

UNCLASSIFIED

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification								DATE:			
								June 2001			
APPROPRIATION/BUDGET ACTIVITY						R-1 ITEM NOMENCLATURE					
RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5						0604212N ASW & OTHER HELO DEVELOPMENT					
COST (\$ in Millions)	Prior Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Total PE Cost	76.323	57.559	36.024	64.392							
H1109 CH/MH-53		3.447	0.461	2.321							
H1709 CH-60S VERTREP	32.102	18.593	0.000	0.000							
H2415 CH-60S Development	41.316	25.199	22.944	36.948							
H2463 LAMPS MK III DATA LINK	2.905	10.320	12.619	25.123							
Quantity of RDT&E Articles	1	2		16							
<div>H2415</div> <div>* FY 2000 budget reflects a \$10M Congressionaladd for CSTRS prototypes executed under H2773, which was reduced by \$.277 for Congressionalundistributed adjustments and a \$1.0M Congressionaladd for Sentient Sensor Development executed under H2772, which was reduced by \$.013M for Congressional undistributed adjustments.</div> <div>** The FY 2001 budget reflects a \$10M Congressional add for CSTRS which will be executed under H2773.</div> <div>*** The FY 2002 budget does not include \$12.8M for AMCM aircraft modifications. This funding is reflected in PE 0604216N under Project E3053.</div> <div>H2463</div> <div>* FY 2000 budget reflects a \$1.0M Congressional add for Ship-Air Mission Systems Integration executed under H2774, which has been reduced by \$.026M for Congressional Recission and undistributed adjustments.</div> <div>** FY 2001 budget reflects a \$2.0M Congressionaladd for Upgrading the Ship Ground Station at NAWC Aircraft Division which has been reduced by \$.014 for Pro-Rata Recission and \$.004 for Government Wide Recission and will also be executed under H2774.</div>											
<div>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:</div> <div>H1109 - In FY-2000, RDT&E efforts included the Improved External Lifting Device (IELD) program which consisted of dynamic structures modeling, system design, prototype development, and electro environmental and flight testing to document load matrix configuration. From FY-2000 to FY-2007, H-53E efforts continue to develop and qualify components to replace obsolete system components and incorporate supportability improvement modifications to support H-53E Service Life Extension Program (SLEP) Phase II and Phase III requirements. 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-53E 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. During FY-2002 RDT&E efforts will focus on the following SLEP Phase II requirements; External Cargo Handling System, Aircraft Armor, Satellite Communications and Avionics Obsolescence. Also, the program will address SLEP Phase III efforts by increasing the H-53E cabin floor loading requirements to</div>											

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Exhibit R-2, RDTEN Budget Item Justification
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EXHIBIT R-2, RDT&E Budget Item Justification		DATE: June 2001
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVYBA-5	R-1 ITEM NOMENCLATURE 0604212N ASW & OTHER HELO DEVELOPMENT	
<p>(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION (CON'T):</p> <p>H1709 - 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 th 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). The aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations (NEO), Sea Air Land (SEAL) and Explosive Ordnance Disposal (EOD) support. The CH-60S ORD was modified in May 2000 to add Organic Airborne Mine Countermeasures (OAMCM) as a primary mission for the CH-60S. The AMCM mission will provide Carrier Battle Groups (CVBGs) and Amphibious Readiness Groups (ARGs) with an OAMCM capability.</p> <p>H2415 - 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 th 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). The aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations (NEO), Sea Air Land (SEAL) and Explosive Ordnance Disposal (EOD) support. The CH-60S ORD was modified in May 2000 to add Organic Airborne Mine Countermeasures (OAMCM) as a primary mission for the CH-60S. The AMCM mission will provide Carrier Battle Groups (CVBGs) and Amphibious Readiness Groups (ARGs) with an OAMCM capability.</p> <p>H2463 - The Light Airborne Multi-Purpose System (LAMPS) MK III helicopter is deployed on Ticonderoga Class cruisers, Arleigh Burke Class Destroyer and Spruance Class destroyers, and Oliver Hazard Perry Class frigates, and provides an all-weather capability for detection, classification, and localization of ships and submarines. LAMPS is an integrated ship-to-helicopter, computer-to-computer weapon system designed to increase and extend the effectiveness of the surface combatant in the performance of its mission. Currently the LAMPS helicopter is tied to its host surface ship via a C-Band bi-directional data link. This data link transfers FLIR, radar, Electronic Support Measures (ESM), Identification Friend or Foe (IFF), voice, tactical symbology, and acoustic information between the helicopter and ship making the helicopter an extension of the ships sensors and increasing the sensor horizon of the ship. The recent introduction of Cooperative Engagement Capability (CEC) into the fleet has created an Electro Magnetic Interference (EMI) problem because it operates within the same C-Band frequency spectrum as the data link. In some CEC operating modes, it completely masks the LAMPS data link resulting in of information exchange between the ship and helicopter. To resolve this EMI issue, the LAMPS data link is being moved from the C-Band frequency to the KU-Band. Funding supports development and delivery of 10 air and 6 surface test articles from two vendors in FY 02. This allows ample time for the merge of vendor designs and the development of common interfaces.</p> <p>(U) JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under Engineering and Manufacturing Development because it encompasses engineering and manufacturing development of new end-items prior to production approval decision.</p>		

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Exhibit R-2, RDTEN Budget Item Justification
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EXHIBIT R-2a, RDT&E Project Justification								DATE:			
								June 2001			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RDT&E, N / BA-5	0604212N ASW & OTHER HELO DEVELOPMENT					H1109 CH/MH-53					
COST (\$ in Millions)	Prior Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost		3.447	0.461	2.321							
RDT&E Articles Qty											

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: In FY-2000, RDT&E efforts included the Improved External Lifting Device (IELD) program which consisted of dynamic structures modeling, system design, prototype development, and electro environmental and flight testing to document load matrix configuration. From FY-2000 to FY-2007, H-53E efforts continue to develop and qualify components to replace obsolete system components and incorporate supportability improvement modifications to support H-53E Service Life Extension Program (SLEP) Phase II and Phase III requirements. 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-53E 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. During FY-2002, RDT&E efforts will focus the following SLEP Phase II requirements; External Cargo Handling System, Aircraft Armor, Satellite Communications and Avionics Obsolescence. Also, the program will address SLEP Phase III efforts by increasing the H-53E cabin floor loading requirements to meet the future internal cargo growth requirements, and assessing and designing a composite main rotor blade to increase lift performance, maintainability and to reduce life cycle costs.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 2000 ACCOMPLISHMENTS:

- (U) (\$.183) Continued In-house travel and field activities funding to support program.
- (U) (\$2.005) Provided funding to support IELD program. This included dynamic structures modeling, system design, and prototype development. Performed flight testing to determine electro environmental effects and document load matrix configuration.
- (U) (\$.535) Continued H-53E Avionics Obsolescence/Updated Cockpit - Explored options (through study) for taking existing avionics and upgrading internal parts.
- (U) (\$.574) Conducted Rotor Hub Quality Testing on new configuration to extend life of aircraft.
- (U) (\$.150) Continued Modeling Fidelity and Data Correlation - Placed final SLAP data into the U.S. model at Carderock.

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Exhibit R-2, RDTE Budget Item Justification
(Exhibit R-2, page 3 of 24)

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EXHIBIT R-2a, RDT&E Project Justification		DATE:
		June 2001
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDTE&E, N / BA-5	0604212N ASW & OTHER HELO DEVELOPMENT	H1109 CH/MH-53
<p>2. FY 2001 PLANS:</p> <ul style="list-style-type: none">- (U) (\$.187) Continue In-house travel and field activities funding to support program.- (U) (\$.266) Continue H-53 Avionics Obsolescence/Updated Cockpit. This includes a cockpit study on the layout development, human factors of component layout and component commonality.- (U) (\$.008) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 usc 68. <p>3. FY 2002 PLANS:</p> <ul style="list-style-type: none">- (U) (\$.352) Conduct External Cargo Handling System Design.- (U) (\$.350) Conduct External Cargo System Indicator Design.- (U) (\$.350) Conduct Aircraft Vulnerability Armor Assessment.- (U) (\$.250) Conduct Armor Threat Assessment on aircraft.- (U) (\$.400) Conduct Armor Selection/Test.- (U) (\$.269) Conduct Cockpit and Aircraft System Assessment.- (U) (\$.227) Testing other Aircraft Integration Candidates.- (U) (\$.123) Continue In-house travel and field activities funding to support program.		

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Exhibit R-2, RDTEEN Budget Item Justification
(Exhibit R-2, page 4 of 24)

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EXHIBIT R-2a, RDT&E Project Justification		DATE:																
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME																
RDTE&E, N / BA-5	0604212N ASW & OTHER HELO DEVELOPMENT	H1109 CH/MH-53																
<p>(U) B. PROGRAM CHANGE SUMMARY:</p> <table><thead><tr><th></th><th><u>FY2000</u></th><th><u>FY2001</u></th><th><u>FY2002</u></th></tr></thead><tbody><tr><td>(U) FY 2001 President's Budget:</td><td>3.987</td><td>0.466</td><td>2.334</td></tr><tr><td>(U) Adjustments from the President's Budget:</td><td>-0.540</td><td>-0.005</td><td>-0.013</td></tr><tr><td>(U) FY 2002 President's Budget Submit:</td><td>3.447</td><td>0.461</td><td>2.321</td></tr></tbody></table> <p>CHANGE SUMMARY EXPLANATION:</p> <p>(U) Funding: The FY 2000 net decrease of \$.540 million consists of a decrease of \$.044 million for a Small Business Innovation Research Assessment, a \$.480 million decrease for the reprioritization of requirements within the Navy, and a \$.016 million decrease for a Congressional Recission. The FY 2001 net decrease of \$.005 million consists of a decrease of \$.001 million for reprioritization of requirements within the Navy, a \$.003 million decrease for a Congressional Reduction, and a \$.001 million decrease for a Congressional Recission. The FY 2002 net decrease of \$.013 million consist of a decrease of \$.003 million for economic assumptions and a \$.010 million decrease for reprioritization of requirements within the Navy.</p> <p>(U) Schedule: The Cargo Hook System scheduled for 2Q/00 and the Spindle Study scheduled for 3Q/00 were both cancelled. The H-53E effort to extend the life of the Rotor Hub began 4Q/00.</p> <p>(U) Technical: Not Applicable.</p> <p>(U) C. OTHER PROGRAM FUNDING SUMMARY: Not Applicable</p>				<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>	(U) FY 2001 President's Budget:	3.987	0.466	2.334	(U) Adjustments from the President's Budget:	-0.540	-0.005	-0.013	(U) FY 2002 President's Budget Submit:	3.447	0.461	2.321
	<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>															
(U) FY 2001 President's Budget:	3.987	0.466	2.334															
(U) Adjustments from the President's Budget:	-0.540	-0.005	-0.013															
(U) FY 2002 President's Budget Submit:	3.447	0.461	2.321															

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Exhibit R-2, RDTEEN Budget Item Justification
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EXHIBIT R-2a, RDT&E Project Justification		DATE: June 2001
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & OTHER HELO DEVELOPMENT	PROJECT NUMBER AND NAME H1109 CH/MH-53
(U) D. ACQUISITION STRATEGY: This is a non-ACAT program with no specific acquisition strategies.		
(U) E. SCHEDULE PROFILE:		
	<u>FY 2000</u>	<u>FY 2001</u>
(U) Program Milestones (Not Applicable)		<u>FY 2002</u>
(U) Engineering Milestones	1Q/00 - 4Q/00 H-53E Develop & Qualify Component 2Q/00 - 3Q/00 IELD Sys Design 3Q/00-4Q/00 IELD Prototype Dev	1Q/01-4Q/01 H-53E Develop & Qualify Component
		1Q/02-4Q/02 External Cargo Handling Sys Design 1Q/02-4Q/02 Ext Cargo Handling Indicator Design 1Q/02-4Q/02 Aircraft Vulnerability Assessment 1Q/02-4Q/02 Armor Threat Assessment 1Q/02-4Q/02 Cockpit and A/C System Assessment 1Q/02-4Q/02 Other A/C Cockpit Integration Candidates
(U) T&E Milestones	3Q/00-4Q/00 IELD TESTFLT 4Q/00 Rotor Hub Quality Testing	1Q/02-4Q/02 Armor Selection Test

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Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 6 of 24)

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EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDT&E, N / BA-5	0604212N ASW & OTHER HELO DEVELOPMENT	H1109 CH/MH-53
(U) E. SCHEDULE PROFILE:		
	<u>FY 2000</u>	<u>FY 2001</u>
(U) T&E Milestones (Continued)		<u>FY 2002</u>
(U) Contract Milestones	1Q/00 Pin Bending Test Result Outbrief	

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Exhibit R-2, RD TEN Budget Item Justification
(Exhibit R-2, page 7 of 24)

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Exhibit R-3 Cost Analysis (page 1)								DATE:				
APPROPRIATION/BUDGET ACTIVITY								June 2001				
RDT&E, N / BA-5			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
			0604212N ASW & OTHER HELO DEVELOPMENT			H1109 CH/MH-53E						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
External Cargo Handling System	SS CPFF	SIKORSKY, Stratford, CT				0.352	03/02					0.352
External Cargo System Indicator Des	SS CPFF	SIKORSKY, Stratford, CT				0.350	03/02					0.350
Design Armor Package	SS CPFF	SIKORSKY, Stratford, CT										0.750
Integrated Software Applique	WX	NAWCAD, Pax River, MD										
Architecture Selection	WX	NAWCAD, Pax River, MD										
IELD	WX	NAWCAD, Pax River, MD	2.005									
Subtotal Product Development			2.005			0.702						
Remarks:												
H-53 Avionics Obsolescence	WX	NAVICP, Philadelphia, PA	0.535	0.266	11/00							
Aircraft Vulnerability Assessment	SS CPFF	SIKORKSY, Stratford, CT				0.350	03/02					0.350
Aircraft Integration Candidates	WX	NAWCAD, Pax River, MD				0.227	10/01					
Cockpit & Aircraft Sys Assessment	WX	NAWCAD, Pax River, MD				0.269	10/01					
Armor Threat Assessment	WX	NAWCAD, Pax River, MD				0.250	10/01					
Modeling Fidelity & Data Correlation	WX	NSWC, Carderock, MD	0.150									
SBIR Assessment				0.008								
Subtotal Support			0.685	0.274		1.096						
Remarks:												

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 8 of 24)

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Exhibit R-3 Cost Analysis (page 2)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY RD&E, N / BA-5			PROGRAM ELEMENT 0604212N ASW & OTHER HELO DEVELOPMENT			PROJECT NUMBER AND NAME H1109 CH/MH-53						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Armor Selection Testing	WX	NAWCAD, Pax River, MD				0.400	10/01					
Design & Breadboard Testing	WX	NAWCAD, Pax River, MD										
Testing Antennae, AMP & Modem	WX	NAWCAD, Pax River, MD										
Model & Test Design Effectiveness	WX	NAWCAD, Pax River, MD										
Rotor Hub Quality Testing	SS CPFF	SIKORSKY, Stratford, CT	0.574									0.574
Subtotal T&E			0.574			0.400						
Remarks:												
Travel	WX	NAWCAD, Pax River, MD	0.183	0.187	11/00	0.123	11/01					
Subtotal Management			0.183	0.187		0.123						
Remarks:												
Total Cost			3.447	0.461		2.321						
Remarks:												

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Exhibit R-3, Project Cost Analysis
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EXHIBIT R-2a, RDT&E Project Justification								DATE:			
								June 2001			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RDT&E, N / BA-5	0604212N ASW and Other Helo Development					H1709 MH-60S VERTREP					
COST (\$ in Millions)	Prior Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	32.102	18.593	0	0							
RDT&E Articles Qty	1										

(U) 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). The aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations (NEO), Sea Air Land (SEAL) and Explosive Ordnance Disposal (EOD) support. 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 Battle Groups (CVBGs) and Amphibious Readiness Groups (ARGs) with an OAMCM capability.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 2000 ACCOMPLISHMENTS:

- (U) (\$ 5.890) Continued developmental efforts on a production representative MH-60S helicopter. Procured supplies and services which include ground and flight tests, logistics support, NRE documentation, and engineering support for testing.
- (U) (\$4.741) Completed Navy field activity program management and travel for MH-60S and Airborne Mine Countermeasures.
- (U) (\$6.067) Completed Airborne Mine Countermeasures Phase III Tow Test.
- (U) (\$1.895) Continued developmental efforts on a production representative MH-60S helicopter. Procured supplies and services which included engineering investigations and studies, nonrecurring engineering and design, and common cockpit testing.

2. FY 2001 PLANS:

- (U) Not applicable

3. FY 2002 PLANS:

- (U) Not applicable

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APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW and Other Helo Development	PROJECT NUMBER AND NAME H1709 MH-60S VERTREP																																				
<p>(U) B. PROGRAM CHANGE SUMMARY:</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;"></th> <th style="text-align: right; border-bottom: 1px solid black;">FY2000</th> <th style="text-align: right; border-bottom: 1px solid black;">FY2001</th> <th style="text-align: right; border-bottom: 1px solid black;">FY2002</th> </tr> </thead> <tbody> <tr> <td>(U) FY 2001 President's Budget:</td> <td style="text-align: right;">19.526</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> </tr> <tr> <td>(U) Adjustments from the President's Budget:</td> <td style="text-align: right;">-0.933</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> </tr> <tr> <td>(U) FY 2002 President's Budget Submit:</td> <td style="text-align: right;">18.593</td> <td style="text-align: right;">0</td> <td style="text-align: right;">0</td> </tr> </tbody> </table> <p style="margin-left: 40px;">CHANGE SUMMARY EXPLANATION:</p> <p style="margin-left: 40px;">(U) Funding: The FY 2000 net decrease of \$.933 million reflects a decrease of \$.477 million for a Small Business Innovation Research assessment, a decrease of \$.379 million for reprioritization of requirements within the Navy , and a decrease of \$0.077 million for Congressional Recission.</p> <p style="margin-left: 40px;">(U) Schedule: FY 2001 reflects an OPEVAL schedule slip and TECHEVAL was extended due to additional Common Cockpit testing transferred from SH-60R to MH-60S.</p> <p style="margin-left: 40px;">(U) Technical: N/A</p> <p style="margin-left: 40px;">(U) C. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="margin-left: auto; margin-right: auto; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; border-bottom: 1px solid black;">Line Item No. & Name</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2000</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2001</th> <th style="text-align: right; border-bottom: 1px solid black;">FY 2002</th> </tr> </thead> <tbody> <tr> <td>024000 APN-2 MH-60S</td> <td style="text-align: right;">355.742</td> <td style="text-align: right;">284.696</td> <td style="text-align: right;">258.969</td> </tr> <tr> <td>060510 APN-6 MH-60S</td> <td style="text-align: right;">5.808</td> <td style="text-align: right;">33.223</td> <td style="text-align: right;">7.469</td> </tr> <tr> <td>0204302 OPN AMCM</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">0.000</td> <td style="text-align: right;">8.509</td> </tr> <tr> <td><u>Related RDT&E -</u> (U) PE: 0604212N; Project Unit: H2415</td> <td style="text-align: right;">25.199</td> <td style="text-align: right;">22.944</td> <td style="text-align: right;">36.941</td> </tr> </tbody> </table>				FY2000	FY2001	FY2002	(U) FY 2001 President's Budget:	19.526	0	0	(U) Adjustments from the President's Budget:	-0.933	0	0	(U) FY 2002 President's Budget Submit:	18.593	0	0	Line Item No. & Name	FY 2000	FY 2001	FY 2002	024000 APN-2 MH-60S	355.742	284.696	258.969	060510 APN-6 MH-60S	5.808	33.223	7.469	0204302 OPN AMCM	0.000	0.000	8.509	<u>Related RDT&E -</u> (U) PE: 0604212N; Project Unit: H2415	25.199	22.944	36.941
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<u>Related RDT&E -</u> (U) PE: 0604212N; Project Unit: H2415	25.199	22.944	36.941																																			

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EXHIBIT R-2a, RDT&E Project Justification		DATE: June 2001
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW and Other Helo Development	PROJECT NUMBER AND NAME H1709 MH-60S VERTREP
(U) D. ACQUISITION STRATEGY:		
(U) E. SCHEDULE PROFILE:		
	<u>FY 2000</u>	<u>FY 2001</u>
(U) Program Milestones		MS-III - 4Q/01
(U) Engineering Milestones		
(U) T&E Milestones	CT/DT-IIA 2Q/00 - 2Q/01 Phase III Tow Demo 4Q/00 TECHEVAL 3Q/00 - 2Q/01	OPEVAL 2Q/01 - 3Q/01
(U) Contract Milestones		

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CLASSIFICATION:

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EXHIBIT R-2a, RDT&E Project Justification								DATE:			
								June 2001			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RDT&E, N / BA-5	0604212N ASW and Other Helo Development					H2415 MH-60S Development					
COST (\$ in Millions)	Prior Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	41.316	25.199*	22.944**	36.948							
RDT&E Articles Qty		2									

* FY 2000 budget reflects a \$10M Congressional add for CSTRS prototypes executed under H2773, which was reduced by \$.277 for Congressional undistributed adjustments and a \$1.0M Congressional add for Sentient Sensor Development executed under H2772, which was reduced by \$.013M for Congressional undistributed adjustments.

** The FY 2001 budget reflects a \$10M Congressional add for CSTRS which will be executed under H2773.

***The FY 2002 budget does not include \$12.8M for AMCM aircraft modifications. This funding is reflected in PE 0604216N under Project E3053.

(U) 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). The aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations (NEO), Sea Air Land (SEAL) and Explosive Ordnance Disposal (EOD) support. 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 Battle Groups (CVBGs) and Amphibious Readiness Groups (ARGs) with an OAMCM capability.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 2000 ACCOMPLISHMENTS:

- (U) (\$ 4.588) Continued AMCM integration efforts into the MH-60S helicopter. Procured supplies and services which include engineering investigations, nonrecurring engineering, and design. Performed trade studies and analysis for AMCM sensor integration and AMCM Sensor Console.
- (U) (\$8.050) Developed and procured two Carriage, Stream, Tow, & Recovery System (CSTRS) prototypes. Conducted engineering analysis and trade studies to define unique requirements for all five AMCM sensors. (Congressional Plus-Up).
- (U) (\$3.800) Continued design, development, integration and support of the Automatic Flight Control System for the MH-60S helicopter.
- (U) (\$1.673) Continued Navy field activity systems engineering and test support, program management, and travel for CSTRS efforts. (Congressional Plus-Up)
- (U) (\$6.101) Continued Navy field activity systems engineering and test support, program management, and travel for AMCM.
- (U) (\$0.987) Proceeded with a Phase III SBIR effort to demonstrate the feasibility of use of "Sentient Sensors" .

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Exhibit R-2, RDTE Budget Item Justification

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE:
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		June 2001
PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW and Other Helo Development		PROJECT NUMBER AND NAME H2415 MH-60S Development
<p>(U) PROGRAM ACCOMPLISHMENTS AND PLANS:</p> <p>2. FY 2001 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$3.930) Continue the design, development, integration and support of the interoperability of a Common AMCM Sensor Console for the MH-60S. Design, develop, integrate and support the interoperability of Automatic Flight Control System (AFCS). - (U) (\$6.222) Continue integration analysis and nonrecurring engineering efforts supporting the development and integration of the Airborne Mine Countermeasures (AMCM) unique items into the MH-60S helicopter. Commence integration of design changes into the Common Console and Common Cockpit. - (U) (\$8.196) Continue development of Carriage, Stream, Tow, & Recovery System (CSTRS) prototypes. Conduct engineering analysis and trade studies to define unique requirements for all five AMCM sensors. (Congressional Plus-Up). - (U) (\$1.311) Continue Navy field activity systems engineering and test support, program management, and travel for CSTRS efforts. (Congressional Plus-Up) - (U) (\$2.281) Continue Navy field activity systems engineering and test support, program management, and travel. - (U) (\$0.340) Perform Live Fire Test and Evaluation for the MH-60S program. - (U) (\$ 0.664) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 68. <p>3. FY 2002 PLANS:</p> <ul style="list-style-type: none"> - (U) (\$4.111) Continue the design, development, integration and support of the AMCM unique items into the MH-60S. - (U) (\$14.100) Begin the engineering and integration effort to incorporate AMCM requirements into the aircraft and ship C4I structure. - (U) (\$5.000) Begin T&E on AMCM Mission Kits as each weapon system is introduced to the MH-60S. - (U) (\$8.657) Continue developmental efforts on a production representative MH-60S helicopter. Supplies and services include engineeering investigations, nonrecurring engineering, and design. Continue development of the prototype consoles, as well as software modifications, to support AMCM sensors and palletized system. - (U) (\$2.607) Continue Navy field activity systems engineering and test support, program management, and travel. - (U) (\$0.580) Continue Live Fire Test and Evaluation for the MH-60S program. - (U) (\$1.893) Begin AMCM Training development. Tasks include a training situation analysis, instructional system development (ISD) documentation, and flight simulator aero model update. 		

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Exhibit R-2, RD TEN Budget Item Justification
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EXHIBIT R-2a, RDT&E Project Justification			DATE: June 2001																																												
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604212N ASW & Other Helo Development	PROJECT NUMBER AND NAME H2415 MH-60S Development																																													
<p>(U) B. PROGRAM CHANGE SUMMARY:</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th></th> <th style="text-align: center;"><u>FY2000</u></th> <th style="text-align: center;"><u>FY2001</u></th> <th style="text-align: center;"><u>FY2002</u></th> </tr> </thead> <tbody> <tr> <td>(U) FY 2001 President's Budget:</td> <td style="text-align: center;">26.134</td> <td style="text-align: center;">13.177</td> <td style="text-align: center;">15.519</td> </tr> <tr> <td>(U) Adjustments from the President's Budget:</td> <td style="text-align: center;">-0.935</td> <td style="text-align: center;">9.767</td> <td style="text-align: center;">21.429</td> </tr> <tr> <td>(U) FY 2002 President's Budget Submit:</td> <td style="text-align: center;">25.199</td> <td style="text-align: center;">22.944</td> <td style="text-align: center;">36.948</td> </tr> </tbody> </table> <p style="margin-left: 40px;">CHANGE SUMMARY EXPLANATION:</p> <p style="margin-left: 40px;">(U) Funding: The FY 2000 net decrease of \$0.935 million reflects a decrease of \$.537 million for Small Business Innovation Research assessment, a decrease of \$.296 million for a reprioritization of requirements within the Navy, a decrease of \$.102 for congressional recession. The FY 2001 net increase of \$9.767 reflects a \$10M increase for Airborne Mine Counter Measures offset by a decrease of \$.021 million for a reprioritization of requirements within the Navy, a decrease of \$.162 for a Congressional reduction and a decrease of \$.050 for economic assumptions. The FY 2002 net increase of \$21.429 million reflects an increase of \$19.100 million for AMCM Mission Kits and an increase of \$2.473 million for MH-60S Simulator Development offset by a decrease of \$.138 million for reprioritization of requirements within the Navy and a decrease of \$.006 million for economic assumptions.</p> <p style="margin-left: 40px;">(U) Schedule: FY 2000 Phase III Tow Demo, CT/DT-IIA, TECHEVAL, and OPEVAL (OT-IIB) are reflected in P.U. H1709 to align execution with budget. As a result of ORD approval, and pending IPR decision, additional AMCM milestones have been added. MH-60S MS-III has also moved to H1709.</p> <p style="margin-left: 40px;">(U) Technical: N/A</p> <p>(U) C. OTHER PROGRAM FUNDING SUMMARY:</p> <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;"><u>Line Item No. & Name</u></th> <th style="text-align: center;"><u>FY 2000</u></th> <th style="text-align: center;"><u>FY 2001</u></th> <th style="text-align: center;"><u>FY 2002</u></th> </tr> </thead> <tbody> <tr> <td>024000 APN-2 MH-60S</td> <td style="text-align: center;">355.742</td> <td style="text-align: center;">284.696</td> <td style="text-align: center;">246.169</td> </tr> <tr> <td>060510 APN-6 MH-60S</td> <td style="text-align: center;">5.808</td> <td style="text-align: center;">33.223</td> <td style="text-align: center;">8.787</td> </tr> <tr> <td>0204302 OPN AMCM</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">8.509</td> </tr> <tr> <td colspan="4"><u>Related RDT&E -</u></td> </tr> <tr> <td>(U) P.E. Project Number H1709</td> <td style="text-align: center;">18.593</td> <td style="text-align: center;">0.000</td> <td style="text-align: center;">0.000</td> </tr> <tr> <td>(U) P.E. 0604216N Project Number E3053</td> <td></td> <td></td> <td style="text-align: center;">12.800</td> </tr> </tbody> </table>					<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>	(U) FY 2001 President's Budget:	26.134	13.177	15.519	(U) Adjustments from the President's Budget:	-0.935	9.767	21.429	(U) FY 2002 President's Budget Submit:	25.199	22.944	36.948	<u>Line Item No. & Name</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	024000 APN-2 MH-60S	355.742	284.696	246.169	060510 APN-6 MH-60S	5.808	33.223	8.787	0204302 OPN AMCM	0.000	0.000	8.509	<u>Related RDT&E -</u>				(U) P.E. Project Number H1709	18.593	0.000	0.000	(U) P.E. 0604216N Project Number E3053			12.800
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EXHIBIT R-2a, RDT&E Project Justification			DATE:
			June 2001
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-5	0604212N ASW & Other Helo Development	H2415 MH-60S Development	
(U) D. ACQUISITION STRATEGY:			
(U) E. SCHEDULE PROFILE:			
	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>
(U) Program Milestones	ORD Annex Approved 3Q AMCM IPR 3Q	AMCM IPR 3Q	
(U) Engineering Milestones		AFCS Design/Integration CDR 3Q Common Console CDR 4Q	AMCM AFCS Delivery 2Q Common Console Delivery 2Q
(U) T&E Milestones	Phase II Tow Demo Completed 2Q	MH-60S OPEVAL Complete 3Q (OT-IIB)	
(U) Contract Milestones	CSTRS Contract Award 2Q AFCS Contract Award 4Q	Weapon System Integrator Contract Award 2Q	

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Exhibit R-2, RDTE Budget Item Justification
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Exhibit R-3 Cost Analysis (page 1)								DATE:				
APPROPRIATION/BUDGET ACTIVITY								June 2001				
RDT&E, N / BA-5			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
			0604212N ASW & Other Helo Development			H2415 MH-60S Development						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
AMCM NRE & Tow Demo/AFCC	SS/CPFF	Sikorsky, Stratford, CT	8.056	3.930	01/01	4.111	01/02					0.000
Common Cockpit Development	845OT	Lockheed Martin, Owego, NY	7.334									7.334
CSTRS Development	SS/FFP	CTC, Johnstown, PA	8.310	8.196	01/01							0.000
AMCM System Integration & Analysis	SS/CPFF	Lockheed Martin, Owego, NY	6.348	6.567	01/01	10.550	01/02					0.000
CSTRS Integration	SS/CPFF	Sikorsky, Stratford, CT	2.000									0.000
MH-60S NRE	SS/CPFF	Sikorsky, Stratford, CT	16.107									0.000
MH-60S TDCL Development	TBD	TBD				9.100	01/02					0.000
Subtotal Product Development			48.155	18.693		23.761						7.334
Remarks:												
Misc In-House Engineering & Logistics	WX	NSWC	7.207	0.500	12/00	0.500	11/01					
Engineering, Studies, Tech Supt	Various	NAWCAD	1.687									
Subtotal Support			8.894	0.500		0.500						

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Exhibit R-3, Project Cost Analysis
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Exhibit R-3 Cost Analysis (page 2)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-5			PROGRAM ELEMENT 0604212N ASW & Other Helo Development			PROJECT NUMBER AND NAME H2415 MH-60S Development						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
AMCM Test & Evaluation Engineering	WX	NAWCAD Patuxent River	4.534	0.500	12/00	0.500	11/01					
AMCM TCDL MH-60S	TBD	TBD				5.000	01/02					0.000
AMCM T&E	TBD	TBD		0.340	01/01	5.580	01/02					0.000
Sentient Sensor	SS/CPFF	Management Sciences Inc	0.987									0.000
Subtotal T&E			5.521	0.840		11.080						
Remarks:												
Misc Management Support	RX	Various	0.516	0.881	12/00	1.307	01/02					0.000
Program Management Support	Various	NAVAIR	2.824									
Engineering Support	Various	NAWCAD	0.605	0.350	12/00	0.256	12/01					
Travel	WX	NAWCAD		0.050	11/00	0.044	11/01					
CSTRS Field Activity Support	WX	Various		1.630	11/00							
Subtotal Management			3.945	2.911		1.607						
Remarks:												
Total Cost			66.515	22.944		36.948						
Remarks:												

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Exhibit R-3, Project Cost Analysis
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EXHIBIT R-2a, RDT&E Project Justification								DATE:			
								June 2001			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME					PROJECT NUMBER AND NAME					
RDT&E, N / BA-5	0604212N / ASW & OTHER HELO DEVELOPMENT					H2463 / LAMPS MK III DATA LINK					
COST (\$ in Millions)	Prior Years Cost	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	Cost to Complete	Total Program
Project Cost	2.905	10.320	12.619	25.123							
RDT&E Articles Qty				16							

* FY 2000 budget reflects a \$1.0M Congressional add for Ship-Air Mission Systems Integration executed under H2774, which has been reduced by \$.026M for Congressional Recission and undistributed adjustments.
 ** FY 2001 budget reflects a \$2.0M Congressional add for Upgrading the Ship Ground Station at NAWC Aircraft Division which has been reduced by \$.014 for Pro-Rata Recission and \$.004 for Government Wide Recission and will also be executed under H2774.

(U) A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The Light Airborne Multi-Purpose System (LAMPS) MK III helicopter is deployed on Ticonderoga Class cruisers, Arleigh Burke Class Destroyer and Spruance Class destroyers, and Oliver Hazard Perry Class frigates and provides an all-weather capability for detection, classification, and localization of ships and submarines. LAMPS is an integrated ship-to-helicopter, computer-to-computer weapon system designed to increase and extend the effectiveness of the surface combatant in the performance of its mission. Currently the LAMPS helicopter is tied to its host surface ship via a C-Band bi-directional data link. This data link transfers FLIR, radar, Electronic Support Measures (ESM), Identification Friend or Foe (IFF), voice, tactical symbology, and acoustic information between the helicopter and ship making the helicopter an extension of the ship's sensors and increasing the sensor horizon of the ship. The recent introduction of Cooperative Engagement Capability (CEC) into the fleet has created an Electro Magnetic Interference (EMI) problem because it operates within the same C-Band frequency spectrum as the data link. In some CEC operating modes, it completely masks the LAMPS data link resulting in loss of information exchange between the ship and helicopter. To resolve this EMI issue, the LAMPS data link is being moved from the C-Band frequency to the KU-Band. Funding supports development and delivery of 10 air and 6 surface test articles from two vendors in FY 02. This allows ample time for the merge of vendor designs and the development of common interfaces.

(U) PROGRAM ACCOMPLISHMENTS AND PLANS:

1. FY 2000 ACCOMPLISHMENTS:

- (U) (\$7.000) Coordinated Non-recurring Engineering (NRE) to continue development of Tactical Common Data Link (TCDL) via CSS 845 Agreement. Performed In-Process Review (IPR).
- (U) (\$1.086) Developed Engineering Change Proposal (ECP) to integrate TCDC onto LAMPS air and ship segments and support Ship-Air Mission Systems Integration.
- (U) (\$.550) Coordinated technical services to review and evaluate the vendor progress. Participated in IPR.
- (U) (\$.060) Maintained Program Management and travel.
- (U) (\$.650) Maintained Field Activity, Engineering and Technical Support and Integrated Logistics Support.
- (U) (\$.974) Maintained Ship Air Mission Systems Integration.

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Exhibit R-2, RDTE Budget Item Justification
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EXHIBIT R-2a, RDT&E Project Justification		DATE:
		June 2001
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME
RDTE, N / BA-5	0604212N / ASW & OTHER HELO DEVELOPMENT	H2463 / LAMPS MK III DATA LINK
<p>2. FY 2001 PLAN:</p> <ul style="list-style-type: none">- (U) (\$7.377) Continue NRE, manufacturing, and development effort by both vendors.- (U) (\$1.525) Continue integration of TCDL on LAMPS Air and Ship segments; conduct Contractor Lab Testing; and start Request for Proposal (RFP) to select vendor for production.- (U) (\$440) Continue technical services to review and evaluate vendor progress. Participate in CDR.- (U) (\$060) Continue Program Management and travel.- (U) (\$912) Continue Field Activity, Engineering and Technical Support and Integrated Logistics Support- (U) (\$332) Portion of extramural program reserved for Small Business Innovation Research assessment in accordance with 15 USC 68.-(U) (\$1.973) Continue the Ship Air Mission Systems Integration to include upgrading the Ship Ground Station. <p>3. FY 2002 PLAN:</p> <ul style="list-style-type: none">- (U) (\$14.568) Continue NRE, manufacturing, and development effort by both vendors.- (U) (\$6.700) Continue integration of TCDL on LAMPS Air and Ship segments; conduct Contractor Lab Testing; and start Request for Proposal (RFP) to select vendor for production.- (U) (\$440) Continue technical services to review and evaluate vendor progress.- (U) (\$060) Continue Program Management and travel.- (U) (\$1.150) Continue Field Activity, Engineering and Technical Support and Integrated Logistics Support.- (U) (\$2.205) Perform Flight Testing, Development/Operational Test and Evaluation (DT/OT) of airborne and surface segments, environmental, and reliability testing.		

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Exhibit R-2, RDTE Budget Item Justification
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EXHIBIT R-2a, RDT&E Project Justification		DATE: June 2001																								
APPROPRIATION/BUDGET ACTIVITY RDTE, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604212N / ASW & OTHER HELO DEVELOPMENT	PROJECT NUMBER AND NAME H2463 / LAMPS MK III DATA LINK																								
<p>(U) D. ACQUISITION STRATEGY: PMA-299 exercised an option on a Navy Section 845 Agreement for two vendors to develop a TCDL solution for LAMPS. Upon completion, two vendors will be qualified to compete for the production of TCDL data links to both LAMPS air and ship segments. A competition leading to a down select will integrate the TCDL KU-Band Data Link into the LAMPS MK III weapons system, ships and aircraft. Production will begin in FY 2004.</p> <p>(U) E. SCHEDULE PROFILE:</p> <table border="0"> <thead> <tr> <th></th> <th><u>FY 2000</u></th> <th><u>FY 2001</u></th> <th><u>FY 2002</u></th> </tr> </thead> <tbody> <tr> <td>(U) Program Milestones</td> <td></td> <td></td> <td></td> </tr> <tr> <td>(U) Engineering Milestones</td> <td></td> <td>(4Q/01) CDR</td> <td></td> </tr> <tr> <td>(U) T&E Milestones</td> <td></td> <td></td> <td>(4Q/02) DT/OT</td> </tr> <tr> <td>(U) Contract Milestones</td> <td></td> <td></td> <td>(4Q/02) Pre-Prod Delivery</td> </tr> <tr> <td></td> <td></td> <td></td> <td>(4Q/02) RFP for FY03 Production Contract</td> </tr> </tbody> </table>				<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>	(U) Program Milestones				(U) Engineering Milestones		(4Q/01) CDR		(U) T&E Milestones			(4Q/02) DT/OT	(U) Contract Milestones			(4Q/02) Pre-Prod Delivery				(4Q/02) RFP for FY03 Production Contract
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(U) Contract Milestones			(4Q/02) Pre-Prod Delivery																							
			(4Q/02) RFP for FY03 Production Contract																							

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Exhibit R-2, RDTE Budget Item Justification
(Exhibit R-2, page 21 of 24)

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: June 2001
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604212N / ASW & OTHER HELO DEVELOPMENT	PROJECT NUMBER AND NAME H2463 / LAMPS MK III DATA LINK

(U) B. PROGRAM CHANGE SUMMARY:

	<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>
(U) FY 2001 President's Budget:	10.795	10.750	25.254
(U) Adjustments from the President's Budget:	-0.475	1.869	-0.131
(U) FY 2002 President's Budget Submit:	10.320	12.619	25.123

CHANGE SUMMARY EXPLANATION:

(U) Funding: The FY 2000 net decrease of \$.475 million reflects a decrease of \$.242 million for a Small Business Innovative Research assessment, a decrease of \$.191 million for a reprioritization of requirements within the Navy and a decrease of .042 for a Congressional Recission. The FY 2001 net increase of \$1.869 million reflects a \$1.982 million Congressional add for Ship Air Mission System Integration offset by a decrease of \$.015 million for a reprioritization of requirements within the Navy, a decrease of \$.075 million for a Congressional Reduction, and a decrease of \$.023 million for a Congressional Recission. The FY 2002 net decrease of \$.131 million reflects a decrease of \$.099 million for a reprioritization of requirements within the Navy and a decrease of \$.032 million for economic assumptions.

(U) Schedule: The Ku band data link effort is built around cross-vendor, intra-vendor interoperability and competition in line with current OSD C4I policies. Each vendor has submitted their preliminary designs and during the review process, it was determined that the vendor designs were form, fit, functionally diverging. In order to implement interoperability, the LAMPS Ku Band effort had to merge the vendor designs and develop a "common" interface control document and Dynamic Object Oriented Requirements System (DOORS) requirements document. As a result of this necessity, the data link effort has experienced a minor schedule delay. CDR has moved to (4Q/01) which now makes for PreProd deliveries in (4Q/02) to accommodate the merging of the vendor designs. These deliveries are in line to meet LAMPS DT/OT in (4Q/02) in order to coincide with current LAMPS testing. Production RFP will be released in (4Q/02) for FY03 contract bringing first system delivery (2Q/04).

(U) Technical: NOT APPLICABLE

(U) C. OTHER PROGRAM FUNDING SUMMARY:

<u>Line Item No. & Name</u>	<u>FY 2000</u>	<u>FY 2001</u>	<u>FY 2002</u>
OPN BLI 425500 / LAMPS MK III Shipboard Equipment	0	0	0

R-1 SHOPPING LIST - Item No. 95

UNCLASSIFIED

Exhibit R-2, RD TEN Budget Item Justification
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UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)								DATE: June 2001				
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604212N / ASW & OTHER HELO DEVELOPMENT			H2463 / LAMPS MK III DATA LINK						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development	C/FFP	Harris (Melbourne, FL)	8.900	7.377	11/00	14.568	11/01					30.845
Systems Engineering	SS/FFP	LMFS (Owego, NY)	2.237	1.000	11/00	6.000	11/01					9.237
SBIR Assessment				0.332								
Subtotal Product Development			11.137	8.709		20.568						40.082
Remarks:												
Software Development	SS/FFP	LMFS (Owego, NY)		0.600	11/00	0.700	11/01					1.300
Integrated Logistics Support	WX	NAWCAD, Pax River MD	0.030	0.060	11/00	0.104	11/01					
Subtotal Support			0.030	0.660		0.804						1.300
Remarks:												

R-1 SHOPPING LIST - Item No. 95

UNCLASSIFIED

Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 23 of 24)

UNCLASSIFIED

CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: June 2001		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5				PROGRAM ELEMENT 0604212N / ASW & OTHER HELO DEVELOPMENT			PROJECT NUMBER AND NAME H2463 / LAMPS MK III DATA LINK					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 01 Cost	FY 01 Award Date	FY 02 Cost	FY 02 Award Date			Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	WX	NAWCAD (Pax River, MD)				1.805	11/01					
Operational Test & Evaluation	WX	NAWCAD (Pax River, MD)				0.400	11/01					
Subtotal T&E						2.205						
Remarks:												
Contractor Engineering Support	RX	CSCI/SM&A/Walcoff/Averstar	0.700	0.715	12/00	0.440	12/01					1.855
Government Engineering Support	WX	NAWCAD (Pax River, MD)	1.278	2.475	11/00	1.046	11/01					
Program Management Support	RX	NAWCAD (Pax River, MD)	0.040	0.040	11/00	0.040	11/01					0.120
Travel	WX	NAWCAD (Pax River, MD)	0.040	0.020	11/00	0.020	11/01					
Subtotal Management			2.058	3.250		1.546						
Remarks:												
Total Cost			13.225	12.619		25.123						
Remarks:												

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Exhibit R-3, Project Cost Analysis
(Exhibit R-3, page 24 of 24)