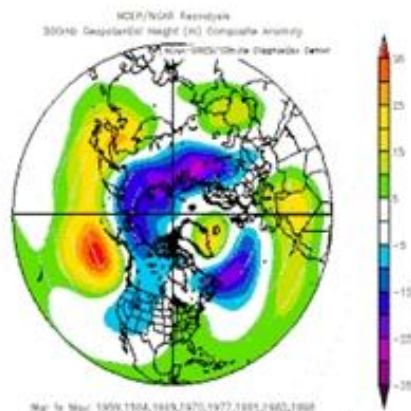


The Pennsylvania Observer

The Pennsylvania State Climatologist



May Climate Highlight:

Prepared by Tiffany Wisniewski

How do the Cooler Conditions in May, specifically in Pennsylvania and Minnesota, affect Summer Conditions of the Same Year?

The trend in summer temperatures can be determined by comparing the years in which the average temperature in May was at least one standard deviation below the normal seasonal average for both Pennsylvania and Minnesota. The years in which both Minnesota and Pennsylvania experienced cooler than average Mays are: 1907, 1915, 1924, 1935, 1945, 1954, 1966, 1967, 1997, and 2002.

	Minnesota		Pennsylvania
Average Temperature °F	54.485		58.13
Standard Deviation °F	3.457		2.856

Table 1: This table shows the average temperature and standard deviation for both Minnesota and Pennsylvania for the month of May.

Minnesota			Pennsylvania	
Year	Temperature		Year	Temperature
1907	44.3		1967	51
1924	46.5		1917	52.1
1945	48.4		1997	52.8
1954	49		2005	53.3
1967	49		1924	53.4
1947	49.4		1907	53.6
1997	49.7		1968	53.8
1929	49.8		1925	54
1979	49.8		1966	54.1
2002	49.8		1994	54.1
1927	50		1973	54.3
1915	50.3		1935	54.4
1910	50.4		1961	54.4
1966	50.4		1984	54.6
1935	50.5		1945	54.7
1974	50.6		1983	54.8
1917	50.8		1971	54.9
1950	50.9		1976	54.9
1968	51.1		1915	55

Table 2: This table shows the years in which the average temperature in May for Minnesota and Pennsylvania were at least one standard deviation below the normal average temperature. The years that this trend is similar for both Pennsylvania and Minnesota are in bold print.

June-August

Composite Standardized Temperature Anomalies
Jun to Aug 1907,1924,1945,1954,1967,1997,2002,1915,1966,1935
Versus 1895–2000 Longterm Average

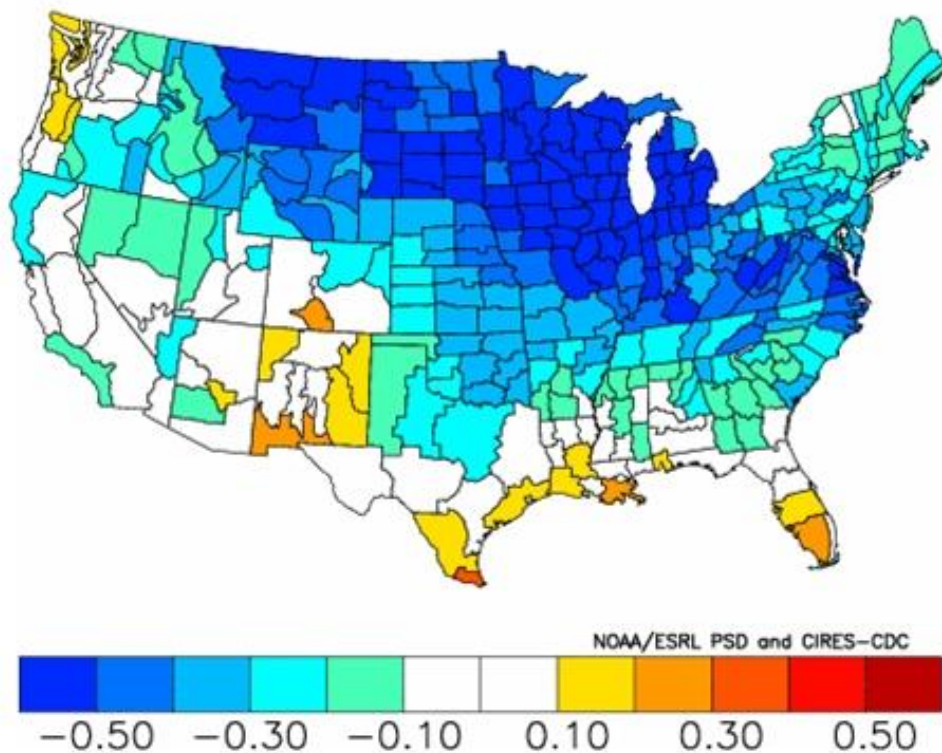


Figure 1: This is a composite plot showing the trend in summer temperatures that followed a cooler than normal month of May. These temperature anomalies are averaged over a three month span from June to August.

June

Composite Standardized Temperature Anomalies
Jun 1907,1924,1945,1954,1967,1997,2002,1915,1966,1935
Versus 1895–2000 Longterm Average

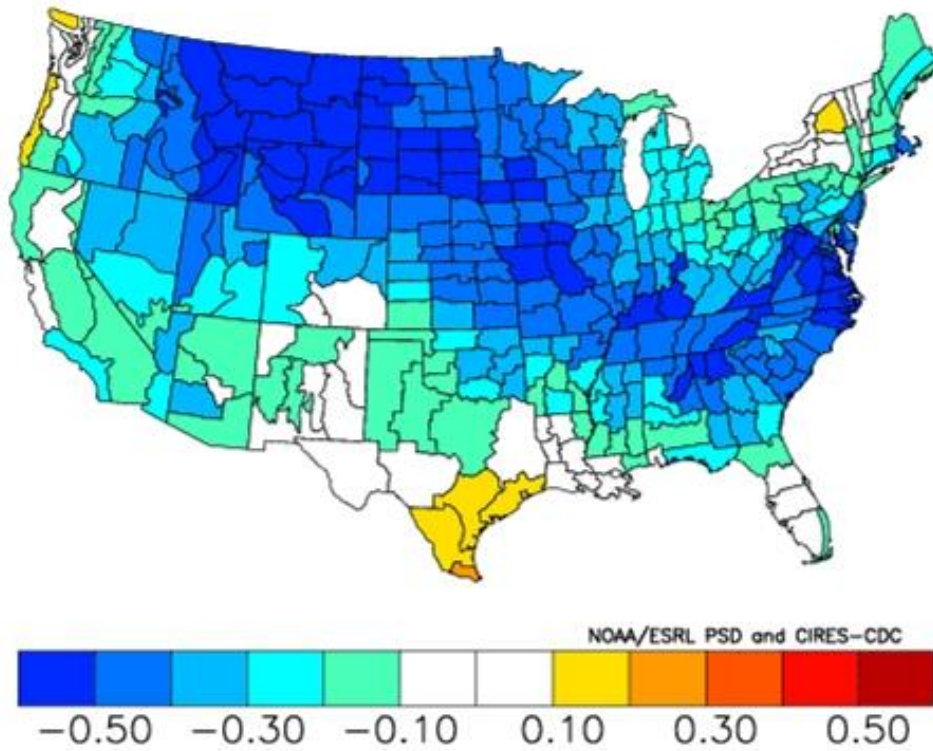


Figure 2: This is a composite plot showing the trend in temperatures for the month of June that followed an unseasonably cool month of May.

July

Composite Standardized Temperature Anomalies
Jul 1907,1924,1945,1954,1967,1997,2002,1915,1966,1935
Versus 1895–2000 Longterm Average

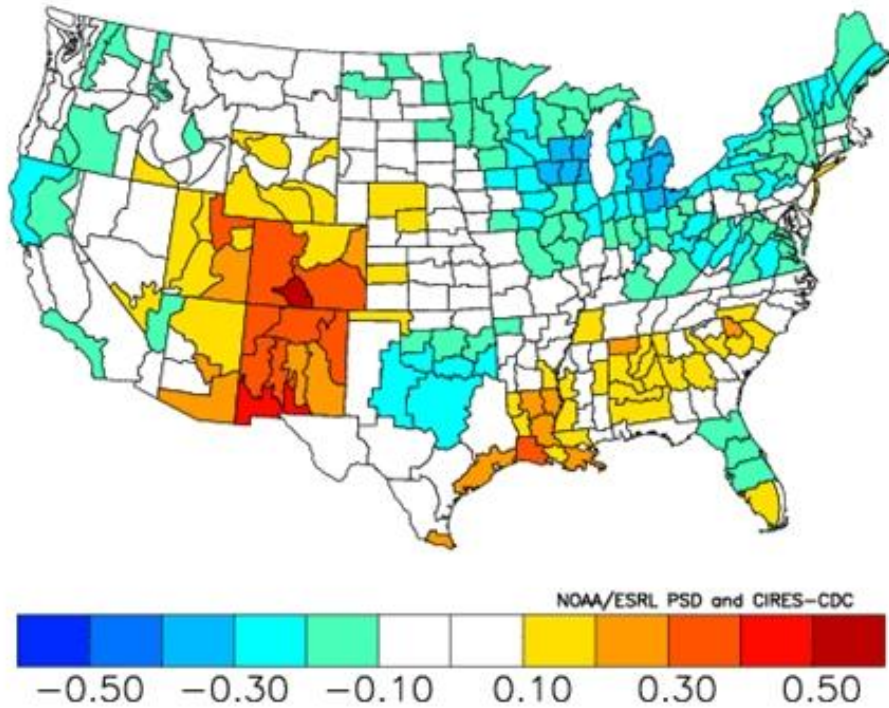


Figure 3: This is a composite plot showing the trend in temperatures for the month of July that followed a cooler than normal month of May.

August

Composite Standardized Temperature Anomalies
Aug 1907,1924,1945,1954,1967,1997,2002,1915,1966,1935
Versus 1895–2000 Longterm Average

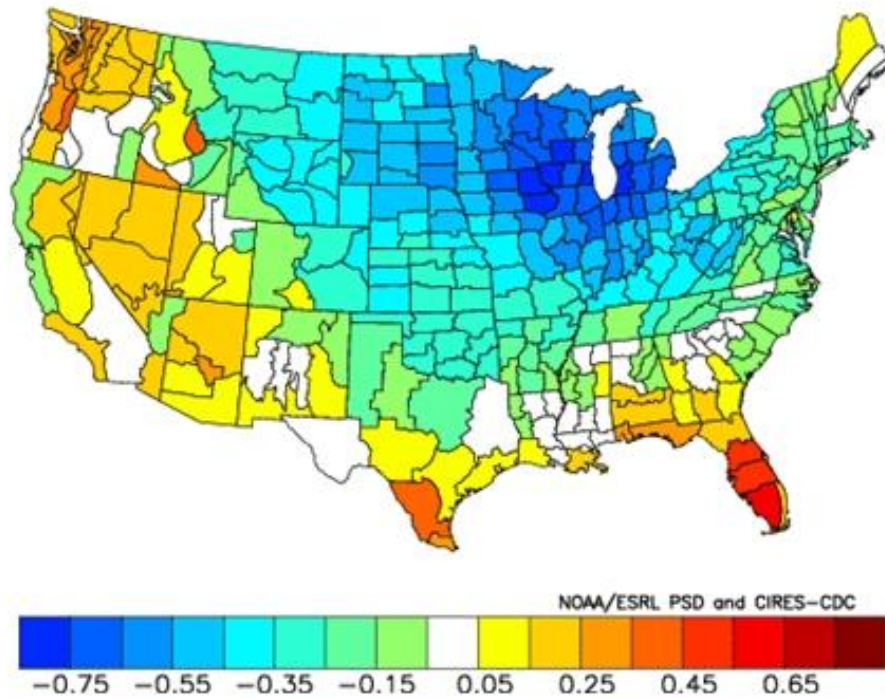


Figure 4: This is a composite plot showing the trend in temperatures for the month of August that followed a cooler than normal month of May.

As shown by the composite standardized temperature anomalies above, the years that both Minnesota and Pennsylvania had an unseasonably cool May see the cool pattern continuing into the summer. This pattern is especially evident for the northwestern and eastern tier of the country. However, there are some indications of a warming trend in the southwestern region of the United States during the month of July.