

NASA image: Pluto's haze in bands of blue

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Credit: NASA/JHUAPL/SwRI

This processed image is the highest-resolution color look yet at the haze layers in Pluto's atmosphere. Shown in approximate true color, the picture is constructed from a mosaic of four panchromatic images from the Long Range Reconnaissance Imager (LORRI) splashed with Ralph/Multispectral Visible Imaging Camera (MVIC) four-color filter data, all acquired by NASA's New Horizons spacecraft on July 14, 2015. The resolution is 0.6 miles (1 kilometer) per pixel; the sun illuminates



the scene from the right.

Scientists believe the haze is a <u>photochemical smog</u> resulting from the action of sunlight on methane and other molecules in Pluto's atmosphere, producing a complex mixture of hydrocarbons such as acetylene and ethylene. These hydrocarbons accumulate into small particles, a fraction of a micrometer in size, and scatter sunlight to make the bright blue haze seen in this image.

As they settle down through the atmosphere, the haze particles form numerous intricate, horizontal layers, some extending for hundreds of miles around Pluto. The haze layers extend to altitudes of over 120 miles (200 kilometers).

Adding to the stark beauty of this image are mountains on Pluto's limb (on the right, near the 4 o'clock position), surface features just within the limb to the right, and crepuscular rays (dark finger-like shadows to the left) extending from Pluto's topographic features.

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