

Rosetta the Comet Hunter Arrives At Its Target

By [Jeremy Wilks](#)

July 31, 2014

A note from Pastor Kevin Lea follows these two articles.



Space history is being made in our solar system this summer as ESA's Rosetta spacecraft catches up with a comet and begins to orbit around it for the very first time. The space probe has spent a decade flying around the planets, gaining enough speed and the right trajectory to rendezvous perfectly with the icy mass of comet 67P/Churyumov-Gerasimenko. This week it moves into position, and becomes the first man-made object ever to fly alongside a comet as it speeds towards the Sun, grabbing some stunning photographs and revealing science data in the process.

Those pictures have already shown the comet is quite unlike the scientists had expected. When the Hubble Space Telescope shot a distant view of 67P over a decade ago it looked like a squashed football – pretty much the 'normal' shape of the average comet – but the images from Rosetta's cameras taken in the past few days have revealed a very odd comet that looks quite a lot like the shape of a rubber duck.

The scientists still aren't sure why it has such a strange form, but a few different theories have already emerged. For example, it could be that 67P was made from two lumps of primordial material colliding in the early era of our solar system, rather than one lump of aggregated material, or it could be that an impact with another body could have deformed it, or it may be that there is a difference in mass and therefore gravity in the comet that means it is such a weird shape.

Currently Rosetta is flying close to 67P way out near Jupiter – you can see it's rather amazing journey [in this interactive map from ESA](#) – and it will follow the comet as it approaches the inner solar system, observing how the ice and dust of the comet is heated by the Sun and in so doing, getting a much better idea of what's inside. That will help scientists to better understand what our early solar system was made from.

The daring, complex and pioneering nature of the Rosetta mission means that it is now considered one of the most exciting missions of recent space history, and the saga of this particular spacecraft is likely to become even more thrilling later in 2014. In November, if everything goes to plan, Rosetta will release a small lander, called Philae, which should touch down on the surface of 67P, drill itself into the ice, and then start taking photographs and scientific measurements on the actual surface of the comet.

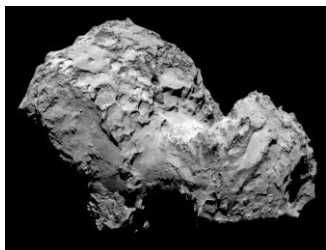
Before that extraordinary maneuver can even be attempted, the flight engineers and scientists will have to ...

To read this article in its entirety:

<http://euronews.com/2014/07/31/rosetta-the-comet-hunter-arrives-at-its-target/>

Rosetta Arrives – And Sends Images of 'Superstar Comet'

August 2014, by [Jacob Aron](#)



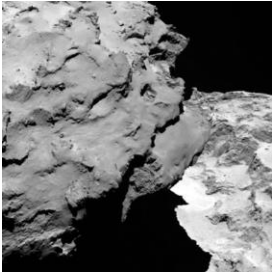
(Image: ESA/Rosetta/MPS for OSIRIS Team MPS/UPD/LAM/IAA/SSO/INTA/UPM/DASP/IDA)

"Rosetta is the sexiest space mission that has ever been," said European Space Agency mission scientist Matt Taylor. He was speaking as the Rosetta probe finally arrived at comet 67P/Churyumov-Gerasimenko after a ten-year mission.

Others were scarcely more reserved. "It is the most crazy bonkers superstar comet in the

solar system," said ESA senior scientific adviser Mark McCaughrean. "We have won the gold medal with this comet – it is an astonishing object."

[Rosetta has travelled 400 million kilometres](#) to reach 67P, and now begins a 16-month mission to study it in detail. Cameras on board the probe have already revealed 67P to be a comet of two halves, [with a shape some have compared to a rubber duck](#), and there is much more to learn. Comets are the frozen leftovers from the formation of the solar system, so they can teach us about the origin of water and other molecules necessary for life on Earth.



(Image: ESA/Rosetta/MPS for OSIRIS Team MPS/UPD/LAM/IAA/SSO/INTA/UPM/DASP/IDA)

The probe executed its final manoeuvre at around 9am GMT today, firing its thrusters to match 67P's speed. Roughly 23 minutes later, ESA technicians at the European Space Operations Centre in Darmstadt, Germany, received confirmation that everything had gone smoothly. "We have never seen the temperature of the thruster going as cleanly as today. It is a fantastic result," said Rosetta flight director Andrea Accomazzo.

Since the comet is only around 4 kilometres wide its gravity is very low, meaning [Rosetta will initially have to travel in an unusual triangle-shaped orbit](#). It will start at a distance of 100 kilometres in order to learn more about 67P's weird shape, before moving in for a closer look. "It's like entering a chaotic town with a lot of traffic where the signs are confusing," said Accomazzo.

"What a wonderful moment. We're there, we've arrived, 10 years we've been in the car waiting to arrive at scientific Disneyland," said McCaughrean. Now the ESA team must identify a landing site for Philae, a smaller probe that has ridden with Rosetta and will touch down on the comet's surface later this year and drill 23 centimetres into its surface. "The big roller coaster awaits us in November – that's the scary ride to go on."

ESA has already performed a [preliminary analysis of landing sites](#), which lie mostly on the "head and shoulders" of the duck, said Philae manager Stephan Ulamec. The comet's density and the roughness of its surface will be a factor in the choice of landing site, as is the changing illumination from the sun. "We want to have a clear day-night cycle for scientific reasons." ESA can't control Philae once it is released from Rosetta, so it will land somewhere in a 1-square-kilometre chosen area.

Rosetta and Philae are equipped with a total of 21 scientific instruments set to analyse the comet as it approaches the sun, heating up and releasing gas to form a lengthy tail, right up until August next year when...

To read this article in its entirety:

<http://www.newscientist.com/article/dn26006-rosetta-arrives--and-sends-images-of-superstar-comet.html#.U-UpFKMqN8N>

Note from Pastor Kevin Lea: *This mission is truly amazing. The complexity required to navigate this probe to the comet's exact location is without comparison in space mission history. Be sure to click on the interactive map link in the first article above, which shows why it has taken ten years. The scientists express surprise at the strange form of the comet. Their surprise is odd to me, considering it is much like other asteroids and comets we've photographed, which look like two masses joined together or with orbiting moons. But such shapes and orbiting moons are incompatible with secular science and its evolutionist theory that comets were formed during the "Big Bang." What if, however, the Big Bang did not create comets, asteroids, and meteors?*

*An alternative theory is proposed by Dr. Walt Brown (www.creationscience.com). Those who follow his work are not surprised by these shapes and moons, because they are **predicted** by the theory. Those with some physics background should be able to follow and appreciate what Dr. Brown proposes online at: [Origin of Comets](#) and [Origin of Asteroids](#).*