

T-50 Begins Static Loads Testing On Schedule

- Program on Track for First Flight Later This Year

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The team of Korea Aerospace Industries (KAI) and Lockheed Martin Aeronautics Company began static loads testing on the T-50 Golden Eagle advanced jet trainer on schedule on Jan. 2, an essential step on the path to first flight later this year.

Test results will be used to certify the flight worthiness of the aircraft and to validate the aircraft structural computer model used in the design of the airframe.

The supersonic T-50 will have the maneuverability, endurance and systems to prepare future pilots to fly current and next-generation fighters like advanced F-16s, the F-22 and the Joint Strike Fighter. These same characteristics give it an excellent capability as a fighter lead-in trainer and light-combat aircraft in many air forces.

"We are very pleased with the progress of the T-50 development thus far, and we are continuing our program tradition of meeting program milestones," said M.K. Chang, senior vice president of KAI and T-50 program director. "We completed the first aircraft 100 days ahead of schedule last fall and recently completed the ground vibration testing and structural coupling testing."

The lead-in fighter trainer/light-combat version of the Golden Eagle is designated the A-50, and its main differences are the addition of an armament system and fire control radar. The T-50 structure has been designed to accommodate the loads requirements of the A-50, including combat maneuvers with stores.

"The static loads testing will verify our design of a very-strong, high- performance aircraft that will meet the various demands of an advanced jet trainer, a lead-in fighter trainer, and light combat aircraft derivative," said Charles W. Smith, T-50 program director at Lockheed Martin Aeronautics Co. "This common structure not only reduces development costs but also benefits logistics support and training costs."

The static test aircraft was completed in October 2001, and extensive instrumentation has been installed and checked out. For the first test case, 77 load application locations, 66 deflection measurements and approximately 2,300 strain measurements will be made on the test aircraft.

The T-50 is designed for load limits of +8gs and -3gs. The first 100 percent limit load test was completed on Jan. 6. Four additional limit load conditions will be tested in January and February in support of dynamic load analysis required prior to first flight.

Forty ultimate load conditions (150 percent of design limit load) are planned. Each load condition test is expected to take approximately two weeks to complete. Static testing is scheduled to complete in August 2003.

A separate ground test aircraft is being built for durability (fatigue) testing and will be completed this spring. Durability testing is scheduled to begin this summer and will continue through June 2004.

Development testing on the T-50, including the loads testing, is being conducted with facilities, analytical tools and procedures similar to those used in fighter aircraft development in the United States.

T-50/A-50 advanced technology features include relaxed static stability, digital fly-by-wire flight control, side-stick controller, selectable flight control performance, triple redundant electrical system, on-board oxygen generation system, modern cockpit (head-up display, color multifunction displays, hands-on-stick and throttle, etc.), and (for A-50) integrated armament/fire control avionics.

Korea Aerospace Industries Ltd. is the Republic of Korea's national aerospace company established in 1999 with the consolidation of Samsung Aerospace, Daewoo Heavy Industries and Hyundai Space

and Aircraft Company. KAI lines of business include fixed-wing aircraft, helicopter aircraft and satellites. Its major products are the KF-16, KT-1 basic trainer, T-50/A-50, SB427 helicopters, aerostructures and KOMPSAT satellite program.

Lockheed Martin Aeronautics Co. is a leader in advanced military aircraft and related technologies. Its customers include the military services of the United States and allied countries throughout the world. Products include the F-22, F-16, F-35 JSF, F-117, C-5, C-27J, C-130, P-3 and U-2. LM Aeronautics is a unit of Lockheed Martin Corp. , headquartered in Bethesda, Md. Lockheed Martin is a global enterprise principally engaged in advanced- technology systems, products and services. The corporation's core businesses are systems integration, space, aeronautics and technology services.

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