Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0604212N: Other Helicopter Development

BA 5: Development & Demonstration (SDD)

•											
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
Total Program Element	53.264	53.868	44.329	0.000	44.329	31.136	20.050	10.205	5.268	Continuing	Continuing
1109: <i>CH/MH-53</i>	2.750	2.946	3.526	0.000	3.526	3.539	2.648	3.008	3.072	Continuing	Continuing
2415: H-60 Development	42.767	48.930	38.910	0.000	38.910	25.706	15.510	5.299	0.298	Continuing	Continuing
2460: VH-3/VH-60	7.747	1.992	1.893	0.000	1.893	1.891	1.892	1.898	1.898	Continuing	Continuing

### 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 (WHMO).

### B. Program Change Summary (\$ in Millions)

	FY 2009	FY 2010	<b>FY 2011 Base</b>	FY 2011 OCO	<b>FY 2011 Total</b>
Previous President's Budget	57.811	54.092	0.000	0.000	0.000
Current President's Budget	53.264	53.868	44.329	0.000	44.329
Total Adjustments	-4.547	-0.224	44.329	0.000	44.329
<ul> <li>Congressional General Reductions</li> </ul>		-0.224			
<ul> <li>Congressional Directed Reductions</li> </ul>		0.000			
<ul> <li>Congressional Rescissions</li> </ul>	0.000	0.000			
Congressional Adds		0.000			
<ul> <li>Congressional Directed Transfers</li> </ul>		0.000			
Reprogrammings	-2.900	0.000			
SBIR/STTR Transfer	-1.647	0.000			
<ul> <li>Program Adjustments</li> </ul>	0.000	0.000	44.329	0.000	44.329

#### **UNCLASSIFIED**

Exhibit R-2, RDT&E Budget Item Justification: PB 2011 Navy

#### APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

1319: Research, Development, Test & Evaluation, Navy

PE 0604212N: Other Helicopter Development

BA 5: Development & Demonstration (SDD)

### **Change Summary Explanation**

Technical: Not applicable.

Schedule:

1109 CH/MH-53: Not Applicable

2415 AMCM: AMCM Blk 2A Developmental Testing (DT) has extended into 4Q FY10 due to engineering investigations associated with Carriage, Stream, Tow and Recovery System (CSTRS) winch and Tow Hook, delaying Operational Testing (OT) accordingly. Initial Operational Capability (IOC) and Interim Program Review (IPR) IV/Full Rate Production (FRP) have moved to 3Q and 4Q FY11 respectively. Airborne Mine Neutralization System (AMNS) Verification of Correction of Deficiencies/DT was delayed from 3Q FY09 until 2Q FY10 as a result of software integration issues which required AMNS computer hardware and helicopter common console software changes, also delaying OT. Technical issues with sensor performance resulted in the delay of Airborne Laser Mine Detection System (ALMDS) DT from 3Q FY09 until 2Q FY10, and OT from 1Q FY10 to 1Q FY11. Low Rate Initial Production (LRIP) contract award was removed due to reassessment of existing assets and ability to modify for testing and initial training.

2415 Forward Firing Weapon (FFW)- Design and integration of FFW extended from 3Q FY10 until 1Q FY11 as a result of further definition of contract scope and required engineering analysis of design. Air Worthiness Certification extended out through 4Q FY10 due to delays in test aircraft availability. Delays in aircraft instrumentation and required maintenance resulted in a delay in the commencement of Developmental Testing (DT) from 2Q to 3Q FY10. Subsequently, the commencement of Operational Testing (OT) has moved from 3Q to 4Q FY10.

2460 VH-3/VH-60: Not Applicable.

FY11 from previous President's Budget is shown as zero because no FY11-15 data was presented in President's Budget 2010.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0604212N: Other Helicopter Development 1109: CH/MH-53

BA 5: Development & Demonstration (SDD)

Brt o. Bevelopment a Bemonstration	, (000)										
COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
1109: <i>CH/MH-53</i>	2.750	2.946	3.526	0.000	3.526	3.539	2.648	3.008	3.072	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 FY2015, 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. 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.

### B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
H-53 Avionics	0.375	0.409	0.544	0.000	0.544
FY 2009 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 (O&S) cost drivers and addressed alternatives for obsolescence issues.					
FY 2010 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					

#### **UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			<b>DATE:</b> February 2010
APPROPRIATION/BUDGET ACTIVITY	R-1 ITEM NOMENCLATURE	PROJECT	
1319: Research, Development, Test & Evaluation, Navy	PE 0604212N: Other Helicopter Development	1109: <i>CH/N</i>	1H-53
BA 5: Development & Demonstration (SDD)			

# B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
impact of high Operation and Support (O&S) cost drivers and address alternatives for obsolescence issues.					
FY 2011 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 (O&S) cost drivers and address alternatives for obsolescence issues.					
H-53 Survivability	0.198	0.208	0.406	0.000	0.406
FY 2009 Accomplishments: Conducted 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 2010 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 2011 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.					
H-53 Propulsion	1.317	1.439	1.520	0.000	1.520
FY 2009 Accomplishments: Conducted trade studies, risk reduction, design, development, integration and test activities for H-53 T64 engine and related systems.					

# **UNCLASSIFIED**

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Dev	R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development PROJECT 1109: CH/MH-				
B. Accomplishments/Planned Program (\$ in Millions)						
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Perform trade studies, risk reduction, design, development, engine and related systems.	integration and test activities for H-53 T64					
FY 2011 Base Plans: Perform trade studies, risk reduction, design, development, engine and related systems.	integration and test activities for H-53 T64					
Project Management Support		0.642	0.663	0.732	0.000	0.732

# FY 2009 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.

#### FY 2010 Plans:

Provide 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.

#### FY 2011 Base Plans:

Provide 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,

#### **UNCLASSIFIED**

R-1 Line Item #81 Page 5 of 31

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0604212N: Other Helicopter Development

1109: *CH/MH-5*3

BA 5: Development & Demonstration (SDD)

# **B.** Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
engineering support, product management support, system engineering and logistics support, and travel for the H-53 program.					
H-53 Airframe	0.218	0.227	0.324	0.000	0.324
FY 2009 Accomplishments: Conducted 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 2010 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 2011 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 rotorhead, cowlings, aircraft structure, drive train, and various dynamic components.					
Accomplishments/Planned Programs Subtotals	2.750	2.946	3.526	0.000	3.526

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

			FY 2011	FY 2011	FY 2011					Cost Io	
<u>Line Item</u>	FY 2009	FY 2010	<b>Base</b>	OCO	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
• APN/0528: <i>H-53 Series</i>	91.888	232.717	25.871	36.248	62.119	38.044	25.851	30.628	29.249	263.659	1,648.774

# **D. Acquisition Strategy**

This is a non-ACAT program with no specific acquisition strategies.

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy		<b>DATE:</b> February 2010
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: <i>CH/MH-53</i>
E. Performance Metrics		
Successfully perform studies, analysis and develop software to qualify aircraft modifications/upgrades.	address emergent H-53 issues. Successfully support de	evelopmental and operation test activities to

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

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**R-1 ITEM NOMENCLATURE** 

**PROJECT** 

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

PE 0604212N: Other Helicopter Development

1109: *CH/MH-53* 

**Product Development (\$ in Millions)** 

•	• •	,											
				FY 2	2010	FY 2 Ba		FY 2		FY 2011 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 Various	1.736	0.337	Mar 2010	0.420	Mar 2011	0.000		0.420	Continuing	Continuing	Continuing
Ancillary Hardware Development	Various/ Various	Various Various	1.437	0.133	Mar 2010	0.224	Mar 2011	0.000		0.224	Continuing	Continuing	Continuing
Aircraft Integration	ТМ	Northrop Grumman Chicago, IL	12.010	0.000		0.000		0.000		0.000	0.000	12.010	12.010
Aircraft Integration	ТМ	OADS Manassas, VA	2.493	0.000		0.000		0.000		0.000	0.000	2.493	2.493
Systems Engineering	WR	NAWC AD Patuxent River, MD	1.053	0.629	Nov 2009	0.702	Nov 2010	0.000		0.702	Continuing	Continuing	Continuing
		Subtotal	18.729	1.099		1.346		0.000		1.346			

#### Remarks

Support (\$ in Millions)

				FY 2	2010	FY 2 Ba	2011 se	FY 2		FY 2011 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 Various	1.506	0.239	Mar 2010	0.326	Mar 2011	0.000		0.326	Continuing	Continuing	Continuing
GFE		NAWC AD	0.884	0.436	Nov 2009	0.421	Nov 2010	0.000		0.421	Continuing	Continuing	Continuing

# **UNCLASSIFIED**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

**APPROPRIATION/BUDGET ACTIVITY** 

R-1 ITEM NOMENCLATURE

PROJECT

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

PE 0604212N: Other Helicopter Development

1109: *CH/MH-5*3

Support (\$ in Millions)

				FY 2	010	FY 2 Ba	-	FY 2		FY 2011 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
	Various/ Various	Patuxent River, MD											
		Subtotal	2.390	0.675		0.747		0.000		0.747			

#### Remarks

### Test and Evaluation (\$ in Millions)

	( <b>V</b>			FY 2	2010	FY 2 Ba		FY 2		FY 2011 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 Various	3.393	0.827	Mar 2010	0.947	Mar 2011	0.000		0.947	Continuing	Continuing	Continuing
		Subtotal	3.393	0.827		0.947		0.000		0.947			

#### **Remarks**

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE**: February 2010

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

R-1 ITEM NOMENCLATURE
PE 0604212N: Other Helicopter Development

PROJECT

1109: CH/MH-53

BA 5: Development & Demonstration (SDD)

**Management Services (\$ in Millions)** 

				FY 2	2010	FY 2 Ba	2011 se	FY 20 OC		FY 2011 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
Contractor Engineering Support	ТМ	Sikorsky Stratford, CT	2.925	0.000		0.000		0.000		0.000	0.000	2.925	2.925
Government Engineering Support	WR	NAWC AD Patuxent River, MD	4.589	0.201	Nov 2009	0.287	Nov 2010	0.000		0.287	Continuing	Continuing	Continuing
Program Management Support	Various/ Various	Various Various	1.765	0.000		0.000		0.000		0.000	0.000	1.765	Continuing
Travel	Various/ Various	Various Various	1.284	0.144	Oct 2009	0.199	Oct 2010	0.000		0.199	Continuing	Continuing	Continuing
		Subtotal	10.563	0.345		0.486		0.000		0.486			

#### Remarks

	Total Prior Years Cost	FY 2010	FY 2 Ba	-	FY 2	2011 CO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	35.075	2.946	3.526		0.000		3.526			

#### Remarks

Exhibit R-4, RDT&E	xhibit R-4, RDT&E Schedule Profile: PB 2011 Navy  PPROPRIATION/BUDGET ACTIVITY  R-1 ITEM NOMENCLATURE  PROJECT													D	ATE	: Fe	oruai	y 20	)10											
1319: Research, Dev	PPROPRIATION/BUDGET ACTIVITY 19: Research, Development, Test & Evaluation, Navy A 5: Development & Demonstration (SDD)													ATU Helio		r De	velop	omer		<b>PRC</b> 1109			I-53							
Fiscal Year			20	09			20	10			20	111			20	12			2	013			2	014				2015	i	
		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																														
Engineering Milestones																											$\perp$			
Obsolescence Issues/Studies																											$\perp$	$\perp$	그	
Survivability Analysis																											$_{\pm}$	$_{\pm}$	ᆜ	
Legacy P3I Efforts Safety Upgrades																											  	 	그 그 그	
Test & Evaluation Milestones  Development Test  Operational Test																														
Production Milestones LRIP I LRIPII FRP																														
Production Deliveries																														

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

1319: Research, Development, Test & Evaluation, Navy

BA 5: Development & Demonstration (SDD)

APPROPRIATION/BUDGET ACTIVITY

PE 0604212N: Other Helicopter Development

1109: CH/MH-53

# Schedule Details

	St	art	E	nd
Event	Quarter	Year	Quarter	Year
CH/MH-53	1	2009	4	2015
Obsolescence Issues/Studies	1	2009	4	2015
Survivability Analysis	1	2009	4	2015
Legacy P3I Efforts	1	2009	4	2015
Safety Upgrades	1	2009	4	2015

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0604212N: Other Helicopter Development 2415: H-60 Development

BA 5: Development & Demonstration (SDD)

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COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2415: H-60 Development	42.767	48.930	38.910	0.000	38.910	25.706	15.510	5.299	0.298	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

#### 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 Operational Requirements Document (ORD) 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 (JROC) on 15 February 2008 updating key performance parameters (KPP). The 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 Forward Firing Weapons (FFW), 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.

# B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
MH-60S Airframe Development and Integration	16.090	16.265	9.805	0.000	9.805
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 (ISD) documentation. RTOC weight reduction initiative. 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.					

#### **UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy			DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Development	<b>PROJECT</b> 2415: <i>H-60</i>	Developme	nt	
B. Accomplishments/Planned Program (\$ in Millions)	·				
	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2009 Accomplishments:  Completed design, development, test and integration of Link Resumed AMCM Blk 2A flight testing; completed ALMDS Concarriage/Jettison test efforts. Continued design/integration of the interoperability of Automatic Flight Control System (AFC)	ontractor Test (CT) and RAMICS Captive of FFW. Completed efforts in support of				
FY 2010 Plans: Complete LINK 16 OT reporting; Continue AMCM Blk 2A test conducted by PMS-495; Commence Verification of Correction Testing (DT) for AMNS and ALMDS DT and CT for Organic (OASIS). Continue design/integration and testing of FFW.	on of Deficiencies (VCD)/Developmental				
FY 2011 Base Plans: IPR IV/FRP decision for AMCM; Continue AMNS/ALMDS Of efforts. Continue FFW testing efforts.	Γ; Resume OASIS CT and subsequent DT				
MH-60S Avionics Development and Integration	10.933	13.455	13.626	0.000	13.626
Developmental efforts on the avionics architecture and system Development of the operator consoles, as well as software management and training development to include situational analysis, at (ISD) documentation for various sensors. Link 16 software demessages.	odifications, to support AMCM systems. nd Instructional System Development				
FY 2009 Accomplishments: Completed design, development, test and integration of Link IOC/IPR3 as well as efforts in support of the interoperability Planning System (JMPS).					

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Exhibit R-2A, RDT&E Project J	ustification: PB 2	011 Navy							DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET AC 1319: Research, Development, T BA 5: Development & Demonstra	Test & Evaluation, I	Navy		<b>R-1 ITEM NO</b> PE 0604212			relopment	<b>PROJECT</b> 2415: <i>H-60</i>	Developme	nt	
B. Accomplishments/Planned	Program (\$ in Mill	ions)						1			
-							FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
FY 2010 Plans: Continue AMCM Blk 2A test integration efforts.	ting; Conduct AMC	CM Blk 2B	sensor/wea	oon system t	testing and l	FFW					
FY 2011 Base Plans: Continue AMCM Blk 2B sen	nsor/weapon syster	n testing.									
MH-60S Test, Engineering, Logi	istics, Mgt Support						15.744	19.210	15.479	0.000	15.479
Navy field activity systems er MH-60S Weapons System In Support/conduct MH-60S aird	ntegration Team (W	/SIT) for a	irframe and	avionics, and	d FFW integ	ration.					
FY 2009 Accomplishments: Conducted engineering, tes structure continued. Link 1				CM requirem	nents into th	e ship C4I					
FY 2010 Plans: Support, plan and conduct A	AMCM 2A/2B sens	or/weapor	ı system and	l FFW testin	g and evalua	ation.					
FY 2011 Base Plans: Continue support of test and integration.	d integration of AM	CM 2B se	nsor/weapor	ı system and	l complete F	FW					
			Accomplish	ments/Plann	ed Program	s Subtotals	42.767	48.930	38.910	0.000	38.910
C. Other Program Funding Sun	mmary (\$ in Millio	ns)									
	<b>5</b> 1/ 0000	<b>5</b> )/ 00/6	FY 2011	FY 2011	FY 2011	<b>E</b> V 00/0	<b>E</b> \( 00.10	<b>5</b> )/ 00 / /	<b>5</b> \( 00 \( 1 = \)	Cost To	<b>T</b> ( 10 )
<u>Line Item</u> • APN1/017900: <i>MH-60S</i>		<b>FY 2010</b> 471.518	<u><b>Base</b></u> 548.671	<u>OCO</u> 0.000	<u><b>Total</b></u> 548.671	<b>FY 2012</b> 487.304	<b>FY 2013</b> 459.788	<b>FY 2014</b> 468.758	<b>FY 2015</b> 283.693	30.300	7,084.469

# **UNCLASSIFIED**

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Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

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

BA 5: Development & Demonstration (SDD)

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

_		-	FY 2011	FY 2011	FY 2011					Cost To	
<u>Line Item</u>	FY 2009	FY 2010	<b>Base</b>	OCO	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	Complete	Total Cost
• APN6/060510: MH-60S SPARES	0.000	1.576	1.204	0.000	1.204	0.918	0.599	0.000	0.000	0.000	167.219
• APN5/053000: <i>H-60 MODS</i>	26.075	36.724	34.876	0.000	34.876	30.555	19.952	21.802	28.369	128.156	363.356

### 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 (DT/OT).

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

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

# **Product Development (\$ in Millions)**

				FY 2010		FY 2 Ba	2011 ise	FY 20 OCC		FY 2011 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	159.182	2.296	Mar 2010	5.305	Dec 2010	0.000		5.305	9.925	176.708	176.708
Primary Hdw Dev - Airframe FFW	SS/CPFF	Sikorsky Stratford, CT	5.748	2.469	Jan 2010	1.000	Dec 2010	0.000		1.000	0.000	9.217	9.217
Primary Hdw Dev - Avionics*	SS/CPIF	Lockheed Martin Owego, NY	183.641	12.455	Nov 2009	13.626	Dec 2010	0.000		13.626	19.224	228.946	228.946
Primary Hdw Dev - Avionics FFW	SS/CPIF	Lockheed Martin Owego, NY	0.900	1.000	Feb 2010	0.000		0.000		0.000	0.000	1.900	1.900
Primary Hdw Dev - CSTRS	WR	NSWC Panama City	15.330	4.000	Dec 2009	2.500	Dec 2010	0.000		2.500	2.150	23.980	Continuing
Primary Hdw Dev - CSTRS	MIPR	CECOM FT Monmouth, NJ	9.479	1.500	Jan 2010	1.000	Dec 2010	0.000		1.000	0.950	12.929	Continuing
All Product Dev Cost from FY97-FY09	Various/ Various	Various Various	50.654	0.000		0.000		0.000		0.000	0.000	50.654	Continuing
		Subtotal	424.934	23.720		23.431		0.000		23.431	32.249	504.334	416.771

#### Remarks

Remarks: \* PY SS/CPAF - \$2.88

FY05-FY11 SS/CPIF

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE**: February 2010

APPROPRIATION/BUDGET ACTIVITY

**R-1 ITEM NOMENCLATURE** 

**PROJECT** 

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

PE 0604212N: Other Helicopter Development

2415: H-60 Development

**Support (\$ in Millions)** 

				FY 2	FY 2010		FY 2011 Base		11 FY 2011 D 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 Various	1.760	0.260	Dec 2009	0.439	Dec 2010	0.000		0.439	0.500	2.959	Continuing
Integrated Logistics Support1	WR	Various Various	4.599	0.371	Nov 2009	0.411	Nov 2010	0.000		0.411	0.632	6.013	Continuing
Integrated Logistics Support2	Various/ Various	Various Various	4.417	1.000	Jan 2010	0.000		0.000		0.000	0.000	5.417	Continuing
All Support cost from FY98-FY09	Various/ Various	Various Various	4.172	0.000		0.000		0.000		0.000	0.000	4.172	Continuing
		Subtotal	14.948	1.631		0.850		0.000		0.850	1.132	18.561	

#### Remarks

Test and Evaluation (\$ in Millions)

				FY 2	2010	FY 2 Ba	-	FY 2 OC		FY 2011 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	24.115	9.792	Nov 2009	5.915	Nov 2010	0.000		5.915	8.145	47.967	Continuin
Dev Test & Evaluation	WR	Various Various	14.980	3.581	Nov 2009	0.650	Nov 2010	0.000		0.650	0.600	19.811	Continuin
Operational Test & Evaluation	WR	OPTEVFOR Norfolk, VA	1.085	2.155	Jan 2010	3.150	Nov 2010	0.000		3.150	1.100	7.490	Continuin

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE

**PROJECT** 

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

PE 0604212N: Other Helicopter Development

2415: H-60 Development

**Test and Evaluation (\$ in Millions)** 

				FY 2	010	FY 2 Ba	-	FY 2		FY 2011 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
All Test & Eval Costs from FY97-FY09	Various/ Various	Various Various	6.159	0.000		0.000		0.000		0.000	0.000	6.159	Continuing
		Subtotal	46.339	15.528		9.715		0.000		9.715	9.845	81.427	

#### Remarks

# **Management Services (\$ in Millions)**

				FY 2	2010	FY 2 Ba		FY 2	2011 CO	FY 2011 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 Various	11.893	0.667	Jan 2010	1.328	Jan 2011	0.000		1.328	0.400	14.288	Continuing
Government Engineering Support	WR	NAWCAD Patuxent River, MD	8.016	2.408	Nov 2009	1.286	Nov 2010	0.000		1.286	0.649	12.359	Continuing
Government Engineering Support	WR	NSWC Panama City, FL	26.223	2.323	Nov 2009	0.800	Nov 2010	0.000		0.800	1.350	30.696	Continuing
Government Engineering Support	WR	Various Various	23.902	1.519	Dec 2009	0.500	Dec 2010	0.000		0.500	0.000	25.921	Continuing
Program Mgmt Support CSS	WR	Various Various	4.799	0.500	Jan 2010	0.412	Jan 2011	0.000		0.412	0.380	6.091	Continuing
Program Mgmt Support	WR	Various Various	12.586	0.434	Dec 2009	0.388	Dec 2010	0.000		0.388	0.563	13.971	Continuing

### **UNCLASSIFIED**

R-1 Line Item #81 Page 19 of 31

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

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

# **Management Services (\$ in Millions)**

				FY 2	010	FY 2 Ba	2011 se	FY 2		FY 2011 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
Travel	WR	Various Various	2.526	0.200	Nov 2009	0.200	Nov 2010	0.000		0.200	0.245	3.171	Continuing
All Mgmt Costs from FY97-FY09	Various/ Various	Various Various	0.984	0.000		0.000		0.000		0.000	0.000	0.984	Continuing
		Subtotal	90.929	8.051		4.914		0.000		4.914	3.587	107.481	

#### **Remarks**

	Total Prior Years Cost	FY 2010	FY 2	FY 2		Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	577.150	48.930	38.910	0.000	38.91	0 46.813	711.803	416.771

#### **Remarks**

DATE: February 2010 Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE PROJECT** PE 0604212N: Other Helicopter Development 1319: Research, Development, Test & Evaluation, Navy 2415: H-60 Development BA 5: Development & Demonstration (SDD) FY 2009 FY 2010 FY 2011 FY 2012 FY 2013 FY 2014 FY 2015 Fiscal Year 1 2 3 4 2 3 4 2 3 2 3 4 2 3 4 2 3 4 2 3 IOC Acquisition AMCM Milestones IPR IV/FRP AMCM 2B Grnd Tst 2B Grnd Tst AMCM Mission Kits CSTRS & Common Console Test & Evaluation VCD / DT от Milestones MH-60S AMCM Block 2A VCD/DT от MH-60S AMCM Block 2B (AMNS) CT DT от MH-60S AMCM Block 2B (ALMDS) CT DT от CT MH-60S OASIS CC/ Jet Dev/Integration MH-60S RAMICS (Note 1) CT (RAMICS) AMCM Spiral Upgrades **Production Milestones** FRP **AMCM Mission Kits** Contract Award Deliveries **Production Deliveries** AMCM Ancillary Kit Note 1: Captive Carriage (CC)/Jetison (Jet)

### **UNCLASSIFIED**

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DATE: February 2010

**PROJECT** APPROPRIATION/BUDGET ACTIVITY **R-1 ITEM NOMENCLATURE** 1319: Research, Development, Test & Evaluation, Navy PE 0604212N: Other Helicopter Development 2415: H-60 Development BA 5: Development & Demonstration (SDD) FY 2009 FY 2010 2012 2014 FY 2011 2013 2015 Fiscal Year 2 2 2 3 2 3 2 3 4 2 3 2 3 3 3 4 Acquisition Milestones (Black 3B Link-16) IPR 3 Design/Build/Integration Design / Integration Fixed Forward Weapon (Rocketr/Anti-Suarm) Tast & Evaluation OT Hilastones Black 3B Link-16 Air Worthiness Certification Fixed Forward Weapon/Rocketr/Anti-Suarm Fixed Forward Weapon/Anti-Swarm DT OT

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Exhibit R-4, RDT&E Schedule Profile: PB 2011 Navy

Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy

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

# Schedule Details

	Sta	art	En	ıd
Event	Quarter	Year	Quarter	Year
Airborne Mine Countermeasures	1	2009	4	2015
Verification of Correction of Deficiencies (VCD) / Development Testing (DT) (Q-20)	4	2009	4	2010
Operational Testing (OT)	3	2010	1	2011
Initial Operational Capability-AMCM	3	2011	3	2011
IPR IV/FRP AMCM	4	2011	4	2011
AMCM 2B Ground Testing (RAMICS PMS 495 Gun Demo)	3	2010	3	2010
AMCM 2B Ground Testing (RAMICS)	1	2014	2	2014
Verification of Correction of Deficiencies (VCD) /Developmental Testing (DT) (AMNS)	2	2010	2	2011
Operational Testing (OT) (AMNS)	1	2011	3	2011
Contractor Test (ALMDS)	1	2009	2	2009
Developmental Testing (DT) (ALMDS)	2	2010	2	2011
Operational Testing (OT) (ALMDS)	1	2011	3	2011
Contractor Test (RAMICS) (Captive Carriage/ Jettison)	3	2009	4	2009
Dev/ Integration (RAMICS)	1	2013	2	2014
Contractor Test (RAMICS)	3	2014	2	2015
Contractor Test (OASIS)	3	2010	2	2011
Development Testing (DT) (OASIS)	2	2011	1	2012
Operation Testing (OT) (OASIS)	1	2012	4	2012

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy

**DATE:** February 2010

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

	Sta	ırt	En	ıd
Event	Quarter	Year	Quarter	Year
AMCM Spiral Upgrades	1	2012	4	2015
Contract Award - Production (AMCM Ancillary Kit)	4	2011	4	2011
Full Rate Production Delivery (AMCM Ancillary Kit)	2	2013	4	2015
Link 16	1	2009	2	2009
Block 3B -Link 16 Operational Testing (OT)	1	2009	2	2009
Block 3B - Link 16 IOC	1	2009	1	2009
Block 3B - Link 16 IPR3	2	2009	2	2009
Forward Firing Weapon	1	2009	3	2011
Air Worthiness Certification (FFW)	1	2009	4	2010
System Design, Build and Integration (FFW)	1	2009	1	2011
Developmental Testing (DT) (FFW)	3	2010	1	2011
Operational Testing (OT) (FFW)	4	2010	3	2011

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

DATE: February 2010

APPROPRIATION/BUDGET ACTIVITY R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy PE 0604212N: Other Helicopter Development 2460: VH-3/VH-60

BA 5: Development & Demonstration (SDD)

COST (\$ in Millions)	FY 2009 Actual	FY 2010 Estimate	FY 2011 Base Estimate	FY 2011 OCO Estimate	FY 2011 Total Estimate	FY 2012 Estimate	FY 2013 Estimate	FY 2014 Estimate	FY 2015 Estimate	Cost To Complete	Total Cost
2460: VH-3/VH-60	7.747	1.992	1.893	0.000	1.893	1.891	1.892	1.898	1.898	Continuing	Continuing
Quantity of RDT&E Articles	0	0	0	0	0	0	0	0	0		

#### 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 and Aircraft Life Management Plan for both the VH-3D and the VH-60N and will also upgrade the safety of the fuel system on the VH-3D.

### B. Accomplishments/Planned Program (\$ in Millions)

	FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
VH-3D Fuel Systems Upgrade	2.500	0.150	0.150	0.000	0.150
VH-3D Fuel Systems Upgrade provides design and development efforts to upgrade the safety of the fuel system on the VH-3D.					
FY 2009 Accomplishments:  Completed trade studies, design, and development related to the VH-3D Fuel Systems Upgrade.					
FY 2010 Plans: Perform integration and test activities related to the VH-3D Fuel Systems Upgrade.					
FY 2011 Base Plans: Perform integration and test activities related to the VH-3D Fuel Systems Upgrade.					
VH-3D & VH-60N SLAP	5.247	1.842	0.251	0.000	0.251

#### **UNCLASSIFIED**

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy				DATE: Feb	ruary 2010	
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)	R-1 ITEM NOMENCLATURE PE 0604212N: Other Helicopter Dev	velopment	<b>PROJECT</b> 2460: <i>VH-</i> 3			
B. Accomplishments/Planned Program (\$ in Millions)			1			
		FY 2009	FY 2010	FY 2011 Base	FY 2011 OCO	FY 2011 Total
VH-3D & VH-60N SLAP: This project funds a Service Life As VH-3D and VH-60N.	sessment Program (SLAP) for both the					
FY 2009 Accomplishments: FY09: Included government support and contract award for completion of a SLAP on each VH aircraft.	all efforts related to the successful					
FY 2010 Plans: FY10: Includes government support and contract award for completion of a SLAP on each VH aircraft.	all efforts related to the successful					
FY 2011 Base Plans: FY11 Base: Includes government support for efforts related each VH aircraft.	to the successful completion of a SLAP on					
VH-3D & VH-60N Aircraft Life Management Plan		0.000	0.000	1.492	0.000	1.492
VH-3D & VH-60N Aircraft Life Management Program: Provide all Executive Helicopter systems readiness including safety, structural integrity, component reliability, maintainability, and	operational weight, mission availability,					

# **UNCLASSIFIED**

Accomplishments/Planned Programs Subtotals

7.747

1.992

1.893

0.000

1.893

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FY 2011 Base Plans:

Management Program for the VH-3D and VH-60N.

Provide government support and contract award for efforts associated with the Aircraft Life

Exhibit R-2A, RDT&E Project Justification: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

R-1 ITEM NOMENCLATURE PROJECT

1319: Research, Development, Test & Evaluation, Navy

PE 0604212N: Other Helicopter Development 2460: VH-3/VH-60

BA 5: Development & Demonstration (SDD)

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

			<u>FY 2011</u>	<u>FY 2011</u>	<u>FY 2011</u>					Cost To	
<u>Line Item</u>	FY 2009	FY 2010	<u>Base</u>	OCO	<u>Total</u>	FY 2012	FY 2013	FY 2014	FY 2015	<b>Complete</b>	<b>Total Cost</b>
• APN/056600: Executive	51.666	42.325	43.443	0.000	43.443	56.969	49.898	50.082	50.238	191.782	536.403
Helicopters Series											

### **D. Acquisition Strategy**

Not Applicable.

### **E. Performance Metrics**

Completion of the VH-3D Fuel System Upgrade efforts. Completion of VH-3D and VH-60N Service Life Assessment Program (SLAP) efforts. Completion of VH-3D and VH-60N Aircraft Life Management Program (ALMP) efforts.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

APPROPRIATION/BUDGET ACTIVITY

| K-1

**R-1 ITEM NOMENCLATURE** 

**PROJECT** 

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

PE 0604212N: Other Helicopter Development

2460: VH-3/VH-60

**Product Development (\$ in Millions)** 

				FY 2010		FY 2 Ba		FY 2	-	FY 2011 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	13.033	1.592	Mar 2010	1.567	Dec 2010	0.000		1.567	7.579	23.771	23.771
		Subtotal	13.033	1.592		1.567		0.000		1.567	7.579	23.771	23.771

#### **Remarks**

# **Support (\$ in Millions)**

				FY 2	FY 2010		2011 se	FY 2		FY 2011 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
Configuration Management	WR	NAWCAD Patuxent River, MD	0.000	0.100	Mar 2010	0.000		0.000		0.000	Continuing	Continuing	Continuing
	•	Subtotal	0.000	0.100		0.000		0.000		0.000			

#### Remarks

Exhibit R-3, RDT&E Project Cost Analysis: PB 2011 Navy

**DATE:** February 2010

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

# **Management Services (\$ in Millions)**

				FY 2010		FY 2 Ba		FY 2		FY 2011 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	0.843	0.200	Mar 2010	0.251	Nov 2010	0.000		0.251	Continuing	Continuing	Continuing
Program Management Support	WR	NAWCAD Patuxent River, MD	0.000	0.075	Mar 2010	0.050	Nov 2010	0.000		0.050	Continuing	Continuing	Continuing
Travel	Various/ Various	Various Various	0.060	0.025	Oct 2009	0.025	Oct 2010	0.000		0.025	Continuing	Continuing	Continuing
		Subtotal	0.903	0.300		0.326		0.000		0.326			

#### Remarks

	Total Prior Years Cost	FY 2010		2011 ise	FY 2	2011 CO	FY 2011 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	13.936	1.992	1.893		0.000		1.893			

#### Remarks

Exhibit R-4, RDT&E Scheo	dule Profile: F	PB 2	2011	Nav	у																	D	ATE:	Feb	ruary	/ 201	0		
APPROPRIATION/BUDGET ACTIVITY 1319: Research, Development, Test & Evaluation, Navy BA 5: Development & Demonstration (SDD)									-1 ITEM NOMENCLATURE E 0604212N: Other Helicopter Development  PROJECT 2460: VH-3/VH-60																				
Fiscal Year			200	09			20	10			201	11			20	012				13		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	
Engineering Milestones																													
VH-3D Fuel Systems Upgrade																													
VH SLAP																													
VH-3D & VH-60N ALMP																													

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Exhibit R-4A, RDT&E Schedule Details: PB 2011 Navy

APPROPRIATION/BUDGET ACTIVITY

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

APPROPRIATION/BUDGET ACTIVITY

PE 0604212N: Other Helicopter Development

PROJECT

2460: VH-3/VH-60

# Schedule Details

	St	art	End			
Event	Quarter	Year	Quarter	Year		
VH-3D Fuel Systems Upgrade	1	2009	2	2012		
VH SLAP	2	2009	4	2012		
VH-3D & VH60H Aircraft Life Management Plan	1	2011	4	2015		