Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy

Date: March 2019

Appropriation/Budget Activity

R-1 Program Element (Number/Name)

1319: Research, Development, Test & Evaluation, Navy I BA 5: System

PE 0604273M I (U)Executive Helo Development

Development & Demonstration (SDD)

COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To	Total Cost
Total Program Element	0.000	0.000	245.064	187.436		187.436	83.654	38.893	24.620		- 1	
3300: Presidential Helicopter VH-92A	0.000	0.000	245.064	164.985	-	164.985	59.697	14.512	0.000	0.000	0.000	484.258
3390: VH-92A Improvements	0.000	0.000	0.000	22.451	-	22.451	23.957	24.381	24.620	25.100	Continuing	Continuing

Program MDAP/MAIS Code:

Project MDAP/MAIS Code(s): 429

Note

Navy

In FY 2019 Project Unit 3300 transferred from Program Element 0604273N to Program Element 0604273M.

A. Mission Description and Budget Item Justification

The VH-92A is the replacement helicopter for the VH-3D and the VH-60N, the aircraft currently used by Marine Helicopter Squadron One (HMX-1) to transport the President, Vice President, and other distinguished officials as directed by the White House Military Office. The VH-3D and VH-60N are approaching the end of their service lives. Funding for the VH-92A program supports Engineering and Manufacturing Development Phase activities, including: integration of systems; production, qualification, and support of test articles; development of logistics products; and demonstration of system integration, interoperability, safety, and utility.

JUSTIFICATION FOR BUDGET ACTIVITY: This program is funded under SYSTEM DEVELOPMENT AND DEMONSTRATION because it includes those projects that have passed Milestone B approval and are conducting engineering and manufacturing development tasks aimed at meeting validated requirement prior to full-rate production decision.

B. Program Change Summary (\$ in Millions)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Previous President's Budget	0.000	245.064	187.670	-	187.670
Current President's Budget	0.000	245.064	187.436	-	187.436
Total Adjustments	0.000	0.000	-0.234	-	-0.234
 Congressional General Reductions 	-	-			
 Congressional Directed Reductions 	-	-			
 Congressional Rescissions 	-	-			
 Congressional Adds 	-	-			
 Congressional Directed Transfers 	-	-			
 Reprogrammings 	-	-			
SBIR/STTR Transfer	-	-			
Rate/Misc Adjustments	0.000	0.000	-0.234	-	-0.234

PE 0604273M: (U)Executive Helo Development

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Exhibit R-2, RDT&E Budget Item Justification: PB 2020 Navy

Appropriation/Budget Activity

1319: Research, Development, Test & Evaluation, Navy I BA 5: System

R-1 Program Element (Number/Name)
PE 0604273M I (U)Executive Helo Development

Development & Demonstration (SDD)

Change Summary Explanation

In FY 2019 Project Unit 3300 transferred from Program Element 0604273N to Program Element 0604273M.

FY 2020 funding decreases for project 3300 Presidential Helicopter VH-92A from due to ramp down of the Engineering and Manufacturing Development Phase (EMD) efforts and the modifications of the Engineering Development Model and System Demonstration Test Article aircraft.

New project 3390 in FY 2020 to support the commencement of VH-92A product improvement efforts.

Technical: Not applicable.

Schedule:

1. Capabilities Development Document (CDD) - Per the VH-92A Milestone C Information/Documentation Plan received after PB19 VH-92A a CDD is required in lieu of a Capability Production Document (CPD) previously entered in PE 0604273N in FY 2018.

Systems Engineering: Not applicable.

Logistics: Not applicable.

Contracting: Not applicable.

Deliveries: Not applicable.

PE 0604273M: (U)Executive Helo Development

Exhibit R-2A, RDT&E Project J	ustification:	PB 2020 N	lavy							Date: Marc	ch 2019	
Appropriation/Budget Activity 1319 / 5						am Elemen 73M <i>I (U)Ex</i> ent	umber/Nan sidential He	Name) I Helicopter VH-92A				
COST (\$ in Millions)	Prior Years	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost		
3300: Presidential Helicopter VH-92A	164.985	-	164.985	59.697	14.512	0.000	0.000	0.000	484.258			
Quantity of RDT&E Articles	-	-	-	-	-	-	-					

Project MDAP/MAIS Code: 429

Note

Funding for Project Unit 3300 for FY 2019 transfers from Program Element 0604273N to Program Element 0604273M.

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. The VH-92A will replace the VH-3D and VH-60N. Funding supports Engineering and Manufacturing Development Phase (EMD) activities including integration of systems, production, qualification, and support of test articles, logistics products development, demonstration of system integration, interoperability, safety and utility. Two Engineering Development Model (EDM) and four System Demonstration Test Article (SDTA) aircraft will be delivered during EMD. The EDM and SDTA aircraft will be used for Developmental Test & Evaluation (DT&E), Operational Testing (OT) for verification of Performance Based Specifications (PBS), airworthiness certification and Supportability Verification. The EDM aircraft will remain test aircraft for the life of the program. The SDTA aircraft will be used for Initial Operational Test and Evaluation (IOT&E) and will be refurbished for Initial Operational Capability (IOC).

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)			FY 2020	FY 2020	FY 2020
	FY 2018	FY 2019	Base	oco	Total
Title: Product Development	0.000	203.796	136.994	0.000	136.994
Articles:	-	-	_	-	-
FY 2019 Plans: Continue engineering support for Mission Communications System (MCS) and hardware/software maturation. Deliver second EDM and first three SDTA aircraft and continue modification of remaining SDTA aircraft to the VH-92A configuration. Continue Contractor Logistics Support (CLS) at Presidential Helicopters Support Facility (PHSF) Patuxent River, MD to support government led Integrated Test. Continue providing Government Furnished Equipment (GFE) to prime contractor. Continue engineering support, redesign and modify first EDM aircraft for the Forward Air Stair door and the Fifth Multi-Function Display (MFD). Continue Broad Agency Announcement efforts for future communications capabilities. Execute EMD Phase activities, including:					

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Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy				Date: Marc	h 2019		
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/ PE 0604273M / (U)Executive Held Development			t (Number/Name) Presidential Helicopter VH-92A			
B. Accomplishments/Planned Programs (\$ in Millions, Article C	Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	
integration of systems; production, qualification, and support of test and demonstration of system integration, interoperability, safety, an	· · · · · · · · · · · · · · · · · · ·						
FY 2020 Base Plans: Continue engineering support for MCS and hardware/software maturated Initial Operational Test & Evaluation (IOT&E) and attain Initial Operations Support (CLS) at PHSF Patuxent River, MD. Continue en EDM and SDTA aircraft for the Forward Airstair door and the MFD. integration of systems; production, qualification, and support of test logistics products; and demonstration of system integration, interoperation.	ational Capability (IOC). Continue Contractor gineering support and modify second Execute EMD Phase activities, including: articles; development and evaluation of						
FY 2020 OCO Plans: N/A							
FY 2019 to FY 2020 Increase/Decrease Statement: Funding decreases from FY 2019 to FY 2020 due to the EMD effort	es ramping down.						
Title: Support	Articles:	0.000	15.336 -	8.504 -	0.000	8.50	
FY 2019 Plans: Continue support of Aviation Logistics Environment (ALE) product solutegrated Test. Continue preparation of Milestone C supportability and delivery of Common Support Equipment (CSE). Continue proceperform SE evaluations. Continue the development and generation summaries. Continue Level of Repair Analyses and implementation repair capability. Continue Interactive Electronic Technical Manual (supportability test and evaluation, to include maintenance demonstratives.) FY 2020 Base Plans:	products. Continue to support procurement surement of support equipment (SE) products. In of task analyses and maintenance of I-level test and check capability and (IETM) development/verification. Perform						

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PE 0604273M: (U)Executive Helo Development Navy Page 4 of 22 R-1 Line #114

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy				Date: Marc	h 2019		
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/I PE 0604273M / (U)Executive Held Development			(Number/Name) Presidential Helicopter VH-92A			
B. Accomplishments/Planned Programs (\$ in Millions, Article Qu	antities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	
verification and perform updates. Perform supportability test and evademonstrations. Support programmatic and technical reviews.	aluation, to include maintenance						
FY 2020 OCO Plans: N/A							
FY 2019 to FY 2020 Increase/Decrease Statement: Funding decreases from FY 2019 to FY 2020 due to the EMD efforts	19 to FY 2020 Increase/Decrease Statement: g decreases from FY 2019 to FY 2020 due to the EMD efforts ramping down.						
Title: Test and Evaluation	Articles:	0.000	19.437 -	15.328 -	0.000	15.32 -	
Continue Government Integrated testing, cyber-testing and evaluatio (PBS) compliance verification, support equipment evaluations/assess support and Integrated Test support at the Presidential Helicopter Su Assessment Maturity Review (OAMR) and prepare for Operational A (Integrated Test, Operational Test, Interim LFT&E) to support IOT&E Test Team personnel in preparation for IOT&E. Continue to mature Sconduct software/hardware regression testing and validation/verificat Evaluation (FOT&E) to include shipboard compatibility testing and ev VH-92A System. Produce test reports (Integrated Test and LFT&E) is FY 2020 Base Plans:	sments, instrumentation development/ pport Facility (PHSF). Conduct Operational ssessment (OA). Produce test reports . Conduct OA and training of Operational systems Integration Laboratory (SIL) and ion. Initiate planning for Follow-On Test and aluation of continued development of the						
Complete Government Integrated testing, PBS compliance verification assessments and instrumentation development/support and Integrated cyber-testing and evaluation. Conduct Operational Test Readiness Roperational Test & Evaluation (IOT&E) and produce test reports. Conhardware regression testing and validation/verification. Commence Finclude shipboard compatibility testing and evaluation of continued defined to the state of the sta	ed Test support at the PHSF. Continue leview (OTRR) in preparation of Initial intinue to mature SIL and conduct software/ ollow-On Test and Evaluation (FOT&E) to						
FY 2020 OCO Plans: N/A							

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PE 0604273M: (U)Executive Helo Development Navy Page 5 of 22 R-1 Line #114

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Exhibit R-2A, RDT&E Project Just	tification: PB	2020 Navy							Date: Marc	ch 2019			
Appropriation/Budget Activity 1319 / 5				PE 06	•	ment (Numbe I)Executive H	,		Project (Number/Name) 3300 <i>I Presidential Helicopter VH-92A</i>				
B. Accomplishments/Planned Pro	ograms (\$ in N	Millions, Art	icle Quantit	ies in Each)		FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total		
Funding decreases from FY 2019 to	FY 2020 due	to the EMD	efforts ramp	ing down.									
Title: Program Management						Articles	0.000	6.495 -	4.159 -	0.000	4.159 -		
Perform project management tasks activities, contractor deliverables, coassurance/cyber security. Perform project (EAC) update. Conduct Milestone Conduct Mi	onfiguration m planned Sched	anagement, dule Risk As	training, phy sessment (S	sical securi	ty, and inforr	mation							
FY 2020 Base Plans: Continue to perform project managed deliverables, configuration managed													
FY 2020 OCO Plans: N/A													
FY 2019 to FY 2020 Increase/Deck Funding decreases from FY 2019 to			orts ramping	down.									
			Accomplish	nments/Pla	nned Progra	ams Subtotal	s 0.000	245.064	164.985	0.000	164.985		
C. Other Program Funding Summ	ary (\$ in Milli	ons)	FY 2020	FY 2020	FY 2020					Cost To			
Line Item	FY 2018	FY 2019	Base	000	Total	FY 2021	FY 2022	FY 2023	FY 2024	Complete	Total Cos		
• APN-4/04550:	0.000	649.015	658.067	-	658.067	712.993	0.000	0.000	0.000	0.000	2,020.075		
VH-92A Executive Helo													
• RDTEN/0604273N:	430.647	0.000	0.000	-	0.000	0.000	0.000	0.000	0.000	0.000	1,899.998		
Executive Helo Development • APN-6/0605: Spares and Repair Parts	0.000	80.939	87.983	-	87.983	73.907	0.000	0.000	0.000	0.000	242.829		
Remarks	<u>emarks</u>												

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PE 0604273M: (U)Executive Helo Development

Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy			Date: March 2019
1319 / 5	,	, ,	umber/Name) sidential Helicopter VH-92A

D. Acquisition Strategy

The VH-92A program is integrating mature subsystems into an existing commercial helicopter under a Fixed Price Incentive Firm (FPIF) contract. The program is procuring two (2) Engineering Development Model aircraft, four (4) System Demonstration Test Article aircraft, twelve (12) Low Rate Initial Production aircraft and five (5) Full Rate Production aircraft.

E. Performance Metrics

Program performance metrics are contained in the Acquisition Program Baseline (APB) that was approved by the Milestone Decision Authority (USD(AT&L)) on 17 Apr 2014. The program's Milestone (MS) B Acquisition Decision Memorandum was signed on 17 Apr 2014. The VH-92A contract for the Engineering and Manufacturing Development phase and priced options for production was awarded on 7 May 2014. The VH-92A Program successfully completed the System Preliminary Design Review on 21 August 2015. The program successfully completed the Critical Design Review (CDR) in FY 2016. The VH-92A Program successfully completed the Test Readiness Review and the Flight Readiness Review in FY 2018. Milestone C approval is anticipated 3Q FY 2019.

Date: March 2019 Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy

Appropriation/Budget Activity R-1 Program Element (Number/Name)

1319 / 5 PE 0604273M I (U)Executive Helo

Development

Project (Number/Name) 3300 I Presidential Helicopter VH-92A

Product Developmen	t (\$ in M	illions)		FY 2	018	FY 2	2019		2020 ise	FY 2	2020 CO	FY 2020 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 HW Dev - VH-92A EMD Contracts	C/FPIF	Sikorsky Aircraft Corporation : Stratford, CT	0.000	0.000		149.925	Oct 2018	82.936	Oct 2019	-		82.936	49.419	282.280	282.280
Primary HW Dev - Advanced Capabilities	Various	NSMA : Arlington, VA	0.000	0.000		8.310	Feb 2019	3.181	Feb 2020	-		3.181	3.000	14.491	-
Primary HW Dev - VH-92A MCS Design	WR	NAWCAD : St. Inigoes, MD	0.000	0.000		5.713	Nov 2018	2.120	Nov 2019	-		2.120	0.028	7.861	-
Primary HW Dev - VH-92A GFE	Various	Various : Various	0.000	0.000		4.050	Nov 2018	0.000		-		0.000	0.000	4.050	-
Primary HW Dev - VH92A MFD/Forward Air Stair Door	C/UCA	Sikorsky Aircraft Corporation : Stratford, CT	0.000	0.000		23.000	Mar 2019	28.000	Mar 2020	-		28.000	0.000	51.000	51.000
Systems Engineering	Various	Various : Various	0.000	0.000		0.713	Nov 2018	0.600	Nov 2019	-		0.600	0.200	1.513	-
Systems Engineering	WR	NAWCAD : Patuxent River, MD	0.000	0.000		6.137	Nov 2018	2.508	Nov 2019	-		2.508	1.571	10.216	-
Systems Engineering	Various	NAVAIR : Patuxent River, MD	0.000	0.000		2.600	Dec 2018	1.723	Dec 2019	-		1.723	0.997	5.320	-
Training	WR	NAWCTSD : Orlando, FL	0.000	0.000		1.804	Nov 2018	1.384	Nov 2019	-		1.384	0.800	3.988	-
Training	C/FPIF	Sikorsky Aircraft Corporation : Stratford, CT	0.000	0.000		0.000		13.020	Mar 2020	-		13.020	0.000	13.020	13.020
Training	Various	NAVAIR : Patuxent River, MD	0.000	0.000		1.408	Dec 2018	1.500	Dec 2019	-		1.500	1.122	4.030	-
Training	Various	NAWCAD : Patuxent River, MD	0.000	0.000		0.136	Nov 2018	0.022	Nov 2019	-		0.022	0.000	0.158	-
		Subtotal	0.000	0.000		203.796		136.994		-		136.994	57.137	397.927	N/A

Remarks

FUNDING PROFILE: The Target Value of the Primary Hardware Development EMD Contract reflects the total value of the EMD contracts for PE 0604273M. The total value of the EMD contract is \$1,563.644 million to include \$1,281.364 million funded by PE 0604273N.

PE 0604273M: (U)Executive Helo Development Navy

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy Date: March 2019

R-1 Program Element (Number/Name) Project (Number/Name) Appropriation/Budget Activity

PE 0604273M I (U)Executive Helo 1319 / 5 Development

3300 I Presidential Helicopter VH-92A

FY 2020 FY 2020 FY 2020 **Product Development (\$ in Millions) FY 2018** FY 2019 Base oco Total Contract Target Method Performing Prior Award Award Award Award **Cost To** Total Value of Cost Category Item & Type **Activity & Location** Years Date Cost Cost Cost Complete Cost Contract Cost Cost Date Date Date

Primary HW Dev - (C/UCA)- One undefinitized contract action for the incorporation of Fifth Multi-Functional Display (MFD) and Forward Airstair Door changes. The Forward Airstair Door requires redesign to raise the outboard edge of the door to a position equal to or above the aircraft door frame opening when fully open to ensure the door is at or above the Water Line (WL) 256 when fully opened. The VH-92A cockpit instrument panel requires design changes and the addition of an MFD and removal of the existing tactical display. The Fifth MFD is identical to the four existing MFD's and will increase pilot situational awareness.

Systems Engineering (Various) - Support contract for cyber security improvements.

Systems Engineering (NAWCAD Patuxent River) - Engineering support for hardware maturation, Reliability and Maintainability (R&M) analysis and Software Support Activity. Systems Engineering (NAVAIR Patuxent River) - Engineering Support Contracts to be funded at NAVAIR Headquarters.

Training (C/FPIF) - Contract action was added for upgrades and correction deficiencies for the Maintenance Training Device (MTD). Simulation Emulation Maintenance Training (SEMT), Courseware 2.0, Flight Training Device (FTD) and Pilot Procedures Trainer. Efforts are to commence after Cadre training concludes in 4Q FY 2019.

Training (NAVAIR Patuxent River) - Training Product Development contracts to be funded at NAVAIR Headquarters.

FINANCIAL PERFORMANCE: The VH-92A EMD is a Fixed Price Incentive Firm contract with Performance Based Payments. The VH-92A program will lag OSD traditional expenditure benchmarks. The program must obligate 100 percent of the funding required by the contractor for incurred costs, termination liability, and profit. However, the program is limited to paying the contractor only 90 percent of the performance based costs and profit. Mandatory funding obligations and payment withholds will cause the program to lag traditional expenditure benchmarks, painting an inaccurate portrait of overall program health.

ACRONYMS:

EMD = Engineering & Manufacturing Development

MCS = Mission Communications System

GFE = Government Furnished Equipment

MFD = Multi-Function Display

Notes:

The decrease in FY 2019 Primary HW Development for the VH-92A EMD Contract is due to the increase in funding in FY 2018 (0604273N) for this effort to better align the funding with the planned work.

The increase in FY 2019 funding for the Primary HW Dev VH-92A MFD/Forward Air Stair Door which is being awarded on an Undefinitized Contract Action (UCA) with the Prime contractor is based on updated estimates and schedules, funds were rephrased to better align to efforts. FY 2018 funding in PE 0604273N was rephased as a result of these changes.

Support (\$ in Millions	s)			FY 2	018	FY 2	2019		2020 ise		2020 CO	FY 2020 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
Integrated Logistics Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		4.540	Nov 2018	3.104	Nov 2019	-		3.104	2.132	9.776	-

PE 0604273M: (U)Executive Helo Development Navy

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy

Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name)

1319 / 5 PE 0604273M / (U)Executive Helo 3300 / Presidential Helicopter VH-92A

Development

Support (\$ in Million	s)			FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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
Integrated Logistics Support	WR	FRC : Cherry Point, NC	0.000	0.000		5.087	Nov 2018	3.091	Nov 2019	-		3.091	0.031	8.209	-
Integrated Logistics Support	WR	NAWCAD : Lakehurst, NJ	0.000	0.000		0.875	Nov 2018	0.350	Nov 2019	-		0.350	0.178	1.403	-
Integrated Logistics Support	WR	SPAWAR : San Diego, CA	0.000	0.000		0.375	Nov 2018	0.191	Nov 2019	-		0.191	0.000	0.566	-
Integrated Logistics Support	Various	NAVAIR : Patuxent River, MD	0.000	0.000		3.959	Sep 2019	1.618	Sep 2020	-		1.618	2.161	7.738	-
Integrated Logistics Support	Various	Various : Various	0.000	0.000		0.500	Nov 2018	0.150	Nov 2019	-		0.150	0.000	0.650	-

15.336

8.504

Remarks

FUNDING PROFILE:

Integrated Logistics Support (ILS) (NAWCAD Patuxent River) - ILS acquisition and management of the VH-92A aircraft. Evaluate contractor performance of Supportability Test & Evaluation, Intermediate & Depot level repair capability development.

ILS (FRC Cherry Point) - VH-92A maintenance planning, reliability centered maintenance (RCM), logistics support analysis efforts, level of repair analysis and Technical

0.000

Publications development.

ILS (NAWCAD Lakehurst) - SE planning and analysis, development of support equipment, development of requirements data (SERDs), SE analysis of I&D level capabilities and logistics support products for SE and SE test and evaluation. Funds previously planned in the Integrated Logistics Support- CSE line in President's Budget FY 2018 has been moved to this line due to updated procurement strategies.

ILS (SPAWAR San Diego) - Software integration to include certification and accreditation of the VH-92A ALE.

Subtotal

ILS (NAVAIR Patuxent River) - Contractor support of ILS efforts, Supportability Test & Evaluation, Intermediate & Depot level repair capability development.

0.000

ILS (Various) - Funding for various activities in support of Support Equipment (SE) Calibration and development and updates to the NAVAIR Standard IETM Viewer (NSIV) software

Test and Evaluation	(\$ in Milli	ons)		FY 2	2018	FY 2	2019	FY 2 Ba		FY 2	2020 CO	FY 2020 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	WR	NAWCAD : Patuxent River, MD	0.000	0.000		8.822	Nov 2018	7.756	Nov 2019	-		7.756	0.000	16.578	-
Developmental Test & Evaluation	WR	NAWCWD : Point Mugu, CA	0.000	0.000		0.014	Nov 2018	0.014	Nov 2019	-		0.014	0.000	0.028	-

PE 0604273M: *(U)Executive Helo Development* Navy

R-1 Line #114

8.504

4.502

28.342

N/A

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy

Appropriation/Budget Activity R-1 Program Element (Number/Name) Project (Number/Name)

1319 I 5 PE 0604273M I (U)Executive Helo 3300 I Presidential Helicopter VH-92A Development

Test and Evaluation ((\$ in Milli	ons)		FY 2	2018	FY 2	2019		2020 ise		2020 CO	FY 2020 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	Total Cost	Target Value of Contract
Developmental Test & Evaluation	MIPR	JITC : Ft. Huachuca, AZ	0.000	0.000		0.029	Oct 2018	0.036	Oct 2019	-		0.036	0.000	0.065	-
Developmental Test & Evaluation	Various	NAVAIR : Patuxent River, MD	0.000	0.000		5.671	Dec 2018	5.592	Dec 2019	-		5.592	0.000	11.263	-
Live Fire Test & Evaluation	WR	NAWCWD : China Lake, CA	0.000	0.000		1.592	Nov 2018	0.662	Nov 2019	-		0.662	0.000	2.254	-
Operational Test & Evaluation	WR	COTF : Norfolk, VA	0.000	0.000		1.259	May 2019	1.268	May 2020	-		1.268	0.000	2.527	-
Integrated Test & Evaluation	C/FFP	Petroleum Helicopters International, Inc : Lafayette, LA	0.000	0.000		2.050	Oct 2018	0.000		-		0.000	0.000	2.050	2.050
Follow-On Test & Evaluation	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		0.000		-		0.000	5.162	5.162	-
Follow-On Test & Evaluation	Various	NAVAIR : Patuxent River, MD	0.000	0.000		0.000		0.000		-		0.000	2.192	2.192	-
		Subtotal	0.000	0.000		19.437		15.328		-		15.328	7.354	42.119	N/A

Remarks

Development Test & Evaluation (DT&E) (NAWCAD Patuxent River) - Support for developmental test & evaluation, contractor test (CT), government led Integrated Test, Operational Assessment (OA), system integration lab, T&E instrumentation design, procurement, calibration, and tooling.

DT&E (NAWCWD Point Mugu) - Cyber Security T&E.

DT&E (JITC) - Joint Interoperability Test Certification.

DT&E (NAVAIR Patuxent River) - Movement of Test and Evaluation Support Contracts and test asset maintenance support contracts to be funded at NAVAIR Headquarters.

Live Fire Test & Evaluation (NAWCWD China Lake) - LFT&E test planning, documentation, execution and reporting.

Operational Test & Evaluation (COTF) - Technical and engineering support in support of Operational Test and Integrated Test and evaluation of the VH-92A aircraft. Support efforts include documentation review, test planning, operational test design, test analysis and reporting and test operations.

Integrated Test & Evaluation (Petroleum Helicopters International, Inc Lafayette, LA) - Lease of a training asset in support of test pilot proficiency training. The total value of the

contract is \$6.964 to include \$4.914 funded by PE 0604273N.

Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy

R-1 Program Element (Number/Name)

Project (Number/Name)

Appropriation/Budget Activity 1319 / 5

PE 0604273M I (U)Executive Helo

3300 I Presidential Helicopter VH-92A

Date: March 2019

Development

Management Servic	es (\$ in M	illions)		FY 2018		FY 2019		FY 2 Ba	2020 ise	FY 2020 OCO		FY 2020 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
Program Management Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		2.771	Nov 2018	1.997	Nov 2019	-		1.997	3.311	8.079	-
Program Management Support	Various	NAVAIR : Patuxent River, MD	0.000	0.000		3.624	Dec 2018	2.062	Dec 2019	-		2.062	1.756	7.442	-
Transportation	Various	NAVAIR : Patuxent River, MD	0.000	0.000		0.025	Oct 2018	0.025	Oct 2019	-		0.025	0.000	0.050	-
Travel	Various	NAVAIR : Patuxent River, MD	0.000	0.000		0.075	Oct 2018	0.075	Oct 2019	-		0.075	0.150	0.300	-
		Subtotal	0.000	0.000		6.495		4.159		-		4.159	5.217	15.871	N/A

Remarks

Program Management Support - Project Management support for Milestone C preparation, technical reviews, risk reduction activities, contractor deliverables, configuration management, physical security, training and information assurance/cyber security.

	Prior						2020		2020	FY 2020	Cost To	Total	Target Value of
	Years	FY 2	2018	FY 2	2019	Ва	se	00	CO	Total	Complete	Cost	Contract
Project Cost Totals	0.000	0.000		245.064		164.985		-		164.985	74.210	484.259	N/A

Remarks

Exhibit R-4, RDT&E Schedule Profile: PB 2020 Navy Date: March 2019 **Appropriation/Budget Activity** R-1 Program Element (Number/Name) Project (Number/Name) PE 0604273M I (U)Executive Helo 1319 / 5 3300 I Presidential Helicopter VH-92A Development Fiscal Year (FY) Quarter (Q) Requirements 8DD FOC íoc Note: The FY-18 portion **Engineering &** Acquisition of the Manufacturing Develop. budget Milestones schedule is Production funded in PE FRP 0804273N Systems Engineering Readiness Review Logistics/Sustainment Maint. Pl. IETM / ALE Contractor Logistics ICS Support (EMD) LRIP 2 FRP LRIP 1 Contracting Option Option Option Contract/Option Award ∇ Deliveries ∇ ∇ ∇ ∇ ∇ SDTA Item Production EDM 2 LRIP 2 FRP Item Deliveries BATOI Integrated Test FOT&E Test **▽IOT&E Report** VInterim OTRR Readiness Review BLRIP Report ∇ Reports/Assessments VLFT&E Report OA OA Report

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
1319 / 5	PE 0604273M I (U)Executive Helo	3300 <i>I Pre</i>	sidential Helicopter VH-92A
	Development		

Schedule Details

	Sta	art	En	d
Events by Sub Project	Quarter	Year	Quarter	Year
Presidential Helicopter VH-92A				
Requirements: Capabilities Development Document (CDD)	2	2019	2	2019
Requirements: Initial Operational Capability	4	2020	4	2020
Requirements: Full Operational Capability	4	2022	4	2022
Acquisition Milestones: Engineering & Manufacturing Development	1	2019	1	2021
Acquisition Milestones: Production	3	2019	3	2023
Acquisition Milestones: Milestone C	3	2019	3	2019
Acquisition Milestones: Full Rate Production Decision	2	2021	2	2021
Logistics/Sustainment: Maintenance Planning / IETM / ALE	1	2019	4	2019
Logistics/Sustainment: Contractor Logistics Support (EMD)	1	2019	1	2021
Logistics/Sustainment: Interim Contractor Support	1	2021	1	2024
Contracting: Low Rate Initial Production (LRIP) Lot 1 (APN)	3	2019	3	2019
Contracting: LRIP - Lot 2 (APN)	2	2020	2	2020
Contracting: FRP (APN)	2	2021	2	2021
Deliveries: Engineering Development Model (EDM) 2	1	2019	1	2019
Deliveries: System Demonstration Test Article (SDTA) Aircraft 1	3	2019	3	2019
Deliveries: SDTA Aircraft 2	4	2019	4	2019
Deliveries: SDTA Aircraft 3	4	2019	4	2019
Deliveries: SDTA Aircraft 4	2	2020	2	2020
Deliveries: LRIP - Lot 1 (APN)	3	2021	2	2022
Deliveries: LRIP - Lot 2 (APN)	2	2022	1	2023
Deliveries: Full Rate Production (APN)	2	2023	3	2023

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Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy			Date: March 2019
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (N	umber/Name)
1319 / 5	PE 0604273M I (U)Executive Helo	3300 <i>I Pre</i> :	sidential Helicopter VH-92A
	Development		

	Sta	art	E	nd
Events by Sub Project	Quarter	Year	Quarter	Year
Test: Developmental Test - Integrated Test	1	2019	1	2020
Test: Operational Assessment	2	2019	2	2019
Test: Interim Live Fire Test & Evaluation Report	2	2019	2	2019
Test: Operational Assessment Report	3	2019	3	2019
Test: Operational Test Readiness Review	1	2020	1	2020
Test: Initial Operational Test & Evaluation	1	2020	3	2020
Test: Follow-on Test & Evaluation	3	2020	4	2024
Test: Live Fire Test & Evaluation Report	4	2020	4	2020
Test: Initial Operational Test & Evaluation Report	4	2020	4	2020
Test: Beyond Low Rate Initial Production Report	1	2021	1	2021

Exhibit R-2A, RDT&E Project Ju	stification:	PB 2020 N	lavy							Date: Marc	ch 2019	
Appropriation/Budget Activity 1319 / 5		_	am Elemen '3M / (U)Exc ent	•	•	Project (Number/Name) 3390 / VH-92A Improvements						
COST (\$ in Millions)	Prior Years	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total	FY 2021	FY 2022	FY 2023	FY 2024	Cost To Complete	Total Cost
3390: VH-92A Improvements	0.000	0.000	0.000	22.451	-	22.451	23.957	24.381	24.620	25.100	Continuing	Continuing
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 429

Note

This project is a new start in FY2020.

A. Mission Description and Budget Item Justification

VH-92A Product Improvements address pre-planned product improvement requirements written into the Capabilities Development Document approved by Joint Requirements Oversight Committee in Jan 2013 and updated for Milestone C. The VH-92A Improvement projects provide near and long term improvements to the fleet, focusing on documented deficiencies related to mission systems, maintainability and reliability and obsolescence issues. The project addresses development associated with Mission Communications System (MCS) upgrades (both software and hardware), enhancements to Wideband Line of Sight (WBLOS), enhanced visual system (EVS), and cockpit upgrades.

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
Title: Product Improvement Development Articles:	0.000	0.000	16.298 -	0.000	16.298 -
FY 2019 Plans: N/A					
FY 2020 Base Plans: Develop pre-planned product improvements for incremental incorporation to the VH-92A capability baseline to include Enhancements to WBLOS, EVS, cockpit upgrades, shipboard interoperability and MCS hardware and software upgrades.					
FY 2020 OCO Plans: N/A					
FY 2019 to FY 2020 Increase/Decrease Statement: Increase in FY2020 due to the commencement of the VH-92A Improvements.					
Title: Test and Evaluation Articles:	0.000	0.000	4.850 -	0.000	4.850 -

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one.	LAGOII ILD					
Exhibit R-2A, RDT&E Project Justification: PB 2020 Navy				Date: Marc	ch 2019	
1319 / 5	R-1 Program Element (Number/I PE 0604273M <i>I (U)Executive Held</i> Development	Project (Number/Name) 3390 / VH-92A Improvements				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in	Each)	FY 2018	FY 2019	FY 2020 Base	FY 2020 OCO	FY 2020 Total
FY 2019 Plans: N/A						
FY 2020 Base Plans: Conduct follow on Test and Evaluation (T&E) for Mission Communications Systes software and hardware), enhancements to Wideband Line of Sight (WBLOS), er cockpit upgrades, Shipboard interoperability and maintain test aircraft.	` , . • ` `					
FY 2020 OCO Plans: N/A						
FY 2019 to FY 2020 Increase/Decrease Statement: Increase in FY2020 due to the commencement of the VH-92A Improvements.						
Title: Program Management	Articles:	0.000	0.000	1.303 -	0.000	1.303
FY 2019 Plans: N/A						
FY 2020 Base Plans: Conduct technical, cost, risk, and logistics analysis of preplanned product improve requirements through cost/performance trade-off analysis. Provide technical and development of acquisition documentation. Provide management of technical development efforts.						
FY 2020 OCO Plans: N/A						
FY 2019 to FY 2020 Increase/Decrease Statement: FY2020 increases due to the commencement of the VH-92A Improvements.						
Accomplishment	s/Planned Programs Subtotals	0.000	0.000	22.451	0.000	22.451

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Exhibit R-2A, RDT&E Project Just	stification: PB	2020 Navy							Date: Ma	rch 2019	
Appropriation/Budget Activity 1319 / 5				PE 06	R-1 Program Element (Number/Name) PE 0604273M <i>I (U)Executive Helo</i> Development			Project (I 3390 / VF	,		
C. Other Program Funding Sumi	mary (\$ in Milli	ons)									
			FY 2020	FY 2020	FY 2020					Cost To	
Line Item	FY 2018	FY 2019	Base	oco	<u>Total</u>	FY 2021	FY 2022	FY 2023	FY 2024	Complete	Total Cost
• APN-4/04550:	0.000	649.015	658.067	-	658.067	712.993	0.000	0.000	0.000	0.000	2,020.075
VH-92A Executive Helo											
 APN-6/0605: Spares 	0.000	80.939	87.983	-	87.983	73.907	0.000	0.000	0.000	0.000	242.829

0.000

0.000

0.000

0.000

0.000

0.000 1.895.298

Remarks

D. Acquisition Strategy

and Repair Parts
• RDTEN/0604273N:

Executive Helo Development

VH-92A Product Improvements will include trade studies, cost-benefit analyses, and risk-reduction efforts to address improvements for aircraft capability, safety, operational weight, mission availability, component reliability, maintainability, software, and obsolescence.

E. Performance Metrics

Completion of required VH-92A Product Improvements efforts.

425.947

0.000

0.000

						ICLASC									
Exhibit R-3, RDT&E	Project C	ost Analysis: PB 2	2020 Navy	/		,						Date:	March 20)19	
Appropriation/Budg 1319 / 5	et Activity	1					4273M / (lumber/Na tive Helo	ame)	_	(Numbei /H-92A In	,	ents	
Product Developme	nt (\$ in M	illions)		FY 2	:018	FY 2	2019		2020 ase		2020 CO	FY 2020 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	Total Cost	Target Value of Contract
Product Development	C/CPIF	Sikorsky Aircraft Corporation : Stratford, CT	0.000	0.000		0.000		5.761	Nov 2019	-		5.761	Continuing	Continuing	Continuin
Product Development	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		0.593	Nov 2019	-		0.593	Continuing	Continuing	Continuin
Product Development - Advanced Capabilities	Various	NSMA : Arlington, VA	0.000	0.000		0.000		4.041	Feb 2020	-		4.041	Continuing	Continuing	Continuin
Product Development - MCS	WR	NAWCAD : St. Inigoes, MD	0.000	0.000		0.000		1.500	Nov 2019	-		1.500	Continuing	Continuing	Continuin
Systems Engineering	Various	NAVAIR : Patuxent River, MD	0.000	0.000		0.000		3.552	Nov 2019	-		3.552	Continuing	Continuing	Continuin
Training	Various	NAVAIR : Patuxent River, MD	0.000	0.000		0.000		0.851	Nov 2019	-		0.851	Continuing	Continuing	Continuin
		Subtotal	0.000	0.000		0.000		16.298		-		16.298	Continuing	Continuing	N/A
Test and Evaluation	(\$ in Milli	ons)		FY 2018		FY 2019		FY 2020 Base		FY 2020 OCO		FY 2020 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	Total Cost	Target Value of Contract
Follow-On Test & Evaluation	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		0.808	Apr 2020	-		0.808	Continuing	Continuing	Continuin
Follow-On Test & Evaluation	Various	NAVAIR : Patuxent River, MD	0.000	0.000		0.000		4.042	Apr 2020	-		4.042	Continuing	Continuing	Continuin
		Subtotal	0.000	0.000		0.000		4.850		-		4.850	Continuing	Continuing	N/A
Management Servic	es (\$ in M	lillions)		FY 2	2018	FY 2	2019		2020 ase		2020 CO	FY 2020 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	Total Cost	Target Value of Contract
Program Management Support	Various	NAVAIR : Patuxent River, MD	0.000	0.000		0.000		0.898	Nov 2019	-		0.898	Continuing	Continuing	

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2020 Navy	Date: March 2019	
Appropriation/Budget Activity	R-1 Program Element (Number/Name)	Project (Number/Name)
1319 / 5	PE 0604273M I (U)Executive Helo Development	3390 I VH-92A Improvements

s (\$ in M	illions)		FY 2	2018	FY 2	019					FY 2020 Total			
Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Cost To	Total Cost	Target Value of Contract
WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		0.395	Nov 2019	-		0.395	Continuing	Continuing	Continuinç
Various	NAVAIR : Patuxent River, MD	0.000	0.000		0.000		0.010	Nov 2019	-		0.010	Continuing	Continuing	Continuing
	Subtotal	0.000	0.000		0.000		1.303		-		1.303	Continuing	Continuing	N/A
														Target
	Contract Method & Type WR	Method & Performing Activity & Location WR NAWCAD : Patuxent River, MD Various NAVAIR : Patuxent River, MD	Contract Method & Performing Activity & Location Years WR NAWCAD: Patuxent River, MD Various NAVAIR: Patuxent River, MD 0.000	Contract Method & Performing Prior Years Cost	Contract Method & Performing Prior Award Date	Contract Method & Performing Prior Activity & Location Years Cost Date Cost	Contract Method & Type Performing Activity & Location Prior Years Award Date Award Date Award Date WR NAWCAD : Patuxent River, MD 0.000 0.000 0.000 0.000 Various NAVAIR : Patuxent River, MD 0.000 0.000 0.000 0.000	Contract Method & Performing & Prior Award & Cost Date Cost	Contract Method & Type Performing Activity & Location Prior Years Award Date Award Date Award Date Award Date Cost Date Award Date Award Date Award Date Award Date O.000 O.000 <th< td=""><td> Contract Method & Performing Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Cost </td><td> Contract Method & Performing Activity & Location Years Cost Date Date </td><td> Contract Method & Performing Activity & Location Years Cost Date Date </td><td>Contract Method & Performing Activity & Location Years Cost Date C</td><td>Contract Method & Performing Activity & Location Years Cost Date Cost Complete Cost Complete Cost Complete Cost Continuing Continuing Continuing Continuing NAVAIR: Patuxent River, MD NAVAIR: Patuxent River, MD 0.000</td></th<>	Contract Method & Performing Activity & Location Years Cost Date Cost Date Cost Date Cost Date Cost Cost	Contract Method & Performing Activity & Location Years Cost Date Date	Contract Method & Performing Activity & Location Years Cost Date Date	Contract Method & Performing Activity & Location Years Cost Date C	Contract Method & Performing Activity & Location Years Cost Date Cost Complete Cost Complete Cost Complete Cost Continuing Continuing Continuing Continuing NAVAIR: Patuxent River, MD NAVAIR: Patuxent River, MD 0.000

													Target
	Prior					FY 2	2020	FY 2	2020	FY 2020	Cost To	Total	Value of
	Years	FY 2	2018	FY 2	2019	Ва	se	00	co	Total	Complete	Cost	Contract
Project Cost Totals	0.000	0.000		0.000		22.451		-		22.451	Continuing	Continuing	N/A

Remarks

Exhibit R-4, RDT&E Schedule Pro	ofile: [PB 2	020	Nav	У																			Date	: Ma	arch 2	2019	
Appropriation/Budget Activity 1319 / 5								R-1 Program Element (Number/Name) PE 0604273M I (U)Executive Helo Development										Project (Number/Name) 3390 / VH-92A Improvements										
Proj 3390		FY 2018 FY 2019 FY						7 2020 FY 2021					FY 2022				FY 2023				FY 2024							
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	10	2Q	3Q	4Q
											_								FC	T&E								
											 							I	l				I			l		
2020OSD - 0604273M - 3390																												

Exhibit R-4A, RDT&E Schedule Details: PB 2020 Navy			Date: March 2019
1319/5	3	- , (umber/Name) 92A Improvements

Schedule Details

	St	art	Eı	nd
Events by Sub Project	Quarter	Year	Quarter	Year
Proj 3390				
Follow-On Test & Evaluation	3	2020	4	2024