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Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
Total Program Element	56.409	44.329	35.651	-	35.651	24.401	14.228	4.695	4.778	Continuing	Continuing
1109: <i>CH/MH-53</i>	2.884	3.526	3.271	-	3.271	2.459	2.794	2.833	2.881	Continuing	Continuing
2415: <i>H-60 Development</i>	47.888	38.910	30.606	-	30.606	20.167	9.656	0.095	0.098	Continuing	Continuing
2460: <i>VH-3/VH-60</i>	1.893	1.893	1.774	-	1.774	1.775	1.778	1.767	1.799	Continuing	Continuing
9999: <i>Congressional Adds</i>	3.744	-	-	-	-	-	-	-	-	0.000	3.744

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 (AMCM) 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. This PE includes Congressional Add funding : M230 30MM Chain Gun Automatic Cannon, moved from PE 0604216N.

B. Program Change Summary (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Previous President's Budget	53.868	44.329	31.136	-	31.136
Current President's Budget	56.409	44.329	35.651	-	35.651
Total Adjustments	2.541	-	4.515	-	4.515
• Congressional General Reductions		-			
• Congressional Directed Reductions		-			
• Congressional Rescissions	-	-			
• Congressional Adds		-			
• Congressional Directed Transfers		-			
• Reprogrammings	0.083	-			
• SBIR/STTR Transfer	-0.985	-			
• Program Adjustments	-	-	4.988	-	4.988
• Section 219 Reprogramming	-0.299	-	-	-	-
• Rate/Misc Adjustments	-	-	-0.473	-	-0.473
• Congressional General Reductions	-0.018	-	-	-	-
Adjustments					
• Congressional Add Adjustments	3.760	-	-	-	-

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2012 Navy **DATE:** February 2011

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

Project: 9999: *Congressional Adds*

Congressional Add: *M230 30mm Chain Gun Automatic Cannon*

Congressional Add Subtotals for Project: 9999

Congressional Add Totals for all Projects

	FY 2010	FY 2011
	3.744	-
	3.744	-
	3.744	-

Change Summary Explanation

Technical: Not applicable.

Schedule:

1109 CH/MH-53: Not Applicable

2415 AMCM: AMCM Blk 2A Operational Testing (OT) commencement has extended into 4Q FY10 due to engineering investigations associated with Carriage, Stream, Tow and Recovery System winch, Tow Hook and finalization of the tow cable configuration. Airborne Mine Neutralization System (AMNS) Verification of Correction of Deficiencies/Developmental Test (DT) has delayed until 1Q FY11 as a result of software integration issues which required AMNS computer hardware and helicopter common console software changes, also delaying OT. Sensor software development issues resulted in the extension of Airborne Laser Mine Detection System DT from 2Q FY10 to 3Q FY10, subsequently delaying OT. However, there is no impact to Littoral Combat Ship planned testing in FY11 or FY12. Organic Airborne and Surface Influence Sweep Contractor Test has been delayed from 3Q FY10 to 3Q FY11 due to aircraft scheduling priorities, subsequently delaying DT and OT. Rapid Airborne Mine Clearance System efforts have been removed from the schedule since is not funded within the program budget.

2415 Forward Firing Weapon - Air Worthiness Certification extended 1Q FY11 due to delays in test aircraft availability. Delays in aircraft instrumentation and required maintenance resulted in a delay in the commencement of DT from 3Q FY10 to 1Q FY11, subsequently, delaying OT.

2460 VH-3/VH-60: Fuel Systems Upgrade development efforts will conclude in 4Q FY11 instead of 2Q FY12. Service Life Assessment Program will conclude in 4Q FY11 instead of 4Q FY12.

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

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>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
1109: <i>CH/MH-53</i>	2.884	3.526	3.271	-	3.271	2.459	2.794	2.833	2.881	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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>Title: H-53 Avionics</p> <p align="right">Articles:</p> <p>FY 2010 Accomplishments: Integrated software applique for cockpit and avionics improvements, to include the development of new sensors and the impact in flight control computers. Conducted Business Case Analyses to determine impact of high Operation and Support cost drivers and address alternatives for obsolescence issues.</p> <p>FY 2011 Plans: 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 cost drivers and address alternatives for obsolescence issues.</p> <p>FY 2012 Base Plans: 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 cost drivers and address alternatives for obsolescence issues.</p>	0.409 0	0.544 0	0.544 0	- 0	0.544 0
<p>Title: H-53 Survivability</p> <p align="right">Articles:</p> <p>FY 2010 Accomplishments:</p>	0.208 0	0.406 0	0.406 0	- 0	0.406 0

UNCLASSIFIED

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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 1109: <i>CH/MH-53</i>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>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.</p> <p>FY 2011 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.</p> <p>FY 2012 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.</p>					
<p>Title: H-53 Propulsion</p> <p align="right">Articles:</p> <p>FY 2010 Accomplishments: Performed trade studies, risk reduction, design, development, integration and test activities for H-53 T64 engine and related systems.</p> <p>FY 2011 Plans: Perform trade studies, risk reduction, design, development, integration and test activities for H-53 T64 engine and related systems.</p> <p>FY 2012 Base Plans: Perform trade studies, risk reduction, design, development, integration and test activities for H-53 T64 engine and related systems.</p>	1.439 0	1.520 0	1.265 0	-	1.265 0
<p>Title: Project Management Support</p> <p align="right">Articles:</p> <p>FY 2010 Accomplishments: Provided in-house, field activity, 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.</p> <p>FY 2011 Plans:</p>	0.601 0	0.732 0	0.732 0	-	0.732 0

UNCLASSIFIED

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy	DATE: February 2011
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C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012</u> <u>Base</u>	<u>FY 2012</u> <u>OCO</u>	<u>FY 2012</u> <u>Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To</u> <u>Complete</u>	<u>Total Cost</u>
• APN/0528: <i>H-53 Series</i>	237.812	62.119	62.820	70.747	133.567	42.911	47.112	39.037	30.635	272.757	1,832.326

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.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy **DATE:** February 2011

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>
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Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	2.073	0.420	Mar 2011	0.420	Mar 2012	-		0.420	Continuing	Continuing	Continuing
Ancillary Hardware Development	Various	Various:Various	1.570	0.224	Mar 2011	0.224	Mar 2012	-		0.224	Continuing	Continuing	Continuing
Systems Engineering	WR	NAWC AD:Patuxent River, MD	1.682	0.702	Nov 2010	0.524	Nov 2011	-		0.524	Continuing	Continuing	Continuing
Prior Year Prod Dev	Various	Various:Various	14.503	-		-		-		-	0.000	14.503	
Subtotal			19.828	1.346		1.168		-		1.168			

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	1.745	0.326	Mar 2011	0.326	Mar 2012	-		0.326	Continuing	Continuing	Continuing
GFE	Various	NAWC AD:Patuxent River, MD	1.320	0.421	Nov 2010	0.421	Nov 2011	-		0.421	Continuing	Continuing	Continuing
Subtotal			3.065	0.747		0.747		-		0.747			

Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	4.220	0.947	Mar 2011	0.870	Mar 2012	-		0.870	Continuing	Continuing	Continuing
Subtotal			4.220	0.947		0.870		-		0.870			

UNCLASSIFIED

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy **DATE:** February 2011

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>
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CH/MH-53	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Acquisition Milestones																												
Engineering Milestones																												
	Obsolescence Issues/Studies																											
	Survivability Analysis																											
	Legacy P3I Efforts																											
	Safety Upgrades																											
Test & Evaluation																												
Production Milestones																												
Deliveries																												

2012PB - 0604212N - 1109

UNCLASSIFIED

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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	2010	4	2016
Engineering Milestones: - Survivability Analysis	1	2010	4	2016
Engineering Milestones: - Legacy P3I Efforts	1	2010	4	2016
Engineering Milestones: - Safety Upgrades	1	2010	4	2016

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2415: <i>H-60 Development</i>	47.888	38.910	30.606	-	30.606	20.167	9.656	0.095	0.098	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. 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 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Title: MH-60S Airframe Development and Integration	15.590	9.805	7.400	-	7.400
Articles:	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 and AMCM Mission Kit. Design/integrate AMCM Mission Kit upgrades to improved mission performance and ease pilot workload. Analyze, design, integrate, test, and support FFW to include training development.					
FY 2010 Accomplishments: Completed LINK 16 Operational Test (OT) reporting; Continued AMCM Blk 2A testing; Supported Rapid Airborne Mine Clearance System ground test conducted by PMS-495; Commenced Verification of Correction of Deficiencies (VCD)/Developmental Testing (DT) for Airborne Laser Mine Detection System (ALMDS) DT. Continued design/integration and testing of FFW.					
FY 2011 Plans:					

UNCLASSIFIED

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
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Achieve Initial Operational Capability for AMCM Mission kit; Complete OT for AMCM Block 2A. Complete DT for ALMDS and commence OT; Complete VCD/DT for AMNS. Commence Organic Airborne and Surface Influence Sweep (OASIS) Contractor Test (CT). Continue FFW integration/testing efforts.

FY 2012 Base Plans:
Achieve Interim Program Review (IPR IV)/Full Rate Production (FRP) decision for AMCM Mission kit. Complete AMNS and ALMDS OT; Complete OASIS CT and DT and commence OT; initiate AMCM Spiral Upgrade efforts. Complete FFW testing and reporting.

Title: MH-60S Avionics Development and Integration	12.506	13.626	10.276	-	10.276
Articles:	0	0	0		0

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 2010 Accomplishments:
Continued AMCM Blk 2A testing; Conducted AMCM Blk 2B sensor/weapon system testing and FFW integration efforts.

FY 2011 Plans:
Continue AMCM Blk 2B sensor/weapon system testing to include AMNS/ALMDS and OASIS sensors. Complete Block 2A OT testing.

FY 2012 Base Plans:
Continue AMCM Blk 2B sensor/weapon system testing. Support AMCM Spiral Upgrade efforts.

Title: MH-60S Test, Engineering, Logistics, Mgt Support	19.792	15.479	12.930	-	12.930
Articles:	0	0	0		0

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 2010 Accomplishments:

UNCLASSIFIED

UNCLASSIFIED

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
Supported, planned and conducted AMCM 2A/2B sensor/weapon system and FFW testing and evaluation. FY 2011 Plans: Complete AMCM 2A testing and integration efforts to include IOC. Continue support of test and integration of AMCM 2B sensor/weapon system and complete FFW integration. FY 2012 Base Plans: Continue AMCM 2B sensor/weapon system testing and integration efforts. Support FRP decision for AMCM Mission Equipment. Complete FFW test and integration efforts.					
Accomplishments/Planned Programs Subtotals	47.888	38.910	30.606	-	30.606

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

Line Item	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
• APN1/017900: <i>MH-60S</i>	471.508	548.671	482.961	0.000	482.961	458.046	466.497	281.765	29.550	0.000	7,041.324
• APN6/060510: <i>MH-60S SPARES</i>	0.640	1.204	0.887	0.000	0.887	0.900	0.000	0.000	0.000	0.000	166.553
• APN5/053000: <i>H-60 MODS</i>	31.799	34.177	28.928	0.000	28.928	18.625	20.277	27.911	38.672	101.168	372.486

D. Acquisition Strategy

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

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

E. Performance Metrics

Successfully achieve Initial Operational Capability for AMCM. Successfully conduct Interim Program Review IV for AMCM to achieve AMCM ancillary kit full rate production decision. Successfully complete Developmental Test/Operational Test for Block IIA AMCM sensor integration. Successfully complete FFW Developmental/Operational Testing.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy **DATE:** February 2011

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Product Development (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	161.547	5.305	Dec 2010	4.850	Dec 2011	-		4.850	6.615	178.317	178.317
Primary Hdw Dev - Airframe FFW	SS/CPFF	Sikorsky:Stratford, CT	8.637	1.000	Dec 2010	-		-		-	0.000	9.637	9.637
Primary Hdw Dev - Avionics*	SS/CPIF	Lockheed Martin:Owego, NY	196.147	13.626	Dec 2010	10.276	Dec 2011	-		10.276	8.070	228.119	228.119
Primary Hdw Dev - CSTRS	WR	NSWC:Panama City	18.130	2.500	Dec 2010	1.500	Dec 2011	-		1.500	1.000	23.130	
Primary Hdw Dev - CSTRS	MIPR	CECOM:FT Monmouth, NJ	10.979	1.000	Dec 2010	1.050	Dec 2011	-		1.050	0.658	13.687	
All Product Dev Cost from FY97-FY10	Various	Various:Various	51.554	-		-		-		-	0.000	51.554	
Subtotal			446.994	23.431		17.676		-		17.676	16.343	504.444	

Remarks

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

Support (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	2.230	0.439	Dec 2010	0.350	Dec 2011	-		0.350	0.450	3.469	
Integrated Logistics Support	WR	Various:Various	5.149	0.411	Nov 2010	0.470	Nov 2011	-		0.470	0.700	6.730	
All Support cost from FY98-FY10	Various	Various:Various	8.589	-		-		-		-	0.000	8.589	
Subtotal			15.968	0.850		0.820		-		0.820	1.150	18.788	

UNCLASSIFIED

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2012 Navy **DATE:** February 2011

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>
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Test and Evaluation (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 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	33.907	5.915	Nov 2010	4.300	Nov 2011	-		4.300	5.000	49.122	
Dev Test & Evaluation	WR	Various:Various	18.578	0.650	Nov 2010	0.650	Nov 2011	-		0.650	0.000	19.878	
Operational Test & Evaluation	WR	OPTEVFOR:Norfolk, VA	1.385	3.150	Nov 2010	2.275	Nov 2011	-		2.275	1.900	8.710	
All Test & Eval Costs from FY97-FY10	Various	Various:Various	6.159	-		-		-		-	0.000	6.159	
Subtotal			60.029	9.715		7.225		-		7.225	6.900	83.869	

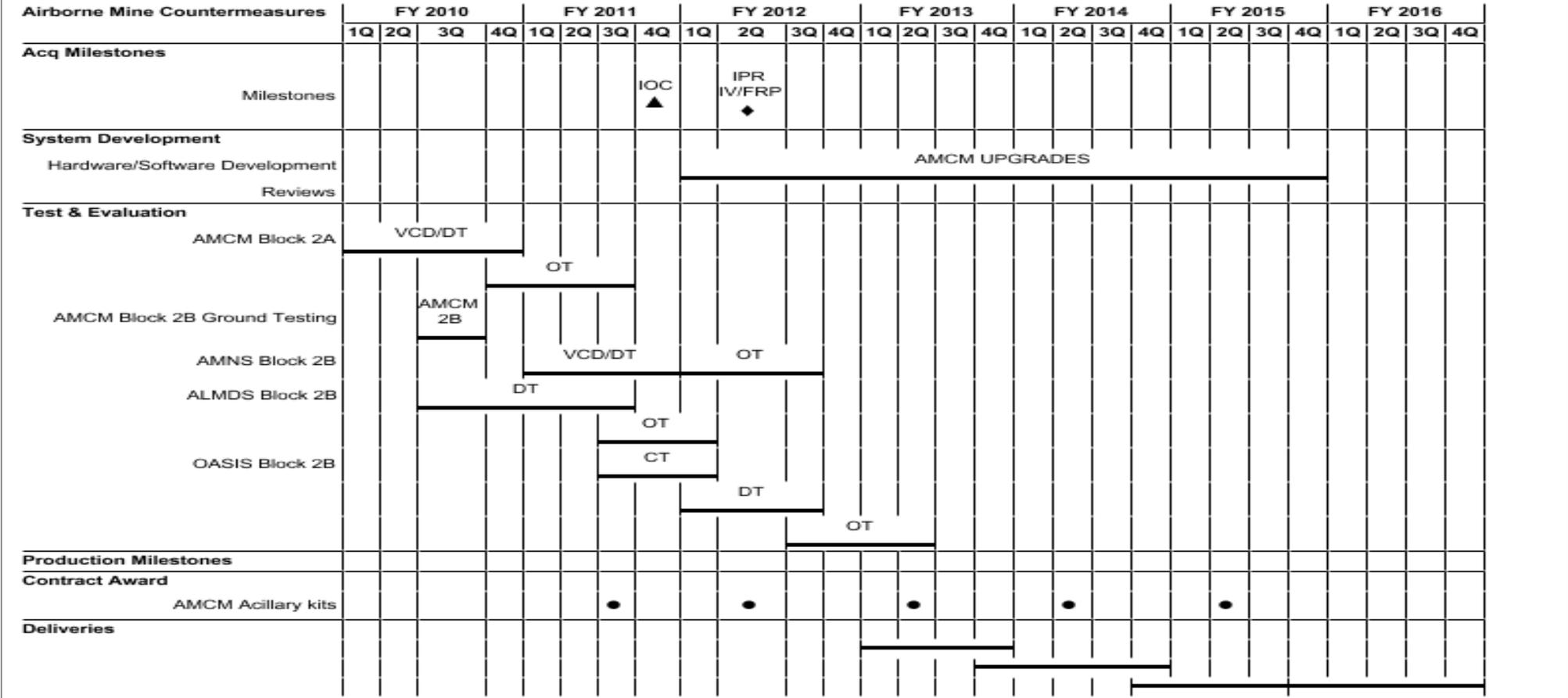
Management Services (\$ in Millions)				FY 2011		FY 2012 Base		FY 2012 OCO		FY 2012 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Total Prior Years Cost	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Eng & Tech Svc (Non FFRDC)	Various	Various:Various	15.137	1.328	Jan 2011	0.845	Jan 2012	-		0.845	0.550	17.860	
Government Engineering Support	WR	NAWCAD:Patuxent River, MD	10.734	1.286	Nov 2010	1.883	Nov 2011	-		1.883	1.015	14.918	
Government Engineering Support	WR	NSWC:Panama City, FL	29.546	0.800	Nov 2010	0.800	Nov 2011	-		0.800	1.250	32.396	
Government Engineering Support	WR	Various:Various	24.623	0.500	Dec 2010	0.205	Dec 2011	-		0.205	1.127	26.455	
Program Mgmt Support CSS	WR	Various:Various	4.968	0.412	Jan 2011	0.242	Jan 2012	-		0.242	0.451	6.073	
Program Mgmt Support	WR	Various:Various	13.293	0.388	Dec 2010	0.710	Nov 2011	-		0.710	0.930	15.321	
Travel	WR	Various:Various	2.726	0.200	Nov 2010	0.200	Nov 2011	-		0.200	0.300	3.426	
All Mgmt Costs from FY97-FY10	Various	Various:Various	0.984	-		-		-		-	0.000	0.984	
Subtotal			102.011	4.914		4.885		-		4.885	5.623	117.433	

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy **DATE:** February 2011

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>
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2012PB - 0604212N - 2415

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy **DATE:** February 2011

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>
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	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1Q	2Q	3Q	4Q																								
Forward Firing Weapon																												
System Development																												
Hardware Development																												
Reviews																												
Test and Evaluation																												
Air Worthiness																												
DT																												
OT																												

2012PB - 0604212N - 2415

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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	4	2011	4	2011
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: - Verification of Correction of Deficiencies (VCD) / Development Testing (DT) (Block 2A)	1	2010	4	2010
Test & Evaluation: AMCM Block 2A: - Operational Testing (OT) Block 2A	4	2010	3	2011
Test & Evaluation: AMCM Block 2B Ground Testing: - AMCM 2B Ground Testing	3	2010	3	2010
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)	3	2010	3	2011
Test & Evaluation: ALMDS Block 2B: - Operational Testing (OT) (ALMDS)	3	2011	1	2012
Test & Evaluation: OASIS Block 2B: - Contractor Test (OASIS)	3	2011	1	2012
Test & Evaluation: OASIS Block 2B: - Development Testing (DT) (OASIS)	1	2012	3	2012
Test & Evaluation: OASIS Block 2B: - Operation Testing (OT) (OASIS)	3	2012	2	2013
Contract Award: AMCM Acillary kits: - Contract Award - LRIP (AMCM Ancillary Kits-FY11)	3	2011	3	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

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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>

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Contract Award: AMCM Acillary kits: - Contract Award - Produciton (AMCM Ancillary Kits-FY15)	2	2015	2	2015
Deliveries: - LRIP Delivery (AMCM Ancillary Kits-FY11)	1	2013	4	2013
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY12)	4	2013	4	2014
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY13)	4	2014	3	2015
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY14)	4	2015	4	2016
<i>Forward Firing Weapon</i>				
System Development: Hardware Development: - System Design, Build and Integration (FFW)	1	2010	1	2011
Test and Evaluation: - Air Worthiness Certification (FFW)	1	2010	1	2011
Test and Evaluation: - Developmental Testing (DT) (FFW)	1	2011	3	2011
Test and Evaluation: - Operational Testing (OT) (FFW)	2	2011	1	2012

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

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>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
2460: <i>VH-3/VH-60</i>	1.893	1.893	1.774	-	1.774	1.775	1.778	1.767	1.799	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 both the VH-3D and VH-60N, and the design and development necessary to upgrade the safety of the fuel system on the VH-3D.

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

	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>Title: VH-3D Fuel Systems Upgrade</p> <p align="right">Articles:</p> <p>Description: VH-3D Fuel Systems Upgrade provides design and development efforts to upgrade the safety of the fuel system on the VH-3D.</p> <p>FY 2011 Plans: Perform integration and test activities related to the VH-3D Fuel Systems Upgrade.</p>	-	0.150 0	-	-	-
<p>Title: VH-3D & VH-60N Service Life Assessment Program</p> <p align="right">Articles:</p> <p>Description: VH-3D & VH-60N SLAP: This project funds a SLAP for both the VH-3D and VH-60N.</p> <p>FY 2010 Accomplishments: Included government support and contract award for all efforts related to the successful completion of a SLAP on each VH aircraft.</p> <p>FY 2011 Plans: FY 2011 Plans: Includes government support for efforts related to the successful completion of a SLAP on each VH aircraft.</p>	1.893 0	0.251 0	-	-	-
<p>Title: VH-3D & VH-60N Aircraft Life Management Plan</p> <p align="right">Articles:</p>	-	1.492 0	1.774 0	-	1.774 0

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

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>
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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total
<p>Description: VH-3D & VH-60N 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.</p> <p>FY 2011 Plans: Provide government support and contract award for efforts associated with the Aircraft Life Management Program for the VH-3D and VH-60N.</p> <p>FY 2012 Base Plans: Provide government support and contract award for efforts associated with the Aircraft Life Management Program for the VH-3D and VH-60N.</p>					
Accomplishments/Planned Programs Subtotals	1.893	1.893	1.774	-	1.774

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

<u>Line Item</u>	<u>FY 2010</u>	<u>FY 2011</u>	<u>FY 2012 Base</u>	<u>FY 2012 OCO</u>	<u>FY 2012 Total</u>	<u>FY 2013</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APN/056600: <i>Executive Helicopters Series</i>	42.325	43.443	58.011	0.000	58.011	46.548	49.143	49.297	50.067	152.840	848.892

D. Acquisition Strategy
VH-3D and VH-60N 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 OSIP.

E. Performance Metrics
Completion of the VH-3D Fuel System Upgrade efforts. Completion of VH-3D and VH-60N SLAP efforts. Completion of VH-3D and VH-60N Aircraft Life Management Program efforts.

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Exhibit R-4, RDT&E Schedule Profile: PB 2012 Navy **DATE:** February 2011

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>
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VH-3/VH-60	FY 2010				FY 2011				FY 2012				FY 2013				FY 2014				FY 2015				FY 2016			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Engineering Milestones																												
	VH-3D Fuel Systems Upgrade																											
	VH SLAP																											
					VH-3D / VH-60N ALMP																							

2012PB - 0604212N - 2460

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Exhibit R-4A, RDT&E Schedule Details: PB 2012 Navy		DATE: February 2011
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-3D Fuel Systems Upgrade	1	2010	4	2011
Engineering Milestones: VH SLAP	1	2010	4	2011
Engineering Milestones: VH-3D & VH60H Aircraft Life Management Plan	1	2011	4	2016

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Exhibit R-2A, RDT&E Project Justification: PB 2012 Navy **DATE:** February 2011

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>
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COST (\$ in Millions)	FY 2010	FY 2011	FY 2012 Base	FY 2012 OCO	FY 2012 Total	FY 2013	FY 2014	FY 2015	FY 2016	Cost To Complete	Total Cost
9999: <i>Congressional Adds</i>	3.744	-	-	-	-	-	-	-	-	0.000	3.744
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 2010	FY 2011
<i>Congressional Add:</i> M230 30mm Chain Gun Automatic Cannon	3.744	-
<i>FY 2010 Accomplishments:</i> 10C136: M230 Cannon qualification and 30MM Ammunition evaluation.		
Congressional Adds Subtotals	3.744	-

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

N/A

D. Acquisition Strategy

Not required for Congressional Adds.

E. Performance Metrics

Not required for Congressional Adds.