

NASA's OSIRIS-REx spacecraft adjusts course to get closer to Earth

July 27 2023, by Lonnie Shekhtman



Team members from NASA's OSIRIS-REx mission rehearse moving the sample capsule into a clean room at Lockheed Martin designed to closely resemble the one that will be used at the Department of Defense's Utah Test and Training Range on Sept. 24, 2023. Credit: Lockheed Martin Space.

On July 26, NASA's OSIRIS-REx spacecraft fired its engines for about 63 seconds to slightly thrust itself onto a course closer to Earth.

Preliminary tracking data indicates OSIRIS-REx changed its velocity, which includes speed and direction, by 1.3 miles, or 2 kilometers, per hour. It's a tiny but critical shift; without course adjustments like this one the spacecraft would not get close enough to Earth on Sept. 24 to drop off its sample of asteroid Bennu.

The spacecraft is currently 24 million miles, or 38.6 million kilometers, from Earth, traveling at about 22,000 miles, or about 35,000 kilometers, per hour.

Over the next few days, engineers will use data collected before and after today's engine burn, including Doppler radar data, to make sure the [maneuver](#) executed as planned and the spacecraft is on the right path.

Today's trajectory correction maneuver is the final adjustment needed to set up OSIRIS-REx to return to Earth on Sept. 24. Two more maneuvers, on Sept. 10 and 17, will target the precise point in Earth's atmosphere where the spacecraft's sample-return capsule must enter to land on target at the Department of Defense's Utah Test and Training Range near Salt Lake City.

More information: www.nasa.gov/osiris-rex

Provided by NASA

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