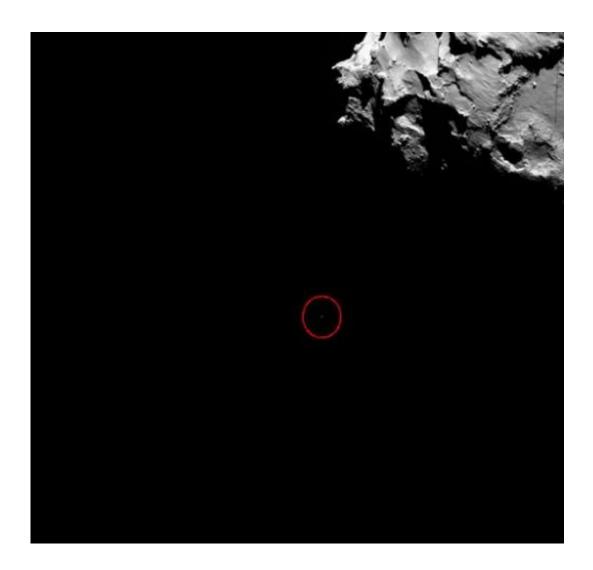


No signals heard from comet lander Saturday

November 15 2014, by Kirsten Grieshaber



Rosetta's OSIRIS wide-angle camera image released by the European Space Agency ESA on Thursday Nov. 13, 2014 shows the position of Rosetta's lander Philae Wednesday, before it landed on the surface of Comet 67P/Churyumov-Gerasimenko. Source digitally added a circle to mark the landers location. The lander scored a historic first Wednesday, touching down on comet 67P/Churyumov-Gerasimenko after a decade-long, 6.4 billion-kilometer (4 billion-mile) journey through space aboard its mother ship, Rosetta. The comet



is streaking through space at 41,000 mph (66,000 kph) some 311 million miles (500 million kilometers) from Earth. (AP Photo/Esa/Rosetta/Philae)

The European Space Agency received no signals from the Philae lander Saturday morning during a scheduled effort to establish communication, the mission chief said.

Paolo Ferri, ESA's head of mission operations, told The Associated Press, that the Rosetta orbiter did not get any signals from the <u>lander</u> on <u>comet</u> 67P/Churyumov-Gerasimenko.

ESA on Friday ordered a rotating operation to pull the lander out of a shadow so that solar panels could recharge the depleted batteries.

Even if that operation was successful, it may take days or weeks until the batteries of Philae are strong enough to send signals again.

"We don't know if the charge will ever be high enough to operate the lander again," Ferri told The AP ahead of the 1000GMT (5 a.m. EST) listening time.

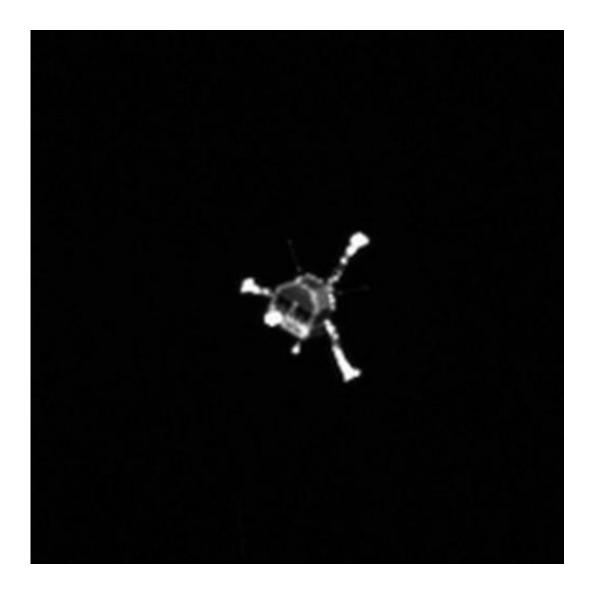
"It is highly unlikely that we will establish any kind of communication any time soon, but nevertheless the orbiter will continue to listen for possible signals."

On Wednesday, Philae landed next to a cliff that largely blocked sunlight from reaching its <u>solar panels</u>.

The historic landing climaxed a 10-year journey aboard the Rosetta space probe. Since alighting on the comet, some 311 million miles (500 million kilometers) distant from Earth, the lander has performed a series



of tests and sent back reams of data, including photos.



This image from Rosetta's OSIRIS narrow-angle camera, released by the European Space Agency ESA on Nov. 13, 2014 shows the Philae lander on Nov. 12, 2014 Philae landed Nov. 12, next to a cliff that largely blocked sunlight from reaching its solar panels on the 4-kilometer-wide (2.5-mile-wide) 67P/Churyumov-Gerasimenko comet. The head of the European comet mission says scientists will listen for signals from the Philae lander Saturday Nov. 15, 2014 but think it is unlikely they will establish any kind of communication soon. Controllers at the European Space Agency on Friday ordered the lander to perform a maneuver intended to pull it out of a shadow on the comet so that solar panels could recharge the depleted batteries. "We don't know if the charge



will ever be high enough to operate the lander again," Paolo Ferri, ESA's head of mission operations, told The Associated Press. (AP Photo/ESA,File)

On Friday, the spacecraft was given commands to rotate itself to catch more sunlight and to drill a hole into the comet. ESA announced—prematurely, it turned out—that the hole had been drilled 25 centimeters (10 inches) into the comet's surface

"We know that all the movements of the operation were performed and all the data was sent down," Ferri said Saturday. "However, at this point we do not even know if it really succeeded and if it (the drill) even touched the ground during the drilling operation."

Material beneath the surface of the comet has remained almost unchanged for 4.5 billion years, so the samples would be a cosmic time capsule that scientists are eager to study.

Scientists hope the \$1.6 billion (1.3 billion-euro) project will help answer questions about the origins of the universe and life on Earth.

One of the things they are most excited about is the possibility that the mission might help confirm that comets brought the building blocks of life—organic matter and water—to Earth. They already know that comets contain <u>amino acids</u>, a key component of cells. Finding the right kind of amino acids and water would be an important hint that life on Earth did come from space.

Scientists say they already have gathered huge amounts of data and are calling the first-ever comet landing a roaring success.

"Let's stop looking at things that we could have done if everything had



worked properly," flight director Andrea Accomazzo said Friday. "Let us look at things that we have done, what we have achieved and what we have on the ground. This is unique and will be unique forever."

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