

STORY ARCHIVE

UMass Climatologist Says January Brought Record Snow Across Massachusetts, Southern New England

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AMHERST, Mass. - The serial snowstorms of January 2011 made history dumping impressive amounts of snow across Massachusetts, including the second highest total for the month since 1948 on record at the Blue Hill Observatory in Milton at 48.2 inches to the 39.9 inches of snow in Amherst, the highest January total since 1893, says climatologist Michael Rawlins of the University of Massachusetts Amherst. Rawlins also reports record amounts of snow in January in southern Worcester and Norfolk counties, the region that has been the bulls-eye for several storms last month.

Elsewhere in the state, among first-order weather stations, Boston received 38.3 inches of snow, the third highest total for a January while Worcester collected 48.4 inches, the second highest January amount on record. Among the other first-order weather stations in the region, the January snowfall total of 57.0 inches at the National Weather Service forecast office at Hartford-Bradley International airport in Windsor Locks, Conn., shattered the previous January record for the Hartford area of 43.1 inches set in 1996. More notably, it set a record for the highest snow total for any month since recordkeeping began in the Hartford area back in 1905.

At the western end of Massachusetts, Pittsfield Municipal Airport recorded 47.2 inches, a record for any month going back some 65 years, it has been reported.

Rawlins says the previous snowfall record for Amherst, part of the National Weather Service's Cooperative Observer Network, was 33 inches set in January of 1923. Among all months, the January 2011 total ranks second to the 45 inches in February of 1893, the first year for which observations have been archived. Cooperative observer data were compiled by the UMass Amherst Climate System Research Center based on preliminary data submitted to the National Climatic Data Center in Asheville, N.C., according to Rawlins.

The record-setting snows were a result of multiple storm systems and a convergence of potent meteorological conditions, says Rawlins. "Over the past few weeks southern New England has seen several low pressure systems moving rapidly down from southern Canada, the so-called Alberta Clippers. Other storms formed to the south and moved up the eastern seaboard passing just east of Nantucket. It was the abundant moisture from these vigorous Nor'easters, combined with cold air from northern Canada, which resulted in heavy snowfall and high depth-to-liquid snow ratios."

Cooperative observer data suggest that the hardest hit areas were in southern Worcester and Norfolk Counties in Massachusetts. East Brimfield Lake recorded 46.6 inches, a record for any month dating to 1962. A cooperative observer in Walpole, Mass., recorded 44.1 inches, a record for any month since 1972. At Buffumville Lake, 48.7 inches fell, the most of any month in its 52-year record. Tully Lake saw 37.8 inches, most ever in January and second most for any month since 1949. Northbridge, Mass., received 38.5 inches, second most for January in its 48-year record.

Rawlins says he is often asked if extreme events such as the record snowfalls are manifestations of global warming. He cautions that recent events here and in other parts of the world cannot be directly

attributed to the warming atmosphere. But he also notes that "New England has seen an increase in winter precipitation in recent decades, and heavy snowfalls have also increased in the East. Looking forward there may be more of the same, as climate model projections suggest wetter winters, and perhaps more heavy snowfalls in coming decades."

The data reported here are considered preliminary by the National Weather Service and have not undergone quality control by the National Climatic Data Center, Rawlins says.

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