

Miniature Air Launched Decoy (MALD) and MALD–Jammer (MALD-J)

Executive Summary

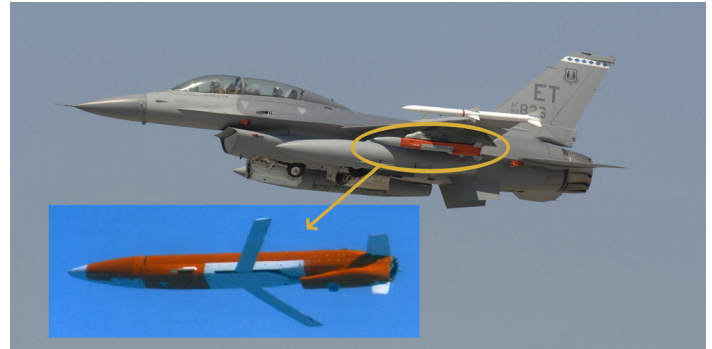
- The Air Force Operational Test and Evaluation Center (AFOTEC) completed an FOT&E for the Miniature Air Launched Decoy – Jammer (MALD-J) to address deficiencies discovered in the IOT&E period.
- MALD-J is operationally effective and suitable.
- DOT&E removed MALD-J from the oversight list on June 21, 2017.

System

- MALD is a low-cost, expendable, air-launched vehicle that replicates the flight of manned aircraft.
- MALD-J adds an electronic attack jammer to the MALD with the capability to jam Early Warning/Acquisition/Ground Control Intercept radars while retaining the capabilities of the MALD.
- The F-16 C/D and B-52H are the lead aircraft to employ MALD and MALD-J.

Mission

Combatant Commanders will employ units equipped with MALD or MALD-J to improve battlespace access for airborne strike forces by deceiving, distracting, or saturating enemy air-defense systems.



- MALD is designed to support an airborne strike force to achieve mission success by deceiving enemy radars and air-defense systems to treat MALD as a viable target.
- MALD-J is designed to support an airborne strike force to achieve mission success by jamming enemy radars and air-defense systems by degrading/denying detection of friendly aircraft or munitions.

Major Contractor

Raytheon Missile Systems – Tucson, Arizona

Activity

- AFOTEC conducted testing of MALD-J (and MALD) in accordance with a DOT&E-approved test plan.
- In January 2016, AFOTEC completed ground testing of the GPS Aided Inertial Navigation System (GAINS) obsolescence upgrade (known as GAINS II) to the MALD-J at the National Radar Cross Section Test Facility, New Mexico.
- In October 2016, the Air Force’s 28th Test and Evaluation Squadron completed a Force Development Evaluation at White Sands Missile Range, New Mexico. The evaluation characterized GPS-degraded navigation and assessed the performance of the GAINS II upgrade. Six MALD-Js flew without incident.
- In January 2017, the Digital Integrated Air Defense System (DIADS) simulation facility at Edwards AFB, California, supported mission-level testing by modeling GPS-denied navigation performance in a many-on-many threat laydown scenario.
- DOT&E removed MALD-J from the oversight list on June 21, 2017.

Assessment

- MALD-J is effective, suitable, and mission capable in a GPS-denied environment.
- Results from ground and open-air testing indicate GAINS II provides improved navigational performance in a GPS-contested environment
- Results from mission-level testing showed MALD-J provides the desired effect on Integrated Air Defense systems (IADS) and that navigation performance in a GPS-denied environment resulted in minimal operational impact to support mission tasking.

Recommendations

- Status of Previous Recommendations. The Air Force satisfactorily addressed all of the FY16 recommendations with GAINS II software corrections in a GPS-denied environment and incorporated a many-on-many mission-level simulation in DIADS.
- FY17 Recommendations. None.

FY17 AIR FORCE PROGRAMS