AGM-88E Advanced Anti-Radiation Guided Missile (AARGM) Program

The Navy intends to field a major system upgrade to the AGM-88 High Speed Anti-Radiation Missile (HARM) inventory with the AGM-88E Advanced Anti-Radiation Guided Missile (AARGM). The current HARM weapon system has multiple deficiencies that have directly affected employment. This was specifically highlighted during Operation Iraqi Freedom. The Suppression of Enemy Air Defense Rules of Engagement ROE for that conflict greatly restricted the weapon's use. The AGM-88E AARGM weapon system will address those limitations and provide improved capability in the counter-shutdown scenario, improve lethality against advanced threat air defense units, provide real-time target impact assessment reports, and provide off-board targeting capability with national systems.

AARGM is to be employed in the offensive counter air/suppression of enemy air defenses role in direct support of all the mission areas within the objective force (e.g. strike warfare, amphibious warfare, anti-surface ship warfare, command and control warfare, and information warfare) providing a rapid, organic response to air defense threats ranging from small-scale contingencies to major theater war. The AGM-88E AARGM will be designed to provide a new multi-mode guidance section and modified control section mated with existing HARM propulsion and warhead sections. The new guidance section is designed to have a passive anti-radiation homing receiver and associated antennae, a Global Positioning System/Inertial Navigation System, and an active millimeter wave radar for terminal guidance capability. AARGM is projected to have the capability to transmit terminal data via a weapons impact assessment transmitter to national satellites just before AARGM impacts its target. The Navy intends to incorporate a provision to receive off-board targeting information, via the integrated broadcast system. The AARGM acquisition objective is 1,750 missiles.

TEST & EVALUATION ACTIVITY

AGM-88E AARGM entered into the System Development and Demonstration phase in June 2003. The Test and Evaluation Master Plan is in the approval process.

The Navy will evaluate performance during two phases of operational testing (OT):

- OT-B, an operational assessment, will provide data and other information for continued program development and to support a Milestone C low-rate initial production review.
- OT-C operational evaluation will provide data and analysis necessary to support a full-rate production decision review.

TEST & EVALUATION ASSESSMENT

Developmental and operational testing of the AGM-88E AARGM have not yet been performed. The system will potentially face two challenges First, the test range infrastructure does not exist to adequately assess the full capabilities of the design with regard to target discrimination. The target sets must emulate the threat system in physical appearance as well as in the electronic environment. DOT&E is working with the Program Manager to develop and fund adequate targets to support testing. The second challenge is the limited number of missiles available during testing. The number of missiles dedicated to testing is reasonable based on the program's total procurement and available model tools; however, if any test event shot suffers a failure, there is little reserve to retest and verify the results.

The AGM-88E Advanced Anti-Radiation Guided Missile will be designed to provide a new multi-mode guidance section and modified control section mated with existing High Speed Anti-Radiation Missile propulsion and warhead sections.