

Advanced Anti-Radiation Guided Missile - Extended Range (AARGM-ER)

The Navy conducted the first Advanced Anti-Radiation Guided Missile – Extended Range (AARGM-ER) developmental free flight test from an F/A-18 in July 2021 and completed mission planning and munition handling demonstrations. The AARGM-ER IOT&E is scheduled to begin in FY23.



System Description

The AGM-88G AARGM-ER is an air-to-ground missile designed to be employed by the F/A-18, E/A-18G, and F-35 to passively detect and guide on radio frequency emissions from a radar site and then transition to an active millimeter wave terminal radar to detect, track, degrade, and destroy radio frequency-enabled, surface-to-air missile systems. AARGM-ER reuses the same millimeter wave radar as AARGM, and introduces a larger diameter but shorter rocket motor for increased range, F-35A and F-35C internal weapons bay fitment, and a new warhead.

Program

AARGM-ER is an Acquisition Category IB program. DOT&E approved the AARGM-ER Milestone C Test and Evaluation Master Plan (TEMP) in May 2021. The Navy committed to submitting a cybersecurity test strategy for DOT&E approval no later than June 2022. The Navy held a Knowledge Point-4 program review in July 2021 that supported entry into the Production and Deployment phase and the award of the low-rate initial production (LRIP) contract. Though the Navy has deviated from the schedule, approved in the May 2021 TEMP, the program intends to complete the test events described in the TEMP.

Major Contractor

Northrop Grumman Defense Systems – Northridge, California.

Test Adequacy

The Navy conducted the first AARGM-ER developmental free flight from an F/A-18 in July 2021 to demonstrate the AARGM-ER threshold range requirement. The Navy also completed mission planning and munition handling demonstrations. Production-representative hardware and software are not scheduled to be available until the final developmental free-flight test. The integrated testing should provide enough data to validate the modeling and simulation using the production-representative configuration and gain confidence in the final missile configuration prior to dedicated operational test.

Performance

Not enough data are currently available to provide a preliminary assessment of AARGM-ER operational effectiveness, suitability, or survivability. Mission

planning and munitions handling demonstrations to date have provided limited data, with no noted performance issues. In accordance with the AARGM-ER Security Classification Guide, additional details are included in the Controlled Unclassified Information edition of this report.

Recommendation

1. The Program Office should address the recommendation included in the Controlled Unclassified Information edition of this report.