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**First glimpse of the surface of Saturn's moon Titan**

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First detailed global image of Titan taken by the VIMS spectrometer

Pasadena/Cologne/Berlin – Saturn's moon Titan features some strikingly different surface characteristics, as can be seen from this first global, richly detailed image from the VIMS (Visible and Infrared Imaging Spectrometer) on board the US/European space probe Cassini-Huygens. The German Aerospace Center (DLR) in Berlin-Adlershof, is directly involved in this experiment through Dr Ralf Jaumann from the DLR's Institute for Planetary Research.

A large methane cloud can be seen in the atmosphere over Titan's south pole. The moon, which is more than 5000 kilometres across, is surrounded by an aurora (shown here in green) containing very fine methane droplets known as 'aerosols' in the stratosphere, reaching up to 200 kilometres into space. The question of how the different surface characteristics should be interpreted is currently being studied by the VIMS team at the University of Arizona in Tucson. Dr Ralf Jaumann from the DLR is a member of this team.

The enlarged square image shows roughly the area where the European landing probe Huygens is due to touch down on the surface of Titan on 14 January 2005. Huygens will separate from Cassini on 25 December 2004 and coast towards Saturn's satellite on a ballistic trajectory, penetrating its cloudy atmosphere, its descent being slowed by parachutes before landing on Titan.

The data for this image were gathered during the Cassini-Huygens close fly-by on 26 October 2004 from a distance of between 100 000 kilometres and 140 000 kilometres. This was about two hours before the probe reached the closest yet point to the cloud-enveloped moon, just 1200 kilometres from the surface. The image shows the data recorded by three different infrared filters in the wavelengths 2.0 microns (thousandths of a millimetre), 2.7 microns and 5.0 microns. These wavelengths were then made visible to the human eye in the blue, red and green channels.

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