

Chances 'fair' for Philae contact: ground controllers

November 3 2015



This picture released by the European Space Agency on December 20, 2013 of an artist's impression of Rosetta's lander Philae on the surface of comet 67P/Churyumov-Gerasimenko

Chances are "fair" for renewed contact with Europe's robot lab Philae, hurtling through space perched on a comet, a ground controller said Tuesday, four months after the tiny lander fell silent.

"There is indeed a fair chance again to reestablish contact with the lander. Let's say 50-50," project manager Stephan Ulamec of German

[space agency](#) DLR told AFP.

Philae touched down on [comet](#) 67P/Churyumov-Gerasimenko on November 12 last year after a 10-year, 6.5-billion-kilometre (four-billion-mile) journey through space, piggybacking on European spacecraft Rosetta.

The landing was rough, and the robot tumbled into a ditch shadowed from the Sun's battery-recharging rays.

After three days of comet sniffing and prodding, its power ran out, and Philae went into hibernation on November 15.

But as 67P drew closer to the Sun on its elliptical orbit, Philae recharged and woke up on June 13.

It made eight intermittent contacts with Earth via its orbiting mothership, only to fall silent again on July 9.

The washing machine-sized robot's current status is unknown.

'Reasonably optimistic'

In July, controllers expressed fears that Philae may have shifted on the rough, alien surface, out of radio range.

Another risk was that its solar panels may be covered in the dust blasting off 67P around the time of its closest approach to the Sun in August.

Contact was possible "only if not too much dust has fallen on the solar generators, which is difficult to estimate, and if the communication system is working properly," said Ulamec.

It is quite possible that Philae is awake without anyone knowing.

Rosetta has had to move further away, out of radio range, to prevent damage to its navigation system from the outpouring of dust from 67P as it shaved past the Sun.

At a distance of some 300 kilometres (186 miles) from the comet—compared to less than 10 km at its closest last October—Rosetta was too far away to communicate with Philae.

"The comet has been less active since September, and conditions are more favourable moving closer," said Sylvain Lodiot, Rosetta operations manager at the European Space Agency.

On Tuesday, the orbiter was at a distance of about 270 km from the comet, and will continue descending until about 200 km, if all goes well.

"We are preparing for fresh contact with Philae," said Philippe Gaudon, Rosetta project manager at French space agency CNES.

"We are reasonably optimistic," he added.

The window for contact should remain open until about the end of the year.

"End of December or January we start reaching an area too far away from the Sun to be able to communicate," said Ulamec.

The ground-breaking Rosetta mission was conceived to learn more about the origins of life on Earth.

Some experts believe comets smashed into our infant planet, providing it with precious water and the [chemical building blocks](#) for life.

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