

CLASSIFICATION:

UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification							DATE:	
							February 2005	
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMENCLATURE			
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5					0604212N ASW & OTHER HELO DEVELOPMENT			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	79.058	185.756	81.112	82.813	44.653	25.331	7.821	8.197
1109 CH/MH-53	2.788	2.381	2.466	2.531	2.611	2.674	2.738	2.795
2415 MH-60S Development	49.175	80.127	78.646	80.282	42.042	22.657	5.083	5.402
3058 VHXX Replacement *	20.392	0.000	0.000	0.000	0.000	0.000	0.000	0.000
3059 CH-53X Development **	4.781	102.326	0.000	0.000	0.000	0.000	0.000	0.000
9055 Laser Aim Scoring System (LASS)		0.922						
9366 Advanced Cable	0.961							
9367 Advanced Helicopter	0.961							
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:								
1109 - The H-53D/E helicopter is the premier heavy lift helicopter for the Marine Corps and the only operational airborne mine sweeping platform for the Navy. From FY2004 to FY2011, H-53D/E efforts will continue to develop and qualify components, prior to production approval decisions, in order to replace obsolete system components. Emphasis will be placed on incorporating supportability improvement modifications that will sustain the H-53D/E aircraft through the year 2025 until the transition to the H-53X is complete. These efforts combined, will significantly improve the readiness of the H-53D/E fleet while reducing long term operational and supportability costs. H-53D/E RDT&E efforts will focus on trade studies and risk reduction measures to identify candidate survivability, avionics, cargo handling, cockpit and other airframe specific improvements to extend the service life to 2025. Modeling and simulation will be used to the maximum practical extent throughout this effort. Manned Flight Simulator (MFS) will be utilized to develop, install and test interim modifications to existing H-53D/E legacy avionics, while maintaining the original basic system footprint and functionality. As a part of this effort, a complete electromagnetic vulnerability (EMV) assessment will be required for the affected and/or modified systems.								
*Details reported under Program Element 0604273N. ** Details reported under new Program Element 0605212N.								

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**Exhibit R-2, RDTEN Budget Item Justification**  
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<b>RESEARCH DEVELOPMENT TEST &amp; EVALUATION, NAVY / BA-5</b>	0604212N ASW & OTHER HELO DEVELOPMENT	
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: (Cont'd)</p> <p>2415 - The Helicopter Combat Support (HC) mission is to maintain forward deployed fleet sustainability through rapid airborne delivery of materials and personnel and to support amphibious operations through search and rescue coverage. The primary roles of the aircraft are to conduct vertical replenishment (VERTREP), day/night ship-to-ship, ship-to-shore, and shore-to-ship external transfer of cargo; internal transport of passengers, mail and cargo, vertical on board delivery (VOD); airhead operations, and day/night search and rescue (SAR) , Organic Airborne Mine Countermeasures (OAMCM) and Armed Helo. The MH-60S ORD was modified in May 2000 to add Organic Airborne Mine Countermeasures (OAMCM) as a primary mission for the MH-60S. The AMCM mission will provide Carrier Strike Groups (CSGs)<sup>Note 1</sup> and Expeditionary Strike Groups (ESGs)<sup>Note 1</sup> with an OAMCM capability. The Armed Helo will provide Combat Search and Rescue (CSAR), Surface Warfare (SUW) and Maritime Interdiction Operations (MIO)<sup>Note 2</sup> to include Link 16. The aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations (NEO), Sea Air Land (SEAL) and Explosive Ordnance Disposal (EOD) support.</p> <p>*The FY 2004 budget reflects a \$2.0M Congressional add for Advance Cable Design which has been reduced by \$0.022million for Congressional Rescission, \$0.054 SBIR, \$0.002 for non-pay inflation savings and will be executed under H9366 and H9367.</p> <p>Note 1: All missions stayed the same, the names were changed through the approval of Helicopter CONOPS as follows: Carrier Battle Groups (CVBGs) to Carrier Strike Groups (CSGs); and Amphibious Readiness Groups (ARGs) to Expeditionary Strike Groups (ESGs).</p> <p>Note 2: The interim requirement letter (N78, dtd 12 Jun 03) changed the Force Protection (FP) to Maritime Interdiction Operations (MIO).</p> <p>3058 - Marine Helicopter Squadron One (HMX-1) is required to provide safe and timely transportation for the President and Vice President of the United States, heads of state and others as directed by the White House Military Office (WHMO). The global nature of these commitments requires HMX-1 aircraft to deploy worldwide and operate in varying environmental and climatic conditions without mission degradation. Currently two Type, Model, Series (TMS) aircraft are used by HMX-1 for the Presidential support mission – the VH-3D and the VH-60N. Numerous modifications and improvements have been incorporated over the past several years to both aircraft commensurate with emerging technologies and White House requirements. In order for the VXX to be available to assume the Presidential vertical lift mission by 2008, three test article aircraft, five pilot production aircraft, system design and development efforts, maintenance trainers, and associated logistics must be initiated by 2005. In addition, 3 Low-Rate Initial Production aircraft will be procured starting in FY2008. These aircraft will provide production representative articles to complete operational testing. The VHXX program provides the replacement for the VH-3D Presidential helicopter. The following areas need to be explored: Nuclear Effects, E3 /TEMPEST certification requirements, Survivability (Vulnerability/Susceptibility), Facilities upgrade/modifications- Source Selection, Environmental Impact, Security, Cost Estimation, Requirements Analysis, Functional Analysis and Allocation, Risk Management, Crew System/Human Systems Integration (HSI), and Logistics Support Analysis. Contractor efforts are expected to include System Design and Development work, test article aircraft, and pilot production aircraft.</p>		

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APPROPRIATION/BUDGET ACTIVITY <b>RESEARCH DEVELOPMENT TEST &amp; EVALUATION, NAVY / BA-5</b>	R-1 ITEM NOMENCLATURE 0604212N ASW & OTHER HELO DEVELOPMENT	
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: (Cont'd)</p> <p>3059 - The CH-53 is the only marinized heavy lift helicopter in the world, and the CH-53E is the Marine Corps only heavy-lift helicopter. An improved CH-53E is needed to support the Marine Air-Ground Task Force heavy-lift requirements in the 21st century joint environment. The CH-53E mission is the conduct of expeditionary heavy-lift assault transport of armored vehicles, equipment and personnel to support distributed operations deep inland from sea-based center of operations. The CH-53E "Super Stallion" was introduced into operations in 1980 as an upgrade version of the CH-53D. The CH-53E has developed performance degradation, fatigue life, interoperability, maintenance supportability, and other operational concerns. The CH-53X, an upgraded variant of the CH-53E, will provide improvements in range and payload performance, cargo handling and turn-around times, reliability and maintainability, interoperability, and survivability. The CH-53X program is required to provide full system capability, including shipboard compatibilities, at Initial Operational Capability (IOC), in Fiscal Year (FY) 2015. The CH-53X will replace the CH-53E, with Full Operational Capability (FOC) achieved by FY 2021.</p> <p>9055 - The Laser Aim Scoring System (LASS) provides real-time, quantitative feedback on critical aspects of laser guided weapon employment not currently available from existing Navy laser scoring systems. This feedback has been proven to significantly improve flight crew weapon delivery capabilities during nearly a decade of use by the U.S. Army. The system consists of three major components: A Base Station, Target Kit and Aircraft Flight Data Unit. LASS will be adapted to existing Navy seaborne target to support Navy H-60 armed helicopter training and readiness events requiring laser scoring capability.</p>		

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EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>		PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & OTHER HELO DEVELOPMENT			PROJECT NUMBER AND NAME 1109 CH/MH-53			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	<b>2.788</b>	<b>2.381</b>	<b>2.466</b>	<b>2.531</b>	<b>2.611</b>	<b>2.674</b>	<b>2.738</b>	<b>2.795</b>
RDT&E Articles Qty								
<p><b>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</b> The H-53D/E helicopter is the premier heavy lift helicopter for the Marine Corps and the only operational airborne mine sweeping platform for the Navy. From FY2004 to FY2011, H-53D/E efforts will continue to develop and qualify components, prior to production approval decisions, in order to replace obsolete system components. Emphasis will be placed on incorporating supportability improvement modifications that will sustain the H-53D/E aircraft through the year 2025 until the transition to the H-53X is complete. These efforts combined, will significantly improve the readiness of the H-53D/E fleet while reducing long term operational and supportability costs. H-53D/E RDT&amp;E efforts will focus on trade studies and risk reduction measures to identify candidate survivability, avionics, cargo handling, cockpit and other airframe specific improvements to extend the service life to 2025. Modeling and simulation will be used to the maximum practical extent throughout this effort. Manned Flight Simulator (MFS) will be utilized to develop, install and test interim modifications to existing H-53D/E legacy avionics, while maintaining the original basic system footprint and functionality. As a part of this effort, a complete electromagnetic vulnerability (EMV) assessment will be required for the affected and/or modified systems.</p>								

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<b>B. Accomplishments/Planned Program</b>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 30%;"></th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th><th style="width: 15%;">FY 06</th><th style="width: 15%;">FY 07</th></tr></thead><tbody><tr><td><b>H-53 Avionics</b></td><td>0.723</td><td>0.414</td><td>0.357</td><td>0.339</td></tr><tr><td>RDT&amp;E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table> <div style="border: 1px solid black; padding: 5px; margin-top: 10px;">Trade studies, risk reduction, design, development, model, integration and test activities for cockpit and avionics improvements for the H-53 avionics systems and associated subsystems. Integrate software applique for cockpit and avionics improvements, to include the development of new sensors and the impact in flight control computers. Conduct Business Case Analyses to determine impact of high Operation and Support (O&amp;S) cost drivers and address alternatives for obsolescence issues.</div>						FY 04	FY 05	FY 06	FY 07	<b>H-53 Avionics</b>	0.723	0.414	0.357	0.339	RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07															
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	FY 04	FY 05	FY 06	FY 07															
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	FY 04	FY 05	FY 06	FY 07															
<b>H-53 Propulsion</b>	0.896	1.108	1.254	1.276															
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<b>B. Accomplishments/Planned Program (Cont.)</b>				
	FY 04	FY 05	FY 06	FY 07
<b>Project Management Support</b>	0.439	0.492	0.538	0.556
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px; min-height: 60px;">                     In-house, field activities, and contractors support of Integrated Product Teams (IPTs) to allow for studies and analyses, preparation of acquisition documentation and examination of equipment and avionics for the H-53. Efforts include, but are not limited to, government development support, engineering support, program management support, systems engineering and logistics support, and travel for the H-53 program.                 </div>				
	FY 04	FY 05	FY 06	FY 07
<b>H-53 Airframe</b>	0.000	0.000	0.149	0.189
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px; min-height: 60px;">                     Trade studies, risk reduction, design, development, integration and test activities for the H-53 airframe to include, but not limited to, main rotorhead, cowlings, aircraft structure, drive train, and various dynamic components.                 </div>				
	FY 04	FY 05	FY 06	FY 07
<b>Accomplishments/Effort/Subtotal Cost</b>	0.000	0.000	0.000	0.000
RDT&E Articles Quantity				
<div style="border: 1px solid black; width: 100%; height: 100%;"></div>				

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<p><b>C. PROGRAM CHANGE SUMMARY:</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;">Funding:</th> <th style="text-align: right; width: 15%;">FY 2004</th> <th style="text-align: right; width: 15%;">FY 2005</th> <th style="text-align: right; width: 15%;">FY 2006</th> <th style="text-align: right; width: 15%;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>Previous President's Budget:</td> <td style="text-align: right;">2.768</td> <td style="text-align: right;">2.421</td> <td style="text-align: right;">2.454</td> <td style="text-align: right;">2.495</td> </tr> <tr> <td>Current BES/President's Budget</td> <td style="text-align: right;">2.788</td> <td style="text-align: right;">2.381</td> <td style="text-align: right;">2.466</td> <td style="text-align: right;">2.531</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">0.020</td> <td style="text-align: right; border-top: 1px solid black;">-0.040</td> <td style="text-align: right; border-top: 1px solid black;">0.012</td> <td style="text-align: right; border-top: 1px solid black;">0.036</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td>    Congressional program reductions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>    Congressional undistributed reductions</td> <td></td> <td style="text-align: right;">-0.036</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 style="text-align: right;">-0.058</td> <td></td> <td></td> <td></td> </tr> <tr> <td>    Other Adjustments</td> <td></td> <td style="text-align: right;">-0.004</td> <td style="text-align: right;">-0.081</td> <td style="text-align: right;">-0.010</td> </tr> <tr> <td>    Economic Assumptions</td> <td></td> <td></td> <td style="text-align: right;">0.093</td> <td style="text-align: right;">0.046</td> </tr> <tr> <td>    Reprogrammings</td> <td style="text-align: right;">0.078</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;">0.020</td> <td style="text-align: right; border-top: 1px solid black;">-0.040</td> <td style="text-align: right; border-top: 1px solid black;">0.012</td> <td style="text-align: right; border-top: 1px solid black;">0.036</td> </tr> </tbody> </table> <p style="margin-top: 20px;">Schedule:</p> <p style="margin-left: 40px;">Due to efforts related to the Global War on Terrorism, Aircraft Survivability and the Armor Threat Assessment continue into FY04 and FY05.</p> <p style="margin-top: 40px;">Technical:</p> <p style="margin-left: 40px;">Not Applicable</p>					Funding:	FY 2004	FY 2005	FY 2006	FY 2007	Previous President's Budget:	2.768	2.421	2.454	2.495	Current BES/President's Budget	2.788	2.381	2.466	2.531	Total Adjustments	0.020	-0.040	0.012	0.036	Summary of Adjustments					Congressional program reductions					Congressional undistributed reductions		-0.036			Congressional rescissions					SBIR/STTR Transfer	-0.058				Other Adjustments		-0.004	-0.081	-0.010	Economic Assumptions			0.093	0.046	Reprogrammings	0.078				Congressional increases					Subtotal	0.020	-0.040	0.012	0.036
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<b>D. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
N/A										
<b>E. ACQUISITION STRATEGY:</b>										
This is a non-ACAT program with no specific acquisition strategies.										

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Exhibit R-3 Cost Analysis (page 1)										DATE: February 2005			
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME							
RDT&E, N / BA-5			0604212N ASW & OTHER HELO DEVELOPMENT			1109 CH/MH-53							
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract	
Primary Hardware Development	Various	Various	1.097			0.233	Various	0.228	Various	Continuing	Continuing		
Ancillary Hardware Development	Various	Various	1.284			0.105	Various	0.067	Various	Continuing	Continuing		
Training Development	Various	NAWCAD Pax River, MD	0.311										
Aircraft Integration													
Ship Suitability													
Systems Engineering	WX	NAWCAD Pax River, MD		0.713	Various	0.498	Various	0.548	Various	Continuing	Continuing		
Licenses													
Tooling													
GFE													
Award Fees													
Subtotal Product Development			2.692	0.713		0.836		0.843		Continuing	Continuing		
Remarks:													
Development Support	Various	NAWCAD Pax River, MD	0.406								0.406		
Software Development	Various	Various	0.327			0.131	Various	0.172	Various	Continuing	Continuing		
Integrated Logistics Support											0.000		
Configuration Management											0.000		
Technical Data	Various	Various	0.194								0.194		
Studies & Analyses	Various	Various	2.754	0.362	Various	0.360	Various	0.337	Various	Continuing	Continuing		
GFE	Various	NAWCAD Pax River, MD	0.125								0.125		
Award Fees													
Subtotal Support			3.806	0.362		0.491		0.509		Continuing	Continuing		
Remarks:													

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Exhibit R-3 Cost Analysis (page 2)									DATE: February 2005			
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RDT&E, N / BA-5			0604212N ASW & OTHER HELO DEVELOPMENT			1109 CH/MH-53						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various	1.635	0.854	Various	0.601	Various	0.623	Various	Continuing	Continuing	
Operational Test & Evaluation	WX	COMOPTEVFOR	0.130								0.130	
Live Fire Test & Evaluation											0.000	
Test Assets												
Tooling												
GFE												
Award Fees												
Subtotal T&E			1.765	0.854		0.601		0.623		Continuing	Continuing	
Remarks:												
Contractor Engineering Support												
Government Engineering Support	Various	NAWCAD Pax River, MD	0.180	0.400	Various	0.129	Various	0.141	Various	Continuing	Continuing	
Program Management Support	Various	Various	0.380			0.312	Various	0.317	Various	Continuing	Continuing	
Travel	WX	NAWCAD Pax River, MD	0.706	0.052	11/04	0.097	Various	0.098	Various	Continuing	Continuing	
Transportation												
SBIR Assessment												
Subtotal Management			1.266	0.452		0.538		0.556		Continuing	Continuing	
Remarks:												
Total Cost			9.529	2.381		2.466		2.531		Continuing	Continuing	
Remarks:												

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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-5									0604212N ASW & OTHER HELO DEVELOPMENT												1109 CH/MH-53															
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4				
Program Milestones																																				
Engineering Milestones																																				
External Cargo Handling System Design																																				
Aircraft Survivability Assmt																																				
Armor Threat Assessment & Selection Test																																				
Cockpit & A/C System Assessment																																				
Other A/C Cockpit Integration Cadidates																																				
Design Armor Package																																				
Cockpit Upgrade Architecture Selection																																				
Baseline Vulnerability Study																																				
Hydraulic & Electric Actuator Assessment																																				
Fuel Sponson Ballistic Vulnerability Assessment																																				
Obsolesence Issues/Studies																																				
Survivability Analysis																																				
Legacy P3I Efforts																																				
T&E Milestones	<div>△</div> <div>Tech Data Study Contract Award</div>				<div>△</div> <div>Complete Initial Phase - Live-Fire Vulnerability Test</div>																															

R-1 SHOPPING LIST - Item No. 84

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**CLASSIFICATION:**

[illegible]

R-1 SHOPPING LIST - Item No. 84

**UNCLASSIFIED**

**Exhibit R-2, RD TEN Budget Item Justification**  
(Exhibit R-2, page 12 of 26)

# UNCLASSIFIED

## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>		PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & Other Helo Development			PROJECT NUMBER AND NAME 2415 MH-60S Development			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	<sup>*</sup> 51.097	80.127	78.646	80.282	42.042	22.657	5.083	5.402
RDT&E Articles Qty								

**A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:** The Helicopter Combat Support (HC) mission is to maintain forward deployed fleet sustainability through rapid airborne delivery of materials and personnel and to support amphibious operations through search and rescue coverage. The primary roles of the aircraft are to conduct vertical replenishment (VERTREP), day/night ship-to-ship, ship-to-shore, and shore-to-ship external transfer of cargo; internal transport of passengers, mail and cargo, vertical on board delivery (VOD); airhead operations, and day/night search and rescue (SAR) , Organic Airborne Mine Countermeasures (OAMCM) and Armed Helo. The MH-60S ORD was modified in May 2000 to add Organic Airborne Mine Countermeasures (OAMCM) as a primary mission for the MH-60S. The AMCM mission will provide Carrier Strike Groups (CSGs)\*\* and Expeditionary Strike Groups (ESGs)\*\* with an OAMCM capability. The Armed Helo will provide Combat Search and Rescue (CSAR), Surface Warfare (SUW) and Maritime Interdiction Operations (MIO)\*\*\* to include Link 16. The aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations (NEO), Sea Air Land (SEAL) and Explosive Ordnance Disposal (EOD) support.

Funding increase for the OAMCM program to address unplanned integration requirements and extension of schedule for sensors and integration on MH-60S.

\*The FY 2004 budget reflects a \$2.0M Congressional add for Advance Cable Design which has been reduced by \$0.022million for Congressional Rescission, \$0.054 SBIR, \$0.002 for non-pay inflation savings and will be executed under 9366 and 9367.

\*\* All missions stayed the same, the names were changed through the approval of Helicopter CONOPS as follows: Carrier Battle Groups (CVBGs) to Carrier Strike Groups (CSGs); and Amphibious Readiness Groups (ARGs) to Expeditionary Strike Groups (ESGs).

\*\*\*The interim requirement letter (N78, dtd 12 Jun 03) changed the Force Protection (FP) to Maritime Interdiction Operations (MIO).

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## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>																
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & Other Helo Development	PROJECT NUMBER AND NAME 2415 MH-60S Development																	
<b>B. Accomplishments/Planned Program</b>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 30%;"></th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th><th style="width: 15%;">FY 06</th><th style="width: 15%;">FY 07</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td style="text-align: center;">21.013</td><td style="text-align: center;">35.585</td><td style="text-align: center;">35.687</td><td style="text-align: center;">33.999</td></tr><tr><td>RDT&amp;E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table>						FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	21.013	35.585	35.687	33.999	RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	21.013	35.585	35.687	33.999															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px;">The design, development, integration and support of the AMCM unique items into the MH-60S airframe. Designed, developed, integrated and supported the interoperability of Automatic Flight Control System (AFCS) (Completed in FY02). T&amp;E on AMCM Mission Kits as each weapon system is introduced to the MH-60S. AMCM Training systems engineering and development; including training situation analysis, and instructional system development (ISD) documentation. Live Fire Test and Evaluation for the MH-60S program. Navy field activity systems engineering, program management support and travel. Design, develop, integrate and support the Link 16 development (FY04 - cont.). Integrate Link16 training situation analysis, instructional system development (ISD) document (FY05 - cont.). RTOC initiatives: Improved organizational level oil analysis technology, replacement of flight control self retaining bolts (FY04), and weight reduction (FY04-FY05).</div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 30%;"></th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th><th style="width: 15%;">FY 06</th><th style="width: 15%;">FY 07</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td style="text-align: center;">28.162</td><td style="text-align: center;">42.199</td><td style="text-align: center;">42.959</td><td style="text-align: center;">46.283</td></tr><tr><td>RDT&amp;E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table>						FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	28.162	42.199	42.959	46.283	RDT&E Articles Quantity				
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Accomplishments/Effort/Subtotal Cost	28.162	42.199	42.959	46.283															
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px;">Developmental efforts on the avionics architecture and systems of the MH-60S helicopter. Development of the operator consoles, as well as software modifications, to support AMCM sensors and palletized system. Navy field activity systems engineering and test support, program management, and travel. Continue AMCM Training systems engineering and development; including training situation analysis, and instructional system development (ISD) documentation. AMCM sensor systems test and evaluation support (FY03 - continuing). Engineering and integration effort to incorporate AMCM requirements into the aircraft and ship C4I structure (FY04 - cont.). Design, develop, integrate and support the Link 16 development (FY04- cont.). Integrate Link16 training situation analysis, instructional system development (ISD) document (FY05 - cont.).</div>																			
<table border="1" style="width: 100%; border-collapse: collapse;"><thead><tr><th style="width: 30%;"></th><th style="width: 15%;">FY 04</th><th style="width: 15%;">FY 05</th><th style="width: 15%;">FY 06</th><th style="width: 15%;">FY 07</th></tr></thead><tbody><tr><td>Accomplishments/Effort/Subtotal Cost</td><td style="text-align: center;">1.922</td><td style="text-align: center;">2.343</td><td></td><td></td></tr><tr><td>RDT&amp;E Articles Quantity</td><td></td><td></td><td></td><td></td></tr></tbody></table>						FY 04	FY 05	FY 06	FY 07	Accomplishments/Effort/Subtotal Cost	1.922	2.343			RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07															
Accomplishments/Effort/Subtotal Cost	1.922	2.343																	
RDT&E Articles Quantity																			
<div style="border: 1px solid black; padding: 5px;">Design, develop integrate, testing and support the Advanced Cable Design for the MH-60S.</div>																			

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## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>																																																																												
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & Other Helo Development	PROJECT NUMBER AND NAME 2415 MH-60S Development																																																																													
<p><b>C. PROGRAM CHANGE SUMMARY:</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 35%;"></th> <th style="text-align: right; width: 15%;">FY 04</th> <th style="text-align: right; width: 15%;">FY 05</th> <th style="text-align: right; width: 15%;">FY 06</th> <th style="text-align: right; width: 15%;">FY 07</th> </tr> </thead> <tbody> <tr> <td>Funding:</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Previous President's Budget:</td> <td style="text-align: right;">60.433</td> <td style="text-align: right;">81.231</td> <td style="text-align: right;">34.338</td> <td style="text-align: right;">8.156</td> </tr> <tr> <td>Current BES/President's Budget</td> <td style="text-align: right;">51.097</td> <td style="text-align: right;">80.127</td> <td style="text-align: right;">78.646</td> <td style="text-align: right;">80.282</td> </tr> <tr> <td>Total Adjustments</td> <td style="text-align: right; border-top: 1px solid black;">-9.336</td> <td style="text-align: right; border-top: 1px solid black;">-1.104</td> <td style="text-align: right; border-top: 1px solid black;">44.308</td> <td style="text-align: right; border-top: 1px solid black;">72.126</td> </tr> <tr> <td colspan="5" style="padding-top: 10px;">Summary of Adjustments</td> </tr> <tr> <td>    Congressional program reductions</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>    Congressional undistributed reductions</td> <td></td> <td style="text-align: right;">-0.724</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 style="text-align: right;">-1.265</td> <td></td> <td></td> <td></td> </tr> <tr> <td>    Other Adjustments</td> <td></td> <td style="text-align: right;">-0.380</td> <td style="text-align: right;">43.858</td> <td style="text-align: right;">72.006</td> </tr> <tr> <td>    Economic Assumptions</td> <td style="text-align: right;">-0.056</td> <td></td> <td style="text-align: right;">0.450</td> <td style="text-align: right;">0.120</td> </tr> <tr> <td>    Reprogrammings</td> <td style="text-align: right;">-8.015</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;">-9.336</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">-1.104</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">44.308</td> <td style="text-align: right; border-top: 1px solid black; border-bottom: 1px solid black;">72.126</td> </tr> </tbody> </table> <p>Schedule:</p> <p><u>AMCM</u>-An AMCM program restructuring as funded is reflected to incorporate schedule changes. Block 2A testing has been rescheduled due to delays in CSTRS deliveries and sensor development/testing, subsequently causing changes to FCA/PCA and IPR III. Block 2A Full Rate Production has been changed to Low Rate Initial Production based on completion of Block 2B Critical Design Review in Sep 05. Events have been updated based on revised completion date for Operational Testing (OT-IIC). Block 2B system development and testing adjusted to more accurately reflect revised contract award date, availability of sensors for integration, a more realistic test schedule and combining ALMDS with the Block 2B systems. RAMICS testing is shown separately due to a lower level of technical maturity causing development and integration to occur later than other Block 2B systems.</p> <p><u>LINK 16</u> - The Block 3B scheduled IPR 1 date moved from late first quarter 04 to fourth quarter 04 due to delay associated with F/A-18/Link 16 hardware MS III decision. Development and test milestones were adjusted to accommodate the shift for the IPR. Availability of MIDS is an entry criteria for program initiation (IPR #1). The MIDS GFE, which is being developed by another program office, was put on contract after the Link-16 MS-III decision scheduled for late 3rd qtr FY04. This delay in MIDS caused a corresponding delay across the entire Block 3B program. To account for this delay, technical and schedule requirements have been adjusted as shown. The FCA and PCA were originally included to develop sparing data for the airframe modifications and the Link-16 MIDS included in Block 3B. The sparing data for airframe modifications will be developed as part of the ECP incorporating the change into the production line and sparing information for the Link-16 MIDS will be developed as part of the GFE. As such, FCA and PCA are no longer a formal requirement of the program.</p> <p>Technical: N/A</p>						FY 04	FY 05	FY 06	FY 07	Funding:					Previous President's Budget:	60.433	81.231	34.338	8.156	Current BES/President's Budget	51.097	80.127	78.646	80.282	Total Adjustments	-9.336	-1.104	44.308	72.126	Summary of Adjustments					Congressional program reductions					Congressional undistributed reductions		-0.724			Congressional rescissions					SBIR/STTR Transfer	-1.265				Other Adjustments		-0.380	43.858	72.006	Economic Assumptions	-0.056		0.450	0.120	Reprogrammings	-8.015				Congressional increases					Subtotal	-9.336	-1.104	44.308	72.126
	FY 04	FY 05	FY 06	FY 07																																																																											
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R-1 SHOPPING LIST - Item No. 84

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## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>			PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & Other Helo Development			PROJECT NUMBER AND NAME 2415 MH-60S Development			

**D. OTHER PROGRAM FUNDING SUMMARY:**

Line Item No. & Name	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	To Complete	Total Cost
017900 APN-1 MH-60S AMCM (Included in numbers above)	402.368	399.206	589.067	688.365	675.133	727.715	552.342	545.225	987.585	5,567.01
060510 APN-6 MH-60S	26.150	16.711	19.593	8.697	4.982	1.161	1.611	1.811		80.716

**E. ACQUISITION STRATEGY:**

Airborne Mine Countermeasures (AMCM) and Armed Helo are elements of the existing MH-60S ACAT IC Program. MH-60S will employ an evolutionary acquisition approach via the MH-60S Block Upgrades. This allows for future modification for systems still in early development. The block upgrades will maximize commonality across all MH-60S missions and all AMCM/Armed Helo weapon systems, including logistics, training and maintenance. The MH-60S block upgrades are as follows.

- Block 1 - Combat Support Helicopter
- Block 2- Airborne Mine Countermeasures
- Block 3 - Armed Helo

R-1 SHOPPING LIST - Item No. 84

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## CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604212N ASW & Other Helo Development			2415 MH-60S Development						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development, Airframe	SS/CPAF	Sikorsky, Stratford, CT	66.798	23.774	Various	23.718	Various	18.228	Various	15.995	148.513	148.513
Primary Hardware Development, Avionics	SS/CPAF	Lockheed Martin, Owego, NY	80.683	30.386	Various	30.988	Various	30.510	Various	16.682	189.249	189.249
Primary Hardware Development, CS	TBD	TBD	31.475	2.343	Various	1.850	Various	3.397	Various	2.844	41.909	41.909
Training Development	Various	NAWCAD PAX River & TSD	2.135	1.700	Various	0.500	Various	0.500	Various		4.835	
Aircraft Integration											0.000	
Ship integration											0.000	
Systems Engineering	SS/CPAF	Cortland Cable, NY	3.064								3.064	3.064
											0.000	
GFE	Various	Various	1.300								1.300	
Award fees	SS/CPAF	Sikorsky & Lockheed Martin	3.715	3.600	Various						7.315	7.315
ACTD	MIPR	Bolling AFB	1.100								1.100	
Subtotal Product Development			190.270	61.803		57.056		52.635		35.521	397.285	
Remarks:												
Development Support											0.000	
Software Development, Airframe											0.000	
Software Development, Avionics											0.000	
Integrated Logistics Support	Various	Various	7.608	4.712	Various	2.327	Various	2.351	Various	Continuing	Continuing	
Configuration Management											0.000	
Technical Data											0.000	
Studies & Analysis	Various	NAWCAD PAX River	2.674								2.674	
GFE											0.000	
Subtotal Support			10.282	4.712		2.327		2.351		Continuing	Continuing	
Remarks:												

# UNCLASSIFIED

## CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDTE&amp;E, N / BA-5</b>			PROGRAM ELEMENT 0604212N ASW & Other Helo Development				PROJECT NUMBER AND NAME 2415 MH-60S Development					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 05 Cost	FY 05 Award Date	FY 06 Cost	FY 06 Award Date	FY 07 Cost	FY 07 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WX	Various	14.825	1.910	Various	7.656	Various	7.504	Various	6.089	37.984	
Operational Test & Evaluation	WX	Various	1.552	2.946	Various	0.310	Various	5.353	Various	1.800	11.961	
Live Fire Test & Evaluation	WX	Various	2.548	0.855	Various						3.403	
Test Assets											0.000	
Tooling											0.000	
GFE											0.000	
Award Fees											0.000	
Subtotal T&E			18.925	5.711		7.966		12.857		7.889	53.348	
Remarks:												
Contractor Engineering Support	Various	Various	5.471	0.300	Various	0.788	Various	0.788	Various	Continuing	Continuing	
Government Engineering Support	Various	Various	23.106	5.372	Various	7.942	Various	9.558	Various	Continuing	Continuing	
Program Management Support	Various	Various	10.749	2.029	Various	2.267	Various	1.843	Various	Continuing	Continuing	
Travel	WX	NAWCAD	0.889	0.200	Various	0.300	Various	0.250	Various	0.800	2.439	
Transportation											0.000	
SBIR Assessment											0.000	
Subtotal Management			40.215	7.901		11.297		12.439		Continuing	Continuing	
Remarks:												
Total Cost			259.692	80.127		78.646		80.282		Continuing	Continuing	
Remarks:												

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R4, Schedule Profile																								DATE:											
APPROPRIATION/BUDGET ACTIVITY												PROGRAM ELEMENT NUMBER AND NAME												PROJECT NUMBER AND NAME											
RDT&E, N / BA-5												0604212N ASW and Other Helo Development												2415 MH-60S Development											
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4			
Acquisition Milestones								IPR III Block 2A ▲					IOC Block 2A ★		IPR IV Block 2B ▲																	FOC AMCM ★			
MH-60S AMCM Aircraft Development						Block 2A	FCA ▲	PCA ▲	2B PDR ▲	2B CDR ▲																									
AMCM Mission Kits CSTRS & Common Console	2A Ground Testing □											2B Grn Tst (ALMDS, OASIS, AMNS) □				2B Grn Tst (RAMICS) □																			
Test & Evaluation Milestones																																			
MH-60S AMCM Block 2A							CT					DT-IIC			OT-IIC																				
MH-60S AMCM Block 2B (ALMDS, OASIS, ANMS)														CT			DT-IID			OT-IID															
(RAMICS)																			CT			DT-IID					OT-IID								
Production Milestones																																			
AMCM Mission Kits																																			
FRP												Contract Award Block 2A ▲					Contract Award Block 2B ▲																		
Deliveries CSTRS	▲2		▲3	▲3	▲3						▲2							▲2	▲2	▲2	▲3	▲3	▲3	▲2	▲4	▲3	▲3	▲3	▲4	▲3	▲3	▲3			
Common Console				▲3	▲3		▲4							▲2						▲2	▲2	▲1	▲1	▲3	▲3	▲3	▲2	▲4	▲3	▲3	▲3				

R-1 SHOPPING LIST - Item No. 84

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Exhibit R-2, RD TEN Budget Item Justification  
(Exhibit R-2, page 19 of 26)

# UNCLASSIFIED

## CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: <b>February 2005</b>			
APPROPRIATION/BUDGET ACTIVITY		PROGRAM ELEMENT				PROJECT NUMBER AND NAME			
<b>RDT&amp;BA-5</b>		0604212N ASW and Other Helo Development				2415 MH-60S Development			
Schedule Profile		FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Block 2A									
Ground Testing		1Q							
Contractor Test		4Q	1Q-4Q						
Initial Production Delivery (Common Consoles & CSTRS)		1Q-4Q	1Q-3Q						
Functional Configuration Audit			3Q						
Physical Configuration Audit			4Q						
Developmental Testing (DT-IIC)			4Q	1Q-3Q					
Operational Testing (OT-IIC)				3Q-4Q					
Low Rate Production (LRIP) Decision 2A/IPR III (Qty 2)			4Q						
Contract Award - Production				1Q					
Initial Operational Capability - Block 2A				4Q					
Low Rate Initial Production Delivery (Common Consoles & CSTRS)				3Q	2Q				
Block 2B									
PDR			3Q						
CDR			4Q						
Contractor Test				1Q-4Q	1Q-2Q				
Developmental Testing (DT-IID)					2Q-4Q				
Operational Testing (OT-IID)									
RAMICS Contractor Test					4Q				
RAMICS Developmental Testing (DT-IID)									
RAMICS Operational Testing (OT-IID)									
Full Rate Production (FRP) Decision 2B/ IPR IV					2Q				
Contract Award - Production					3Q				
Full Rate Production Delivery (Common Consoles & CSTRS)									
Full Operational Capability - Block 2B									

R-1 SHOPPING LIST - Item No.

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Exhibit R-2, RD TEN Budget Item Justification

(Exhibit R-2, page 20 of 26)

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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-5												0604212N ASW and Other Helo Development												2415 MH-60S Development											
Fiscal Year	2004				2005				2006				2007				2008				2009				2010				2011						
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4							
Acquisition Milestones				△							△																								
(Block 3B)				IPR 1							IPR 2																								
MH-60S Block 3B Development																																			
Design/Build/Integration																																			
MH-60S Block 3B Development Milestones					△	△	△	△																											
					SRR	SDR	PDR	CDR																											
Aircraft Block 3B Mod Delivery														△																					
Software						SRR	△				△		△																						
											Release 16.0		Release 16.1		Release 16.2																				
Test & Evaluation Milestones												△		△																					
Contractor Test												CT-IIJ																							
Development Test													DT-IIJ																						
Operational Test															OT-IIJ																				

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Exhibit R-2, RDTE Budget Item Justification  
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## CLASSIFICATION:

Exhibit R-4a, Schedule Detail						DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT				PROJECT NUMBER AND NAME			
<b>RDT&amp;E, N / BA-5</b>	0604212N ASW and Other Helo Development				2415 MH-60S Development			
Schedule Profile - Link 16	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
BLOCK 3B								
IPR 1	4Q							
System Design, Build, and Integration	2Q-4Q	1Q-4Q	1Q-4Q					
Systems Requirements Review (SRR)		1Q						
System Design Review (SDR)		2Q						
Preliminary Design Review (PDR)		3Q						
Software Readiness Review (SRR)		3Q						
Critical Design Review (CDR)		4Q						
Software Delivery 16.0			1Q-2Q					
Aircraft Block 3B Mod Delivery				2Q				
Contractor Test (CT-IIJ)			2Q-3Q					
IPR 2			3Q					
Software Delivery 16.1			3Q					
Developmental Test Readiness Review (DTRR)			4Q					
Software Delivery 16.2				1Q				
Developmental Testing (DT-IIJ)			4Q	1Q				
Operational Test Readiness Review				1Q				
Operational Testing (OT-IIJ)				2Q				
IPR 3				3Q				
IOC				4Q				

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Exhibit R-2, RD TEN Budget Item Justification  
(Exhibit R-2, page 22 of 26)

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## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>		PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & OTHER HELO DEVELOPMENT			PROJECT NUMBER AND NAME 9055 SH-60 Laser Aim Scoring System (LASS)			
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost		<b>0.922</b>						
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</p> <p>(U) A. The Laser Aim Scoring System (LASS) provides real-time, quantitative feedback on critical aspects of laser guided weapon employment not currently available from existing Navy laser scoring systems. This feedback has been proven to significantly improve flight crew weapon delivery capabilities during nearly a decade of use by the U.S. Army. The system consists of three major components: A Base Station, Target Kit and Aircraft Flight Data Unit. LASS will be adapted to existing Navy seaborne target to support Navy H-60 armed helicopter training and readiness events requiring laser scoring capability.</p>								

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Exhibit R-2, RD TEN Budget Item Justification  
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## CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>	
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & OTHER HELO DEVELOPMENT	PROJECT NUMBER AND NAME 9055 SH-60 Laser Aim Scoring System (LASS)		
<b>B. Accomplishments/Planned Program</b>				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost		0.922		
RDT&E Articles Quantity				
Continue the design and development efforts required for adaptation of an existing LASS base station, target and flight data unit to Navy H-60 configuration requirements.				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				
	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost				
RDT&E Articles Quantity				

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EXHIBIT R-2a, RDT&E Project Justification			DATE: <b>February 2005</b>																																																																							
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>	PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & OTHER HELO DEVELOPMENT	PROJECT NUMBER AND NAME 9055 SH-60 Laser Aim Scoring System (LASS)																																																																								
<p><b>C. PROGRAM CHANGE SUMMARY:</b></p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; width: 40%;"></th> <th style="text-align: right; width: 10%;">FY 2004</th> <th style="text-align: right; width: 10%;">FY 2005</th> <th style="text-align: right; width: 10%;">FY 2006</th> <th style="text-align: right; width: 10%;">FY 2007</th> </tr> </thead> <tbody> <tr> <td>Funding:</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Previous President's Budget:</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</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;">0.000</td> <td style="text-align: right;">0.922</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;">0.922</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></td> <td></td> <td></td> </tr> <tr> <td>    Congressional undistributed reductions</td> <td></td> <td style="text-align: right;">-0.078</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></td> <td></td> <td></td> </tr> <tr> <td>    Reprogrammings</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>    Congressional increases</td> <td></td> <td style="text-align: right;">1.000</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;">0.922</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;">Schedule:</p> <p style="margin-left: 20px;">Not Applicable</p> <p style="margin-top: 40px;">Technical:</p> <p style="margin-left: 20px;">Not Applicable</p>						FY 2004	FY 2005	FY 2006	FY 2007	Funding:					Previous President's Budget:	0.000	0.000	0.000	0.000	Current BES/President's Budget	0.000	0.922	0.000	0.000	Total Adjustments	0.000	0.922	0.000	0.000	Summary of Adjustments					Congressional program reductions					Congressional undistributed reductions		-0.078			Congressional rescissions					SBIR/STTR Transfer					Economic Assumptions					Reprogrammings					Congressional increases		1.000			Subtotal	0.000	0.922	0.000	0.000
	FY 2004	FY 2005	FY 2006	FY 2007																																																																						
Funding:																																																																										
Previous President's Budget:	0.000	0.000	0.000	0.000																																																																						
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EXHIBIT R-2a, RDT&E Project Justification								DATE: <b>February 2005</b>		
APPROPRIATION/BUDGET ACTIVITY <b>RDT&amp;E, N / BA-5</b>		PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & OTHER HELO DEVELOPMENT			PROJECT NUMBER AND NAME 9055 SH-60 Laser Aim Scoring System (LASS)					
<b>D. OTHER PROGRAM FUNDING SUMMARY:</b>										
<u>Line Item No. &amp; Name</u>	<u>FY 2004</u>	<u>FY 2005</u>	<u>FY 2006</u>	<u>FY 2007</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>To Complete</u>	<u>Total Cost</u>
APN BLI-053000 H-60 Series	16.717	11.610	12.360	13.790	7.734	8.287	8.465	8.647		87.610
<b>E. ACQUISITION STRATEGY:</b>										
<p>FY05 RDT&amp;E funding provided for Laser Aim Scoring System will be placed on an existing contract to complete a four year effort. The program will develop an aircrew training system which provides real-time feedback to H-60 flight crews on the effectiveness in designating targets with Laser energy through a forward looking infrared. The system will track effectiveness and tactical</p>										

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