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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy

**Date:** May 2017

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 4: Advanced

PE 0604292N *I (U)MH-XX* 

Component Development & Prototypes (ACD&P)

COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
Total Program Element	3.007	4.462	1.620	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.089
2934: <i>MH-XX</i>	3.007	4.462	1.620	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.089

### A. Mission Description and Budget Item Justification

The MH-XX project directs developmental activities in support of the replacement of the current inventory of Navy and Marine Corps helicopters in the 2030+ timeframe through the Joint Future Vertical Lift (FVL) family of systems program. Specific developmental activities will include: capability requirements definition, documentation, and approval; support to the Joint Multi-Role Technology Demonstrator and Joint Future Vertical Lift, including Common Systems Integrated Product Team leadership, open hardware and software reference and objective architectures definition, mission system interoperability, and shipboard compatibility; Analysis of Alternatives planning and execution; and associated affordability studies. These activities will result in completion of all acquisition documentation required for a Material Development Decision in first quarter FY 2017. Follow-on activities support preparation and execution of efforts to develop common systems reference and objective open architectures, and eventual prototype aircraft flight demonstrations in support of the FVL Technology Maturation and Risk Reduction acquisition phase. Activities and technologies developed also have the potential to be leveraged for sustainment of legacy Navy and Marine Corps helicopters. These efforts will enable timely development of a system which provides best value and capability to the Joint Warfighter while maintaining effective and efficient war fighting capability in support of the Navy/Marine Corps 30-year Aviation Plan.

The MH-XX Program has been terminated in FY 2018 and out pending results of the MH-60S Service Life Assessment Program.

B. Program Change Summary (\$ in Millions)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
Previous President's Budget	4.516	1.620	1.537	-	1.537
Current President's Budget	4.462	1.620	0.000	-	0.000
Total Adjustments	-0.054	0.000	-1.537	-	-1.537
Congressional General Reductions	-	-			
Congressional Directed Reductions	-	-			
Congressional Rescissions	-	-			
Congressional Adds	-	-			
Congressional Directed Transfers	-	-			
Reprogrammings	-	-			
SBIR/STTR Transfer	-0.054	0.000			
Program Adjustments	0.000	0.000	-1.537	-	-1.537
Rate/Misc Adjustments	0.000	0.000	0.000	-	0.000

**Change Summary Explanation** 

Technical: Not applicable.

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Exhibit R-2, RDT&E Budget Item Justification: FY 2018 Navy		Date: May 2017							
Appropriation/Budget Activity 1319: Research, Development, Test & Evaluation, Navy I BA 4: Advanced Component Development & Prototypes (ACD&P)	R-1 Program Element (Number/Name) PE 0604292N / (U)MH-XX								
Schedule: Due to the termination of MH-XX in FY 2018, the schedule Documentation, and Technology Maturation and Risk Reduction and Paper. The development and delivery of the Business Metrics White I for defining and measuring software development progress and will in Architecture White Paper will define key architectural parameters to go common technical framework for capability acquisition, representing a Services.	added the delivery of a Business Metrics White Paper and Paper will inform future software development efforts. This dentify key cost metrics to capture and forecast software capture the acquisition of Future Vertical Lift (FVL) capabilities	I an Reference Architecture White product will provide guidance osts. Additionally, the Reference s. This effort will establish a							

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy									Date: May 2017			
Appropriation/Budget Activity 1319 / 4				R-1 Program Element (Number/Name) PE 0604292N / (U)MH-XX				Project (Number/Name) 2934 / MH-XX				
COST (\$ in Millions)	Prior Years	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total	FY 2019	FY 2020	FY 2021	FY 2022	Cost To Complete	Total Cost
2934: MH-XX	3.007	4.462	1.620	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	9.089
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

### 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 2030+ 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 documentation, and approval; support to the Joint Multi-Role Technology Demonstrator (JMR TD) and Joint Future Vertical Lift including Common Systems Integrated Product Team leadership, open hardware and software reference and objective architectures definition, common hardware prototyping efforts, mission system interoperability, and shipboard compatibility; Analysis of Alternatives planning and execution; and associated 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.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under ADVANCED COMPONENT DEVELOPMENT AND PROTOTYPES because it includes efforts necessary to evaluate integrated technologies, representative models or prototype systems in a high fidelity and realistic operating environment.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2018	FY 2018	FY 2018
	FY 2016	FY 2017	Base	oco	Total
Title: MH-XX Requirements Definition and Acquisition Documentation	4.462	1.620	0.000	0.000	0.000
Articles:	-	-	-	-	-
FY 2016 Accomplishments: Support to the JMR TD program to identify key maritime technologies; completion of pre-system acquisition activities which include Joint Requirement Capabilities Board approval of the ICD and Cost Assessment and Program Evaluation approval of the AOA Study Guidance and AOA Study Plan leading to a Material Development Decision in 1QTR FY 2017.					
FY 2017 Plans: Continue to support the JMR TD program to identify key maritime technologies. Development of business metrics white paper to inform future software development efforts. Development of architecture white paper to define key architectural parameters to guide future vertical lift capabilities.					
FY 2018 Base Plans:					

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Exhibit R-2A, RDT&E Project Justification: FY 2018 Navy		Date: May 2017	
	R-1 Program Element (Number/Name) PE 0604292N <i>I (U)MH-XX</i>	Project (No 2934 / MH-	umber/Name) -XX

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2016	FY 2017	FY 2018 Base	FY 2018 OCO	FY 2018 Total
N/A <b>FY 2018 OCO Plans:</b> N/A					
Accomplishments/Planned Programs Subtotals	4.462	1.620	0.000	0.000	0.000

# 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 replacement of the Navy H-60 series helicopters, multi-mission medium lift helicopter capability, in the 2030+ timeframe.

## E. Performance Metrics

Completion of business metrics and reference architecture white papers.

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