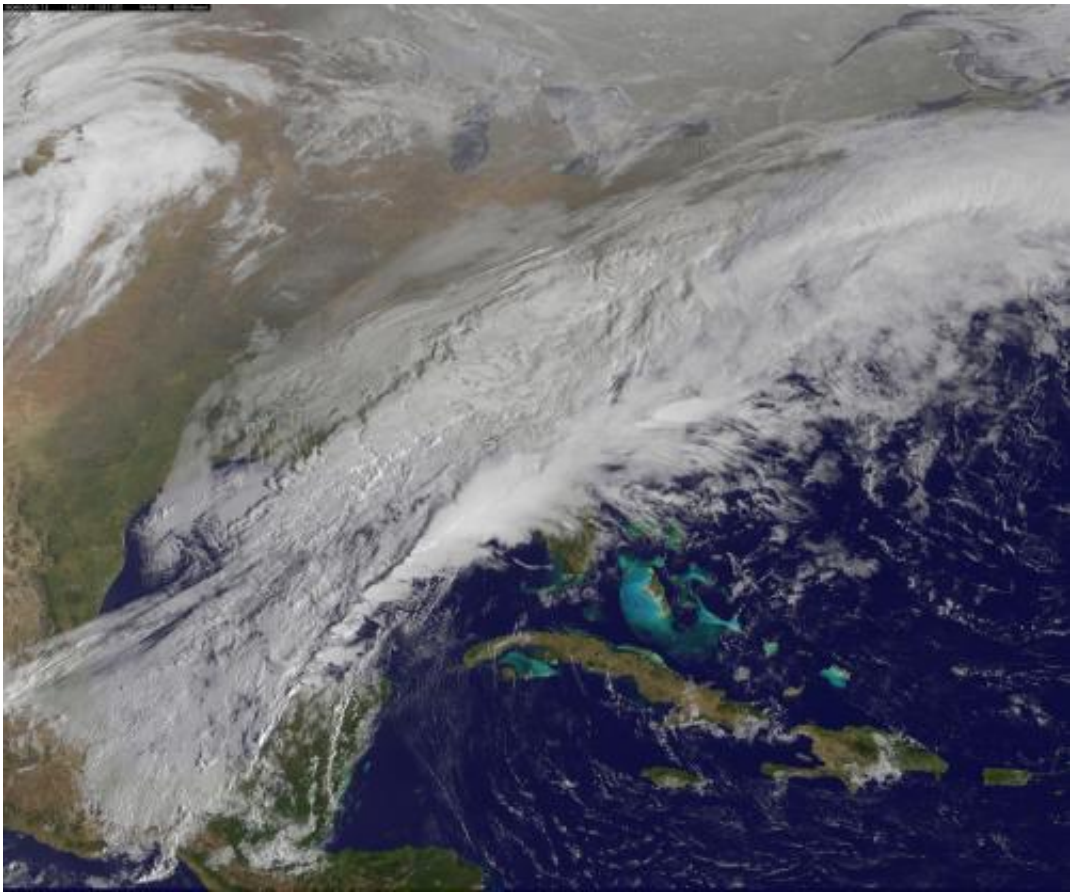
Satellite movie shows a Mid-Atlantic St. Patrick's Day snow

March 18 2014, by Rob Gutro



This animation of NOAA's GOES satellite data shows the progression of another major winter storm over the U.S. Mid-Atlantic on March 16 and 17. Credit: NASA/NOAA GOES Project, Dennis Chesters

The green of St. Patrick's Day in the Mid-Atlantic was covered by white

snow as a result of a late winter snow storm. The covering of the green was captured in a movie made at NASA using NOAA's GOES satellite data.

The winter storm dropped snow totals from 6" to 12" of snow from Baltimore, Md. to Richmond, Va. The storm arrived during the evening of March 16 and continued through March 17. As of 1 p.m. EDT, light bands of snow continued to fall throughout the Washington, D.C. area.

NOAA's GOES-East satellite captured the path the storm took through the Mid-Atlantic as it moved in from the west on March 15 and dropped snow March 16 and 17. NOAA's GOES-East satellite sits in a fixed orbit in space and captures visible and infrared imagery of all weather over the eastern U.S. and Atlantic Ocean.

GOES-East imagery from March 15 at 13:45 UTC/9:45 a.m. EDT to March 17 at 13:41 UTC/9:41 a.m. EDT was compiled into a 21 second video made by NASA/NOAA's GOES Project at NASA's Goddard Space Flight Center in Greenbelt, Md.

In the video at the time stamp of March 16 at 14:45 UTC/10:45 a.m. EDT, clouds associated with the weather system had begun to spread over the Mid-Atlantic. By 20:00 UTC/6 p.m. EDT the first snowflakes were reported in Washington, D.C.

As of 1 p.m. EDT on March 17, the National Weather Service still maintained a Winter Storm Warning from Cecil County in northeastern Maryland that stretched west to Frederick County. The warning continued in Virginia counties including Clarke, Warren, Rappahannock, Madison and stretched to Albemarle and southwest. Southeastern counties in Virginia south of the city of Fredericksburg remained under a Winter Weather Advisory.

To create the video and imagery, NASA/NOAA's GOES Project takes the cloud data from NOAA's GOES-East satellite and overlays 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 storm and show its movement. After the storm system passes, the snow on the ground becomes visible.

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

Citation: Satellite movie shows a Mid-Atlantic St. Patrick's Day snow (2014, March 18) retrieved 24 April 2024 from https://phys.org/news/2014-03-satellite-movie-mid-atlantic-st-patrick.html