# **NAVY PROGRAMS**

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

#### SUMMARY

- The Advanced Anti-Radiation Guided Missile (AARGM) is a major upgrade to the current High-speed Anti-Radiation Missile. The upgrade will enhance the weapon's effectiveness and minimize collateral damage and the potential for fratricide.
- Technologies inserted during this upgrade are the product of an Advanced Technology Demonstration in 1990 and an Advanced Concept Technology Demonstration in 2000.
- The Navy signed a System Development and Demonstration contract with Alliant Techsystems Missile Systems Company in June 2003.



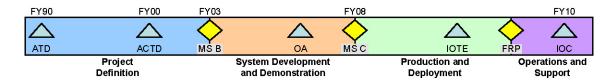
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#### SYSTEM DESCRIPTION AND MISSION

The Navy intends to field AARGM as a major system upgrade to the AGM-88 High-Speed Anti-Radiation Missile. AARGM will provide the capability to engage mobile and/or re-locatable air defense systems, even if they employ shutdown countermeasures. The weapon will allow weapon employment at sufficient standoff ranges with launch and leave autonomous operation. The AARGM will provide a new multi-mode guidance section and a modified control section mated with existing AGM-88 propulsion and warhead sections. The new guidance section will have a passive anti-radiation homing receiver and associated antennae, an Integrated Broadcast Receiver to enable the warfighter to receive targeting data from national means, and an active millimeter wave radar for terminal guidance. AARGM will have the capability to transmit terminal data via a weapons impact assessment transmitter to national assets just before AARGM impacts its target. The AARGM will operate in essentially the same logistical and operational environments in which all current High-Speed Anti-Radiation Missile variants operate. The acquisition objective is 1,750 missiles.

The AARGM technology grew out of a Phase I small business innovative research Advanced Technology Demonstration that started in 1990. This effort concluded in FY02 with five successful live missile shots. In FY00, an Advanced Concept Technology Demonstration called Quick Bolt started and saw two successful missile shots during a Military Utility Assessment in FY03.

## **TEST AND EVALUATION ACTIVITY**



DOT&E approved the AARGM Test and Evaluation Master Plan in August 2004.

The Navy will evaluate AARGM performance during two phases of operational testing:

- OT-B, an operational assessment, will provide data to support a Milestone C low-rate initial production review.
- OT-C, a full-blown operational evaluation, will provide data and analysis necessary to support a full-rate production decision review.

# **NAVY PROGRAMS**

### **TEST AND EVALUATION ASSESSMENT**

The success of the Advanced Technology Demonstration and the Advanced Concept Technology Demonstration justifies a low risk assessment for technology maturity. However, integration issues, software development, and a non-optimized funding profile collectively elevate the schedule risk to moderate. This is a success oriented test program. Performance shortfalls during testing may require additional test assets to ensure an adequate test and the successful execution of mission scenarios.

As addressed last year, the test range infrastructure is not adequate to evaluate the AARGM capabilities for target discrimination. The target set must emulate the threat systems in physical appearance, infrared and radar signatures, and electronic emissions.

We remain engaged with the Program Manager to assist in developing and procuring adequate targets for testing.