

GOES satellite follows tracks of powerful U.S. storm

April 28 2011, By Rob Gutro

A powerful storm system with a history of severe weather continues to march across the U.S. and toward the east coast today. The low and associated cold front was captured in a two-day animation of GOES-13 satellite imagery.

This movie was created using [satellite imagery](#) from April 25 at 1515 UTC (11:15 a.m. EDT) to April 27 at 1515 UTC from GOES-13 (Geostationary Operational Environmental Satellite). It shows the clouds associated with the low pressure area and cold front moving through the Mississippi and Ohio Valleys into the Tennessee Valley and eastward. The animation of imagery shows clouds associated with lines of powerful thunderstorms on April 25 and 26. On the night of the 25, the infrared imagery in the animation revealed that the thunderstorms held together and [severe weather](#) occurred in the central and southern U.S. On the night of the 26, the line faded at night when the daytime heating no longer powered the convection (rapidly rising air that forms the thunderstorms).

Today, April 27, the cold front associated with the low is finally moving across the Mississippi and Ohio valleys as the result of an upper-level jet stream. The NOAA Storms Prediction Center (SPC) notes that "Thunderstorms...some of which may be severe...will continue to fall fast and furious ahead of the advancing cold front." The Storm Prediction Center is forecasting a major severe weather outbreak today and/or tonight.

SPC again noted an area of "High Risk" for severe weather today. At 5:23 EDT today, SPC's website said, "Outbreak of severe thunderstorms and tornadoes expected over parts of the Tennessee valley and southeastern U.S. this afternoon and tonight." Some of the tornadoes may be strong to violent long track tornadoes over the parts of the Tennessee Valley and southeastern U.S. this afternoon and tonight.

In that high risk area today at 12:40 p.m. EDT, 11 counties in western Tennessee were under a severe thunderstorm warning. A tornado watch was also in effect. 16 counties in northwestern Mississippi and 4 counties in southwestern Tennessee were under a flood warning from heavy rainfall. In those counties, National Weather Service Doppler radar indicated that between 2 and 4 inches of rainfall had already fallen in the three hours prior. Flood warnings for several rivers were also in effect, and a flood watch was posted for the region.

The front is expected to move through quickly and clear the Ohio valley by early Thursday. It is forecast by SPC to reach the Atlantic coast by Thursday night.

GOES-13 is operated by the National Oceanic and Atmospheric Administration Images and animations of GOES data are created by NASA's GOES Project, located at NASA's Goddard Space Flight Center, Greenbelt, Md. For more imagery from the NASA GOES Project, visit: goes.gsfc.nasa.gov.

Provided by JPL/NASA

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