NASA 2016 Mars Mission To Begin Building Spacecraft

Lockheed Martin-Built Lander to Study Interior of Mars

DENVER, May 19, 2014 /PRNewswire/ -- The team preparing NASA's next Mars lander mission gained a green light today to begin building the spacecraft, which will study how Earthlike planets form. Lockheed Martin [NYSE: LMT] will now begin building the InSight spacecraft.

The InSight mission will launch from California in March 2016 and touch down on Mars six months later. The stationary lander's robotic arm will then deploy surface and burrowing instruments from France and Germany to investigate the planet's interior.

InSight team leaders presented mission-design results this week to a NASA review board, and the board then gave approval for advancing to the next stage of preparation.

"The completion of the critical design review marks a major transition for the project," said InSight Project Manager Tom Hoffman of NASA's Jet Propulsion Laboratory. "We move from doing the design and analysis to building and testing the hardware and software that will get us to Mars and collect the science that we need to achieve mission success. Our partners across the globe have made significant progress in getting to this point and are fully prepared to deliver their hardware to system integration starting this November, which is the next major milestone for the project."

InSight adapts a Lockheed Martin spacecraft design from the successful NASA Phoenix Mars Lander, which examined ice and soil on far-northern Mars in 2008, but InSight will study a different aspect of planetary history with instruments never previously used on Mars. The mission will investigate how Earth and other rocky planets developed their layered inner structure of core, mantle and crust, and will gain information about those interior zones.

"We will incorporate many features from our Phoenix lander into InSight, but the differences between the missions require some modifications for the InSight spacecraft," said Stu Spath, InSight program manager for Lockheed Martin Space Systems. "For example, the InSight mission duration is 630 days longer than Phoenix, which means that the lander will have to endure a wider range of environmental conditions on the surface."

InSight's international science team is made up of researchers from Austria, Belgium, Canada, France, Germany, Japan, Poland, Spain, Switzerland, the United Kingdom and the United States. JPL, a division of the California Institute of Technology in Pasadena, manages InSight for NASA's Science Mission Directorate, Washington. InSight is part of NASA's Discovery Program of competitively selected missions. NASA's Marshall Space Flight Center in Huntsville, Alabama, manages the Discovery Program.

Headquartered in Bethesda, Md., Lockheed Martin is a global security and aerospace company that employs approximately 113,000 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 2013 were $45.4 billion.

For more about InSight, visit: http://insight.jpl.nasa.gov

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