

New Air Defense System Advances Corps' Air Dominance



U.S. Marines with Marine Corps Systems Command fire a Stinger Missile from a Marine Air Defense Integrated System (MADIS) at Yuma Proving Ground, Arizona, Dec. 13. U.S. *Marine Corps* | *Virginia Guffey*

YUMA PROVING GROUND, Arizona – The Marine Corps is one step closer to defeating unmanned aircraft systems. In December, Program Executive Officer Land Systems successfully tested the Marine Air Defense Integrated System, or MADIS, low-rate initial production model, hitting several launched drones during a live-fire test at the Yuma Proving Ground in Arizona.

The live-fire test subjected MADIS to actual battlefield scenarios, where it detected, tracked, identified, and defeated unmanned aerial threats. “MADIS can complete the entire kill chain, and we witness that during this event,” said Col. Andrew Konicki, program manager for Ground Based Air Defense. “It is a linchpin for mission success and our ability to neutralize airborne threats...which in turn, increases our lethality.”

MADIS is a short-range, surface-to-air system that enables Low Altitude Air Defense Battalions to deter and neutralize unmanned aircraft systems and fixed wing/rotary wing aircraft. Mounted aboard two Joint Light Tactical Vehicles, the system is a complementary pair. MADIS includes multiple disparate systems, including radar systems, surface-to-air missiles, and command and control elements. In layman’s terms, one detects, and the other attacks.

Drones continue to be a threat, especially with the emergence of easily accessible, commercial off-the-shelf products. MADIS uses real-time communication and coordination to destroy or neutralize low-altitude aerial threats in defense of the

Marine Air Ground Task Force.

“The importance of countering UAS threats cannot be overstated,” said Konicki. “We see it all over the news. MADIS is the key. We’re excited to get this out to Marines.”

During the test, MADIS successfully tracked and hit multiple targets using the Stinger missiles and 30mm cannon. Information passed through the Common Aviation Command and Control System to the “fighting pair” of vehicles, executing the engagements while continuing to track other UAS targets.

“We’ve taken multiple disparate commercial off-the-shelf and government off-the-shelf technologies and put them together,” said Konicki. “This is a capability the Marine Corps has never had, and it was a challenge for the acquisition community. This test event shows we met that challenge.”

The program office has additional live-fire testing planned for new equipment training, system verification testing, and initial operational test and evaluation in FY24, prior to the start of fielding, said Maj. Craig Warner, product manager for Future Weapons Systems. The 3rd Littoral Anti-Air Battalion will be the first battalion in the Marine Corps to receive the MADIS.