Lockheed Martin To Build Spacecraft For InSight Mars Lander, NASA's Next Discovery Mission

DENVER, Aug. 20, 2012 /PRNewswire/ -- An exciting and novel mission to Mars has been selected as NASA's next Discovery mission. The Interior Exploration using Seismic Investigations, Geodesy and Heat Transport (InSight) mission, led by principal investigator Bruce Banerdt of the Jet Propulsion Laboratory (JPL) and managed by JPL, will make the first ever measurements of the interior of Mars, providing insight into the evolution of the terrestrial planets. Lockheed Martin [NYSE: LMT] Space Systems Company in Denver will build and operate the InSight spacecraft. The cost of the mission, excluding the launch vehicle and related services, is capped at $425 million in 2010 dollars.

"We are absolutely delighted to be a part of the InSight mission, and eager to get to work with the Jet Propulsion Laboratory in moving this mission from the drawing board to the surface of Mars," said Jim Crocker, vice president and general manager of Civil Space at Lockheed Martin Space Systems Company. "Exploration and discovery are fundamental to our progress, and we are very proud to play a role in making it happen."

Targeted for launch in 2016, the InSight lander would reach the Red Planet later that year and land at Elysium Planitia, a large flat area near the planet's equator. The InSight lander will install a seismograph and heat flow probe into the Martian surface.

InSight is more than a Mars mission – it is a terrestrial planet explorer that will address one of the most fundamental issues of planetary and solar system science – understanding the processes that shaped the rocky planets of the inner solar system (including Earth) more than four billion years ago. By using sophisticated geophysical instruments, InSight will delve deep beneath the surface of Mars, detecting the fingerprints of the processes of terrestrial planet formation, as well as measuring the planet's "vital signs": Its "pulse" (seismology), "temperature" (heat flow probe), and "reflexes" (precision tracking).

The InSight mission is similar in design to the Mars lander that thePhoenix mission used successfully in 2008 to study ground ice near the north pole of Mars. The reuse of this technology, developed and built by Lockheed Martin, will provide a low-risk path to Mars without the added cost of designing and testing a new system from scratch.

InSight is the sixth Discovery mission in which Lockheed Martin Space Systems has participated. Previously, the company designed and built the Lunar Prospector spacecraft; developed the aeroshell entry system for the Mars Pathfinder mission; designed, built and operated the spacecraft used for both Stardust missions; designed, built and operated the Genesis spacecraft; and designed, built and is operating the two Gravity Recovery And Interior Laboratory (GRAIL) spacecraft currently orbiting the Moon.

NASA's Discovery Program gives scientists the opportunity to dig deep into their imaginations and find innovative ways to unlock the mysteries of the solar system. When it began in 1992, this program represented a breakthrough in the way NASA explores space. For the first time, scientists and engineers were called on to assemble teams and design exciting, focused planetary science investigations that would deepen the knowledge about our solar system.

As a complement to NASA's larger "flagship" planetary science explorations, the Discovery Program goal is to achieve outstanding results by launching many smaller missions using fewer resources and shorter development times. The main objective is to enhance our understanding of the solar system by exploring the planets, their moons, and small bodies such as comets and asteroids. The program also seeks to improve performance through the use of new technology and broaden university and industry participation in NASA missions.

Space Systems Company, a major operating unit of Lockheed Martin Corporation, designs and develops, tests, manufactures and operates a full spectrum of advanced-technology systems for national security and military, civil government 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; ballistic missiles; missile defense systems; and nanotechnology research and development.

Headquartered in Bethesda, Md., Lockheed Martin is a global security and aerospace company that employs about 120,000 people worldwide and is principally engaged in the research, design, development, manufacture, integration and sustainment of advanced technology systems, products and services. The corporation's net sales for 2011 were $46.5 billion.

More information about InSight can be found at: http://insight.jpl.nasa.gov/

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