Selected Acquisition Report (SAR)

RCS: DD-A&T(Q&A)823-429

VH-92A Presidential Helicopter (VH-92A)

As of FY 2019 President's Budget

Defense Acquisition Management
Information Retrieval
(DAMIR)

This document contains information that may be exempt from mandatory disclosure under the FOIA.

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Sensitivity Originator

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Common Acronyms and Abbreviations for MDAP Programs

Acq O&M - Acquisition-Related Operations and Maintenance
ACAT - Acquisition Category
ADM - Acquisition Decision Memorandum
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
$B - Billions of Dollars
BA - Budget Authority/Budget Activity
Blk - Block
BY - Base Year
CAPE - Cost Assessment and Program Evaluation
CARD - Cost Analysis Requirements Description
CDD - Capability Development Document
CLIN - Contract Line Item Number
CPD - Capability Production Document
CY - Calendar Year
DAB - Defense Acquisition Board
DAE - Defense Acquisition Executive
DAMIR - Defense Acquisition Management Information Retrieval
DoD - Department of Defense
DSN - Defense Switched Network
EMD - Engineering and Manufacturing Development
EVM - Earned Value Management
FOC - Full Operational Capability
FMS - Foreign Military Sales
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
IOC - Initial Operational Capability
Inc - Increment
JROC - Joint Requirements Oversight Council
$K - Thousands of Dollars
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
$M - Millions of Dollars
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
O&M - Operations and Maintenance
ORD - Operational Requirements Document
OSD - Office of the Secretary of Defense
O&S - Operating and Support
PAUC - Program Acquisition Unit Cost

PB - President's Budget
PE - Program Element
PEO - Program Executive Officer
PM - Program Manager
POE - Program Office Estimate
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
UCR - Unit Cost Reporting
U.S. - United States
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name
VH-92A Presidential Helicopter (VH-92A)

DoD Component
Navy

Responsible Office

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Date Assigned: July 2, 2014

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References

SAR Baseline (Development Estimate)

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated April 17, 2014

Approved APB

Defense Acquisition Executive (DAE) Approved Acquisition Program Baseline (APB) dated April 17, 2014

Mission and Description

The VH-92A Presidential Helicopter (VH-92A) program mission is to provide safe, reliable, and timely transportation for the President, Vice President, Foreign Heads of State, and other official parties as directed by the Director of the White House Military Office. Presidential helicopter transportation requirements are executed by Marine Helicopter Squadron One (HMX-1) and support the President worldwide and the Vice President primarily inside the National Capital Region. Mission tasking encompasses two (2) main types of missions, administrative lift (Mission Tasking 1) and contingency operations (Mission Tasking 2). The VH-92A platform will replace both In-Service aircraft (VH-3D and VH-60N) and is based on Sikorsky's commercial S-92A helicopter. The acquisition strategy for the VH-92A program involves integration of mature government-defined mission systems and an executive interior into the existing S-92A air vehicle.

Executive Summary

Program Highlights Since Last Report

The acquisition strategy for the VH-92A program is based on the integration of mature government-defined mission systems and an executive interior into an existing in production commercial S-92A helicopter while maintaining the existing Federal Aviation Administration (FAA) airworthiness certification through-out the life cycle of the program. The program has no critical technology elements. The VH-92A program completed a Milestone B DAB review in March 2014. The MDA approved the VH-92A program to enter the EMD phase in an ADM dated April 17, 2014. A Fixed Price Incentive Firm contract was competitively awarded to Sikorsky Aircraft Corporation on May 7, 2014. A total quantity of 23 aircraft will be procured, consisting of 21 operational aircraft and two test aircraft. In August 2015, the VH-92A program conducted a System Level Preliminary Design Review. System Level Critical Design Review (CDR) was completed July 2016. Engineering Development Model (EDM) 1 completed First Flight on July 28, 2017, at Stratford, CT, and was flown to Owego, NY, on August 10, 2017, to conduct contractor testing. EDM 2 completed first flight on November 11, 2017, at Stratford, CT, and was flown to Owego, NY, on November 16, 2017, to conduct contractor testing. System Demonstration Test Article (SDTA) 1, SDTA 2 and SDTA 3 are currently in modification at Sikorsky's facility in Stratford, CT. Mission Communications System (MCS) development and integration efforts continue at Naval Air Systems Command in St. Inigoes, MD, and Lockheed Martin, Owego, NY. In addition, Live Fire Test and Evaluation efforts have commenced. Contractor flight testing commenced in August 2017, to be followed by Government led Integrated Testing planned for Third quarter FY 2018.

The VH-92A program released a sole-source Request for Proposal for the 17 VH-92A production aircraft in April 2017. The 17 aircraft are planned to be procured in three lots: LRIP - one of six aircraft in FY 2019, LRIP - two of six aircraft in FY 2020 and FRP of five aircraft in FY 2021. These 17 aircraft are planned to go directly into the operational inventory and support the transition of the Presidential Helicopter vertical lift missions to the VH-92A aircraft.

The first VH-92A configured test aircraft, EDM 1, completed its first flight at Stratford, CT, in July 2017. This first flight of the VH-92A configuration demonstrated airworthiness of the air vehicle as a result of modifications for electromagnetic environmental effects, and modifications to prepare the aircraft to eventually receive the MCS and executive interior at Owego. The flight validated the VH-92A design and exercised the FAA airworthiness certification process for the VH-92A aircraft.

EDM 1 was flown to Owego, NY, August 2017, to complete the work to produce a fully-configured VH-92A aircraft. Work includes: ground and flight testing (contractor testing), installation of aircraft subsystems including the MCS, installation of the executive interior, and painting the aircraft. EDM 1 planned delivery date is in June 2018 to allow Government to continue ground and flight testing to support the Operational Assessment planned for First quarter FY 2019.

The VH-92A program conducted the Training System CDR in August 2017. This event was a culmination of individual reviews for the training devices: Flight Training Device, Maintenance Training Device, System Emulation Maintenance Trainer and the Courseware. The VH-92A Training System is planned to be in place Second quarter FY 2019 to support training of United States Marine Corps personnel to conduct Initial Operational Test and Evaluation (IOT&E) planned for Second quarter FY 2020.

Three of four VH-92A SDTA aircraft, SDTA-1, SDTA-2, and SDTA-3 are currently in modification at Sikorsky's facility in Stratford, CT. SDTA-4 is planned to be inducted into the modification phase in March 2018. SDTA aircraft are production-representative and will be used to conduct training in support of testing to include IOT&E. The SDTA aircraft are planned to transition to operational inventory and will be used to support the VH-92A IOC milestone.

The VH-92A program is meeting all APB parameters and is fully funded within the FYDP. Requirements have remained stable since program initiation and all identified risks are well understood and mitigation plans implemented with no anticipated impact on program schedule. The Government Accountability Office has been reporting on the VH-92A program annually since CY 2011 with no significant findings.

There are no significant software-related issues with this program at this time.

History of Significant Developments Since Program Initiation

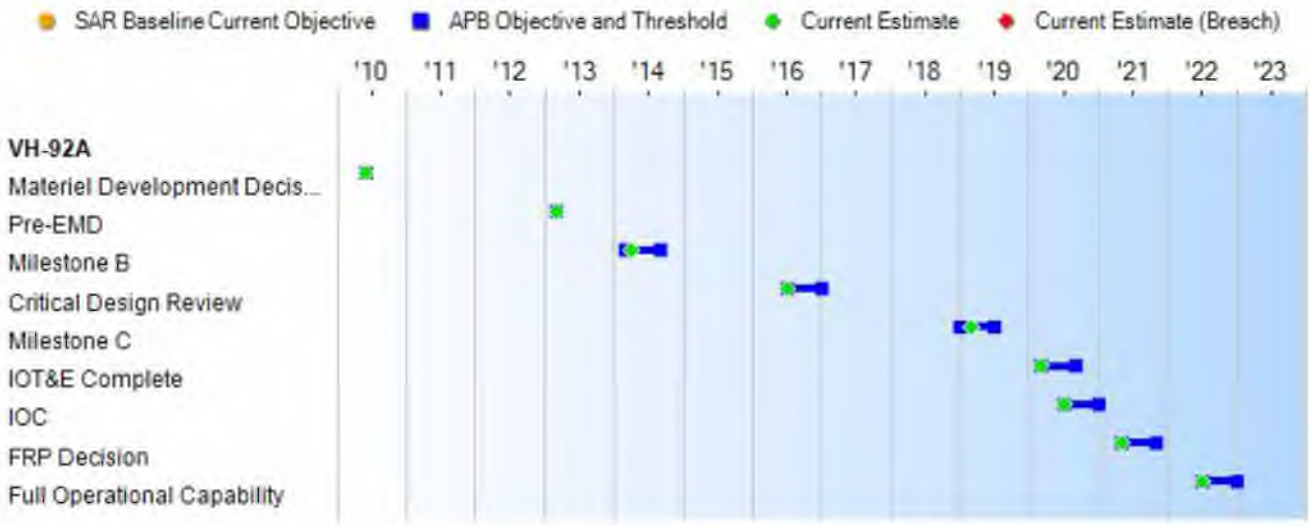
History of Significant Developments Since Program Initiation	
Date	**Significant Development Description**
March 2014	The VH-92A program completed a Milestone B DAB review.
April 2014	The MDA approved the VH-92A program to enter the EMD phase in an ADM.
May 2014	A Fixed Price Incentive contract was competitively awarded to Sikorsky Aircraft Corporation, with three fixed priced production options.
June 2015	The VH-92A program completed Communications Integrated Risk Reduction Testing on Baseline S-92A aircraft.
August 2015	The VH-92A program conducted a System Level Preliminary Design Review (PDR).
March 2016	Per Milestone B ADM, a Post PDR / Interim Progress Review was held.
July 2016	The VH-92A program conducted a System Level Critical Design Review (CDR).
April 2017	The VH-92A program released a Request for Proposal for the production phase of the program.
July 2017	Engineering Development Model (EDM) 1 completed First Flight at Stratford, CT.
August 2017	Contractor Flight Testing commenced, to be followed by Government led Integrated Testing planned for Third quarter FY 2018.
August 2017	EDM 1 was flown to Owego, NY, to conduct contractor testing.
August 2017	The VH-92A program conducted a Training Systems CDR.
October 2017	System Demonstration Test Article (SDTA) 1, SDTA 2, and SDTA 3 are currently in modification at Sikorsky's facility in Stratford, CT.

Threshold Breaches

APB Breaches		
Schedule		☐
Performance		☐
Cost	RDT&E	☐
	Procurement	☐
	MILCON	☐
	Acq O&M	☐
O&S Cost		☐
Unit Cost	PAUC	☐
	APUC	☐

Nunn-McCurdy Breaches		
Current UCR Baseline		
	PAUC	None
	APUC	None
Original UCR Baseline		
	PAUC	None
	APUC	None

Schedule



Schedule Events					
Events	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate	
Materiel Development Decision	Jun 2010	Jun 2010	Jun 2010	Jun 2010	
Pre-EMD	Mar 2013	Mar 2013	Mar 2013	Mar 2013	
Milestone B	Mar 2014	Mar 2014	Sep 2014	Apr 2014	
Critical Design Review	Jul 2016	Jul 2016	Jan 2017	Jul 2016	
Milestone C	Jan 2019	Jan 2019	Jul 2019	Mar 2019	(Ch-1)
IOT&E Complete	Mar 2020	Mar 2020	Sep 2020	Mar 2020	
IOC	Jul 2020	Jul 2020	Jan 2021	Jul 2020	
FRP Decision	May 2021	May 2021	Nov 2021	May 2021	
Full Operational Capability	Jul 2022	Jul 2022	Jan 2023	Jul 2022	

Change Explanations

(Ch-1) The Milestone C current estimate has changed from January 2019 to March 2019 due to parts shortages during EMD aircraft build.

Acronyms and Abbreviations

IOT&E - Initial Operational Test & Evaluation

(U//FOUO) Performance

(U//FOUO) Performance Characteristics				
SAR Baseline Development Estimate	**Current APB Development Objective/Threshold**		**Demonstrated Performance**	**Current Estimate**
(U//FOUO) Passenger Seating and Lift Capacity				
(Objective= Threshold) MT-1: 14 passengers MT-2	(Objective= Threshold) MT-1: 14 passengers MT-2	MT-1: 12 passengers MT-2: 14 passengers	TBD	MT-1: 12 passengers MT-2: 14 passengers
(U//FOUO) Range (Operational Day)				
MT-1 NCR, NCR Return: >100 NM MT-1 CONUS/OCONUS: >200 NM MT-2: >300 NM	MT-1 NCR, NCR Return: >100 NM MT-1 CONUS/OCONUS: >200 NM MT-2: >300 NM	MT-1 NCR, NCR Return: >50 NM MT-1 CONUS/OCONUS: >150 NM MT-2: >250 NM	TBD	MT-1 NCR, NCR Return: >50 NM MT-1 CONUS/OCONUS: >150 NM MT-2: >250 NM
(U//FOUO) Hover Performance				
HOGE with mission payload and other required equipment (High Hot Day)	HOGE with mission payload and other required equipment (High Hot Day)	HOGE with mission payload and other required equipment (Operational Day)	TBD	HOGE with mission payload and other required equipment (Operational Day)
(U//FOUO) Transportability				
(Objective= Threshold) MT-2: (1) MT-2 aircraft and all required equipment, personnel (29), and SE necessary to execute deployed maintenance and mission requirements shall be transportable using (1) C-17.	(Objective= Threshold) MT-2: (1) MT-2 aircraft and all required equipment, personnel (29), and SE necessary to execute deployed maintenance and mission requirements shall be transportable using (1) C-17.	MT-2: (1) MT-2 aircraft and all required equipment, personnel (29), and SE necessary to execute deployed maintenance and mission requirements shall be transportable using (1) C-17.	TBD	MT-2: (1) MT-2 aircraft and all required equipment, personnel (29), and SE necessary to execute deployed maintenance and mission requirements shall be transportable using (1) C-17.
(U//FOUO) Landing Zone Suitability				
(Objective= Threshold) Maintain at least a 50 foot obstacle clearance during all phases of approach, landing, take-off, and departure from the existing White House South Lawn.	(Objective= Threshold) Maintain at least a 50 foot obstacle clearance during all phases of approach, landing, take-off, and departure from the existing White House South Lawn.	Maintain at least a 50 foot obstacle clearance during all phases of approach, landing, take -off, and departure from the existing White House South Lawn.	TBD	Maintain at least a 50 foot obstacle clearance during all phases of approach, landing, take -off, and departure from the existing White House South Lawn.
(U//FOUO) Sustainment: Materiel Availability - Am, Operational Availability -Ao				
Am ≥ 59% MT-1: Ao ≥ 85% MT-2: Ao ≥ 85%	Am ≥ 59% MT-1: Ao ≥ 85% MT-2: Ao ≥ 85%	Am ≥ 57% MT-1: Ao ≥ 80% MT-2: Ao ≥ 83%	TBD	Am ≥ 57% MT-1: Ao ≥ 80% MT-2: Ao ≥ 83%
(U//FOUO) Training				

(Objective= Threshold) Reduce the overall time to train for pilots and crew chiefs from current In-Service aircraft time to train utilizing a Systems Approach to Training.	(Objective= Threshold) Reduce the overall time to train for pilots and crew chiefs from current In-Service aircraft time to train utilizing a Systems Approach to Training.	Reduce the overall time to train for pilots and crew chiefs from current In-Service aircraft time to train utilizing a Systems Approach to Training.	TBD	Reduce the overall time to train for pilots and crew chiefs from current In-Service aircraft time to train utilizing a Systems Approach to Training.
(U//FOUO) Net-Ready				
(Objective= Threshold) Support net-centric military operations Enter and be managed on the network Exchanges information.	(Objective= Threshold) Support net-centric military operations Enter and be managed on the network Exchanges information.	Support net-centric military operations Enter and be managed on the network Exchanges information.	TBD	Support net-centric military operations Enter and be managed on the network Exchanges information.

Classified Performance information is provided in the classified annex to this submission.

Requirements Reference

CDD dated January 3, 2013

Change Explanations

None

Notes

With Joint Staff (J-4) concurrence and as documented in the CDD, the Energy KPP required by the Joint Capabilities Integration Development System Manual is not applicable to VH-92A.

Net Ready KPP Products are detailed in the CDD, Appendix A.

The VH-92A program was planned and budgeted to the performance threshold.

Acronyms and Abbreviations

Am - Materiel Availability
Ao - Operational Availability
CONUS - Continental United States
HOGE - Hover out of Ground Effect
MT-1 - Mission Tasking 1 (administrative lift)
MT-2 - Mission Tasking 2 (contingency operations)
NCR - National Capital Region
NM - Nautical Mile
OCONUS - Outside the Continental United States
SE - Support Equipment

Track to Budget

RDT&E

Appn		BA	PE
Navy	1319	05	0604273M

Project	Name
3300	Presidential Helicopter (VH-92A)
3390	VH-92A Improvements

Appn		BA	PE
Navy	1319	05	0604273N

Project	Name	
3300	Presidential Helicopter (VH-92A)	(Sunk)

Notes

The funding for Project Units 3300 and 3390 will be included under PE 0604273M starting in FY 2019. Prior to FY 2019, the funding for PU's 3300 and 3390 is included under PE 0604273N.

Procurement

Appn		BA	PE
Navy	1506	04	0901212M

Line Item	Name
0455	VH-92A Executive Helo

Appn		BA	PE
Navy	1506	06	0901212M

Line Item	Name
0605	Spares and Repair Parts

Cost and Funding

Cost Summary

Total Acquisition Cost							
Appropriation	BY 2014 $M			BY 2014 $M	TY $M		
	SAR Baseline Development Estimate	Current APB Development Objective/Threshold		Current Estimate	SAR Baseline Development Estimate	Current APB Development Objective	Current Estimate
RDT&E	2606.1	2606.1	2866.7	2513.3	2805.7	2805.7	2694.6
Procurement	2043.6	2043.6	2248.0	1990.4	2379.0	2379.0	2263.3
Flyaway	--	--	--	1448.3	--	--	1644.8
Recurring	--	--	--	1438.3	--	--	1633.2
Non Recurring	--	--	--	10.0	--	--	11.6
Support	--	--	--	542.1	--	--	618.5
Other Support	--	--	--	328.4	--	--	375.7
Initial Spares	--	--	--	213.7	--	--	242.8
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	4649.7	4649.7	N/A	4503.7	5184.7	5184.7	4957.9

Cost Notes

In accordance with Section 842 of the National Defense Authorization Act for FY 2017, which amended title 10 U.S.C. § 2334, the Director of Cost Assessment and Program Evaluation, and the Secretary of the military department concerned or the head of the Defense Agency concerned, must issue guidance requiring a discussion of risk, the potential impacts of risk on program costs, and approaches to mitigate risk in cost estimates for MDAPs and major subprograms. The information required by the guidance is to be reported in each SAR. This guidance is not yet available; therefore, the information on cost risk is not contained in this SAR.

Total Quantity			
Quantity	SAR Baseline Development Estimate	Current APB Development	Current Estimate
RDT&E	6	6	6
Procurement	17	17	17
Total	23	23	23

Cost and Funding

Funding Summary

Appropriation Summary FY 2019 President's Budget / December 2017 SAR (TY$ M)									
Appropriation	Prior	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
RDT&E	1469.4	451.9	245.1	187.7	83.9	39.1	24.9	192.6	2694.6
Procurement	0.0	0.0	729.9	746.3	787.1	0.0	0.0	0.0	2263.3
MILCON	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Acq O&M	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
PB 2019 Total	1469.4	451.9	975.0	934.0	871.0	39.1	24.9	192.6	4957.9
PB 2018 Total	1480.1	451.9	988.5	965.7	901.1	56.4	25.4	192.8	5061.9
Delta	-10.7	0.0	-13.5	-31.7	-30.1	-17.3	-0.5	-0.2	-104.0

Quantity Summary FY 2019 President's Budget / December 2017 SAR (TY$ M)										
Quantity	Undistributed	Prior	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	To Complete	Total
Development	6	0	0	0	0	0	0	0	0	6
Production	0	0	0	6	6	5	0	0	0	17
PB 2019 Total	6	0	0	6	6	5	0	0	0	23
PB 2018 Total	6	0	0	6	6	5	0	0	0	23
Delta	0	0	0	0	0	0	0	0	0	0

Cost and Funding

Annual Funding By Appropriation

Annual Funding 1319 | RDT&E | Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2010	--	--	--	--	--	--	23.0
2011	--	--	--	--	--	--	73.9
2012	--	--	--	--	--	--	58.9
2013	--	--	--	--	--	--	46.2
2014	--	--	--	--	--	--	92.7
2015	--	--	--	--	--	--	356.2
2016	--	--	--	--	--	--	490.7
2017	--	--	--	--	--	--	327.8
2018	--	--	--	--	--	--	451.9
2019	--	--	--	--	--	--	245.1
2020	--	--	--	--	--	--	187.7
2021	--	--	--	--	--	--	83.9
2022	--	--	--	--	--	--	39.1
2023	--	--	--	--	--	--	24.9
2024	--	--	--	--	--	--	25.9
2025	--	--	--	--	--	--	26.5
2026	--	--	--	--	--	--	27.0
2027	--	--	--	--	--	--	27.5
2028	--	--	--	--	--	--	28.1
2029	--	--	--	--	--	--	28.6
2030	--	--	--	--	--	--	29.0
Subtotal	6	--	--	--	--	--	2694.6

Annual Funding 1319 | RDT&E | Research, Development, Test, and Evaluation, Navy							
Fiscal Year	Quantity	BY 2014 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2010	--	--	--	--	--	--	24.2
2011	--	--	--	--	--	--	76.0
2012	--	--	--	--	--	--	59.6
2013	--	--	--	--	--	--	46.3
2014	--	--	--	--	--	--	91.6
2015	--	--	--	--	--	--	347.6
2016	--	--	--	--	--	--	470.8
2017	--	--	--	--	--	--	309.4
2018	--	--	--	--	--	--	419.3
2019	--	--	--	--	--	--	223.2
2020	--	--	--	--	--	--	167.6
2021	--	--	--	--	--	--	73.5
2022	--	--	--	--	--	--	33.6
2023	--	--	--	--	--	--	21.0
2024	--	--	--	--	--	--	21.4
2025	--	--	--	--	--	--	21.4
2026	--	--	--	--	--	--	21.4
2027	--	--	--	--	--	--	21.4
2028	--	--	--	--	--	--	21.4
2029	--	--	--	--	--	--	21.4
2030	--	--	--	--	--	--	21.2
Subtotal	6	--	--	--	--	--	2513.3

For RDT&E aircraft, the first two will support contractor and government led testing and will remain as test and evaluation assets. The remaining four will support the completion of government led testing and will be utilized for Initial Operational Test & Evaluation. These four aircraft will then transition to operational status.

Annual Funding 1506 | Procurement | Aircraft Procurement, Navy							
Fiscal Year	Quantity	TY $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2019	6	570.5	--	--	570.5	159.4	729.9
2020	6	566.7	--	--	566.7	179.6	746.3
2021	5	496.0	--	11.6	507.6	279.5	787.1
Subtotal	17	1633.2	--	11.6	1644.8	618.5	2263.3

Annual Funding 1506 | Procurement | Aircraft Procurement, Navy							
Fiscal Year	Quantity	BY 2014 $M					
		End Item Recurring Flyaway	Non End Item Recurring Flyaway	Non Recurring Flyaway	Total Flyaway	Total Support	Total Program
2019	6	511.9	--	--	511.9	143.0	654.9
2020	6	498.6	--	--	498.6	158.0	656.6
2021	5	427.8	--	10.0	437.8	241.1	678.9
Subtotal	17	1438.3	--	10.0	1448.3	542.1	1990.4

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
Approval Date	4/17/2014	4/17/2014
Approved Quantity	12	12
Reference	Milestone B ADM	Milestone B ADM
Start Year	2019	2019
End Year	2022	2022

The Current Total LRIP Quantity is more than 10% of the total production quantity due to the requirement to have a minimum of 12 aircraft to establish an initial production base for the system. This LRIP quantity has been approved by the MDA as documented in the Milestone B ADM.

Foreign Military Sales

None

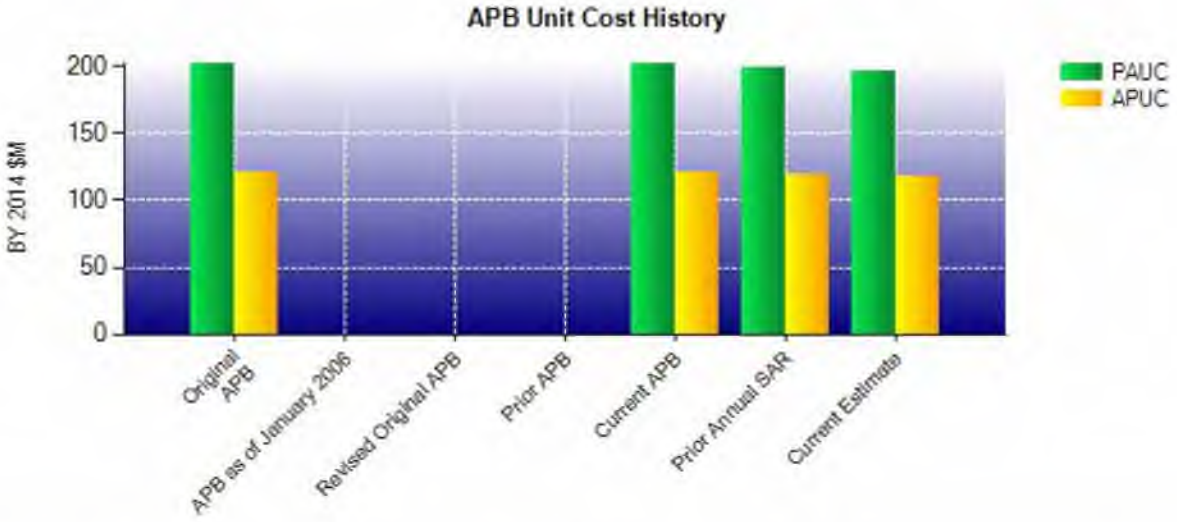
Nuclear Costs

None

Unit Cost

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2014 $M Current UCR Baseline (Apr 2014 APB)	BY 2014 $M Current Estimate (Dec 2017 SAR)	% Change
Program Acquisition Unit Cost			
Cost	4649.7	4503.7	
Quantity	23	23	
Unit Cost	202.161	195.813	-3.14
Average Procurement Unit Cost			
Cost	2043.6	1990.4	
Quantity	17	17	
Unit Cost	120.212	117.082	-2.60

Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Item	BY 2014 $M Original UCR Baseline (Apr 2014 APB)	BY 2014 $M Current Estimate (Dec 2017 SAR)	% Change
Program Acquisition Unit Cost			
Cost	4649.7	4503.7	
Quantity	23	23	
Unit Cost	202.161	195.813	-3.14
Average Procurement Unit Cost			
Cost	2043.6	1990.4	
Quantity	17	17	
Unit Cost	120.212	117.082	-2.60



APB Unit Cost History					
Item	Date	BY 2014 $M		TY $M	
		PAUC	APUC	PAUC	APUC
Original APB	Apr 2014	202.161	120.212	225.422	139.941
APB as of January 2006	N/A	N/A	N/A	N/A	N/A
Revised Original APB	N/A	N/A	N/A	N/A	N/A
Prior APB	N/A	N/A	N/A	N/A	N/A
Current APB	Apr 2014	202.161	120.212	225.422	139.941
Prior Annual SAR	Dec 2016	198.874	119.771	220.083	137.076
Current Estimate	Dec 2017	195.813	117.082	215.561	133.135

SAR Unit Cost History

Current SAR Baseline to Current Estimate (TY $M)									
PAUC Development Estimate	Changes								PAUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
225.422	-4.535	0.000	0.000	0.000	-4.365	0.000	-0.961	-9.861	215.561

Current SAR Baseline to Current Estimate (TY $M)									
Initial APUC Development Estimate	Changes								APUC Current Estimate
	Econ	Qty	Sch	Eng	Est	Oth	Spt	Total	
139.941	-3.200	0.000	0.000	0.000	-2.306	0.000	-1.300	-6.806	133.135

SAR Baseline History				
Item	SAR Planning Estimate	SAR Development Estimate	SAR Production Estimate	Current Estimate
Milestone A	N/A	N/A	N/A	N/A
Milestone B	N/A	Mar 2014	N/A	Apr 2014
Milestone C	N/A	Jan 2019	N/A	Mar 2019
IOC	N/A	Jul 2020	N/A	Jul 2020
Total Cost (TY $M)	N/A	5184.7	N/A	4957.9
Total Quantity	N/A	23	N/A	23
PAUC	N/A	225.422	N/A	215.561

Cost Variance

Summary TY $M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	2805.7	2379.0	--	5184.7
Previous Changes				
Economic	-40.7	-39.7	--	-80.4
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-33.4	+29.0	--	-4.4
Other	--	--	--	--
Support	--	-38.0	--	-38.0
Subtotal	-74.1	-48.7	--	-122.8
Current Changes				
Economic	-9.2	-14.7	--	-23.9
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-27.8	-68.2	--	-96.0
Other	--	--	--	--
Support	--	+15.9	--	+15.9
Subtotal	-37.0	-67.0	--	-104.0
Total Changes	-111.1	-115.7	--	-226.8
Current Estimate	2694.6	2263.3	--	4957.9

Summary BY 2014 $M				
Item	RDT&E	Procurement	MILCON	Total
SAR Baseline (Development Estimate)	2606.1	2043.6	--	4649.7
Previous Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-68.1	+25.2	--	-42.9
Other	--	--	--	--
Support	--	-32.7	--	-32.7
Subtotal	-68.1	-7.5	--	-75.6
Current Changes				
Economic	--	--	--	--
Quantity	--	--	--	--
Schedule	--	--	--	--
Engineering	--	--	--	--
Estimating	-24.7	-59.9	--	-84.6
Other	--	--	--	--
Support	--	+14.2	--	+14.2
Subtotal	-24.7	-45.7	--	-70.4
Total Changes	-92.8	-53.2	--	-146.0
Current Estimate	2513.3	1990.4	--	4503.7

Previous Estimate: December 2016

RDT&E	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-9.2
Adjustment for current and prior escalation. (Estimating)	+3.5	+3.8
Revised estimate due to Small Business Innovative Research adjustment. (Estimating)	-9.7	-10.3
Reprogramming to support future VH-92A modifications program. (Estimating)	-14.1	-16.5
Revised estimate due to service-wide funding adjustments. (Estimating)	-4.4	-4.8
RDT&E Subtotal	-24.7	-37.0

Procurement	$M	
Current Change Explanations	Base Year	Then Year
Revised escalation indices. (Economic)	N/A	-14.7
Revised estimate for Government Furnished Equipment based on updated assessment to support the production phase of the program. (Estimating)	-65.7	-74.7
Revised estimate for Airframe Contractor Furnished Equipment. (Estimating)	+5.8	+6.5
Increase in Other Support due to updated support equipment and engineering and logistical support. (Support)	+13.2	+15.2
Increase in Initial Spares due to updated spares requirement. (Support)	+1.0	+0.7
Procurement Subtotal	-45.7	-67.0

Contracts

Contract Identification

Appropriation: RDT&E
Contract Name: Presidential Helicopter Replacement Program (EMD)
Contractor: Sikorsky Aircraft Corp.
Contractor Location: 6900 Main Street PO Box 9731
Stratford, CT 06615-9131
Contract Number: N00019-14-C-0050
Contract Type: Fixed Price Incentive(Firm Target) (FPIF)
Award Date: May 07, 2014
Definitization Date: May 07, 2014

Contract Price							
Initial Contract Price ($M)			Current Contract Price ($M)			Estimated Price At Completion ($M)	
Target	Ceiling	Qty	Target	Ceiling	Qty	Contractor	Program Manager
1244.7	1326.7	6	1222.2	1298.3	6	1264.8	1262.2

Target Price Change Explanation

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to a contract modification in December 2014 which moved test spares from the Fixed Price Incentive CLIN to a Firm Fixed Price CLIN, reducing overall contract price (-$33M) and increases in 2016 for Formation Lights ($7M) and Wide Band Line of Sight ($3M) contract actions.

Contract Variance		
Item	Cost Variance	Schedule Variance
Cumulative Variances To Date (1/28/2018)	-72.3	-20.0
Previous Cumulative Variances	-44.5	-32.0
Net Change	-27.8	+12.0

Cost and Schedule Variance Explanations

The unfavorable net change in the cost variance is due to additional efforts in design, drawings, and final assembly (specifically in air vehicle (AV) Fuselage, AV Furnishings & Equipment, and AV Integration, Assembly, Test, and Checkout).

The favorable net change in the schedule variance is due to the early delivery of the SDTA-3 aircraft.

Deliveries and Expenditures

Deliveries				
Delivered to Date	**Planned to Date**	**Actual to Date**	**Total Quantity**	**Percent Delivered**
Development	0	0	6	0.00%
Production	0	0	17	0.00%
Total Program Quantity Delivered	0	0	23	0.00%

Expended and Appropriated (TY $M)			
Total Acquisition Cost	4957.9	Years Appropriated	9
Expended to Date	1324.2	Percent Years Appropriated	42.86%
Percent Expended	26.71%	Appropriated to Date	1921.3
Total Funding Years	21	Percent Appropriated	38.75%

The above data is current as of February 12, 2018.

Operating and Support Cost

Cost Estimate Details

Date of Estimate:	December 31, 2017
Source of Estimate:	POE
Quantity to Sustain:	21
Unit of Measure:	Aircraft
Service Life per Unit:	40.00 Years
Fiscal Years in Service:	FY 2020 - FY 2062

Aircraft Attrition: 1 aircraft over the life of the program
Aircraft Pipeline Factor: 19% of Total Aircraft Inventory (TAI)
Squadrons: Marine Helicopter Squadron One (HMX-1) Helicopters per (active) squadron: 16
Monthly Flight Hours per Helicopter: 19.8
Total TAI Helicopter Years: 840
Total Primary Authorized Aircraft Helicopter Years: 651

Total program acquisition quantity of 23 aircraft is comprised of 2 test aircraft and 21 operational aircraft. The quantity to sustain encompasses the 21 operational aircraft.

Sustainment Strategy

The VH-92 program will utilize Organizational, limited Intermediate and Depot level maintenance capabilities. Contractor maintenance will be employed as support for depot level repairables. Aircraft rework will be performed via an organic depot level Integrated Maintenance Program. During sustainment, some in-service engineering support will be provided by the Contractor.

Antecedent Information

The antecedent system is VH-3D/VH-60N. The Antecedent VH-3D/VH-60N data is representative of FY 2013 to FY 2015 average of Naval Visibility And Management of Operating and Support Cost (VAMOSC) reported cost data.

Total O&S Costs = Average annual O&S Cost/aircraft * total aircraft operating years = $12.244M * 840 = $10,285M BY 2014.

Annual O&S Costs BY2014 $M		
Cost Element	**VH-92A Average Annual Cost Per Aircraft**	**VH-3D/VH-60N (Antecedent) Average Annual Cost Per Aircraft**
Unit-Level Manpower	1.869	1.869
Unit Operations	0.426	0.510
Maintenance	4.627	3.850
Sustaining Support	1.423	1.050
Continuing System Improvements	2.082	4.260
Indirect Support	0.705	0.705
Other	0.000	0.000
Total	11.132	12.244

Item	Total O&S Cost $M			
	VH-92A			VH-3D/VH-60N (Antecedent)
	Current Development APB Objective/Threshold		Current Estimate	
Base Year	10140.4	11154.4	9350.8	10285.0
Then Year	17674.3	N/A	16608.0	N/A

Equation to Translate Annual Cost to Total Cost

Average annual O&S cost/aircraft = Total O&S costs / total aircraft operating years = $9,350.8M / 840 = $11.132M BY 2014

O&S Cost Variance		
Category	**BY 2014 $M**	**Change Explanations**
Prior SAR Total O&S Estimates - Dec 2016 SAR	9184.4	
Programmatic/Planning Factors	61.3	Updated flight hours.
Cost Estimating Methodology	59.6	Updated methodology for fuel consumption calculation and updated methodology for labor rate growth calculation.
Cost Data Update	-0.5	Updated OSD inflation tables and VAMOSC consumables data.
Labor Rate	47.4	Increase in labor rates for contractor, government, and military personnel.
Energy Rate	-1.5	Updated fuel price per gallon.
Technical Input	0.1	Updated the fuel consumption rate.
Other	0.0	
Total Changes	166.4	
Current Estimate	9350.8	

Disposal Estimate Details

Date of Estimate:	December 31, 2017
Source of Estimate:	POE
Disposal/Demilitarization Total Cost (BY 2014 $M):	Total costs for disposal of all Aircraft are 1.4

The estimate will be refined at Milestone C based on the System Disposal Plan Annex to the Life Cycle Sustainment Plan.