## Verification of Final Meteorological Summer and Winter Temperature Forecasts Made for Philadelphia International Airport (PHL)

	Observed			Approximate Date of	Observed Temperature Within	
	Mean	Final		Final 6	7% Confidence	90% Confidence
Season T	emperature	Forecast	Error	Forecast*	Interval?	Interval?
Summer 2005	77.8	75.0	-2.8	July 12	no	no
Summer 2006	76.8	76.0	-0.8	July 18	yes	yes
Winter 2006/07	36.3	36.7	0.4	February 5	yes	yes
Summer 2007	76.0	75.2	-0.8	July 10	yes	yes
Winter 2007/08	36.8	36.8	0.0	January 26	yes	yes
Summer 2008	76.8	76.9	0.1	June 9	yes	yes
Winter 2008/09	34.9	33.7	-1.2	January 11	yes	yes
Summer 2009	75.1	76.9	1.8	May 1	no	yes
Winter 2009/10	33.8	34.3	0.5	December 19	yes	yes
Summer 2010	79.6	77.5	-2.1	June 4	no	no
Winter 2010/11	33.1	34.2	1.1	December 16	yes	yes
Summer 2011	78.0	77.3	-0.7	June 1	yes	yes
Winter 2011/12	2 40.7	40.2	-0.5	February 12	yes	yes
Summer 2012	78.0	76.5	-1.5	June 22	no	yes
Winter 2012/13	38.3	35.4	-2.9	January 22	no	yes

All temperature values are in degrees Fahrenheit.

The meteorologist responsible for these forecasts will have retired before any additional forecasts are possible. Some additional verification statistics are:

The mean absolute error of the forecasts was 1.15.

The bias of the forecasts was -0.63. The probability that 15 forecasts run over 15 randomly selected seasons would have a bias that was either greater than or equal to 0.63 or less than or equal to -0.63 was .0928. The probability that they would have a bias that was less than or equal to -0.63 only was .0464. These probabilities assume a climate in equilibrium.

The forecasts fell within the 67% Confidence Interval 10 out of 15 times, or 67%. The forecast fell within the 90% confidence interval 13 out of 15 times, or 87%.

<sup>\*</sup> The Approximate Date of Final Forecast is the first day when the final forecast can be issued.