Summer, 2006 Conditional Temperature Forecast for Philadelphia International Airport
in degrees Fahrenheit

If the first heat wave occurs between:	The forecast mean summer temperature is:	67% confidence interval is:	90% confidence interval is:
May 16 - May 31	75.4	74.0 - 76.8	73.0 - 77.8
June 1 - June 15	75.2	73.8 - 76.6	72.8 - 77.6
June 16 - June 30	75.0	73.6 - 76.4	72.6 - 77.4
July 1 - July 15	74.8	73.4 - 76.2	72.4 - 77.2
July 16 - July 31	74.6	73.2 - 76.0	72.2 - 77.0
August 1 - August 15	74.4	73.0 - 75.8	72.0 - 76.8
August 16 - August 31	74.2	72.8 - 75.6	71.8 - 76.6
No heat wave	73.7	72.3 - 75.1	71.3 - 76.1

The normal summer temperature at PHL is 75.4 degrees. Summer is defined as meteorological summer, i.e., the months of June through August.

The above conditional forecast is from a multiple linear regression equation that was derived from data from 1950 through 2004 that came from the Climate Prediction Center (CPC) in Washington, D.C. and Philadelphia International Airport (PHL). It was found that the combination of the Julian date of the first heat wave of the season at Philadelphia, the Oceanic Nino Index for February through April as computed by CPC, and the product of those two variables explained approximately 25 percent of the variance in mean summer temperatures.

The technique results in a specific forecast value and associate confidence intervals. So, if the first heat wave of the season begins on June 19, the forecast for the mean summer temperature is 75.4 degrees; there is a 67% chance that the actual mean summer temperature will fall between 74.0 and 76.8 degrees, and there is a 90% chance that the actual mean summer temperature will fall between 73.0 and 77.8 degrees.

A heat wave is defined as at least three consecutive days with maximum temperatures of at least 90 degrees Fahrenheit. The likelihood of no heat wave occurring at PHL during the warm season, based on data going back to 1943, is approximately 10%.

The Oceanic Nino Index is an indicator of the strength of any current El Nino or La Nina. More

information is available from the Climate Prediction Center (http://www.cpc.noaa.gov).