

Saturn and Mimas on Nature's Canvas

December 4 2004



In a splendid portrait created by light and gravity, Saturn's lonely moon Mimas is seen against the cool, blue-streaked backdrop of Saturn's northern hemisphere. Delicate shadows cast by the rings arc gracefully across the planet, fading into darkness on Saturn's night side.

Image credit: NASA/JPL/Space Science Institute

The part of the atmosphere seen here appears darker and more bluish than the warm brown and gold hues seen in Cassini images of the southern hemisphere, due to preferential scattering of blue wavelengths

by the cloud-free upper atmosphere.

The bright blue swath near Mimas (398 kilometers, or 247 miles across) is created by sunlight passing through the Cassini division (4,800 kilometers, or 2,980 miles wide). The rightmost part of this distinctive feature is slightly overexposed and therefore bright white in this image. Shadows of several thin ringlets within the division can be seen here as well. The dark band that stretches across the center of the image is the shadow of Saturn's B ring, the densest of the main rings. Part of the actual Cassini division appears at the bottom, along with the A ring and the narrow, outer F ring. The A ring is transparent enough that, from this viewing angle, the atmosphere and threadlike shadows cast by the inner C ring are visible through it.

Images taken with red, green and blue filters were combined to create this color view. The images were obtained with the Cassini spacecraft narrow angle camera on Nov. 7, 2004, at a distance of 3.7 million kilometers (2.3 million miles) from Saturn. The image scale is 22 kilometers (14 miles) per pixel.

The Cassini-Huygens mission is a cooperative project of NASA, the European Space Agency and the Italian Space Agency. The Jet Propulsion Laboratory, a division of the California Institute of Technology in Pasadena, manages the Cassini-Huygens mission for NASA's Science Mission Directorate, Washington, D.C. The Cassini orbiter and its two onboard cameras were designed, developed and assembled at JPL. The imaging team is based at the Space Science Institute, Boulder, Colo.

Source: NASA/JPL/Space Science Institute

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