



NEWS RELEASE

FOR: Microcosm, Inc.
401 Coral Circle
El Segundo, CA 90245
<http://www.smad.com>

CONTACT: Dr. Robert Conger
310-726-4100
rconger@smad.com

Microcosm Completes Successful Series of Tests on 20,000 lbf Low-Cost Rocket Engine

EL SEGUNDO, CA, May 23, 2005 – Microcosm, Inc., an aerospace engineering firm developing the Scorpius® family of responsive, low-cost launch vehicles today announced the successful completion of a series of tests of a 20,000 lbf low-cost composite rocket engine for launch vehicle applications. The testing was the combined effort of Microcosm, Sierra Engineering of Carson City, NV, which designed the injector for the engine, and the Air Force Research Laboratory facilities at Edwards Air Force Base where the tests were conducted. Building and testing of the engine was sponsored by the DARPA/Air Force Falcon Small Launch Vehicle program.

Several engines underwent a series of tests ranging from 1 sec to 30 sec in duration with multiple injectors, chambers, and operating pressures. According to Microcosm President, Dr. James Wertz, “The government/contractor team worked exceptionally well together to accomplish this series of tests on a very compressed schedule. This program is an excellent example of positive cooperation between industry and government.”

Wertz further stated, “The availability of low-cost, composite engines is a major step in the development of a new generation of much lower cost, responsive launch vehicles. We are extremely pleased with the performance of the engine and look forward to flight tests of vehicles in which all of the engines use low-cost, ablative composites.”

Most modern liquid propellant rockets use very high-speed turbopumps to force propellant into the rocket thrust chamber. This technology was initially developed by Wernher von Braun in World War II and led to the development of orbital launch vehicles in both the United States and the Soviet Union. Microcosm has been working on the development of much lower cost pressure-fed rocket engines for more than a decade. It is one of the key technologies for the Scorpius[®] family of low-cost launch vehicles and is being used in all of the stages of the Eagle vehicle being developed under the Falcon Small Launch Vehicle program. Microcosm fired its first composite rocket engine in 1993. A 5,000 lbf version of the engine flew successfully on suborbital flights in 1999 and 2001.

About Microcosm, Inc.

Microcosm is a small business specializing in space mission engineering and the development of technologies and methods to facilitate more responsive space missions at substantially reduced costs. Microcosm’s three primary business areas include the Scorpius[®] family of Responsive, Low-Cost Expendable Launch Vehicles; Autonomous Guidance, Navigation and Control Systems; and Space Mission Engineering and Architecting.

#



Microcosm 20,000 lbf rocket engine undergoing testing at the Air Force Research Laboratory facilities at Edwards Air Force Base, CA, May 21, 2005.

(High resolution photos available at <http://www.smad.com/test.jpg> and <http://www.smad.com/close-up.jpg>)