

CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification				DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY RESEARCH DEVELOPMENT TEST & EVALUATION, NAVY / BA-5				R-1 ITEM NOMENCLATURE 0604212N, OTHER HELO DEVELOPMENT			
COST (\$ in Millions)		FY 2008	FY 2009	FY 2010			
Total PE Cost		51.495	57.811	54.092			
1109 CH/MH-53		7.192	2.865	2.958			
2415 CH-60 DEVELOPMENT		38.114	46.963	49.134			
2460 VH-3/VH-60		6.189	7.983	2.000			
* Totals may not add due to rounding							
A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION:							
<p>1109 - The H-53 helicopter is the premier heavy lift helicopter for the Marine Corps and the only operational airborne mine sweeping platform for the Navy. H-53 efforts will continue to develop and qualify components in order to replace obsolete system components. Emphasis will be placed on supportability improvement modifications that will sustain the H-53 aircraft until the transition of the H-53K is complete. These efforts combined will significantly improve the readiness of the H-53 fleet while reducing long term operational and supportability costs. H-53 RDT&E efforts will focus on trade studies and risk reduction measures to identify candidate survivability, safety, avionics, cargo handling, cockpit and other airframe specific improvements to extend the service life. Manned Flight Simulator (MFS) will be utilized to develop, install and test interim modifications to existing H-53 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> <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); Airborne Mine Countermeasures (AMCM) and Armed Helo. The MH-60S Operational Requirements Document (ORD) was modified in May 2000 to add Airborne Mine Countermeasures (AMCM) as a capability. ORD Change II was validated and approved by the Joint Requirements Oversight Council (JROC) 15 February 2008 updating key performance parameters (KPP). 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.</p> <p>2460 - 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). Currently two Type, Model, Series (TMS) aircraft are used by HMX-1 for the Presidential support mission - the VH-3D and the VH-60N. This project will fund a Service Life Assessment Program (SLAP) for both the VH-3D and the VH-60N and will also upgrade the safety of the fuel system on the VH-3D.</p>							

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PROGRAM CHANGE SUMMARY:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left; padding: 5px;">Funding:</th> <th style="text-align: right; padding: 5px;">FY08</th> <th style="text-align: right; padding: 5px;">FY09</th> <th style="text-align: right; padding: 5px;">FY10</th> </tr> </thead> <tbody> <tr> <td style="padding: 5px;">FY2009 President's Budget:</td> <td style="text-align: right; padding: 5px;">40.862</td> <td style="text-align: right; padding: 5px;">58.210</td> <td style="text-align: right; padding: 5px;">10.936</td> </tr> <tr> <td style="padding: 5px;">FY2010 President's Budget:</td> <td style="text-align: right; padding: 5px;">51.495</td> <td style="text-align: right; padding: 5px;">57.811</td> <td style="text-align: right; padding: 5px;">54.092</td> </tr> <tr> <td style="padding: 5px;">Total Adjustments</td> <td style="text-align: right; padding: 5px; border-top: 1px solid black;">10.633</td> <td style="text-align: right; padding: 5px; border-top: 1px solid black;">-0.399</td> <td style="text-align: right; padding: 5px; border-top: 1px solid black;">43.156</td> </tr> <tr> <td colspan="4" style="padding: 10px 0 0 20px;">Summary of Adjustments</td> </tr> <tr> <td style="padding: 5px 0 0 20px;">Congressional Rescissions</td> <td></td> <td></td> <td></td> </tr> <tr> <td style="padding: 5px 0 0 20px;">Congressional Adjustments</td> <td style="text-align: right; padding: 5px;">10.986</td> <td style="text-align: right; padding: 5px;">-0.241</td> <td></td> </tr> <tr> <td style="padding: 5px 0 0 20px;">SBIR/STTR/FTT Assessments</td> <td style="text-align: right; padding: 5px;">-0.269</td> <td></td> <td></td> </tr> <tr> <td style="padding: 5px 0 0 20px;">Program Adjustments</td> <td style="text-align: right; padding: 5px;">-0.084</td> <td></td> <td style="text-align: right; padding: 5px;">43.172</td> </tr> <tr> <td style="padding: 5px 0 0 20px;">Rate/Misc Adjustments</td> <td></td> <td style="text-align: right; padding: 5px;">-0.158</td> <td style="text-align: right; padding: 5px;">-0.016</td> </tr> <tr> <td style="padding: 5px 0 0 20px;">Subtotal</td> <td style="text-align: right; padding: 5px; border-top: 1px solid black;">10.633</td> <td style="text-align: right; padding: 5px; border-top: 1px solid black;">-0.399</td> <td style="text-align: right; padding: 5px; border-top: 1px solid black;">43.156</td> </tr> </tbody> </table> <p style="margin-top: 10px;">Schedule:</p> <p>2415 AMCM - As a result of decertification from AMCM Blk 2A Operational Testing (OT), a Verification of Correction of Deficiencies (VCD) period has been added in 3Q FY09 through 1Q FY10 to test changes and verify corrections to Carriage Stream Tow & Recovery System (CSTRS) reliability and maintainability issues identified . OT will resume 1Q FY10 to complete in 3Q FY10. Interim Program Review (IPR) IV, Initial Operating Capability (IOC), Full Rate Production (FRP) and deliveries have moved accordingly. Developmental Testing (DT) for Block 2B Airborne Mine Neutralization System (AMNS) delayed to 3Q FY08 and terminated 4Q FY08 due to Tow Cable issues. DT/VCD resumes 3Q FY09 through 3Q FY10 , with OT subsequently delaying. Delays in sensor development schedules have also extended Contractor Testing (CT) for Airborne Laser Mine Detection System (ALMDS) into 2Q FY09, DT into 1Q FY10, and OT completion to 2Q FY10. Due to technical issues experienced during contractor development, Organic Airborne & Surface Influence Sweep (OASIS) and Rapid Airborne Mine Clearance System (RAMICS) have been separated, reflecting CT delayed for both from 2Q FY08 until 3Q FY10 for OASIS and 3Q FY09 for RAMICS initial CT (Captive Carriage and Jettison testing) with DT and OT reflecting subsequent delays. RAMICS Ground Testing has been delayed until 3Q FY10 due to unavailability of RAMICS hardware. The Low Rate Initial Production (LRIP) contract award for AMCM Mission kits has been added to 2Q FY10 to support fleet introduction and training requirements.</p> <p>2415 Link 16 - Aircraft Block 3B Mod Delivery has moved to 4th quarter FY08 due to aircraft availability. OT extended to 2Q FY09 due to complexities of software integration and test requirements for Link 16. IOC has moved to 1Q FY09 and IPR to 2Q FY09 accordingly.</p> <p>2415 Fixed Forward Weapons - Fixed Forward Weapons (FFW) NRE design and integration extended from 2Q FY08 through 3Q FY10 to include Anti-swarm weapons. CT, DT, OT is re-planned as Air Worthiness Certification to align with program execution plan. Developmental Testing (DT) and Operational Testing (OT) were added to incorporate the increased capability of anti-swarm weapon integration.</p> <p style="margin-top: 20px;">Technical: N/A</p>			Funding:	FY08	FY09	FY10	FY2009 President's Budget:	40.862	58.210	10.936	FY2010 President's Budget:	51.495	57.811	54.092	Total Adjustments	10.633	-0.399	43.156	Summary of Adjustments				Congressional Rescissions				Congressional Adjustments	10.986	-0.241		SBIR/STTR/FTT Assessments	-0.269			Program Adjustments	-0.084		43.172	Rate/Misc Adjustments		-0.158	-0.016	Subtotal	10.633	-0.399	43.156
Funding:	FY08	FY09	FY10																																											
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EXHIBIT R-2a, RDT&E Project Justification							DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604212N, OTHER HELO DEVELOPMENT			PROJECT NUMBER AND NAME 1109, CH/MH-53			
COST (\$ in Millions)		FY 2008	FY 2009	FY 2010				
Project Cost		7.192	2.865	2.958				
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: The H-53 helicopter is the premier heavy lift helicopter for the Marine Corps and the only operational airborne mine sweeping platform for the Navy. H-53 efforts will continue to develop and qualify components in order to replace obsolete system components. Emphasis will be placed on supportability improvement modifications that will sustain the H-53 aircraft until the transition of the H-53K is complete. These efforts combined, will significantly improve the readiness of the H-53 fleet while reducing long term operational and supportability costs. H-53 RDT&E efforts will focus on trade studies and risk reduction measures to identify candidate survivability, safety, avionics, cargo handling, cockpit and other airframe specific improvements to extend the service life. Modeling and simulation will be used to the maximum practical extent throughout this effort. MFS will be utilized to develop, install and test interim modifications to existing H-53 legacy avionics, while maintaining the original basic system footprint and functionality. As a part of this effort, a complete EMV assessment will be required for the affected and/or modified systems</p>								

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B. Accomplishments/Planned Program				
H-53 Avionics	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	4.991	0.392	0.409	
RDT&E Articles Quantity				
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&S) cost drivers and address alternatives for obsolescence issues.				
H-53 Survivability	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	0.193	0.198	0.208	
RDT&E Articles Quantity				
H-53 Survivability: Trade studies, risk reduction, design, development, model, integration and test activities for H-53 survivability systems to include effectiveness of the ballistic vulnerability (armor) package.				
H-53 Propulsion	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	1.165	1.415	1.451	
RDT&E Articles Quantity				
H-53 Propulsion: Trade studies, risk reduction, design, development, integration and test activities for H-53 T64 engine and related systems.				

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B. Accomplishments/Planned Program (Cont.)				
Project Management Support	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	0.629	0.642	0.663	
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px; min-height: 40px;"> Project Management Support: In-house, field activities, and contractor 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, product management support, system engineering and logistics support, and travel for the H-53 program. </div>				
H-53 Airframe	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	0.214	0.218	0.227	
RDT&E Articles Quantity				
<div style="border: 1px solid black; padding: 5px; min-height: 40px;"> H-53 Airframe: 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>				
Accomplishments/Effort/Subtotal Cost	FY 08	FY 09	FY 10	
RDT&E Articles Quantity				
<div style="border: 1px solid black; height: 40px; width: 100%;"></div>				

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APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME	
RDT&E, N / BA-5	0604212N, OTHER HELO DEVELOPMENT	1109, CH/MH-53	
C. OTHER PROGRAM FUNDING SUMMARY:			
<u>Line Item No. & Name</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>
0528000 H-53 Series	115.877	91.480	232.927
D. ACQUISITION STRATEGY:			
Not applicable.			

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Exhibit R-3 Cost Analysis (page 1)							DATE: May 2009					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604212N, OTHER HELO DEVELOPMENT			1109, CH/MH-53						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
Primary Hardware Development	Various	Various	1.472	0.264	Various	0.337	Various					
Ancillary Hardware Development	Various	TBD	1.360	0.077	Various	0.133	Various					
Aircraft Integration	T&M	Northrop Grumman, Chicago	12.010									
Aircraft Integration	T&M	OADS, Manassas, VA	2.493									
Ship Suitability												
Systems Engineering	WR	NAWCAD, Patuxent River MD	0.516	0.554	11/08	0.629	11/09					
Training Development												
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			17.851	0.895		1.099						
Remarks:												
Development Support												
Software Development	Various	TBD	1.307	0.199	Various	0.239	Various					
Integrated Logistics Support												
Configuration Management												
Technical Data												
Studies & Analyses												
GFE	Various	NAWCAD, Patuxent River MD	0.506	0.378	11/08	0.436	11/09					
Award Fees												
Subtotal Support			1.813	0.577		0.675						
Remarks:												

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Exhibit R-3 Cost Analysis (page 2)							DATE: May 2009					
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604212N, OTHER HELO DEVELOPMENT			1109, CH/MH-53						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date					
Developmental Test & Evaluation	Various	TBD	2.598	0.751	Various	0.839	Various					
Operational Test & Evaluation												
Live Fire Test & Evaluation												
Test Assets												
Tooling												
GFE												
Award Fees												
Subtotal T&E			2.598	0.751		0.839						
Remarks:												
Contractor Engineering Support	BOA, T&M	Sikorsky, Stratford CT	2.925									
Government Engineering Support	WR	NAWCAD, Patuxent River MD	4.426	0.163	11/08	0.201	11/09					
Program Management Support	Various	Various	1.399	0.366								
Travel	Various	Various	1.171	0.113	Various	0.144	Various					
Transportation												
SBIR Assessment												
Subtotal Management			9.921	0.642		0.345						
Remarks:												
Total Cost			32.183	2.865		2.958						
Remarks:												

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EXHIBIT R4, Schedule Profile													DATE: May 2009											
APPROPRIATION/BUDGET ACTIVITY RD&E, N / BA-5						PROGRAM ELEMENT NUMBER AND NAME 0604212N, OTHER HELO DEVELOPMENT						PROJECT NUMBER AND NAME 1109, CH/MH-53												
Fiscal Year	2008				2009				2010															
	1	2	3	4	1	2	3	4	1	2	3	4												
Acquisition Milestones																								
Engineering Milestones																								
Obsolescence Issues/Studies																								
Survivability Analysis																								
Legacy P3I Efforts																								
Safety Upgrades																								
Test & Evaluation Milestones																								
Development Test																								
Operational Test																								
Production Milestones																								
Production Deliveries																								

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COST (\$ in Millions)		FY 2008	FY 2009	FY 2010				
2415 CH-60 DEVELOPMENT		38.114	46.963	49.134				
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: 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), Airborne Mine Countermeasures (AMCM) and Armed Helo. The MH-60S ORD was modified in May 2000 to add Airborne Mine Countermeasures (AMCM) as a primary mission for the MH-60S. ORD Change II was validated and approved by the Joint Requirements Oversight Council (JROC) 15 February 2008 updating key performance parameters (KPP). The Airborne Mine Countermeasures (AMCM) mission will provide Carrier Strike Groups (CSGs) and Expeditionary Strike Groups (ESGs) with an AMCM capability. The Armed Helo will provide Combat Search and Rescue (CSAR), Surface Warfare (SUW) and Maritime Interdiction Operations (MIO) to include Link 16 and Fixed Forward Weapons, which includes Rockets and Anti-swarm weapons. The aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations (NEO), Sea Air Land (SEAL) and Explosive Ordnance Disposal (EOD) support.</p>								

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B. Accomplishments/Planned Program				
MH-60S Airframe Development and Integration	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	12.185	14.938	16.600	
RDT&E Articles Quantity				
<p>The design, development, integration, and support of the AMCM unique items into the MH-60S airframe. Design, develop, integrate and support the interoperability of Automatic Flight Control System (AFCS). T&E on AMCM Mission Kits as each weapon system is introduced to the MH-60S. AMCM training situation analysis and Instructional System Development (ISD) documentation. Design, develop, integrate and support the Link 16 development. Integrate Link 16 training situation analysis, ISD document. RTOC initiative: weight reduction. Conduct trade studies and analysis, develop and qualify components in order to replace obsolete system components on the MH-60S. Develop, integrate and test upgraded AMCM coupler. Analyze, design, integrate, test, and support Fixed Forward Weapons</p>				
MH-60S Avionics Development and Integration	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	10.004	16.951	15.980	
RDT&E Articles Quantity				
<p>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 systems. Continue AMCM training situational analysis, and Instructional System Development (ISD) documentation. Design, develop, integrate and support the Link 16 software development. Integrate Link 16 training situation analysis, ISD document. Develop capability for MH-60S Joint Mission Planning System (JMPS) networking. Develop, integrate and test upgraded AMCM coupler. Design, integrate, test, and support Fixed Forward Weapons.</p>				
MH-60S Engineering, Logistics , Mgt Support	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	15.925	15.074	16.554	
RDT&E Articles Quantity				
<p>Navy field activity systems engineering, logistics support, management and travel for the AMCM MH-60S Weapons System Integration Team (WSIT) for airframe and avionics, Fixed Forward Weapons integration, and Link 16 development effort. Support/conduct MH-60S aircraft integration testing for AMCM sensor systems and Link 16, and Fixed Forward Weapons. Engineering and integration effort to incorporate AMCM requirements into the ship C4I structure. Provide JMPS networking requirements and validate software updates.</p>				

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C. OTHER PROGRAM FUNDING SUMMARY:					
<u>Line Item No. & Name</u>		<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	
017900 APN-1 MH-60S		564.185	594.149	492.975	
060510 APN-6 MH-60S		15.302	1.000	1.581	
053000 APN-5 H-60 Mods		18.699	36.888	34.861	
(OSIPs 016-04, 009-07, 009-09)					
D. ACQUISITION STRATEGY:					
<p>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.</p> <ul style="list-style-type: none"> -Block 1 - Combat Support Helicopter -Block 2 - Organic Airborne Mine Countermeasures -Block 3 - Armed Helo 					

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RDT&E, N / BA-5			0604212N, OTHER HELO DEVELOPMENT			2415, CH-60 DEVELOPMENT					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date				
Primary Hardware Development											
GFE - Fixed Forward Weapon (FFW)	TBD	TBD		0.250	12/08						
Primary Hdw Dev - Airframe	*SS/CPIF	SIKORSKY, STRATFORD CT	151.544	9.796	12/08	15.000	12/09				
Primary Hdw Dev - Airframe FFW	TBD	SIKORSKY, STRATFORD CT	4.000	2.213	12/08	1.600	12/09				
Primary Hdw Dev - Avionics	*SS/CPIF	LOCKHEED MARTIN, OWEGO, NY	173.317	14.951	12/08	14.980	12/09				
Primary Hdw Dev - Avionics FFW	TBD	LOCKHEED MARTIN, OWEGO, NY	0.900	2.000	12/08	1.000	12/09				
Primary Hdw Dev - CSTRS	RX	NSWC, PANAMA CITY	12.030	2.679							
Primary Hdw Dev - CSTRS	MIPR	CECOM, FT MONMOUTH, NJ	7.179								
All Product Dev Cost from FY97-FY08	VARIOUS	VARIOUS	49.089								
Subtotal Product Development			398.059	31.889		32.580					
Remarks: * PY SS/CPAF - \$2.88 FY05-FY08 SS/CPIF ** PY SS/CPAF, FY05-FY06 CPFF											
Development Support											
ILS - MSS (NON-FFRDC)	VARIOUS	VARIOUS	1.321	0.260	12/08	0.260	12/09				
Integrated Logistics Support	WX	VARIOUS	4.098	0.924	11/08	0.371	11/09				
Integrated Logistics Support	VARIOUS	VARIOUS	4.417			1.000	12/09				
All Support Cost from FY97-FY08	VARIOUS	VARIOUS	4.172								
Subtotal Support			14.008	1.184		1.631					
Remarks: Totals may not add due to rounding.											

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RDT&E, N / BA-5			0604212N, OTHER HELO DEVELOPMENT			2415, CH-60 DEVELOPMENT					
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date				
Test & Evaluation											
Dev Test & Evaluation	WX	NAWCAD, PATUXENT RIVER	18.653	7.305	11/08	6.754	11/09				
Dev Test & Evaluation	WX	VARIOUS	14.522			1.858	11/09				
Operational Test & Evaluation	WX	OPER T&E FOR CD 30, NORFOLK VA	0.600	0.714	11/08	1.500	01/10				
All Test & Eval Costs from FY97-FY08	VARIOUS	VARIOUS	6.159								
Subtotal T&E			39.934	8.019		10.112					
Remarks:											
Management											
Eng & Tech Srvs (NON-FFRDC)	VARIOUS	VARIOUS	10.090	0.520	VARIOUS	0.667	VARIOUS				
Government Engineering Support	WX	NAWCAD, PATUXENT RIVER MD	6.699	1.200	11/08	1.685	11/09				
Government Engineering Support	WX	NSWC, PANAMA CITY FL	22.173	2.500	11/08	0.925	11/09				
Government Engineering Support	WX	VARIOUS	23.840	0.375	VARIOUS	0.400	VARIOUS				
Program Mgmt Support CSS	VARIOUS	VARIOUS	4.416	0.554	VARIOUS	0.500	VARIOUS				
Program Mgmt Govt Support	WX	VARIOUS	12.084	0.522	VARIOUS	0.434	VARIOUS				
Travel	WX	VARIOUS	2.244	0.200	11/08	0.200	11/09				
All Mgmt Costs from FY97-FY08	VARIOUS	VARIOUS	0.984								
Subtotal Management			82.530	5.871		4.811					
Remarks:											
Total Cost			534.531	46.963		49.134					
Remarks: Totals may not add due to rounding.											

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CLASSIFICATION:

EXHIBIT R4, Schedule

DATE:

May 2009

APPROPRIATION/BUDGET, PROGRAM ELEMENT NUMBER AND NAME

PROJECT NUMBER AND NAME

RDT&E, N / BA-5

0604212N, OTHER HELO DEVELOPMENT

2415, CH-60 DEVELOPMENT

Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015							
	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																																				
AMCM Mission Kits CSTRS & Common Console																																				
Test & Evaluation Milestones																																				
MH-60S AMCM Block 2A																																				
MH-60S AMCM Block 2B (AMNS)																																				
MH-60S AMCM Block 2B (ALMDS)																																				
MH-60S OASIS																																				
MH-60S RAMICS (Note 1)																																				
Production Milestones																																				
AMCM Mission Kits																																				
Contract Award																																				
Deliveries																																				
AMCM Ancillary Kit																																				

Note 1: Captive Carriage
(CC)/Jetison (Jet)

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CLASSIFICATION:																																
EXHIBIT R4, Schedule Profile														DATE: May 2009																		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5														PROJECT NUMBER AND NAME 2415, CH-60 DEVELOPMENT																		
Fiscal Year	FY 2008				FY 2009				FY 2010				FY 2011				2012				2013				2014				2015			
	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					★																											
(Block 3B Link-16)					ICC																											
Design/Build/Integration																																
Fixed Forward Weapon (Rockets/Anti-Swarm)																																
MH-60S Block 3B Development Milestones					PDR																											
Aircraft Block 3B Mod Delivery																																
Test & Evaluation Milestones																																
Block 3B Link-16																																
Fixed Forward Weapon/Rockets																																
Fixed Forward Weapon/Anti-Swarm																																

CLASSIFICATION:							
Exhibit R-4a, Schedule Detail				DATE: May 2009			
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT 0604212N Other Helo Development		PROJECT NUMBER AND NAME 2415, CH-60 DEVELOPMENT			
Schedule Profile		FY 2008	FY 2009	FY 2010			
Block 2A							
Verification of Correction of Deficiencies (VCD) / Developmental Testing (DT)(AMNS)			3Q-4Q	1Q			
Operational Testing (OT)		2Q		1Q-3Q			
Initial Operational Capability-AMCM*				4Q			
Block 2B							
AMCM 2B Ground Testing		2Q-3Q					
AMCM 2B Ground Testing (RAMICS)				3Q			
Contractor Test (ALMDS)		3Q-4Q	1Q-2Q				
Verification of Correction of Deficiencies (VCD) / Developmental Testing (DT)(AMNS)		3Q-4Q	3Q-4Q	1Q-2Q			
Developmental Testing (DT)(ALMDS)			2Q-4Q	1Q-2Q			
Operational Testing (OT)(AMNS)				3Q-4Q			
Operational Testing (OT)(ALMDS)				1Q-2Q			
Contractor Test (OASIS)				3Q-4Q			
Contractor Test (RAMICS)			3Q-4Q				
Low Rate Initial Production				2Q			
*AMCM/AQS-20 (Block 2A) integration is the basis for the MH-60S AMCM IOC and full rate production decision							

CLASSIFICATION:						
Exhibit R-4a, Schedule Detail				DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT 0604212N Other Helo Development		PROJECT NUMBER AND NAME 2415 CH-60 Development		
Schedule Profile		FY 2008	FY 2009	FY 2010		
BLOCK 3B - Link 16						
Aircraft Block 3B Mod Delivery		4Q				
Developmental Testing (DT)		1Q-3Q				
Operational Test Readiness Review (OTRR)		4Q				
Operational Testing (OT)		4Q	1Q-2Q			
IPR 3			2Q			
IOC			1Q			
Fixed Forward Weapon						
System Design, Build, and Integration		2Q-4Q	1Q-4Q	1Q-3Q		
Air Worthiness Certification		3Q-4Q	1Q-4Q			
Developmental Testing (DT)				2Q-4Q		
Operational Testing (OT)				3Q-4Q		

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE: May 2009	
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5		PROGRAM ELEMENT NUMBER AND NAME 0604212N, Other Helo Development			PROJECT NUMBER AND NAME 2460, VH-3/VH-60			
COST (\$ in Millions)		FY 2008	FY 2009	FY 2010				
Project Cost		6.189	7.983	2.000				
RDT&E Articles Qty								
<p>A. MISSION DESCRIPTION AND BUDGET ITEM JUSTIFICATION: 2460 - 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). Currently two Type, Model, Series (TMS) aircraft are used by HMX-1 for the Presidential support mission – the VH-3D and the VH-60N. This project will fund a Service Life Assessment Program for both the VH-3D and the VH-60N and will also upgrade the safety of the fuel system on the VH-3D.</p>								

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification		DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY RDT&E, N / BA-5	PROGRAM ELEMENT NUMBER AND NAME 0604212N, OTHER HELO DEVELOPMENT	PROJECT NUMBER AND NAME 2460, VH-3/VH-60		
B. Accomplishments/Planned Program				
VH-3D Fuel Systems Upgrade	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	6.189	0.400	0.150	
RDT&E Articles Quantity				
VH-3D Fuel Systems Upgrade: Trade studies, design, development, integration and test activities related to the VH-3D Fuel Systems Upgrade				
VH-3D & VH-60N SLAP	FY 08	FY 09	FY 10	
Accomplishments/Effort/Subtotal Cost	0.000	7.583	1.850	
RDT&E Articles Quantity				
VH-3D & VH-60N SLAP: Includes government support and contract award for all efforts related to the successful completion of a SLAP on each VH aircraft				

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CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:	May 2009
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND NAME		
RDT&E, N / BA-5	0604212N, OTHER HELO DEVELOPMENT	2460, VH-3/VH-60		
C. OTHER PROGRAM FUNDING SUMMARY:				
<u>Line Item No. & Name</u>	<u>FY 2008</u>	<u>FY 2009</u>	<u>FY 2010</u>	
056600 Executive Helicopters Series	47.904	51.666	42.456	
D. ACQUISITION STRATEGY:				
Not Applicable.				

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 1)										DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604212N, OTHER HELO DEVELOPMENT			2460, VH-3/VH-60						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date	FY 11 Cost	FY 11 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Primary Hardware Development												
Ancillary Hardware Development												
Aircraft Integration												
Aircraft Integration												
Ship Suitability												
Systems Engineering	TBD	Sikorsky, Stratford CT	6.189	6.783	Various	1.600	12/09					
Training Development												
Licenses												
Tooling												
GFE												
Award Fees												
Subtotal Product Development			6.189	6.783		1.600						
Remarks:												
Development Support												
Software Development												
Integrated Logistics Support				0.300	12/08	0.100	11/09					
Configuration Management												
Technical Data												
Studies & Analyses												
GFE												
Award Fees												
Subtotal Support			0.000	0.300		0.100						
Remarks:												

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CLASSIFICATION:

Exhibit R-3 Cost Analysis (page 2)										DATE: May 2009		
APPROPRIATION/BUDGET ACTIVITY			PROGRAM ELEMENT			PROJECT NUMBER AND NAME						
RDT&E, N / BA-5			0604212N, OTHER HELO DEVELOPMENT			2460, VH-3/VH-60						
Cost Categories	Contract Method & Type	Performing Activity & Location	Total PY s Cost	FY 09 Cost	FY 09 Award Date	FY 10 Cost	FY 10 Award Date	FY 11 Cost	FY 11 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation												
Operational Test & Evaluation												
Live Fire Test & Evaluation												
Test Assets												
Tooling												
GFE												
Award Fees												
Subtotal T&E			0.000	0.000		0.000						
Remarks:												
Contractor Engineering Support												
Government Engineering Support	WX	NAWCAD, Patuxent River MD		0.740	12/08	0.200	11/09					
Program Management Support	WX	NAWCAD, Patuxent River MD		0.100	12/08	0.075	11/09					
Travel	Various	Various		0.060	Various	0.025	Various					
Transportation												
SBIR Assessment												
Subtotal Management			0.000	0.900		0.300						
Remarks:												
Total Cost			6.189	7.983		2.000						
Remarks:												

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