

Central Rockies to New England Snowstorm

Nov 26-28, 2019

By: Allison Santorelli, WPC Meteorologist

Meteorological Overview:

A significant winter storm brought heavy snow and gusty winds from much of the Central Rockies to the Upper Great Lakes, as well as northern New England just before Thanksgiving. This same storm system also brought heavy rainfall and strong to severe thunderstorms from parts of the South to the Ohio Valley, with a handful of confirmed tornadoes in Louisiana and Mississippi.

At 12 UTC on 26 November, an upper level low was located over the Central Rockies. Heavy snowfall began overnight in the Rockies and Front Range, and continued through the day on the 26th. By 00 UTC on 27 November, the upper level system ejected out of the Rockies and a closed upper level low developed over the Central Plains. This induced surface cyclogenesis in the lee of the Rockies between 12 UTC and 18 UTC Nov 26th, with a well developed cyclone over the Central Plains by that evening. The surface low strengthened as it tracked across the Central Plains and Upper Midwest, reaching the Upper Great Lakes by 18 UTC on 27 November. To the north and west of the surface low on the 26th into the 27th, heavy snow fell from the Central High Plains to the Upper Mississippi Valley/Great Lakes. The strong pressure gradient surrounding the storm system also brought reported blizzard conditions to portions of the High Plains, with thundersnow reported in southern Nebraska. Even well outside the area of wintry precipitation, gusty winds also impacted many across the Central Plains and the Midwest.

As the upper level low moved into the Northeast overnight on 27 November to 28 November, the main surface low weakened as it lifted through the Great Lakes in favor of a new surface low deepening along the Northeast coast. This brought heavy snowfall to portions of northern New England, and strong to gusty winds across much of the Mid-Atlantic and the Northeast. Snow across Maine came to an end by the afternoon of 28 November as the surface low raced away from the Atlantic coast.

Impacts:

The highest reported snow total from this storm was 40.5 inches on Buckhorn Mountain, located in the foothills west of Fort Collins, CO. Elsewhere across the Central Rockies and High Plains, widespread totals of 8 to 12+ inches of snow were reported. Heavy snow and near blizzard conditions led to many travel delays leading up to the busy Thanksgiving Holiday. Parts of Interstates 70 and 76 in Colorado and Interstate 80 in Wyoming were shut down, and a traffic accident near Vail, CO involving three semi-trucks and a pickup truck killed one person and injured three more. Hundreds of flights were cancelled into and out of Denver International Airport.

Across the Central Plains and Midwest, a swath of 6 to 12 inches, with locally higher amounts, fell from central Nebraska to southern Minnesota and northern Wisconsin. Across parts of the Upper Peninsula of Michigan, between one and two feet of snow fell, likely due in part to additional lake effect enhancement. Daily snowfall records were broken in both Grand Island and Hastings, Nebraska where 8.2" and 7.1" fell, respectively. The snow and resulting road conditions forced closures of many school districts across the region, adding an extra day to Thanksgiving Break for kids. Dozens of flights were cancelled at the Minneapolis/St. Paul Airport on one of the busiest travel days of the year. While snow caused all sorts of problems, the wind was also an issue. In Chicago, wind gusts topping 60 mph knocked wood from a construction site into two cars, injuring one of the drivers. Tens to hundreds of thousands of people lost power as a result of winds across the Upper Midwest.

The storm and strong winds moved into the Northeast on Thanksgiving Day, which forced the lowering of balloons at the annual Macy's Thanksgiving Day parade. One balloon was even ripped by the winds, and knocked over at least one of the balloon handlers, though fortunately no major injuries were reported. To the north, between 6 and 12 inches of snow fell across portions of northern Maine.