# Lockheed Martin Chosen By NASA And JPL To Build The 2005 Mars Reconnaissance Orbiter

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Lockheed Martin Space Systems - Astronautics Operations, headquartered near Denver, Colo., has been selected by the National Aeronautics and Space Administration (NASA) and the Jet Propulsion Laboratory (JPL) to design and build the next in a series of spacecraft to explore Mars. The Mars Reconnaissance Orbiter is scheduled for launch in 2005. The contract award was announced by JPL and NASA officials today.

"We are extremely pleased by the confidence that NASA and JPL have placed in us at Lockheed Martin to build this key spacecraft for the Mars exploration program," said G. Thomas Marsh, president and general manager of Lockheed Martin Space Systems - Astronautics Operations. "We are fully committed to this program and feel a tremendous sense of pride about our long-standing history with NASA and JPL in support of their goal to learn more about the planets in our solar system, our universe and our own world."

This is the latest in a series of Mars missions. It will provide low altitude Mars remote sensing science observation, site investigation for future spacecraft that will land on Mars' surface, and telecommunications and navigation relay capability for follow-on missions. The contract will be worked in three phases: concept and requirements definition, detailed implementation and test and mission operations. The mission is managed by JPL.

Lockheed Martin designed and built the successful Mars Global Surveyor spacecraft for NASA and JPL, which has far exceeded scientists' expectations of what they had hoped to obtain from that spacecraft's imaging and mapping abilities. Mars Global Surveyor successfully completed its primary mapping mission in January 2001 and began an extended mission to continue mapping the Red Planet's surface for another 15 months.

"Our team is very excited and we are ready to begin development of the Mars Reconnaissance Orbiter with JPL and the science instrument providers," said Kevin McNeill, Lockheed Martin's program manager for the 2005 Mars Reconnaissance Orbiter spacecraft. "The Orbiter's new science and imaging capabilities will greatly enhance the data that has already been obtained by Mars Global Surveyor and what we soon expect to obtain from the 2001 Mars Odyssey. This team brings a wealth of experience to the mission, gained from our experience on numerous Mars programs that have been developed with JPL and the scientific community," added McNeill.

The Mars Reconnaissance Orbiter scientific payload currently includes three categories: global monitoring via an atmospheric sounder and wide-angle camera; regional surveys via a subsurface sounding radar and medium-angle camera; and targeted observations via a high-resolution imager and visible- near infrared imaging spectrometer. In addition to the science payloads, the Orbiter features a UHF navigation and communications package for use with future missions and an optical navigation camera.

The 2005 Mars Reconnaissance Orbiter is scheduled for launch in August 2005. The primary science mission phase will last for one Martian year (approximately two Earth years), followed by a one-year relay phase in support of future missions of the international Mars exploration program. There is a high potential for continuing science observation during this phase, giving priority to evaluating landing sites for future missions.

Lockheed Martin has a long history of supporting NASA's and JPL's programs for the exploration of Mars. The company built the twin Viking spacecraft that landed on Mars in 1976 and the Propulsion Module Subsystem that powered Mariner 9 aboard the company's Atlas/Centaur which launched Mariner 9 in 1971. The Mars Global Surveyor was launched Nov. 7, 1996, entered orbit Sept. 12, 1997, and began its primary mapping mission in March 1999. It has since observed the planet from a low-altitude, nearly polar orbit over the course of one complete Martian year, during which it has studied the entire Martian surface, atmosphere and interior, and has returned more data about the Red Planet than all previous Mars missions combined.

The 2001 Mars Odyssey spacecraft, also designed and built by Lockheed Martin, began its flight to Mars April 7, 2001, and is on its way to continue scientific reconnaissance of the Martian surface. It will reach Mars on Oct. 23, 2001 (MDT). While in orbit, the spacecraft will collect data to analyze the global elemental composition of the planet, search for evidence of ancient hot springs and mineral deposits, survey the radiation environment, and provide a communications link with future spacecraft that land on Mars.

Lockheed Martin Space Systems Company, headquartered in Denver, Colo., is one of the major operating units of Lockheed Martin Corporation. Space Systems designs, develops, tests, manufactures and operates a variety of

advanced technology systems for military, civil and commercial customers. Chief products include a full range of space launch systems, ground systems, remote sensing and communications satellites for commercial and government customers, advanced space observatories and interplanetary spacecraft, fleet ballistic missiles and missile defense systems.

Headquartered in Bethesda, Md., Lockheed Martin is a global enterprise principally engaged in the research, design, development, manufacture and integration of advanced-technology systems, products and services. The Corporation's core businesses are systems integration, space, aeronautics and technology services. Lockheed Martin had 2000 sales surpassing $25 billion.

For more information about Lockheed Martin Space Systems and an artist's rendering of the 2005 Mars Reconnaissance Orbiter, please visit: http://www.ast.lmco.com/ and http://www.jpl.nasa.gov/

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