# Asteroid Sample Mission Spacecraft, OSIRIS-REx, Completed At Lockheed Martin

DENVER, Oct. 21, 2015 /PRNewswire/ -- Lockheed Martin (NYSE: LMT) has completed the assembly of NASA's OSIRIS-REx spacecraft. The spacecraft is now undergoing environmental testing at the company's Space Systems facilities near Denver. OSIRIS-REx will be the first U.S. mission to return samples from an asteroid back to Earth.

PHOTO: http://www.lockheedmartin.com/us/news/press-releases/2015/october/space-orex-complete.html

OSIRIS-REx – which stands for Origins, Spectral Interpretation, Resource Identification, Security, Regolith Explorer – is going to Bennu, a carbon-rich asteroid that could hold clues to the origin of the solar system.

"This is an exciting time for the program, as we now have a completed spacecraft and the team gets to test drive it, in a sense, before we actually fly it to Bennu," said Rich Kuhns, OSIRIS-REx program manager at Lockheed Martin Space Systems. "The environmental test phase is an important time in the mission, as it will reveal any issues with the spacecraft and instruments, while here on Earth, before we send it into deep space."

Over the next five months, the spacecraft will be subjected to a range of rigorous tests that simulate the vacuum, vibration and extreme temperatures it will experience throughout the life of its mission. Specifically, OSIRIS-REx will undergo tests to simulate the harsh environment of space, including thermal vacuum, launch acoustics, separation and deployment shock, vibration, and electromagnetic interference and compatibility.

"This milestone marks the end of the design and assembly stage," saidDante Lauretta, principal investigator for OSIRIS-REx at the University of Arizona, Tucson. "We now move on to test the entire flight system over the range of environmental conditions that will be experienced on the journey to Bennu and back. This phase is critical to mission success, and I am confident that we have built the right system for the job."

OSIRIS-REx is scheduled to ship from Lockheed Martin's facility to NASA's Kennedy Space Center next May, where it will undergo final preparations for launch.

"OSIRIS-REx is entering environmental testing on schedule, on budget and with schedule reserves," saidMike Donnelly, OSIRIS-REx project manager at NASA's Goddard Space Flight Center inGreenbelt, Maryland. "This allows us to have flexibility if any concerns arise during final launch preparations."

After launch in September 2016, the spacecraft will travel to the near-Earth asteroid Bennu and bring at least a 60-gram (2.1-ounce) sample back to Earth for study.

Scientists expect that Bennu may hold clues to the origin of the solar system and the source of water and organic molecules that may have made their way to Earth. OSIRIS-REx's investigation will inform future efforts to develop a mission to mitigate an Earth impact of an asteroid, should one be required.

NASA's Goddard Space Flight Center provides overall mission management, systems engineering and safety and mission assurance for OSIRIS-REx. Dante Lauretta is the mission's principal investigator at theUniversity of Arizona. Lockheed Martin Space Systems nearDenver is building the spacecraft and will provide flight operations. OSIRIS-REx is the third mission in NASA's New Frontiers Program. NASA's Marshall Space Flight Center in Huntsville, Alabama, manages New Frontiers for the agency's Science Mission Directorate inWashington.

**About Lockheed Martin**
Headquartered in Bethesda, Maryland, Lockheed Martin is a global security and aerospace company that employs approximately 112,000 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 2014 were $45.6 billion.

For more information about the OSIRIS-REx mission:

- http://www.asteroidmission.org/
- http://www.nasa.gov/osiris-rex
- http://www.lockheedmartin.com/osirisrex

VIDEO: Asteroids and the OSIRIS-REx Mission,
http://www.youtube.com/watch?v=HLz1CeBKb7M

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