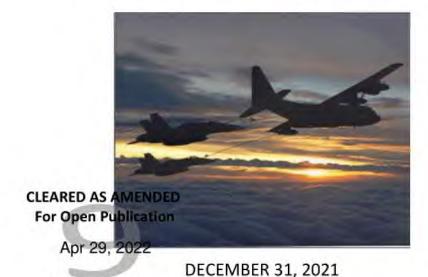


KC-130J TRANSPORT AIRCRAFT (KC-130J)

December 2021 Selected Acquisition Report (SAR)



Department of Defense DEPARTMENT OF THE NAVY

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KC-130J

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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)

Program Manager

Name: CAPT Steven Nassau Date Assigned: April 26, 2018

Address: PMA-207, Tactical Airlift Program Office

Program Executive Office - Air, Anti-Submarine Warfare,

Assault & Special Mission Programs

Bldg. 419, 46990 Hinkle Circle Patuxent River, MD 20670-1547

Phone: 301-757-8574

Email: steven.t.nassau.mil@us.navy.mil

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

Significant Accomplishments:

The Tactical Airlift Program Office remains focused on sustaining fleet aircraft, reducing operating costs and increasing readiness while delivering new production aircraft. On April 5, 2018 a requirements letter was signed by Deputy Commandant for Aviation to increase the United States Marine Corps (USMC) warfighter requirement from 79 to 86. As a result, the total Navy and Marine Corps Program of Record (POR) increased from 104 to 111 aircraft consisting of 86 USMC and 25 United States Navy aircraft. The KC-130J APB was updated and signed on February 10, 2020. As of December 10, 2021, 66 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 64.

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, two months earlier than the scheduled date. MYP III will support USMC aircraft procurement from FY 2019 - FY 2023. Six modifications totaling \$853.5M awarded under MYP III as follows:

- -P00006 awarded June 4, 2020 for FY 2019 B8.1/ Department of Navy Large Aircraft Infrared Countermeasures (DoN LAIRCM) Engineering Change Proposal (ECP) in the amount of \$6.5M. -P00008 awarded out of sequence March 11, 2020 for APN4 Advanced Procurement (AP) for FY 2021 aircraft in the amount of \$50M.
- -P00014 awarded January 28, 2021 for FY 2021 APN4 AP for FY 2022 aircraft in the amount of \$50M. -P00019 awarded March 31, 2021 for FY 2021 production aircraft #69, 70, 71, 72, and 73 in the amount of \$343.4M.
- -P00025 awarded December 7, 2021 for FY 2022 production aircraft #74, 75, 76, 77, and 78 in the amount of \$353.6M.
- -P00026 awarded December 20, 2021 for FY 2022 APN AP for FY2023 aircraft in the amount of \$50M.

High Combatant Command demand has accelerated the need to complete the POR. Until the POR completes, there will be a shortage of Back-up Aircraft Inventory reducing aircraft availability as KC-130J Primary Aircraft Inventory are taken Out of Reporting for Depot Level Maintenance, Avionics Block Upgrade 7.0/8.1, and AAQ-24 DoN LAIRCM retrofit modifications. The USMC is also pursuing funding to replace the two mishap aircraft. The Program is executing plans to increase reliability and maintainability through reliability centered maintenance. This includes improved component repair turnaround times and contract changes to streamline support and return aircraft to service in the most expeditious and cost effective manner.

The KC-130J continues to make improvements and modifications to meet warfighter requirements. Two additional Harvest Hercules Airborne Weapons Kit Plus (HH+) aircraft were fielded in FY 2020 and two more in FY 2021, bringing the total to 10 aircraft. This allows Special Purpose Marine Air Ground Task Force to perform Intelligence, Surveillance/Reconnaissance and Close Air Support. Communication, Navigation, Surveillance and Air Traffic Management Automatic Dependent Surveillance - Broadcast (Out) retrofit installations completed 1Q FY 2021. Block 7.0/8.1 provides navigation upgrades and obsolescence fixes to the KC-130J avionics suite. The first Block 7.0/8.1 configured production aircraft delivered in March 2021 and the first two aircraft were inducted for retrofit modification in October 2021. In addition, two aircraft have been delivered with the DoN LAIRCM retrofit modification in FY 2020, and three aircraft in FY 2021. This modification increases mission effectiveness and survivability allowing the KC-130J to operate under expanded threat environments

The Program continues to support active FMS cases with the Kuwait Air Force (KC-130Js), the Japan Maritime Self Defense Force (KC-130Rs), the Chilean Air Force (KC-130Rs) and the Philippines Air Force (C-130Ts). 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
Apr 2010	KC-130J program was designated as ACAT IC by the USD(AT&L).
Feb 2011	KC-130J APB approved.
May 2013	FY 2014 PB included United States Air Force Multi-Year Procurement (MYP) II for FY 2014 - FY 2018.
May 2013	Congressional reductions in the FY 2014 appropriated budget resulted in the decrease of one aircraft. Total aircraft quantity remained unchanged.
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.
Apr 2018	Completed Automatic Dependent Surveillance – Broadcast Out federal interim solution certification.
Feb 2018	FY 2019 PB included United States Air Force MYP III for FY 2019 - FY 2023.
Apr 2018	Requirements letter signed by Deputy Commandant for Aviation to increase USMC KC-130J Program of Record from 79 to 86 aircraft.
Dec 2019	Multi-Year (MY) III definitization.
Feb 2020	KC-130J APB update signed and approved.
Nov 2020	Completed Automatic Dependent Surveillance - Broadcast Out Retrofits
Mar 2021	First Production Block 7.0/8.1/DoN LAIRCM KC-130J delivered
Aug 2021	Last HH+ aircraft delivered from retrofit modification
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)

Schedule

Schedule Events

		Schedule	Events		
Events	Production APB Objective	Current APB Production Objective/Threshold		Current Estimate/Actual	Deviation
USAF Program Initiation	Jun 1996	Jun 1996	Jan 1997	Jun 1996	None
USAF FY 1996 Basic Aircraft Contract	Nov 1996	Nov 1996	May 1997	Nov 1996	None
USAF First Delivery	Mar 1999	Mar 1999	Sep 1999	Mar 1999	None
USMC IOC	Feb 2005	Feb 2005	Feb 2005	Feb 2005	None

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.

Significant Schedule Risks

	Significant Schedule Risks	
	Current Estimate (December 2021)	
There are no known risks at this time.		

Performance

		Performance Characteristics			
Production APB Objective	Current APB Production Objective/Threshold		PB Production Performance Current (include Pate of Estimate (Actual		Deviation
Net Ready					
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 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 Demo Date: 12/31/2006	100% of interfaces; services; policy enforcement controls; and data correctness, availability and processing in the joint architecture.	None
Range with 25000	lb Cargo Load				
2,700 nm	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 Demo Date: 04/01/2004	2,700 nm	None
Maximum Effort G	round Roll				
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	The maximum effort landing ground roll at 135,000 lbs will not exceed 1800 ft	Met Objective 1800 ft Demo Date: 04/01/2004	The maximum effort landing ground roll at 135,000 lbs will not exceed 1800 ft	None
Maximum Effort T	akeoff Run				
2700 ft	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 Demo Date: 04/01/2004	2700 ft	None

Acronyms and Abbreviations:

Ft - Feet

lbs - Pounds

Nm - Nautical Miles

Requirements Source:

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

UNCLASSIFIED

Acquisition Budget Estimate

Total Acquisition Cost

		Original APB (Feb 2011)	Current APB (Feb 2020)		Budget Estimate (PB 2023)		
Category	Base Year	Objective (BY\$)	Objective (BY\$)	Threshold (BY\$)	BY\$	TY\$	Deviation
RDT&E	2010	35.60	38.10	41.90	38.05	37.80	None
Procurement	2010	9,198.30	9,609.30	10,570.20	9,634.86	11,384.31	None
MILCON	2010	-	-	-			N/A
Acq. O&M	2010			-	3.		N/A
Total		9,233.90	9,647.40	10,612.10	9,672.91	11,422.11	
PAUC	2010	88.79	86.91	95.61	87.14	102.90	None
APUC	2010	88.45	86.57	95.23	86.80	102.56	None

Total End Item Quantity

Quantity Category	Current APB Quantity	Current Estimate Quantity	
Development	0	0	
Procurement	111	111	

Budget Notes:

Procurement TY\$M: \$90.2 estimated increase in costs due to stretch out of the USN aircraft buys outside the FYDP

Procurement TY\$M: -\$14.878 FY20 Rescission caused reductions to site standup Peculiar Ground Support Equipment (PGSE) and Diminishing Manufacturing Resources obsolescence funding

Procurement TY\$M: \$54.4 Increase to Nonrecurring for post-MYPIII Diminishing Manufacturing Sources production redesign efforts

Procurement TY\$M: \$38.3 Increase to PGSE for VMGR-153 squadron standup costs & prior unfunded requirements at existing squadrons

Procurement TY\$M: \$87.0 Increase to Initial Spares driven by increased engine sparing requirements

Risk and Sensitivity Analysis

Risks and Sensitivity Analysis	
Current Procurement Cost (December 2021)	
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).	
Revised Original Estimate (N/A)	
None	
Current Baseline Estimate (February 2020)	
1. The Current Baseline Estimate reflects the POE for the APB, approved by USD(AT&L).	

Unit Cost

Current Baseline Compared with Current Estimate

Category (\$M)	Current APB	Current Estimate	% Change	NMC Breach
PAUC				
Cost	9,647.40	9,672.91	0.26%	No
Quantity	111	111	N/A	N/A
Unit Cost	86.91	87.14	0.26%	No
APUC				
Cost	9,609.30	9,634.86	0.27%	No
Quantity	111	111	N/A	N/A
Unit Cost	86.57	86.80	0.27%	No

Original Baseline Compared with Current Estimate

Category (\$M)	Original APB	Current Estimate	% Change	NMC Breach
PAUC				
Cost	9,233.90	9,672.91	4.75%	No
Quantity	104	111		
Unit Cost	88.79	87.14	-1.85%	No
APUC				
Cost	9,198.30	9,634.86	4.75%	No
Quantity	104	111	-	
Unit Cost	88.45	86.80	-1.86%	No

Contracts

	Contrac	t Data (\$TYN	/ ()		
Contract Number	FA8625-18-F-70	027/1			
Effort Number	1	1			
Modification Number	P00026				
Award Date	July 19, 2018				
Definitization Date	December 27, 2	019			
Order Number	N/A				
CAGE Code/CAGE Legal Name	98897				
Contract Title	MYP III FYOC D	0.0. 7027			
Contract Address	86 South Cobb Drive Southeast, Marietta, GA 30063				
Con	tracts/Effort Price, C	Quantity, and	Performance (\$M)		
Initial Target Price		Current Targ	get Price		
20.0		1665.9			
Initial Ceiling Price		Current Ceil	ing Price		
N/A		1665.9			
Contract's EAC		PM's EAC			
1665.9		1665.9			
Initial Quantity	Current Quantity	У	Delivered Quantity		
0	20		3		
BAC	BCWP		ACWP		
N/A	N/A		N/A		
BCWS	Cost Variance		Schedule Variance		
N/A	N/A		N/A		

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.

Cost Variance:

Cost Variance reporting is not required on this Firm-Fixed Price/Fixed Price Incentive Fee (FFP/FPIF) contract.

Schedule Variance:

Schedule Variance reporting is not required on this FFP/FPIF contract.

	Contra	ct Data (\$TYN	M)	
Contract Number	FA8625-18-F-7028/2			
Effort Number	2			
Modification Number	P00008			
Award Date	July 18, 2018			
Definitization Date	December 27, 2	019		
Order Number	N/A			
CAGE Code/CAGE Legal Name	98897			
Contract Title	FYOC D.O. 702	8	The second second	
Contract Address	86 South Cobb	Drive Southea	ast, Marietta, GA 30063	
Con	tracts/Effort Price, 0	Quantity, and	Performance (\$M)	
Initial Target Price		Current Targ	et Price	
124.9		320.7		
Initial Ceiling Price		Current Ceili	ng Price	
337.1		320.7		
Contract's EAC		PM's EAC		
320.7		320.7	A STATE OF THE PARTY OF THE PAR	
Initial Quantity	Current Quantity	/	Delivered Quantity	
4	4		4	
BAC	BCWP		ACWP	
N/A	N/A		N/A	
BCWS	Cost Variance		Schedule Variance	
N/A	N/A		N/A	

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.

Cost Variance:

Cost Variance reporting is not required on this FFP/FPIF contract.

Schedule Variance:

Schedule Variance reporting is not required on this FFP/FPIF contract.

Technologies and Systems Engineering Significant Technical Risks

Significant Technical Risks

Current Estimate (December 2021)

1. There are no known risks at this time.

Deliveries and Expenditures

Deliveries						
Delivered to Date	Planned to Date	Actual to Date	Total Quantity	Percent Delivered		
Development	0	0	0	0.00%		
Production	66	66	111	59.46%		
Total Program Quantity Delivered	66	66	111	59.46%		

Expended and Appropriated (TY \$M)

Total Acquisition Cost: 11,422.11 Expended to Date: 5,361.76 Percent Expended: 46.94% Total Funding Years: 33 Years Appropriated: 26

Percent Years Appropriated: 78.79% Appropriated to Date: 6,603.00 Percent Appropriated: 57.81%

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

Deliveries and 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.

Low Rate Initial Production

Item	Initial LRIP Decision	Current Total LRI	
Approval Date			
Approved Quantity			
Reference			
Start Year			
End Year			

LRIP Note: There is no LRIP for this program.

Operating and Support Costs

Total Program O&S Cost Compared with Baseline

	Current APB Objective (BY\$)	Current APB Threshold (BY\$)	Current Estimate (BY\$)	Current Estimate (TY\$)	Deviation
Total O&S (\$Millions)	41,862.30	46,048.53	35,033.14	62,140.30	-16.31%

O&S Cost Breakdown:

Allocate O&S estimate by each weapon system (or system variants) acquired by the program) into the CAPE Cost Categories. Add a fresh column for each variant/system.

Category (BY\$ Million)	KC-130J
Unit-Level Manpower	10,589.19
Unit Operations	3,394.43
Maintenance	15,744.28
Sustaining Support	1,607.96
Continued System	3,697.29
Improvements	
Other	
Total O&S	35,033.14

Cost Estimate Source: POE, dated April 1, 2022

O&S Cost Notes:

a. Disposal/Demilitarization Cost Estimate and Source of Estimate:

Cost Estimate: \$25M BY 2010\$

Source of Estimate: POE, dated April 1, 2022

b. 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 the turnaround time challenges with the organic facility, three commercial offload depot-level contracts have been awarded. The three contractors are L-3 Harris in Waco, TX, 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 sole source 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.

- c. For Each Acquired System or System Variant:
 - Quantity to Sustain: 111
 - ii. First Operational Fiscal Year: 2001
 - iii. Final Operational Fiscal Year: 2072
 - iv. Unit Expected Service Life: 40 years
- d. Antecedent System(s) O&S Costs:

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 (VAMOSC) 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 VAMOSC 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 VAMOSC 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 \$21,230 BY\$10M. The breakdown of these costs in BY\$10M are: 1.0 Unit-Level Manpower = \$10,589, Unit Operations = \$2,750, Maintenance = \$6,451, Sustaining Support = \$430, and Continuing Systems Improvement = \$1,011.