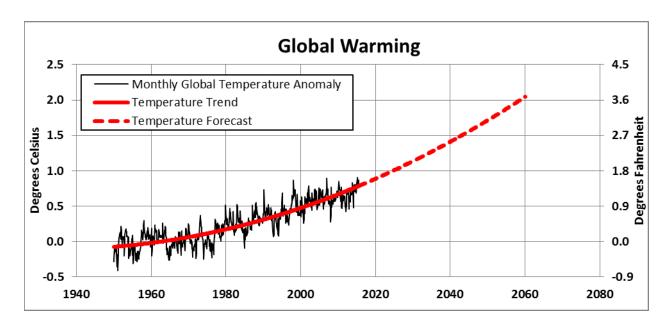
Global Warming Data, Trend and Forecast Dr. Rich Ferguson, CEERT Updated August 2015



	Trend Value	Forecast Values				
Date	Jul 2015	Jan 2020	Jan 2030	Jan 2040	Jan 2050	Jan 2060
°C	0.79	0.89	1.14	1.41	1.71	2.04
°F	1.46	1.60	2.05	2.54	3.08	3.67

Update Note – July 2015 was the warmest month on record at 16.61 °C (61.9 °F), 0.11 °C higher than July 2014 and 0.08 °C higher than the previous July record in 1998, another strong El Niño year.

Data - Global surface temperature anomaly data (black line) are monthly differences from the average temperature for that month during the years 1901-2000 and are available from NOAA. The average global surface temperature during the 20th century was 13.9 °C (57.0 °F.) The CEERT assessment begins in 1950 when the global warming signal started to emerge from the noise, a few years before high quality measurements of atmospheric carbon dioxide began in 1958.

Temperature Trend – The trendline (solid red line) represents a quadratic function with a least squares fit to the data. The differences between the data and the trend have a root mean square value of 0.13 °C. The trend is updated

monthly with the most recent data available from NOAA and is expected to change gradually over time.

Temperature Forecast – The forecast (dashed red line) is simply the projection of the trendline curve that fits the data and is updated monthly. It does not rely on estimates of future greenhouse gas emissions nor on computer models. This forecast is consistent with some of the model forecasts considered by the International Panel on Climate Change (IPCC) in AR5, its most recent Assessment Report.