margin-top: 10px;"></div>																			

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME R9114 Electro-Optical Framing Reconnaissance Camera		

(U) C. PROGRAM CHANGE SUMMARY:

	FY 2002	FY 2003	FY 2004	FY 2005
(U) Funding:				
Previous President's Budget:	0.000	0.000	0.000	0.000
Current BES/President's Budget	0.000	0.000	0.000	0.000
Total Adjustments	0.000	0.000	0.000	0.000
Summary of Adjustments				
Congressional program reductions				
Congressional undistributed reductions				
Congressional rescissions				
SBIR/STTR Transfer				
Economic Assumptions				
Reprogrammings				
Othre Navy/OSD Adjustments				
Reprioritization of requirements				
Congressional increases		4.977		
Subtotal	0.000	4.977	0.000	0.000

(U) Schedule:

Not Applicable.

(U) Technical:

Not Applicable

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Exhibit R-2a, RDTEEN Project Justification
(Exhibit R-2a, page 32 of 46)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2003			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME R9114 Electro-Optical Framing Reconnaissance Camera					
(U) D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2002</u>	<u>FY 2003</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>To Complete</u>	<u>Total Cost</u>
PE 0305207N, DARP, Special Project A/C	27.443	29.335	10.649	10.939	11.410	11.589			11.764	113.129
 (U) E. ACQUISITION STRATEGY:										
The program is to develop framing reconnaissance camera technology to support improved capabilities for programs such as SHARP.										

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R-1 SHOPPING LIST - Item No. 206

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 34 of 46)

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)							DATE: February 2003						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME							
RDT&E, N / BA-7			0305206N Airborne Reconnaissance Advanced Develop			R9114 Electro-Optical Framing Reconnaissance Camera							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Camera test support	C/CPFF	NRL, Wash, DC	0.000	0.389						0.000	0.389	0.389	
Subtotal T&E			0.000	0.389						0.000	0.389		
Remarks:													
											0.000	0.000	
											0.000	0.000	
Subtotal Management			0.000	0.000				0.000			0.000		
Remarks:													
Total Cost			0.000	4.977		0.000		0.000			4.977		
Remarks: This program has no support costs.													

R-1 SHOPPING LIST - Item No. 206

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UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:											
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-7												0305206N Airborne Reconnaissance Systems												R9114 Electro-Optical Framing Reconnaissance Camera											
Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009						
	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			
Program Milestones																																			
Engineering Milestones																																			
Test & Evaluation Milestones																																			
Development Test																																			
Operational Test																																			
Contract Milestones																																			

* Not required for Budget Activities 1, 2, 3, and 6

UNCLASSIFIED

CLASSIFICATION:

[illegible]

R-1 SHOPPING LIST - Item No. 206

Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 37 of 46)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems				PROJECT NUMBER AND NAME R9115 NRL Applied Optics Reconnaissance Technology			
COST (\$ in Millions)	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Project Cost	*							
	0.000	2.440						
RDT&E Articles Qty								

*The FY2003 includes Congressional adds reflecting NRL Applied Optics Reconnaissance Technology (\$2.440 million) which will be executed under R9114 .

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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. Transition of sensors to AF TARS, and Navy TARPS-CD and SHARP programs has been successful. Congress added funds in FY 2001 to (1) develop and Advanced Focal Plane Array for smaller electro-optical framing size, (2) develop and upgrade the Sensor to and 18 inch lens and integrate an existing dual banned sensor into the TARP pod, and (3) to upgrade the Airborne Reconnaissance System Hyperspectral Module.

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME R9115 NRL Applied Optics Reconnaissance Technology		
(U) B. Accomplishments/Planned Program				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.790	0.000	0.000
RDT&E Articles Quantity				
NRL Applied Optics Reconnaissance Technology. Advanced camera with long focal length lens.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.500	0.000	0.000
RDT&E Articles Quantity				
NRL Applied Optics Reconnaissance Technology. Interchangeable EO and IR lenses.				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.750	0.000	0.000
RDT&E Articles Quantity				
NRL Applied Optics Reconnaissance Technology. High frame rate camera.				

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME R9115 NRL Applied Optics Reconnaissance Technology		
(U) B. Accomplishments/Planned Program				
	FY 02	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	0.400	0.000	0.000
RDT&E Articles Quantity				
NRL Applied Optics Reconnaissance Technology. Ball gimbal mount.				

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2003	
APPROPRIATION/BUDGET ACTIVITY RDTE&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems	PROJECT NUMBER AND NAME R9115 NRL Applied Optics Reconnaissance Technology		

(U) C. PROGRAM CHANGE SUMMARY:

	FY 2002	FY 2003	FY 2004	FY 2005
(U) Funding:				
Previous President's Budget:	0.000	0.000	0.000	0.000
Current BES/President's Budget	0.000	0.000	0.000	0.000
Total Adjustments	0.000	0.000	0.000	0.000
Summary of Adjustments				
Congressional program reductions				
Congressional undistributed reductions				
Congressional rescissions				
SBIR/STTR Transfer				
Economic Assumptions				
Reprogrammings				
Other Navy/OSD Adjustments				
Reprioritization of requirements				
Congressional increases		2.440		
Subtotal	0.000	2.440	0.000	0.000

(U) Schedule:

Not Applicable.

(U) Technical:

Not Applicable

R-1 SHOPPING LIST - Item No. 206

Exhibit R-2a, RDTEEN Project Justification
(Exhibit R-2a, page 41 of 46)

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UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2003			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0305206N Airborne Reconnaissance Systems			PROJECT NUMBER AND NAME R9115 NRL Applied Optics Reconnaissance Technology					
(U) D. OTHER PROGRAM FUNDING SUMMARY:										
<u>Line Item No. & Name</u>	<u>FY 2002</u>	<u>FY 2003</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>To Complete</u>	<u>Total Cost</u>
PE 0305207N, DARP, Special Project A/C	27.443	29.335	10.649	10.939	11.410	11.589			11.764	113.129
 (U) E. ACQUISITION STRATEGY:										
The program is to develop framing reconnaissance camera technology to support improved capabilities for programs such as SHARP.										

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Remarks:

R-1 SHOPPING LIST - Item No. 206

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 43 of 46)

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)							DATE: February 2003						
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME							
RDT&E, N / BA-7			0305206N Airborne Reconnaissance Advanced Develop			R9115 NRL Applied Optics Reconnaissance Technology							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Camera test support	C/CPFF	NRL, Wash, DC	0.000	0.470						0.000	0.470	0.470	
Subtotal T&E			0.000	0.470						0.000	0.470		
Remarks:													
											0.000	0.000	
											0.000	0.000	
Subtotal Management			0.000	0.000				0.000			0.000		
Remarks:													
Total Cost			0.000	2.440		0.000		0.000			2.440		
Remarks: This program has no support costs.													

R-1 SHOPPING LIST - Item No. 206

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UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:											
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-7												0305206N Airborne Reconnaissance Systems												R9115 NRL Applied Optics Reconnaissance Technology											
Fiscal Year	2002				2003				2004				2005				2006				2007				2008				2009						
	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							
Program Milestones																																			
Engineering Milestones																																			
Test & Evaluation Milestones																																			
Development Test																																			
Operational Test																																			
Contract Milestones																																			

* Not required for Budget Activities 1, 2, 3, and 6

UNCLASSIFIED

CLASSIFICATION:

[illegible]

R-1 SHOPPING LIST - Item No. 206

Exhibit R-4a, Schedule Detail
(Exhibit R-4a, page 46 of 46)

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