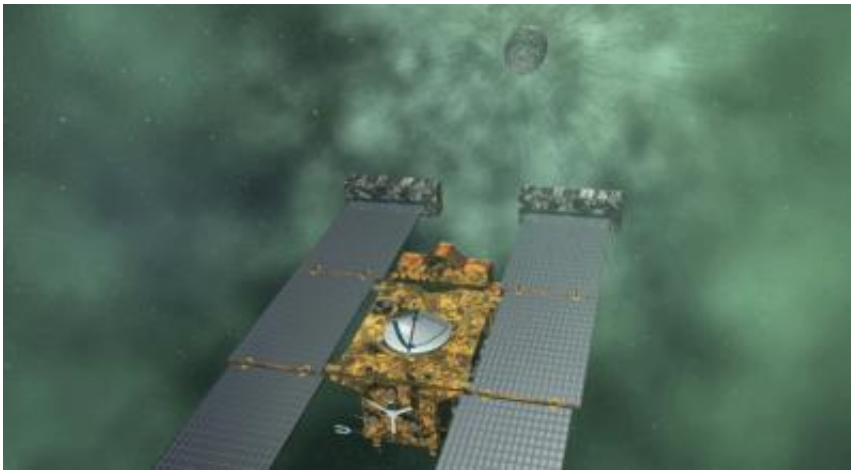


NASA's Stardust spacecraft completes comet flyby, sending photos back to Earth

February 15 2011



Artist's concept of NASA's Stardust-NExT mission, which will fly by comet Tempel 1 on Feb. 14, 2011. Image credit: NASA/JPL-Caltech/LMSS

(PhysOrg.com) -- Mission controllers at NASA's Jet Propulsion Laboratory, Pasadena, Calif., watched as data downlinked from the Stardust spacecraft indicated it completed its closest approach with comet Tempel 1.

An hour after closest approach, the spacecraft turned to point its large, high-gain antenna at Earth. It is expected that images of the comet's nucleus collected during the flyby will be received on Earth starting at about midnight California time (3 a.m. EST on Tuesday, Feb. 15).

Preliminary data already transmitted from the spacecraft indicate the time of closest approach was about 8:39 p.m. PST (11:39 p.m. EST), at a distance of 181 kilometers (112 miles) from Tempel 1.

This is a bonus mission for the [comet](#) chaser, which previously flew past comet Wild 2 and returned samples from its coma to Earth. During this bonus encounter, the plan called for the spacecraft to take images of the comet's surface to observe what changes occurred since a [NASA](#) spacecraft last visited. (NASA's Deep Impact spacecraft executed an encounter with Tempel 1 in July 2005).

Mission controllers at NASA's Jet Propulsion Laboratory, Pasadena, Calif., have begun receiving the first of 72 anticipated images of [comet Tempel 1](#) taken by NASA's [Stardust spacecraft](#).

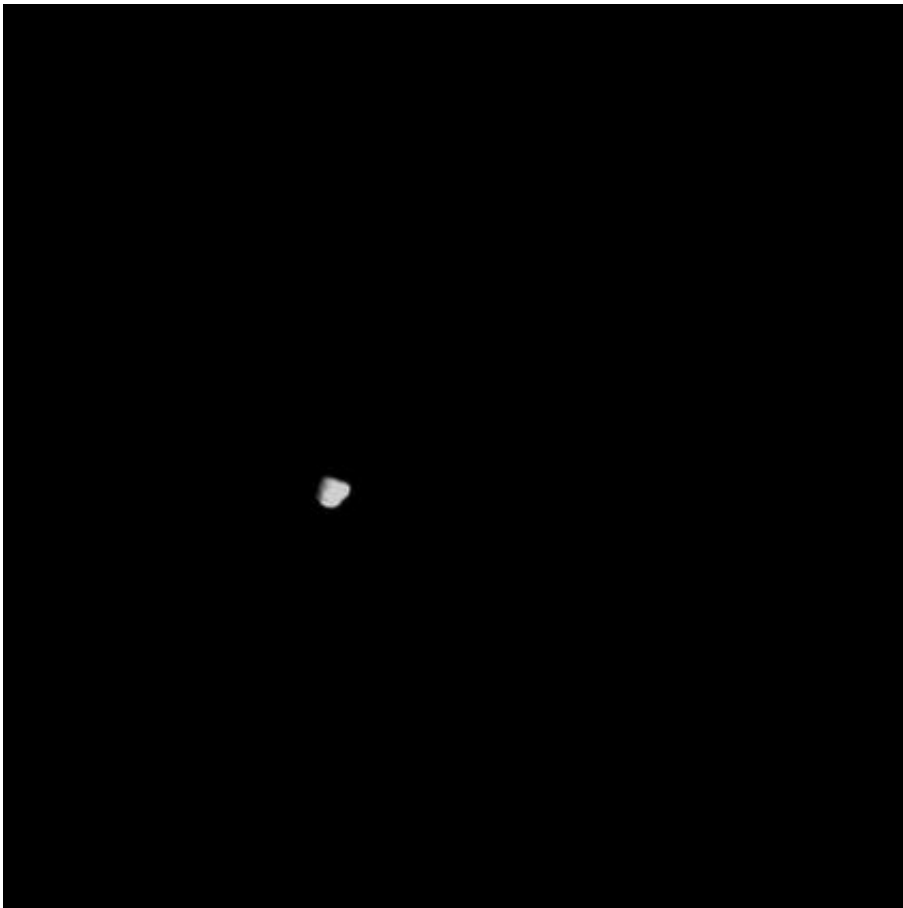


Image credit: NASA/JPL-Caltech/Cornell

NASA's Stardust-NExT mission transmitted the first image it took during its approach to comet Tempel 1 at 8:35 p.m. PST (11:35 p.m. EST) on Feb. 14, 2011, from a distance of approximately 2,462 kilometers (1,530 miles). The comet was first visited by NASA's Deep Impact mission in 2005.

Stardust-NExT is a low-cost mission that will expand the investigation of comet Tempel 1 initiated by NASA's Deep Impact spacecraft. JPL, a division of the California Institute of Technology in Pasadena, manages Stardust-NExT for NASA's Science Mission Directorate, Washington, D.C. Lockheed Martin Space Systems, Denver, built the [spacecraft](#) and manages day-to-day mission operations.

More information: For more information about Stardust-NExT, visit: stardustnext.jpl.nasa.gov

Provided by JPL/NASA

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