AERONAUTICAL SYSTEMS

DCMA Delivers the "Spirit of Glo

By Irene Johnson
DCMA Lockheed Martin Marietta

DCMA Lockheed Martin Marietta teammates delivered the first C-5M *Super Galaxy* aircraft to John Young, then undersecretary of defense for acquisition, and Sue Payton, assistant secretary of the Air Force for acquisition, on Feb. 9, 2009, at Lockheed Martin Plant six, Marietta, Ga. Air Force Gen. Arthur Lichte, Air Force Air Mobility Command commander, personally accepted the aircraft, "Spirit of Global Reach," and flew it to Dover Air Force Base, Del. "Today we get to add a new all-star to the Dover team lineup, the C-5M *Super Galaxy*," Lichte remarked.

> **"Today, we get to add a new all-star to the Dover team lineup, the C-5M Super Galaxy."**
> **— Gen. Arthur Lichte**

The DCMA and Lockheed Martin C-5 team enforced extensive quality control requirements, while overseeing the system development and demonstration process in support of the C-5 reliability enhancement and re-engining program — RERP. The delivery of the first C-5M *Super Galaxy* leads the program into low-rate initial production.

The C-5M *Super Galaxy* upgrade was a rigorous process involving implementation of two transformational phases. Phase I, the avionics modernization program, delivered three capabilities to the modified C-5 fleet. The aircraft navigation safety system assures global airspace access through communication, navigation and surveillance systems and air traffic management upgrades to the

bal Reach" C-5M *Super Galaxy*

A newly remodified U.S. Air Force C-5M *Super Galaxy* aircraft, left, is parked beside the later model C-5A *Galaxy* on the flight line at Ramstein Air Base, Republic of Germany, Aug. 14, 2008. The recent modifications give the C-5M an increased payload, fuel capacity and other operational advantages. (U.S. Air Force photo by Airman 1st Class Tony R. Ritter)

legacy C-5 avionics, including the digital automatic flight control system. This system comprises new computing throughput and the replacement of analog controls and displays, allowing for integration of the software-intensive engine replacement planned under RERP.

Phase II is the RERP, which involves replacing the C-5's current propulsion system, the TF39 General Electric engine, with the F138-GE-100 engine and replacing more than 70 other systems and components. These replacements will improve reliability and enable the aircraft to operate at maximum gross weight. C

Air Force Gen. Arthur Lichte, Air Force Air Mobility Command commander, personally accepted the DCMA-delivered C-5M *Super Galaxy* and flew it to Dover Air Force Base, Del. Shown here are, from left: Sue C. Payton, former assistant secretary of the Air Force for acquisition; John J. Young, Jr., former under secretary of defense for acquisition, technology and logistics; Gen. Arthur Lichte, Air Force Air Mobility Command commander; Maj. Aaron Tucker, C-5 test pilot and instructor pilot, 418 Flight Test Squadron; and Senior Master Sgt. Jeff Williams, C-5 instructor flight engineer, Detachment 4, 418 Flight Test Squadron.