MH-60R Multi-Mission Helicopter

Executive Summary

- Combined MH-60R/S FOT&E on Pre-Planned Product Improvement (P3I) components commenced in FY08 and is expected to continue into FY13. The first phase of P3I components completed operational testing in September 2009. The second phase of P3I components began operational testing in 2QFY11 and is anticipated to complete in 1QFY12. The third phase of P3I components is expected to begin operational testing in 2QFY12.
- DOT&E issued a combined FOT&E report in November 2010 assessing the first phase of P3I implemented on the MH-60R and the MH-60S with the following findings:
  - The MH-60R, as tested with the first phase of P3I components, is operationally effective for all missions with the exception of Surface Warfare (SUW).
  - The MH-60R, as tested with the first phase of P3I components, is operationally suitable for all missions.
  - The MH-60R is survivable for all missions.
- The analysis of test data collected during combined MH-60R/S FOT&E of the second phase of P3I components is still in progress. No preliminary evaluation is available. DOT&E expects to issue a formal test report in 2QFY12.

System

The MH-60R is a ship-based helicopter designed to operate from Cruisers, Destroyers, Frigates, Littoral Combat Ships, and Aircraft Carriers. It is intended to replace the SH-60B and SH-60F.

- It incorporates dipping sonar and sonobuoy acoustic sensors, multi-mode radar, electronic warfare sensors, a forward-looking infrared sensor with laser designator, and an advanced mission data processing system.

- It employs torpedoes, Hellfire air-to-surface missiles, and crew-served mounted machine guns.
- It has a three-man crew: two pilots and one sensor operator.

Mission

The Maritime Component Commander employs the MH-60R from ships or shore stations to accomplish the following:

- SUW, Under Sea Warfare, Area Surveillance, Combat Identification, and Naval Surface Fire Support missions previously provided by two different helicopters (SH-60B and SH-60F)
- Support missions such as Search and Rescue at sea and, when outfitted with necessary armament, maritime force protection duties

Major Contractors

- Sikorsky Aircraft Corporation – Stratford, Connecticut
- Lockheed Martin Mission System and Sensors – Owego, New York

Activity

- DOT&E issued a combined FOT&E report in November 2010 assessing the first phase of P3I implemented on the MH-60R and the MH-60S.
- Commander, Operational Test and Evaluation Force (COTF) commenced the second phase of P3I combined MH-60R/S FOT&E on the Integrated Maintenance Diagnostic System and the Ground Proximity Warning System in 2QFY11; testing is anticipated to complete in 1QFY12. COTF conducted the testing in accordance with the DOT&E-approved test plan.
- All LFT&E activities have been completed and reported in the LFT&E Report to Congress in 2008.

Assessment

- The MH-60R Multi-Mission Helicopter, tested with the first phase of P3I components, is operationally effective for all missions with the following exception: the MH-60R with Multi-spectral Targeting System is not operationally effective to conduct SUW missions.
- The MH-60R, tested with the first phase of P3I components, is operationally suitable for all missions. P3I testing identified suitability deficiencies with Link 16 that did not diminish the overall suitability of the aircraft.
- The MH-60R is survivable for all missions. The incorporation of the first phase of P3I components in MH-60R aircraft did

not alter the survivability of the aircraft. No dedicated LFT&E events were conducted in support of the MH-60R P3I testing.
- The analysis of test data collected during combined MH-60R/S FOT&E of the Integrated Maintenance Diagnostic System and the Ground Proximity Warning System is still in progress. No preliminary evaluation is available. DOT&E expects to issue a formal test report in 2QFY12.

Recommendations
- Status of Previous Recommendations. The Navy did not address any of the four previous recommendations. The Navy should still:
  1. Identify the cause and corrective action to resolve the frequent failures of the Airborne Low Frequency Sonar reel and cable assembly.
  2. Investigate and apply corrections to Link 16 deficiencies to include possible changes to employment tactics, techniques, and procedures. The Navy should verify corrections in FOT&E.
  3. Correct and test deficiencies revealed in SUW testing.
  4. Investigate and apply corrections to the APX-118 Transponder aircraft track angle information disparity deficiency and verify corrections in FOT&E.
- FY11 Recommendations. None.