

NASA's twin craft arrive in Florida for moon mission

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NASA's lunar twins arrive at Cape Canaveral, Fla. The two Grail spacecraft (Grail-A and Grail-B) made the trip from the Denver area to the Shuttle Landing Strip at the Kennedy Space Center, Fla. on May 20, 2011, aboard a U.S. Air Force C-17 Globemaster III. Credit: NASA/JPL -Caltech/LMSS

(PhysOrg.com) -- NASA's twin lunar probes have arrived in Florida to begin final preparations for a launch in late summer. The two Gravity Recovery And Interior Laboratory spacecraft (Grail) were shipped from Lockheed Martin Space Systems, Denver, to the Astrotech payload processing facility in Titusville, Fla., Friday, May 20. NASA's dynamic duo will orbit the moon to determine the structure of the lunar interior from crust to core and to advance understanding of the thermal evolution of the moon.

"NASA's lunar twins have arrived at Cape Canaveral," said Maria Zuber, Grail's principal investigator, based at the Massachusetts Institute of Technology, in Cambridge. "We're only a few full moons away from a mission that will reveal clues not only into the history of the moon and Earth, but will provide important data for future lunar exploration."

The Grail twins, known as Grail-A and Grail-B, were removed from their shipping containers Monday, May 23. Later this week, they will begin functional testing to verify their state of health after their ride on an Air Force transport jet from Colorado. Over the next four months at the Astrotech facility, the [spacecraft](#) will undergo final testing, fueling and packaging in the shroud that will protect them as the Delta II launch vehicle lifts them into space. The spacecraft will then be transported to the Cape Canaveral Air Force Station for installation atop the rocket that will carry them toward the moon.

Grail will be carried into space aboard a United Launch Alliance Delta II Heavy rocket lifting off from Launch Complex-19 at the Cape Canaveral Air Force Station in Florida. The launch period opens Sept. 8, 2011, and extends through Oct. 19. For a Sept. 8 liftoff, the [launch](#) window opens at 5:37 a.m. PDT (8:37 a.m. EDT) and remains open through 6:16 a.m. PDT (9:16 a.m. EDT).

Grail-A and Grail-B will fly in tandem orbits around the moon for

several months to measure its gravity field in unprecedented detail. The mission will also answer longstanding questions about Earth's [moon](#), and provide scientists a better understanding of how Earth and other rocky planets in the solar system formed.

More information: solarsystem.nasa.gov/grail/

Provided by JPL/NASA

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