

Portrait Earth: Wave at Saturn and Cassini

July 19

July 16 2013

Smile and say, "Cosmic cheese!" From 898 million miles away, NASA's Cassini-Huygens spacecraft will snap a portrait of Earth July 19 from between Saturn's rings as North America and the Atlantic Ocean repose on the sunny side of Earth.

"It's a unique opportunity to see our home planet in the context of its vast surroundings and to contemplate our place in the universe," said Matt Tiscareno, a senior research associate with Cornell's Center for Radiophysics and Space Research and a Cassini science team member.

Cornell and the Ithaca Sciencenter invite the public for this free interplanetary portrait shoot and to hear presentations July 19 from Cornell astronomers. The lectures start at 3:30 p.m. at the Sciencenter, 601 First St. After the talks, participants can wave at the Cassini camera beginning at 5:27 p.m., the moment Cassini first frames Earth in Saturn's rings. The cosmic photography lasts about 15 minutes.

Unlike two previous Cassini eclipse mosaics of the Saturn system – one in 2006, which captured Earth, and another in 2012 – the July 19 image will be the first to capture the Earth in natural color, as human eyes on Saturn would see it. It also will be the first to capture Earth and its moon with Cassini's highest-resolution camera.

The images serve a scientific purpose: "We're particularly interested in seeing the effects of Saturn's magnetic field and solar [radiation pressure](#) and the structures within Saturn's dusty E ring, which is generated by

Saturn's moon Enceladus," said Matt Hedman, Cornell astronomy research associate and a Cassini science team member.

The images will continue a NASA legacy of space-based images of Earth, including the 1968 "Earthrise" image taken by the Apollo 8 moon mission from about 240,000 miles away and the 1990 "Pale Blue Dot" image taken by Voyager 1 from about 4 billion miles away.

The Cassini-Huygens mission is a cooperative project of NASA, the European Space Agency and the Italian Space Agency. Launched in 1997, Cassini entered Saturn orbit in 2004. Its mission is planned to conclude in 2017, after it has observed a half-cycle of Saturn's seasons.

Provided by Cornell University

Citation: Portrait Earth: Wave at Saturn and Cassini July 19 (2013, July 16) retrieved 9 September 2024 from <https://phys.org/news/2013-07-portrait-earth-saturn-cassini-july.html>

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