Lockheed Martin Spacecraft To Be Flown For NASA's MAVEN Mars Mission

Mars Scout mission will study atmospheric processes

Lockheed Martin has been selected by NASA to design, build and operate the spacecraft for NASA's Atmosphere and Volatile EvolutioN (MAVEN) program. NASA's newest mission will analyze the upper atmosphere and past climate change on Mars. The $485-million project is led by principal investigator Bruce Jakosky of the University of Colorado's Laboratory for Atmospheric and Space Physics (LASP). NASA's Goddard Space Flight Center will manage the mission.

MAVEN is scheduled to launch in late 2013 and arrive at Mars in the fall of 2015. The spacecraft will circle Mars in an elliptical orbit as it studies current atmospheric losses with an emphasis on the role of the solar wind. These present-day losses will give insight to the massive climate change Mars experienced in the past.

"We know from three decades of studying Mars that its surface was dramatically transformed by water, but we don't know what happened to that water," said Jim Crocker, vice president of Sensing and Exploration Systems at Lockheed Martin Space Systems Company. "The MAVEN mission will provide definitive answers about Mars' climate history and an understanding of what happened to the liquid water on the surface. Our team is excited to be a part of this fascinating study."

The spacecraft is based on the flight-proven designs of the Mars Reconnaissance Orbiter (MRO) and 2001 Mars Odyssey spacecraft -- both designed and built by Lockheed Martin. MRO was launched in August 2005 and Odyssey was launched in April 2001. Both spacecraft are still performing science operations as they orbit the planet. Lockheed Martin also conducts flight operations for both missions for NASA.

"Lockheed Martin brings with it a tremendous wealth of experience in planetary spacecraft, and in Mars spacecraft and operations," said Jakosky. "Their MAVEN team is absolutely first rate, and the mission concept we've put together reflects this. I could not imagine trying to do this mission without their involvement."

MAVEN is the second mission in NASA's Mars Scout Program -- a series of small, low-cost, principal investigator-led missions to the Red Planet. The Phoenix Mars Lander was the first mission under the program. Lockheed Martin is the industry partner on the Phoenix mission. It designed and built the spacecraft, and also provided both flight operations and currently surface operations for the lander. The mission has been extended through Sept. 30, 2008.

Lockheed Martin Space Systems Company, a major operating unit of Lockheed Martin Corporation, designs, develops, tests, manufactures and operates a full spectrum of advanced-technology systems for national security, civil and commercial customers. Chief products include human space flight systems; a full range of remote sensing, navigation, meteorological and communications satellites and instruments; space observatories and interplanetary spacecraft; laser radar; fleet ballistic missiles; and missile defense systems.

Headquartered in Bethesda, Md., Lockheed Martin is a global security company that employs about 140,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The corporation reported 2006 sales of $39.6 billion.

MEDIA CONTACT:

Gary Napier, Lockheed Martin Space Systems Company; (303) 971-4012;gary.p.napier@lmco.com

First Call Analyst:
FCMN Contact:

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