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EXHIBIT R-2, RDT&E Budget Item Justification							DATE:	
APPROPRIATION/BUDGET ACTIVITY							February 2008	
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5							R-1 ITEM NOMENCLATURE	
							0604234N, E-2C RADAR MODERNIZATION PROGRAM	
COST (\$ in Millions)	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	
Total PE Cost	483.995	791.707	484.159	213.613	121.601	46.147	13.751	
3051 E-2C RMP	483.995	791.707	484.159	213.613	121.601	46.147	13.751	

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

The E-2D Advanced Hawkeye (AHE) program develops, demonstrates, tests, and procures the replacement of the AN/APS-145 radar system and other aircraft system components including Cooperative Engagement Capability Pre-Planned Product Improvement (CEC P3I) and Dual Transmit Satellite Communications (SATCOM) that modernize the E-2C weapon system to maintain open ocean mission capability while providing the United States Navy (USN) with an effective littoral surveillance, battle management, and Theater Air and Missile Defense (TAMD) capability. Key radar technologies are Space-Time Adaptive Processing (STAP), Electronically Scanning Array (ESA), solid state transmitter, high dynamic range digital receivers and Identification Friend or Foe (IFF)/radar aperture integration. The resultant detection system will provide a substantially improved overland performance by correcting current sensor shortfalls and enhancing all current required mission areas, while simultaneously contributing to the emerging TAMD mission requirements.

This P.E. was utilized for AHE (Radar Modernization Program (RMP)) pre-System Development and Demonstration (Pre-SD&D), followed by SD&D. The program completed a Weapon System Preliminary Design Review (PDR) and a Radar System Critical Design Review (CDR) in FY 2005, and supported a Weapon System CDR in FY 2006. Major activities in FY 2007 were system integration, lab equipment installation, subsystem and weapon system verification testing, software development and ongoing risk reduction efforts. The program began E-2D AHE Pilot Production in FY 2007 (long lead on three aircraft), the production phase with a Low-Rate Initial Production (LRIP) Milestone C decision in FY 2009, and achieves Initial Operational Capability (IOC) in FY 2011.

Funding:	FY 2007	FY 2008	FY 2009
FY2008 President's Budget:	495.962	808.993	491.243
FY2009 President's Budget:	483.995	791.707	484.159
Total Adjustments	-11.967	-17.286	-7.084

Summary of Adjustments			
Congressional Reductions			
Congressional Rescissions			
Congressional Undistributed Reductions	-11.931	-12.135	
Congressional Increases			
Economic Assumptions		-5.151	-3.297
Miscellaneous Adjustments	-0.036		-3.787
Subtotal	-11.967	-17.286	-7.084

Schedule:

Project Unit 3051 - Schedule change of Pilot Production Contract Award from FY2007 2Q to FY2007 4Q is due to continuation of contract negotiations. Added LRIP IV Contract Award.

Technical:

Project Unit 3051 - Not Applicable.

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-5			0604234N, E-2C RADAR MODERNIZATION PROGRAM			3051, E-2C RMP			
COST (\$ in Millions)			FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013
3051 E-2C RMP			483.995	791.707	484.159	213.613	121.601	46.147	13.751
RDT&E Articles Qty			*2	*3					

A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:

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The AHE program also upgrades or replaces aircraft system components that are either obsolete or becoming unsupportable, upgrades or replaces other aircraft systems as required to support the radar upgrade, and improves the operational availability and producibility of the weapons system. The impact of the dominant battlefield awareness provided by this improved airborne early warning system will substantially contribute to the development of a single integrated air picture. The AHE is intended to meet battle management and TAMD needs as the United States Navy develops its "Sea Power 21" concepts in support of Joint Vision 2020.

This P.E. was utilized for AHE (Radar Modernization Program (RMP)) pre-System Development and Demonstration (Pre-SD&D), followed by SD&D. The program completed a Weapon System Preliminary Design Review (PDR) and a Radar System Critical Design Review (CDR) in FY 2005, and supported a Weapon System CDR in FY 2006. Major activities in FY 2007 were system integration, lab equipment installation, subsystem and weapon system verification testing, software development and ongoing risk reduction efforts. The program began E-2D AHE Pilot Production in FY 2007 (long lead on three aircraft), the production phase with a Low-Rate Initial Production (LRIP) Milestone C decision in FY 2009, and achieves Initial Operational Capability (IOC) in FY 2011.

*Two Multi-Year Procurement E-2C aircraft were delivered and modified in FY 2007 to provide RDT&E assets for the AHE program. Quantities in FY 2008 are the pilot production aircraft, which was reduced from four to three due to the Advanced Hawkeye program replan.

B. ACCOMPLISHMENTS / PLANNED PROGRAM:

System Development and Demonstration	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	398.858	678.534	405.936
RDT&E Articles Qty	*2	*3	

Awarded System Development and Demonstration (SD&D) Contract with Northrop Grumman Corporation. Entered into SD&D for E-2D AHE program.

Conduct engineering and development efforts for weapon system and SD&D pilot production. Continue SD&D efforts. Initial funding for pilot production, Cooperative Engagement Capability Pre-Planned Product Improvement (CEC P3I), and Dual Transmit SATCOM.

*Two Multi-Year Procurement E-2C aircraft were delivered and modified in FY 2007 to provide RDT&E assets for the AHE program. Quantities in FY 2008 are the pilot production aircraft, which was reduced from four to three due to the Advanced Hawkeye program replan.

Government Furnished Equipment	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	20.225	33.129	
RDT&E Articles Qty			

Funded Government Furnished Equipment (GFE) for the SD&D aircraft and Pilot Production aircraft in FY 2007. Fund GFE for pilot production aircraft through FY 2008.

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EXHIBIT R-2a, RDT&E Project Justification			DATE:
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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E,N / BA-5	0604234N, E-2C RADAR MODERNIZATION PROGRAM	3051, E-2C RMP	

NAWCAD Engineering and Test Support	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	37.134	41.473	31.066
RDT&E Articles Qty			

Fund Government Engineering, Contractor Engineering, and Classified Engineering Support. Perform Government oversight. Perform engineering, design, instrumentation and ground test calibration for NP2000 performance testing. Execute test program risk reduction efforts. FY 2007 funded Qualification/Reliability Developmental Testing (QUAL/RDT), preparation for ground and first flight test activities at St. Augustine, FL, and executed digital engine control system for obsolescence, weight reduction, and performance improvements. Wind tunnel testing includes data reduction analysis and update of the Control Analysis Simulation Test Loop Environment (CASTLE). FY 2008 and FY 2009 fund flight test activities in St. Augustine, FL, and Patuxent River, MD, develop CEC P3I and Dual Transmit SATCOM capabilities, and provides engineering oversight for production related activities for pilot production aircraft.

NC-130H/E-2D Classified Programs	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	20.422	4.511	7.632
RDT&E Articles Qty			

Provide support for the NC-130H engineering risk reduction efforts. Fund E-2D Classified Development efforts. Fund NC-130H AHE Advanced Development Model system flight test and test analysis.

Trainers	FY 2007	FY 2008	FY 2009
Accomplishments / Effort / Sub-total Cost	7.356	34.060	39.525
RDT&E Articles Qty			

Fund Weapons System Trainers, Operational Flight Trainers and Simulated Maintenance Trainers.

C. OTHER PROGRAM FUNDING SUMMARY:	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	To Complete	Total Cost
APN-1/E-2C/D (LI# 15 & 16)	202.717*	52.220	589.123	685.951	777.566	795.552	778.315	9,712.023	13,390.750
APN-6/E-2C/D (LI# 55)			36.882	37.606	29.801	31.555	26.431	79.499	241.774

*APN Funding prior to FY08 is related to P.E. 0204152N, P.U. 0463, E-2C Improvements.

Related RDT&E

(U) 0603658N (Ship Self Defense, CEC)

D. ACQUISITION STRATEGY:

Acquisition Strategy was signed by Milestone Decision Authority (MDA), USD (AT&L) on 13 May 2003. Milestone B approval to proceed with System Development and Demonstration was given 6 June 2003 by the Defense Acquisition Board (DAB).

E. MAJOR PERFORMERS:

Not Applicable.

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Exhibit R-3 Cost Analysis (page 1)									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME						
RDT&E,N / BA-5		0604234N, E-2C RADAR MODERNIZATION PROGRAM				3051, E-2C RMP						
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 Development	MIPR	NATIONAL SECURITY AGENCY, FORT GEORGE G MEADE, MD		.287	05/07						.287	
Award Fees	SS-CPAF	NORTHROP GRUMMAN SYS, NY	31.019	24.963	10/06	24.764	10/07	26.177	10/08	26.829	133.752	133.752
GFE	C-CPIF	NAVSEASYS COM, WNY DC		4.123	05/07						4.123	4.123
GFE	VARIOUS	VARIOUS	9.330	5.302	VARIOUS	33.129	VARIOUS				47.762	
Primary Hdw Development	SS-CPAF	NORTHROP GRUMMAN SYS, NY	1,350.594	375.957	10/06	633.897	10/07	357.569	10/08	204.555	2,922.572	2,922.572
Primary Hdw Development	FFP	STICHTING DUTS NEDERLANDSE	4.307								4.307	4.307
Primary Hdw Development	FFP	ROLLS-ROYCE CORP, INDIANAPOLIS, IN		.016	05/07						.016	.016
Primary Hdw Dev Training	VARIOUS	VARIOUS		5.437	VARIOUS						5.437	
Primary Hdw Dev Training	TBD	TBD				31.699	02/08	39.525	02/09	22.773	93.997	
Systems Engineering	RX	NAVY SYST MGT ACT, ARLINGTON VA	6.620	14.117	04/07	3.711	03/08	7.632	03/09	8.816	40.896	
All Product Dev cost from program implementation thru FY04			128.796								128.796	
SUBTOTAL PRODUCT DEVELOPMENT			1,530.665	430.203		727.201		430.903		262.973	3,381.945	

Remarks:

Totals may not add due to rounding.

Award Fee Period 1 FY04 - 90%

Period 2 FY04 - 91%

Period 3 FY05 - 80%

Period 4 FY06 - 94%

Period 5 FY06 - 100%

Period 6 FY07 - 95%

SUPPORT												
Contractor Eng Sup ETS	VARIOUS	VARIOUS	2.729	2.558	12/06	6.861	12/07	9.928	12/08	4.611	26.688	
Contractor Eng Sup ETS	C-CPFF	WYLE LABORATORIES, INC., HUNTSVILLE, AL	1.968	6.922	12/06						8.890	8.890
Development Support	RX	NAVY SYST MGT ACT, ARLINGTON VA	2.100	6.304	VARIOUS						8.404	
Development Support	VARIOUS	VARIOUS	7.838	.513	11/06	.859	11/07	.951	11/08	.965	11.126	
Government Eng Sup	WX	NAWCAD, PATUXENT RIVER MD	26.030	17.433	11/06	17.466	11/07	14.366	11/08	47.557	122.853	
Government Eng Sup	WX	NAWCTSD, ORLANDO FL	1.126	1.314	11/06	1.204	11/07	1.277	11/08	.375	5.296	
Government Eng Sup	VARIOUS	VARIOUS	3.524	1.672	VARIOUS	2.824	VARIOUS	1.262	VARIOUS	7.164	16.447	
Software Development	WX	NAWCAD, PATUXENT RIVER MD		1.088	12/06						1.088	
Integrated Logistics Sup	MIPR	DEFENSE TECHNICAL INFORMATION CTR	.087								.087	
Studies & Analyses	RX	NAVY SYST MGT ACT, ARLINGTON VA	2.518			.800	03/08				3.318	
Technical Data	VARIOUS	VARIOUS		.133	04/07	4.155	VARIOUS				4.288	
All Support cost from program implementation thru FY04			5.806								5.806	
SUBTOTAL SUPPORT			53.727	37.937		34.170		27.784		60.672	214.291	

Remarks:

Totals may not add due to rounding.

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Exhibit R-3 Cost Analysis (page 2)									DATE: February 2008			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME						
RDT&E,N / BA-5		0604234N, E-2C RADAR MODERNIZATION PROGRAM				3051, E-2C RMP						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total FY 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
TEST & EVALUATION												
Developmental Test & Evaluation	WX	NAWCAD, PATUXENT RIVER MD	1.315			12.499	01/08	13.015	01/09		26.829	
Developmental Test & Evaluation	VARIOUS	VARIOUS	8.956	2.483	VARIOUS	2.255	VARIOUS	5.304	VARIOUS	37.859	56.857	
Developmental Test & Evaluation	FFP	STICHTING DUITN NEDERLANDSE	.190	4.307	01/07	.160	01/08	.050	01/09		4.707	4.707
Developmental Test & Evaluation ETS	C-CPFF	WYLE LABORATORIES, INC., HUNTSVILLE, AL				2.665	01/08				2.665	2.665
Developmental Test & Evaluation ETS	VARIOUS	VARIOUS				1.709	VARIOUS	1.885	VARIOUS		3.594	
Oper Test & Eval	WX	NAWCAD, PATUXENT RIVER MD		.146	12/06						.146	
Oper Test & Eval	TBD	TBD				1.217	VARIOUS	.350	VARIOUS	14.230	15.797	
Test Assets	SS-CPAF	NORTHROP GRUMMAN SYS, NY	3.900								3.900	3.900
All T&E cost from program implementation thru FY04			3.208								3.208	
SUBTOTAL TEST & EVALUATION			17.569	6.936		20.505		20.604		52.089	117.703	

Remarks:

Totals may not add due to rounding.

MANAGEMENT												
Contractor Eng Sup ETS	VARIOUS	VARIOUS	12.188								12.188	
Contractor Eng Sup ETS NSMA	RX	NAVY SYST MGT ACT, ARLINGTON VA	3.327								3.327	
Contractor Eng Sup MSS	VARIOUS	VARIOUS		.379	12/06	3.107	12/07	3.504	12/08	5.193	12.183	
Contractor Eng Sup MSS	C-CPFF	WYLE LABORATORIES, INC., HUNTSVILLE, AL		4.983	12/06						4.983	4.983
Government Eng Sup	WX	NAWCAD, PATUXENT RIVER MD	3.865	2.408	11/06	2.489	11/07	.317	11/08	5.291	14.371	
Government Eng Sup	VARIOUS	VARIOUS	10.841	.575	11/07	2.377	11/07	.207	11/08	4.845	18.845	
Program Mgmt Sup	VARIOUS	VARIOUS	.022	.014	11/06	1.358	11/07	.443	11/08	2.726	4.563	
Travel	VARIOUS	VARIOUS	.721	.560	10/06	.500	10/07	.395	10/08	1.323	3.499	
All Mgmt cost from program implementation thru FY04			10.659								10.659	
SUBTOTAL MANAGEMENT			41.623	8.919		9.831		4.868		19.378	84.618	

Remarks:

Totals may not add due to rounding.

Total Cost			1,643.584	483.995		791.707		484.159		395.112	3,798.557	
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Remarks:

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DT/DT Assist in FY07 includes NC-130/A-123/lab integration dedicated for weapon system development and air vehicle testing.

DT/DT Assist in FY07-FY09 includes efforts for weapon system development and air vehicle testing on SD&D #1 and SD&D #2 aircraft.

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