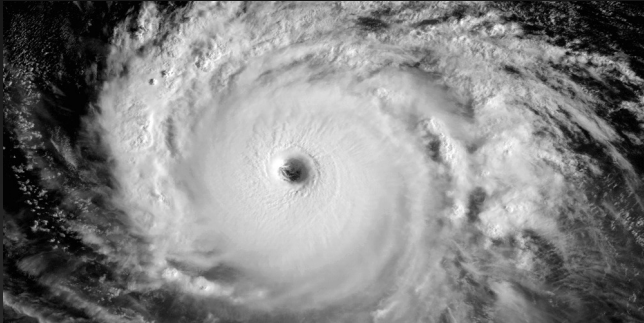


# A global warming skeptic's case - full of holes

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Roger Wesson - UCL - 1 June 2010

# Plan

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- Author - reputable scientist?
- Is global warming real?
- Do 'Urban Heat Islands' bias the temperature record?
- Is solar activity the main cause of climate change?
- Does CO<sub>2</sub> cause global warming?

# Plan

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- Author - reputable scientist? **NO**
- Is global warming real? **YES**
- Do 'Urban Heat Islands' bias the temperature record? **NO**
- Is solar activity the main cause of climate change? **NO**
- Does CO<sub>2</sub> cause global warming? **YES**

# **Solar Cycle 24: Implications for the United States**

***March 2008  
David Archibald***

***International Conference on Climate Change  
New York***

# First questions

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- Who is David Archibald?
  - ▶ Not a scientist - no peer-reviewed publications
  - ▶ "In oil exploration, he is operator of a number of exploration permits in the Canning Basin, Western Australia"
- What was this conference?
  - ▶ Organised by Heartland Institute, funded by Exxon (see [www.exxonsecrets.org](http://www.exxonsecrets.org))
  - ▶ Conference material betrays agenda

THE 2008  
INTERNATIONAL  
CONFERENCE ON  
CLIMATE CHANGE

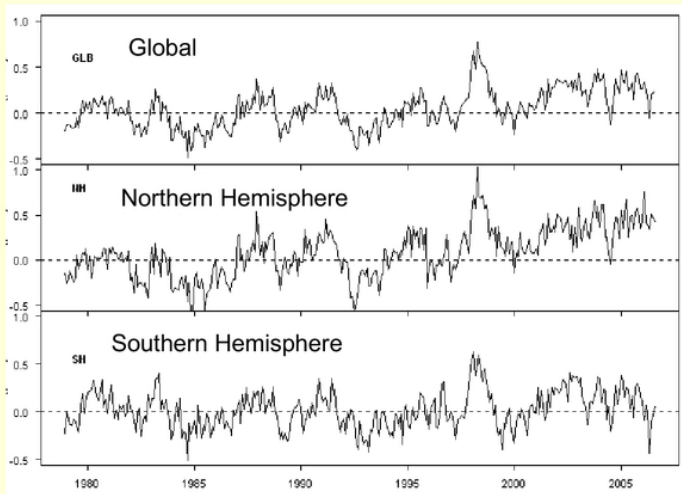
Can you hear us now?

Global Warming  
is not  
a crisis!



SPONSORED BY THE HEARTLAND INSTITUTE  
March 2 - 4, 2008 • New York City • The Marriott Marquis

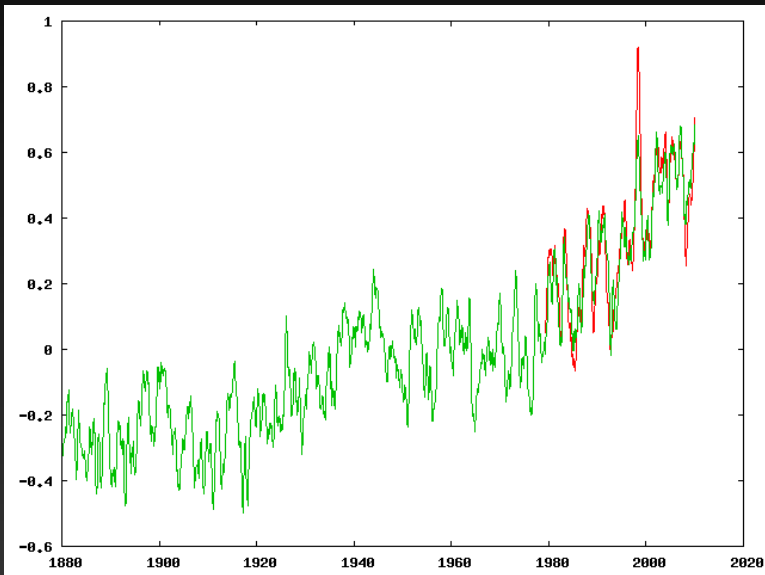
# The 29 years of High Quality Satellite Data



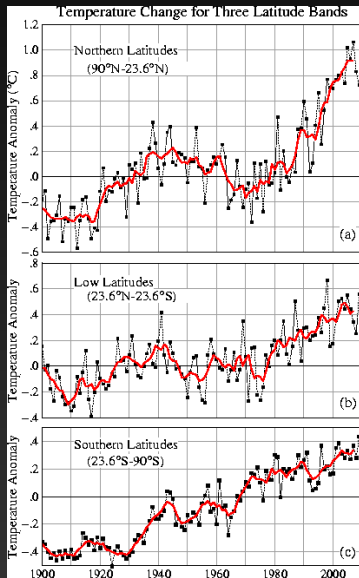
The Southern Hemisphere is the same temperature it was 28 years ago, the Northern Hemisphere has warmed slightly.

# Is global warming real?

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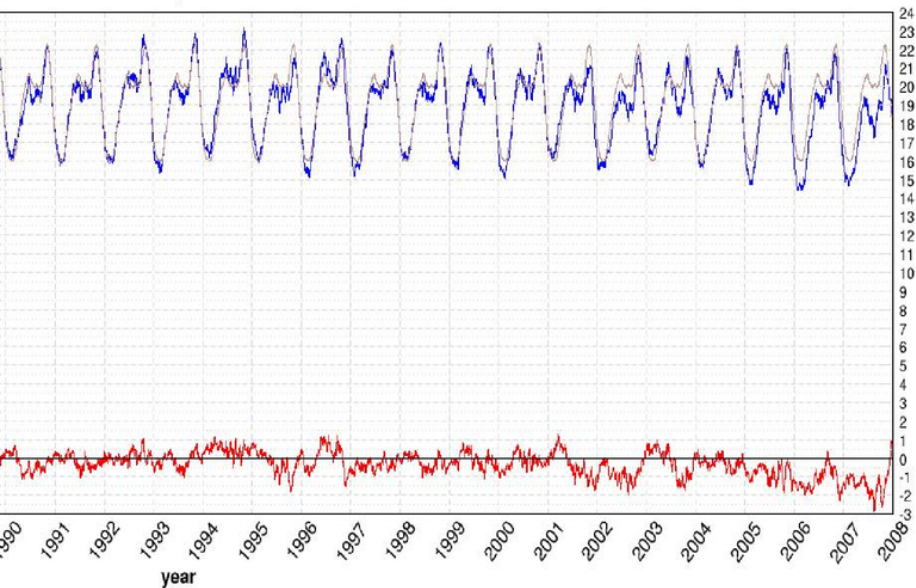


# Is global warming real?

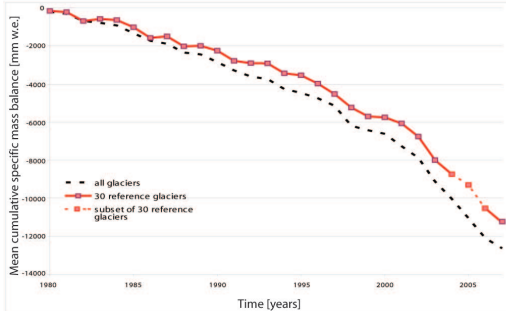
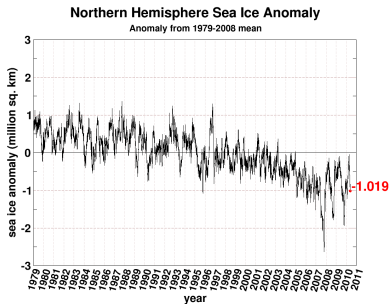


# Global Sea Ice Area

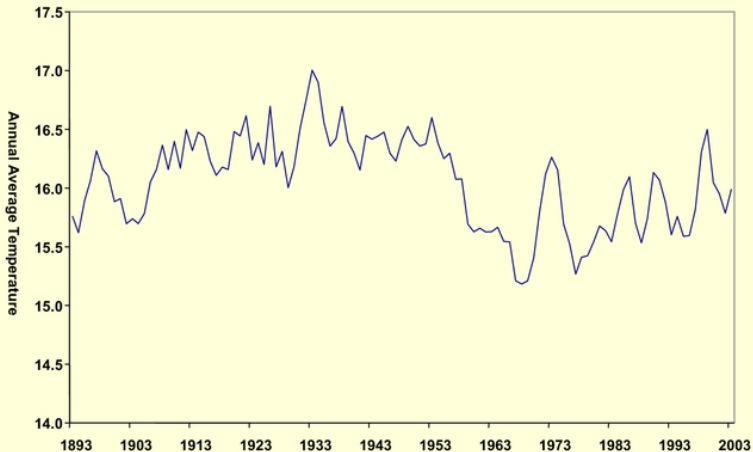
1979 - present



# Is global warming real?



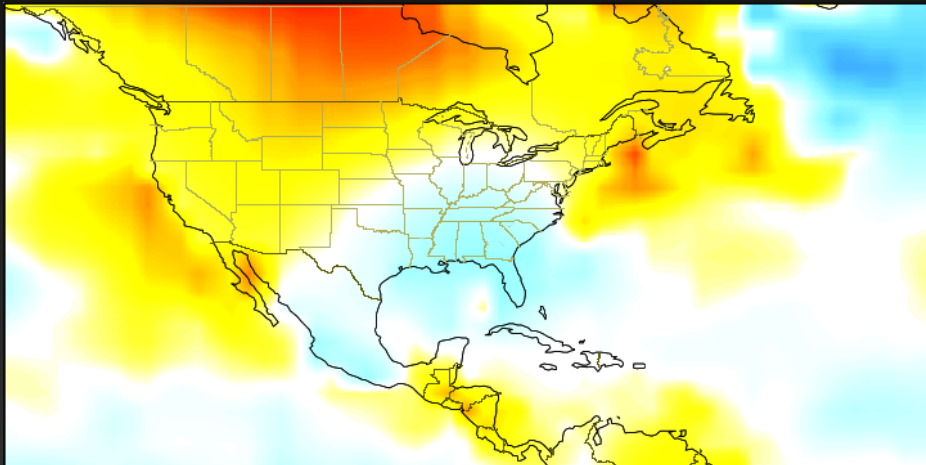
# A Rural US Data Set



The smoothed average annual temperature of the Hawkinsville (32.3N, 83.5W), Glennville (31.3N, 89.1W), Calhoun Research Station (32.5N, 92.3W), Highlands (35.0N, 82.3W) and Talbotton (32.7N, 84.5W) stations is representative of the US temperature profile away from the urban heat island effect over the last 100 years (Data source: NASA GISS)

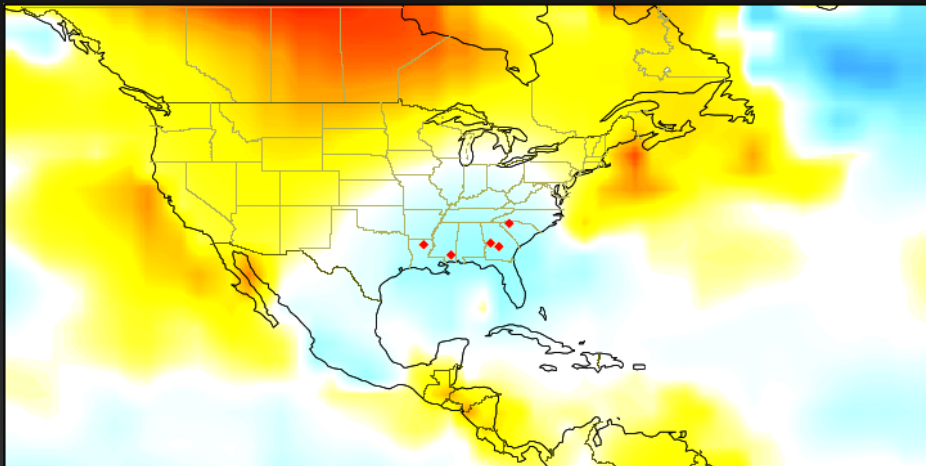
# Urban heat islands?

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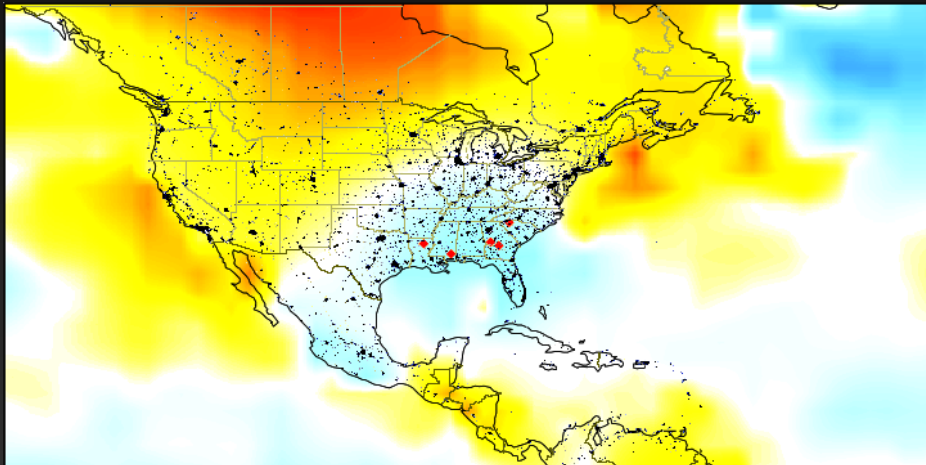
# Urban heat islands?

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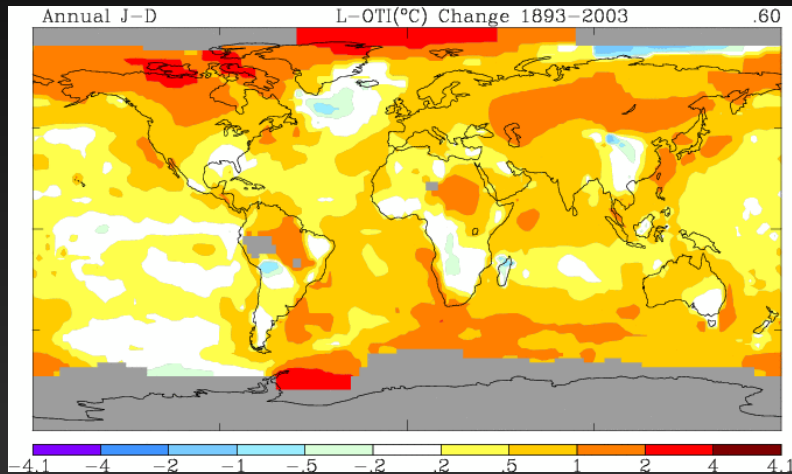
# Urban heat islands?

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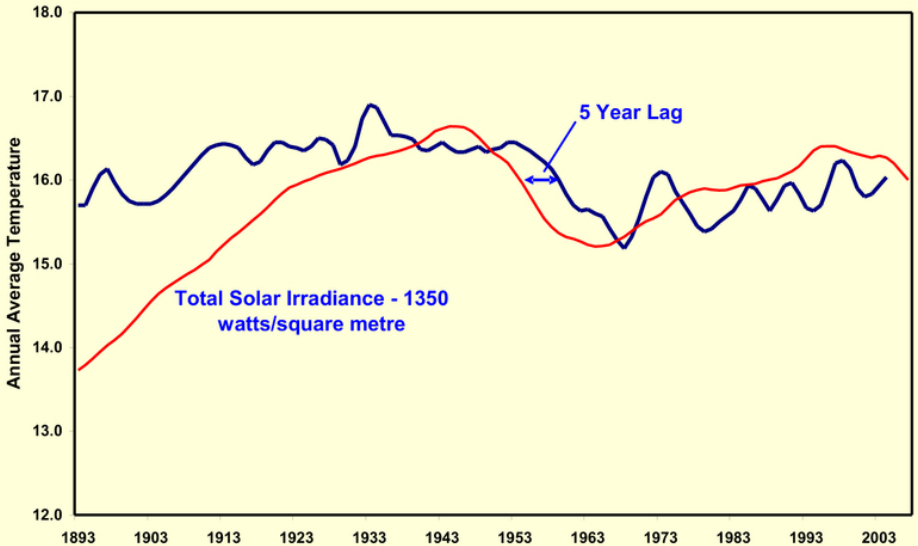


# Urban heat islands?

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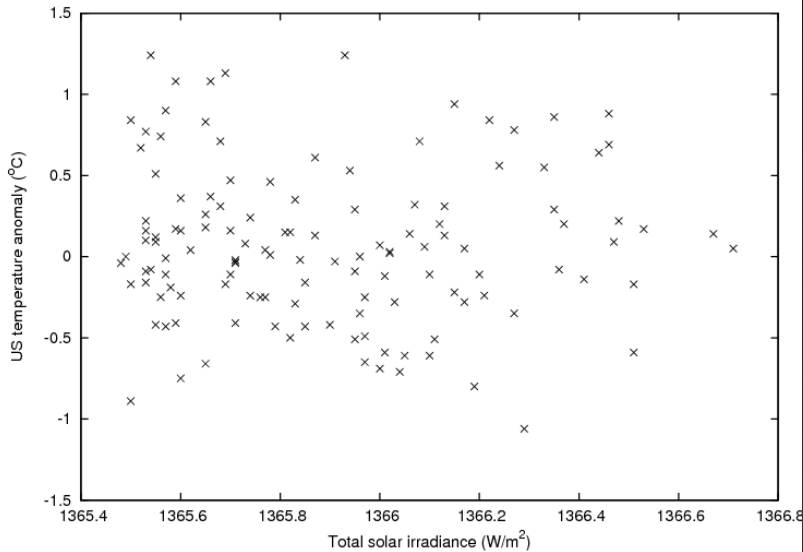


# The Total Solar Irradiance Correlation



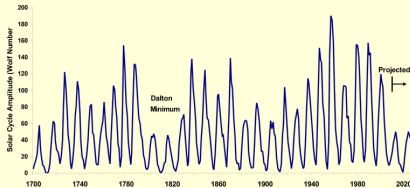
# Solar activity driving climate change?

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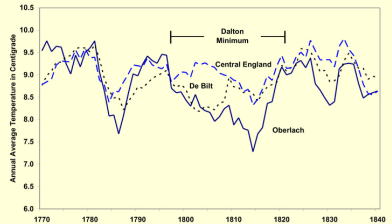


# Solar activity driving climate change?

## The Solar Driver

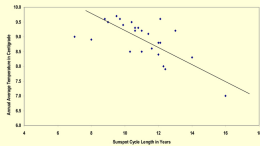


## The Dalton Minimum at Three European Stations 1770 to 1840



# Solar activity driving climate change?

**Sunspot Cycle Length Relative to Temperature**  
De Bilt, Netherlands 1705 - 2000



**Sunspot Cycle Length Relative to Temperature**  
Armagh, Northern Ireland 1796 - 1992

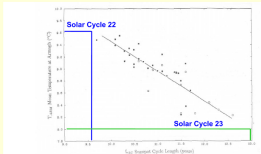
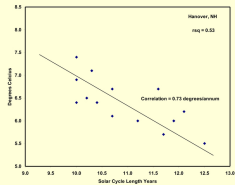
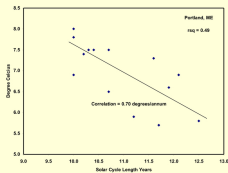


Figure 3. The mean temperature of Armagh for 11 year bins, centered on years of minimum maximum and maximum minimum, against the mean cycle length. Symbols: open squares - Series 1, filled squares - Series 2. The linear regression line is shown.

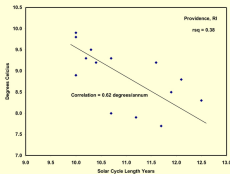
**Hanover, NH**



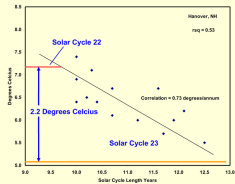
**Portland, ME**



**Providence, RI**



**Hanover, NH**



## The Consequential Climate Shift

1 year increase in  
solar cycle length

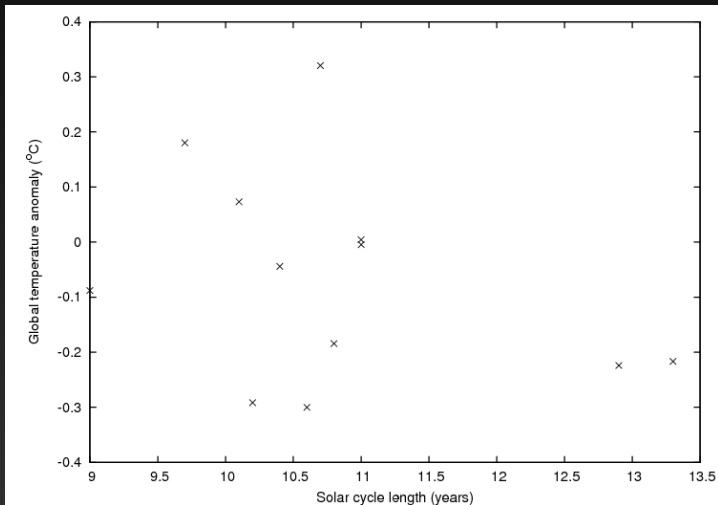
```
graph TD; A[1 year increase in solar cycle length] --> B[0.7° celcius decline in temperature]; B --> C[100 kilometre equator-ward shift in growing conditions];
```

0.7° celcius decline  
in temperature

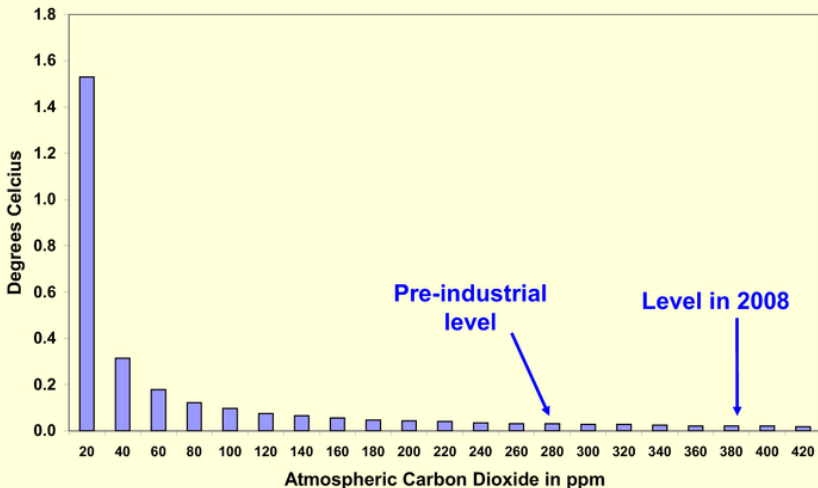
100 kilometre equator-ward  
shift in growing conditions

# Solar activity driving climate change?

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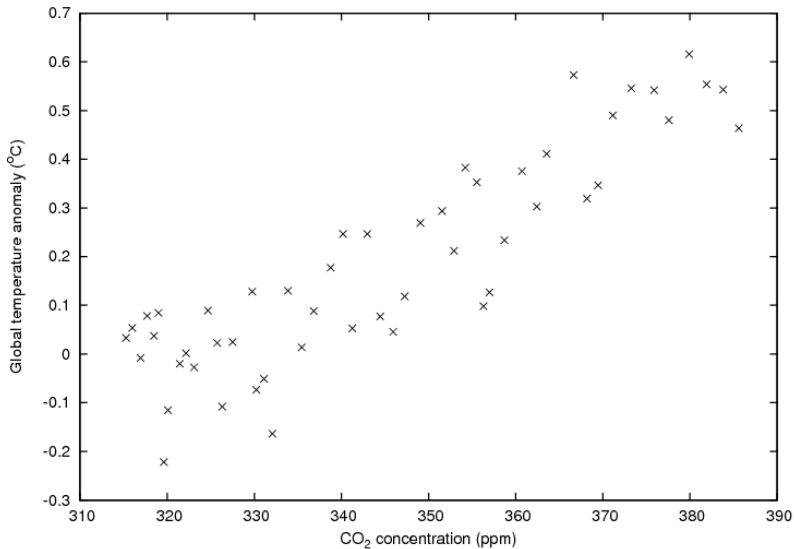


# The Warming Effect of Atmospheric Carbon Dioxide



# Does CO<sub>2</sub> cause global warming?

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# Conclusions

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## AGW Proponents are Exactly Wrong

1. The Earth is getting colder and this will accelerate.
1. Carbon dioxide has a minuscule warming effect.
1. Increased atmospheric carbon dioxide will increase agricultural productivity.
1. The ideal atmospheric carbon dioxide level is a minimum of 1,000 ppm

## Implications for the United States

1. The climate-driven reduction in agricultural production should be planned for.
1. Coal-fired power generation should be increased.
1. Coal to liquid fuels capacity should be installed.

## Conclusions 2

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- Fossil fuel lobbyists are poor sources of climate science
- Global warming is real
- CO<sub>2</sub> drives it - not the Sun
- Will it be disastrous? That's a much more interesting question...
- <http://zuserver2.star.ucl.ac.uk/~rwesson/archibald>