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February 2010– Pennsylvania Weather Recap

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February 2010 has been the snowiest February on record in a majority of the Commonwealth. The first storm to bring in significant amounts of snow occurred on the second and brought light snow to the whole state with moderate snow amounts around three to four inches in the Susquehanna Valley. This was a result of a low pressure system that made its way eastward from the Ohio River Valley and another low pressure system that made its way up the East Coast.

The next snow storm struck the Commonwealth on the fifth and sixth. This storm originated in the Gulf of Mexico and crept up the East Coast. It brought heavy snow to the entire state with the exception of the far northern counties, with snowfall totals reaching twenty to thirty inches or greater in some locations. This storm also broke a couple of records. The storm gave Philadelphia its second snowiest year on record with a total of 56.3 inches. Philadelphia also broke its record for daily maximum snowfall with 22.0 inches on the sixth. This broke the previous record of 12.4 inches that was set in 1978. In addition to Philadelphia, Harrisburg broke its daily maximum snowfall record on the sixth with 11.8 inches, which broke the previous record of 9.7 inches set back in 1978. Pittsburgh broke two daily maximum snowfall records. On the fifth the snowfall total was 11.4 inches and that broke the old record of 4.7 inches in 1899. On the sixth the snowfall total was 9.7 inches, which broke the old record of 4.3 set in 1911.

The third storm occurred on the ninth and tenth. This storm was the result of an upper level low centered over the Midwest. This low allowed a surface low pressure system in the Midwest and another originating in Texas to merge in the Ohio Valley on the ninth. As the upper level low moved eastward it spun up another low pressure center off the coast of the Delmarva Peninsula on the tenth. This storm brought moderate snow to western portions of the state and heavy snow to the southern part of the state on the ninth and moderate to heavy snow to entire state on the tenth. Accumulations varied from a little less than ten inches to about twenty inches. In Pittsburgh the snowfall on the tenth was 5.2 inches, which tied the maximum daily snowfall record in 1926. This storm also brought Pittsburgh's February snowfall total up to 29.6 inches which, which broke the previous record of 25.3 inches set in 2003. This made February 2010 the sixth snowiest month on record. Also, on the tenth Williamsport broke its maximum daily snowfall record with an accumulation of 6.4 inches, which broke the old record of 4.0 inches set in 1923. On this date Harrisburg broke another daily snowfall record with an accumulation of 12.3 inches that broke the old record of 5.3 inches set in 1949. In the eastern portion of the state Allentown, Reading, and Philadelphia all had records broken. In Allentown the snowfall total reached 17.3 inches, which broke the old daily maximum snowfall record of 4.2 inches in 1926. Allentown also broke their liquid equivalent precipitation record of 0.98 inches set in 1970 with a reading of 1.40 inches. Reading also broke its liquid equivalent precipitation record with a measurement of 1.50 inches, which breaks the old record of 1.21 inches set in 1881. In Philadelphia the daily maximum snowfall record of 5.5 inches set in 1906 was broken with a total of 6 inches. This storm also brought the seasonal snowfall total in Philadelphia to 72.1 inches, making it the snowiest year on record.

The next snow storm occurred on the fifteenth and sixteenth. It was produced by another upper level low that was centered over the Ohio Valley. This low generated a surface low pressure system that made its way from the Texas area to the Commonwealth. This storm brought moderate snow to the western half of the state and light snow and flurries to the rest. Accumulations in the western portion of the state were around four inches that day. In Pittsburgh, this brought the snowfall total for the month to 40.0 inches making this February the second snowiest month on record. It also brought the seasonal snowfall total to 68.2 inches making this the eighth snowiest season on record.

The last major snow event of the month occurred on the twenty-fifth and twenty-sixth. This storm was generated by an upper level low sitting over the Northeast. This created a surface low pressure system off the East Coast that retrograded and came ashore. This storm brought moderate snow to the northeastern and western portions of the Commonwealth, with heavy snow totaling over twenty inches in the higher elevations. This storm was also associated with blizzard conditions and hurricane force winds in some locations. In Pittsburgh this storm and some lingering snow showers behind it brought the monthly snowfall total to 48.3 inches breaking the old record of 40.2 inches in January 1978 and making this the snowiest month on record. It also brought the seasonal snowfall total up to 76.5 inches making this the fourth snowiest season on record. This storm and the residual snow showers have made this the snowiest calendar month on record in Harrisburg with a monthly total of 41.9 inches. The seasonal snowfall total in Harrisburg is now 57.1 inches making it the ninth snowiest season on record. On the twenty-sixth Williamsport tied its daily maximum snowfall record of 5.0 inches set in 1934. Also on the twenty-sixth Allentown broke its daily maximum snowfall record of 3.2 inches set in 1966 with an accumulation of 5.6 inches.

Despite these large snowfall events temperatures in February were rather seasonable. In the western portion of the state temperatures were slightly colder than normal with average temperature departures of -4.2°F in Pittsburgh and -3.1°F in Erie. In the south central and south eastern parts of the commonwealth temperatures were just barely below normal with average temperature departures of -1.5°F in Allentown, -1.3°F in Reading, -2.7°F in Philadelphia, and -2.5°F in Harrisburg. The story was slightly different in the north central and north eastern portion of the state where temperatures were slightly higher than normal with average temperature departures of $+1.6^{\circ}\text{F}$ at Williamsport and $+2.1^{\circ}\text{F}$ at Mount Pocono.

Here are the weather extremes across Pennsylvania (**observations taken at 8AM EDT**) during February 2010 from the NWS Cooperative & ASOS Networks. The extremes occurred in the 24-hour period prior to the date listed.

Parameter	Location	Value	Date (8 AM EDT)	County
Highest Temperature	Beaver Falls	54°F	February 10 th	Beaver
Lowest Temperature	Meyersdale	-14°F	February 8 th	Somerset
Greatest Cumulative Liquid Precipitation	Hawley	7.07"	-	Pike
Greatest Cumulative Snowfall	Laurel Summit	*106"	-	Somerset

* Indicates that a new record for monthly cumulative snowfall has been set. The previous record was 96" set in 1890 at Blue Knob, PA.

Weather Stories

Wild winter weather breaks records, budgets

http://www.phillyburbs.com/news/news_details/article/92/2010/march/01/wild-winter-weather-breaks-records-budgets.html

Prof's agree: El Niño to blame for storms

<http://media.www.thebrownandwhite.com/media/storage/paper1233/news/2010/03/02/News/Prof's.Agree.El.Nintildeo.To.Blame.For.Storms-3881561.shtml>

January the hottest ever? Not here, records show

<http://www.ajc.com/news/january-the-hottest-ever-332584.html>

Tropical Cyclones Turn Up the Heat

<http://news.sciencemag.org/sciencenow/2010/02/tropical-cyclones-turn-up-the-he.html>

Pittsburgh sets record for snowiest month on record as new storm batters Northeast

<http://calamities.gaeatimes.com/2010/02/25/pittsburgh-sets-record-for-snowiest-month-on-record-as-new-storm-batters-northeast-9223/>