Philae: Lost comet lander is found

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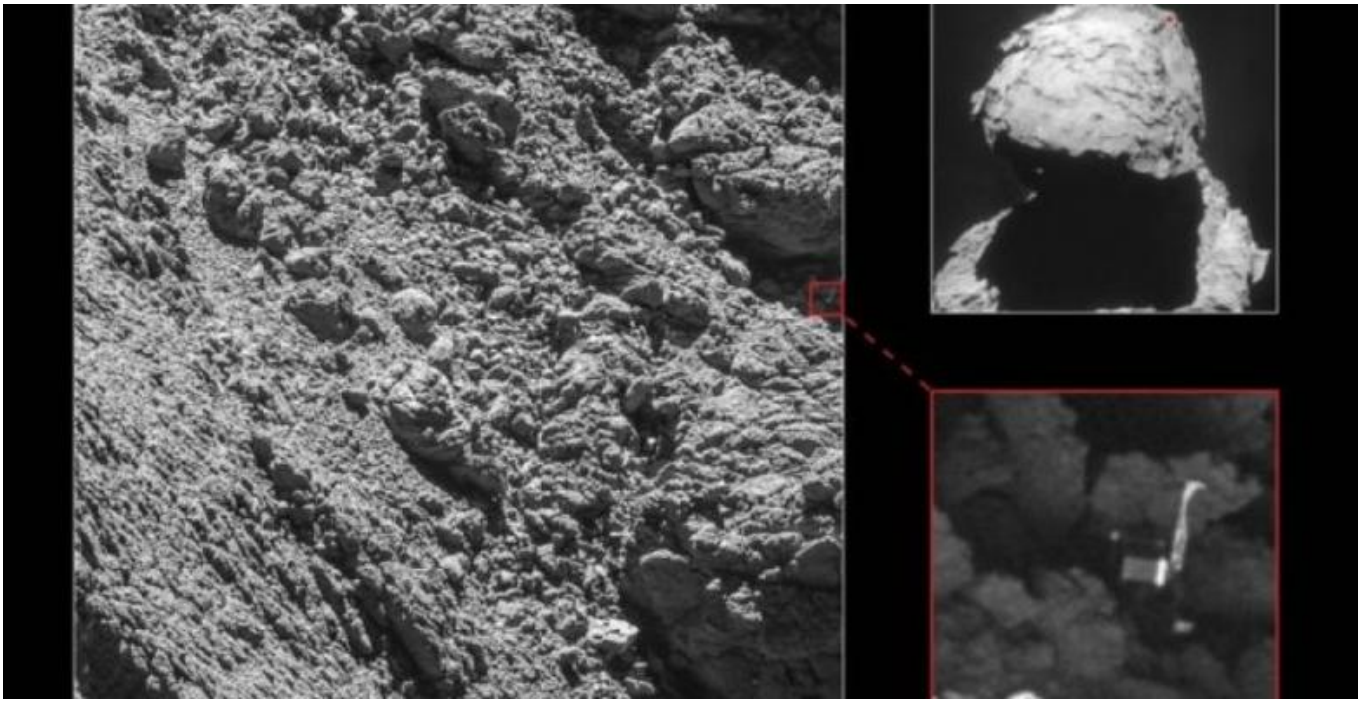

Europe's comet lander Philae has been found.

The little robot is visible in new images downloaded from the Rosetta probe in orbit around the icy dirt-ball 67P/Churyumov-Gerasimenko.

European Space Agency (Esa) officials say there is no doubt about the identification - "it's as clear as day", one told the BBC.

Philae was dropped on to the comet by Rosetta in 2014 but fell silent 60 hours later when its battery ran flat.

Although it relayed pictures and data about its location to Earth, the lander's actual resting place was a mystery.

It was assumed Philae had bounced into a dark ditch on touchdown - an analysis now borne out by the latest pictures, which were acquired from a distance of 2.7km from the icy body.

Wait after comet landing 'bounce'

The images from Rosetta's high-resolution Osiris camera were downlinked to Earth late on Sunday night, and have only just been processed.

Philae is seen wedged against a large over-hang. Its 1m-wide box shape and legs are unmistakable, however.

Rosetta had previously surveyed this location - dubbed Abydos - without success.

"Candidate detections" were made but none were very convincing.

The difference today is a closer-in perspective and a change in the seasons on the comet, which means the hiding place is now better illuminated.

The discovery comes just a few weeks before controllers plan to crash-land Rosetta itself on to the comet to formally end its mission.

"With only a month left of the Rosetta mission, we are so happy to have finally imaged Philae, and to see it in such amazing detail," says Cecilia Tubiana from the Osiris team.

Although there is no hope of reviving the lander - some of its equipment will have been broken in the cold of space - simply knowing its precise resting place will help scientists make better sense of the data it returned during its three days of operation back in 2014.

"This wonderful news means that we now have the missing 'ground-truth' information needed to put Philae's three days of science into proper context, now that we know where that ground actually is!" said Matt Taylor, Esa's Rosetta project scientist.