UNCLASSIFIED

EXHIBIT R-2, RDT&E Budget Item Justification						DATE:	
						Februai	ry 2004
APPROPRIATION/BUDGET ACTIVITY				R-1 ITEM NOMEN	ICLATURE		
RESEARCH DEVELOPMENT TEST & EVALUATION, N	IAVY / BA-5			0604273N VHXX E	EXECUTIVE HELO	DEVELOPMENT	
COST (\$ in Millions)	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Total PE Cost	26.953	195.233		692.128	502.495	274.797	167.697
H3058 VXX Replacement	26.953	195.233	** 777.449	692.128	502.495	274.797	167.697
						l.	

(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 2004. 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 Authority (SSA), 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.

* PE 0604212N Project number H3058, VHXX Replacement FY2003 funds are PE 0604273N, Executive Helo Development Project number H3058.

R-1 SHOPPING LIST - Item No.

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Exhibit R-2, RDTEN Budget Item Justification (Exhibit R-2, page 1 of 11)

^{**}Due to a technical adjustment \$51K in FY05 and \$12K in FY06 funds remain in PE 0604273N, Executive Helo Development Project number H3058.

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification							DATE:		
							Februa	ry 2004	
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME PROJECT NUMBER AND NAME								
RDT&E, N / BA-5	0604273N VHXX E	EXECUTIVE HELO							
COST (\$ in Millions)		FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	
Project Cost		* 26.953	195.233	777.449	692.128	502.495	274.797	167.697	
RDT&E Articles Qty			8			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 2004. 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 Authority (SSA), 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.

^{*} New program element for effort previously included (FY02 - FY03) in Program Element 0604212N, ASW and Other Helo Development; Project number H3058, VHXX Replacement.

^{**} Three (3) test articles and five (5) pilot production aircraft expected to be placed on contract 3Q FY 2004.

CLASSIFICATION:

PROPRIATION/BUDGET ACTIVITY PROGRAM ELEMENT NUMBER AND NAME 0604273N VHXX EXECUTIVE HELO DEVELOPMENT H3058 VXX REPLACEMENT Accomplishments/Planned Program Project NUMBER AND NAME H3058 VXX REPLACEMENT Accomplishments/Effort/Subtotal Cost 0,000	EXHIBIT R-2a, RDT&E Project Justificat	HIBIT R-2a, RDT&E Project Justification								
DT&E, N / BA-5 O604273N VHXX EXECUTIVE HELO DEVELOPMENT	DDDODDIATION/DUDOFT ACTIVITY	DDOOD AM ELEMENT NUMBER AND NAME	IDDO IEOT NI IMBED ANI							
Accomplishments/Planned Program FY 03										
Accomplishments/Effort/Subtotal Cost 0.000	DT&E, N / BA-5	0604273N VHXX EXECUTIVE HELO DEVELOR	PMENT H3058 VXX REPLACEMI	ENT						
Accomplishments/Effort/Subtotal Cost 0.000	Accomplishments/Planned Program									
Accomplishments/Effort/Subtotal Cost 0.000 0.000 0.000 0.000 RDT&E Articles Quantity	5. Accomplishments/Flatmed Frogram									
RDT&E Articles Quantity FY 03 FY 04 FY 05 Accomplishments/Effort/Subtotal Cost 2.440 0.000 0.000 RDT&E Articles Quantity A Requirements Analysis, and Functional Analysis and Allocation will be contracted for VHXX Replacement utilizing an existing NAVAIR contractual vehicle. FY 03 FY 04 FY 05 Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity		FY 03	FY 04	FY 05						
Accomplishments/Effort/Subtotal Cost FY 03 FY 04 FY 05 Accomplishments Analysis, and Functional Analysis and Allocation will be contracted for VHXX Replacement utilizing an existing NAVAIR contractual vehicle. FY 03 FY 04 FY 05 Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity	Accomplishments/Effort/Subtotal Cost	0.000	0.000	0.000						
Accomplishments/Effort/Subtotal Cost 2.440 0.000 0.000 RDT&E Articles Quantity A Requirements Analysis, and Functional Analysis and Allocation will be contracted for VHXX Replacement utilizing an existing NAVAIR contractual vehicle. FY 03 FY 04 FY 05 Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity	RDT&E Articles Quantity									
Accomplishments/Effort/Subtotal Cost										
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RDT&E Articles Quantity A Requirements Analysis, and Functional Analysis and Allocation will be contracted for VHXX Replacement utilizing an existing NAVAIR contractual vehicle. FY 03 FY 04 FY 05 Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity	Accomplishments/Effort/Subtotal Cost									
A Requirements Analysis, and Functional Analysis and Allocation will be contracted for VHXX Replacement utilizing an existing NAVAIR contractual vehicle. FY 03										
FY 03 FY 04 FY 05	, , , , , , , , , , , , , , , , , , ,		1							
Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity	A Requirements Analysis, and Functional Anal	lysis and Allocation will be contracted for VHXX Replace	ement utilizing an existing NAVAIR	contractual vehicle.						
Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity 0.350 0.250										
Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity 0.350 0.250										
Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity 0.350 0.250										
Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity 0.350 0.250										
Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity 0.350 0.250										
Accomplishments/Effort/Subtotal Cost 0.350 0.250 0.000 RDT&E Articles Quantity 0.350 0.250		FY 03	FY 04	FY 05						
RDT&E Articles Quantity	Accomplishments/Effort/Subtotal Cost			_						
Trade Study to develop Systems Requirements Analysis		<u> </u>	<u>.</u>							
	Trade Study to develop Systems Requirement	ts Analysis								

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification			DATE:
			February 2004
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N	İAME
RDT&E, N / BA-5	0604273N VHXX EXECUTIVE HELO DEVELOPMENT	H3058 VXX REPLACEMEN	Т

B. Accomplishments/Planned Program

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	10.136	27.987	33.200
RDT&E Articles Quantity			

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, and travel for VHXX program.

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	0.000	153.875	725.949
RDT&E Articles Quantity		8	

Contract award for intial test article aircraft, long-lead pilot production aircraft efforts, System Design and Development (SDD) work efforts.

	FY 03	FY 04	FY 05
Accomplishments/Effort/Subtotal Cost	13.027	0.000	0.000
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 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.

CLASSIFICATION:

	DATE: February 2004			
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAME	PROJECT NUMBER AND N		
RDT&E, N / BA-5	0604273N VHXX EXECUTIVE HELO DEVELOPMENT	H3058 VXX REPLACEMEN	Т	
B. Accomplishments/Planned Program				
	FY 03	FY 04	FY 05	
Accomplishments/Effort/Subtotal Cost	1.000	13.121	18.300	
RDT&E Articles Quantity				

CLASSIFICATION:

EXHIBIT R-2a, RDT&E Project Justification				DATE:	
					February 2004
APPROPRIATION/BUDGET ACTIVITY	PROGRAM ELEMENT NUMBER AND NAM	Ē	PROJECT NUMBER AN	D NAME	
RDT&E, N / BA-5	0604273N VHXX EXECUTIVE HELO DEVE	OPMENT	H3058 VXX REPLACEM	ENT	
C. PROGRAM CHANGE SUMMARY:					
Funding:	FY 200	3 FY 2004	FY 2005		
Previous President's Budget:	3.39	1 197.431	199.577		
Current BES/President's Budget	26.95	3 195.233	777.449		
Total Adjustments	23.56	2 -2.198	577.872		
Summary of Adjustments					
Congressional program reductions					
Congressional undistributed reductions		-2.198	}		
Congressional rescissions					
SBIR/STTR Transfer	-0.01	4			
Economic Assumptions		•	-2.824		
Reprogrammings	23.57	6			
Other Navy/OSD adjustments					
Congressional increases Reprioritization			E00 606		
Subtotal	23.56	2 -2.198	580.696 577.872		
Gustotal	20.50	2 2.100	011.012		
Schedule:					
Not Applicable					
Technical:					
Not Applicable					
, , , , , , , , , , , , , , , , , , ,					
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HIBIT R-2a, RDT&E Project Justification							DATE:	Febru	ary 2004	_
ROPRIATION/BUDGET ACTIVITY	PRO	GRAM ELEMENT NU	JMBER AND NAM	ИE	PROJECT NU	IMBER AND N	AME	rebiu	ary 2004	—
Γ&E, N / BA-5		273N VHXX EXECU				EPLACEMEN ⁻				
D. OTHER PROGRAM FUNDING SUMMARY:					•					
Line Item No. & Name	<u>FY 2002</u> <u>FY</u>	<u>′2003</u> <u>FY 2004</u>	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	To <u>Complete</u>	Total <u>Cost</u>	
BLI 045500; V-XX					105.283	519.649	87.784	1054.400	1767.116	
E. ACQUISITION STRATEGY:										

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									DATE:					
Exhibit R-3 Cost Analysis (page	ge 1)								February 2004					
APPROPRIATION/BUDGET ACTIV	ITY		PROGRAM E	LEMENT			PROJECT NU	MBER AND N	IAME		-			
RDT&E, N / BA-5	IE, N / BA-5 0604273N VHXX EXECUTIVE HELO DEVELOPMENT					H3058 VXX R	EPLACEMEN	Т						
Cost Categories		Performing		Total		FY 03		FY 04		FY 05				
	Method	Activity &		_	FY 03	Award	-	Award		Award	Cost to	Total	Target Value	
	& Type	Location		Cost	Cost	Date	Cost	Date	Cost	Date	Complete	Cost	of Contract	
Primary Hardware Development	TBD	TBD					153.875	04/04	720.187	01/05	Continuing	Continuing		
Ancillary Hardware Development	TBD	TBD									Continuing	Continuing		
Aircraft Integration	TBD	TBD									Continuing	Continuing		
Ship Integration											Continuing	Continuing		
Ship Suitability											Continuing	Continuing	I	
Systems Engineering	Various	Various			0.645	03/03	5.384	01/04	5.762	01/05	Continuing	Continuing		
Training Development	TBD	TBD									Continuing	Continuing		
Licenses											Continuing	Continuing	I	
Tooling											Continuing	Continuing	I	
GFE	TBD	TBD									Continuing	Continuing	I	
Award Fees											Continuing	Continuing		
Subtotal Product Development				0.000	0.645		159.259		725.949		Continuing	Continuing		

Remarks: TBD Contracts not awarded.

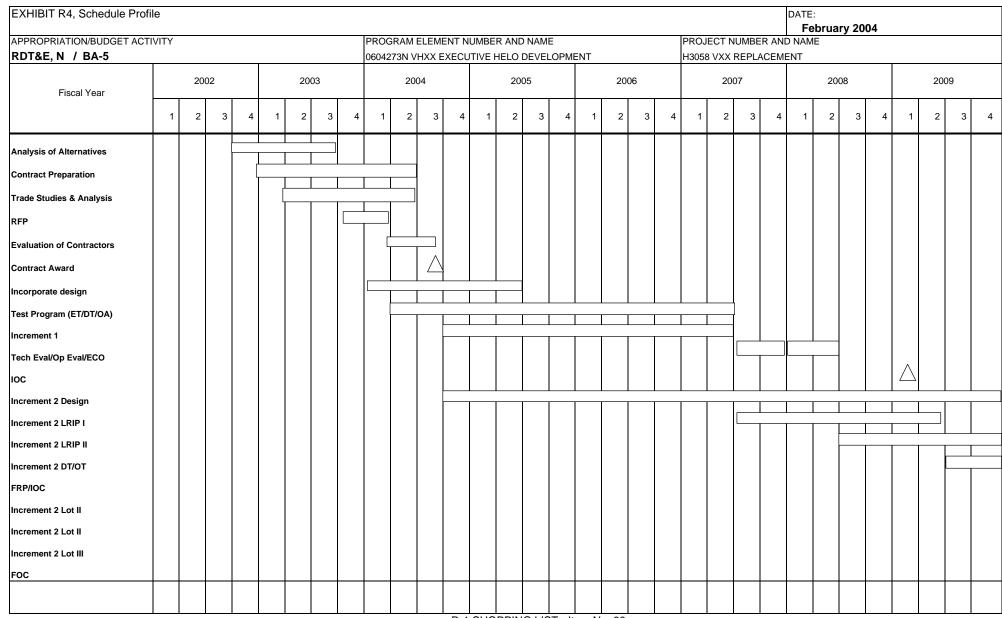
Development Support	Various	NAWCAD Pax River, MD		0.415	03/03	2.331	01/04	3.012	01/05	Continuing	Continuing	
Software Development	Various	Various								Continuing	Continuing	
Integrated Logistics Support	Various	Various		0.415	01/03	3.345	01/04	4.282	01/05	Continuing	Continuing	
Configuration Management	TBD	TBD								Continuing	Continuing	
Technical Data	TBD	TBD								Continuing	Continuing	
Studies & Analyses	Various	Various	0.698	11.027	02/03					Continuing	Continuing	
GFE										Continuing	Continuing	
Award Fees										Continuing	Continuing	
Subtotal Support			0.698	11.857		5.676		7.294		Continuing	Continuing	

Remarks:

UNCLASSIFIED

									DATE:				
Exhibit R-3 Cost Analysis (page 2)							February 2004						
APPROPRIATION/BUDGET ACTIVITY PRO			PROGRAM I	ROGRAM ELEMENT				PROJECT NUMBER AND NAME					
RDT&E, N / BA-5			0604273N V	0604273N VHXX EXECUTIVE HELO DEVELOPMENT				H3058 VXX REPLACEMENT					
Cost Categories	Contract Method & Type	Performing Activity & Location		Total PY s Cost	FY 03 Cost	FY 03 Award Date	FY 04 Cost	FY 04 Award Date	FY 05 Cost	FY 05 Award Date	Cost to Complete	Total Cost	Target Value of Contract
Development of Table 9 Feet of the			. D' MD	Cost							· ·		1
Developmental Test & Evaluation Operational Test & Evaluation	WX/RX WX/RX	NAWCAD Pa			1.000	01/03	13.121	01/04	18.300	01/05	Continuing	1	-
Live Fire Test & Evaluation	Various	Various	OK (HIVIX)								Continuing	`	
Test Assets	Various	Various									Continuing	`	
Tooling	Various	Various									Continuing	<u>'</u>	1
GFE	Various	Various									Continuing	<u>'</u>	1
Award Fees	Various	Various									Continuing	<u> </u>	1
Subtotal T&E				0.000	1.000)	13.121	1	18.300		Continuing	<u> </u>	-
Contractor Engineering Support	Various	Various			1.500	01/03			2.254	11/04	Continuing	Continuing	<u>a</u>
Government Engineering Support	Various	Various			4.981	1	11.452	2 11/03	15.966	1	Continuing	`	1
Program Management Support	Various	Various			6.911	1	5.421	1 11/03	7.164	1	Continuing		j
Travel	WX	NAWCAD Pax	River, MD		0.059	11/02	0.304	11/03	0.522	11/04	Continuing	Continuing	3
Transportation											Continuing	Continuing	3
SBIR Assessment											Continuing	Continuing	j e
Subtotal Management				0.000	13.451	I	17.177	7	25.906		Continuing	Continuing	j
Remarks:													
Total Cost				0.698	26.953	3	195.233	3	777.449		Continuing	Continuing	J
Remarks:													

CLASSIFICATION:



^{*} Not required for Budget Activities 1, 2, 3, and 6

CLASSIFICATION:

Exhibit R-4a, Schedule Detail	DATE: February 2004							
A DDD ODDIATION/DUDOFT A OTIVITY								
APPROPRIATION/BUDGET ACTIVITY	PROGRAM E			PROJECT NUMBER AND NAME H3058 VXX REPLACEMENT				
RDT&BA-4		XX EXECUTIV	E HELO DEVE					
Schedule Profile	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009
Analysis of Alternatives	4Q	1Q-3Q						
Contract Preparation		1Q-4Q	1Q-2Q					
Trade Studies & Analysis		2Q-4Q	1Q-2Q					
System Development			1Q-4Q					
Contract Award			3Q					
Design and Build			1Q-4Q	1Q-4Q	1Q-4Q			
Test Program Activities			2Q-4Q	1Q-4Q	1Q-4Q	1Q-2Q		
TECHEVAL						3Q-4Q		
OPEVAL							1Q-2Q	
IOC								1Q
Increment 2 Design			4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q	1Q-4Q
Increment 2 Development Testing								3Q-4Q
Increment 2 LRIP I						3Q-4Q	1Q-4Q	1Q-2Q
Increment 2 LRIP II							3Q-4Q	1Q-4Q

R-1 SHOPPING LIST - Item No. 99

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Exhibit R-4, RDTEN Budget Item Justification (Exhibit R-4, page 11 of 11)