KC-130J Aircraft

The KC-130J, a variant of the C-130J, is a medium sized, four-engine turboprop aircraft modified to perform a primary mission of aerial refueling of fixed and rotary wing aircraft for the United States Marine Corps (USMC). Secondary missions include rapid ground refueling, assault transport, logistics support, and special warfare, while preserving personnel and cargo transport capabilities. The KC-130J will perform the same missions as the aircraft it will replace, the KC-130F and KC-130R. Procurement of the KC-130J is proceeding under a commercial off-the-shelf acquisition strategy, instituting catalog pricing and commercial payments through the United States Air Force's C-130 System Program Office.

The KC-130J Navy/USMC test program is specifically designed to address differences in aircraft configuration and mission employment from the baseline U.S. Air Force (USAF) C-130J. The KC-130J program intends to build upon the contractor, Federal Aviation Administration, and USAF test efforts and data collection rather than duplicate efforts. The USAF effort has been ongoing since 1995.

TEST & EVALUATION ACTIVITY

The Navy/USMC developmental test and evaluation program has completed approximately 1,200 flight test hours. Operational testing (OT-IIIA/B) began in October 2003 to determine the operational effectiveness and suitability for air/land, air delivery, and aerial refueling capability, and to support a recommendation for fleet introduction.

As part of the LFT&E program, measurements of oxygen concentrations inside the removable center fuselage fuel tank ullage were made from July to August 2003. The data collected will be used to assist in selecting shotlines for ballistic testing, currently scheduled for FY04.

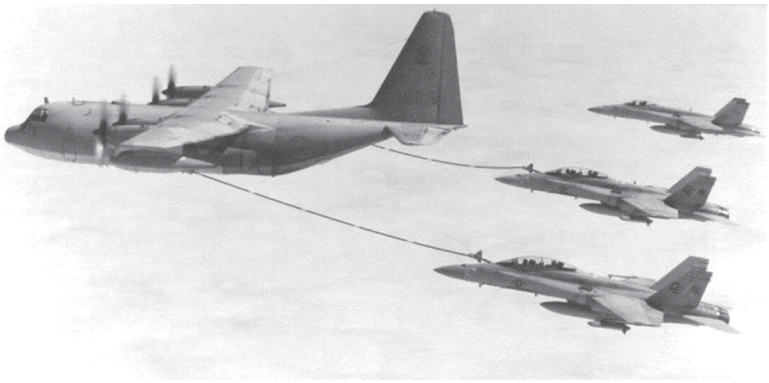
DOT&E approved the Test and Evaluation Master Plan and the Operational Test Plan in October 2003.

TEST & EVALUATION ASSESSMENT

The new KC-130J aerial refueling system was not qualified because of flight safety and operational performance problems. There were incidents of pull-offs where the refueling hose disengaged from the aircraft being refueled. This problem caused a one-year slip in testing from the original schedule. The new refueling system was replaced by the existing (legacy) system used on the KC-130T. Legacy pods will be installed in the near-term. However, the legacy pods will be upgraded and installed after developmental and operational testing is completed. The upgraded pods will contain a Rapid Ground Refueling port and reliability enhancements. They will be integrated into the aircraft mission computer, which will be produced and retrofitted onto existing KC-130J and incorporated into production aircraft starting in October 2004.

The excessive false alarm rate to identify failures increases the maintenance burden to an unacceptable level. Deficiency corrections are not budgeted to be incorporated until FY08-FY09 timeframe.

Assessment of the LFT&E ullage measurement data awaits completion of the 46th Test Wing ullage test report.



The KC-130J's primary mission is aerial refueling of fixed and rotary wing Marine Corps aircraft.