

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy	Date: February 2015
---	----------------------------

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>					R-1 Program Element (Number/Name) PE 0604212N / <i>Other Helicopter Development</i>							
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
Total Program Element	789.161	24.910	35.099	11.101	-	11.101	4.092	4.109	4.228	4.315	Continuing	Continuing
1109: <i>CH/MH-53</i>	46.423	1.830	2.675	2.672	-	2.672	2.715	2.725	2.785	2.842	Continuing	Continuing
2415: <i>H-60 Development</i>	719.482	21.335	25.885	5.150	-	5.150	-	-	-	-	-	771.852
2460: <i>VH-3/VH-60</i>	23.256	1.484	6.539	3.279	-	3.279	1.377	1.384	1.443	1.473	Continuing	Continuing
3355: <i>MH-XX Development</i>	0.000	0.261	-	-	-	-	-	-	-	-	-	0.261

Program MDAP/MAIS Code: 282

Note

Proj: 3355 MH-XX Development Budget Activity moved to PE 0604292N, Project Unit 2934 in FY2015 and out.

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, VH-3/VH-60, and MH-XX. The H-53 is the premier heavy lift helicopter for the Marine Corps and the 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, Armed Helo which includes the Fast Attack Craft/Fast Inshore Attack Craft (FAC/FIAC) threat response capabilities and Airborne Mine Countermeasures. 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. The MH-XX Development will provide the Navy's next generation Anti-Submarine Warfare, Mine Warfare, Surface Warfare, and Logistics support rotorcraft. MH-XX RDT&E includes all pre-system acquisition requirements with a focus on exploration of emerging technologies to minimize risk.

<u>B. Program Change Summary (\$ in Millions)</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>
Previous President's Budget	25.458	46.154	11.321	-	11.321
Current President's Budget	24.910	35.099	11.101	-	11.101
Total Adjustments	-0.548	-11.055	-0.220	-	-0.220
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-11.055			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-0.548	-			
• Rate/Misc Adjustments	-	-	-0.220	-	-0.220

UNCLASSIFIED

Exhibit R-2, RDT&E Budget Item Justification: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)	R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development	
<p><u>Change Summary Explanation</u></p> <p>Technical: 2460 VH-3/VH-60: Additional funding in FY's 2014-2016 dedicated to strategic communication Wideband capabilities as mandated and funded by the Department of Defense Chief Information Officer.</p> <p>Schedule: 1109 CH/MH-53: Not Applicable</p> <p>2415 AMCM: Not Applicable</p> <p>2415 Forward Firing Weapon: Not Applicable</p> <p>2460 VH-3/VH-60: The schedule has been updated to reflect the evaluation of a Wideband Line of Sight System (WBLoS) for integration, prototype and test for the VH Communications Suite.</p> <p>3355 MH-XX Development: Not Applicable</p>		

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 1109 / CH/MH-53			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
1109: CH/MH-53	46.423	1.830	2.675	2.672	-	2.672	2.715	2.725	2.785	2.842	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
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 FY2020, 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. Survivability efforts to address improved situational awareness to pilots will include improved Digital Interoperability and improve Degraded Visual Environment Awareness. Modeling and simulation will be used to the maximum practical extent throughout this effort. Manned 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 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: H-53 Avionics Articles:								0.392	0.667	1.110	-	1.110
								-	-	-	-	-
FY 2014 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 2015 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 2016 Base Plans: Integrate software applications for cockpit and avionics improvements, to include the development of new sensors. Investigate solutions to address the degraded visual environment. Develop flight control computer and test set design modifications to address anticipated obsolescence issues. Conduct Business Case Analyses												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development		Project (Number/Name) 1109 / CH/MH-53		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
to determine impact of high Operation and Support cost drivers and address alternatives to mitigate identified issues.						
FY 2016 OCO Plans: N/A						
Title: H-53 Survivability		0.316	0.445	0.583	-	0.583
Articles:		-	-	-	-	-
FY 2014 Accomplishments: Performed trade studies, risk reduction, design, development, model, integration and test activities for H-53 survivability systems which included effectiveness of the ballistic vulnerability (armor) package.						
FY 2015 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 2016 Base Plans: Perform trade studies, risk reduction, design, development, model, integration and test activities for H-53 survivability to include increased situational awareness via digital interoperability.						
FY 2016 OCO Plans: N/A						
Title: H-53 Propulsion		0.315	0.524	0.300	-	0.300
Articles:		-	-	-	-	-
FY 2014 Accomplishments: 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 2015 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						

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development		Project (Number/Name) 1109 / CH/MH-53		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
not limited to, government development support, engineering support, product management support, system engineering and logistics support, and travel for the H-53 program.						
FY 2016 Base Plans: Conduct Business Case Analyses to determine impact of high Operation and Support Propulsion cost drivers and address alternatives to mitigate.						
FY 2016 OCO Plans: N/A						
Title: Project Management Support		0.505	0.715	0.397	-	0.397
Articles:		-	-	-	-	-
FY 2014 Accomplishments: 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 2015 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 2016 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.						
FY 2016 OCO Plans: N/A						
Title: H-53 Airframe		0.302	0.324	0.282	-	0.282
Articles:		-	-	-	-	-
FY 2014 Accomplishments:						

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015	
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 1109 / CH/MH-53			

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
<p>Performed 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.</p> <p>FY 2015 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</p> <p>FY 2016 Base Plans: Continue to develop and qualify components, prior to production and approval decisions, in order to replace obsolete system components. 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.</p> <p>FY 2016 OCO Plans: N/A</p>					
Accomplishments/Planned Programs Subtotals	1.830	2.675	2.672	-	2.672

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• APN/0528: H-53 Series	53.172	36.619	46.887	-	46.887	47.454	34.331	24.370	31.764	148.171	1,836.317
Remarks											
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, interoperability, 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 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 1109 / CH/MH-53					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Systems Engineering	WR	NAWC AD : Patuxent River, MD	3.277	0.394	Nov 2013	0.554	Nov 2014	0.761	Nov 2015	-		0.761	Continuing	Continuing	Continuing
Systems Engineering Contract	C/CPFF	Sikorsky : Stratford, CT	0.000	-		0.151	Feb 2015	0.151	Feb 2016	-		0.151	-	0.302	0.302
Prior Year Prod Dev no longer funded in the FYDP	Various	Various : Various	19.475	-		-		-		-		-	-	19.475	-
Subtotal			22.752	0.394		0.705		0.912		-		0.912	-	-	-
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Software Development	Various	Various : Various	2.541	0.156	Mar 2014	0.303	Mar 2015	0.670	Mar 2016	-		0.670	Continuing	Continuing	Continuing
GFE	Various	NAWC AD : Patuxent River, MD	2.506	0.380	Nov 2013	0.663	Nov 2014	0.450	Nov 2015	-		0.450	Continuing	Continuing	Continuing
Subtotal			5.047	0.536		0.966		1.120		-		1.120	-	-	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	6.563	0.550	Mar 2014	0.549	Mar 2015	0.268	Mar 2016	-		0.268	Continuing	Continuing	Continuing
Subtotal			6.563	0.550		0.549		0.268		-		0.268	-	-	-
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	5.646	0.286	Nov 2013	0.326	Nov 2014	0.325	Nov 2015	-		0.325	Continuing	Continuing	Continuing

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604212N / <i>Other Helicopter Development</i>				Project (Number/Name) 1109 / <i>CH/MH-53</i>					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Travel	Various	Various : Various	1.741	0.064	Oct 2013	0.129	Oct 2014	0.047	Oct 2015	-		0.047	Continuing	Continuing	Continuing
Prior Year Mgmt no longer funded in the FYDP	Various	Various : Various	4.674	-		-		-		-		-	-	4.674	-
Subtotal			12.061	0.350		0.455		0.372		-		0.372	-	-	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			46.423	1.830		2.675		2.672		-		2.672	-	-	-
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy											Date: February 2015																					
Appropriation/Budget Activity 1319 / 5											R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development											Project (Number/Name) 1109 / CH/MH-53										
CH/MH-53	FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020							
	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				
Acqusition Milestones																																
Engineering Milestones																																
	Obsolescence Issues/Studies																															
	Survivability Analysis																															
	Legacy P3I Efforts																															
	Safety Upgrades																															
Test & Evaluation																																
Production Milestones																																
Deliveries																																
																</																

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604212N / <i>Other Helicopter Development</i>	Project (Number/Name) 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	2014	4	2020
Engineering Milestones: - Survivability Analysis	1	2014	4	2020
Engineering Milestones: - Legacy P3I Efforts	1	2014	4	2020
Engineering Milestones: - Safety Upgrades	1	2014	4	2020

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 2415 / H-60 Development			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
2415: H-60 Development	719.482	21.335	25.885	5.150	-	5.150	-	-	-	-	-	771.852
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
A. Mission Description and Budget Item Justification												
The Helicopter Combat Support mission provides organic fleet Armed Helo Fast Attack Craft/Fast Inshore Attack Craft (FAC/FIAC) threat response, maintains forward deployed fleet sustainability through rapid airborne delivery of materials and personnel and supports amphibious operations through search and rescue coverage. The aircraft 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. Armed Helo and Airborne Mine Countermeasures (AMCM) were added as primary mission areas for the MH-60S as block upgrades to the platform. 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 on 15 February 2008 updating key performance parameters. AMCM provides an organic capability for the Littoral Combat Ship Mine Countermeasures Mission Package. Armed Helo provides Special Warfare Support, Combat Search and Rescue, Surface Warfare and Maritime Interdiction Operations capability with Link 16 and Forward Firing Weapons (FFW) which includes rockets and anti-swarm weapons to address the FAC/FIAC threat. Aircraft secondary roles include torpedo and drone recovery, noncombatant evacuation operations, and SEAL team and Explosive Ordnance Disposal support. Additionally, a service life assessment program, trade studies, and analysis efforts to develop and qualify components to replace obsolete system components will be commenced.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: MH-60S Airframe Development and Integration								3.539	1.550	-	-	-
								Articles: - - - - -				
Description: The effort includes analysis, design, integration, test, and support for FFW/Rockets to include Advanced Precision Kill Weapon System (APKWS) and Digital Rocket Launcher with mixed loads and enhancements. FFW training development to include situational analysis and Instructional System Development documentation. Conduct Service Life Assessment Program (SLAP), trade studies and analysis, develop and qualify components in order to replace obsolete system components on the MH-60S. Accomplishments include design, development, integration, correction of deficiencies and support of the AMCM unique items into the MH-60S airframe; Test and Evaluation on AMCM Mission Kits for the sensor/weapon systems integration on the MH-60S; and AMCM training development.												
FY 2014 Accomplishments: Continued AMCM sensor/weapon system testing at a significantly de-scoped level due to PL 113.6, Budget Control Act and FY 2014 Appropriations Act . Analyzed, designed, integrated, and supported follow-on FFW/												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development		Project (Number/Name) 2415 / H-60 Development		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Rockets capability to include APKWS, DRL with mixed loads, FFW enhancements and training development of FFW capability						
FY 2015 Plans: Continue to analyze, design, integrate, and support follow-on Forward Firing Weapons (FFW)/Rockets capability to include Digital Rocket Launcher with mixed loads and training development of FFW capability. Complete Airborne Mine Countermeasures (AMCM) sensor/weapon system integration. Conduct SLAP and obsolescence trade studies and analysis.						
FY 2016 Base Plans: N/A						
FY 2016 OCO Plans: N/A						
Title: MH-60S Avionics Development and Integration		5.602	10.707	-	-	-
Articles:		-	-	-	-	-
Description: This effort includes developmental efforts on the avionics architecture and systems of the MH-60S helicopter. Limited software development/improvements for targeting to support FFW/Rockets integration to include Advanced Precision Kill Weapon System (APKWS) and Digital Rocket Launcher (DRL) with mixed loads. Training development to include situational analysis, instructional analysis and training updates for FFW Rockets and various AMCM sensors. Development of the operator consoles, as well as software modifications/improvements, to support AMCM systems. Link 16 software development/upgrades and test for AMCM messages.						
FY 2014 Accomplishments: Continued AMCM test efforts at minimal levels; Support FFW/Rockets integration to include APKWS, DRL with mixed loads and limited avionics hardware and associated software improvements to enhance FFW/Rockets effectiveness/targeting. Efforts for AMCM test and FFW/Rockets effectiveness were de-scoped due to PL 113.6, Budget Control Act and FY 2014 Appropriations Act.						
FY 2015 Plans: Complete the FFW/Rockets integration of DRL with mixed loads. Continue the limited avionics hardware and software improvements/enhancements for enhancements/targeting. Complete AMCM test efforts.						
FY 2016 Base Plans:						

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy									Date: February 2015		
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 2415 / H-60 Development			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)							FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A											
FY 2016 OCO Plans: N/A											
Title: MH-60S Test, Engineering, Logistics, Management Support							12.194	13.628	5.150	-	5.150
Articles:							-	-	-	-	-
Description: Navy field activity systems engineering, logistics support, management and travel for the FFW/Rockets integration to include Advanced Precision Kill Weapon System (APKWS), Digital Rocket Launcher (DRL) with mixed loads and AMCM MH-60S Sensor/Weapon Systems Integration team for airframe and avionics. Support/conduct MH-60S aircraft integration testing for FFW/Rockets and enhancements. AMCM sensor/weapon system integration testing and support. Additionally, provide support to a service life assessment program and trade studies and analysis efforts.											
FY 2014 Accomplishments: Supported AMCM test and integration of AMCM 2B sensor/weapon system, follow-on FFW Rockets Integration/testing.											
FY 2015 Plans: Continue Forward Firing Weapons (FFW)/Rockets integration/testing for DRL with mixed loads, FFW enhancements and Airborne Mine Countermeasures (AMCM) sensor/weapon system integration. Changes to the R-2A for MH-XX:											
FY 2016 Base Plans: Complete Forward Firing Weapons (FFW)/Rockets integration/testing for DRL with mixed loads, and FFW enhancements. Commence support for a service life assessment program and trade studies and analysis efforts.											
FY 2016 OCO Plans: N/A											
Accomplishments/Planned Programs Subtotals							21.335	25.885	5.150	-	5.150
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• APN1/017900: MH-60S	395.708	182.140	28.232	-	28.232	-	-	-	-	-	6,775.450

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015	
Appropriation/Budget Activity 1319 / 5				R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 2415 / H-60 Development			
C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
• APN6/060510: MH-60S SPARES	2.592	-	-	-	-	-	-	-	-	-	178.109
• APN5/053000: H-60 MODS	38.085	32.186	32.050	-	32.050	27.688	22.581	34.291	33.037	159.347	553.670
Remarks											
APN5/0300 reflects only MH-60S specific OSIPS 016-04 and 09-07 funding.											
D. Acquisition Strategy											
Armed Helo and AMCM are elements of the existing MH-60S ACAT IC Program. MH-60S employed an evolutionary acquisition approach via the MH-60S Block Upgrades. This allowed for modification of systems still in early development. The block upgrades maximize commonality across all MH-60S missions and all Armed Helo/AMCM 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											
Block 2 aircraft are being upgraded to include Armed Helo Capability.											
E. Performance Metrics											
Successfully complete FFW/ Rockets Developmental/Operational Testing. Successfully achieve Initial Operational Capability for Airborne Mine Countermeasures and Littoral Combat Ship Mine Countermeasures Mission Package.											

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 2415 / H-60 Development					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	170.465	0.100	Jul 2014	0.300	Mar 2015	-		-		-	-	170.865	170.865
Primary Hdw Dev - Airframe FFW	SS/CPFF	Sikorsky : Stratford, CT	11.130	0.345	Mar 2014	1.250	Aug 2015	-		-		-	-	12.725	12.725
Primary Hdw Dev - Avionics*	SS/CPIF	Lockheed Martin : Owego, NY	221.700	1.674	May 2014	1.000	Mar 2015	-		-		-	-	224.374	224.374
Primary Hdw Dev - Avionics*FFW	SS/CPIF	Lockheed Martin : Owego, NY	7.028	0.868	Mar 2014	2.500	Mar 2015	-		-		-	-	10.396	10.396
Primary Hdw Dev - Avionics*FFW	MIPR	Army, DOTC : Picatinny, NJ	0.000	2.650	May 2014	3.060	Nov 2014	-		-		-	-	5.710	-
Primary Hdw Dev - Avionics*FFW	TBD	Raytheon : TBD	0.000	-		2.622	Mar 2015	-		-		-	-	2.622	2.622
Primary Hdw Dev - CSTRS	WR	NSWC : Panama City, FL	22.734	0.400	Feb 2014	-		-		-		-	-	23.134	-
Primary Hdw Dev - CSTRS	MIPR	CECOM : APG, MD	13.029	0.600	May 2014	-		-		-		-	-	13.629	-
Primary Hdw Dev - Training	TBD	TBD : TBD	0.000	-		1.150	Feb 2015	-		-		-	-	1.150	-
Primary Hdw Dev - Avionics FFW	Various	Various : China Lake, CA	0.000	-		0.375	Dec 2014	-		-		-	-	0.375	-
Prior year Product Dev cost no longer funded in the FYDP	Various	Various : Various	51.554	-		-		-		-		-	-	51.554	-
Subtotal			497.640	6.637		12.257		-		-		-	-	516.534	-
Remarks															
Remarks: FY05-FY12 SS/CPIF FY12-FY14 Primary Hdw Dev- Avionics - Lockheed Martin includes Progress Payments aligned to Fixed Price CLIN only.															

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 2415 / H-60 Development					
Support (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	3.074	0.227	Dec 2013	0.150	Dec 2014	-		-		-	-	3.451	-
Integrated Logistics Support	WR	Various : Various	7.029	0.498	Dec 2013	0.450	Dec 2014	-		-		-	-	7.977	-
Prior year Support cost no longer funded in the FYDP	Various	Various : Various	8.589	-		-		-		-		-	-	8.589	-
Subtotal			18.692	0.725		0.600		-		-		-	-	20.017	-
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	47.638	5.179	Nov 2013	4.000	Dec 2014	-		-		-	-	56.817	-
Dev Test & Evaluation	WR	Various : Various	25.765	0.913	Nov 2013	0.200	Dec 2014	-		-		-	-	26.878	-
Operational Test & Evaluation	WR	OPTEVFOR : Norfolk, VA	5.916	1.203	Feb 2014	3.725	Dec 2014	-		-		-	-	10.844	-
Prior year T&E cost no longer funded in the FYDP	Various	Various : Various	6.159	-		-		-		-		-	-	6.159	-
Subtotal			85.478	7.295		7.925		-		-		-	-	100.698	-
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	19.307	2.300	Jan 2014	1.581	Dec 2014	0.700	Nov 2015	-		0.700	-	23.888	-
Government Engineering Support	WR	NAWCAD : Patuxent River, MD	15.643	1.773	Nov 2013	1.374	Dec 2014	-		-		-	-	18.790	-
Government Engineering Support	WR	NSWC : Panama City, FL	32.078	0.667	Nov 2013	0.500	Dec 2014	-		-		-	-	33.245	-

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 2415 / H-60 Development					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support	WR	Various : Various	25.800	1.470	Dec 2013	1.118	Dec 2014	4.430	Dec 2015	-		4.430	-	32.818	-
Program Mgmt Support CSS	WR	Various : Various	6.175	0.180	Dec 2013	0.180	Jan 2015	-		-		-	-	6.535	-
Program Mgmt Support	WR	Various : Various	14.528	0.230	Nov 2013	0.250	Dec 2014	-		-		-	-	15.008	-
Travel	WR	Various : Various	3.157	0.058	Nov 2013	0.100	Oct 2014	0.020	Oct 2015	-		0.020	-	3.335	-
Prior year Mgmt cost no longer funded in the FYDP	Various	Various : Various	0.984	-		-		-		-		-	-	0.984	-
Subtotal			117.672	6.678		5.103		5.150		-		5.150	-	134.603	-
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			719.482	21.335		25.885		5.150		-		5.150	-	771.852	-
Remarks															

UNCLASSIFIED

PE 0604212N: *Other Helicopter Development*
Navy

R-1 Line #88

[illegible]

PE 0604212N / Other Helicopter Development

2415 / H-60 Development

2016PB - 0604212N - 2415

UNCLASSIFIED

Appropriation/Budget Activity
1319 / 5

R-1 Program Element (Number/Name)
PE 0604212N / *Other Helicopter Development*

Project (Number/Name)
2415 / H-60 Development

[illegible]

2016PB - 0604212N - 2415

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604212N / <i>Other Helicopter Development</i>	Project (Number/Name) 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	2015	4	2015
System Development: Hardware/Software Development: AMCM Correction of Deficiencies	1	2014	4	2014
Test & Evaluation: AMNS: - Operational Assessment (OA) (AMNS)	2	2014	4	2014
Test & Evaluation: MH-60S AMCM: Initial Operational Test and Evaluation (IOT&E)	1	2015	4	2015
Contract Award: AMCM Ancillary kits: - Contract Award - Production (AMCM Ancillary Kits-FY14)	4	2014	4	2014
Deliveries: - LRIP Delivery (AMCM Ancillary Kits-FY11)	3	2014	1	2015
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY12)	1	2015	1	2016
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY13)	3	2015	1	2016
Deliveries: - Production Delivery (AMCM Ancillary Kits-FY14)	3	2016	2	2017
<i>Forward Firing Weapon</i>				
Rockets: System Integration: System Integration	1	2014	3	2015
Test and Evaluation: Developmental Testing (DT) (FFW)	2	2014	3	2015
Test and Evaluation: Operational Testing (OT) (FFW)	4	2015	2	2016
Test and Evaluation: Service Life Assessment Program: SLAP	3	2015	4	2016

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy									Date: February 2015			
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 2460 / VH-3/VH-60			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
2460: VH-3/VH-60	23.256	1.484	6.539	3.279	-	3.279	1.377	1.384	1.443	1.473	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
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 currently funds the VH Executive Helicopter's Aircraft Life Management Program. The VH program will develop, design, test and install the WBLOS Executive Strategic communication system into both the VH-3D and the VH-60N aircraft. This effort will require separate efforts with regards to Software, Hardware, and installation requirements for each of the two platforms. The VH-3D effort will be handled within the NAVAIR envelope, with the VH-60N requiring Rockwell Collins to modify the current Operational Flight Program (OFP) software to support the new WBLOS Executive Strategic communication system.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: VH Executive Helicopter Aircraft Life Management Program Articles:								1.484	6.539	3.279	-	3.279
								-	-	-	-	-
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 2014 Accomplishments: Provided government support and contract awards for efforts associated with the Aircraft Life Management Program for VH Executive Helicopters. Evaluated a Wideband Line of Sight (WBLoS) system for prototype and tested for integration into the VH Communications Suite. FY 2015 Plans: Provide government support and contract awards for efforts associated with the Aircraft Life Management Program for VH Executive Helicopters. Support design, integration, and test of a WBLoS System for Executive Lift Platforms.The majority of the RDT&E,N WBLoS hardware and software integration work is in FY 2015 using the VH software support activity. FY 2016 Base Plans: Provide initial capability of Phase II WBLoS into 1st VH-3D Executive helicopter, to include installation, testing and verification actions associated with performance, drawings, and schematics. Support software development												

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015	
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604212N / <i>Other Helicopter Development</i>		Project (Number/Name) 2460 / <i>VH-3/VH-60</i>	

<u>B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)</u>	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
and testing of 1st VH60N aircraft OFP as well as initial aircraft installation design efforts. Complete software testing of the Phase II WBLoS software OFP, and begin the effort of Phase III of the WBLoS system. <i>FY 2016 OCO Plans:</i> N/A					
Accomplishments/Planned Programs Subtotals	1.484	6.539	3.279	-	3.279

<u>C. Other Program Funding Summary (\$ in Millions)</u>											
<u>Line Item</u>	<u>FY 2014</u>	<u>FY 2015</u>	<u>FY 2016 Base</u>	<u>FY 2016 OCO</u>	<u>FY 2016 Total</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APN/056600: <i>Executive Helicopters Series</i>	65.537	68.128	76.138	-	76.138	70.779	63.199	52.842	44.475	-	1,001.199

Remarks

D. Acquisition Strategy
 VH Executive Helicopter Aircraft Life Management Program will include trade studies and risk reduction efforts 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 and risk reduction efforts will lead to modifications to be addressed through the program's Obsolescence Management Program and VH Comm Suite Upgrade Operational Safety and Improvement Programs as directed by the Deputy Secretary of Defense. The VH program will develop, design, test and install the WBLOS Executive Strategic communication system into both the VH-3D and the VH-60N aircraft. This effort will require separate efforts with regards to Software, Hardware, and installation requirements for each of the two platforms. The VH-3D effort will be handled within the NAVAIR envelope, with the VH-60N requiring Rockwell Collins to modify the current OFP software to support the new WBLOS Executive Strategic communication system.

E. Performance Metrics
 Completion of VH Executive Helicopter Aircraft Life Management Program efforts.

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 2460 / VH-3/VH-60					
Product Development (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	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	8.675	-		-		-		-		-	7.206	15.881	-
Primary HW Development-WBLoS	TBD	Sikorsky : Stratford, CT	0.000	-		0.950	Dec 2014	-		-		-	Continuing	Continuing	Continuing
Software Development-WBLoS	SS/FFP	Rockwell Collins : Cedar Rapids, IA	0.000	-		2.500	Dec 2014	-		-		-	-	2.500	-
Systems Engineering-WBLoS	WR	NAWCAD : Patuxent River, MD	0.000	-		1.023	Dec 2014	0.768	Dec 2015	-		0.768	-	1.791	-
Prior Year Prod Dev no longer funded in the FYDP	Various	Various : Various	5.321	-		-		-		-		-	-	5.321	-
Subtotal			13.996	-		4.473		0.768		-		0.768	-	-	-
Remarks															
Primary Hardware Development/WBLoS-Sikorsky: Develop and build installation drawings to support the WBLoS system.															
Software Development/WBLoS-Rockwell: Develop and code the OFP to support the WBLoS system in the VH-60N.															
System Engineering/WBLoS-NAWCAD: Develop the OFP and Communications Interface Unit (CIU) interface to support the WBLoS system.															
Test and Evaluation (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Development Test & Evaluation-WBLoS	WR	NAWCAD : Patuxent River, MD	0.000	-		1.168	Dec 2014	1.688	Nov 2015	-		1.688	Continuing	Continuing	Continuing
Subtotal			0.000	-		1.168		1.688		-		1.688	-	-	-
Remarks															
Development Test & Evaluation/WBLoS-NAWCAD: Perform developmental test on Phase II for the VH-3D and VH-60N.															

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 2460 / VH-3/VH-60					
Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Government Engineering Support-WBLoS	WR	NAWCAD : Patuxent River, MD	8.576	0.917	Nov 2013	-		-		-		-	Continuing	Continuing	Continuing
Program Management Support	WR	NAWCAD : Patuxent River, MD	0.493	0.272	Nov 2013	0.777	Dec 2014	0.793	Nov 2015	-		0.793	Continuing	Continuing	Continuing
System Engineering-WBLoS	SS/CPFF	NAVSEA : Washington Navy Yard, DC	0.000	0.255	Aug 2014	0.100	Feb 2015	-		-		-	-	0.355	-
Travel	Various	Various : Various	0.191	0.040	Oct 2013	0.021	Oct 2014	0.030	Oct 2015	-		0.030	Continuing	Continuing	Continuing
Subtotal			9.260	1.484		0.898		0.823		-		0.823	-	-	-
Remarks															
Government Engineering Support/WBLoS-NAWCAD: Provide engineering support for the Phase II integration of WBLoS.															
System Engineering/WBLoS-NAVSEA: Develop a WiFi system to intergrate into the WBLoS system.															
			Prior Years	FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals			23.256	1.484		6.539		3.279		-		3.279	-	-	-
Remarks															

UNCLASSIFIED

Exhibit R-4, RDT&E Schedule Profile: PB 2016 Navy																	Date: February 2015																							
Appropriation/Budget Activity 1319 / 5												R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development								Project (Number/Name) 2460 / VH-3/VH-60																				
VH-3/VH-60												FY 2014				FY 2015				FY 2016				FY 2017				FY 2018				FY 2019				FY 2020				
												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 ALMP																												
Systems Development												VH Comms Upgrade Aircraft Prototype Engineering																												
												VH Comms Upgrade System Integration																												
												VH Comms Upgrade Software Integration																												

2016PB - 0604212N - 2460

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy			Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604212N / <i>Other Helicopter Development</i>	Project (Number/Name) 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 / VH-60N ALMP	1	2014	4	2019
Engineering Milestones: Systems Development: VH Comms Upgrade Aircraft Prototype Engineering and Flight Test	2	2014	2	2017
Engineering Milestones: Systems Development: VH Comms Upgrade System Integration	1	2015	2	2017
Engineering Milestones: Systems Development: VH Comms Upgrade Software Integration	1	2015	4	2016

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy										Date: February 2015		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604212N / Other Helicopter Development				Project (Number/Name) 3355 / MH-XX Development			
COST (\$ in Millions)	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	FY 2017	FY 2018	FY 2019	FY 2020	Cost To Complete	Total Cost
3355: MH-XX Development	-	0.261	-	-	-	-	-	-	-	-	-	0.261
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		
Note Proj: 3355 MH-XX Development Budget Activity moved to PE 0604292N, Project Unit 2934, in FY2015 and out.												
A. Mission Description and Budget Item Justification The MH-XX project directs Naval Aviation developmental activities in support of the replacement of the Navy H-60 series helicopters, multi-mission medium lift helicopter capability, in the 2028 timeframe. These aircraft will be used extensively to protect Joint assets from airborne, surface, and sub-surface threats. Other supported mission areas will include Combat Search and Rescue, Naval Special Warfare, Humanitarian Assistance/Disaster Relief, Logistics, and Medical Evacuation. Specific developmental activities will include: capability requirements definition supporting Initial Capabilities Document (ICD) approval; support to the Joint Multi-Role Technology Demonstrator (JMR TD) to explore key maritime enablers including Future Airborne Capability Environment (FACE), mission system interoperability, and shipboard compatibility; and affordability studies. These activities will result in completion of all pre-system acquisition documentation required for a Material Development Decision in first quarter FY 2017. These efforts will enable timely development of a system which provides best value to the Joint Warfighter and Naval Aviation while maintaining effective and efficient war fighting capability in support of the Navy's 30-year Aviation Plan.												
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)								FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
Title: MH-XX Development Engineering Support Articles: Description: Provide research and development support for pre-Milestone A activities to enable recapitalization of the capabilities of the Navy H-60 Type/Model/Series. FY 2014 Accomplishments: Provided support for developmental activities which included modeling and simulation of identified capability gaps and engineering analysis FY 2015 Plans: Continue modeling and simulation; provide support for developmental activities which include capability requirements definition and development of the Initial Capabilities Document, Analysis of Alternatives (AOA) Study Guidance and AOA Study Plan. FY 2016 Base Plans:								0.261	-	-	-	-
								-	-	-	-	-

UNCLASSIFIED

Exhibit R-2A, RDT&E Project Justification: PB 2016 Navy				Date: February 2015		
Appropriation/Budget Activity 1319 / 5		R-1 Program Element (Number/Name) PE 0604212N / <i>Other Helicopter Development</i>		Project (Number/Name) 3355 / <i>MH-XX Development</i>		
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total
N/A						
FY 2016 OCO Plans:						
N/A						
Accomplishments/Planned Programs Subtotals		0.261	-	-	-	-
C. Other Program Funding Summary (\$ in Millions)						
N/A						
Remarks						
D. Acquisition Strategy						
Provide research and development support for Pre-Milestone A activities, predominantly government, to enable recapitalization of the Navy H-60 Type/Model/Series.						
E. Performance Metrics						
Completion of Capability Requirements and Milestone Documentation.						

UNCLASSIFIED

Exhibit R-3, RDT&E Project Cost Analysis: PB 2016 Navy												Date: February 2015			
Appropriation/Budget Activity 1319 / 5						R-1 Program Element (Number/Name) PE 0604212N / <i>Other Helicopter Development</i>						Project (Number/Name) 3355 / <i>MH-XX Development</i>			

Management Services (\$ in Millions)				FY 2014		FY 2015		FY 2016 Base		FY 2016 OCO		FY 2016 Total			
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To Complete	Total Cost	Target Value of Contract
Govt Engineering/Log Supt	WR	NAWC AD : Patuxent River MD	0.000	0.123	Mar 2014	-		-		-		-	-	0.123	-
Contr Engineering Supt	TBD	Various : Patuxent River MD	0.000	0.133	Mar 2014	-		-		-		-	-	0.133	-
Program Management	WR	NAWC AD : Patuxent River MD	0.000	-		-		-		-		-	-	-	-
Travel	Various	Various : Not Specified	0.000	0.005	Mar 2014	-		-		-		-	-	0.005	-
Subtotal			0.000	0.261		-		-		-		-	-	0.261	-

	Prior Years	FY 2014	FY 2015	FY 2016 Base	FY 2016 OCO	FY 2016 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.261	-	-	-	-	-	0.261	-

Remarks

UNCLASSIFIED

Appropriation/Budget Activity
1319 / 5

R-1 Program Element (Number/Name)
PE 0604212N / *Other Helicopter Development*

Project (Number/Name)
3355 / MH-XX Development

[illegible]

2016PB - 0604212N - 3355

UNCLASSIFIED

Exhibit R-4A, RDT&E Schedule Details: PB 2016 Navy		Date: February 2015
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604212N / <i>Other Helicopter Development</i>	Project (Number/Name) 3355 / <i>MH-XX Development</i>

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
<i>MH-XX Development</i>				
Acquisition Milestones: Planning: Requirements Analysis	2	2014	4	2014