Successful Demonstration Of Prototype System Sets MEADS On Path For Development Phase

MEADS International (MI) and the NATO MEADS Management Agency today announced the successful completion of the final system demonstration requirement for the Medium Extended Air Defense System (MEADS), clearing the way for the program to enter design and development later this year. The demonstration took place at Practica di Mare Air Base, outside Rome, May 6.

Through a series of tests and demonstrations witnessed by representatives of NATO and the governments of Germany, Italy and the United States, MI successfully demonstrated technical progress of the MEADS prototype hardware and software under control of the system's battle management prototype. MEADS successfully demonstrated its ability to acquire, track and destroy live targets using simulated PAC-3 hit-to-kill missiles. The selected mission scenario for the demonstration involved MEADS defending against multiple targets, and an injected tactical ballistic missile target. MEADS successfully identified the ballistic missile and hostile aircraft from the multiple target set, which included non-combatant aircraft, and engaged and destroyed the threats.

MEADS, under development by Germany, Italy and the United States, includes a lightweight launcher, 360-degree fire control and surveillance radars and plug-and-fight battle management command and control abilities not found in current systems. With its enhanced mobility and advanced technologies, MEADS will offer warfighters significant improvements over existing systems.

Following the final system demonstration, visitors from sponsoring defense agencies in Germany, Italy and the United States were invited to witness three principal activities: roll-on and roll-off of the MEADS launcher demonstrator into and out of a C-130J transport aircraft; operation and performance of the MEADS prototype Multifunction Fire Control Radar (MFCR) using its 360-degree rotation capabilities; and a full end-to-end operational demonstration of the system. The final system demonstration satisfied the final technical requirement of the MEADS risk reduction contract.

"This successful final system demonstration is a result of the dedication, perseverance and abilities of an outstanding group of professionals from Germany, Italy and the United States who comprise the MEADS International team," said MI president Jim Cravens. "Their efforts have proven that a 21st Century air and missile defense system design is feasible, and will lead to an open architecture system that can be tailored with varying sensors and shooters to meet specific mission needs. Our distinguished visitors witnessed a successful demonstration of MEADS prototype hardware, software and systems integration products in a comprehensive proof-of-principle operation. This achievement significantly reduces the technical risks associated with the next phase of MEADS -- design and development."

The primary requirement of the MEADS RRE contract was to demonstrate a prototype MEADS system that combines essential hardware, software and system integration elements. The final system demonstration successfully met the objective of demonstrating the full functionality of the MEADS fire control systems and its capability to control missile flight. These demonstrations proved that the critical elements of the battle management, command, control, communications, computers and intelligence (BMC4I), and that the MFCR had been successfully developed and integrated with the PAC-3 missile. In addition, the demonstration verified BMC4I capability to control and display surveillance radar, MFCR and launcher functions.

"We are highly pleased that our integration efforts have come together so well," said MI chief engineer Pietro Ragonese. "You must appreciate that a share of this hardware and software work originated in each country, then a multinational team cooperated to complete the preliminary test effort here in Italy. Our technical success is a credit to their teamwork, and it demonstrates another requirement for success in the MEADS design and development phase."

"With the successful conclusion of this demonstration, MEADS International has also proved out the management systems that we will use during design and development," said MI Executive Vice President Dr. Axel Widera. "Not only have we shown that the technological approach to MEADS is solid, but we continue to demonstrate that we can work together successfully to develop MEADS on a shared basis."

MEADS is a mobile air defense system designed to replace Patriot systems in the United States and Germany and Nike Hercules systems in Italy. It also meets the requirements of Germany's "capabilities oriented" air defense concept. MEADS incorporates the proven hit-to-kill PAC-3 missile in a system that includes surveillance and fire control sensors, battle management/communication centers and high firepower launchers. The system will

combine superior operational capability with unprecedented flexibility, allowing it to protect maneuver forces and to provide homeland defense against tactical ballistic missiles, cruise missiles, unmanned aerial vehicles and aircraft.

MEADS will provide capabilities beyond any other fielded or planned air and missile defense system. It is easily deployed to a theater of operations and, once there, can keep pace with fast-moving maneuver forces. When completed, MEADS will be the only air defense system able to roll off tactical transports with the troops and immediately begin operations. More importantly, its open architecture provides for 21st century air defense system-of-system integration capabilities that allow operational mission- tailoring for homeland defense or defense of maneuver forces. MEADS also provides greater firepower with less manpower than current systems, producing dramatic operation and support cost savings.

In 1999, MEADS International, Inc., was selected by NAMEADSMA, a chartered organization of NATO, to develop MEADS. A multinational joint venture headquartered in Orlando, FL, MEADS International's participating companies are MBDA-Italia, the European Aeronautic Defence and Space Company (EADS) and Lenkflugkorpersysteme (LFK) in Germany and Lockheed Martin in the United States. Together, these companies have focused an international engineering team in Orlando to develop systems and technologies for the MEADS program, which continues as a model for collaborative transatlantic development.

SOURCE: Lockheed Martin

Web site: http://www.lockheedmartin.com/
