

# Modernized Selected Acquisition Report (MSAR) CH-53K King Stallion (CH-53K)

FY 2025 President's Budget

Effective: December 31, 2023

Defense Acquisition Visibility Environment

**CLEARED**For Open Publication

Aug 07, 2024

Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

## **Table of Contents**

Common DoD Abbreviations	3
Program Description	5
Responsible Office	6
Executive Summary	7
Schedule	10
Performance	11
Acquisition Budget Estimate	13
Unit Costs	15
Life-Cycle Costs	17
Technologies and Systems Engineering	20
Performing Activities and Contracts	21
Production	27
Deliveries and Expenditures	28
International Program Aspects	29

## (U) Common DoD Abbreviations

\$B Billions of Dollars \$K Thousands of Dollars \$M Millions of Dollars ACAT Acquisition Category

Acq O&M Acquisition-Related Operations and Maintenance

ADM Acquisition Decision Memorandum APA Additional Performance Attribute APB Acquisition Program Baseline

APPN Appropriation

APUC Average Procurement Unit Cost
BA Budget Authority or Budget Activity

Blk Block BY Base Year

CAE Component Acquisition Executive

CAPE Cost Assessment and Program Evaluation
CARD Cost Analysis Requirements Description

CCE Component Cost Estimate
CCP Component Cost Position

CDD Capability Development Document

CLIN Contract Line Item Number
CPD Capability Production Document
CY Calendar Year or Constant Year
DAB Defense Acquisition Board
DAE Defense Acquisition Executive

DAES Defense Acquisition Executive Summary
DAVE Defense Acquisition Visibility Environment

DoD Department of Defense
DSN Defense Switched Network

EMD Engineering and Manufacturing Development

EVM Earned Value Management

FD Full Deployment

FDD Full-Deployment Decision
FMS Foreign Military Sales
FOC Full Operational Capability
FRP Full-Rate Production

FY Fiscal Year

FYDP Future Years Defense Program ICD Initial Capabilities Document ICE Independent Cost Estimate

Inc Increment

IOC Initial Operational Capability
IT Information Technology

JROC Joint Requirements Oversight Council

KPP Key Performance Parameter

KSA Key System Attribute

LRIP Low-Rate Initial Production MDA Milestone Decision Authority

MDAP Major Defense Acquisition Program

MILCON Military Construction
N/A Not Applicable
O Objective

O&M Operations and Maintenance

O&S Operating and Support

ORD Operational Requirements Document
OSD Office of the Secretary of Defense
PAUC Program Acquisition Unit Cost

PB President's Budget
PE Program Element

PEO Program Executive Officer

PM Program Manager

POE Program Office Estimate

R&MF Revolving and Management Funds

RDT&E Research, Development, Test, and Evaluation

SAR Selected Acquisition Report

SCP Service Cost Position

T Threshold

TBD To Be Determined

TY Then Year U.S. United States

U.S.C United States Code UCR Unit Cost Reporting

USD(A&S) Under Secretary of Defense (Acquisition and Sustainment)

## (U) Program Description

Full Name CH-53K King Stallion

**PNO** 390

**Lead Component**Department of the Navy

Joint Program

No

Adaptive Acquisition Pathway Major Capability Acquisition

**Acquisition Category** 

IC

**Acquisition Status** Active Acquisition Short Name CH-53K

Milestone Decision Authority
Component Acquisition Executive

**Program Executive Office** 

PEO ASW Assault & Special Mission

**International Partners** 

Israel

**Acquisition Type** 

Major Defense Acquisition Program

**Acquired Systems** 

CH-53K

#### Mission

The CH-53K Heavy Lift Replacement Helicopter (CH-53K) program mission is to generate and support a robust United States Marine Corps heavy-lift capability. The primary mission is vertical heavy lift. The Program includes improvements in lift and range capabilities, commonality, reliability, maintainability, interoperability, ship integration, survivability, and force protection. The CH-53K helicopter will be a replacement for the CH-53E.

## (U) Responsible Office

Program Executive Officer
PEO ASW Assault & Special Mission
Mr. Gary Kurtz
gary.m.kurtz.civ@us.navy.mil (primary)
(301) 757-5376 (commercial)

Program Manager CH-53K King Stallion PMO Col Kate Fleeger kate.e.fleeger.mil@us.navy.mil (primary) (301) 757-5278 (commercial)

## (U) Executive Summary

#### **Program Highlights Since Last Report**

Four Engineering Development Model (EDM) aircraft completed flight test at Naval Air Station (NAS), Patuxent River, MD in support of System Design and Demonstration (SDD). Initial Operational Test and Evaluation (IOT&E) executed at Marine Corps Air Station (MCAS), New River, North Carolina, Marine Corps Air Ground Combat Center Twentynine Palms Marine Base, Twentynine Palms, CA, and onboard US Naval ships began July 31, 2021 and was successfully completed April 11, 2022. Initial Operational Capability (IOC) was officially declared on April 22, 2022. IOT&E report was signed September 28, 2022. ASN(RDA) approved and authorized entry into Full Rate Production (FRP) via Acquisition Decision Memorandum (ADM) dated December 21, 2022. A revised Acquisition Program Baseline (APB), which reflects the FRP Component Cost Position (CCP), was approved February 8, 2023.

With the August 24, 2023 award of Lot 7 and 8 aircraft, 79 aircraft have been procured including 12 FMS for Israeli Air Force. Lot 9 Advance Acquisition Contract (AAC) awarded December 15, 2023.

The CH-53K program has experienced cost increases in the development of the aircraft and procurement of the aircraft. Development cost increases were primarily due to correction of design deficiencies during SDD. Procurement cost increases were due to a range of economic factors primarily the result of higher than anticipated inflation, labor shortages, and general economic uncertainty driving labor and material cost growth of both airframe and engine end items, production ramp changes, and non-recurring engineering growth due to obsolescence. To mitigate cost growth, the program is executing cost reduction initiatives, to include strategic contractual agreements, e.g., Block Buy Contracts and Multi-year Procurements for airframes and engines; and foreign military sales (FMS) opportunities.

The program has experienced delays for aircraft deliveries on LRIP lots, driven by the closure of GKN plant and challenges at major suppliers, including Spirit AeroSystems and Wellman Dynamics, the latter of which has been the recipient of significant Title III investment funding. Schedule risks are being mitigated through continued investment in critical suppliers to ensure aircraft are delivered to meet USMC requirements.

Defense Cost and Resource Center Cost and Software Data Reporting (CSDR) Compliance Rating: Yellow.

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

## (U) History of Significant Developments Since Program Inception

Date	Description
December 2023	CH-53K Material Support Date (MSD)
December 2023	FRP Lot 9 Advance Acquisition Contract (AAC) awarded
August 2023	Lot 7-8 Airframe Bock Buy Contract (BBC) awarded (including Israel)
April 2023	Lot 6 Engine contract, Lot 7-8 engine BBC awarded
February 2023	Full Rate Production (FRP) Acquisition Program Baseline (APB) approved
December 2022	FRP approved
October 2022	Lot 8 AAC awarded

8

Date	Description
May 2022	The airframe Lot 6 contract was modified May 31, 2022 to add two additional aircraft added by Congress in the FY22 Consolidated Appropriations Act
April 2022	Initial Operational Capability (IOC) declared
April 2022	Initial Operational Test and Evaluation (IOT&E) complete
February 2022	Israel Ministry of Defense (MoD) first contract for 4 aircraft awarded on Low Rate Initial Production (LRIP) Lot 6
January 2022	LRIP Lot 6 contract for 9 aircraft awarded
January 2022	LRIP Lot 7 AAC awarded
December 2021	Price and Availability (P&A) issued to Germany for FMS
December 2021	Israel MoD Letter of Acceptance (LOA) signed
November 2021	Israel MoD LOA offered
March 2021	LRIP Lot 5 contract for 9 aircraft awarded
March 2021	Israel (MoD submitted a Letter of Request (LOR) for Letter of Acceptance (LOA) for 12 aircraft with Options up to 18)
October 2020	LRIP Lot 4 contract for 6 aircraft awarded
January 2020	ASN(RDA) and Assistant Commandant of the Marine Corps signed an ADM to approve two additional LRIP lots, an increase in LRIP aircraft quantities, and a full funding commitment from the USMC
November 2019	A revised APB was approved to update schedule milestones and program cost in accordance with revised Acquisition Strategy
October 2019	An Acquisition Strategy Update/Addendum was approved to (1) address continuation of System Development and Design (SDD) activities to resolve technical issues and complete testing; (2) add two additional LRIP lots and an increase in LRIP aircraft quantities, and (3) update the planned program costs and schedule
August 2019	Lot 4 AAC awarded
May 2019	LRIP Lot 2 and LRIP Lot 3 Contract awarded for 5 aircraft in FY18 and 7 aircraft FY19
March 2019	ASN(RDA) signed an ADM approving a proposed program restructure as a result of technical issues during the development test program that have resulted in a lower test event execution rate than planned, impacting test execution, program schedule, and cost. The plan prioritizes system Development and Demonstration activities, provide a deployable configuration in a timely manner and within available budgetary resources in support of IOC.
January 2019	A Program deviation was reported for a breach of the APB Schedule milestone for TECHEVAL Complete, IOT&E (OPEVAL) Complete, IOC and FRP Decision Review as a result of inefficiencies in test event accomplishment, technical discoveries in test, and completion of design solutions and correction of deficiencies
February 2018	LRIP Lot 3 AAC awarded
November 2017	CH-53K Program was re-designated from an ACAT 1D to ACAT 1C Program
August 2017	LRIP Lot 1 contract for 2 aircraft awarded
July 2017	Letter of Offer and Acceptance issued to Germany for potential Direct Commercial Sales
May 2017	LRIP Lot 2 AAC awarded
April 2017	USD (AT&L) signed the Milestone C ADM authorizing procurement of up to 26 aircraft; APB update approved
January 2017	Letter of Request for Pricing and Availability
October 2016	Program successfully completed an initial Operation Assessment (OT-B1) in West Palm Beach, Florida

Date	Description
August 2016	Four EMD aircrafts in flight test
April 2016	LRIP Lot 1 AAC awarded
October 2015	First Flight completed on EMD aircraft
May 2013	Contract award for 4 System Developmental Test Article (SDTA) aircraft Beginning with this effort; the CH-53K program began procuring GE (T-408) engines directly from General Electric Aviation
April 2013	Updated APB approved based on an updated Program Life Cycle Cost Estimate (PLCCE) and January 2013 SCP
June 2011	The Assistant Secretary of Defense for Research and Engineering completed a Post CDR Assessment, determining the program situated to enter System Capability and Manufacturing Process Demonstration
July 2010	The CH-53K program conducted the Critical Design Review (CDR)
January 2006	SDD contract awarded to Sikorsky for the CH-53K
December 2005	USD(AT&L) signed the Milestone B ADM for entry into SDD
October 2005	The Heavy Lift Replacement (HLR) program completed a Milestone B Defense Acquisition Board (DAB)
December 2004	JROC approved CH-53K ORD
September 2003	Analysis of Alternative completed, resulting in decision to initiate a Heavy Lift Replacement program

## (U) Schedule

## (U) Schedule Events

Events		Full Rate Production APB (Current) 2/8/2023 Objective / Threshold		Current Estimate 12/31/2023	Actual
Milestone B DAB Review	MS B	Dec 2005	Dec 2005	-	22 Dec 2005
Preliminary Design Review	PDR	-	-	-	1 Sept 2008
CDR	CDR	Jul 2010	Jul 2010	-	30 Jul 2010
Milestone C	MS C	Apr 2017	Apr 2017	-	4 Apr 2017
TECHEVAL Complete	DT&E	Jun 2021	Jun 2021	-	30 Jun 2021
IOC	IOC	Apr 2022	Apr 2022	-	22 Apr 2022
IOT&E (OPEVAL) Complete	IOT&E	Apr 2022	Apr 2022	-	11 Apr 2022
FRP Decision Review	FRP Decision	Dec 2022	Dec 2022	-	21 Dec 2022

**Notes** 

None

**Schedule Baseline Deviation Explanation** 

None

(U) Current Significant Schedule Risks and Risks Identified at Milestones/Decisions
None

## (U) Performance

Additional information for this section is provided in the classified annex to this submission.

(U) Performance Attributes

(U) Performance Attributes  Net Ready (NR) (2)			KPP
Current Estimate 12/31/2023		Satisfy 100% of NR reqts in JIA. Estimatin following completion of Link 16 testing.	g 4Q FY 2024
Demonstrated Performance		TBD	
Full Rate Production APB (Current)	Objective	Satisfy 100% of NR reqts in JIA	
2/8/2023	Threshold	Satisfy 100% of NR reqts designated as electrical in JIA	nterprise-level
Sortie Generation Rate (SGR)/Average So	rtie Duration (ASD	)	KPP
Current Estimate 12/31/2023		2.77 sorties/ 2.25 hrs	
Demonstrated Performance 4/30/2022		2.77 sorties/ 2.25 hrs	
Full Rate Production APB (Current)	Objective	(T=0) 2.6 sorties/ 2.25 hrs	
2/8/2023	Threshold	2.6 sorties/ 2.25 hrs	
Logistics Footprint (2)			KPP
Current Estimate 12/31/2023		10% reduction from current CH-53E	
Demonstrated Performance 12/21/2018		10% reduction from current CH-53E	
Full Rate Production APB (Current)	Objective	10% reduction from current CH-53E	
2/8/2023	Threshold	<= current CH-53E	
Range and Payload (nm)			KPP
Current Estimate 12/31/2023		110 w/ 27,000lbs external load (no refuel)	during IOT&E
Demonstrated Performance 4/30/2022		110 w/ 27,000lbs external load (no refuel)	during IOT&E
Full Rate Production APB (Current)	Objective	110 w/30,000 lbs external load, no refuel	
2/8/2023	Threshold	110 w/27,000 lbs external load, no refuel	
Mission Reliability (MR) (2)			KPP
Current Estimate 12/31/2023		86.5% in IOT&E	
Demonstrated Performance 4/30/2022		86.5% in IOT&E	
Full Rate Production APB (Current)	Objective	90%	
2/8/2023	Threshold	89%	

#### (U) Requirement Source:

Sponsor(s): United States Marine Corps

1. Capability Production Document, Capability Production Document for USMC CH-53K Program, Version 1.2

Validated By: Joint Requirements Oversight Council, March 25, 2021

#### **Notes**

Approved deferment from JROCM 142-10 for Net Ready KPP compliance no later than 6 months to 2 years after IOC.

Acronyms and Abbreviations:

<= - Less then or equal to

hrs - Hours

IOT&E - Initial Operational Test and Evaluation

JIA - Joint Interoperability Assessment

lbs - Pounds

O - Objective

Reqts - Requirements

T - Threshold

#### **Performance Deviation Explanation**

None

## (U) Acquisition Budget Estimate

#### (U) Total Acquisition Estimates and Quantities

Category (\$M) Base Year: 2017	Full Rate Production APB (Current) 2/8/2023 CY\$ obs Objective / Threshold		Current Estimate PB 2025 CY\$ obs / TY\$ obs	
RDT&E	8,216.8	9,038.5	8,130.5	8,012.3
Procurement	21,526.6	23,679.3	21,298.1	27,879.0
MILCON	123.2	135.5	131.1	172.0
O&M	0.0	0.0	0.0	0.0
R&MF	0.0	0.0	1	-
Total Acquisition	29,866.6	1	29,559.7	36,063.3
Program Acquisition Unit Cost	149.333	164.266	147.799	180.317
Average Procurement Unit Cost	109.830	120.813	108.664	142.240
Program End-Item Quantity				
Development	4		4	_
Procurement	196		196	
O&M-Acquired	-	_	-	

#### **Budget Notes**

Current estimate represents the President's Budget (PB) 2025 with 2024 inflation indices. The estimate includes Acquisition Strategy elements for savings such as Airframe Block Buy for Lots 9 and 10, Airframe Multiyear Procurement for Lots 11-15, and Engine Multiyear Procurement for Lots 9-13.

#### **Quantity Notes**

Since the last reported December 2022 SAR, the procurement quantity total remains the same, however, the year-by-year quantity profile has been adjusted. The aircraft quantity per year increased by 2 in FY 2023, no change in FY 2024, decreased by 2 in FY 2025, decreased by 3 in FY 2026, decreased by 3 in FY 2027, decreased by 1 in FY 2028, no change in FY 2029, increased by 2 in FY 2030, and increased by 5 in FY 2031.

#### **Cost Baseline Deviation Explanation**

None

#### (U) Risk and Sensitivity Analysis

Current Procurement Estimate Risks (12/31/2023)

Current procurement estimate continues to use factors created when the current baseline was established which include the risk and sensitivity analysis performed in support of the proposed FRP Component Cost Position (CCP) APB Change 4 takes into consideration overruns in early LRIP lots and material cost growth above inflation.

#### Current Baseline Risks (2/8/2023)

None

#### Original Baseline Risks (12/22/2005)

Total program costs - Cost Analysis Improvement Group (CAIG) was 4% higher than POE. SDD costs due to labor and material - CAIG estimate was 8% higher due to contractor fee, total engineering development effort, and engineering change orders. Procurement costs - CAIG estimate was 12% higher than POE (mostly due to airframe material and production support costs). 0&S effort - CAIG estimate was 1% lower than POE.

## (U) Unit Costs

#### (U) Current Estimate Compared with Current Baseline

Category (CY\$M) Base Year: 2017	Current Baseline 02/08/2023	Current Estimate PB 2025	% Change	
Program Acquisition Unit Cost				
Acquisition Cost	29,866.6	29,559.7		
Program Quantity	200	200		
PAUC	149.333	147.799	-1.03%	
Average Procurement Unit Cost				
Procurement Cost	21,526.6	21,298.1		
Procurement Quantity	196	196		
APUC	109.830	108.664	-1.06%	

#### (U) Current Estimate Compared with Original Baseline

Category (CY\$M) Base Year: 2006	Original Baseline 12/22/2005	Current Estimate PB 2025	% Change	
Program Acquisition Unit Cost				
Acquisition Cost	14,980.9	24,683.5		
Program Quantity	156	200		
PAUC	96.031	123.417	28.52%	
Average Procurement Unit Cost				
Procurement Cost	11,018.9	17,784.7		
Procurement Quantity	152	196		
APUC	72.493	90.738	25.17%	

The Current Estimate's constant-year dollars have been converted from Base Year 2017 to Base Year 2006 using the National Defense Budget Estimates for FY 2024 (Green Book).

#### (U) Cost Growth Details

#### Impacts of Schedule Changes on Unit Cost

Since the last reported December 2022 SAR, the procurement quantity total remains the same; however, the year by year quantity profile has been adjusted, taking 7 aircraft out of the FYDP and adding 2 in FY 2030 and 5 in FY 2031 at the end of production. This results in a 4.7 percent increase of APUC as the quantities decreased within the FYDP due to reduced economy of scale and production efficiencies.

#### Impacts of Performance Changes on Unit Cost

None

#### Actions taken or Proposed to Control Future Cost Growth

Program continues to focus on a cost reduction program. To mitigate cost growth, the program plans to reduce acquisition cost through targeted cost reduction initiatives; strategic contractual agreements, including Block Buy Contracts and Multi-year Procurements for airframes and engines; and FMS opportunities.

Cost Reduction Initiatives have been implemented from Lot 1 through Lot 7 and will continue throughout production. Program is planning an airframe Block Buy Contract for Lot 9 in FY 2025 and Lot 10 in FY 2026. The program is planning an Engine Multi-year Procurement for Lots 9-13 in FY 2025-FY 2029 and an Airframe Multi-year Procurement for Lots 11-15 in FY 2027- FY 2031. FMS opportunities include an increase of quantity for Israel MoD procurement from 12 to 18 aircraft. FMS opportunities will improve the USMC unit cost by accelerating learning curve impacts and reducing fixed costs across the remaining USMC procurement.

Status of Each Major Contract and Significant Factors Contributing to Cost and Schedule Variance; Projected Effects on Future Program Costs

See Contracts section.

#### **Notes**

The PAUC and APUC cost growth is due to correction of design deficiencies during System Design and Demonstration, slowed production ramp, cost increases for airframe and engine material, touch labor, COVID impacts, system engineering and program management costs, and increases to nonrecurring engineering for obsolescence and tooling.

## (U) Life-Cycle Costs

#### (U) Operating and Support and Disposal Cost Estimates Compared with Baseline

Category (\$M) Base Year: 2017	Full Rate Production APB (Current) 2/8/2023 CY\$ obs Objective / Threshold		Current Estimate CY\$ obs / TY\$ obs	
Total O&S	36,501.3	40,151.4	38,389.8	75,027.8
Total Disposal	0.0	-	58.2	133.1

#### (U) Current Cost Estimate Sources

#### **Operating and Support Cost**

Type: Program Office Estimate

Approved by: NAVAIR CS&A Dept, February 01, 2024

Note: Estimate to support the 2023 SAR is from the estimate completed February 1, 2024.

**Disposal/Demilitarization Cost**Type: No estimate. Not Applicable

#### **Operating and Support Baseline Deviation Explanation**

None

#### **Cost Notes**

None

## (U) Operating and Support Variance with Prior Estimate

(CY\$M) Base Year: 2017	Estimate	
Prior Estimate (12/14/2022)	36,501.3	
Current Estimate	38,389.8	
Category	Variance	Explanation
Unit-Level Manpower	181.4	One additional Marine Heavy Helicopter (HMH) Operational squadron added to the squadron standup profile and updated MilPay rates.
Unit Operations	95.8	12 additional Primary Aircraft Authorized (PAA) aircraft added to the operational profile increasing lifecycle flight hours.

(CY\$M) Base Year: 2017	Estimate	
Maintenance	1,094.8	12 additional PAA aircraft added to the operational profile increasing lifecycle flight hours, aircraft Depot cost per event increased with release of Work Load Standards for CH-53K, NAVSUP Net Pricing updates, expansion of limited component lives, and Depot Labor rate updates.
Sustaining Support	1.1	Nothing significant to call out.
Continuing System Improvements	515.4	Aircraft attrition rate reduced increasing the lifecycle aircraft inventory years with an increase in Hardware Mods budget to cover correction of deficiencies.
Other	-	None
Not Categorized	0.0	

#### (U) Operating and Support Cost Element Structure Estimates by Acquired System

(CY\$M) Base Year: 2017								
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total	
CH-53K	5,559.5	1,515.8	24,484.7	2,081.2	4,748.6	-	38,389.8	
Program	5,559.5	1,515.8	24,484.7	2,081.2	4,748.6	-	38,389.8	

## (U) Annual Operating and Support Costs per Unit Compared with Antecedent System

(CY\$M) Base Year: 2017								
System	Unit-Level Manpower	Unit Operations	Maintenance	Sustaining Support	Continuing System Improvements	Other	Total	
CH-53K	1.4	0.4	6.2	0.5	1.2	-	9.7	
CH-53E (Antecedent)	1.9	0.4	6.5	0.3	0.8	-	10.0	

## (U) Operating and Support Cost Estimate Assumptions

System	Quantity to Sustain	Unit Expected Service Life (Years)	Unit of Measure	Fiscal Years Operational
CH-53K	200	30.0	Aircraft	2022 - 2063
CH-53E (Antecedent)	135	30.0	Aircraft	1981 - 2031

#### **Additional O&S Estimate Assumptions**

- Aircraft Attrition Rate: 0.8% of Total Aircraft Inventory (TAI) per year
- Aircraft Pipeline Factor: 15.0% of TAI Squadrons: 7 HMH squadrons (6 active / 1 reserve) / 1

- Marine Training (HMHT) squadron
- Helicopters per HMH (active) squadron: 16 Helicopters per HMH (reserve) squadron: 16 -Helicopters per HMHT squadron: 17
- Monthly Flight Hours Average per Helicopter (PAA): 16.1 Aircraft reliability projections per NAVAIR-4.1.10 input
- Total Operating Helicopter Years: 3,978 (Phase-in of PAA required, 30 years operating life per aircraft, phase-out of PAA)

#### **Antecedent Estimate Assumptions**

The antecedent system is CH-53E. CH-53E average annual costs per aircraft captured in Naval Visibility and Management of Operating and Support Costs (VAMOSC) from FY 2019-FY 2021 demonstrated in CY 2017 economics. CH-53E is not capable of meeting Joint Requirements Oversight Council Key Performance Parameter requirements established for the CH-53K.

#### **O&S Annual Cost Calculation Memo**

Unitized Cost per Operating Aircraft in Program Baseline CY 2017\$M calculated Total Lifecycle 0&S Cost \$38,389.8 / Lifecycle Operating AC Years 3,978 = \$9.651M Cost per Operating Aircraft per year.

## (U) Technologies and Systems Engineering

## (U) Current Significant Technical Risks and Risks Identified at Milestones/Decisions

Event	Date	Description			
Current	12/31/2023	Main Rotor Damper piston seal redesign qualification testing			
Current	12/31/2023	Main Gear Box pinion redesign qualification testing			
Current	12/31/2023	Cold weather capability			
Current	12/31/2023	IMU gunfire restriction			
Current	12/31/2023	OBIGGS performance			

## (U) Performing Activities and Contracts

#### (U) External Government Activities

None

#### (U) Contracts and Efforts

Contract Title	Contract Number / Effort	Contractor	Phase
Lot 6 - 8 Engine	N00019-23-C-0013 / 10	General Electric Company	Production
Lot 7-8 Aircraft	N00019-22-C-0004 / 11	Sikorsky Aircraft Corp	Production
LRIP 6	N00019-20-C-0047 / 9	Sikorsky Aircraft Corp	Production
LRIP Lot 1,2,3,4 and 5 engines	N00019-18-C-1007 / 5	GE Aircraft Engines	Production
LRIP Lot 3	N00019-16-C-0048 / 6	Sikorsky Aircraft Corporation	Production
LRIP Lot 4	N00019-16-C-0048 / 7	Sikorsky Aircraft Corporation	Production
LRIP Lot 5	N00019-20-C-0047 / 8	Sikorsky Aircraft Corporation	Production

(II) Contract and	J Fffa I dansifiaa.	ian Drian Oversit	and Daufaumana
(U) Contract and	i Effort identificat	tion. Price. Quantit	v and Performance

Order Number: Contract Number: N00019-23-C-0013

**Contract Title:** Lot 6 - 8 Engine Strategy:

FAR 15: Negotiated Contracts

CAGE: 99207 - General Electric **Contracting Office: NAVAIR** 

Company

City, State/Province: Lynn, MA

**Effort Number:** 10 Supported Phase: Production

Type: Fixed-Price Incentive (Firm **Award Date:** April 26, 2023

Target)

**Latest Modification Date:** March 8, 2024 **Definitization Date:** April 26, 2023

Latest Modification No.: 0005 Work Start Date:

**Technical Data Rights:** Government Purpose License

Rights

Other Data Rights applicable: Unlimited Rights to Technical Data, Restricted Rights to Notes:

Technical Data, Limited Rights to Technical Data

Engines do not have an EVM/IMPR requirement (FFP Contract). The CDRL includes

CSDRs.

Estimate at Completion (TY\$M) Initial Price (TY\$M) Current Price (TY\$M) Initial Current Delivered Contractor / PM Target / Ceiling Target / Ceiling Quantity Quantity Quantity

**Contract Number:** N00019-22-C-0004 Order Number: **Contract Title:** Lot 7-8 Aircraft Strategy: FAR 15: Negotiated Contracts CAGE: **Contracting Office:** 78286 - Sikorsky Aircraft Corp **NAVAIR** City, State/Province: Stratford, CT Effort Number: 11 Supported Phase: Production Type: Fixed-Price Incentive (Firm Award Date: December 6, 2021 Target) **Latest Modification Date:** October 27, 2023 **Definitization Date:** August 30, 2023 Latest Modification No.: 0007 Work Start Date: **Technical Data Rights:** Government Purpose License Rights Notes: Other Data Rights applicable: Unlimited Rights to Technical Data, Restricted Rights to Technical Data, Limited Rights to Technical Data The CDRL includes CSDRs.

	ce (TY\$M) Ceiling	Current Price (TY\$M) Target / Ceiling		Estimate at Completion (TY\$M) Contractor / PM		Initial Quantity	Current Quantity	Delivered Quantity
_	=	3,248.6	3,506.0	2.966.3	2.827.4	=	35	_

Contract Performance data reflects January 28, 2024 IPMR status.

Work Completed (%): 0.33%

Cost Variance (TY\$M): +1.7

Schedule Variance (TY\$M): 0.0

#### Factors Contributing to Cost Variance and Projected Effects on Program Costs

While Cost Variance is currently favorable, cost performance is anticipated to degrade due to increased material costs and cost impacts of schedule slip driven by Spirit fuselage delivery delays.

#### Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

While Schedule Variance is currently favorable, schedule performance is anticipated to degrade primarily due to Spirit fuselage delivery delays.

(U) Contract and Effort Identification, Price, Quantity and Performance								
Contract Number:	N00019-20-C-0047	Order Number:	-					
Contract Title:	LRIP 6	Strategy:	FAR 15: Negotiated Contracts					
CAGE:	78286 - Sikorsky Aircraft Corp	78286 - Sikorsky Aircraft Corp Contracting Office:						
City, State/Province:	Stratford, CT							
Effort Number:	9	Supported Phase:	Production					
Туре:	Fixed-Price Incentive (Firm Target)	Award Date:	January 31, 2022					
Latest Modification Date:	January 8, 2024	Definitization Date:	-					
Latest Modification No.:	00018	Work Start Date:	-					
Technical Data Rights:	Government Purpose License							

Rights

Notes: Other Data Rights applicable: Unlimited Rights to Technical Data, Restricted Rights to

Technical Data, Limited Rights to Technical Data.

The CDRL includes CSDRs.

Contract Performance data reflects January 28, 2024 IPMR status.

Initial Price (TY\$M) Current Price (TY\$M)  Target / Ceiling Target / Ceiling		Estimate at Completion (TY\$M) Contractor / PM		Initial Quantity	Current Quantity	Delivered Quantity		
1,401.0	1,281.2	1,406.7	1,487.9	1,250.1	1,250.3	-	15	-
Work Completed (%): 2.10%								
Cost Variance (TY\$M): +2.4								

#### Factors Contributing to Cost Variance and Projected Effects on Program Costs

Schedule Variance (TY\$M):

While Cost Variance is currently favorable, cost performance is anticipated to degrade due to increased material costs and cost impacts of schedule slip driven by Spirit fuselage delivery delays.

#### Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

While Schedule Variance is currently near favorable, schedule performance is anticipated to degrade primarily due to Spirit fuselage delivery delays.

(U) Contract and Effort Identification, Price, Quantity and Performance									
Contract Number:	N00019-18-C-1007	Order Number:	-						
Contract Title:	LRIP Lot 1,2,3,4 and 5 engines	Strategy:	FAR 15: Negotiated Contracts						
CAGE:	99207 - GE Aircraft Engines	Contracting Office:	NAVAIR						
City, State/Province:	Lynn, MA								
Effort Number:	5	Supported Phase:	Production						
Туре:	Firm-Fixed-Price	Award Date:	November 16, 2017						
Latest Modification Date:	March 8, 2024	Definitization Date:	November 16, 2017						
Latest Modification No.:	00036	Work Start Date:	-						
Technical Data Rights:	Government Purpose License Rights								
Notes:	Other Data Rights applicable: Unlimited Rights to Technical Data, Restricted Rights to Technical Data, Limited Rights to Technical Data.  Engines do not have an EVM/IPMR requirement (FFP Contract). The CDRL includes CSDRs.								

-	nitial Price ( Target / Ce	. ,	Current Price Target / C	,	Estimate at Com Contract		Initial Quantity	Current Quantity	Delivered Quantity	
	143.5	-	501.3	-	-	-	11	94	-	

(II) O   Eff	D.:
(II) Contract and Effort Identification	Price Ullantity and Performance

Contract Number: N00019-16-C-0048 Order Number: -

Contract Title: LRIP Lot 3 Strategy: FAR 15: Negotiated Contracts

CAGE: 78286 - Sikorsky Aircraft

Corporation

**Contracting Office:** 

**NAVAIR** 

City, State/Province: Stratford, CT

**Effort Number:** 6 Supported Phase:

Production

Type:

Fixed-Price Incentive (Firm

Award Date:

February 13, 2018

Target)

February 14, 2024

**Definitization Date:** 

May 17, 2019

**Latest Modification Date:** Latest Modification No.:

00083

Work Start Date:

**Technical Data Rights:** 

**Government Purpose License** 

Rights

Notes:

Other Data Rights applicable: Unlimited Rights to Technical Data, Restricted Rights to

Technical Data, Limited Rights to Technical Data.

The CDRL includes CSDRs.

Contract Performance data reflects January 28, 2024 IPMR status.

Initial Price Target / C		Current Pri Target /	ce (TY\$M) Ceiling	Estimate at Con Contrac	npletion (TY\$M) tor / PM	Initial Quantity	Current Quantity	Delivered Quantity
126.5	-	809.7	883.4	751.2	827.2	-	7	3

Work Completed (%): 83.12% Cost Variance (TY\$M): -27.0Schedule Variance (TY\$M): -99.3

#### Factors Contributing to Cost Variance and Projected Effects on Program Costs

Unfavorable Cost Variance is driven by increased material costs, as well as cost overruns as a result of schedule slips driven by Spirit fuselage delivery delays. Cost Variance to date is not expected to be recoverable.

#### Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

Unfavorable Schedule Variance is driven by Spirit fuselage delivery delays as well as Quick Change Assembly (QCA) shortages.

(U) Contract and	d Effort Iden	tification Drice	Quantity and	Derformance
TOT Contract and	a Errort laen	uncauon. Price	. Quantity and	Performance

**Contract Number:** N00019-16-C-0048 Order Number:

Contract Title:

LRIP Lot 4

Strategy:

FAR 15: Negotiated Contracts

CAGE:

78286 - Sikorsky Aircraft Corporation

**Contracting Office:** 

**NAVAIR** 

City, State/Province:

Stratford, CT

**Effort Number:** 

Supported Phase:

Production

Type:

Fixed-Price Incentive (Firm

Award Date:

August 12, 2019

**Latest Modification Date:** 

February 14, 2024

**Definitization Date:** 

Latest Modification No.:

00083

October 26, 2020

Work Start Date:

**Technical Data Rights:** 

Rights

Target)

Government Purpose License

Performing Activities and Contracts

**UNCLASSIFIED** 

24

Other Data Rights applicable: Unlimited Rights to Technical Data, Restricted Rights to Notes:

Technical Data, Limited Rights to Technical Data.

The CDRL includes CSDRs.

Contract Performance data reflects January 28, 2024 IMPR status.

  -	nitial Price ( Target / Ce		Current Pri Target /		Estimate at Com Contract	•	Initial Quantity	Current Quantity	Delivered Quantity
	107.4	-	599.9	661.0	570.2	547.6	-	6	-

Work Completed (%): 11.57% Cost Variance (TY\$M): -2.0 Schedule Variance (TY\$M): -249.9

#### Factors Contributing to Cost Variance and Projected Effects on Program Costs

While Cost Variance is currently near favorable, cost performance is anticipated to degrade due to increased material costs and cost impacts of schedule slip driven by Spirit fuselage delivery delays.

#### Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

Unfavorable Schedule Variance is driven by Spirit fuselage delivery delays as well as the incorporation of Aircraft 51 into Lot 4, with delivery planned to occur after Lot 6.

(U) Contract and Effort Identification, Price, Quantity and Performance									
(U) Contract and Effort Ident	unication, Price, Quantity and Per	Tormance							
Contract Number:	N00019-20-C-0047	Order Number:	-						
Contract Title:	LRIP Lot 5	Strategy:	FAR 15: Negotiated Contracts						
CAGE:	78286 - Sikorsky Aircraft Contracting Office: Corporation		NAVAIR						
City, State/Province:	Stratford, CT								
Effort Number:	8	Supported Phase:	Production						
Туре:	Fixed-Price Incentive (Firm Target)	Award Date:	March 26, 2020						
Latest Modification Date:	January 8, 2024	Definitization Date:	June 25, 2021						
Latest Modification No.:	0018	Work Start Date:	-						
Technical Data Rights:	Government Purpose License Rights								
Notes:	Other Data Rights applicable: U Technical Data, Limited Rights The CDRL includes CSDRs. Contract Performance data ref	to Technical Data.	•						

Initial Price Target / C	•	Current Pri Target /	ce (TY\$M) Ceiling	Estimate at Con Contrac	npletion (TY\$M) tor / PM	Initial Quantity	Current Quantity	Delivered Quantity
861.3	-	862.9	912.7	773.8	825.7	-	9	-

Work Completed (%): 5.28% Cost Variance (TY\$M): +9.3 Schedule Variance (TY\$M): -71.9

#### Factors Contributing to Cost Variance and Projected Effects on Program Costs

While Cost Variance is currently favorable, cost performance is anticipated to degrade due to increased material costs and cost impacts of schedule slip driven by Spirit fuselage delivery delays.

#### Factors Contributing to Schedule Variance and Projected Effects on Program Schedule

Unfavorable Schedule Variance is driven by Spirit fuselage delivery delays. Delays are anticipated to continue.

## (U) Production

#### (U) Low-Rate Initial Production

	Original LRIP Determination	Current LRIP Determination
Total LRIP Quantity	26	40
Date	4/4/2017	10/31/2019
Reference	CH-53K MS C ADM	CH-53K AS Addendum
LRIP Period	FY 2017 - 2020	FY 2017 - 2022
Total Procurement Quantity	200	200
LRIP Percentage of Total	13.0%	20.0%

#### Rationale if LRIP Quantity Exceeds 10% of Total Procurement Quantity (Current Determination)

Revised quantity was required to maintain production continuity pending completion of IOT&E-Permits resolution of identified deficiencies, maturation of manufacturing processes, and completion of Full Rate Production entrance criteria requirements.

#### **LRIP Notes**

None

## (U) Deliveries and Expenditures

## (U) Acquisition Funding

	Total Estimate	Actual to Date	Actual, Percent Complete
Years Appropriated	30	22	73.3%
Appropriations (TY, \$M)	36,063.3	17,196.9	47.7%
Expenditures (TY, \$M)	36,063.3	12,314.4	34.1%

**UNCLASSIFIED** 

## (U) End Items Delivered

	Total Required	Planned to Date	Actual to Date	Actual, Percent Complete
Development	4			
CH-53K		4	4	
Procurement	196			
CH-53K		18	10	
Total	200	22	14	7.0%

**Notes** 

None

## (U) International Program Aspects

#### **General Memo**

Letter of Offer and Acceptance (LOA) was signed on 30 Dec 2021 by Israel MOD for the procurement of twelve (12) CH-53K and support with an option for an additional six (6) aircraft.

#### **Exportability and Business Issues**

The CH-53K USMC baseline configuration (minus Critical Program Information (CPI)) is approved for export. CPI is addressed on a case-by-case basis. Currently, Israel's CH-53K is a hybrid (USMC baseline with indigenous Aircraft Survivability Equipment (ASE), Communications and Mission systems). Integration of indigenous systems must be installed by USG, OEM or other US approved contractors.

Is design for international exportability Yes Industry/Partner Exportability Cost-Sharing? No planned?

#### Program Protection: Technology Security and Foreign Disclosure Issues

The CH-53K has inherited CPI and is addressed in PMA-261 Program Protection Plan (PPP) and associated commodity's PPP and Technology Transfer and Security Assistance Review Board (TTSARB). Exportability of CPI is released by exception and case-by-case basis.

#### (U) Agreements

<b>Activity Date</b>	Туре	Agreement Number	International Partner(s)	Quantity	Funding (TY\$M)
12/30/2021	FMS LOA	IS-P-SCN	Israel (IS)	12	1.9

#### (U) Agreement Information

Partner(s): Israel (IS)

Activity Date: 12/30/2021

Type: Foreign Military Sales: Letter of Offer and Acceptance Agreement Number: IS-P-SCN

Notes: None

Israel (IS) Fiscal Year	Funding (TY\$M)	Quantity
2021	1.9	12
Total	1.9	12

## **UNCLASSIFIED**



# Modernized Selected Acquisition Report Supplement

CH-53K King Stallion (CH-53K)

FY 2025 President's Budget As of: December 31, 2023

#### **UNCLASSIFIED**

## **MSAR Supplement Sections**

**Program Description** 

Program Use of the Adaptive Acquisition Framework

Technologies and Systems Engineering

Funding Sources (Acquisition)

Funding Sources (Operating and Support)

Acquisition Estimate and Quantity Summary

Annual Acquisition Estimates by Appropriation Account

Acquired System Annual End-Item Quantities by Appropriation Account

**Nuclear Costs** 

Operational Fielding Plan

O&S Independent Cost Estimate

Annual Operating and Support Estimates by Cost Element

## **Program Description**

Full Name Short Name

CH-53K King Stallion CH-53K

PNO Lead Component

390 Navy

AAF Pathway Acquisition Type

MCA MDAP

**Acquired Systems** 

CH-53K

**Related Programs** 

Full Name	PNO	Pathway	Туре	ACAT/ BCAT	Acquisition Status	n SAR? O&S

## **Program Use of the Adaptive Acquisition Framework**

This acquisition is accomplished by a single program in the Major Capability Acquisition Pathway.

## **Technologies and Systems Engineering**

## **CH-53K King Stallion**

## **Major Software Efforts**

Title	Status	Fielding Date	Description

## **Major Engineering Changes**

Title	Original Need Date	Description, Rationale and Program Impacts

## **Funding Sources (Acquisition)**

## **Acquisition Funding Notes**

None

**CH-53K King Stallion** 

	J	_					
Category	Account	ВА	Line Item	Program Element	RDT&E Project	Shared	Sunk
Procurement	1506N	01	0158 - CH-53K (Heavy Lift)	0206122M	-		
RDT&E	1319N	05	0605212M - CH-53K RDTE	0605212M	3059 - CH-53K Development		
RDT&E	1319N	05	0605212M - CH-53K RDTE	0605212M	3069 - CH-53K Improvement		

## **Funding Sources (Operating and Support)**

Note: Budget lines fund activites executed by the Program Office or Sustainment Office.

## **Operating and Support Funding Notes**

None

**CH-53K King Stallion** 

Category	Account	ВА	Line Item	Program Element	RDT&E Project	Shared	Sunk
Procurement	1506N	05	0528 - H-53 Series	0206122M	-		
O&M	1804N	01	1A2A - Fleet Air Training	0206122M	-		
O&M	1804N	01	1A4N - Air Systems Support	0206122M	-		
O&M	1804N	01	1A1A - Mission and Other Flight Operations	0206122M	-		

## **Acquisition Estimate and Quantity Summary**

## **CH-53K King Stallion**

Acquisiton Estimates		<b>Current Base Year</b>	Original Base Year	Report Fiscal Year
Category PB 2025	TY (\$M)	CY2017 (\$M)	CY2006 (\$M)	CY2024 (\$M)
RDT&E	8,012.3	8,130.5	6,789.3	10,145.4
Procurement	27,879.0	21,298.1	17,784.7	26,576.1
MILCON	172.0	131.1	109.5	163.6
O&M	-	-	-	-
Total Acquisition	36,063.3	29,559.7	24,683.5	36,885.1
PAUC	180.317	147.799	123.417646	184.426
APUC	142.240	108.664	90.738	135.592

**Acquisiton End-Item Quantities** 

System	PB 2025	Development	Procurement
CH-53K		4	196
Total		4	196

## **Unit Description**

CH-53K King Stallion

**Current and Future Years Defense Program Summary, TY(\$M)** 

						<i>J</i> ,	. ,		
								То	
Appropriation	Prior	2024	2025	2026	2027	2028	2029	Complete	Total
RDT&E	7,848.8	143.8	19.7	-	-	-	-	-	8,012.3
Procurement	9,290.1	2,221.7	2,541.8	2,370.4	2,293.2	2,561.8	2,488.1	4,112.1	27,879.0
MILCON	58.0	-	114.0	-	-	-	-	-	172.0
O&M	-	-	-	-	-	-	-	-	-
PB 2025 Total	17,196.9	2,365.4	2,675.6	2,370.4	2,293.2	2,561.8	2,488.1	4,112.1	36,063.3

## **Annual Acquisition Estimates by Appropriation Account**

(Aligned to Budget Position: PB 2025)

## **CH-53K King Stallion**

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1319N - Research, Development, Test & Eval, Navy									
fiscal year	Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2017 (\$M)					
Total	8,012.3	8,012.3	-	8,130.5					
2002	1.940	1.9	0.770672	2.5					
2003	2.710	2.7	0.781970	3.5					
2004	4.720	4.7	0.803798	5.9					
2005	98.900	98.9	0.824954	119.9					
2006	251.94	251.9	0.850659	296.2					
2007	338.08	7 338.1	0.871495	387.9					
2008	386.250	386.3	0.887392	435.3					
2009	541.858	541.9	0.898786	602.9					
2010	503.91	503.9	0.912268	552.4					
2011	562.168	562.2	0.934050	601.9					
2012	604.368	604.4	0.949541	636.5					
2013	535.51 <sup>-</sup>	535.5	0.959512	558.1					
2014	446.12	446.1	0.973069	458.5					
2015	533.17	533.2	0.985313	541.1					
2016	561.13	561.1	1.003600	559.1					
2017	339.066	339.1	1.022378	331.6					
2018	435.488	435.5	1.047421	415.8					
2019	383.530	383.5	1.067594	359.2					
2020	489.699	489.7	1.106854	442.4					
2021	402.432	402.4	1.156600	347.9					
2022	212.18 <sup>-</sup>	1 212.2	1.217024	174.3					
2023	213.56°	1 213.6	1.253255	170.4					
2024	143.754	143.8	1.281864	112.1					
2025	19.730	19.7	1.309056	15.1					

## **Annual Acquisition Estimates by Appropriation Account**

(Aligned to Budget Position: PB 2025)

## **CH-53K King Stallion**

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1506N - Aircraft Procurement, Navy									
fiscal year	End Item Recurring Flyaway	Non-End Item Recurring Flyaway	Non- Recurring Flyaway	Initial Spares	Depot Activation	Other/ Unallocated	Total TY(\$M)	Weighted Rate	Total CY2017 (\$M)
Total	22,424.7	-	1,585.8	871.0	-	2,997.6	27,879.0	-	21,298.1
2002							-	0.780277	-
2003							-	0.795855	-
2004							-	0.816866	-
2005							-	0.839872	-
2006							-	0.863163	-
2007							-	0.883288	-
2008							-	0.896537	-
2009							-	0.909026	-
2010							-	0.928034	-
2011							-	0.946452	-
2012							-	0.960060	-
2013							-	0.970336	-
2014							-	0.983013	-
2015							-	0.998424	-
2016	41.267	-	-	-		-	41.3	1.020550	40.4
2017	321.977	-	34.171	68.408		64.096	488.7	1.042335	468.8
2018	765.737	-	70.858	77.103		112.318	1,026.0	1.063416	964.8
2019	868.972	-	53.947	63.551		205.954	1,192.4	1.092752	1,091.2
2020	758.176	-	30.536	83.824		184.304	1,056.8	1.135856	930.4
2021	1,103.174	-	70.545	141.761		98.514	1,414.0	1.187956	1,190.3
2022	1,254.738	-	217.790	163.577		196.770	1,832.9	1.234725	1,484.4
2023	1,573.572	-	286.922	19.735		357.808	2,238.0	1.268818	1,763.9
2024	1,810.344	-	109.432	78.932		222.958	2,221.7	1.297207	1,712.7
2025	2,130.163	-	93.462	49.329		268.855	2,541.8	1.324677	1,918.8
2026	2,022.598	-	64.365	88.327		195.074	2,370.4	1.352495	1,752.6
2027	2,071.880	-	17.600	36.307		167.382	2,293.2	1.380898	1,660.6
2028	2,215.813	-	85.009	0.095		260.886	2,561.8	1.409897	
2029	2,155.343	-	123.356	0.054		209.311	2,488.1	1.439505	
2030	1,975.484	-	195.958	-		212.749	2,384.2	1.469734	
2031	1,355.485	-	131.809	_		240.576	1,727.9	1.500599	

## **Annual Acquisition Estimates by Appropriation Account**

(Aligned to Budget Position: PB 2025)

## **CH-53K King Stallion**

Source for TY\$-CY\$ Conversion: ASN FMB-6 Inflation Rates and Outlay Factors for DA, DoN and DW accounts: 17 Jan 2024

1205N - Military Construction, Navy									
fiscal year	Other/ Total Weighted Unallocated TY(\$M) Rate	Total CY2017 (\$M)							
Total	172.0 172.0 -	131.1							
2002	- 0.781325	-							
2003	- 0.798714	-							
2004	- 0.819628								
2005	- 0.842891								
2006	- 0.865753								
2007	- 0.883359								
2008	- 0.898414								
2009	- 0.910724								
2010	- 0.933517								
2011	- 0.954485								
2012	- 0.968588								
2013	- 0.982386								
2014	13.200 13.2 0.997121	13.2							
2015	1.025225								
2016	- 1.049119								
2017	1.076142								
2018	1.116079								
2019	1.159013								
2020	1.207954								
2021	1.249931								
2022	1.278042								
2023	44.829 44.8 1.307729	34.3							
2024	1.335748								
2025	114.020 114.0 1.363870	83.6							

## Acquired System Annual End-Item Quantities by Appropriation Account (Aligned to Budget Position: PB 2025)

## **CH-53K King Stallion**

1319N - Research, Development, Test & Eval, Navy									
fiscal year	CH-53K			Total					
Total	4				4				
Undistributed					-				
2017					-				
2018					-				
2019					-				
2020	4				4				

## Acquired System Annual End-Item Quantities by Appropriation Account (Aligned to Budget Position: PB 2025)

## **CH-53K King Stallion**

1506N - Aircraft Procurement, Navy							
fiscal year	CH-53K	Total					
Total	196	196					
Undistributed		-					
2017	2	2					
2018	5	5					
2019	7	7					
2020	6	6					
2021	9	9					
2022	11	11					
2023	12	12					
2024	15	15					
2025	19	19					
2026	18	18					
2027	18	18					
2028	20	20					
2029	21	21					
2030	18	18					
2031	15	15					

## **Nuclear Costs**

## **CH-53K King Stallion**

**Program's Use of Department of Energy Resources**None

## **Operational Fielding Plan**

## **CH-53K King Stallion**

#### System:

#### **Fielding and Inventory Notes**

Fielding and Inventory plan references APDF v141 which reflects delays in CH-53K deliveries and squadron standups from the previous APDF.

**Fielding Plan and Inventory** 

	J				
fiscal year	Store	Field	Expend/Loss	Decommission	Inventory
2023					
2024		8			8
2025		5			13
2026		10			23
2027		12			35
2028		19			54
2029		16			70

## **O&S Independent Cost Estimate**

#### **CH-53K King Stallion**

#### **Independent and Current Cost Estimate Comparison**

Category CY20	17 (\$M)	Independent Cost Estimate 1/31/2023	Current Estimate	Variance with ICE (%)
Unit-Level Manpower		5,304.0	5,559.5	5%
Unit Operations		1,441.0	1,515.8	5%
Maintenance		22,695.6	24,484.7	8%
Sustaining Support		1,994.0	2,081.2	4%
Continued System Improvements		4,187.2	4,748.6	13%
Other				-
Total O&S		35,621.8	38,389.8	8%

#### **Independent Cost Estimate Source**

Event: Milestone

Type: Independent Cost Estimate

Approved by: OSD Cost Assessment & Program Evaluation, January 31, 2023

#### **Current Cost Estimate Source**

Type: Program Office Estimate

Approved by: NAVAIR C&SA Dept, February 01, 2024

#### Cost Estimate Variance Explanation

The Component Cost Estimate (CCE) was chosen for the FRP Milestone estimate and was initially higher than the ICE by \$879M in CY17\$ or higher by 2.5%. The current esimate includes one additional HMH opeational squadron and its military staffing, 12 additional PAA aircraft and their associated flight hours and changes to attririon and pipeline rates which all led to increases to in most O&S cost elements and a further increase to the total of 5.2%.

## **Annual Operating and Support Estimates by Cost Element**

## **CH-53K King Stallion**

System: CH-53K

Source for TY-CY Conversion: PB25/2025 OSD Inflation

Operating and Support Cost Elements							
fiscal year	1.0 Unit- Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY2017 (\$M)
Total	5,559.5	1,515.8	24,484.7	2,081.2	4,748.6		- 38,389.8
2018	2.148	0.048	-	0.167	0.322		2.7
2019	0.933	0.075	-	0.183	0.379		1.6
2020	2.997	0.033	0.003	5.238	0.655		8.9
2021	5.590	0.190	0.278	6.575	2.822		15.5
2022	21.762	1.727	1.392	6.578	68.698		100.2
2023	10.728	6.783	54.855	15.678	25.361		113.4
2024	16.510	8.288	75.737	24.206	37.559		162.3
2025	21.929	9.763	101.484	23.417	99.175		255.8
2026	28.943	17.860	150.089	30.681	120.067		347.6
2027	44.288	23.499	218.224	36.206	130.537		452.8
2028	69.746	35.004	308.860	38.679	210.970		663.3
2029	103.630	31.612	401.422	53.620	212.919		803.2
2030	119.733	31.841	412.101	54.337	77.126		695.1
2031	146.102	38.387	470.233	51.888	87.350		794.0
2032	166.595	43.796	554.315	62.804	104.266		931.8
2033	170.656	45.240	600.306	63.534	120.438		1,000.2
2034	171.492	46.042	651.102	60.049	135.371		1,064.1
2035	172.332	46.186	690.760	59.822	143.313		1,112.4
2036	173.176	46.331	714.458	56.995	143.313		1,134.3
2037	174.024	46.477	756.495	62.213	141.990		1,181.2
2038	174.876	46.623	769.552	62.369	141.328		1,194.7
2039	175.732	46.770	780.300	58.951	140.666		1,202.4
2040	176.593	46.917	782.740	58.620	139.342		1,204.2
2041	177.458	47.065	791.182	56.062	138.680		1,210.4
2042	178.327	47.213	799.626	60.773	138.018		1,224.0
2043	179.200	47.362	803.554	60.903	136.695		1,227.7
2044	180.078	47.512	812.001	57.821	136.033		1,233.4
2045	180.959	47.662	820.449	57.531	135.371		1,242.0
2046	181.846	47.812	828.900	55.224	134.709		1,248.5
2047	182.736	47.964	837.110	59.459	133.385		1,260.7
2048	183.631	48.116	841.289	59.584	132.723		1,265.3
2049	184.530	48.268	849.503	56.796	131.400		1,270.5
2050	185.434	48.421	857.960	56.533	130.738		1,279.1

System: CH-53K

Source for TY-CY Conversion: PB25/2025 OSD Inflation

Operating and Support Cost Elements								
fiscal year	1.0 Unit- Level Manpower	2.0 Unit Operations	3.0 Maintenance	4.0 Sustaining Support	5.0 Continuing System Improvements	Other	Total CY2017 (\$M)	
2051	186.342	48.575	866.420	54.453	130.076		1,285.9	
2052	187.255	48.729	874.083	58.229	126.105		1,294.4	
2053	181.792	47.344	853.253	58.184	121.638		1,262.2	
2054	176.272	45.950	833.319	55.512	116.509		1,227.6	
2055	167.471	43.772	796.579	50.381	112.456		1,170.7	
2056	158.581	41.579	765.937	45.325	105.756		1,117.2	
2057	146.347	38.592	714.997	44.342	97.484		1,041.8	
2058	127.451	34.021	636.354	43.333	85.407		926.6	
2059	104.117	26.971	515.093	42.313	74.034		762.5	
2060	76.667	20.296	401.201	41.320	58.690		598.2	
2061	54.215	14.559	290.185	40.485	44.379		443.8	
2062	23.305	6.735	147.862	39.569	29.449		246.9	
2063	5.011	1.787	53.124	34.209	14.891		109.0	