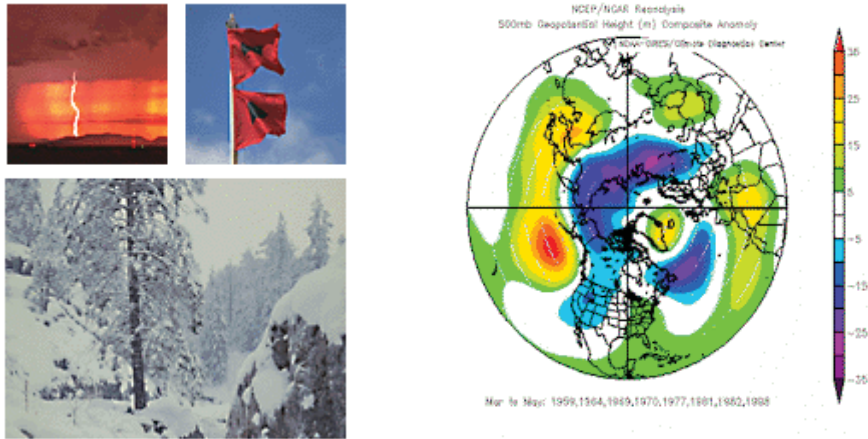


The Pennsylvania Observer

The Pennsylvania State Climatologist



December Climate Highlight:

Prepared by: Chris Slocum

This month's climate highlight compares this year's seasonal temperature rankings for spring, summer, and fall to 1895 - 2008 records to project what the winter (December 2009 – February 2010) may be like for Pennsylvania.

The average temperature for the Commonwealth of Pennsylvania for spring 2009 was 48.3F (9.1C) and for summer 2009 was 64.7F (19.6C). Below is a table that shows \pm 5 years of 2009's rank.

Spring (Mar-May) [1895-2009]			Summer (Jun-Aug) [1895-2009]		
Year	Rank	Ave Temp	Year	Rank	Avg Temp
1948	91	48.7F (9.3C)	1976	17	67.5F (19.7C)
1976	89	48.6F (9.2C)	1974	17	67.5F (19.7C)
1957	89	48.6F (9.2C)	1963	17	67.5F (19.7C)
1933	87	48.5F (9.2C)	1924	17	67.5F (19.7C)
1898	87	48.5F (9.2C)	1902	17	67.5F (19.7C)
2009	85	48.3F (9.1C)	2009	15	67.4F (19.6C)
1919	85	48.3F (9.1C)	1958	15	67.4F (19.6C)
1902	85	48.3F (9.1C)	2004	12	67.3F (19.6C)
1896	85	48.3F (9.1C)	1979	12	67.3F (19.6C)
1990	81	48.2F (9.0C)	1950	12	67.3F (19.6C)
1964	81	48.2F (9.0C)	1972	9	67.1F (19.5C)

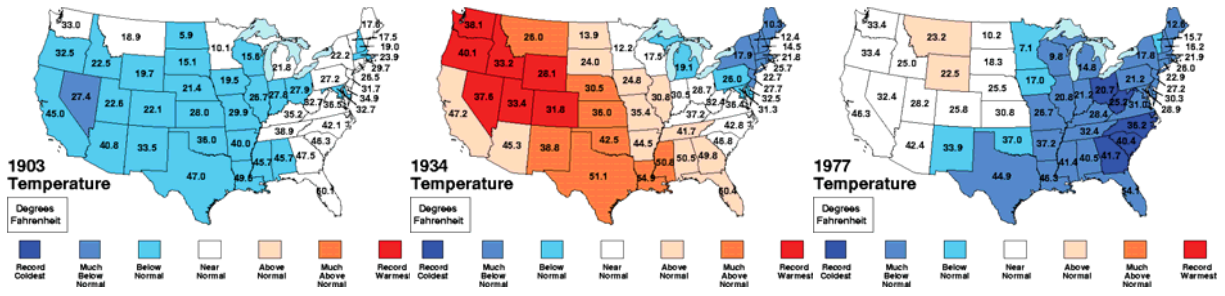
An estimate of 2009's ranking for fall (September – November) was created based on the preliminary November Divisional Climate Data as well as Pennsylvania's rankings for September and October. The estimated average temperature for the fall was 50.7F (10.4C)

Fall (Sep - Nov) [1895-2008]		
Year	Rank	Avg Temp
1989	35	50.8F (10.4C)
1978	35	50.8F (10.4C)
1918	35	50.8F (10.4C)
1905	35	50.8F (10.4C)
1933	33	50.7F (10.4C)
2009*	--	50.7F (10.4C)*
1916	33	50.7F (10.4C)
1986	32	50.6F (10.3C)
2000	30	50.5F (10.3C)
1952	30	50.5F (10.3C)
1969	28	50.4F (10.2C)

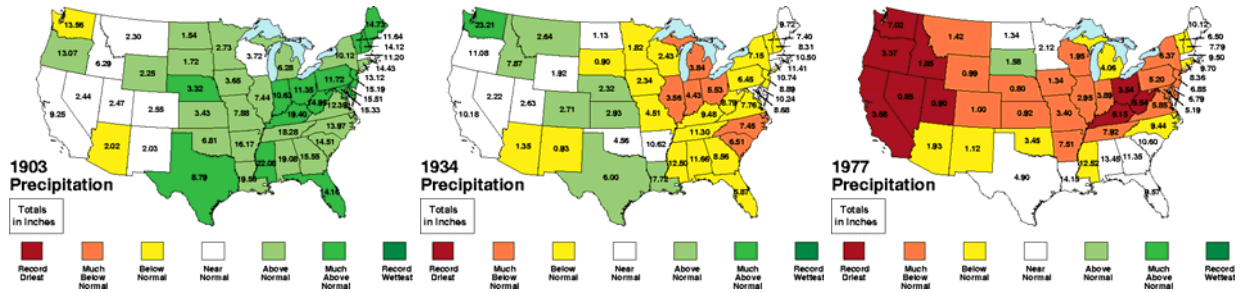
*This is an estimated value for the Fall 2009 temperatures based on official NCDC average temperature values for September and October with the average temperature for November 2009 based on the preliminary Divisional Climate Data.

1902, 1933, and 1976 were the only years to occur more than once in the spring, summer, and fall data. Of these three, the winters of 1902-1903 and 1976-1977 had strong El Niños. Based on current Climate Prediction Center forecasts, the winter of 2009-2010 will likely be dominated by a moderate to strong El Niño.

Looking at the average temperatures for the winters (December – February) in 1902-1903, 1933-1934, and 1976-1977 revealed that temperatures for years similar to 2009 ranged from near normal to much below normal.



Precipitation showed a slightly different story for the winters (December – February) in 1902-1903, 1933-1934, and 1976-1977. 1902-1903’s winter had precipitation that was much above normal while the winters of 1933-1934 and 1976-1977 had below normal precipitation.



Based on this analysis of climate data, this winter looks to have below normal temperatures with an equal chance of above or below normal precipitation. This conclusion for the 2009-2010 winter for Pennsylvania resembles those in the National Oceanic and Atmospheric Administration’s winter outlook entitled “El Niño to Help Steer U.S. Winter Weather.”