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Exhibit R-2, RDT&E Budget Item Justification: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319: <i>Research, Development, Test & Evaluation, Navy / BA 5: System Development & Demonstration (SDD)</i>	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
Total Program Element	0.000	237.300	176.211	99.321	-	99.321	39.317	25.058	25.561	26.073	151.556	780.397
3300: <i>Presidential Helicopter VH-92A</i>	0.000	237.300	164.985	61.159	-	61.159	0.000	0.000	0.000	0.000	0.000	463.444
3390: <i>VH-92A Improvements</i>	0.000	0.000	11.226	38.162	-	38.162	39.317	25.058	25.561	26.073	151.556	316.953

Program MDAP/MAIS Code:
Project MDAP/MAIS Code(s): 429

Note
 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, utility, and improvements/upgrades.

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 Low Rate Initial Production (LRIP) decision.

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B. Program Change Summary (\$ in Millions)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Previous President's Budget	245.064	187.436	83.654	-	83.654
Current President's Budget	237.300	176.211	99.321	-	99.321
Total Adjustments	-7.764	-11.225	15.667	-	15.667
• Congressional General Reductions	-	-			
• Congressional Directed Reductions	-	-11.225			
• Congressional Rescissions	-	-			
• Congressional Adds	-	-			
• Congressional Directed Transfers	-	-			
• Reprogrammings	-	-			
• SBIR/STTR Transfer	-7.764	0.000			
• Program Adjustments	0.000	0.000	15.315	-	15.315
• Rate/Misc Adjustments	0.000	0.000	0.352	-	0.352

Change Summary Explanation

Program Summary Change Explanation:

FY 2021 Program adjustment of \$15.667M is a result of the Milestone C full funding memo signed 7 June 2019 as documented in the approved Component Cost Position.

Technical: Not applicable.

Schedule:

System Demonstration Test Article (SDTA) Aircraft 3 revised from 4th QTR FY 2019 to 1st QTR FY 2020

System Demonstration Test Article (SDTA) Aircraft 4 revised from 2nd QTR FY 2020 to 3rd QTR FY 2020

Systems Engineering: Not applicable.

Logistics: Not applicable.

Contracting: Not applicable.

Deliveries: Not applicable.

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Navy										Date: February 2020		
Appropriation/Budget Activity 1319 / 5					R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development				Project (Number/Name) 3300 / Presidential Helicopter VH-92A			
COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
3300: Presidential Helicopter VH-92A	0.000	237.300	164.985	61.159	-	61.159	0.000	0.000	0.000	0.000	0.000	463.444
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. Budget estimate reflects the approved Milestone C Component Cost Position (7 June 2019).

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, Operational Testing for verification of Performance Based Specifications, 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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Title: Product Development	189.031	139.631	46.542	0.000	46.542
Articles:	-	-	-	-	-
FY 2020 Plans: Continue engineering support for Mission Communications System (MCS) and hardware/software maturation. Deliver final SDTA aircraft, conduct IOT&E and attain Initial Operational Capability (IOC). Continue Contractor Logistics Support (CLS) at Presidential Helicopter Support Facility (PHSF) Patuxent River, MD. Continue engineering support and modify second EDM and SDTA aircraft for the Forward Airstair door and the Fifth Multi-Function Display (MFD). Execute EMD Phase activities, including: integration of systems; production, qualification, and support of test articles; development and evaluation of logistics products; and demonstration of system integration, interoperability, safety, and utility.					
FY 2021 Base Plans:					

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Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3300 / Presidential Helicopter VH-92A

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
<p>Conclude IOT&E and attain Initial Operational Capability (IOC). Conclude engineering support for MCS and hardware/software maturation. Conclude CLS and engineering support of the EMD and SDTA aircraft at the PHSF Patuxent River, MD. Finalize execution of EMD Phase activities, including: integration of systems; production, qualification, and support of test articles; development and evaluation of logistics products; and demonstration of system integration, interoperability, safety, and utility.</p> <p>FY 2021 OCO Plans: N/A</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement: Funding decreases from FY 2020 to FY 2021 is due to the Engineering Manufacturing and Development (EMD) efforts concluding.</p>					
<p>Title: Support</p> <p align="right">Articles:</p> <p>FY 2020 Plans: Continue to support procurement and delivery of Common Support Equipment (CSE). Perform Support Equipment (SE) evaluations. Continue the development and generation of task analyses and maintenance summaries. Continue Level of Repair Analyses and implementation of I-level test and check capability and repair capability. Continue all Interactive Electronic Technical Manual (IETM) development/verification and perform updates. Perform supportability test and evaluation, to include maintenance demonstrations. Support programmatic and technical reviews.</p> <p>FY 2021 Base Plans: Conclude support of procurement and delivery of CSE. Finalize performance of SE evaluations. Conclude the development and generation of task analyses and maintenance summaries. Conclude Level of Repair Analyses and implementation of I-level test and check capability and repair capability. Conclude IETM development/verification and perform updates. Conclude supportability test and evaluation, to include maintenance demonstrations. Conclude programmatic and technical reviews.</p> <p>FY 2021 OCO Plans: N/A</p> <p>FY 2020 to FY 2021 Increase/Decrease Statement:</p>	19.734	6.966	2.357	0.000	2.357
	-	-	-	-	-

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Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3300 / Presidential Helicopter VH-92A			
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)					
	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Funding decreases from FY 2020 to FY 2021 is due to the Engineering Manufacturing and Development (EMD) efforts concluding.					
Title: Test and Evaluation	19.489	12.726	6.985	0.000	6.985
Articles:	-	-	-	-	-
FY 2020 Plans: Complete Government Integrated testing, Performance Based Specifications compliance verification, support equipment evaluations/assessments and instrumentation development/support and Integrated Test support at the Presidential Helicopter Support Facility. Continue cyber-testing and evaluation. Conduct Operational Test Readiness Review in preparation of Initial Operational Test & Evaluation (IOT&E) and conduct IOT&E and produce test reports. Continue to mature Systems Integration Laboratory (SIL) and conduct software/hardware regression testing and validation/verification.					
FY 2021 Base Plans: Conclude IOT&E and produce test reports. Conclude shipboard compatibility testing. Conclude Integrated Testing (to include cyber-testing and evaluation) in support of Verification of Correction of Deficiencies in support of Follow-on Operational Test and Evaluation. Conclude maturation of SIL and conclude software/hardware regression testing and validation/verification.					
FY 2021 OCO Plans: N/A					
FY 2020 to FY 2021 Increase/Decrease Statement: Funding decreases from FY 2020 to FY 2021 is due to the Engineering Manufacturing and Development (EMD) efforts concluding.					
Title: Program Management	9.046	5.662	5.275	0.000	5.275
Articles:	-	-	-	-	-
FY 2020 Plans: Continue to perform project management tasks, technical reviews, risk-reduction activities, contractor deliverables, configuration management, training, physical security, and information assurance/cyber security.					
FY 2021 Base Plans: Conclude project management tasks, technical reviews, risk-reduction activities, contractor deliverables,					

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B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
configuration management, training, physical security, and information assurance/cyber security.					
FY 2021 OCO Plans: N/A					
FY 2020 to FY 2021 Increase/Decrease Statement: Funding decreases from FY 2020 to FY 2021 is due to the Engineering Manufacturing and Development (EMD) efforts concluding.					
Accomplishments/Planned Programs Subtotals	237.300	164.985	61.159	0.000	61.159

C. Other Program Funding Summary (\$ in Millions)											
Line Item	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
• APN-4/04550: <i>VH-92A Executive Helo</i>	649.015	640.994	610.231	-	610.231	0.000	0.000	0.000	0.000	0.000	1,900.240
• APN-6/0605: <i>Spares and Repair Parts</i>	80.939	87.983	160.320	-	160.320	0.000	0.000	0.000	0.000	0.000	329.242

Remarks

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 has developed two (2) Engineering Development Model aircraft, four (4) System Demonstration Test Article aircraft, and is procuring seventeen (17) Low Rate Initial Production aircraft in three (3) Lots with APN-4.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3300 / Presidential Helicopter VH-92A
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Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Primary HW Dev - VH-92A EMD Contracts	C/FPIF	Sikorsky Aircraft Corporation : Stratford, CT	0.000	138.061	Oct 2018	102.510	Oct 2019	41.614	Oct 2020	-		41.614	0.000	282.185	282.185
Primary HW Dev - Advanced Capabilities	Various	NSMA : Arlington, VA	0.000	8.875	Feb 2019	9.178	Feb 2020	3.728	Feb 2021	-		3.728	0.000	21.781	-
Primary HW Dev - VH-92A MCS Design	WR	NAWCAD : St. Inigoes, MD	0.000	3.953	Nov 2018	1.367	Nov 2019	0.000		-		0.000	0.000	5.320	-
Primary HW Dev - VH-92A GFE	Various	Various : Various	0.000	8.105	Nov 2018	2.498	Nov 2019	0.000		-		0.000	0.000	10.603	-
Primary HW Dev - VH92A MFD/Forward Air Stair Door	C/UCA	Sikorsky Aircraft Corporation : Stratford, CT	0.000	15.704	Mar 2019	11.000	Mar 2020	0.000		-		0.000	0.000	26.704	26.704
Systems Engineering	Various	Various : Various	0.000	0.680	Nov 2018	0.600	Nov 2019	0.100	Nov 2020	-		0.100	0.000	1.380	-
Systems Engineering	WR	NAWCAD : Patuxent River, MD	0.000	9.260	Nov 2018	5.195	Nov 2019	0.728	Nov 2020	-		0.728	0.000	15.183	-
Systems Engineering	Various	NAVAIR : Patuxent River, MD	0.000	2.097	Dec 2018	1.108	Dec 2019	0.028	Dec 2020	-		0.028	0.000	3.233	-
Training	WR	NAWCTSD : Orlando, FL	0.000	1.284	Nov 2018	0.935	Nov 2019	0.190	Nov 2020	-		0.190	0.000	2.409	-
Training	WR	NAWCAD : St. Inigoes, MD	0.000	0.000		4.000	Nov 2019	0.000		-		0.000	0.000	4.000	-
Training	Various	NAVAIR : Patuxent River, MD	0.000	0.872	Dec 2018	1.218	Dec 2019	0.154	Dec 2020	-		0.154	0.000	2.244	-
Training	Various	NAWCAD : Patuxent River, MD	0.000	0.140	Nov 2018	0.022	Nov 2019	0.000		-		0.000	0.000	0.162	-
Subtotal			0.000	189.031		139.631		46.542		-		46.542	0.000	375.204	N/A

Remarks
 FUNDING PROFILE: Budget estimate reflects the approved Milestone C Component Cost Position (7 June 2019).

Notes:
 The Target Value of the Primary Hardware Development Engineering Manufacturing and Development (EMD) Contract reflects the total value of the EMD contracts for PE 0604273M. The total value of the EMD contract is \$1,574.260 million to include \$1,292.075 million funded by PE 0604273N.

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Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

The Primary HW Dev VH-92A Fifth Multi-Functional Display (MFD)/Forward Air Stair Door (FASD) reflects additional contract value to incorporate changes to three SDTA aircraft.

Primary HW Dev - (C/UCA) - Definitized contract action for the incorporation of Fifth MFD and FASD changes. The FASD 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 256 when fully opened. The VH-92A cockpit instrument panel requires design changes and the addition of a Fifth 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 and to reduce cockpit workload.

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

Systems Engineering (NAWCAD Patuxent River) - Engineering support for hardware maturation, Reliability and Maintainability analysis and Software Support Activity.

Systems Engineering (NAVAIR Patuxent River) - Engineering support contracts for functions associated with the avionics system engineering effort to design, develop, manufacture, integrate, update, maintain, support and test avionics systems from inception through disposal for the VH-92A.

Training (NAWCAD St. Inigoes) - Development and testing of the AIR 4.11 Communication System Operator Training Device

Training (NAVAIR Patuxent River) - Support for training requirements, training system and training media allocation in different training systems to include Courseware, Training Devices, Simulators, and Classroom Instruction.

FINANCIAL PERFORMANCE: The VH-92A EMD is a Fixed Price Incentive Firm contract with Performance Based Payments (PBP). Due to the PBP, 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, with PBP, the program is limited to paying the contractor only 90 percent of the performance based costs and profit. Mandatory funding obligations, payment withholds, and PBP will cause the program to lag traditional expenditure benchmarks, painting an inaccurate portrait of overall program health.

Support (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Integrated Logistics Support	WR	NAWCAD : Patuxent River, MD	0.000	4.717	Nov 2018	3.487	Nov 2019	2.192	Nov 2020	-		2.192	0.000	10.396	-
Integrated Logistics Support	WR	FRC : Cherry Point, NC	0.000	7.431	Nov 2018	2.801	Nov 2019	0.009	Nov 2020	-		0.009	0.000	10.241	-
Integrated Logistics Support	WR	NAWCAD : Lakehurst, NJ	0.000	1.337	Nov 2018	0.172	Nov 2019	0.000		-		0.000	0.000	1.509	-
Integrated Logistics Support	WR	SPAWAR : San Diego, CA	0.000	0.975	Nov 2018	0.000		0.000		-		0.000	0.000	0.975	-
Integrated Logistics Support	Various	NAVAIR : Patuxent River, MD	0.000	3.973	Sep 2019	0.506	Sep 2020	0.156	Sep 2021	-		0.156	0.000	4.635	-

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Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3300 / Presidential Helicopter VH-92A
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Support (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Integrated Logistics Support	Various	Various : Various	0.000	0.921	Nov 2018	0.000		0.000		-		0.000	0.000	0.921	-
Integrated Logistics Support	WR	NAWCAD : St. Inigoes, MD	0.000	0.380	Nov 2018	0.000		0.000		-		0.000	0.000	0.380	-
Subtotal			0.000	19.734		6.966		2.357		-		2.357	0.000	29.057	N/A

Remarks
 FUNDING PROFILE: Budget estimate reflects the approved Milestone C Component Cost Position (7 June 2019).

Notes:
 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, logistics support analysis efforts, level of repair analysis and Technical Publications development.
 ILS (NAVAIR Patuxent River) - Contractor support of ILS efforts, Supportability Test & Evaluation, Intermediate & Depot level repair capability development.
 ILS (Various) - Funding for various activities in support of SE Calibration and development and updates to the NAVAIR Standard Interactive Electronic Technical Manual Viewer software

Test and Evaluation (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Developmental Test & Evaluation	WR	NAWCAD : Patuxent River, MD	0.000	7.786	Nov 2018	6.363	Nov 2019	5.321	Nov 2020	-		5.321	0.000	19.470	-
Developmental Test & Evaluation	WR	NAWCWD : Point Mugu, CA	0.000	0.015	Nov 2018	0.000		0.000		-		0.000	0.000	0.015	-
Developmental Test & Evaluation	MIPR	JITC : Ft. Huachuca, AZ	0.000	0.186	Oct 2018	0.036	Oct 2019	0.000		-		0.000	0.000	0.222	-
Developmental Test & Evaluation	Various	NAVAIR : Patuxent River, MD	0.000	5.671	Dec 2018	4.116	Dec 2019	0.072	Dec 2020	-		0.072	0.000	9.859	-
Live Fire Test & Evaluation	WR	NAWCWD : China Lake, CA	0.000	1.487	Nov 2018	0.662	Nov 2019	0.000		-		0.000	0.000	2.149	-

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Test and Evaluation (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Operational Test & Evaluation	WR	COTF : Norfolk, VA	0.000	2.334	May 2019	1.549	May 2020	1.592	May 2021	-		1.592	0.000	5.475	-
Integrated Test & Evaluation	C/FFP	Petroleum Helicopters International, Inc : Lafayette, LA	0.000	2.010	Oct 2018	0.000		0.000		-		0.000	0.000	2.010	2.010
Subtotal			0.000	19.489		12.726		6.985		-		6.985	0.000	39.200	N/A

Remarks
 FUNDING PROFILE: Budget estimate reflects the approved Milestone C Component Cost Position (7 June 2019).
 Notes:
 Development Test & Evaluation (DT&E) (NAWCAD Patuxent River) - Support for DT&E, contractor test, government led Integrated Test, Operational Assessment, system integration lab, T&E instrumentation design, procurement, calibration, and tooling.
 DT&E (NAVAIR Patuxent River) - Test and Evaluation support contracts and test asset maintenance support contracts required to support Engineering Development Model and System Demonstration Test Article test events.
 Operational Test & Evaluation (COTF) - Technical and engineering 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. Increase in FY 2021 to support the preparation and conduct of FOT&E.

Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Support	WR	NAWCAD : Patuxent River, MD	0.000	4.554	Nov 2018	3.114	Nov 2019	2.270	Nov 2020	-		2.270	0.000	9.938	-
Program Management Support	Various	NAVAIR : Patuxent River, MD	0.000	4.316	Dec 2018	2.448	Dec 2019	2.905	Dec 2020	-		2.905	0.000	9.669	-
Transportation	Various	NAVAIR : Patuxent River, MD	0.000	0.163	Oct 2018	0.025	Oct 2019	0.025	Oct 2020	-		0.025	0.000	0.213	-
Travel	Various	NAVAIR : Patuxent River, MD	0.000	0.013	Oct 2018	0.075	Oct 2019	0.075	Oct 2020	-		0.075	0.000	0.163	-
Subtotal			0.000	9.046		5.662		5.275		-		5.275	0.000	19.983	N/A

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Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

Remarks
 FUNDING PROFILE: Budget estimate reflects the approved Milestone C Component Cost Position (7 June 2019).

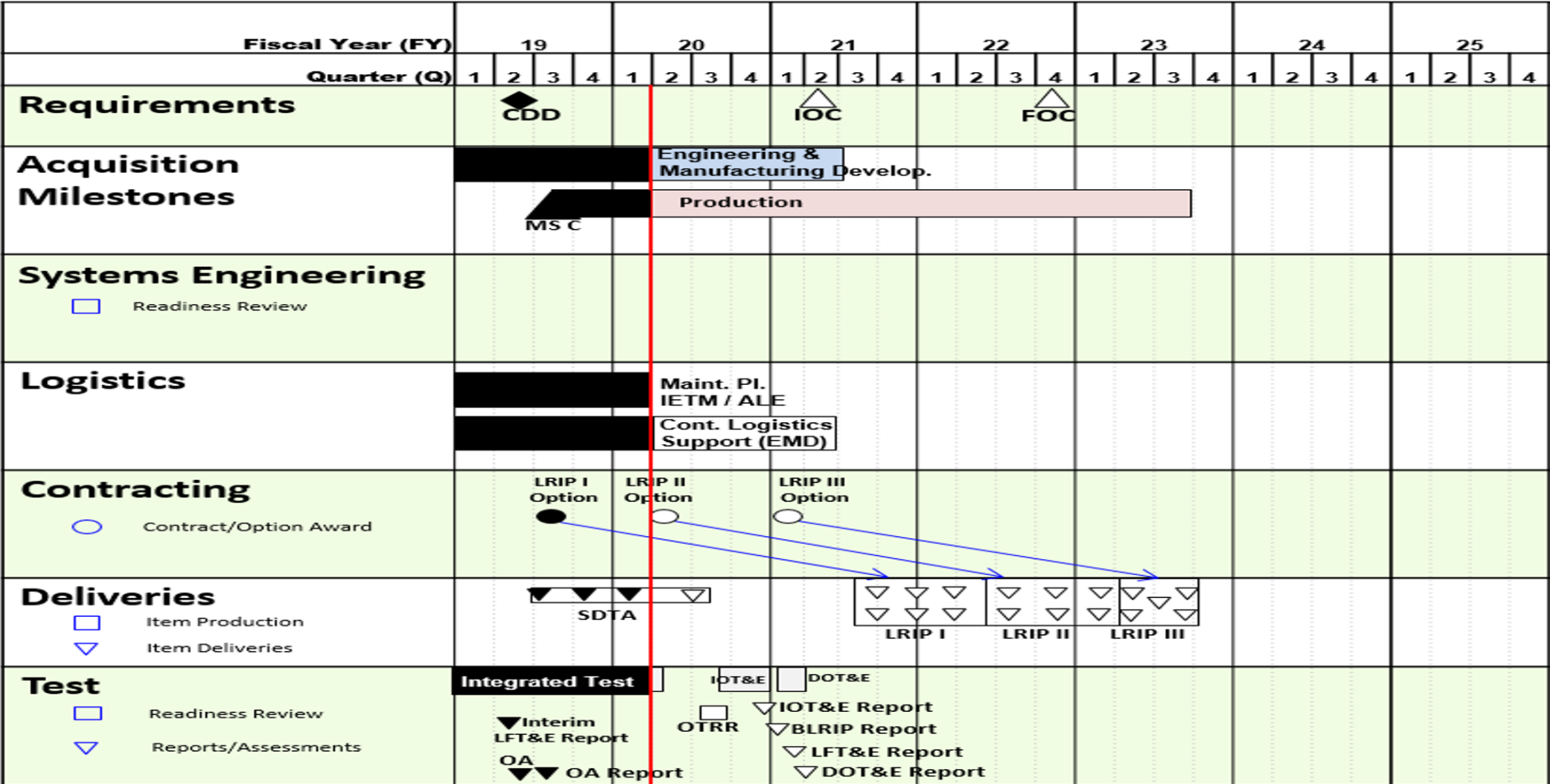
 Management Services Notes:
 Program Management Support - Required program management support for technical reviews, risk reduction activities, contractor deliverables, configuration management, physical security, training and information assurance/cyber security. Estimate includes funding to ensure compliance with OPNAV 5530.14, which requires the Presidential Helicopters Support Facility to be a Level III Security Facility.

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	237.300	164.985	61.159	-	61.159	0.000	463.444	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3300 / Presidential Helicopter VH-92A



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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3300 / Presidential Helicopter VH-92A

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Presidential Helicopter VH-92A				
Requirements: Capabilities Development Document (CDD)	2	2019	2	2019
Requirements: Initial Operational Capability	2	2021	2	2021
Requirements: Full Operational Capability	4	2022	4	2022
Acquisition Milestones: Engineering & Manufacturing Development	1	2019	2	2021
Acquisition Milestones: Production	3	2019	3	2023
Acquisition Milestones: Milestone C	3	2019	3	2019
Logistics: Maintenance Planning / IETM / ALE	1	2019	1	2020
Logistics: Contractor Logistics Support (EMD)	1	2019	2	2021
Contracting: Low Rate Initial Production (LRIP) Lot I (APN)	3	2019	3	2019
Contracting: LRIP - Lot II (APN)	2	2020	2	2020
Contracting: LRIP - Lot III (APN)	1	2021	1	2021
Deliveries: System Demonstration Test Article (SDTA) Aircraft 1	3	2019	3	2019
Deliveries: SDTA Aircraft 2	4	2019	4	2019
Deliveries: SDTA Aircraft 3	1	2020	1	2020
Deliveries: SDTA Aircraft 4	3	2020	3	2020
Deliveries: LRIP - Lot I (APN)	3	2021	2	2022
Deliveries: LRIP - Lot II (APN)	2	2022	1	2023
Deliveries: LRIP - Lot III (APN)	2	2023	3	2023
Test: Developmental Test - Integrated Test	1	2019	2	2020
Test: Operational Assessment	2	2019	2	2019
Test: Interim Live Fire Test & Evaluation Report	2	2019	2	2019

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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3300 / Presidential Helicopter VH-92A
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Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Test: Operational Assessment Report	3	2019	3	2019
Test: Operational Test Readiness Review	3	2020	3	2020
Test: Initial Operational Test & Evaluation	3	2020	4	2020
Test: Live Fire Test & Evaluation Report	1	2021	1	2021
Test: Initial Operational Test & Evaluation Report	4	2020	4	2020
Test: Beyond Low Rate Initial Production Report	1	2021	1	2021
Test: Development Operational Test	1	2021	1	2021
Test: Development Operational Test Report	2	2021	2	2021

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3390 / VH-92A Improvements
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COST (\$ in Millions)	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	FY 2022	FY 2023	FY 2024	FY 2025	Cost To Complete	Total Cost
3390: VH-92A Improvements	0.000	0.000	11.226	38.162	-	38.162	39.317	25.058	25.561	26.073	151.556	316.953
Quantity of RDT&E Articles		-	-	-	-	-	-	-	-	-		

Project MDAP/MAIS Code: 429

Note
Budget estimate reflects the approved Milestone C Component Cost Position (7 June 2019).

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 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Title: Product Improvement Development	0.000	7.302	13.496	0.000	13.496
Articles:	-	-	-	-	-
FY 2020 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 2021 Base Plans: Continue developing pre-planned product improvements for incremental incorporation to the VH-92A capability baseline to include Enhancements to Wide Band Line of Sight (WBLOS), Enhanced Visual System (EVS), cockpit upgrades, shipboard interoperability and Mission Computer System (MCS) hardware software upgrades and GFE.					
FY 2021 OCO Plans: N/A					
FY 2020 to FY 2021 Increase/Decrease Statement:					

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Navy			Date: February 2020			
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3390 / VH-92A Improvements				
B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)						
		FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Increase in FY 2021 is required for Advance Capabilities GFE.						
Title: Test and Evaluation		0.000	1.881	19.554	0.000	19.554
Articles:		-	-	-	-	-
FY 2020 Plans: Conduct follow on Test and Evaluation (T&E) for Mission Communications System (MCS) upgrades (both software and hardware), enhancements to Wideband Line of Sight (WBLOS), enhanced visual system (EVS), cockpit upgrades, Shipboard interoperability and maintain test aircraft.						
FY 2021 Base Plans: Continue follow on T&E for MCS upgrades (both software and hardware), enhancements to WBLOS, EVS, cockpit upgrades, Shipboard interoperability and maintain test aircraft.						
FY 2021 OCO Plans: N/A						
FY 2020 to FY 2021 Increase/Decrease Statement: Increase in FY 2021 is required or provide support for the maintenance and testing of the Engineering Development Models and System Demonstration Test Articles.						
Title: Program Management		0.000	2.043	5.112	0.000	5.112
Articles:		-	-	-	-	-
FY 2020 Plans: Commence program management support for technical reviews, risk reduction activities, contractor deliverables, and configuration management.						
FY 2021 Base Plans: Conduct program management support for technical reviews, risk reduction activities, contractor deliverables, configuration management, training and information assurance/cyber security. Conduct Level 3 physical security for the Presidential Helicopter Support Facility (PHSF) as required by the OPNAV instruction 5530.14 for armed guards 24hrs, 7 days a week.						
FY 2021 OCO Plans: N/A						
FY 2020 to FY 2021 Increase/Decrease Statement:						

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Exhibit R-2A, RDT&E Project Justification: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3390 / VH-92A Improvements

B. Accomplishments/Planned Programs (\$ in Millions, Article Quantities in Each)	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total
Increase FY 2021 is required for the Level 3 Physical security for the PHSF.					
Accomplishments/Planned Programs Subtotals	0.000	11.226	38.162	0.000	38.162

C. Other Program Funding Summary (\$ in Millions)

<u>Line Item</u>	<u>FY 2019</u>	<u>FY 2020</u>	<u>FY 2021 Base</u>	<u>FY 2021 OCO</u>	<u>FY 2021 Total</u>	<u>FY 2022</u>	<u>FY 2023</u>	<u>FY 2024</u>	<u>FY 2025</u>	<u>Cost To Complete</u>	<u>Total Cost</u>
• APN-4/04550: VH-92A Executive Helo	649.015	640.994	610.231	-	610.231	0.000	0.000	0.000	0.000	0.000	1,900.240
• APN-6/0605: Spares and Repair Parts	80.939	87.983	160.320	-	160.320	0.000	0.000	0.000	0.000	0.000	329.242

Remarks

D. Acquisition Strategy

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.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3390 / VH-92A Improvements
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Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Product Development - Shipboard Interoperability	C/CPIF	Sikorsky Aircraft Corporation : Stratford, CT	0.000	0.000		2.000	Nov 2019	0.000		-		0.000	0.000	2.000	-
Product Development - WBLOS	C/CPIF	Sikorsky Aircraft Corporation : Stratford, CT	0.000	0.000		2.894	Nov 2019	0.000		-		0.000	0.000	2.894	-
Product Development - FCS	C/CPIF	Sikorsky Aircraft Corporation : Stratford, CT	0.000	0.000		2.000	Nov 2019	0.000		-		0.000	0.000	2.000	-
Product Development - GFE	Various	Various : Various	0.000	0.000		0.000		12.590	Nov 2020	-		12.590	13.000	25.590	-
Systems Engineering	Various	NAVAIR : Patuxent River, MD	0.000	0.000		0.000		0.019	Nov 2020	-		0.019	47.541	47.560	-
Systems Engineering	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.208	Nov 2019	0.887	Nov 2020	-		0.887	9.734	10.829	-
Future Product Improvements	Various	Various : Various	0.000	0.000		0.000		0.000		-		0.000	49.922	49.922	-
Future Product Improvements - AdCap	Various	NSMA : Arlington, VA	0.000	0.000		0.000		0.000		-		0.000	30.660	30.660	-
Product Development - EVS	C/CPIF	Sikorsky Aircraft Corporation : Stratford, CT	0.000	0.000		0.200	Nov 2019	0.000		-		0.000	4.000	4.200	-
Subtotal			0.000	0.000		7.302		13.496		-		13.496	154.857	175.655	N/A

Remarks
 FUNDING PROFILE: Budget estimate reflects the approved Milestone C Component Cost Position (7 June 2019).

Notes:
 Product Development - EVS -Engineering Change Proposal (ECP) for the Enhanced Vision System (EVS).
 Product Development - Shipboard Interoperability - ECP to design, test and develop the Shipboard Interoperability.
 Product Development - WBLOS - ECP for the design and testing of the Wide Band Line of Sight (WBLOS) kits.
 Product Development - FCS - ECP for the design and testing of the Future Communication System (FCS).
 Product Development - GFE - Advanced Capabilities Government Furnished Equipment required for the Engineering Development Model (EDM) 1 and EDM 2 Aircraft.
 Systems Engineering (Various) - Increase in FY 2021 is required for Engineering Support Contracts required to support Test Dissemination/Instrumentation Data Storage.

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3390 / VH-92A Improvements
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Product Development (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			

Systems Engineering (NAWCAD Patuxent River) - Engineering support for hardware maturation, Reliability and Maintainability analysis and Software Support Activity.

Test and Evaluation (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Follow-On Test & Evaluation	WR	NAWCAD : Patuxent River, MD	0.000	0.000		1.073	Nov 2019	1.816	Nov 2020	-		1.816	3.481	6.370	-
Follow-On Test & Evaluation	WR	NAVAIR : Patuxent River, MD	0.000	0.000		0.808	Nov 2019	17.076	Nov 2020	-		17.076	69.742	87.626	-
Follow-On Test & Evaluation	Various	NAWCWD : China Lake, CA	0.000	0.000		0.000		0.662	Nov 2020	-		0.662	5.294	5.956	-
Subtotal			0.000	0.000		1.881		19.554		-		19.554	78.517	99.952	N/A

Remarks
FUNDING PROFILE: Budget estimate reflects the approved Milestone C Component Cost Position (7 June 2019).

Notes:
Follow-On Test & Evaluation - Funding is required for technical and engineering support for Follow-On Test and Integrated Test & Evaluation of the VH-92A aircraft. Support efforts include maintenance of test aircraft, documentation review, test planning, operational test design, test analysis and reporting and test operations. Increase in FY 2021 is due to appropriately realigning the maintenance contract for the EDM aircraft to T&E from PM support.

Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Program Management Support	Various	NAVAIR : Patuxent River, MD	0.000	0.000		2.043	Jan 2020	3.158	Nov 2020	-		3.158	7.941	13.142	-
Program Management Support	WR	NAWCAD : Patuxent River, MD	0.000	0.000		0.000		1.454	Nov 2020	-		1.454	26.100	27.554	-
Program Management Support	Various	NAVSEA : Washington, DC	0.000	0.000		0.000		0.500	Nov 2020	-		0.500	0.000	0.500	-

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Exhibit R-3, RDT&E Project Cost Analysis: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3390 / VH-92A Improvements
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Management Services (\$ in Millions)				FY 2019		FY 2020		FY 2021 Base		FY 2021 OCO		FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Cost Category Item	Contract Method & Type	Performing Activity & Location	Prior Years	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost	Award Date	Cost			
Transportation	Various	NAVAIR : Patuxent River, MD	0.000	0.000		0.000		0.000		-		0.000	0.150	0.150	-
Subtotal			0.000	0.000		2.043		5.112		-		5.112	34.191	41.346	N/A

Remarks
 FUNDING PROFILE: Budget estimate reflects the approved Milestone C Component Cost Position (7 June 2019).

 Notes:
 Program Management Support - Funding is required for Program Management support of technical reviews, risk reduction activities, contractor deliverables, configuration management, training and information assurance/cyber security. As well as, funding for Level 3 physical security for the Presidential Helicopter Support Facility (PHSF) as required by the OPNAV instruction 5530.14 for armed guards 24hrs, 7 days a week.

 Congressional Mandated SBIR is budgeted in Program Management Support Cost Category.

	Prior Years	FY 2019	FY 2020	FY 2021 Base	FY 2021 OCO	FY 2021 Total	Cost To Complete	Total Cost	Target Value of Contract
Project Cost Totals	0.000	0.000	11.226	38.162	-	38.162	267.565	316.953	N/A

Remarks

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Exhibit R-4, RDT&E Schedule Profile: PB 2021 Navy **Date:** February 2020

Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3390 / VH-92A Improvements
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Proj 3390	FY 2019				FY 2020				FY 2021				FY 2022				FY 2023				FY 2024				FY 2025							
	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				
Test & Evaluation																																
					FOT&E																											
Product Improvements																																
																									Improvements & Upgrades							

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Exhibit R-4A, RDT&E Schedule Details: PB 2021 Navy		Date: February 2020
Appropriation/Budget Activity 1319 / 5	R-1 Program Element (Number/Name) PE 0604273M / (U)Executive Helo Development	Project (Number/Name) 3390 / VH-92A Improvements

Schedule Details

Events by Sub Project	Start		End	
	Quarter	Year	Quarter	Year
Proj 3390				
Test & Evaluation: Follow-On Test & Evaluation	2	2020	4	2024
Product Improvements: Product Improvement and Upgrades	1	2025	4	2025