

Global Temperature in 2008

The annual anomaly of the global average surface temperature in 2008 was **+0.20°C** and was the tenth highest since records began in 1891.

The Japan Meteorological Agency (JMA) monitors the global warming by analyzing surface temperature over land and ocean. The annual anomaly of the global average surface temperature in 2008 was $0.20^{\circ}\text{C} \pm 0.13^{\circ}\text{C}$ above normal (based on the 1971–2000 average). The year 2008 ranks as the tenth highest since 1891, although the anomaly was the lowest since 2001 due in particular to the La Niña event that occurred from spring 2007 to spring 2008.

On a longer time scale, global average surface temperatures have been increasing at a rate of 0.67°C per 100 years (Figure 1). They have been above normal over the most recent two decades. High latitude regions of the Northern Hemisphere have continued to experience warmer-than-normal conditions over the last several years (Figure 2).

The annual surface temperatures have varied along different time scales ranging from a few years to several decades. The increasing trend is very likely due to human activities, particularly the emission of greenhouse gases. For more information, please refer to the following website at http://ds.data.jma.go.jp/tcc/tcc/products/gwp/temp/ann_wld.html.

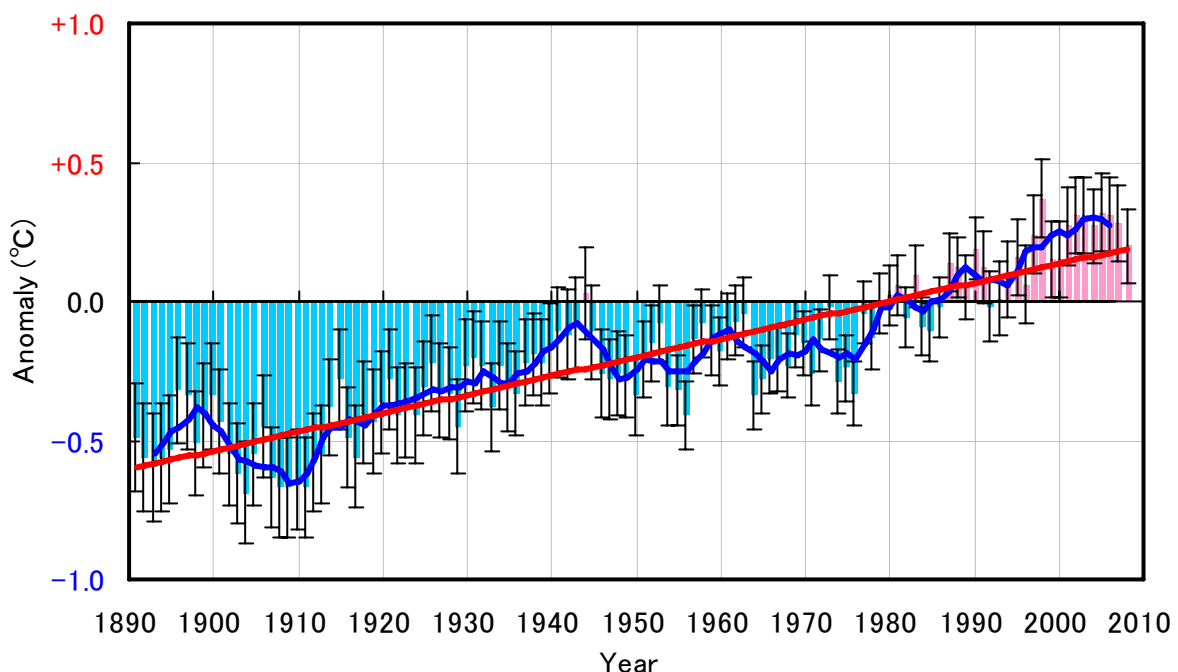


Figure 1 Annual anomalies in global average surface temperature from 1891 to 2008
The bars indicate the annual anomaly of the global surface temperature and 90% confidence intervals in each year. The blue line indicates five-year running mean, and the red line indicates the long-term linear trend.

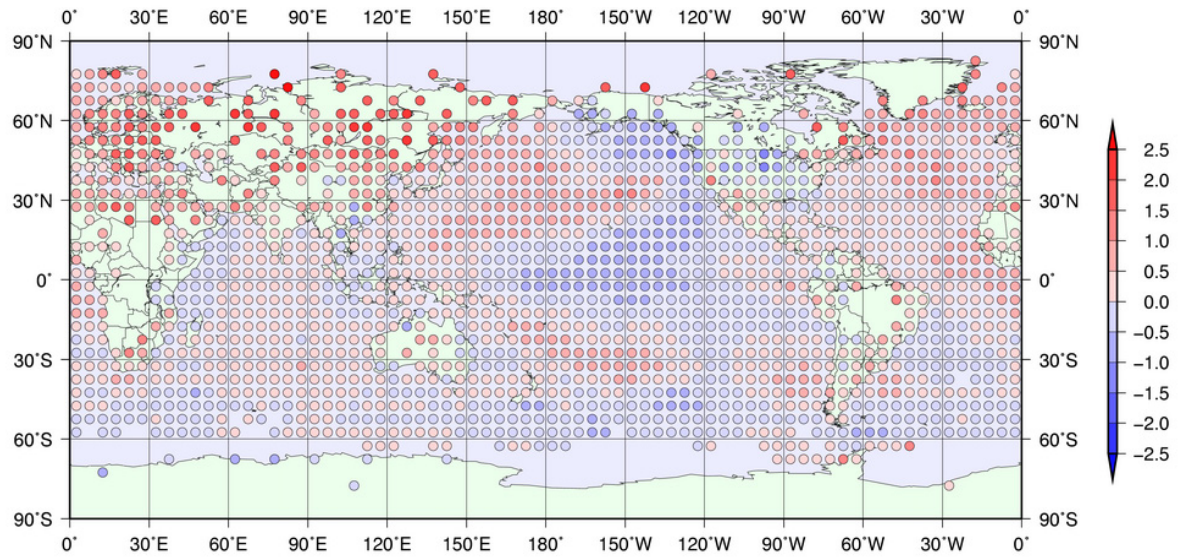


Figure 2 Annual anomalies of global average surface temperature in 2008

The circles indicate temperature anomalies from the climatological normal (i.e. the 1971-2000 average) averaged in 5° x 5° grid boxes.