

## MH-60R Multi-Mission Helicopter

### Executive Summary

- Commander, Operational Test and Evaluation Force (COTF) completed a Quick Reaction Assessment (QRA) of the LAU-61G/A 2.75-inch Digital Rocket Launcher (DRL) armed with the Advanced Precision Kill Weapons System II (APKWS II) rockets in 1QFY15 in response to a U.S. Central Command Urgent Operational Need for enhanced Surface Warfare capability against threat-representative small-boat targets.
- On May 21, 2015, DOT&E provided the Secretary of the Navy a classified Early Fielding Summary and Scripted Brief that assesses the QRA test results.
- The MH-60R equipped with the DRL and APKWS II rockets demonstrated marginal Surface Warfare capability based on the limited QRA testing.

### System

- The MH-60R is a ship-based medium lift helicopter designed to replace two different helicopters, the SH-60B and SH-60F, and operate from cruisers, destroyers, frigates, littoral combat ships, and aircraft carriers.
- 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 MK 46 and MK 54 torpedoes, HELLFIRE air-to-ground missiles, 2.75-inch family of rockets, and crew served mounted machine guns.
- It has a three-man crew: two pilots and one sensor operator.

### Activity

- COTF conducted a QRA of the MH-60R equipped with the DRL and APKWS II rockets in 1QFY15 in response to a U.S. Central Command Urgent Operational Need for enhanced Surface Warfare capability against threat-representative small-boat targets. This QRA provided limited testing of MH-60R capability for Surface Warfare when equipped with the APKWS II rocket. Testing was conducted in accordance with a DOT&E-approved test plan.
- DOT&E provided the Secretary of the Navy a classified Early Fielding Summary and Scripted Brief on May 21, 2015, that assesses the QRA test results.
- The Navy is preparing a Test and Evaluation Master Plan update for MH-60R FOT&E.
- The MH-60R FOT&E is not currently scheduled.

### Assessment

- The MH-60R equipped with the DRL and APKWS II rockets demonstrated marginal Surface Warfare capability based on QRA testing.



### Mission

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

- Surface Warfare, Undersea Warfare, Area Surveillance, Combat Identification, and Naval Surface Fire Support missions previously provided by the 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

- The limited scope of the QRA was not sufficient to fully characterize the mission effectiveness of the MH-60R equipped with the DRL and APKWS II rockets against threat-representative small-boat targets. The Navy needs to plan to conduct a complete operational test as soon as possible.

### Recommendations

- Status of Previous Recommendations. The Navy has partially addressed the FY12 recommendation to test corrections made to resolve identified Multi-Spectral Targeting System (MTS) deficiencies in conducting FOT&E. The Navy has not acted or has yet to complete action on FY13 and FY14 recommendations to:
  1. Conduct comprehensive live fire lethality testing of the HELLFIRE missile against a complete set of threat-representative small-boat targets and to test the Surface Warfare mission capability of MH-60R equipped with HELLFIRE missiles.

## FY15 NAVY PROGRAMS

2. Correct the remaining deficiencies with the MTS tracker.
  3. Demonstrate the Surface Warfare mission capability of the MH-60R helicopter equipped with the HELLFIRE missile and MTS throughout the operational mission environment in FOT&E and LFT&E.
  4. Conduct further evaluation of the Automatic Radar Periscope Detection and Discrimination (ARPDD) employment in high-clutter, high-contact density littoral environments.
  5. Address the additional six recommendations in the classified IOT&E report on MH-60R with the ARPDD system.
  6. Investigate and correct interoperability deficiencies of the MK 54 lightweight torpedo with MH-60R weapons control systems.
- FY15 Recommendation.
    1. The Navy should conduct MH-60R FOT&E to test the DRL armed with the APKWS II rocket and fully characterize Surface Warfare mission capability and lethality of this capability against the small-boat threat targets.