LADEE closer to exploration of lunar environment

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NASA's Lunar Atmosphere and Dust Environment Explorer (LADEE) has received its integrated propulsion system that will enable the spacecraft to reach the moon. Achieving this milestone means the LADEE observatory is one step closer to launching its 2013 mission to explore the lunar environment.

The LADEE propulsion system, built by Space Systems/Loral, Palo Alto, Calif., features a commercially-proven technology. The propulsion system is a variant of the mission critical capabilities used for many years on geostationary satellites to provide television, radio, broadband internet, meteorology and other services.

The LADEE team now has most of the flight hardware components available, and has entered the spacecraft's integration phase. During this phase, the LADEE team will attach hardware components to the various parts of the spacecraft structure, starting with the top radiator panel. This panel contains most of the spacecraft's active electronic systems, except the propulsion system.

As each component is attached, it is tested to verify it was connected and works properly. So far, the team has attached a harness for the electrical wiring and a component to power up the spacecraft, and is preparing to attach the flight battery.

Strength testing of the modular common bus sections - the main super-structure of the spacecraft - built by Vanguard Space Technologies, San

Diego, Calif., is about to begin. The bus will be fitted with models of all of the components, so that it can be tested to ensure it is strong enough to handle the rigors of launch. When all of the components of the radiator panel have been integrated and tested, then the panel will be attached to the main structure, along with the integrated propulsion system to complete the spacecraft.

While the spacecraft is being completed, the science teams will finish work on the LADEE instruments. After the team has a completed the spacecraft and instruments, they all will come together and form the LADEE observatory.

More information: For more information about LADEE, visit: www.nasa.gov/ladee

Provided by JPL/NASA

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