

# News Release

**FOR IMMEDIATE RELEASE**

## **CSA Engineering Team Helps Stabilize Directed Energy Beam in Successful Anti-Ballistic Missile Airborne Laser Test**

MOUNTAIN VIEW, Calif. Feb.16 2010 – CSA Engineering, a wholly owned subsidiary of Moog Inc. announced today that its advanced active optical system, beam control compensation, system software and vibration suppression technology has proved successful in helping to put megawatt levels of energy onto a ballistic missile during the boost ascent stage of its trajectory.

On February 11, 2010 the Missile Defense Agency demonstrated the potential use of directed energy to defend against ballistic missiles when the Airborne Laser Testbed (ALTB) successfully destroyed a boosting ballistic missile.

For more than 15 years CSA Engineering has served as a technical subcontractor on the Airborne Laser Testbed (ALTB) to Boeing, Lockheed and TRW (acquired by Northrop Grumman in 2002) providing vibration mitigation control hardware for key ALTB beam control, optical bench isolation and mirror control subsystems. Boeing was prime contractor responsible for the aircraft battle management system and overall systems integration. Lockheed Martin developed the beam control/fire control system with Northrop Grumman providing the critical high-energy laser subsystem.

“Lessons learned on the ALTB now provide us with a tremendous opportunity to exploit recent technical advances and apply them to a wide spectrum directed energy weapon systems from close in mortar defense to ship anti-missile systems,” said Eric Anderson, Vice President of CSA Engineering. “With almost two decades of experience in support of ALTB and its direct predecessors, we're proud of our contribution, from mechanical products to tens of thousands of lines of software code. This is a milestone that some people thought would never happen. It effectively reduces risks associated with new program development while increasing the reliability of future directed energy weapons. We are eagerly looking forward to discussing this breakthrough with our colleagues at the Directed Energy Systems Symposium (DEPS) in Monterey, CA 12-16 April 2010,” he added.

### **About CSA Engineering**

CSA Engineering - located in Mountain View, California is a world leader in structural dynamics, vibration suppression and precision motion control technology. CSA Engineering became a wholly owned subsidiary of Moog Inc. in 2008. To learn more, please visit the company's website at [www.csaengineering.com](http://www.csaengineering.com).

### **About Moog**

Moog Inc. (NYSE: MOG.A and MOG.B) is a worldwide designer, manufacturer, and integrator of precision control components and systems. Moog's high performance systems control military and commercial aircraft, satellites, launch vehicles, missiles, automated industrial machinery, wind energy, marine and medical equipment. Additional information about Moog can be found at [www.moog.com](http://www.moog.com)

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