

Rosetta approach on schedule

November 6 2009



Artist view of ESA's Rosetta cometary probe. The spacecraft is covered with dark thermal insulation in order to keep its warmth while venturing into the coldness of the outer Solar System, beyond Mars orbit. Credits: ESA, image by AOES Medialab

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Rosetta's orbit has been determined using radiometric data received

from ESA and [NASA](#) ground stations, and estimates now show that she will pass within a few kilometres of the planned point of closest approach during next week's Earth swingby. If necessary, additional manoeuvre slots are available at 24 and 6 hours prior to closest approach.

Rosetta is now forecast to pass over a watery point just South of the island of Java at an altitude of 2481 km at 13.34 km/s relative to Earth. This estimate will be updated in the coming days.

Science from a unique perspective

Though time will be short, several science observations are planned around the swingby to exploit Rosetta's unique perspective and powerful instrument suite.

The planned observations include imaging with the scientific camera system OSIRIS, an attempt to look for water on the Moon with MIRO, study of the [magnetosphere](#) with the suite of Rosetta plasma instruments, and observations of Earth's atmosphere and a search for aurorae.

The instruments will be turned on one-by one starting today and will stay on through the swingby.

The goal of the swingby is to assist Rosetta to ultimately reach [comet 67P/Churyumov-Gerasimenko](#) for its prime mission. Accordingly, [spacecraft](#) operations will have priority over science activities on 13 November.

During the two nights before closest approach (13 November) and one night afterwards, members of the [Rosetta](#) team will conduct observations from ESA's Optical Ground Station in Tenerife, Spain. They will also carry out an experiment to investigate whether a laser beam can be detected by OSIRIS.

Provided by European Space Agency ([news](#) : [web](#))

Citation: Rosetta approach on schedule (2009, November 6) retrieved 2 May 2024 from
<https://phys.org/news/2009-11-rosetta-approach.html>

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