

MH-60R Multi-Mission Helicopter Upgrade

Originally conceived as an aircraft remanufacture and avionics upgrade program, cost considerations redefined the MH-60R Multi-Mission Helicopter program to procure new production vice remanufactured aircraft. The Assistant Secretary of the Navy, Research, Development and Acquisition (ASN(RDA)), approved the current Acquisition Program Baseline schedule on March 14, 2002. The program combines the missions of the legacy SH-60B and SH-60F aircraft into a single airframe. The Navy expects the aircraft's improved avionics to enhance undersea and surface warfare, surveillance, identification, and power projection objectives. The program entered engineering development at Milestone II in FY93.

The initial variant (Block 0) of the multi-phase evolutionary acquisition program develops the AN/AQS-22 Airborne Low-Frequency Sonar with increased sonobuoy acoustic signal processing capability. The program also develops the AN/APS-147 Multi-Mode Radar that includes Inverse Synthetic Aperture Radar imaging and periscope detection modes of operation. Other improvements include the AN/ALQ-210 electronic support system, a fully integrated self defense system; and the AN/AAS-44 Forward-Looking Infrared sensor with laser designator. The MH-60R will have the Common Cockpit design, also used in the MH-60S, which has multi-functional displays and a complex tactical data processing system.

DOT&E designated the MH-60R as a covered system for LFT&E in 1998. ASN(RDA) granted a waiver from full-up system level LFT&E of the MH-60R under an extension of a July 1996 memorandum. The Army and Navy established a joint LFT&E test program for the UH-60M, MH-60S, and MH-60R development programs to address data voids and reduce costs. The joint effort recognized the high degree of commonality among the H-60 variants' structural and dynamic components. Both Services provided airframe components and the prototype YCH-60S aircraft to be used as test articles for static and dynamic ballistic testing that began in 2001. The joint LFT&E program will continue into FY05.

TEST & EVALUATION ACTIVITY

The Navy conducted developmental tests (DT-IID) from November 2002 – July 2003 using a test-fix-test methodology of the fully integrated radar, electronic support measures, acoustics, weapons system, and Common Cockpit systems. Test results supported conduct of the operational assessment (OA) begun in June.

The Joint Requirements Oversight Council approved an Operational Requirements Document revision and DOT&E approved changes to the Test and Evaluation Master Plan in May 2003.

On September 3, 2003, the Program Executive Office decertified the MH-60R for test due to poor performance and stopped the OA begun in June. The OA focused on the performance of radar, electronic support measures, acoustic, and Common Cockpit systems.

Technical evaluation of the fully integrated Block 0-configured MH-60R may be delayed up to ten months.

The Army and Navy joint LFT&E test program conducted static and dynamic ballistic tests on aircraft components and on the YCH-60S test aircraft while operating at hover. Testing continued throughout the year at the Army's Aberdeen Proving Ground, Maryland, and at the Naval Air Warfare Center, Weapons Division, China Lake, California. DOT&E observed these tests.



The MH-60R combines the missions of the legacy SH-60B and SH-60F aircraft into a single airframe.

NAVY PROGRAMS

TEST & EVALUATION ASSESSMENT

Common Cockpit and mission systems integration for the MH-60R has resulted in numerous software instability problems. System integration was not complete prior to the start of the June 2003 OA, thereby precluding test of the weapon system and Integrated Self Defense System. The Program Executive Office de-certified the MH-60R for further operational test and evaluation in early September 2003 because the aircraft mission systems failed to demonstrate adequate performance during the OA. Deficiencies were recorded for the Electronic Support Measures, acoustic, and multi-mode radar systems. Failure analyses and fault isolation efforts are ongoing to fix and verify correction of the deficiencies prior to the start of the rescheduled technical evaluation (TECHEVAL) and operational evaluation. To provide additional risk reduction, the program office plans to run an additional OA concurrently with TECHEVAL.

The joint LFT&E program is adequately resourced and is expected to provide the required information to evaluate the survivability of the MH-60R. Testing, beginning with the program's full-scale development tests and the available combat data on earlier versions of this aircraft, indicates that the MH-60R will be more survivable than previous models of this airframe.