Mars Reconnaissance Orbiter Set For Arrival At The Red Planet After Seven Month Journey

As the Mars Reconnaissance Orbiter (MRO) nears its final destination -- the planet Mars -- Lockheed Martin and the National Aeronautics and Space Administration's (NASA) Jet Propulsion Laboratory are preparing to place the spacecraft into orbit around the red planet. MRO was launched aboard an Atlas V on Aug. 12, 2005, and on March 10, at 1:25 pm PT, the spacecraft will fire its main thrusters to slow it down so it can be captured by Mars' gravity and pulled into orbit around the planet.

Lockheed Martin Space Systems Company designed and built the Mars Reconnaissance Orbiter for NASA and the Jet Propulsion Laboratory, and has been controlling the spacecraft's flight operations from the company's Mission Support Area near Denver, Colo. The mission, valued at about $720 million, includes the spacecraft development and science instruments, the Atlas V launch service, mission operations, science processing and relay support.

"We're extremely proud and excited to be partnered with NASA on this mission to Mars, adding to the fleet of spacecraft that are revealing the mysteries of our planetary neighbor," said Jim Crocker, vice president of Civil Space at Lockheed Martin Space Systems Company. "MRO has been performing extremely well over the past seven months and during this cruise stage and the team has been busy monitoring and calibrating many of the spacecraft systems and instruments as we prepare MRO for orbital insertion and its ultimate mission. The entire NASA, JPL and Lockheed Martin team is ready to perform this critical maneuver for MRO and we are looking forward to continuing this exciting voyage of space exploration and discovery."

Once MRO is captured in orbit around Mars, the spacecraft will go though a six-month series of aerobraking maneuvers -- dipping into the Martian atmosphere -- to slow the spacecraft and tighten its highly elliptical orbit to a final circular orbit. Once in final orbit, MRO is scheduled to begin its primary mission in November 2006, performing scientific reconnaissance of the planet's surface with an amount of data five times greater than all previous Mars missions, providing global maps of the planet and its climate, looking for future landing sites, and providing communications support and data relay for missions planned for 2007 and beyond.

"The spacecraft team has used the past seven months preparing, training and testing for the day of arrival, but we also know that once we get there our work supporting the science team has just begun. We can't wait to see what MRO will show us," said Kevin McNeill, Lockheed Martin's MRO program manager.

The Mars Reconnaissance Orbiter will join the Mars Global Surveyor and Mars Odyssey spacecraft already in orbit around Mars, both designed and built by Lockheed Martin for NASA. In addition, NASA's Mars Exploration Rovers, Spirit and Opportunity, continue to explore the planet's surface.

Engineers at Lockheed Martin Space Systems Company near Denver, in concert with a team from the Jet Propulsion Laboratory, will continue to operate MRO from Lockheed Martin's Mission Support Area, providing the spaceflight operations throughout its multi-year mission. That same team is providing spaceflight operations for Mars Global Surveyor, Mars Odyssey, and the Spitzer Space Telescope.

Lockheed Martin Space Systems Company 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, including heavy-lift capability, 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 employs about 135,000 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 2005 sales of $37.2 billion.

Media Contact: Gary Napier, Lockheed Martin Space Systems, 303-971-4012; gary.p.napier@lmco.com

For additional information, visit: http://www.lockheedmartin.com/mro

http://marsprogram.jpl.nasa.gov/mro

SOURCE: Lockheed Martin

Web site: http://www.lockheedmartin.com/

---

https://news.lockheedmartin.com/2006-03-09-Mars-Reconnaissance-Orbiter-Set-for-Arrival-at-the-Red-Planet-After-Seven-Month-Journey