

**CLEARED
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Department of Defense
OFFICE OF PREPUBLICATION AND SECURITY REVIEW

Selected Acquisition Report (SAR)



KC-130J Transport Aircraft (KC-130J)

FY 2024 President's Budget

Defense Acquisition Visibility Environment
(DAVE)

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Common Acronyms and 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
APB - Acquisition Program Baseline
APPN - Appropriation
APUC - Average Procurement Unit Cost
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
FMS - Foreign Military Sales
FOC - Full Operational Capability
FRP - Full Rate Production
FY - Fiscal Year
FYDP - Future Years Defense Program
ICE - Independent Cost Estimate
Inc - Increment
IOC - Initial Operational Capability
JROC - Joint Requirements Oversight Council
KPP - Key Performance Parameter
LRIP - Low Rate Initial Production
MDA - Milestone Decision Authority
MDAP - Major Defense Acquisition Program
MILCON - Military Construction
N/A - Not Applicable
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
RDT&E - Research, Development, Test, and Evaluation
SAR - Selected Acquisition Report
SCP - Service Cost Position
TBD - To Be Determined
TY - Then Year
U.S. - United States
UCR - Unit Cost Reporting
USD(A&S) - Under Secretary of Defense (Acquisition and Sustainment)
USD(AT&L) - Under Secretary of Defense (Acquisition, Technology and Logistics)

Program Information

Program Name

KC-130J Transport Aircraft

DoD Component

Navy

Responsible Office

Program Manager

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Mission and Description

The KC-130J Transport Aircraft (KC-130J) is a high-wing, long range land based monoplane which is powered by four turboprop engines equipped with six blade variable pitch propellers. The KC-130J program provides the Marine Corps with air-to-air refueler/tactical transport capability to replace the KC-130 F/R/T aircraft. Specific KC-130J mission capabilities encompass air-to-air refueling, air delivered ground refueling, tactical troop transport, aerial delivery of personnel and cargo, airborne radio relay, tactical aero-medical evacuation, multi-sensor imagery reconnaissance, and close air support. The KC-130J improves readiness, capability and survivability while reducing maintenance and operating costs.

Executive Summary

KC-130J

Program Highlights Since Last Report

As of December 31, 2022, 67 USMC KC-130Js have been delivered. Two KC-130J aircraft have been stricken due to mishap incidents, one in December 2018 and a second in December 2020, thereby reducing the total available aircraft to 65. A five-year Multi-Year Procurement (MYP III) was approved by the FY 2019 National Defense Authorization Act in May 2018 and definitized on December 27, 2019 to support USMC aircraft procurement from FY 2019 - FY 2023. Modification P00032 was awarded on December 14, 2022 for five FY 2023 USMC KC-130J aircraft in the amount of \$358M. The Program continues to support active KC-130J FMS cases with the Kuwait Air Force. The Program maintains coordination with international communities for Security Assistance and Security Cooperation and works to accomplish program objectives of assigned cases within applicable laws and regulations. There are no significant software related issues with this program at this time.

History of Significant Developments Since Program Initiation

History of Significant Developments Since Program Initiation	
Date	Significant Development Description
Sep - 2021	Acquisition Strategy Revision 2, which updated contracting strategies for Block E and Block G KC-130J enhancements as well as associated quantity and funding tables, was approved by ASN (RD&A)
Aug - 2021	Last HH+ aircraft delivered from retrofit modification
Mar - 2021	First Production Block 7.0/8.1/DoN LAIRCM KC-130J delivered
Nov - 2020	Completed Automatic Dependent Surveillance - Broadcast Out Retrofits
Feb - 2020	KC-130J APB update signed and approved.
Dec - 2019	Multi-Year (MY) III definitization.
Apr - 2018	Completed Automatic Dependent Surveillance - Broadcast Out federal interim solution certification.
Apr - 2018	Requirements letter signed by Deputy Commandant for Aviation to increase USMC KC-130J Program of Record from 79 to 86 aircraft.
Feb - 2018	FY 2019 PB included United States Air Force MYP III for FY 2019 - FY 2023.
Dec - 2015	MYP II contract awarded for C-130J aircraft on December 30, 2015. The MYP II contract covers FY 2014 - FY 2018 procurements.
Dec - 2015	Three FY 2013 United States Marine Corps (USMC) Congressional added aircraft were definitized.
May - 2013	Congressional reductions in the FY 2014 appropriated budget resulted in the decrease of one aircraft. Total aircraft quantity remained unchanged.
May - 2013	FY 2014 PB included United States Air Force Multi-Year Procurement (MYP) II for FY 2014 - FY 2018.
Feb - 2011	KC-130J APB approved.
Apr - 2010	KC-130J program was designated as ACAT IC by the USD(AT&L).

Schedule

KC-130J

Events	Milestone Baseline Objective	Current Baseline Objective/Threshold		Current Estimate/Actual	Deviation
USAF Program Initiation	Jun 1996	Jun 1996	Jan 1997	Jun 1996	
USAF FY 1996 Basic Aircraft Contract	Nov 1996	Nov 1996	May 1997	Nov 1996	
USAF First Delivery	Mar 1999	Mar 1999	Sep 1999	Mar 1999	
USMC IOC	Feb 2005	Feb 2005	Feb 2005	Feb 2005	

Notes

Acronyms and Abbreviations

USAF - United States Air Force

USMC - United States Marine Corps

Schedule Notes: The KC-130J Program has completed all acquisition milestones and is Post FRP. Structural, safety of flight and capability modifications continue to be developed and incorporated.

Deviation Explanation

Performance

KC-130J

Performance Characteristics					
Milestone Baseline	Current Baseline Objective/Threshold		Demonstrated Performance	Current Estimate/Actual	Deviation
([attribute type not provided]) - Maximum Effort Ground Roll (2)					
	The maximum effort landing ground roll at 135,000 lbs will not exceed 1800 ft	The maximum effort landing ground roll at 135,000 lbs will not exceed 1800 ft	Met Objective 1800 ft	The maximum effort landing ground roll at 135,000 lbs will not exceed 1800 ft	
([attribute type not provided]) - Maximum Effort Takeoff Run (2)					
	2700 ft	The aircraft shall be able to perform a maximum effort take off from a prepared surface at sea level, standard day, no wind, and maximum gross weight of 164,000 lbs in 3,300 ft	Met Objective 2700 ft	2700 ft	
([attribute type not provided]) - Net Ready (2)					
	100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing in the joint architecture.	100% of interfaces; services; policy-enforcement controls; and data correctness, availability and processing requirements present in the Block 5.4 configuration designated as enterprise-level or critical in the joint integrated architecture.	Met Objective Incorporation of Block 5.4	100% of interfaces; services; policy enforcement controls; and data correctness, availability and processing in the joint architecture.	
([attribute type not provided]) - Range with 25,000 lb. Cargo Load (2)					

	2,700 nm	The C-130J deployment range, at long-range cruise airspeeds, mean cruise weight fuel flow, a cruise altitude of 27,000 ft or above, 6,700 lbs reserve fuel overhead destination with a 25,000 lb cargo payload, and the conditions stated above, the deployment range must be 2,460 nm	Met Objective 2,700 nm	2,700 nm	
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Requirement Reference

Validated:
Operational Requirements Letter (ORL) Change 3 dated February 14, 2009

Deviation Explanation

No deviations for this program/subprogram

Notes

Acronyms and Abbreviations
Ft - Feet
Ibs - Pounds
Nm - Nautical Miles

Acquisition Budget Estimate

KC-130J

Total Acquisition Cost

		Milestone APB	Current Baseline		Budget Estimate PB 2024		
Category	Base Year	Objective (BY\$M)	Objective (BY\$M)	Threshold (BY\$M)	BY\$M	TY\$M	Deviation
RDT&E	2010	35.6	38.1	41.9	38.1	37.8	
Procurement	2010	9,198.3	9,609.3	10,570.2	9,458.5	11,575	
MILCON	2010	0	0	0	0	0	
Acq. O&M	2010	0	0	0	0	0	
Total		9,233.9	9,647.4		9,496.6	11,612.8	
PAUC	2010	88.788	86.914	95.605	85.555	104.620	
APUC	2010	88.445	86.570	95.227	85.212	104.279	

Appropriation Category Deviation Explanations

PAUC Deviation Explanation

APUC Deviation Explanation

Budget Notes

Procurement TY\$M: \$87.6M estimated increase in costs due to stretch out of the USN aircraft buys outside the FYDP

Procurement TY\$M: \$79.7M for increased requirement for additional Training devices

Procurement TY\$M: \$22.4M Increase to Initial Spares

Total End Item Quantity

Quantity Category	Current APB Quantity	Current Estimate Quantity
Development	0	0
Procurement	111	111
O&M-Acquired		0

Quantity Notes

Unit Cost

KC-130J

Current UCR Baseline and Current Estimate (Base-Year Dollars)			
Category (\$M) Base Year:2010	Current UCR Baseline	Current Estimate	% Change
Program Acquisition Unit Cost			
Cost	9,647.4	9,496.6	
Quantity	111	111	
Unit Cost	86.914	85.555	-1.56%
Average Procurement Unit Cost			
Cost	9,609.3	9,458.5	
Quantity	111	111	
Unit Cost	86.570	85.212	-1.57%

Original UCR Baseline and Current Estimate (Base-Year Dollars)			
Category (\$M) Base Year:2010	Original UCR Baseline	Current Estimate	% Change
Program Acquisition Unit Cost			
Cost	9,233.9	9,496.6	
Quantity	104	111	
Unit Cost	88.788	85.555	-3.64%
Average Procurement Unit Cost			
Cost	9,198.3	9,458.5	
Quantity	104	111	
Unit Cost	88.445	85.212	-3.66%

Cost Growth Details

Current Baseline PAUC Breach Explanation

Current Baseline APUC Breach Explanation

Original Baseline PAUC Breach Explanation

Original Baseline APUC Breach Explanation

Impacts of Schedule Changes on Unit Cost

Impacts of Performance Changes on Unit Cost

Actions Taken or Proposed to Control Future Cost Growth

*Risk and Sensitivity Analysis***KC-130J**

Risk and Sensitivity Analysis
Current Procurement Cost(December - 2022)
No cost estimate for the program has been completed in the previous year.
Original Baseline Estimate (February - 2011)
The Original Baseline Estimate reflects the POE for the APB, approved by USD(AT&L).
Current Baseline Estimate (February - 2020)
The Current Baseline estimate reflects the POE for the APB, approved by USD(AT&L).

Schedule Risk		
Technical Risks		

Low Rate Initial Production

KC-130J

Item	Initial LRIP Decision	Current Total LRIP
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Approval Date

Approved Quantity

Reference

Start Year

End Year

Rationale if quantity exceeds 10% of the total number of articles to be procured:

Notes

There is no LRIP for this program.

Contracts & Efforts

Contract Data	
Contract Number	FA8625-16-D-6458
Effort Number	2
Modification Number	P00008
Award Date	07/18/2018
Definitization Date	12/27/2019
Order Number	FA8625-18-F-7028
CAGE Code/CAGE Legal Name	98897/Lockheed Martin Corporation Lockheed Martin Aeronautics Company
Contract Title	FYOC D.O. 7028
Contract Address	Marietta, GA
Contracting Office	FA8625
Supported Phase	Production
Contract Strategy	
Contract Type	Firm-Fixed-Price
Modification Date	May 27, 2020
Work Start Date	
Technical Data Rights	
Work Completed	

Contracts/Effort Price, Quantity, and Performance (TY\$M)

Initial Target Price	Current Target Price	
\$124.9	\$320.7	
Initial Ceiling Price	Current Ceiling Price	
\$337.1	\$320.7	
Contractor EAC	PM EAC	
\$320.7	\$320.7	
Initial Quantity	Current Quantity	Delivered Quantity
4	4	4
BAC	BCWP	ACWP

BCWS	Cost Variance	Schedule Variance

Contract Notes:

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract definitization. FYOC D.O. 7028 was definitized on December 27, 2019 in support of four KC-130J congressional added aircraft in the Block 8.1/DoN LAIRCM configuration.

Factors Contributing to Cost Variance and Projected Effects on Program Costs**Factors Contributing to Schedule Variance and Projected Effects on Program Schedule**

Contract Data	
Contract Number	FA8625-16-D-6458
Effort Number	1
Modification Number	P00032
Award Date	07/19/2018
Definitization Date	12/27/2019
Order Number	FA8625-18-F-7027
CAGE Code/CAGE Legal Name	98897/Lockheed Martin Corporation Lockheed Martin Aeronautics Company
Contract Title	MYP III FYOC D.O. 7027
Contract Address	Marietta, GA
Contracting Office	FA8625
Supported Phase	Production
Contract Strategy	
Contract Type	Firm-Fixed-Price
Modification Date	December 14, 2022
Work Start Date	
Technical Data Rights	
Work Completed	

Contracts/Effort Price, Quantity, and Performance (TYSM)		
Initial Target Price	Current Target Price	
\$20	\$1,665.9	
Initial Ceiling Price	Current Ceiling Price	
	\$1,665.9	
Contractor EAC	PM EAC	
\$1,665.9	\$1,665.9	
Initial Quantity	Current Quantity	Delivered Quantity
0	20	3
BAC	BCWP	ACWP
BCWS	Cost Variance	Schedule Variance

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Contract Notes:

The difference between the Initial Contract Price Target and the Current Contract Price Target is due to contract definitization. MYP III will support U.S. Marine Corps aircraft procurement for FY 2019 - FY 2023 aircraft. FYOC Delivery Order (D.O.) 7027 was definitized on December 27, 2019 in support of the MYP III. This D.O. supports aircraft procurement and long lead contract items.

Factors Contributing to Cost Variance and Projected Effects on Program Costs**Factors Contributing to Schedule Variance and Projected Effects on Program Schedule**

External Government Activities

Activity Title		Government Entity	Supported Phase
CAGE		Work Start Date	
City		State/Province:	
Notes			

Deliveries and Expenditures

KC-130J

Deliveries				
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered
Development				
Production	67	67	111	60.36%
Total Program Quantity Delivered	67	67	111	60.36%

Expended and Appropriated (TY \$M)				
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Years Appropriated to date: 27

Total Years Appropriated Funding (Current Baseline): 33

Percent Years Appropriated: 81.82%

Then-Year Funding Appropriated as Percentage of Total Acquisition Estimate: 61.13%

Then-Year Funding Expended as Percentage of Total Acquisition Estimate: 49.71%

Total Acquisition Cost: 11,612.8

Deliveries & Expenditures Notes:

On April 5, 2018 a requirements letter was signed by Deputy Commandant for Aviation to increase the USMC warfighter requirement from 79 to 86. The total Navy and Marine Corps Program of Record increased from 104 to 111 aircraft consisting of 86 USMC and 25 United States Navy aircraft.

Operating and Support Costs

KC-130J

O&S Cost Breakdown:

Category (BY\$ Million)	KC-130J
Unit-Level Manpower	10,657.5
Unit Operations	3,413.1
Maintenance	15,973.7
Sustaining Support	1,613.4
Continued System Improvements	4,136.0
Other	
Total	35,793.7

Cost Estimate Source: POE dated March 07, 2023

O&S Cost Notes:

Total Program O&S Cost Compared with Baseline					
	Current Baseline				
	Objective (BY\$M)	Threshold (BY\$M)	Current Estimate (BY\$M)	Current Estimate (TY\$M)	Deviation
Total O&S	41,862.3	46,048.5	35,793.7	66,522.30	

Note:

O&S Cost Deviation Explanation

Operating and Support Costs - Disposal and Unitized Costs**KC-130J****Annual Unitized O&S Cost Definition and Calculation Relative to Total O&S Cost:**

Sustainment Factors	System Name: KC-130J	Antecedent System Name: KC-130 F/R/T
Quantity to Sustain	111	
Unit of Measure	Aircraft	
Unit Expected Service Life	40	

Base Year:

Annual Unitized O&S Cost by Category Base Year \$ Unit:(\$M)	System Name: KC-130J	Antecedent System Name: KC-130 F/R/T
Unit-Level Manpower	3.1	3.1
Unit Operations	1.0	0.8
Maintenance	4.6	1.9
Sustaining Support	0.5	0.1
Continued System Improvements	1.2	0.3
Other		
Total O&S	10.3	6.1

Disposal/Demilitarization Cost Estimate

(Base Year \$Millions)	System Name: KC-130J	Antecedent System Name: KC-130 F/R/T
Total Disposal	25.0	

Cost Estimate Source - Disposal	
Type:	Program Office Estimate
Approval Authority and Date:	NAVAIR C&SA Dept 03/07/2023
Note:	

This estimate was established as a Program Office Estimate, finalized March 7, 2023. Naval Visibility and Management of Operating and Support Costs (VAMOSOC) Aircraft Type Model Series Report (ATMSR) data from FY 2001 through FY 2021 was used to establish the KC-130J baseline. Projections based on the historical costs in ATMSR provide the majority of the out-year estimates. The variable Flying Hour Program and Engine Sustainment estimates are based on the most recent pricing and reliability data available. The total aircraft procurement of 111 includes the maximum Program Aircraft Authorized (PAA) of 101 aircraft, 8 Backup Aircraft Authority aircraft, and 2 attrition aircraft. The PAA includes 60 USMC Active aircraft at four squadrons, 15 USMC Reserve aircraft at one squadron, 24 Navy Reserve aircraft at five squadrons, one aircraft ("Bert") to support the Blue Angels, and one test aircraft.

Disposal Cost Notes:

This rough order of magnitude estimate will be refined as the System Disposal Plan Annex to the Life Cycle Sustainment Plan is developed.

Additional O&S Estimate Assumptions:

Sustainment Strategy:

The KC-130J Sustainment Strategy is based on three main pillars. The first pillar concerns KC-130J Depot Source of Repair, which includes both organic and commercial depot facilities. The Air Logistics Complex (ALC) located at Hill Air Force Base in Ogden, UT is the primary organic depot-level maintenance facility for the aircraft and provides complete core logistics and level-of-repair analyses. To offset capacity and workforce challenges with the organic facility that have impacted turn around times, two commercial offload depot-level contracts have been awarded. The two contractors are Cascade Aerospace in Abbotsford, Canada, and Marshall Aerospace Cambridge, United Kingdom. The combination of the organic and commercial capabilities provide comprehensive support and greater flexibility to the government as throughput demand changes based on aircraft availability for induction into depot. The second pillar is the use of commercial sustainment contracts to help support the KC-130J airframe and propulsion systems. Support of fielded aircraft is currently accomplished through three Naval Air Systems Command sustainment contracts. The airframe sustainment contract is with Lockheed Martin Aero, Marietta, GA and the propulsion sustainment contracts are with Rolls Royce Corporation, Indianapolis, IN and Dowty Propellers, Sterling, VA. The original equipment manufacturers assert restrictions on the government's right to use and release their proprietary technical data due the commercial origin of their products. Lack of rights to proprietary data precludes establishment of organic repair capability which require sole source of the engine and propeller repair, Repair of Repairables, logistics and engineering services to Rolls Royce and Dowty Propellers. Rolls Royce Corporation was the competitively selected provider for engine repair, priced based on reason for removal vice cost per engine hour and excluded repairs. The last pillar involves KC-130J component supply support. This support is provided through the normal military supply system which includes Naval Supply Systems Command, United States Air Force ALC, and Defense Logistics Agency.

Antecedent Estimate Assumptions:

The antecedent systems are the KC-130F, KC-130R, and C/KC-130T aircraft. The KC-130F and KC-130R were used in a blended analysis to compare to the KC-130J. C/KC-130T reserve squadron aircraft data is not included in the Antecedent Average Annual Cost per Aircraft, and it should be noted that the KC-130F/R models were in ramp-down phase during the time that data was available. Additionally, both the KC-130F and KC-130R were ACAT II programs that relied heavily on United States Air Force program sustainment. KC-130J aircraft will replace the KC-130F, KC-130R, and C/KC-130T aircraft one-for-one. The capture of O&S data in available reporting systems has changed significantly over time. Antecedent systems began their service life before continuous, reliable recording systems were available. Naval Visibility and Management of Operating and Support Costs (VAMOSOC) provides costs for FY 1997 to present. The cost data for platforms in existence prior to 1997 is either unavailable or incomplete. In summary, sufficient historical data and resources do not exist to create a credible comparison of Total O&S Costs. A data pull from the VAMOSOC ATMSR was made to obtain Maintenance, Sustaining Support, and Continuing System Improvements cost data. The steady state average of this data from 1999 to 2001 was used. The VAMOSOC total aircraft number for these years was 47, 48, and 48, respectively. The Unit Level Manpower was assumed to be the same as for the KC-130J. The Unit Operations costs were calculated using Cost Adjustment and Visibility Tracking System data from 1995 to 2009 to obtain the fuel consumption ratio of the antecedent aircraft to the KC-130J. The antecedent average annual cost was then multiplied by the KC-130J total operating aircraft years to find the total BY antecedent cost. The total O&S Costs of the antecedent for CAPE Elements 1.0 through 5.0 is \$21,372 BY\$10M. The breakdown of these costs in BY\$10M are: Unit-Level Manpower = \$10,657, Unit Operations = \$2,766, Maintenance = \$6,499, Sustaining Support = \$431, and Continuing Systems Improvement = \$1,019.