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Department of Defense  
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

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# CH-53K KING STALLION (CH-53K)

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**December 2021 Selected Acquisition Report (SAR)**



DECEMBER 31, 2021  
DEPARTMENT OF THE NAVY

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**Common Acronyms and Abbreviations**

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(A&S) - Under Secretary of Defense (Acquisition and Sustainment)  
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

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## Program Manager

**Name:** Col Jack Perrin

**Date Assigned:** July 12, 2018

**Address:** PMA 261 Heavy Lift Helicopters

Program Executive Office - Air, Anti-Submarine Warfare, Assault & Special Mission Programs

47123 Buse Road, Bldg 2272

Patuxent River, MD 20670-1547

Phone: 301-757-5278

**Email:** jack.d.perrin.mil@us.navy.mil

## Mission and Description

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.

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## Executive Summary

### *Program Highlights Since Last Report*

Four Engineering Development Model (EDM) aircraft are in Developmental Test (DT) at Naval Air Station, Patuxent River, MD in support of System Design and Demonstration completion. All four System Demonstration Test Article aircraft have been accepted and delivered to the fleet and are currently at Marine Corps Air Station (MCAS), New River, North Carolina supporting Initial Operational Test and Evaluation (IOT&E).

The program completed all DT scope in support of entrance into IOT&E including fire suppression qualification, aerial refueling envelope development, GAU-21 weapon system integration, and internal and external cargo handling and envelope development. Completion of Electromagnetic Environment Effects testing in support of Sea Trials, satisfactory reconciliation of open/technical deficiencies, and incorporation of final configuration changes into the operational test aircraft contributed to certification and approval for the program to enter Operational Test (OT) on July 30, 2021. The first operational test detachment conducted OT activities with successful completion of all planned vignettes including shipboard operational test flights. IOT&E is on track to complete in April 2022.

LRIP Lots 1-6 (38 aircraft) are on contract, with a variation in quantities clause that allows for up to four additional aircraft to be procured in FY 2022 in Lot 6. LRIP Lot 4 was awarded October 26, 2020. LRIP Lot 5 was awarded on March 25, 2021. Both the LRIP Lot 6 airframe contract and the LRIP Lot 7 Advance Acquisition Contract were awarded on January 31, 2022.

The program continues to pursue international sales opportunities. A Price and Availability (P&A) for up to 24 aircraft was provided to Israel Ministry of Defense on November 13, 2020. On February 22, 2021, Israel selected the CH-53K to support their heavy lift requirements. A Letter of Request for Letter of Acceptance for 12 aircraft (with options up to 18) was signed on December 30, 2021. An updated P&A based on Lots 5 and 6 settlement was submitted to Germany on December 13, 2021. Additionally, the CH-53K is a potential solution for Germany's Heavy Lift Helicopter replacement. Germany is expected to make a selection in CY 2022.

The program has accepted delivery of its first Containerized Flight Training Device and designated its Helicopter Emulation Maintenance Trainer and Composite Maintenance Trainer Ready for Training. All three devices are located at MCAS New River, North Carolina.

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 System Design and Demonstration. Procurement cost increases were due to a range of economic factors (including COVID impacts) driving labor and material cost growth of both airframe and engine end items, production ramp changes, and non-recurring engineering growth due to obsolescence and tooling.

To mitigate cost growth, the program is executing cost reduction initiatives; strategic contractual agreements, including a Block Buy Contract and Multi-year Procurements for airframes and engines; and FMS opportunities. This report reflects the program manager's estimate.

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

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***History of Significant Developments Since Program Initiation***

History of Significant Developments Since Program Initiation	
Date	Significant Development Description
September 2003	Analysis of Alternative completed, resulting in decision to initiate a Heavy Lift Replacement program.
December 2004	JROC approved CH-53K ORD
October 2005	The Heavy Lift Replacement (HLR) program completed a Milestone B Defense Acquisition Board (DAB)
December 2005	USD(AT&L) signed the Milestone B ADM for entry into System Development and Demonstration (SDD).
January 2006	SDD contract awarded to Sikorsky for the CH-53K
July 2010	The CH-53K program conducted the Critical Design Review
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.
April 2013	Updated APB approved based on an updated Program Life Cycle Cost Estimate (PLCCE) and January 2013 SCP
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.
October 2015	First Flight completed on EMD aircraft.
April 2016	LRIP Lot 1 Advance Acquisition Contract (AAC) awarded.
August 2016	Four EMD aircrafts in flight test
October 2016	Program successfully completed an initial Operation Assessment (OT-B1) in West Palm Beach, Florida.
January 2017	Letter of Request for Pricing and Availability
April 2017	USD (AT&L) signed the Milestone C ADM authorizing procurement of up to 26 aircraft. APB update approved.
May 2017	LRIP Lot 2 AAC Awarded.
July 2017	Letter of Offer and Acceptance issued to Germany for potential Direct Commercial Sales.
August 2017	LRIP Lot1 contract awarded for 2 aircraft.
November 2017	CH-53K Program was re-designated from an ACAT 1D to ACAT 1C Program.
February 2018	LRIP Lot 3 AAC awarded.
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.
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

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	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.
May 2019	LRIP Lot 2 and LRIP Lot 3 Contract awarded for 5 aircraft in FY18 and 7 aircraft FY19.
August 2019	Lot4 AAC awarded.
October 2019	An Acquisition Strategy Update/Addendum was approved to (1) address continuation of SDD activities to resolve technical issues and complete testing; (2) add two additional Low Rate Initial Production (LRIP) lots and an increase in LRIP aircraft quantities, and (3) update the planned program costs and schedule.
November 2019	A revised Acquisition Program Baseline was approved to update schedule milestones and program cost in accordance with revised Acquisition Strategy.
January 2020	An (ADM was signed by ASN(RDA) and Assistant Commandant of the Marine Corps to approve two additional LRIP lots, an increase in LRIP aircraft quantities, and a full funding commitment from the USMC.
October 2020	LRIP Lot 4 awarded on October 26, 2020 for six aircraft.
March 2021	Israel Ministry of Defense (MoD) submitted a letter of Request (LOR) for (Letter of Acceptance) LOA for 12 aircraft with Options up to 18).
March 2021	LRIP Lot 5 contract for 9 aircraft awarded
November 2021	Israel MoD LOA offered
December 2021	P&A issued to Germany for FMS
December 2021	Israel MoD LOA signed
December 2021	LRIP Lot 7 Advance Acquisition Contract (AAC) awarded
January 2022	LRIP Lot 6 contract awarded
February 2022	Israel MoD first contract for 4 aircraft awarded

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## Schedule

### Schedule Events

Schedule Events					
Events	Development APB Objective	Current APB Development Objective/Threshold		Current Estimate/Actual	Deviation
Milestone B DAB Review	Dec 2005	Dec 2005	Dec 2005	Dec 2005	
CDR	Jul 2010	Jul 2010	Jul 2010	Jul 2010	
Milestone C	Mar 2017	Apr 2017	Apr 2017	Apr 2017	
TECHEVAL Complete	Apr 2019	Dec 2020	Jun 2021	Jun 2021	
IOC	Dec 2019	Sep 2021	Jun 2022	May 2022	
IOT&E (OPEVAL) Complete	Dec 2019	Dec 2021	Jun 2022	Apr 2022	
FRP Decision Review	Sep 2020	Nov 2022	May 2023	Nov 2022	

#### Schedule Notes:

TECHEVAL Complete current estimate changed from December 2020 to June 2021 to reflect actual completion.

IOT&E (OPEVAL) complete current estimate changed from December 2021 to April 2022 because last test flight occurred in March 2022 with end of test expected in April 2022.

IOC current estimate changed from September 2021 to May 2022 to align with the estimate to complete IOT&E. IOC declaration remains at the discretion of the Marine Corp in accordance with the September 10, 2020 Transition Policy Letter.

### Significant Schedule Risks

Significant Schedule Risks	
Current Estimate (December 2021)	
1.	None

### Acronyms and Abbreviations

CDR - Critical Design Review

IOT&E - Initial Operational Test and Evaluation. Used interchangeably with Operational Evaluation (OPEVAL).

OPEVAL - Operational Evaluation. Used interchangeably with Initial Operational Test and Evaluation (IOT&E).

TECHEVAL - Technical Evaluation

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## Performance

Performance Characteristics				
Development APB Objective	Current APB Development Objective/Threshold	Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
<b>Net Ready (NR)</b>				
Satisfy 100% of Net Ready (NR) reqts in Joint Interoperability Assessment (JIA)	Satisfy 100% of NR reqts in JIA	Satisfy 100% of NR reqts designated as enterprise-level or critical in JIA	TBD	Satisfy 100% of NR reqts in JIA. Estimating 1QFY24 following completion of Digital Interoperability (DI) Medium testing.
<b>Range and Payload (nm)</b>				
110 w/30,000 lbs external load, no refuel	110 w/30,000 lbs external load, no refuel	110 w/27,000 lbs external load, no refuel	IOT&E data collected November 2021, demonstrated performance pending ongoing IOT&E data analysis.	Analysis projections as of February 2022: 110 w/27,000 lbs external load, no refuel; IOT&E projection: 27,186; Deployable 27,693 Estimate IOT&E configuration complete April 2022. Estimate Deployable March 2023.
<b>Mission Reliability (MR)</b>				
90%	90%	89%	IOT&E data collection completed February 2022, demonstrated performance pending ongoing IOT&E data analysis	89% Estimate complete April 2022.
<b>Logistics Footprint</b>				
10% reduction from current CH-53E	10% reduction from current CH-53E	<= current CH-53E	Demonstrated via analysis in Shipboard Logistics Footprint Analysis, CDRL LS-02 December 21, 2018.	10% reduction from current CH-53E Analysis determined the CH-53K will surpass the objective of a 10% reduction in weight and volume (CH-53K: 83,950 LBS, CH-53E: 110,122 lbs)
<b>Sortie Generation Rate (SGR)/Average Sortie Duration (ASD)</b>				

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Performance Characteristics					
Development APB Objective	Current APB Development Objective/Threshold		Demonstrated Performance (include Date of Demonstration)	Current Estimate/Actual	Deviation
(T=O) 2.6 sorties/ 2.25 hrs	T=O) 2.6 sorties/ 2.25 hrs	2.6 sorties/ 2.25 hrs	IOT&E data collected December 2021, demonstrated performance pending ongoing IOT&E data analysis.	2.6 sorties/ 2.25 hrs Estimate complete April 2022.	

**Performance Notes:**

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

**Requirements Source:** CH-53K CPD dated February 3, 2020

**Acronyms and Abbreviations**

<= - Less Than or Equal To  
 hrs - Hours  
 lbs - Pounds  
 nm - Nautical Miles  
 O - Objective  
 reqts - Requirements  
 T - Threshold

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## Acquisition Budget Estimate

### Total Acquisition Cost

Category	Base Year	Development APB (Dec 2005)	APB Name (Current) (Nov2019)		Budget Estimate PB 2023		Deviation
		Objective (BY\$)	Objective (BY\$)	Threshold (BY\$)	BY\$	TY\$	
RDT&E	2017	4782.80	8233.30	9056.63	8245.57	8102.84	
Procurement	2017	13,301.60	21,295.70	23,425.27	21815.87	26932.64	
MILCON	2017	0	13.30	14.63	13.25	13.20	
Acq. O&M	2017	0	0	0	0	0	
<b>Total</b>	<b>2017</b>	<b>18,084.40</b>	<b>29,542.30</b>	<b>32,496.53</b>	<b>30074.69</b>	<b>35048.68</b>	
PAUC	2017	115.926	147.712	162.483	150.373	175.243	
APUC	2017	87.511	108.652	119.517	111.305	137.411	

### Total End Item Quantity

Quantity Category	Development APB Quantity	Current APB Quantity	Current Estimate Quantity
Development	4	4	4
Procurement	152	196	196

#### Budget Notes:

RDT&E: Re-phased \$99.1M in estimate from FY 2022 to FY 2024 in alignment with February 2020 Over-Target Baseline.

Procurement: Program Manager's estimate based on acquisition approach that leverages a block buy starting in FY 23/24, a multi-year procurement strategy starting in FY25, as well as successful cost reduction initiatives and foreign military sales.

#### Quantity Notes:

Procurement quantity remains the same; however, the year-by-year quantity profile has been adjusted.

CH-53K QUANTITY	Prior	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
PB21 Final	20	7	11	12	18	23	24	24	24	24	9	196
PB23 Final	20	9	11	10	15	21	21	21	24	24	20	196
Delta	0	2	0	-2	-3	-2	-3	-3	0	0	11	0

Since the last reported December 2019 SAR, the procurement quantity total remains the same; however the year by year quantity profile has been adjusted as follows taking 13 aircraft out of the FYDP and putting two aircraft in FY 2021 and 11 aircraft at the end of the procurement program in FY 2030. FY 2021 increases by two, FY 2022 remains the same, FY 2023 decreases by two, FY 2024 decreases by three, FY 2025 decreases by two, FY 2026 decreases by three and FY 2027 decreases by three and FY 2030 increases by 11.

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***Risk and Sensitivity Analysis***

Risks and Sensitivity Analysis	
<b>Current Procurement Cost (December 2021)</b>	
1.	LRIP 1 and LRIP 2 airframe production lots are projecting cost overruns, primarily due to sustaining engineering and program management costs.
2.	The LRIP 2 and LRIP 3 production contract awarded in May 2019, including a contract clause sharing risk with industry to minimize Development and Production concurrency.
<b>Current Production Baseline Estimate (November 2019)</b>	
1	Previous insufficiencies in RDT&E funding caused by delays in developmental test and slow resolution of technical deficiencies have been resolved and the program is proceeding with the planned development effort. The program executed an Over Target Baseline (OTB) and Over Target Schedule (OTS) on System Development and Demonstration (SDD) Contract to ensure alignment between performance measurement baseline and program execution.
<b>Original Baseline Estimate (December 2005)</b>	
1.	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). O&S effort - CAIG estimate was 1% lower than POE.
<b>Revised Original Estimate (N/A)</b>	
None	
<b>Current Baseline Estimate (Month YYYY)</b>	
1.	None

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## Unit Cost

### *Current Baseline Compared with Current Estimate*

Category (BY 2017\$M)	Current APB	Current Estimate	% Change	NMC Breach
<b>PAUC</b>				
Cost	29,542.30	30074.69	-	-
Quantity	200	200	-	-
Unit Cost	147.712	150.373	1.80	-
<b>APUC</b>				
Cost	21,295.70	21815.87	-	-
Quantity	196	196	-	-
Unit Cost	108.652	111.305	2.44	-

### *Original Baseline Compared with Current Estimate*

Category (BY 2017\$M)	Original APB	Current Estimate	% Change	NMC Breach
<b>PAUC</b>				
Cost	18,084.40	30074.69	-	-
Quantity	156	200	-	-
Unit Cost	115.926	150.373	29.72	-
<b>APUC</b>				
Cost	13,301.60	21815.87	-	-
Quantity	152	196	-	-
Unit Cost	87.511	111.305	27.19	-

#### **Unit Cost Notes:**

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

#### **Impacts of Schedule Changes on Unit Cost:**

Since the last reported December 2019 SAR, the procurement quantity total remains the same; however the year by year quantity profile has been adjusted taking 13 aircraft out of the FYDP and adding two aircraft in FY 2021 and 11 aircraft at the end of the procurement program in FY 2030. This results in a 0.13 percent increase of the unit costs as the quantities decrease due to reduced economy of scale and production efficiencies.

#### **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 a Block Buy Contract and Multi-year Procurements for airframes and engines; and FMS opportunities.

Cost Reduction Initiatives have been implemented from Lots 1 through Lot 6 and will continue throughout production. Program is planning an airframe Block Buy Contract for Lot 7 in FY 2023 and Lot 8 in FY 2024. The program is planning a Multi-year Procurement for Lots 9-13 in FY 2025-FY 2029. FMS opportunities include an increase of quantity for Israel MoD procurement from 12 to 18 aircraft and a potential case with Germany for 44 aircraft. FMS opportunities will improve the USMC unit cost by accelerating learning curve impacts and reducing fixed costs across the remaining USMC procurement.

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## Contracts

System Development and Demonstration (SDD) (\$TYM)		
Contract Number	N00019-06-C-0081	
Effort Number	1	
Modification Number	309	
Award Date	January 03,2006	
Definitization Date	January 03,2006	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	System Development and Demonstration (SDD)	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
3052.2	3055.6	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
5260.5	5443.1	
Initial Quantity	Current Quantity	Delivered Quantity
5	5	1
BAC	BCWP	ACWP
5201.14	4711.49	4775.49
BCWS	Cost Variance	Schedule Variance
4760.27	-63.60	-48.78

### Contract Notes:

The quantity of five includes four Engineering Development Models (EDMs) and one Ground Test Vehicle (GTV). The one GTV aircraft was delivered to the Government, the four EDM aircraft are Contractor Acquired Property to execute the SDD required testing and the Government will DD-250 upon closure of SDD. An Over Target Baseline (OTB)/Over Target Schedule (OTS) was completed for the SDD Contract (CLIN 0004 SDD only) on February 19, 2020. (Current Target Price does not include OTB additional budget.) The OTB/OTS ensures alignment between the performance measurement baseline and program execution to provide more meaningful EVM data for the completion of SDD. The Government EAC was completed in May 2021. The EVM data has been updated with January 2022 data.

### Cost Variance:

The main driver for the unfavorable cumulative cost performance is delayed completion of flight test on EDM2 and EDM3 for IOT&E.

### Schedule Variance:

The main driver for the unfavorable cumulative schedule performance is delayed completion of flight test on EDM2 and EDM3 for IOT&E, as well as delayed reallocation of spare detail dynamic components.

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System Demonstration Test Article (SDTA) (\$TYM)		
Contract Number	N00019-06-C-0081	
Effort Number	2	
Modification Number	309	
Award Date	May 30,2013	
Definitization Date	May 30,2013	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	System Demonstration Test Articles (SDTA)	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
435.3	693.3	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
623.85	622.44	
Initial Quantity	Current Quantity	Delivered Quantity
6	4	4
BAC	BCWP	ACWP
618.35	617.91	622.06
BCWS	Cost Variance	Schedule Variance
618.35	-4.16	-0.44

**Contract Notes:**

PM's Estimated Price is equal to the current Estimate plus scope changes, profit and fee. PM's Estimate At Complete (EAC) and Contract Budget Base reflects definitization of Aircraft 5 & Aircraft 6 de-scope. A close out EAC was completed in August 2021. The EVM data has been updated with January 2022 data. Current Target Price will differ from the value in the Earned Value Management Central Repository (EVM-CR) by \$22.1M because a November 2021 contract mod ought not have changed Target Cost.

**Cost Variance:**

Unfavorable cumulative cost performance is due to overruns on the SDTA 1 through SDTA 6 aircraft builds.

**Schedule Variance:**

Unfavorable cumulative schedule performance is driven by Safran eMate NRE and Tail Rotor Pylon Bushings PSE delays.

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LRIP 1 (\$TYM)		
Contract Number	N00019-16-C-0048	
Effort Number	4	
Modification Number	00060	
Award Date	April 18, 2016	
Definitization Date	August 31, 2017	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	Low Rate Initial Production (LRIP) Lot 1	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
25	338.37	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
313.58	333.80	
Initial Quantity	Current Quantity	Delivered Quantity
0	2	2
BAC	BCWP	ACWP
309.38	270.728	292.35
BCWS	Cost Variance	Schedule Variance
276.26	-21.62	-5.5

**Contract Notes:**

EVM table data is reflective of CLINs 0001, 0002, 0003, 0004, 0005, 0007, 0011, and 0012 (as of January 2022 status).

**Cost Variance:**

The main drivers for the unfavorable cost variance are the Systems Engineering and Program Management (SEPM) and Aircraft Build CLINs.

**Schedule Variance:**

The main drivers for the unfavorable cost variance are the Systems Engineering and Program Management (SEPM) and Aircraft Build CLINs.

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LRIP Lot 1,2,3,4, and 5 Engines (\$TYM)		
Contract Number	N00019-18-C-1007	
Effort Number	5	
Modification Number		
Award Date	November 16, 2017	
Definitization Date	November 16, 2017	
Order Number		
CAGE Code/CAGE Legal Name	99207/GE Aircraft Engines	
Contract Title	Low Rate Initial Production Lot 1,2,3,4 and 5 engines	
Contract Address	1000 Western Avenue, Lynn, MA 01905	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
143.48	501.3	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
Initial Quantity	Current Quantity	Delivered Quantity
11	94	
BAC	BCWP	ACWP
BCWS	Cost Variance	Schedule Variance

**Contract Notes:**

Cost and Schedule Variance reporting is not required on this Firm Fixed Price Contract.

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LRIP Lot 2		
Contract Number	N00019-16-C-0048	
Effort Number	6	
Modification Number	0060	
Award Date	May 22, 2017	
Definitization Date	May 17,2019	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	Low Rate Initial Production Lot 2	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
55.5	554.12	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
501.61	507.28	
Initial Quantity	Current Quantity	Delivered Quantity
0	5	
BAC	BCWP	ACWP
476.90	273.11	284.40
BCWS	Cost Variance	Schedule Variance
352.36	-11.29	-79.26

**Contract Notes:**

The Lot 2 contract definitized on May 17, 2019. Original price includes Advanced Acquisition Contract award for long lead parts for LRIP 2. Initial EVM data was submitted in September 2019. The EVM data is reflective of January 2022 status.

**Cost Variance:**

Unfavorable Cost performance is primarily due to more support and effort needed within the Engineering Tech Help & Support and Engineering Aircraft Support control accounts.

**Schedule Variance:**

Unfavorable schedule performance is primarily due to aircraft 13 delay in delivery of fuel cells from Amfuel to Sikorsky, aircraft 12 paint peel issue with fuselage, and delays in QCA work on aircraft 9, aircraft 10, and aircraft 11.

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LRIP Lot 3		
Contract Number	N00019-16-C-0048	
Effort Number	7	
Modification Number	00060	
Award Date	February 13, 2018	
Definitization Date	May 17, 2019	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	Low Rate Initial Production Lot 3	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
126.5	811.36	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
732.08	765.47	
Initial Quantity	Current Quantity	Delivered Quantity
0	7	
BAC	BCWP	ACWP
719.39	156.96	160.47
BCWS	Cost Variance	Schedule Variance
183.00	-3.5	-26.05

**Contract Notes:**

The Lot 3 contract definitized on May 17, 2019. Original price includes Advanced Acquisition Contract award for long lead parts for LRIP 3. Initial EVM data is reflective of January 2022 status.

**Cost Variance:**

Unfavorable Schedule Variance is unfavorable primarily due to an updated approach in how performance was claimed resulting in a reduction in performance. It is also due to the unfavorable consumption of brackets, forgings, and "non-major" components for aircraft 19.

**Schedule Variance:**

Unfavorable Schedule Variance is unfavorable primarily due to the delayed delivery of the GKN Aerospace Aft Transition to Spirit AeroSystems and delayed fuselage deliveries from Spirit AeroSystems to Sikorsky for Aircraft 14, 16, and 20.

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LRIP Lot 4 (\$TYM)		
Contract Number	N00019-16-C-0048	
Effort Number	8	
Modification Number	00060	
Award Date	August 12, 2019	
Definitization Date	October 26, 2020	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	Low Rate Initial Production Lot 4	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
107.35	597.69	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
521.91	541.12	
Initial Quantity	Current Quantity	Delivered Quantity
0	6	
BAC	BCWP	ACWP
518.9	26.45	24.56
BCWS	Cost Variance	Schedule Variance
37.57	1.89	-11.12

**Contract Notes:**

LRIP Lot 4 full funding was awarded October 26, 2020. EVM reporting has begun. Original price includes Advanced Acquisition Contract funding for LRIP Lot 4 long lead materials that awarded on August 12, 2019. The EVM data is reflective of January 2022 status.

**Cost Variance:**

Favorable cumulative cost performance is primarily driven by efficiencies in required support within the Systems Engineering Management, Engineering Support LOE control accounts, and Supply Chain Management control accounts.

**Schedule Variance:**

The cumulative schedule performance is unfavorable primarily due to delays in aircraft position 2 long lead material deliveries and Spirit Composite Fabrication for Aircraft 21, Aircraft 22, Aircraft 23, and Aircraft 24 Quick Changeable Assemblies.

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LRIP Lot 5 (\$TYM)		
Contract Number	N00019-20-C-0047	
Effort Number	9	
Modification Number	0004	
Award Date	March 26, 2020	
Definitization Date	June 25,2021	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	Low Rate Initial Production Lot 5	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
861.33	861.33	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
766.05	773.46	
Initial Quantity	Current Quantity	Delivered Quantity
0	9	
BAC	BCWP	ACWP
703.68	5.46	3.98
BCWS	Cost Variance	Schedule Variance
7.94	1.47	-2.49

**Contract Notes:**

The LRIP Lot 5 contract was awarded on June 25, 2021. Original price includes Advanced Acquisition Contract funding for LRIP Lot 5 long lead materials. The EVM data is reflective of January 2022.

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Unfavorable Schedule performance is due to the supplier, Spirit AeroSystems, updating their production plan shortening the lead time of forgings and causing the initial forging to be late to baseline. System Development and Demonstration (SDD) (\$TYM)		
Contract Number	N00019-06-C-0081	
Effort Number	1	
Modification Number	309	
Award Date	January 03,2006	
Definitization Date	January 03,2006	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	System Development and Demonstration (SDD)	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
3052.2	3055.6	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
5260.5	5443.1	
Initial Quantity	Current Quantity	Delivered Quantity
5	5	1
BAC	BCWP	ACWP
5201.14	4711.49	4775.49
BCWS	Cost Variance	Schedule Variance
4760.27	-63.60	-48.78

**Contract Notes:**

The quantity of five includes four Engineering Development Models (EDMs) and one Ground Test Vehicle (GTV). The (1) GTV aircraft was delivered to the Government, the four EDM aircraft are Contractor Acquired Property to execute the SDD required testing and the Government will DD-250 upon closure of SDD. An Over Target Baseline (OTB)/Over Target Schedule (OTS) was completed for the SDD Contract (CLIN 0004 SDD only) on February 19, 2020. (Current Target Price does not include OTB additional budget.) The OTB/OTS ensures alignment between the performance measurement baseline and program execution to provide more meaningful EVM data for the completion of SDD. The Government EAC was completed in May 2021. The EVM data has been updated with January 2022 data.

**Cost Variance:**

The main driver for the unfavorable cumulative cost performance is delayed completion of flight test on EDM2 and EDM3 for IOT&E.

**Schedule Variance:**

The main driver for the unfavorable cumulative schedule performance is delayed completion of flight test on EDM2 and EDM3 for IOT&E, as well as delayed reallocation of spare detail dynamic components.

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System Demonstration Test Article (SDTA) (\$TYM)		
Contract Number	N00019-06-C-0081	
Effort Number	2	
Modification Number	309	
Award Date	May 30,2013	
Definitization Date	May 30,2013	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	System Demonstration Test Articles (SDTA)	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
435.3	693.3	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
623.85	622.44	
Initial Quantity	Current Quantity	Delivered Quantity
6	4	4
BAC	BCWP	ACWP
618.35	617.91	622.06
BCWS	Cost Variance	Schedule Variance
618.35	-4.16	-0.44

**Contract Notes:**

PM's Estimated Price is equal to the current Estimate plus scope changes, profit and fee. PM's Estimate At Complete (EAC) and Contract Budget Base reflects definitization of Aircraft 5 & Aircraft 6 de-scope. A close out EAC was completed in August 2021. The EVM data has been updated with January 2022 data.

**Cost Variance:**

Unfavorable cumulative cost performance is due to overruns on the SDTA 1 through SDTA 6 aircraft builds.

**Schedule Variance:**

Unfavorable cumulative schedule performance is driven by Safran eMate non-recurring engineering and Tail Rotor Pylon Bushings peculiar support equipment delays.

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LRIP 1 (\$TYM)		
Contract Number	N00019-16-C-0048	
Effort Number	4	
Modification Number	00060	
Award Date	April 18, 2016	
Definitization Date	August 31, 2017	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	Low Rate Initial Production (LRIP) Lot 1	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
25	338.37	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
313.58	333.80	
Initial Quantity	Current Quantity	Delivered Quantity
0	2	2
BAC	BCWP	ACWP
309.38	270.728	292.35
BCWS	Cost Variance	Schedule Variance
276.26	-21.62	-5.5

**Contract Notes:**

EVM table data is reflective of CLINs 0001, 0002, 0003, 0004, 0005, 0007, 0011, and 0012 (as of January 2022 status).

**Cost Variance:**

The main drivers for the unfavorable cost variance are the Systems Engineering and Program Management (SEPM) and Aircraft Build CLINs.

**Schedule Variance:**

The main drivers for the unfavorable cost variance are the Systems Engineering and Program Management (SEPM) and Aircraft Build CLINs.

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LRIP Lot 1,2,3,4, and 5 Engines (\$TYM)		
Contract Number	N00019-18-C-1007	
Effort Number	5	
Modification Number		
Award Date	November 16, 2017	
Definitization Date	November 16, 2017	
Order Number		
CAGE Code/CAGE Legal Name	99207/GE Aircraft Engines	
Contract Title	Low Rate Initial Production Lot 1,2,3,4 and 5 engines	
Contract Address	1000 Western Avenue, Lynn, MA 01905	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
143.48	501.3	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
Initial Quantity	Current Quantity	Delivered Quantity
11	94	46
BAC	BCWP	ACWP
BCWS	Cost Variance	Schedule Variance

**Contract Notes:**

Cost and Schedule Variance reporting is not required on this Firm Fixed Price Contract.

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LRIP Lot 2		
Contract Number	N00019-16-C-0048	
Effort Number	6	
Modification Number	0060	
Award Date	May 22, 2017	
Definitization Date	May 17,2019	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	Low Rate Initial Production Lot 2	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
55.5	554.12	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
501.61	507.28	
Initial Quantity	Current Quantity	Delivered Quantity
0	5	
BAC	BCWP	ACWP
476.90	273.11	284.40
BCWS	Cost Variance	Schedule Variance
352.36	-11.29	-79.26

**Contract Notes:**

The Lot 2 contract definitized on May 17, 2019. Original price includes Advanced Acquisition Contract award for long lead parts for LRIP 2. Initial EVM data was submitted in September 2019. The EVM data is reflective of January 2022 status.

**Cost Variance:**

Unfavorable Cost performance is primarily due to more support and effort needed within the Engineering Tech Help & Support and Engineering Aircraft Support control accounts.

**Schedule Variance:**

Unfavorable schedule performance is primarily due to aircraft 13 delay in delivery of fuel cells from Amfuel to Sikorsky, aircraft 12 paint peel issue with fuselage, and delays in quick change assembly work on aircraft 9, aircraft 10, and aircraft 11.

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LRIP Lot 3		
Contract Number	N00019-16-C-0048	
Effort Number	7	
Modification Number	00060	
Award Date	February 13, 2018	
Definitization Date	May 17, 2019	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	Low Rate Initial Production Lot 3	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
126.5	811.36	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
732.08	765.47	
Initial Quantity	Current Quantity	Delivered Quantity
0	7	
BAC	BCWP	ACWP
719.39	156.96	160.47
BCWS	Cost Variance	Schedule Variance
183.00	-3.5	-26.05

**Contract Notes:**

The Lot 3 contract definitized on May 17, 2019. Original price includes Advanced Acquisition Contract award for long lead parts for LRIP 3. Initial EVM data is reflective of January 2022 status.

**Cost Variance:**

Unfavorable Schedule Variance is unfavorable primarily due to an updated approach in how performance was claimed resulting in a reduction in performance. It is also due to the unfavorable consumption of brackets, forgings, and "non-major" components for aircraft 19.

**Schedule Variance:**

Unfavorable Schedule Variance is unfavorable primarily due to the delayed delivery of the GKN Aerospace Aft Transition to Spirit AeroSystems and delayed fuselage deliveries from Spirit AeroSystems to Sikorsky for Aircraft 14, 16, and 20.

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LRIP Lot 4 (\$TYM)		
Contract Number	N00019-16-C-0048	
Effort Number	8	
Modification Number	00060	
Award Date	August 12, 2019	
Definitization Date	October 26, 2020	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	Low Rate Initial Production Lot 4	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
107.35	597.69	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
521.91	541.12	
Initial Quantity	Current Quantity	Delivered Quantity
0	6	
BAC	BCWP	ACWP
518.9	26.45	24.56
BCWS	Cost Variance	Schedule Variance
37.57	1.89	-11.12

**Contract Notes:**

LRIP Lot 4 full funding was awarded October 26, 2020. Original price includes Advanced Acquisition Contract funding for LRIP Lot 4 long lead materials that awarded on August 12, 2019. The EVM data is reflective of January 2022 status.

**Cost Variance:**

Favorable cumulative cost performance is primarily driven by efficiencies in required support within the Systems Engineering Management, Engineering Support level of effort control accounts, and Supply Chain Management control accounts.

**Schedule Variance:**

The cumulative schedule performance is unfavorable primarily due to delays in aircraft position 2 long lead material deliveries and Spirit Composite Fabrication for Aircraft 21, Aircraft 22, Aircraft 23, and Aircraft 24 quick change assemblies.

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LRIP Lot 5 (\$TYM)		
Contract Number	N00019-20-C-0047	
Effort Number	9	
Modification Number	0004	
Award Date	March 26, 2020	
Definitization Date	June 25,2021	
Order Number		
CAGE Code/CAGE Legal Name	78286/Sikorsky Aircraft Corporation	
Contract Title	Low Rate Initial Production Lot 5	
Contract Address	6900 Main Street, Stratford, CT 06615	
Contracts/Effort Price, Quantity, and Performance (\$M)		
Initial Target Price	Current Target Price	
861.33	861.33	
Initial Ceiling Price	Current Ceiling Price	
N/A	N/A	
Contract's EAC	PM's EAC	
766.05	773.46	
Initial Quantity	Current Quantity	Delivered Quantity
0	9	
BAC	BCWP	ACWP
703.68	5.46	3.98
BCWS	Cost Variance	Schedule Variance
7.94	1.47	-2.49

**Contract Notes:**

The LRIP Lot 5 contract was awarded on June 25, 2021. Original price includes Advanced Acquisition Contract funding for LRIP Lot 5 long lead materials. The EVM data is reflective of January 2022.

**Schedule Variance:**

Unfavorable Schedule performance is due to the supplier, Spirit AeroSystems, updating their production plan shortening the lead time of forgings and causing the initial forging to be late to baseline.

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## Technologies and Systems Engineering

### *Significant Technical Risks*

Significant Technical Risks	
Current Estimate (December 2021)	
1.	Flight Test and Production Concurrency
2.	Main Rotor Damper Performance
3.	Engine Degradation in Sand and Dust

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## Deliveries and Expenditures

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development	4	4	4	100.00%
Production	3	3	196	1.5%
Total Program Quantity Delivered	7	7	200	3.50%

### Expended and Appropriated (TY \$M)

Total Acquisition Cost: \$35035.08

Expended to Date \$9140.29

Percent Expended: 26.1%

Total Funding Years: 29

Years Appropriated: 21

Percent Years Appropriated: 72.4%

Appropriated to Date: \$14848.90

Percent Appropriated: 42.4%

The above data is current as of April 18, 2022.

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## Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRIP
<b>Approval Date</b>	11/22/2005	1/31/2022
<b>Approved Quantity</b>	29	38
<b>Reference</b>	Milestone B Acquisition Strategy (AS)	CH-53 K LRIP ADM
<b>Start Year</b>	2012	2017
<b>End Year</b>	2015	2022

**Rationale if Current Total LRIP Quantity exceeds 10% of the total Procurement quantities:**

The Current Total LRIP Quantity is more than 10% of the total production quantity and was approved at Milestone C. Two additional LRIP Lots were approved in an ADM approved on January 6, 2020, which increased the percentage from 13% to 19%. The increase in aircraft quantity is necessary to maintain continuity in production pending completion of Initial Operational Test and Evaluation (IOT&E), planned in second quarter FY 2022. The two additional LRIP lots support resolution of identified deficiencies, manufacturing maturation, and completion of FRP entrance criteria.

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## Operating and Support Costs

### Total Program O&S Cost Compared with Baseline

	Current APB Objective (BY\$ 2017)	Current APB Threshold (BY\$ 2017)	Current Estimate (BY\$ 2017)	Current Estimate (TY\$)	Deviation
Total O&S (\$Millions)	46,261.23	50,887.36	38,598.14	69,298.13	N/A

### O&S Cost Breakdown

Cost per aircraft in BY17\$ reflects Indirect Support Costs in the "Other" element below, to remain consistent to the APB totals.

Category (BY 2017\$ Million)	CH-53K
Unit-Level Manpower	4,689.07
Unit Operations	1,364.32
Maintenance	23,955.43
Sustaining Support	1,628.29
Continued System Improvements	4,130.61
Other	2,830.42
Total O&S	38,598.14

**Cost Estimate Source:** POE of March 3, 2022

- Aircraft Attrition Rate: 1.0% of Total Aircraft Inventory (TAI) per year
- Aircraft Pipeline Factor: 16.7% of TAI
- Squadrons: 8 Marine Heavy Helicopter (HMH) squadrons (5 active / 2 reserve) / 1 Marine Training (HMHT) squadron
- Helicopters per HMH (active) squadron: 16 / 20
- Helicopters per HMH (reserve) squadron: 8
- Helicopters per HMHT squadron: 17
- Monthly Flight Hours per Helicopter (Primary Aircraft Authorized (PAA)): 17.9
- PB 2022 budgeted flight hours applied in the FYDP
- Aircraft reliability projections per NAVAIR-4.1.10 input
- Total Operating Helicopter Years: 3,642 (Phase-in of PAA required, 30 years operating life per aircraft, phase-out of PAA)

#### O&S Cost Notes:

- a. Disposal/Demilitarization Cost Estimate and Source of Estimate:  
\$52.30M (BY17\$) from the POE of March 3, 2022
- b. Sustainment Strategy:  
The CH-53K will be sustained utilizing Organizational, Intermediate, and Depot levels of maintenance. Repair and Overhaul capability establishment will be phased in over five years and will be based on component maturity, operational readiness and affordability factors. For components determined to require organic repair capability, a time-phased entry approach will be utilized to enable optimization of capacity as well as stabilization of repair processes and ensure repair capability will be established no later than IOC +4 years. Product Support analyses are being matured and will be compared to data obtained during flight test and initial operations to establish sustainment baselines at the component level. A Fleet Common Operation Environment (FCOE) has been established to fuse information from operations and sustainment activities across the Naval Aviation

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Enterprise and provide near real-time comparisons of actual environmental, reliability, cost and sustainment infrastructure performance against the established baselines. Current sustainment planning activities are facilitating engagement with both public and private industrial support services in the development of performance-based product support arrangements as well as utilizing the FCOE to enable more agile and effective product support packages during CH-53K sustainment operations.

For Each Acquired System or System Variant:

- i. Quantity to Sustain: 200
  - ii. First Operational Fiscal Year: 2021
  - iii. Final Operational Fiscal Year: 2061
  - iv. Unit Expected Service Life: 30 Operating Years
- c. Due to the USMC Force Design reduction of HMM squadrons reducing the aircraft population to 120 units and the Program of Record aircraft quantities remaining at 200 aircraft, there will be 32 additional attrition/reserve aircraft needed to be sustained which is currently reflected in the O&S estimate.
- d. Antecedent System(s) O&S Costs:  
The antecedent system is CH-53E. The estimated antecedent Average Annual Cost is \$938.34 (BY 2017\$M). Antecedent CH-53E data representative of FY 2014 to FY 2016 average of Naval Visibility and Management of Operating and Support Cost (VAMOSC) reported cost data. CH-53E is not capable of meeting Joint Requirements Oversight Council Key Performance Parameter requirements established for the CH-53K (CH-53K provides three times the lift capability compared to CH-53E).

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