MEADS radar completes rotation tests, prepares to move to test range

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The Medium Extended Air Defense System (MEADS) program has successfully completed milestone tests as the first Multifunction Fire Control Radar (MFCR) advances toward system tests this year at Pratica di Mare air force base in Italy.

The advanced MEADS X-band MFCR employs active phased array technology using transmit/receive modules developed in Germany. The radar provides precision tracking and wideband discrimination and classification. It also incorporates advanced identification-friend-or-foe (IFF) sensors with improved capabilities to identify and type threats.

MEADS radars are designed to protect troops and assets on today's 360-degree battlefield, where threats can attack from any direction. Sectored, piecemeal systems cannot defend assets completely because the direction of a missile attack is no longer certain in today's asymmetrical battlefield. Even small slivers of unprotected airspace put warfighters in danger.

The MFCR subteam at LFK in Germany completed integration of the antenna array last year, clearing the way for assembly-level testing of the Transceiver Group. Coolant pressure testing was completed, and cooling distribution was demonstrated at the slip ring and antenna rotary joint. Final rotation tests at both 15 and 30 rpm were successfully completed.

MEADS International President Dave Berganini said, "The entire MEADS team is proud to see our first system elements moving to the test range. The first battle manager and launcher moved to the test range in Italy in December to initiate system tests. The MFCR will join them shortly. We are on the path to flight tests at White Sands in 2012."

NAMEADSMA General Manager Gregory Kee said, "MEADS radars scan the complete perimeter to locate threats quickly and accurately. The X-band MFCR will improve target tracking and provide better performance in stressing clutter environments."

In August 2010, the MEADS program completed an extensive series of Critical Design Review events with a Summary Critical Design Review at MEADS International in Orlando, FL. The program is now completing final build, integration and test activities leading to flight tests involving all system elements at White Sands Missile Range in 2012.

Under development by Germany, Italy and the United States, MEADS is a mobile system that will replace Patriot in the United States and Nike Hercules in Italy. It will replace Patriot and the retired Hawk system in Germany. The system is designed to permit full interoperability between the U.S. and allied forces, and it is the only medium-range air defense system to provide full 360-degree coverage.

MEADS will meet challenging new requirements not addressed by any previous or planned Air and Missile Defense system. The system will combine superior battlefield protection with extensive flexibility, allowing it to protect maneuver forces and critical assets against tactical ballistic missiles, cruise missiles, unmanned aerial vehicles and aircraft. It also provides an open architecture for 21st century air and missile defense system-of-system integration capabilities that allow operational mission-tailoring. MEADS is designed to provide greater firepower with less manpower than current systems, producing dramatic operation and support cost savings.

MEADS International, a multinational joint venture headquartered in Orlando, FL, is the prime contractor for MEADS. Major subcontractors and joint venture partners are MBDA in Italy, LFK in Germany and Lockheed Martin in the United States. Today, 1,800 employees from these companies are completing development of MEADS, which is closely watched as a model program for collaborative transatlantic development.

Provided by Lockheed Martin Corporation