EXHIBIT R-2, RDT&E Budget Item Justification						DATE: February 2008		
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-7						R-1 ITEM NOMENCLATURE 0305206N, AIRBORNE RECONNAISSANCE SYSTEMS		
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Total PE Cost	43.191	59.337	55.719	26.405	26.711	27.177	27.929	
2694 ADVANCED DIGITAL SENSORS	39.106	50.355	55.719	26.405	26.711	27.177	27.929	
9999 CONGRESSIONAL ADD	4.085	8.982						

(U) 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. In addition, funds provide for the development/integration and operational assessment of components for the EP-3E and P-3 Special Projects Aircraft (SPA) and follow-on candidate aircraft.

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.

FY07 Congressional Add of $4.2M is to implement Environment Cooling System (ECS) upgrades for JCC Spiral 3 Aircraft.
FY08 Congressional Add of $5.0M is to implement Environmental Cooling System (ECS) upgrades for JCC Spiral 3 Aircraft.

B. PROGRAM CHANGE SUMMARY

Funding:	FY 2007	FY 2008	FY 2009
FY2008 President's Budget:	38.991	50.677	55.761
FY2009 President's Budget:	43.191	59.337	55.719
Total Adjustments	4.200	8.660	-0.042
Summary of Adjustments			
Congressional Reductions			
Congressional Rescissions			
Congressional Undistributed Reductions		-0.380	
Congressional Increases	4.200	9.040	
Economic Assumptions			-0.042
Miscellaneous Adjustments			
Subtotal	4.200	8.660	-0.042

1. FY2008 funding totals do not include $11.000 previously requested for current FY2008 GWOT requirements.

Schedule:
JCC Contract Spiral 2 DT decision moved from 2nd Qtr FY07 to 4th Qtr FY07, due to longer than anticipated contract negotiations. This DT slip created a corresponding move in Spiral 2 OT from 3rd Qtr FY08 to 4th Qtr FY08. LRIP moved from 4th Qtr FY07 to 2nd Qtr FY08. FRP decision moved from 4th Qtr FY08 to 1st Qtr FY09.

Technical:
Not Applicable.

EXHIBIT R-2a, RDT&E Project Justification			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N, AIRBORNE RECONNAISSANCE SYSTEMS	PROJECT NUMBER AND NAME 2694, ADVANCED DIGITAL SENSORS	

COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
2694 ADVANCED DIGITAL SENSORS	39.106	50.355	55.719	26.405	26.711	27.177	27.929	
RDT&E Articles Qty		1	1					

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Provides funds for the development of sensor systems to improve present airborne reconnaissance capabilities fielded in both the EP-3E and P-3 Special Projects Aircraft (SPA) platforms. 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 which began 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, Muli-platform emitter geolocation (MPEG)) and data dissemination (Story Teller). Spiral 2 includes development of additional special collection signal capabilities and obsolescence upgrades.

In FY06 the JCC program was further restructured due to delays in the Aerial Common Sensor (ACS) recapitalization program. The restructure added an obsolescence evolution and a JCC Spiral 3 upgrade to maintain EP-3E mission system viability until recapitalization platform can be fielded (est. 2017 IOC, 2019 FOC). This funding supported the required development of the restructured JCC program. The program procured an Engineering Development Model (EDM) in FY06 for Developmental Testing (DT) of the Spiral 2 system in FY07 to support the system Low Rate Initial Production (LRIP) Decision in FY08. Spiral 3 includes signal exploitation, low-band direction finding, Remote Tuning Receivers, Integrated Information Operations (I/O) and Environment Control System (ECS) upgrades. The program will procure two (2) Spiral 3 Engineering Development Models (EDM). The first EDM will be procured in FY08 for Developmental Testing (DT) of the system in FY09 and the Low Rate Initial Production (LRIP) Decision and procurement in FY10. The second Spiral 3 EDM production representative asset will be procured in FY09 to support Operational Testing (OT) in FY10 and the Full Rate Production (FRP) Decision and procurement in FY11. Obsolescence, Quick Response Capabilities (QRCs) and technical refresh efforts will be accomplished in conjunction with the above JCC Spiral upgrades to sustain EP-3E capabilities and viability until recapitalization/replacement. Recapitalization Capabilities Migration (RCM) funds will ensure EP-3E relevance beyond FY20 and to develop follow-on capabilities to be migrated into the recap platform.

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.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

Spiral 2 development collection signal	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	16.269	.862	.500
RDT&E Articles Qty: Not applicable			

Restructured Spiral 2 development includes, obsolescence and data fusion capabilities. Additional special collection signal capabilities, Data Fusion and MPEG frequency extension development.

Spiral 3 development RFD, DF, I/O, ECS	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	13.797	22.993	23.226
RDT&E Articles Qty		1	1

Spiral 3 development includes low-band Radio Frequency Distribution (RFD) and Direction Finding (DF) subsystem replacement, Remote Tuning Receivers, Intergrated Information Operations (I/O) and Environmental Control System (ECS) upgrades.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N, AIRBORNE RECONNAISSANCE SYSTEMS	PROJECT NUMBER AND NAME 2694, ADVANCED DIGITAL SENSORS

Technical Refresh dev for obsolete sys	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	.764	2.531	2.214
RDT&E Articles Qty: Not applicable			

The Technical Refresh development of replacement technology for obsolete and unsupportable collection and support mission systems.

Develop Spiral upgrades to collection subsys	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	8.276	7.034	7.813
RDT&E Articles Qty: Not applicable			

Imagery engineering investigations completed. Developed and demonstrated Special Projects Projects (SPA) Direction Finding (DF) upgrades for SP Systems Requirements Review (SRR). SPA Communications/Infrastructure updated. SPA 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. Mission system weight reduction development.

QRC for emergent threat technology	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost			2.500
RDT&E Articles Qty: Not applicable			

Quick Response Capabilities (QRC) are for development of capabilities to meet requirements for emergent threat technology.

EP-3E Recap capabilities migration	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost		16.935	19.466
RDT&E Articles Qty: Not applicable			

Engineering development of EP-3E mission capabilities to be deployed and procured on the legacy platform for the future migration to follow-on recap platform to stay abreast of emergent threat technologies.

C. OTHER PROGRAM FUNDING SUMMARY:

Line Item No. & Name	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
0537, EP-3E Series	66.775	55.545	72.370	194.954	103.137	105.320	77.930	134.549	810.580
0567, Special Projects Aircraft	22.251	19.987	14.113	15.290	15.339	15.878	16.196	84.211	203.265

D. ACQUISITION STRATEGY:
Leverages/complements Air Force, Naval Research Laboratory, Office of Naval Research RDTE efforts for technology insertions into EP-3E/SPA production programs.

Exhibit R-3 Cost Analysis (page 1)									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0305206N, AIRBORNE RECONNAISSANCE SYSTEMS				PROJECT NUMBER AND NAME 2694, ADVANCED DIGITAL SENSORS						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
PRODUCT DEVELOPMENT												
Ancillary Hdw Dev - OBS	SS-CPFF	L-3 COM. INTEGRATED SYSTEMS WACO,TX				2.110	Jan 2008	1.670	Jan 2009		3.780	3.780
Ancillary Hdw Dev - OBS	SS-CPFF	VARIOUS	2.050								2.050	2.050
Ancillary Hdw Dev - QRC	SS-CPFF	TBD						2.350	Dec 2008		2.350	2.350
Ancillary Hdw Dev - RCM	C-CPFF	TBD				14.435	Jan 2008	16.966	Jan 2009		31.401	31.401
Ancillary Hdw Dev - SPA	SS-CPFF	ARGON ST, INC, FAIRFAX, VA	9.700	4.168	Dec 2006	1.100	Dec 2007	1.100	Dec 2008		16.068	16.068
Ancillary Hdw Dev - SPA	SS-CPFF	L-3 COM. INTEGRATED SYSTEMS WACO,TX	2.240			2.285	Dec 2007	2.375	Dec 2008		6.900	6.900
Ancillary Hdw Dev - SPA	SS-CPFF	VARIOUS	.948	.747	Jan 2007	.900	Dec 2007	.247	Dec 2008		2.995	2.995
Ancillary Hdw Dev - Spiral 2	SS-CPFF	L-3 COM. INTEGRATED SYSTEMS WACO,TX	9.167	13.671	Feb 2007						20.439	20.439
Ancillary Hdw Dev - Spiral 3	SS-CPFF	L-3 COM. INTEGRATED SYSTEMS WACO,TX		12.397	May 2007	18.103	Dec 2007	15.050	Dec 2008	10.500	57.707	57.707
Ancillary Hdw Dev - Spiral 3	SS-CPFF	RAYTHEON TECH SVCS, INDIANAPOLIS,IN	5.116								5.116	5.116
Primary Hdw Development	C-CPFF	TBD								108.991	108.991	108.991
SUBTOTAL PRODUCT DEVELOPMENT			29.221	30.983		38.933		39.758		119.491	257.797	

Remarks:

SUPPORT												
Develop Support - OBS	VARIOUS	VARIOUS	1.106	.600	Dec 2006						1.706	
Develop Support - RCM	VARIOUS	TBD				1.000	Dec 2007	1.000	Dec 2008		2.000	
Develop Support - SPA	VARIOUS	VARIOUS	1.981	2.226	Dec 2006	1.540	Dec 2007	2.998	Dec 2008		8.356	
Develop Support - Spiral 1	VARIOUS	VARIOUS	2.965								2.965	
Develop Support - Spiral 2	VARIOUS	VARIOUS	1.956	1.207	Dec 2006	.326	Dec 2007			Continuing	Continuing	
Develop Support - Spiral 3	VARIOUS	TBD				1.409	Dec 2007	1.389	Dec 2008		2.798	
Develop Support - Spiral 3	VARIOUS	VARIOUS		.956	Dec 2006	.978	Dec 2007	.995	Dec 2008	Continuing	Continuing	
ETS (NON-FFRDC) SP2	VARIOUS	AT&T GOVT SOLUTIONS, INC, VIENNA, VA	.600							Continuing	Continuing	
ETS (NON-FFRDC) SP3	VARIOUS	AT&T GOVT SOLUTIONS, INC, VIENNA, VA		.307	Feb 2007	.550	Dec 2007	.562	Dec 2008	Continuing	Continuing	
ETS (NON-FFRDC) SPA	VARIOUS	AT&T GOVT SOLUTIONS, INC, VIENNA, VA	.600	.335	Feb 2007	.400	Dec 2007	.500	Dec 2008	Continuing	Continuing	
SUBTOTAL SUPPORT			9.208	5.630		6.203		7.444		Continuing	Continuing	

Remarks:Dollars may not add due to rounding.

TEST & EVALUATION												
DT/Eval - SPA	VARIOUS	VARIOUS	.636	.691	Jan 2007	.700	Dec 2007	.480	Dec 2008	Continuing	Continuing	
DT/OT & Eval - RCM	VARIOUS	TBD				1.000	Dec 2007	1.000	Dec 2008		2.000	
DT/OT & Eval - Spiral 1	VARIOUS	NAWCAD, PATUXENT RIVER, MD	.056								.056	
DT/OT & Eval - Spiral 2	VARIOUS	NAWCAD, PATUXENT RIVER, MD	1.262	1.355	Oct 2006	.500	Dec 2007	.500	Dec 2008		3.617	
DT/OT & Eval - Spiral 3	VARIOUS	NAWCAD, PATUXENT RIVER, MD		.082	Oct 2006	.766	Dec 2007	3.735	Dec 2008	Continuing	Continuing	
Test & Eval - QRC	VARIOUS	NAWCAD, PATUXENT RIVER, MD						.150	Dec 2008		.150	
SUBTOTAL TEST & EVALUATION			1.954	2.129		2.966		5.865		Continuing	Continuing	

Remarks:Dollar may not add due to rounding.

Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 2007 Cost	FY 2007 Award Date	FY 2008 Cost	FY 2008 Award Date	FY 2009 Cost	FY 2009 Award Date	Cost to Complete	Total Cost	Target Value of Contract
MANAGEMENT												

Exhibit R-3 Cost Analysis (page 1)										DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7		PROGRAM ELEMENT 0305206N, AIRBORNE RECONNAISSANCE SYSTEMS				PROJECT NUMBER AND NAME 2694, ADVANCED DIGITAL SENSORS							
Systems Eng Spt - OBS	WX	NAWCAD, PATUXENT RIVER, MD		.164	Oct 2006	.421	Dec 2007	.544	Dec 2008	Continuing	Continuing		
Systems Eng Spt - RCM	WX	TBD				.500	Dec 2007	.500	Dec 2008		1.000		
Systems Eng Spt - Spiral 2	WX	NAWCAD, PATUXENT RIVER, MD	.651								.651		
Systems Eng Spt - Spiral 3	WX	NAWCAD, PATUXENT RIVER, MD				1.132	Dec 2007	1.405	Dec 2008	Continuing	Continuing		
Travel - SPA	TO	NAWCAD, PATUXENT RIVER, MD	.244	.055	Dec 2006	.054	Dec 2007	.058	Dec 2008	Continuing	Continuing		
Travel - Spiral 2	TO	NAWCAD, PATUXENT RIVER, MD	.159	.036	Dec 2006	.036	Dec 2007				.231		
Travel - Spiral 3	TO	NAWCAD, PATUXENT RIVER, MD	.036	.055	Dec 2006	.055	Dec 2007	.090	Dec 2008	Continuing	Continuing		
Travel-NSMA	TO	NAWCAD, PATUXENT RIVER, MD						.055	Dec 2008		.055		
Travel-NSMA	TO	NAWCAD, PATUXENT RIVER, MD	.055	.054	Dec 2006	.055	Dec 2007				.164		
SUBTOTAL MANAGEMENT			1.145	.364		2.253		2.652		Continuing	Continuing		

Remarks:

Total Cost			41.528	39.106		50.355		55.719		Continuing	Continuing		

CLASSIFICATION:

EXHIBIT R4, Schedule Profile			DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N, AIRBORNE RECONNAISSANCE SYSTEMS	PROJECT NUMBER AND NAME 2694, ADVANCED SIGNAL RECOGNITION	

Fiscal Year	FY 2007				FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013			
	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
EP-3 Program Milestones **Milestones**									Spiral 2 - LRIP				Spiral 2 - FRP			Spiral 3 - LRIP				Spiral 3 - FRP										
Engineering **Milestones**																												
Test & Evaluation **Milestones** Development Test Development Test/ Operational Test								Spiral 2 - DT							Spiral 3 - DT															
													Spiral 2 - OT							Spiral 3 - OT								
Contract **Milestones**								Spiral 3 EDM-1					Spiral 3 EDM-2																
Deliveries																												

CLASSIFICATION:

Exhibit R-4a, Schedule Detail					DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY RDT&E,N / BA-7	PROGRAM ELEMENT 0305206N, AIRBORNE RECONNAISSANCE SYSTEMS				PROJECT NUMBER AND NAME 2694, ADVANCED SIGNAL RECOGNITION			
Schedule Profile		FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
Spiral 2 LRIP Decisions			2Q					
Spiral 2 FRP Decisions				1Q				
Spiral 3 LRIP Decisions				4Q				
Spiral 3 FRP Decisions					4Q			
Spiral 2 DT		4Q	1Q					
Spiral 2 OT			4Q	1Q				
Spiral 3 DT				2Q-4Q				
Spiral 3 OT					3Q-4Q			
Spiral 2 EDM								
Spiral 3 EDM-1			1Q					
Spiral 3 EDM-2				1Q				

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-7	PROGRAM ELEMENT NUMBER AND NAME 0305206N, AIRBORNE RECONNAISSANCE SYSTEMS				PROJECT NUMBER AND NAME 9999 Congressional Add		
COST ($ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
9999 Congressional Add	**4.085**	**8.982**					

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

Congressional Adds.

EXHIBIT R-2a, RDT&E Project Justification		DATE: February 2008
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-7	0305206N, AIRBORNE RECONNAISSANCE SYSTEMS	9999 Congressional Add

B. Accomplishments/Planned Program:

9B04N	FY 07	FY 08	FY 09
Accomplishments / Effort / Sub-total Cos	1.445		
RDT&E Articles Quantity: Not applicable			

Provide non-recurring engineering development for a Navy low band airborne system trainer.

9437C	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	1.000		
RDT&E Articles Quantity: Not applicable			

Development of passive collision avoidance and reconnaissance system. This development targets the Unmanned Aerial Vehicle (UAV) mission to provide situational awareness and sense and avoid capability. Passive uncooled long wave infrared cameras will be integrated to a data collection system and flight tested to evaluate system level assumptions in flight and to further develop and mature tracking algorithms already developed. Design level effort will be initiated to design and build a small processor suite that is directly integratable to the UAVs existing electronics suite that is capable of accepting up to 10 camera inputs.

9437C	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost	1.640		
RDT&E Articles Quantity:			

Develop and demonstrate advanced Intelligence, Surveillance and Reconnaissance (ISR) sensor systems for small-to-large Unmanned Aerial Vehicle (UAV)/manned platforms capable of intelligently cross-cueing for clear multi-int target identification. Additionally develop ground/air based control and display stations (CADS) providing screening, control, exploitation, and dissemination of simultaneous multiple dissimilar sensor ISR systems.

9999	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost		4.982	
RDT&E Articles Quantity:			

Provide ancillary hardware development in support of Spiral 3. Spiral 3 development includes low-band Radio Frequency Distribution (RFD) and Direction Finding (DF) subsystem replacement, Remote Tuning Receivers, Intergrated Information Operations (I/O) and Environmental Control System (ECS) upgrades.

9999	FY 07	FY 08	FY 09
Accomplishments/Effort/Subtotal Cost		4.000	
RDT&E Articles Quantity:			

Initiate the development of algorithmic, cueing and software focused efforts in support of the Deployable Unmanned Systems for Targeting, Exploitation, and Reconnaissance (DUSTER) system. This system could simultaneously extend the area of intelligence gathering, keep the operators out of harms way, and provide an airborne real-time exploitation and dissemination node to identify, geo-locate, and track enemy targets.