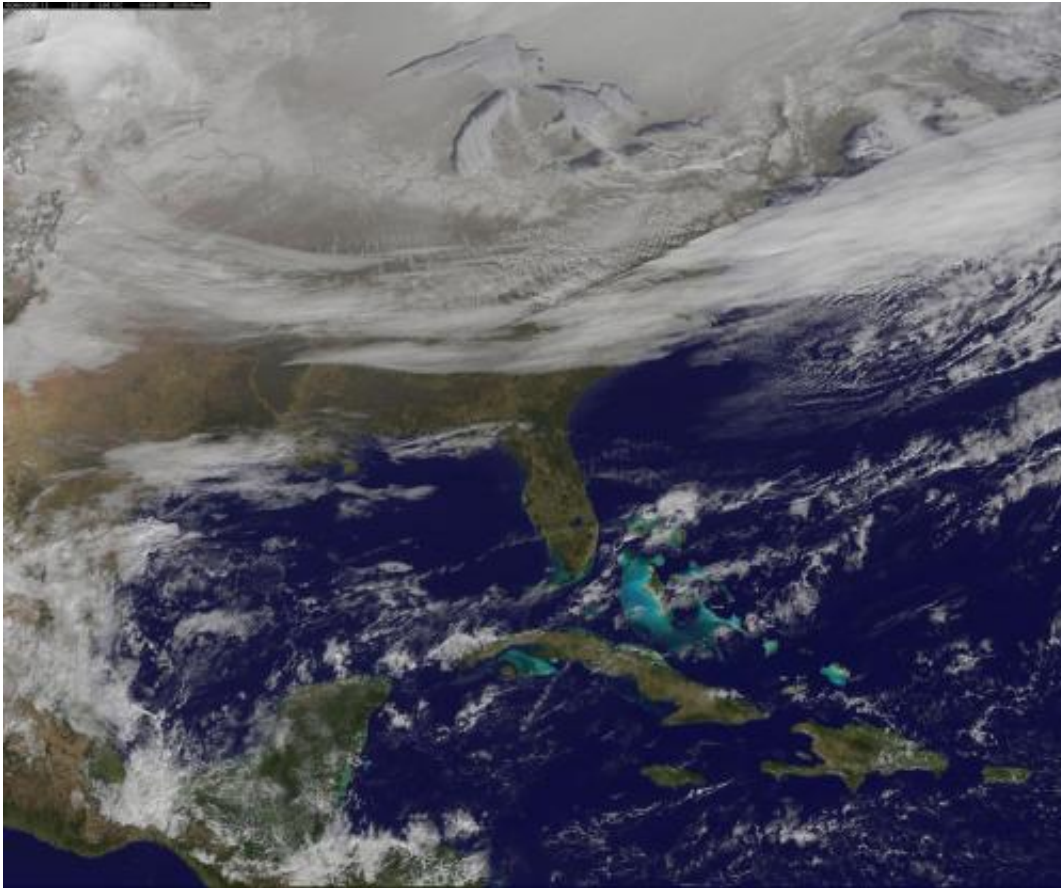


Satellite shows the snow-covered US deep freeze

January 7 2015, by Rob Gutro



NOAA's GOES-East satellite provided a look at the frigid eastern two-thirds of the US on Jan. 7, 2015, that shows a blanket of northern snow, lake-effect snow from the Great Lakes and clouds behind the Arctic cold front. Credit: NASA/NOAA GOES Project

NOAA's GOES-East satellite provided a look at the frigid eastern two-thirds of the U.S. on Jan. 7, 2015, that shows a blanket of northern snow, lake-effect snow from the Great Lakes and clouds behind the Arctic cold front.

A visible picture captured at 1600 UTC (11 a.m. EST) showed the effects of the latest Arctic outbreak. The cold front that brought the Arctic air has moved as far south as Florida, and stretches back over the Gulf of Mexico and just west of Texas today. The image shows clouds behind the frontal boundary stretching from the Carolinas west over the Heartland. Farther north, a wide band of fallen snow covers the ground from New England west to Montana, with rivers appearing like veins. The GOES-East satellite image also shows wind-whipped lake-effect snows off the Great Lakes, blowing to the southeast. Meanwhile, Florida, the nation's warm spot appeared almost cloud-free.

To create the image, NASA/NOAA's GOES Project used cloud data from NOAA's GOES-East satellite and overlaid it on a true-color image of land and ocean created by data from the Moderate Resolution Imaging Spectroradiometer, or MODIS, instrument that flies aboard NASA's Aqua and Terra satellites. Together, those data created the entire picture of the Arctic outbreak.

The forecast from NOAA's National Weather Service Weather Prediction Center (WPC) calls for more snow along the Appalachian Mountains from Tennessee north to upstate New York. Snow is also expected to fall from New England west to Montana, and in eastern New Mexico and the Colorado Rockies. The WPC summary for Jan. 7 noted: Bitter cold will be felt from the western High Plains to the Mid-Atlantic and Northeast U.S. for the next few days. Widespread subzero overnight lows are forecast for the Dakotas, Upper Midwest, Great Lakes, and interior New England. Wind Chill Advisories and Warnings are in effect for many of these areas.

GOES-East provides visible and infrared images over the eastern U.S. and the Atlantic Ocean from its fixed orbit in space. NOAA's GOES satellites provide the kind of continuous monitoring necessary for intensive data analysis. Geostationary describes an orbit in which a satellite is always in the same position with respect to the rotating Earth. This allows GOES to hover continuously over one position on Earth's surface, appearing stationary. As a result, GOES provide a constant vigil for the atmospheric triggers for severe weather conditions such as tornadoes, flash floods, hail storms and hurricanes.

Provided by NASA's Goddard Space Flight Center

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