CLASSIFICATION:

EXHIBIT R-2, RDT&E Budget Item Justification							DATE:	
•							Februa	ry 2005
APPROPRIATION/BUDGET ACTIVITY					R-1 ITEM NOMEN	CLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATI	ON, NAVY /	BA-5			0604273N VHXX I	XECUTIVE HELO	DEVELOPMENT	
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Total PE Cost	169.321	550.853	935.932	560.631	618.624	371.282	219.781	84.576
3058 VHXX Replacement	169.321	550.853	935.932	560.631	618.624	371.282	219.781	84.576

(U) 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 (WHMO). The global nature of these commitments requires HMX-1 aircraft to deploy worldwide and operate in varying environmental and climatic conditions without mission degradation. Currently two Type, Model, Series (TMS) aircraft are used by HMX-1 for the Presidential support mission – the VH-3D and the VH-60N. Numerous modifications and improvements have been incorporated over the past several years to both aircraft commensurate with emerging technologies and White House requirements. In order for the VXX to be available to assume the Presidential vertical lift mission by 2008, three test article aircraft, five pilot production aircraft, system design and development efforts, maintenance trainers, and associated logistics must be initiated by 2005. In addition, 3 Low-Rate Initial Production aircraft will be procured starting in FY2008. These aircraft will provide production representative articles to complete operational testing. The VHXX program provides the replacement for the VH-3D Presidential helicopter. The following areas need to be explored: Nuclear Effects, E3 /TEMPEST certification requirements, Survivability (Vulnerability/Susceptibility), Facilities upgrade/modifications- Source Selection, Environmental Impact, Security, Cost Estimation, Requirements Analysis, Functional Analysis and Allocation, Risk Management, Crew System/Human Systems Integration (HSI), and Logistics Support Analysis. Contractor efforts are expected to include System Design and Development work, test article aircraft, and pilot production aircraft.

R-1 SHOPPING LIST - Item No.

99

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE:	
							Februa	ry 2005
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEM	ENT NUMBER AND	NAME		PROJECT NUMBE	R AND NAME		
RDT&E, N / BA-5	0604273N VHXX E							
COST (\$ in Millions)	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011
Project Cost	189.713	550.853	935.932	560.631	618.624	371.282	219.781	84.576
RDT&E Articles Qty		3	5		3			

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 (WHMO). The global nature of these commitments requires HMX-1 aircraft to

deploy worldwide and operate in varying environmental and climatic conditions without mission degradation. Currently two Type, Model, Series (TMS) aircraft are used by HMX-1 for the Presidential support mission – the VH-3D and the VH-60N. Numerous modifications and improvements have been incorporated over the past several years to both aircraft commensurate with emerging technologies and White House requirements. In order for the VXX to be available to assume the Presidential vertical lift mission by 2008, three test article aircraft, five pilot production aircraft, system design and development efforts, maintenance trainers, and associated logistics must be initiated by 2005. In addition, 3 Low-Rate Initial Production aircraft will be procured starting in FY2008. These aircraft will provide production representative articles to complete operational testing. The VHXX program provides the replacement for the VH-3D Presidential helicopter. The following areas need to be explored: Nuclear Effects, E3 /TEMPEST certification requirements, Survivability (Vulnerability/Susceptibility), Facilities upgrade/modifications- Source Selection, Environmental Impact, Security, Cost Estimation, Requirements Analysis, Functional Analysis and Allocation, Risk Management, Crew System/Human Systems Integration (HSI), and Logistics Support Analysis. Contractor efforts are expected to include System Design and Development work, test article aircraft, and pilot production aircraft.

*Project Cost includes both PE 0604273N and 0604212N

CLASSIFICATION:

T R-2a, RDT&E Project Justification									
		DDO IEOT NILIMBED AND A	February 2005						
GRAM ELEMENT NUM		PROJECT NUMBER AND N							
273N VHXX EXECUTIV	E HELO DEVELOPMENT	3058 VHXX REPLACEMEN	T						
FY 04	FY 05	FY 06	FY 07						
3.084	1 1 00	1100	1107						
0.001									
FV 04	EV 05	FV 00	EV 07						
FY 04	FY 05 498.353	FY 06 880.328	FY 07 496.325						
	3	5	490.323						
		<u> </u>							
	m, and requisite training sup		ow-rate initial production, and sup	port of training					
			<u> </u>						

CLASSIFICATION:

RDT&E Articles Quantity

EXHIBIT R-2a, RDT&E Project Justificat	ion			DATE:	
·				February 2005	
PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUM	IBER AND NAME	NAME		
DT&E, N / BA-5	0604273N VHXX EXECUTIV	VE HELO DEVELOPMENT	3058 VHXX REPLACEMEN	Т	
		_			
Accomplishments/Planned Program					
	FY 04	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	1.501	19.300	19.600	25.800	
RDT&E Articles Quantity					
RDT&E Articles Quantity				25.800	
Test and Evaluation of test article aircraft, pilot	production aircraft, and SDD assets	s, including Live Fire Test ar	nd Evaluation.		
	FY 04	FY 05	FY 06	FY 07	
Accomplishments/Effort/Subtotal Cost	31.972	33.200	36.004	38.506	

In-house, field activity, and contractor support of Integrated Product Teams (IPTs) and logistics activities to allow for preparation of the acquisition strategy, examination of equipment and avionics for the VHXX platform, and development of acquisition documentation. The Plan of Action and Milestones (POA&M) does not allow these functions to be accomplished sequentially. Efforts include, but are not limited to, government development support, integrated logistics support, engineering support, program management support, systems engineering support, support equipment, technical pubs, and travel for VHXX program.

	FY 04	FY 05	FY 06	FY 07
Accomplishments/Effort/Subtotal Cost	153.156			
RDT&E Articles Quantity				

Multiple contract awards for VHXX Alternative Design Concepts, including risk reduction efforts awarded to contractors aimed at mitigating risk to the program. Effort includes combination of existing programs to replace the VHF-FM system in the VH-3D and VH-60N Presidential support aircraft to meet National Telecommunication and Information Administration (NTIA) compliance issues with the development of the VH-XX in order to develop a road map for all Presidential Vertical lift communication requirements in the future and allow the currently planned communication capabilities of the VH-3D and VH-60N to be seamlessly integrated into the VH-XX. Additional risk reduction efforts include continued development of overall technical approach associated with the relationship between weight and cost, an evaluation and refinement of the transition plan, requirements refinement, continued design and test development, and air vehicle ground / flight test.

CLASSIFICATION:

XHIBIT R-2a, RDT&E Project Justification					DATE:	
•						February 2005
PPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER	AND NAME		PROJECT NUMBER AN	ID NAME	
DT&E, N / BA-5	0604273N VHXX EXECUTIVE HE	LO DEVELOP	MENT	3058 VHXX REPLACEN	IENT	
C. PROGRAM CHANGE SUMMARY:						
Funding:	FY 2004	FY 2005	FY 2006	FY 2007		
Previous President's Budget:	195.233	777.449	692.128	502.495		
Current BES/President's Budget	189.713	550.853	935.932	560.631		
Total Adjustments	-5.520	-226.596	243.804	58.136		
Summary of Adjustments						
Congressional program reductions		-220.000				
Congressional undistributed reductio	ns	-5.459				
Congressional rescissions						
SBIR/STTR Transfer	-5.164					
Other adjustments		-1.137	237.069	51.281		
Economic Assumptions	-0.181		6.735	6.855		
Reprogrammings	-0.175					
Congressional increases						
Subtotal	-5.520	-226.596	243.804	58.136		

Schedule:

The Department of the Navy decided to extend source selection efforts in order to better understand each offeror's proposal. PMA-274 senior leadership developed a 'way forward' for the VH-XX program to accomplish essential risk reduction efforts with FY04 funding due to the associated acquisition strategy changes that shifted SDD tasks into FY05. This 'way forward' was briefed to and approved by ASN(RDA) on 21 April 2004, and subsequently briefed to and approved by USD(AT&L) on 26 April 2004. The program has awarded expanded risk reduction efforts in light of the DoN decision.

Technical:

Not Applicable

*Program Change Summary Includes PE 0604273N and 0604212N

CLASSIFICATION:

								Febru	ary 2005		
F	PROGRAM EL	EMENT NUME	BER AND NAM	ΙE	PROJECT NU	IMBER AND N	NAME		-		
C	1604273N VH	X EXECUTIVI	E HELO DEVE	LOPMENT	3058 VHXX R	EPLACEMEN	Т				
								To	Total		
FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	<u>Complete</u>	Cost		
0	0	0	0	57.865	421.019	352.423	330.892	967.421	2129.62		
	EY 2004	0604273N VHX	0604273N VHXX EXECUTIVE FY 2004 FY 2005 FY 2006	0604273N VHXX EXECUTIVE HELO DEVE	0604273N VHXX EXECUTIVE HELO DEVELOPMENT FY 2004 FY 2005 FY 2006 FY 2007 FY 2008	0604273N VHXX EXECUTIVE HELO DEVELOPMENT 3058 VHXX R FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009	0604273N VHXX EXECUTIVE HELO DEVELOPMENT 3058 VHXX REPLACEMEN FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 FY 2010	0604273N VHXX EXECUTIVE HELO DEVELOPMENT 3058 VHXX REPLACEMENT FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 FY 2010 FY 2011	PROGRAM ELEMENT NUMBER AND NAME 0604273N VHXX EXECUTIVE HELO DEVELOPMENT 3058 VHXX REPLACEMENT To FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 FY 2010 FY 2011 Complete		

CLASSIFICATION:

Develop Support Equip

Studies & Analyses

Studies & Analyses

Studies & Analyses

Remarks:

Integrated Logistics Sup

									DATE:					
Exhibit R-3 Cost Analysis (page	e 1)								February 2005					
APPROPRIATION/BUDGET ACTIVIT	Υ		PROGRAM ELE	MENT			PROJECT NU	IMBER AND N	AME		-			
RDT&E, N / BA-5	N / BA-5 0604273N VHXX EXECUTIVE HELO DEVELOPMENT 30						3058 VHXX R	EPLACEMENT	-					
Cost Categories	Contract	Performing		Total		FY 05		FY 06		FY 07				
		Activity &		PY s	FY 05	Award	FY 06	Award	FY 07	Award	Cost to	Total	Target Value	
	& Type	Location		Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract	
Primary Hardware Development	C-CPAF	LOCKHEED N	MARTIN, NY		492.591	01/05	873.832	01/06	492.832	01/07	Continuing	Continuing	Į	
Systems Engineering	VARIOUS	Various			5.762	01/05	6.496	01/06	3.493	01/07	Continuing	Continuing	ار	
Systems Engineering	WX	NAWCAD Pax	River, MD	2.349								2.349)	
Subtotal Product Development				2.349	498.353		880.328		496.325		Continuing	Continuing	j	
Remarks:														

01/05

01/05

3.012

4.282

01/06

01/06

4.100

7.700

01/07

01/07

11.300

11.500

 Subtotal Support
 178.590
 7.294
 11.800
 22.800

1.565

87.423

87.422

2.180

VARIOUS Various

LOCKHEED MARTIN, NY

SIKORSKY AIRCRAFT, CT

NAWCAD Pax River, MD

VARIOUS

C-FFP

C-FFP

WX

R-1 SHOPPING LIST - Item No. 99

Continuing

Continuing

Continuing

0.000

0.000

Continuing

Continuing

Continuing

87.423

87.422

2.180

87.423

87.422

CLASSIFICATION:

								DATE:				
Exhibit R-3 Cost Analysis (pag						February 2005						
APPROPRIATION/BUDGET ACTIVI	ITY	PROGRAM E	LEMENT			PROJECT NU	JMBER AND N	NAME				
RDT&E, N / BA-5			XX EXECUTIV	E HELO DEVE		H3058 VHXX	REPLACEME					
Cost Categories		Performing	Total		FY 05		FY 06		FY 07			_
	Method	Activity &	-	FY 05	Award	FY 06	Award	FY 07	Award	Cost to	Total	Target Value
	& Type	Location	Cost	Cost	Date	Cost	Date	Cost	Date	Complete		of Contract
Dev Test & Eval	TBD	Various				18.600	01/06	24.800	01/07	Continuing	·	1
Dev Test & Eval	WX	NAWCAD Pax River, MD	0.937							Continuing		
Live Fire Test & Eval	WX	NAWCWD CHINA LAKE,CA	0.490	1.000	01/05	1.000	01/06	1.000	01/07	Continuing	Continuing	
Subtotal T&E			1.427	19.300		19.600)	25.800		Continuing	Continuing	
			T	Γ	T		1		T		T	
Contractor Eng Sup	VARIOUS		4.164	2.038	11/04	2.541	11/05	1.367	11/06	Continuing	·	
Government Eng Sup	VARIOUS		0.096	2.395	11/04	1.950	11/05	1.452	11/06	Continuing	Continuing	
Government Eng Sup	WX	NAWCAD Pax River, MD	11.334	13.571	11/04	11.049		8.228		Continuing	Continuing	
Program Mgmt Sup	VARIOUS	Various	18.948	7.380	11/04	8.076	11/05	4.343	11/06	Continuing	Continuing	<u> </u>
Travel	VARIOUS	NAWCAD Pax River, MD	0.357	0.522	11/04	0.588	11/05	0.316	11/06	Continuing	Continuing	ļ
Subtotal Management			34.899	25.906		24.204		15.706		Continuing	Continuing	<u> </u>
Remarks:												
Total Cost			217.265	550.853		935.932		560.631		Continuing	Continuing	
Remarks:												

CLASSIFICATION: EXHIBIT R4, Schedule Profile DATE: February 2005 APPROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT NUMBER AND NAME PROJECT NUMBER AND NAME RDT&E, N / BA-5 0604273N, VH-XX EXEC HELO DEVELOPMENT 3058, VH-XX HELO REPLACEMENT FY 2004 FY 2005 FY 2006 FY 2007 FY 2008 FY 2009 FY 2010 FY 2011 Fiscal Year 2 3 2 3 4 2 3 2 3 4 2 3 2 3 4 2 3 2 3 FRP DR Acquisition MS B/C MS C Milestones IOC Inc 1 IOC Inc 2 SDD LRIP 1 RDT&E Contract Awards LRIP 2 LRIP 2 Full Procurement Contract Awards Funding Concept Design / Pre-SDD Pre-SDD Design & Development Increment 1 Increment 2 3 Test Aircraft Test Articles Test Aircraft Deliveries (3 Test Aircraft) Delivery Pilot Production (5 a/c) Pilot Production Pilot Production Deliveries (Pilot Production) Deliveries Test & Evaluation Milestones Integrated Test Program Increment 1 Integrated Test OT-C1 Integrated Test Program Increment 2 Integrated Test **OPEVAL Production Milestones** LRIP 1 (3 aircraft) LRIP 1 Deliveries (LRIP 1) LRIP1 Del LRIP 2 (4 aircraft) LRIP 2 Deliveries (LRIP 2) LRIP2 Del Trainers Pilot / Maintenance Trainers

CLASSIFICATION:										
Exhibit R-4a, Schedule Detail						DATE: February 2005				
APPROPRIATION/BUDGET ACTIVITY	I/BUDGET ACTIVITY PROGRAM ELEMENT PROJECT NU									
RDT&BA-5		I-XX EXEC HE	LO DEVELOPI		HELO REPLAC					
Schedule Profile	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011		
Concept Design/Pre-SDD	1Q-4Q	1Q								
Milestone B/C (MSB/C)	100 100	2Q								
SDD Contract Award		2Q								
Quality Design and Build (Test Articles)		2Q-4Q	1Q-4Q	1Q-3Q						
Pilot Production			1Q-4Q	1Q-4Q						
Integrated Test Program (Increment 1)		2Q-4Q	1Q-4Q	1Q-4Q						
Milestone C (MSC)				4Q						
Low-Rate Initial Production I (LRIP I) Contract Award										
Low-Rate Initial Production I										
Low-Rate Initial Production II AAC Contract Award										
Pilot / Maintenance Trainers										
Low-Rate Initial Production II Full Funding Contract Awar	<u>d</u>									
Operational Testing										
Integrated Test Program (Increment II)										
Low-Rate Initial Production II										
IOC (Increment 1)										
Low-Rate Initial Production I Delivery										
OPEVAL										
Low-Rate Initial Production II Delivery										
Full Rate Production (FRP) Decision										
IOC (Increment 2)										