

Northeast U.S. Winter Storm

24-25 January, 2017

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Meteorological Overview: During the 24-25 January winter weather event, heavy rain impacted the coastal Northeast while there was widespread snowfall that extended from the Southern Appalachians through the interior of New England. A deepening upper level low moved from the Southeast into the Mid-Atlantic by the morning of 24 January. As this upper level low dug into the Southeast, an occluded surface front moved over this region, which led to a severe weather outbreak. By the morning of 24 January, the axis of the strong, negatively tilted upper level low was over the Mid-Atlantic while a newly formed surface low was located off the Delmarva coast. Throughout the night of 23 January and into the early morning hours of 24 January, heavy rain moved across the Mid-Atlantic and into the Northeast. Meanwhile, heavy snow fell along the southern and central Appalachians. Sleet and freezing rain was also reported in the interior of the Northeast from Pennsylvania to Maine.

The surface low that had formed off the Delmarva coast on the morning of 24 January tracked slowly northeastward along the New England coast during the remainder of the day, ending up just south of Nova Scotia by the morning of 25 January. Precipitation had tapered off through much of the Northeast by this time, but still lingered in Maine. A mix of snow and rain was reported in northern Maine with rain in southern New England. As the primary surface low moved just south of the Canadian Maritimes, snow showers lingered over northern Maine during the afternoon of 25 January. By the overnight hours, precipitation had completely ended.

Impacts: Although this storm system was not as impactful as other for January nor'easters, it still affected the northeastern U.S. Winds over 60 mph were being reported throughout the Northeast and New England. Consequently, widespread damage was reported across these regions. Total monetary damage of \$121 thousand was reported, primarily due to high winds. In addition, coastal flooding along the beaches of Delaware and New Jersey was observed. Strong onshore winds also led to dune erosion along these beaches. Power outages were reported and schools were closed as a result of impassable roads. There was one death associated with this event: high winds in Philadelphia knocked a sign off the wall and killed a man. As an aside, the widespread severe weather event in the Southeast prior to the snow event killed 21 people.

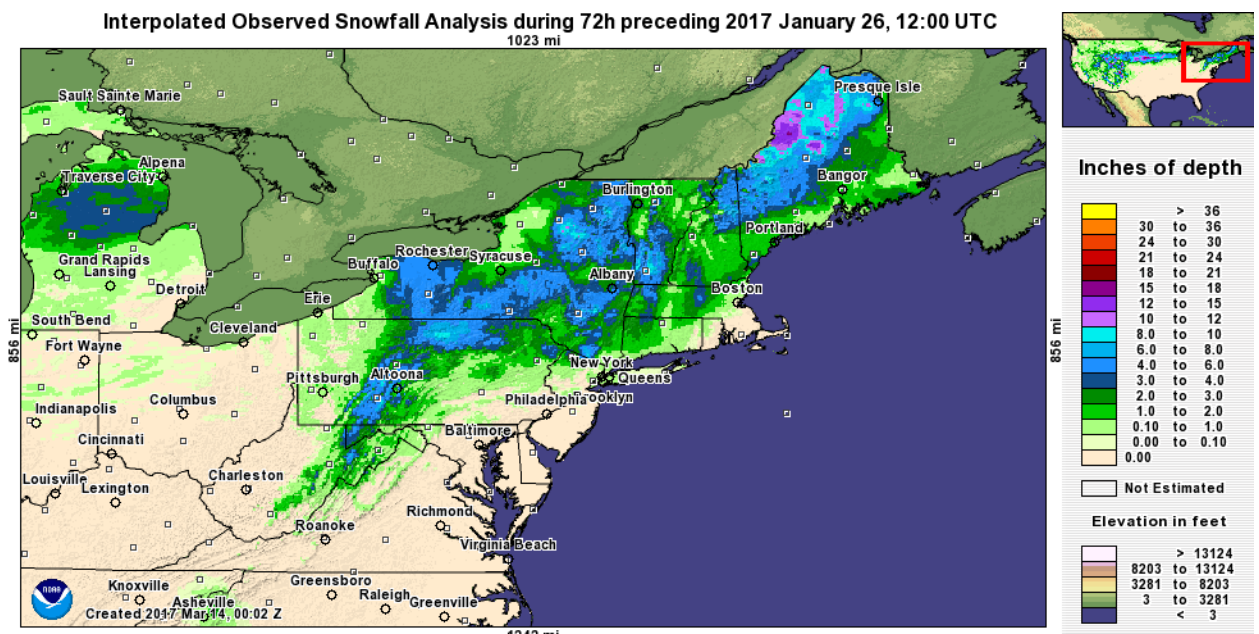


Figure 1: 72 hr accumulated snowfall ending 1200 UTC 26 January, 2017 (NOHRSC).

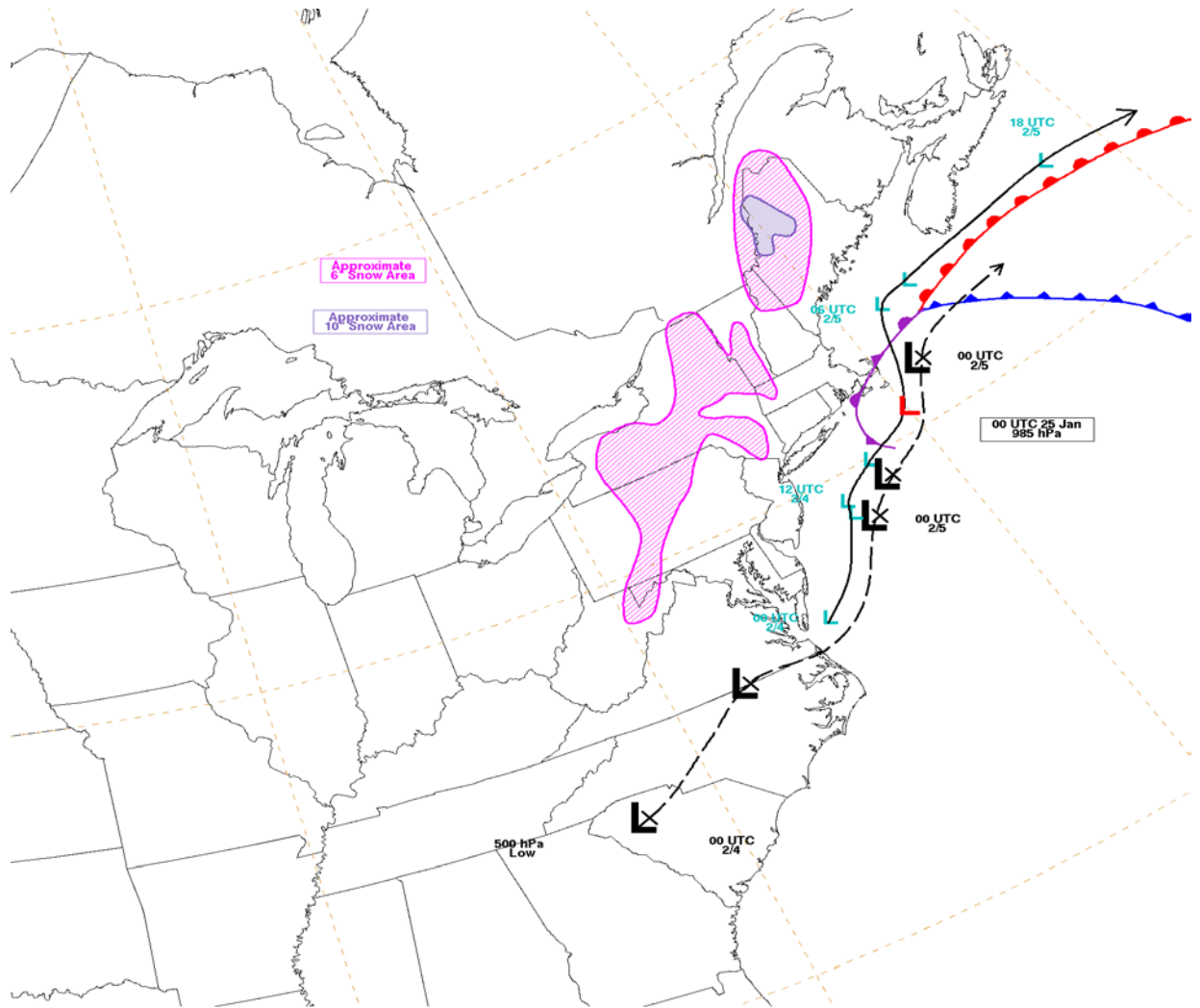


Figure 2: Surface low tracks (blue), 500 hPa low tracks (black), approximate areas receiving greater than 6 inches of snow (magenta), approximate areas receiving greater than 10 inches of snow (purple) are shown along with the WPC surface analysis from 00 UTC on 25 January, 2017.