

Lockheed Martin Moves Another Step Closer To A Mobile Launch Range Concept

Successful Tracking of Launch Vehicle Demonstrates Next Generation Airborne Instrumentation and Range Safety Products

PRNewswire

VANDENBERG AIR FORCE BASE, Calif.

Lockheed Martin successfully completed an important milestone in proving the mobile launch range concept by tracking a Delta II launch vehicle at Vandenberg Air Force Base from an unmanned aircraft. This represents an important step in moving toward a space-based launch range.

"The technology demonstrated is just a first step on the road to a Space Traffic Control system that will allow space vehicles the same freedom of mobility commercial aircraft have today. We must continue to explore and test new ways of monitoring and controlling space systems, so we can drive down the cost of aging infrastructures," U.S. Air Force Col. Shelby L. Syckes stated.

Preliminary analysis indicates that Lockheed Martin's Range Systems Transformational Laboratory (RSTL) program successfully tracked and recorded several minutes of telemetry data from the rocket after its launch from Vandenberg Air Force Base recently. The RSTL Range Instrumentation Payload was onboard a CIRPAS Pelican unmanned surrogate aircraft and tracked the mission as predicted, from the launch pad, until the vehicle disappeared over the horizon. CIRPAS is the Center for Interdisciplinary Remotely-Piloted Aircraft Studies, a research center at the Naval Postgraduate School, located in Monterey, Calif.

The California Space Authority (CSA), in cooperation with the U.S. Air Force Space and Missile Center (SMC) Satellite and Launch Control Program Office, sponsored the program to prove the mobile range concept and to support evolving space launch requirements. RSTL is a critical component of both agencies' strategic shift toward mobile range technology development.

"The success of this innovative technology is clearly the beginning of a monumental transformation towards the concept of truly mobile launch ranges. We are proud to be leaders in providing a new generation of cost-effective and extremely capable range technologies," said Ken Griesi, Lockheed Martin's RSTL program manager.

RSTL demonstrated the capability of an airborne instrumentation platform to provide range safety, vehicle health and status, and range user support for a variety of launch vehicles and payloads. RSTL has proven the concept of airborne range instrumentation, which is a catalyst towards a space-based launch range. Space-based ranges will be critical to reducing the high cost of maintaining older strategic, fixed range infrastructures, and is a key capability of the command, control, communications, computers, intelligence, surveillance and reconnaissance (C4ISR) and assured access.

The RSTL demonstrated two distinct advanced technology segments: Lockheed Martin's patented Range Instrumentation Payload that utilizes an optionally manned airborne instrumentation platform; and a fully compliant Department of Defense Architecture Framework (DoDAF) and Air Force Command and Control Enterprise Architecture flight operations center, employing advanced visualization techniques and automated decision support technology. "We are very pleased at how well the instrument and payload performed," said Tom Drymon, Lockheed Martin's chief architect for the RSTL program and inventor of the Lockheed Martin U.S. Patent for the system. "This is a very important capability that has been added in order to provide affordable access to space."

"This was a very critical and complex task that required a great deal of innovation and dedication by all involved," said John Mengucci, Lockheed Martin's Space-Ground Integration Systems vice president. "We look forward to continuing our work with the California Space Authority on this important innovative technology."

Headquartered in Bethesda, Md., Lockheed Martin employs about 130,000 people worldwide and is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services. The corporation reported 2003 sales of \$31.8 billion.

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