

The Science of Global Warming

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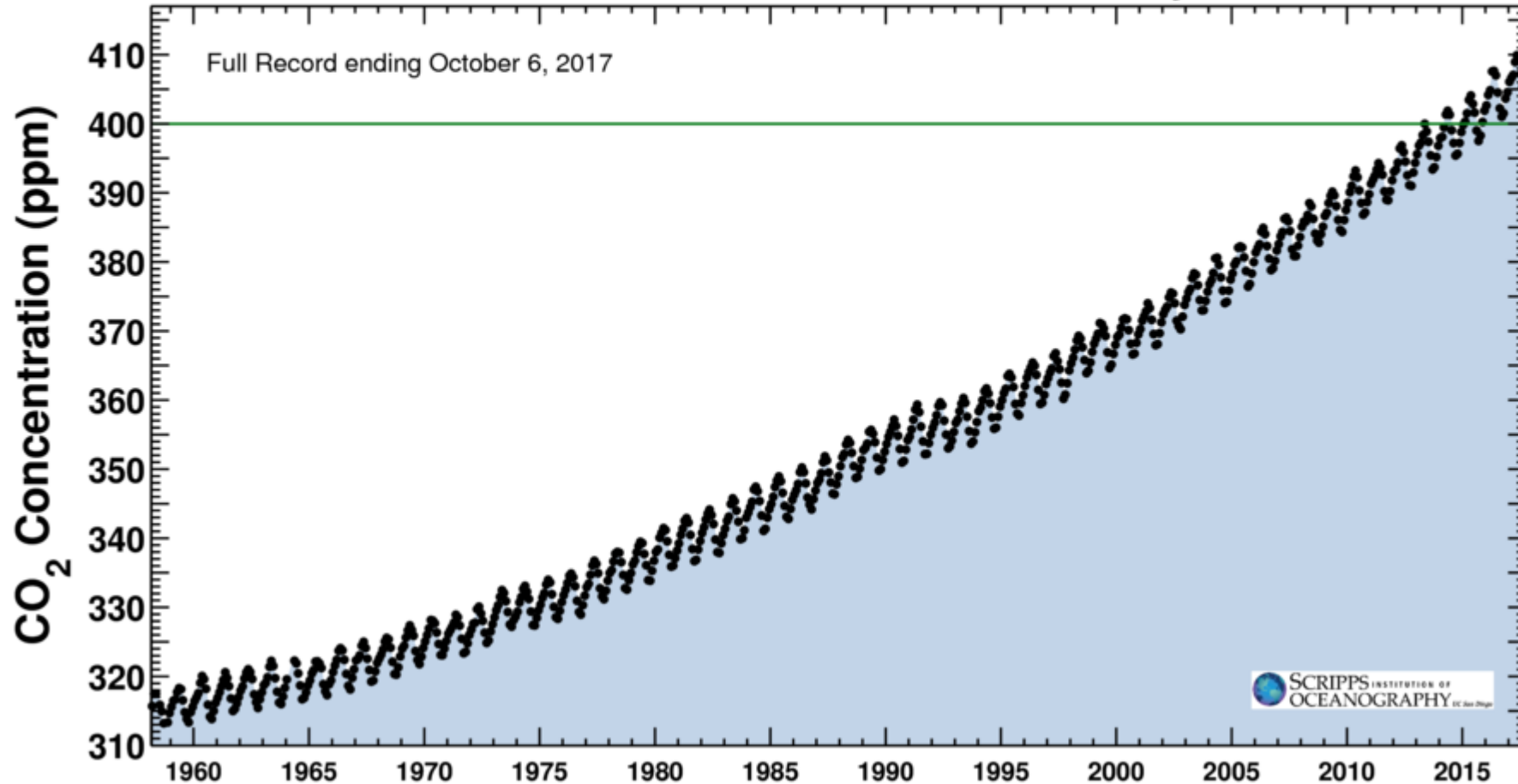
The University of Texas at Austin

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Latest CO₂ reading
October 06, 2017

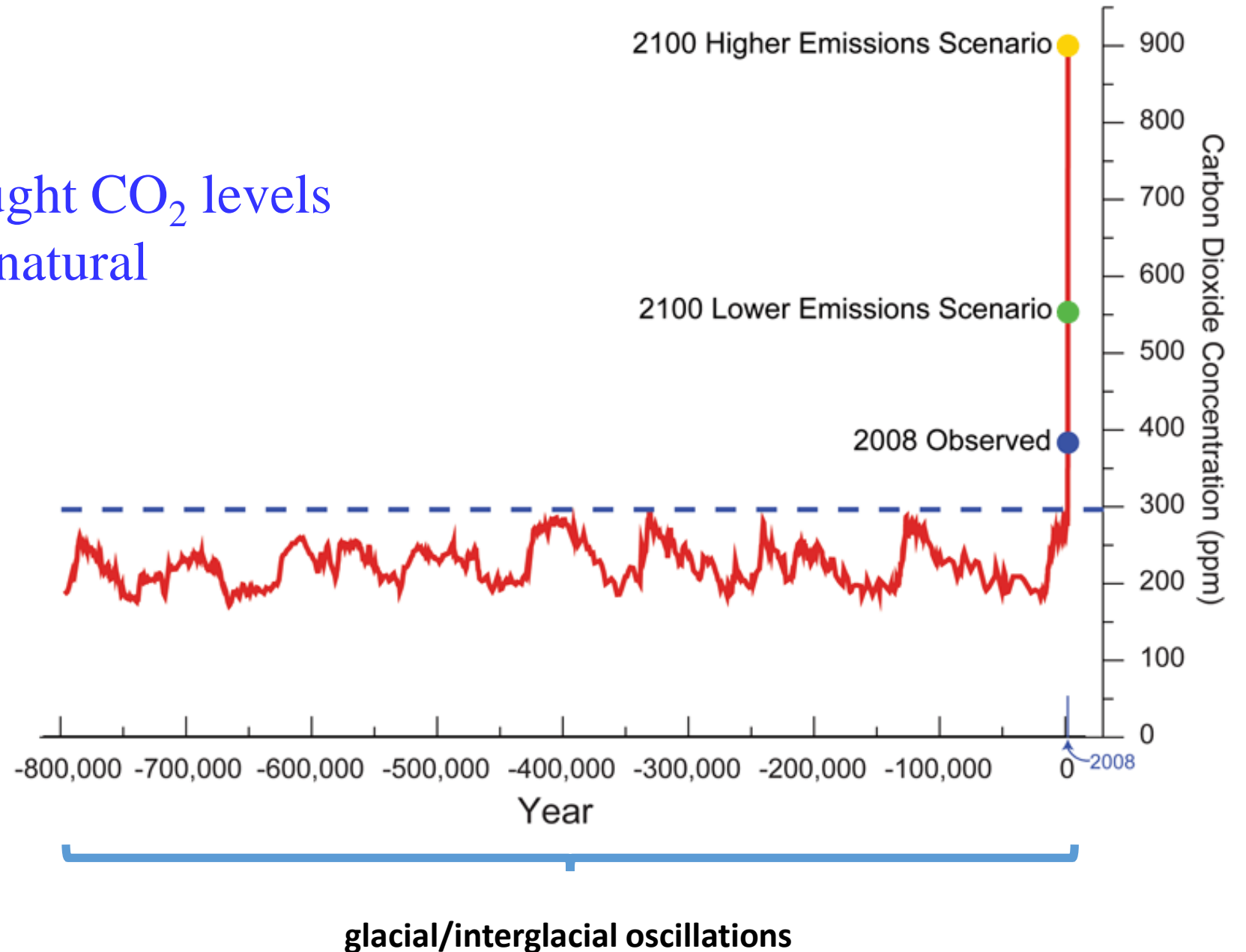
403.09 ppm

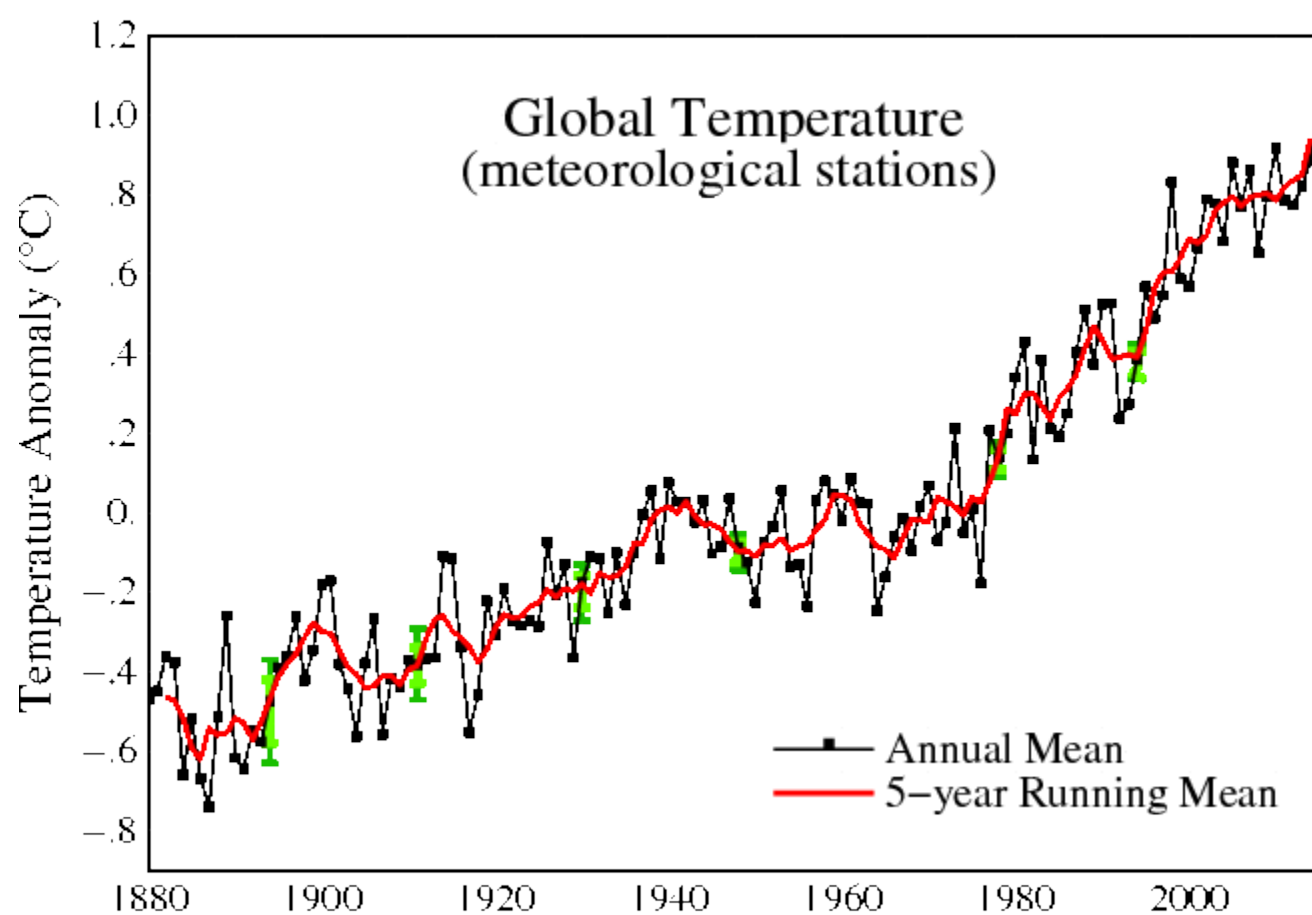
Carbon dioxide concentration at Mauna Loa Observatory



800,000 years of atmospheric CO₂ measurements from ice cores

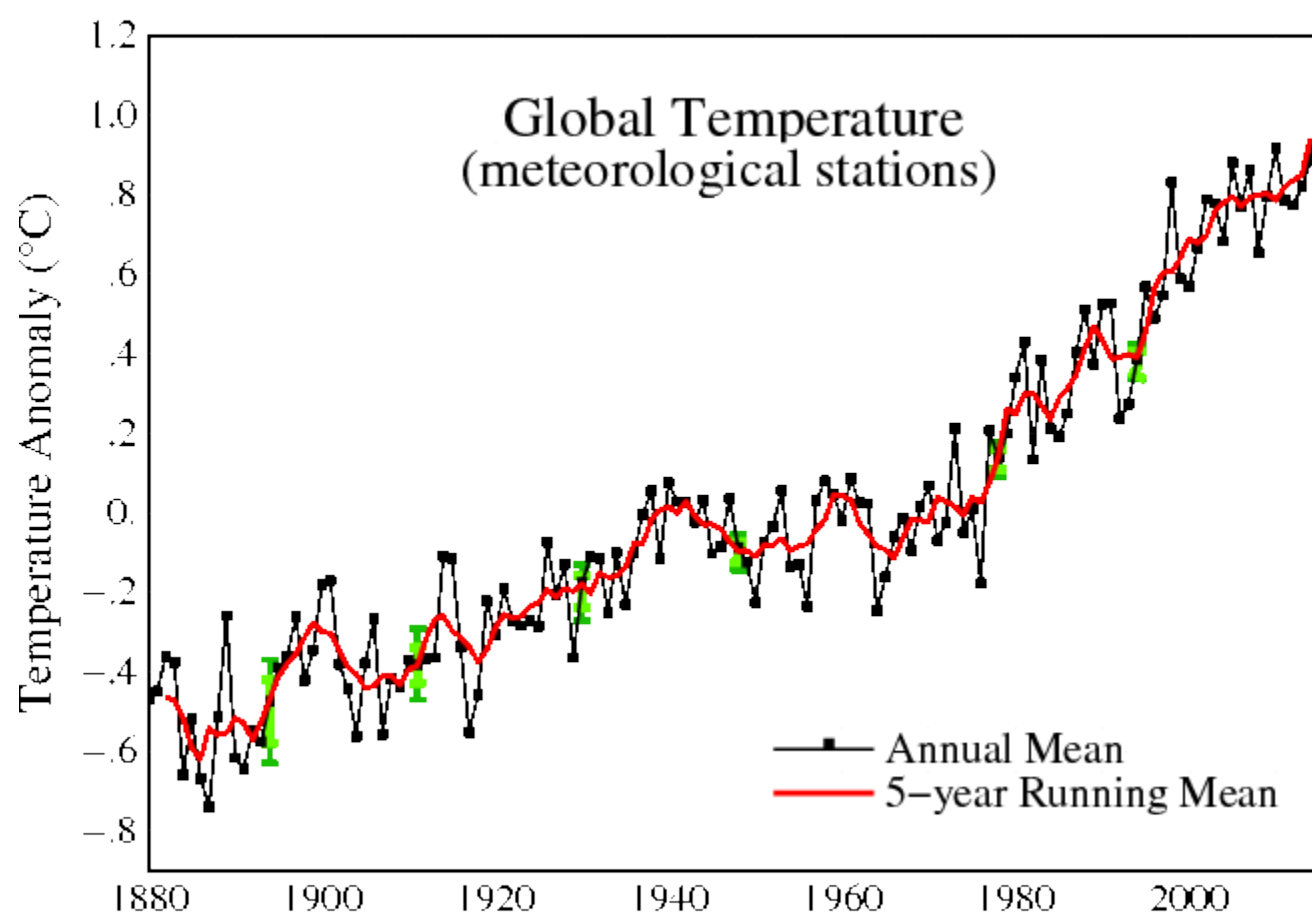
Human activity has brought CO₂ levels well above the range of natural variations





Globally-averaged surface air temperature anomaly (difference from the 1951-1980 mean) from 1880 to present. The black line is the annual mean and the solid red line is smoothed using a five-year running mean. The green bars show uncertainty estimates.

http://data.giss.nasa.gov/gistemp/graphs_v3/



~1°C or 1.8°F

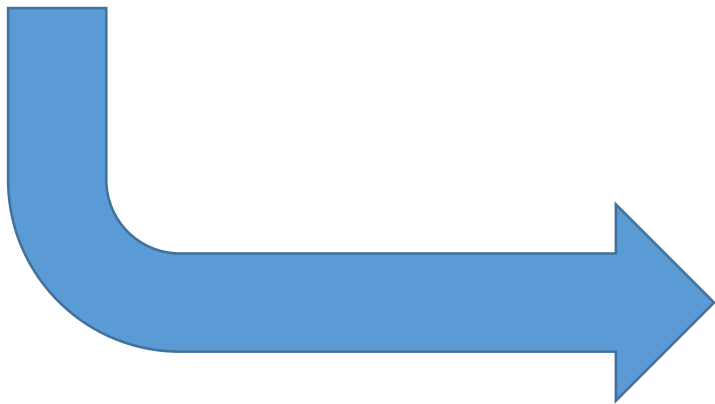
So what?
Is that a lot?

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The observed impacts of the warming planet

Melting of Arctic, Antarctic and mountain glaciers)
Sea level rise (glacial melt + expansion)
Ocean acidification
Coral bleaching
Intensification of storms
Etc



Vegetation, natural and agricultural
Marine life
Insect life
Birds
Human health (heat stress and disease vectors)
Etc.

We need to get to a place where facts and scientific understanding are guiding policy – both in our state and nationally. So I hope you will continue to learn about this really terrifying change that human activity is causing to the global climate and ecosystems, use that knowledge to educate our legislators, and exercise your power as voters.