

Saturn's geyser moon shines in close flyby views

November 1 2015



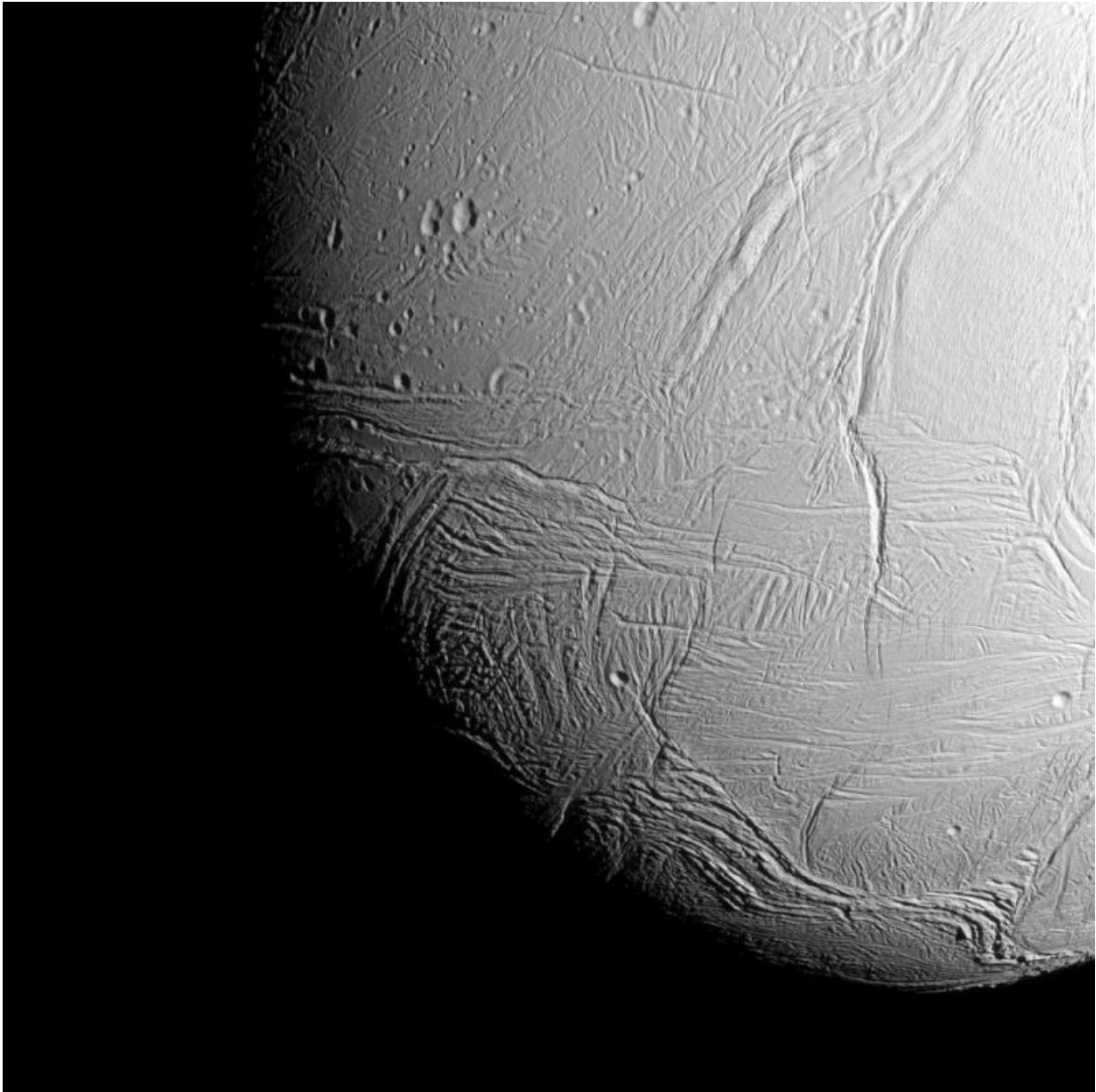
This unprocessed view of Saturn's moon Enceladus was acquired by NASA's Cassini spacecraft during a close flyby of the icy moon on Oct. 28, 2015. Credit: NASA/JPL-Caltech/Space Science Institute

NASA's Cassini spacecraft has begun transmitting its latest images of Saturn's icy, geologically active moon Enceladus, acquired during the dramatic Oct. 28 flyby in which the probe passed about 30 miles (49 kilometers) above the moon's south polar region. The spacecraft will continue transmitting its data from the encounter for the next several days.

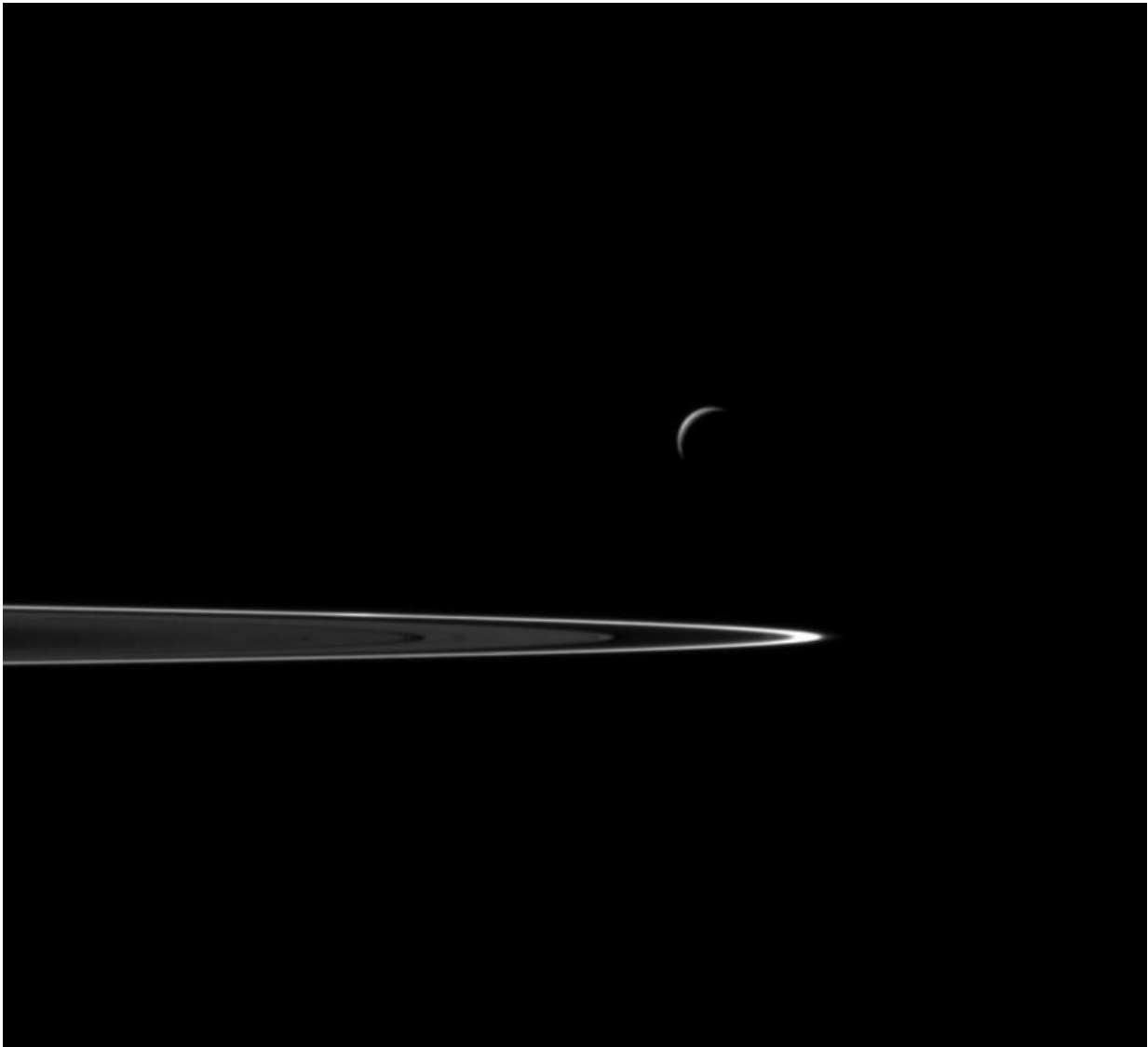
"Cassini's stunning images are providing us a quick look at Enceladus from this ultra-close [flyby](#), but some of the most exciting science is yet to come," said Linda Spilker, the mission's project scientist at NASA's Jet Propulsion Laboratory in Pasadena, California.

Researchers will soon begin studying data from Cassini's gas analyzer and dust detector instruments, which directly sampled the moon's plume of gas and dust-sized icy particles during the flyby. Those analyses are likely to take several weeks, but should provide important insights about the composition of the global ocean beneath Enceladus' surface and any [hydrothermal activity](#) occurring on the ocean floor. The potential for such activity in this small [ocean](#) world has made Enceladus a prime target for future exploration in search of habitable environments in the solar system beyond Earth.

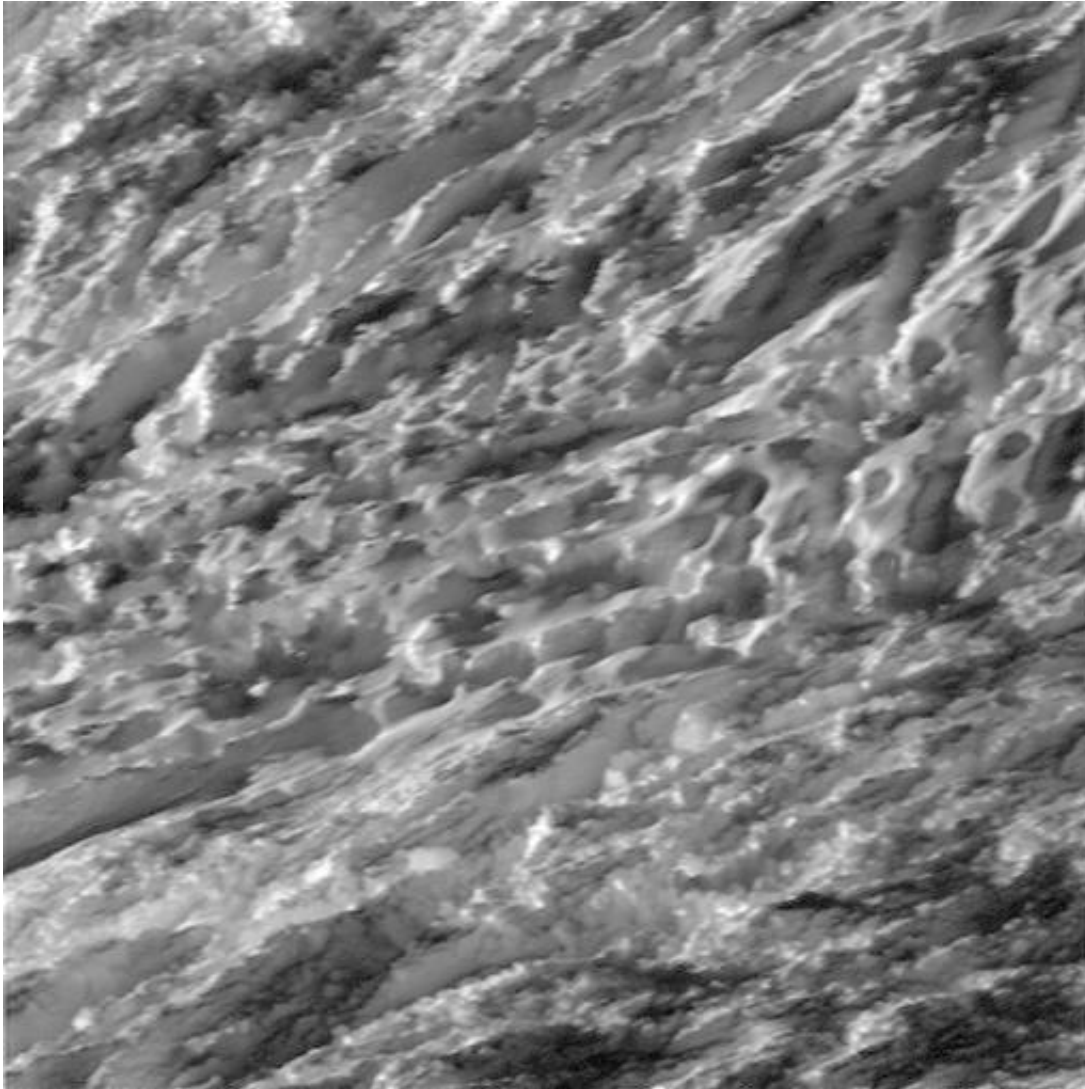
Cassini's next and final close Enceladus flyby will take place on Dec. 19, when the spacecraft will measure the amount of heat coming from the moon's interior. The flyby will be at an altitude of 3,106 miles (4,999 kilometers).



The south polar region of Saturn's active, icy moon Enceladus awaits NASA's Cassini spacecraft in this view, acquired on approach to the mission's deepest-ever dive through the moon's plume of icy spray. Credit: NASA/JPL-Caltech/Space Science Institute



Following a successful close flyby of Enceladus, NASA's Cassini spacecraft captured this artful composition of the icy moon with Saturn's rings beyond. Credit: NASA/JPL-Caltech/Space Science Institute



During its closest ever dive past the active south polar region of Saturn's moon Enceladus, NASA's Cassini spacecraft quickly shuttered its imaging cameras to capture glimpses of the fast moving terrain below. Credit: NASA/JPL-Caltech/Space Science Institute

More information: solarsystem.nasa.gov/finalflybys

Provided by Jet Propulsion Laboratory

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