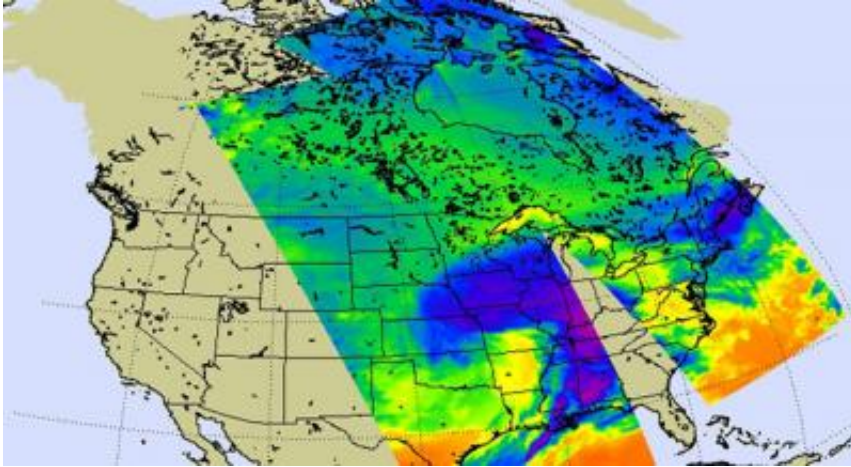


NASA satellite captures U.S. 'Big Chill'

February 2 2011



This composite infrared image of the continental United States was taken by the Atmospheric Infrared Sounder (AIRS) instrument on NASA's Aqua spacecraft on Feb. 1, 2011. Image credit: NASA/JPL-Caltech

(PhysOrg.com) -- The current winter storm system blasting much of the United States is depicted in this new NASA satellite image from the Atmospheric Infrared Sounder (AIRS) instrument on NASA's Aqua satellite.

The image, a composite of AIRS data swaths taken on Feb. 1, 2011, highlights the preponderance of cold air blanketing Canada and the northern U.S. The coldest air is depicted in purples, blues and greens.

AIRS was built and is managed by NASA's Jet Propulsion Laboratory, Pasadena, Calif.

The AIRS data create an accurate 3-D map of atmospheric temperature, water vapor and [clouds](#), data that are useful to forecasters. The image shows the temperature of the storm's cloud tops or the surface of Earth in cloud-free regions. The coldest cloud-top temperatures appear in purple, indicating towering cold clouds and heavy precipitation. The infrared signal of AIRS does not penetrate through clouds. Where there are no clouds, AIRS reads the infrared signal from the surface of the ocean waters, revealing warmer temperatures in orange and red.

AIRS observes and records the global daily distribution of temperature, water vapor, clouds and several atmospheric gases including ozone, methane and carbon monoxide.

More information: For more on AIRS, see airs.jpl.nasa.gov/

Provided by JPL/NASA

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