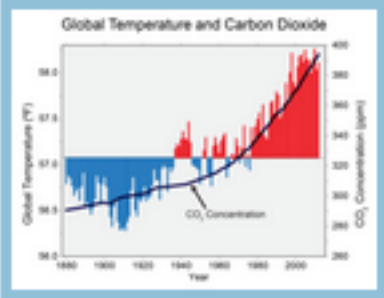


Observed Change | ... x

nca2014.globalchange.gov/research/observed-change




Zoom

### Metadata

## Figure: Global Temperature and Carbon Dioxide

**Caption:** Global annual average temperature (as measured over both land and oceans) has increased by more than 1.5°F (0.8°C) since 1880 (through 2012). Red bars show temperatures above the long-term average, and blue bars indicate temperatures below the long-term average. The black line shows atmospheric carbon dioxide (CO<sub>2</sub>) concentration in parts per million (ppm). While there is a clear long-term global warming trend, some years do not show a temperature increase relative to the previous year, and some years show greater changes than others. These year-to-year fluctuations in temperature are due to natural processes, such as the effects of El Niños, La Niñas, and volcanic eruptions. (Figure source: updated from Karl et al. 2009<sup>1</sup>).

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**Figure** Images

**Keywords**

**Source** Kenneth Kunkel, Cooperative Institute for Climate and Satellites - NC

**Date Created** 06 Nov 2013

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Method	File	Domain	Type	Size	0 ms	10.24 s	20
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All HTML CSS JS XHR Fonts Images Media Flash Other 81 requests, 2,245.10 KB, 21.27