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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMENCLATURE							
1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				PE 0604212N: <i>Other Helicopter Development</i>							
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
Total Program Element	51.826	42.651	33.978	-	33.978	26.381	17.836	14.043	9.246	Continuing	Continuing
1109: <i>CH/MH-53</i>	3.478	3.271	2.455	-	2.455	2.674	2.685	2.719	2.764	Continuing	Continuing
2415: <i>H-60 Development</i>	39.379	30.606	29.743	-	29.743	21.953	13.422	9.576	4.714	Continuing	Continuing
2460: <i>VH-3/VH-60</i>	8.969	1.774	1.780	-	1.780	1.754	1.729	1.748	1.768	Continuing	Continuing
9999: <i>Congressional Adds</i>	-	7.000	-	-	-	-	-	-	-	0.000	7.000

A. Mission Description and Budget Item Justification

This Program Element includes funding for the development support for improvements to current systems for CH/MH-53, MH-60 development, and VH-3/VH-60. The H-53 is the premier heavy lift helicopter for the Marine Corps and only operational airborne mine sweeping platform for the Navy. H-53 RDT&E efforts 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. The MH-60S Helicopter has three primary mission areas; Combat Support, Organic Airborne Mine Countermeasures and Armed Helo. The VH-3/VH-60 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.

B. Program Change Summary (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Previous President's Budget	44.329	35.651	24.401	-	24.401
Current President's Budget	51.826	42.651	33.978	-	33.978
Total Adjustments	7.497	7.000	9.577	-	9.577
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-			
• Congressional Rescissions	-	-			
• Congressional Adds	-	7.000			
• Congressional Directed Transfers	-	-			
• Reprogrammings	8.638	-			
• SBIR/STTR Transfer	-0.915	-			
• Program Adjustments	-	-	9.583	-	9.583
• Rate/Misc Adjustments	-	-	-0.006	-	-0.006
• Congressional General Reductions	-0.226	-	-	-	-
Adjustments					

Congressional Add Details (\$ in Millions, and Includes General Reductions)

Project: 9999: *Congressional Adds*

FY 2011	FY 2012

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Exhibit R-2, RDT&E Budget Item Justification: PB 2013 Navy		DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>	
<u>Congressional Add Details (\$ in Millions, and Includes General Reductions)</u>		FY 2011	FY 2012
Congressional Add: <i>VH-3/VH-60 (Cong)</i>		-	7.000
Congressional Add Subtotals for Project: 9999		-	7.000
Congressional Add Totals for all Projects		-	7.000
<u>Change Summary Explanation</u>			
Technical: Not applicable.			
Schedule:			
1109 CH/MH-53: Not Applicable			
2415 Airborne Mine Countermeasures: Not Applicable.			
2415 Forward Firing Weapon - Not Applicable.			
2460 VH-3D/VH-60N: Not Applicable			

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>				PROJECT 1109: <i>CH/MH-53</i>			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
1109: <i>CH/MH-53</i>	3.478	3.271	2.455	-	2.455	2.674	2.685	2.719	2.764	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

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. Through FY2016, H-53 efforts will continue to develop and qualify components, prior to production and approval decisions, 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. Modeling and simulation will be used to the maximum practical extent throughout this effort. Man Flight Simulator 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 Electro Magnetic Vulnerability assessment will be required for the affected and/or modified systems.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)

	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: H-53 Avionics	0.544	0.544	0.544	-	0.544
Articles:	0	0	0		0
FY 2011 Accomplishments: Integrated software applique for cockpit and avionics improvements, to include the development of new sensors. Developed flight control computer and test set design modifications to address anticipated obsolescence issues. Conducted Business Case Analyses to determine impact of high Operation and Support cost drivers and address alternatives to mitigate identified issues.					
FY 2012 Plans: Integrate software applique for cockpit and avionics improvements, to include the development of new sensors. Develop flight control computer and test set design modifications to address anticipated obsolescence issues. Conduct Business Case Analyses to determine impact of high Operation and Support cost drivers and address alternatives to mitigate identified issues.					
FY 2013 Base Plans: Integrate software applique for cockpit and avionics improvements, to include the development of new sensors. Develop flight control computer and test set design modifications to address anticipated obsolescence issues.					

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy			DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development	PROJECT 1109: CH/MH-53				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Conduct Business Case Analyses to determine impact of high Operation and Support cost drivers and address alternatives to mitigate identified issues.						
Title: H-53 Survivability <div>Articles:</div>		0.406 0	0.406 0	0.405 0	-	0.405 0
FY 2011 Accomplishments: Performed 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.						
FY 2012 Plans: Perform 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.						
FY 2013 Base Plans: Perform 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.						
Title: H-53 Propulsion <div>Articles:</div>		1.490 0	1.265 0	0.451 0	-	0.451 0
FY 2011 Accomplishments: Performed trade studies, risk reduction, design, development, integration and test activities for H-53 T64 engine and related systems.						
FY 2012 Plans: Perform trade studies, risk reduction, design, development, integration and test activities for H-53 T64 engine and related systems.						
FY 2013 Base Plans: Provide in-house, field activity, and contractor support of 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.						
Title: Project Management Support <div>Articles:</div>		0.714 0	0.732 0	0.731 0	-	0.731 0
FY 2011 Accomplishments:						

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)		R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development		PROJECT 1109: CH/MH-53		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Provided in-house, field activity, and contractor support of IPTs to allow for studies and analyses, preparation of acquisition documentation and examination of equipment and avionics for the H-53. Efforts included, but were not limited to, government development support, engineering support, product management support, system engineering and logistics support, and travel for the H-53 program. FY 2012 Plans: Provide in-house, field activity, and contractor support of 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. FY 2013 Base Plans: Provide in-house, field activity, and contractor support of 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.						
Title: H-53 Airframe Articles:		0.324 0	0.324 0	0.324 0	-	0.324 0
FY 2011 Accomplishments: Performed 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. FY 2012 Plans: Perform 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. FY 2013 Base Plans: Perform trade studies, risk reduction, design, development, integration and test activities for the H-53 airframe to include, but not limited to, main rotor head, cowlings, aircraft structure, drive train, and various dynamic components.						
Accomplishments/Planned Programs Subtotals		3.478	3.271	2.455	-	2.455

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy							DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>			R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>				PROJECT 1109: <i>CH/MH-53</i>		

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013</u> <u>Base</u>	<u>FY 2013</u> <u>OCO</u>	<u>FY 2013</u> <u>Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APN/0528: <i>H-53 Series</i>	59.945	124.067	45.567	15.870	61.437	52.278	40.599	30.054	30.616	406.953	2,004.267

D. Acquisition Strategy

This is a non-ACAT program. 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.

E. Performance Metrics

Successfully perform studies, analysis and develop software to address emergent H-53 issues. Successfully support developmental and operation test activities to qualify aircraft modifications/upgrades.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy										DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development				PROJECT 1109: CH/MH-53					
Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hardware Development	Various	Various:Various	2.493	0.420	Mar 2012	-		-		-	Continuing	Continuing	Continuing
Ancillary Hardware Development	Various	Various:Various	1.794	0.224	Mar 2012	-		-		-	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWC AD:Patuxent River, MD	2.384	0.524	Nov 2011	0.544	Nov 2012	-		0.544	Continuing	Continuing	Continuing
Prior Year Prod Dev	Various	Various:Various	14.503	-		-		-		-	0.000	14.503	
Subtotal			21.174	1.168		0.544		-		0.544			
Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	Various	Various:Various	2.071	0.326	Mar 2012	0.325	Mar 2013	-		0.325	Continuing	Continuing	Continuing
GFE	Various	NAWC AD:Patuxent River, MD	1.741	0.421	Nov 2011	0.421	Nov 2012	-		0.421	Continuing	Continuing	Continuing
Subtotal			3.812	0.747		0.746		-		0.746			
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Developmental Test & Evaluation	Various	Various:Various	5.167	0.870	Mar 2012	0.700	Mar 2013	-		0.700	Continuing	Continuing	Continuing
Subtotal			5.167	0.870		0.700		-		0.700			

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy											DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>				PROJECT 1109: <i>CH/MH-53</i>					

Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWC AD:Patuxent River, MD	5.077	0.307	Nov 2011	0.286	Nov 2012	-		0.286	Continuing	Continuing	Continuing
Travel	Various	Various:Various	1.597	0.179	Oct 2011	0.179	Oct 2012	-		0.179	Continuing	Continuing	Continuing
Prior Year Mgmt	Various	Various:Various	4.674	-		-		-		-	0.000	4.674	
Subtotal			11.348	0.486		0.465		-		0.465			

	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	41.501	3.271		2.455		-		2.455			

Remarks

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PE 0604212N: *Other Helicopter Development*
Navy

R-1 Line #87

APPROPRIATION/BUDGET ACTIVITY
1319: Research, Development, Test & Evaluation, Navy
BA 5: Development & Demonstration (SDD)

PE 0604212N: *Other Helicopter Development*

1109: CH/MH-53

[illegible]

2013OSD - 0604212N - 1109

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>	PROJECT 1109: <i>CH/MH-53</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
CH/MH-53				
Engineering Milestones: - Obsolescence Issues/Studies	1	2011	4	2017
Engineering Milestones: - Survivability Analysis	1	2011	4	2017
Engineering Milestones: - Legacy P3I Efforts	1	2011	4	2017
Engineering Milestones: - Safety Upgrades	1	2011	4	2017

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development				PROJECT 2415: H-60 Development			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2415: H-60 Development	39.379	30.606	29.743	-	29.743	21.953	13.422	9.576	4.714	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
The Helicopter Combat Support 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, 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; airhead operations, and day/night search and rescue, Airborne Mine Countermeasures (AMCM) and Armed Helo. The MH-60S Operational Requirements Document was modified in May 2000 to add AMCM as a primary mission for the MH-60S. ORD Change II was validated and approved by the Joint Requirements Oversight Council on 15 February 2008 updating key performance parameters. The AMCM mission will provide Carrier Strike Groups and Expeditionary Strike Groups with an AMCM capability. The Armed Helo will provide Combat Search and Rescue, Surface Warfare and Maritime Interdiction Operations to include Link 16 and Forward Firing Weapons (FFW), which includes Rockets and Anti-swarm weapons to address the Fast Attack Craft/Fast Inshore Attack Craft Threat. The aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations, and SEAL team and Explosive Ordnance Disposal support.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: MH-60S Airframe Development and Integration Articles:							9.805	7.400	10.463	-	10.463
							0	0	0		0
Description: The effort includes design, development, integration, and support of the AMCM unique items into the MH-60S airframe. T&E on AMCM Mission Kits as each sensor/weapon system is introduced to the MH-60S. AMCM training development to include situational analysis and Instructional System Development documentation. Conduct trade studies and analysis, develop and qualify components in order to replace obsolete system components on the MH-60S. Analyze, design, integrate, test, and support FFW. FY 2011 Accomplishments: Continued AMCM sensor/weapon system integration and testing. Continued FFW integration/testing efforts. FY 2012 Plans: Continue AMCM sensor/weapon system integration and testing. Initiate AMCM Spiral Upgrade efforts. Complete FFW 20mm Gun System testing and reporting. FY 2013 Base Plans:											

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APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development		PROJECT 2415: H-60 Development		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Complete Airborne Mine Countermeasures (AMCM) sensor/weapon system testing. Continue AMCM Spiral Upgrade efforts. Analyze, design, integrate, and support follow-on Forward Firing Weapons (FFW) capability of Rockets to include training development of complete FFW capability.					
Title: MH-60S Avionics Development and Integration Articles: Description: Developmental efforts on the avionics architecture and systems of the MH-60S helicopter. Development of the operator consoles, as well as software modifications/improvements, to support AMCM systems. AMCM training development to include situational analysis, and Instructional System Development documentation for various sensors. Link 16 software development/upgrades and test for AMCM messages. FY 2011 Accomplishments: Continued AMCM Blk 2B sensor/weapon system testing and FFW integration efforts. FY 2012 Plans: Continue AMCM Blk 2B sensor/weapon system testing. Support AMCM Spiral Upgrade efforts. FY 2013 Base Plans: Continue AMCM test efforts/AMCM Spiral Upgrades; Support Rockets integration.	12.595 0	10.276 0	2.500 0	-	2.500 0
Title: MH-60S Test, Engineering, Logistics, Mgt Support Articles: Description: Navy field activity systems engineering, logistics support, management and travel for the AMCM MH-60S Weapons System Integration Team for airframe and avionics, and FFW integration. Support/conduct MH-60S aircraft integration testing for AMCM sensor/weapon systems and FFW. FY 2011 Accomplishments: Supported, planned and conducted AMCM 2A/2B sensor/weapon system and FFW testing and evaluation. FY 2012 Plans: Continue support of test and integration of AMCM 2B sensor/weapon system and complete FFW integration. FY 2013 Base Plans:	16.979 0	12.930 0	16.780 0	-	16.780 0

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APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>		PROJECT 2415: <i>H-60 Development</i>			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Complete Airborne Mine Countermeasures (AMCM) test and integration of AMCM 2B sensor/weapon system, support AMCM Spiral Upgrades, follow-on Forward Firing Weapons (FFW) Guns 20mm reporting and Rockets Integration/testing.					
Accomplishments/Planned Programs Subtotals	39.379	30.606	29.743	-	29.743

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013 Base</u>	<u>FY 2013 OCO</u>	<u>FY 2013 Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APN1/017900: <i>MH-60S</i>	531.763	474.661	454.069	0.000	454.069	464.954	280.648	29.009	0.000	0.000	7,010.955
• APN6/060510: <i>MH-60S SPARES</i>	0.360	0.887	2.824	0.000	2.824	2.188	0.393	0.000	0.000	0.000	170.214
• APN5/053000: <i>H-60 MODS</i>	26.716	26.203	18.945	0.000	18.945	22.359	32.501	45.204	45.906	86.819	402.162

D. Acquisition Strategy	
<p>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 	

E. Performance Metrics
<p>Successfully achieve Initial Operational Capability for AMCM. Successfully conduct Interim Program Review IV for AMCM to achieve kit full rate production decision. Successfully complete Developmental Test/Operational Test for Block IIA AMCM sensor integration. Successfully complete FFW Rockets Developmental/Operational Testing.</p>

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy **DATE:** February 2012

APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development	PROJECT 2415: H-60 Development
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Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Primary Hdw Dev - Airframe*	SS/CPIF	Sikorsky:Stratford, CT	167.240	4.850	Jan 2012	3.000	Mar 2013	-		3.000	3.500	178.590	178.590
Primary Hdw Dev - Airframe FFW	SS/CPFF	Sikorsky:Stratford, CT	9.637	-		4.213	Mar 2013	-		4.213	5.745	19.595	19.595
Primary Hdw Dev - Avionics*	SS/CPIF	Lockheed Martin:Owego, NY	208.940	10.276	Oct 2011	2.500	Dec 2012	-		2.500	4.133	225.849	225.849
Primary Hdw Dev - CSTRS	WR	NSWC:Panama City, FL	20.630	1.500	Feb 2012	1.500	Dec 2012	-		1.500	1.500	25.130	
Primary Hdw Dev - CSTRS	MIPR	CECOM:APG, MD	11.979	1.050	Dec 2011	1.000	Dec 2012	-		1.000	1.300	15.329	
Primary Hdw Dev - FFW	C/FFP	TBD:TBD	-	-		0.250	Dec 2012	-		0.250	0.250	0.500	0.500
Primary Hdw Dev - Training	TBD	TBD:TBD	-	-		0.500	Jan 2013	-		0.500	1.350	1.850	
All Product Dev Cost from FY97-FY11	Various	Various:Various	51.554	-		-		-		-	0.000	51.554	
Subtotal			469.980	17.676		12.963		-		12.963	17.778	518.397	

Remarks

Remarks: * PY SS/CPAF - 2%
FY05-FY12 SS/CPIF

Support (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
ILS - MSS (Non FFRDC)	Various	Various:Various	2.669	0.350	Dec 2011	0.410	Dec 2012	-		0.410	1.589	5.018	
Integrated Logistics Support	WR	Various:Various	5.560	0.470	Nov 2011	1.000	Nov 2012	-		1.000	7.000	14.030	
All Support cost from FY98-FY11	Various	Various:Various	8.589	-		-		-		-	0.000	8.589	
Subtotal			16.818	0.820		1.410		-		1.410	8.589	27.637	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy											DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development				PROJECT 2415: H-60 Development						
Test and Evaluation (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Dev Test & Evaluation	WR	NAWCAD:Patuxent River, MD	40.322	4.300	Nov 2011	3.000	Nov 2012	-		3.000	4.700	52.322		
Dev Test & Evaluation	WR	Various:Various	20.228	0.650	Nov 2011	0.913	Nov 2012	-		0.913	0.000	21.791		
Operational Test & Evaluation	WR	OPTEVFOR:Norfolk, VA	4.535	2.275	Feb 2012	2.100	Nov 2012	-		2.100	2.500	11.410		
All Test & Eval Costs from FY97-FY11	Various	Various:Various	6.159	-		-		-		-	0.000	6.159		
Subtotal			71.244	7.225		6.013		-		6.013	7.200	91.682		
Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total				
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract	
Eng & Tech Srvc (Non FFRDC)	Various	Various:Various	16.465	0.845	Jan 2012	2.735	Jan 2013	-		2.735	4.080	24.125		
Government Engineering Support	WR	NAWCAD:Patuxent River, MD	12.020	1.883	Nov 2011	3.494	Nov 2012	-		3.494	4.883	22.280		
Government Engineering Support	WR	NSWC:Panama City, FL	30.346	0.800	Nov 2011	1.589	Nov 2012	-		1.589	2.644	35.379		
Government Engineering Support	WR	Various:Various	25.123	0.205	Dec 2011	0.550	Dec 2012	-		0.550	1.875	27.753		
Program Mgmt Support CSS	WR	Various:Various	5.380	0.242	Jan 2012	0.172	Jan 2013	-		0.172	0.688	6.482		
Program Mgmt Support	WR	Various:Various	13.681	0.710	Nov 2011	0.642	Nov 2012	-		0.642	1.284	16.317		
Travel	WR	Various:Various	2.926	0.200	Nov 2011	0.175	Nov 2012	-		0.175	0.706	4.007		
All Mgmt Costs from FY97-FY11	Various	Various:Various	0.984	-		-		-		-	0.000	0.984		
Subtotal			106.925	4.885		9.357		-		9.357	16.160	137.327		

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development				PROJECT 2415: H-60 Development			
	Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	664.967	30.606		29.743		-		29.743	49.727	775.043	

Remarks

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PE 0604212N: *Other Helicopter Development*
Navy

R-1 Line #87

APPROPRIATION/BUDGET ACTIVITY
1319: *Research, Development, Test & Evaluation, Navy*
BA 5: *Development & Demonstration (SDD)*

PE 0604212N: *Other Helicopter Development*2415: *H-60 Development*

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Exhibit R-4, RDT&E Schedule Profile: PB 2013 Navy

DATE: February 2012

APPROPRIATION/BUDGET ACTIVITY

1319: *Research, Development, Test & Evaluation, Navy*
BA 5: *Development & Demonstration (SDD)*

R-1 ITEM NOMENCLATURE

PE 0604212N: *Other Helicopter Development*

	PROJECT
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2415: *H-60 Development*[illegible]

2013PB - 0604212N - 2415

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>	PROJECT 2415: <i>H-60 Development</i>	

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>Airborne Mine Countermeasures</i>				
Acq Milestones: Milestones: - Initial Operational Capability-AMCM	2	2012	2	2012
Acq Milestones: Milestones: - IPR IV/FRP AMCM	2	2012	2	2012
System Development: Hardware/Software Development: - AMCM Spiral Upgrades	1	2012	4	2015
Test & Evaluation: AMCM Block 2A: - Operational Testing (OT) Block 2A	1	2011	4	2011
Test & Evaluation: AMNS Block 2B: - Verification of Correction of Deficiencies (VCD) / Developmental Testing (DT) (AMNS)	1	2011	4	2011
Test & Evaluation: AMNS Block 2B: - Operational Testing (OT) (AMNS)	1	2012	3	2012
Test & Evaluation: ALMDS Block 2B: - Developmental Testing (DT) (ALMDS)	1	2011	3	2011
Test & Evaluation: ALMDS Block 2B: - Operational Testing (OT) (ALMDS)	3	2011	3	2012
Test & Evaluation: OASIS Block 2B: - Contractor Test (OASIS)	3	2011	2	2012
Test & Evaluation: OASIS Block 2B: - Development Testing (DT) (OASIS)	3	2012	1	2013
Test & Evaluation: OASIS Block 2B: - Operation Testing (OT) (OASIS)	1	2013	4	2013
Contract Award: AMCM Acillary kits: - Contract Award - LRIP (AMCM Ancillary Kits-FY11)	4	2011	4	2011
Contract Award: AMCM Acillary kits: - Contract Award - Production (AMCM Ancillary Kits-FY12)	2	2012	2	2012
Contract Award: AMCM Acillary kits: - Contract Award - Production (AMCM Ancillary Kits-FY13)	2	2013	2	2013
Contract Award: AMCM Acillary kits: - Contract Award - Produciton (AMCM Ancillary Kits-FY14)	2	2014	2	2014
Contract Award: AMCM Acillary kits: - Contract Award - Produciton (AMCM Ancillary Kits-FY15)	2	2015	2	2015
Deliveries: - LRIP Delivery (AMCM Ancillary Kits-FY11)	2	2013	2	2014

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy			DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development		PROJECT 2415: H-60 Development	
	Start		End	
Events by Sub Project	Quarter	Year	Quarter	Year
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY12)	2	2014	2	2015
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY13)	2	2015	2	2016
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY14)	2	2016	2	2017
Forward Firing Weapon				
System Development: Hardware Development: - System Design, Build and Integration (FFW)	1	2011	3	2011
Test and Evaluation: - Air Worthiness Certification (FFW)	1	2011	3	2011
Test and Evaluation: - Developmental Testing (DT) (FFW)	2	2011	1	2012
Test and Evaluation: - Operational Testing (OT) (FFW)	2	2012	2	2012
System Development: System Integration: System Integration	1	2013	1	2015
Test and Evaluation: Developmental Testing (DT) (FFW)	2	2014	4	2014
Test and Evaluation: Operational Testing (OT) (FFW)	1	2015	2	2015

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy								DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)				R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development				PROJECT 2460: VH-3/VH-60			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
2460: VH-3/VH-60	8.969	1.774	1.780	-	1.780	1.754	1.729	1.748	1.768	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		
A. Mission Description and Budget Item Justification											
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. Currently two Type, Model, Series aircraft are used by HMX-1 for the Presidential support mission - the VH-3D and the VH-60N. This project provides a Service Life Assessment Program and Aircraft Life Management Plan for the VH Executive Helicopters.											
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Title: VH-3D and VH-60N Service Life Assessment Program Articles:							0.339	-	-	-	-
							0				
Description: VH-3D and VH-60N Service Life Assessment Program: This project funds a Service Life Assessment Program for both the VH-3D and VH-60N.											
FY 2011 Accomplishments: FY 2011 Plans: Included government support for efforts related to the successful completion of a Service Life Assessment Program on each VH aircraft.											
Title: VH Executive Helicopter Aircraft Life Management Plan Articles:							8.630	1.774	1.780	-	1.780
							0	0	0		0
Description: VH Executive Helicopter Aircraft Life Management Program: Provides for management and improvement of all Executive Helicopter systems readiness including safety, operational weight, mission availability, structural integrity, component reliability, maintainability, software, and obsolescence issues as they arise.											
FY 2011 Accomplishments: Provided government support and contract award for efforts associated with the Aircraft Life Management Program for the VH-3D and VH-60N.											
FY 2012 Plans:											

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy				DATE: February 2012	
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>		R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>		PROJECT 2460: <i>VH-3/VH-60</i>	

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total
Provides government support and contract award for efforts associated with the Aircraft Life Management Program for the VH-3D and VH-60N.					
<i>FY 2013 Base Plans:</i> Provides government support and contract award for efforts associated with the Aircraft Life Management Program for the VH Executive Helicopters.					
Accomplishments/Planned Programs Subtotals	8.969	1.774	1.780	-	1.780

C. Other Program Funding Summary (\$ in Millions)											
<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013 Base</u>	<u>FY 2013 OCO</u>	<u>FY 2013 Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APN/056600: <i>Executive Helicopters Series</i>	43.195	77.511	58.163	0.000	58.163	85.810	107.898	84.740	66.349	49.552	975.469

D. Acquisition Strategy	
VH Executive Helicopter Aircraft Life Management Plan will include trade studies necessary to address safety, operational weight, mission availability, structural integrity, component reliability, maintainability, software, and obsolescence issues as they arise. Results of these trade studies will lead to modifications to be addressed through the program's Obsolescence Management Program Operational Safety and Improvement Program.	

E. Performance Metrics	
Completion of VH-3D and VH-60N Service Life Assessment Program efforts. Completion of VH Executive Helicopter Aircraft Life Management Program efforts.	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2013 Navy											DATE: February 2012			
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>				PROJECT 2460: <i>VH-3/VH-60</i>						

Product Development (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	SS/CPFF	Sikorsky:Stratford, CT	15.150	1.388	Feb 2012	-		-		-	7.206	23.744	23.744
Prior Year Prod Dev	Various	Various:Various	2.743	-		-		-		-	0.000	2.743	2.743
Subtotal			17.893	1.388		-		-		-	7.206	26.487	26.487

Management Services (\$ in Millions)				FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	NAWCAD:Patuxent River, MD	4.085	0.286	Nov 2011	1.341	Nov 2012	-		1.341	Continuing	Continuing	Continuing
Program Management Support	WR	NAWCAD:Patuxent River, MD	0.338	0.050	Nov 2011	0.399	Nov 2012	-		0.399	Continuing	Continuing	Continuing
Travel	Various	Various:Various	0.150	0.050	Oct 2011	0.040	Oct 2012	-		0.040	Continuing	Continuing	Continuing
Subtotal			4.573	0.386		1.780		-		1.780			

			Total Prior Years Cost	FY 2012		FY 2013 Base		FY 2013 OCO		FY 2013 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			22.466	1.774		1.780		-		1.780			

Remarks

UNCLASSIFIED

PE 0604212N: *Other Helicopter Development*
Navy

R-1 Line #87

PROJECT

2460: *VH-3/VH-60*

[illegible]

2013PB - 0604212N - 2460 ***Fuel System Upgrade Program completed 4Q FY10

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Exhibit R-4A, RDT&E Schedule Details: PB 2013 Navy		DATE: February 2012
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>	R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>	PROJECT 2460: <i>VH-3/VH-60</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>VH-3/VH-60</i>				
Engineering Milestones: VH SLAP	1	2011	4	2011
Engineering Milestones: VH-3D / VH-60N ALMP	1	2011	4	2017

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Exhibit R-2A, RDT&E Project Justification: PB 2013 Navy									DATE: February 2012		
APPROPRIATION/BUDGET ACTIVITY 1319: <i>Research, Development, Test & Evaluation, Navy</i> BA 5: <i>Development & Demonstration (SDD)</i>				R-1 ITEM NOMENCLATURE PE 0604212N: <i>Other Helicopter Development</i>				PROJECT 9999: <i>Congressional Adds</i>			
COST (\$ in Millions)	FY 2011	FY 2012	FY 2013 Base	FY 2013 OCO	FY 2013 Total	FY 2014	FY 2015	FY 2016	FY 2017	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	-	7.000	-	-	-	-	-	-	-	0.000	7.000
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

A. Mission Description and Budget Item Justification
Congressional Add

B. Accomplishments/Planned Programs (\$ in Millions)	FY 2011	FY 2012
<i>Congressional Add:</i> VH-3/VH-60 (Cong)	-	7.000
<i>FY 2012 Plans:</i> N/A		
Congressional Adds Subtotals	-	7.000

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2011</u>	<u>FY 2012</u>	<u>FY 2013 Base</u>	<u>FY 2013 OCO</u>	<u>FY 2013 Total</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APN/056600: <i>Executive Helicopters Series</i>	43.195	77.511	58.163	0.000	58.163	85.810	107.898	84.740	66.349	49.552	975.469

D. Acquisition Strategy
Not required for Congressional Adds.

E. Performance Metrics
Not required for Congressional Adds.