THE CAUSE OF CLIMATE CHANGE AND ITS IMPLICATIONS FOR FUTURE CLIMATES

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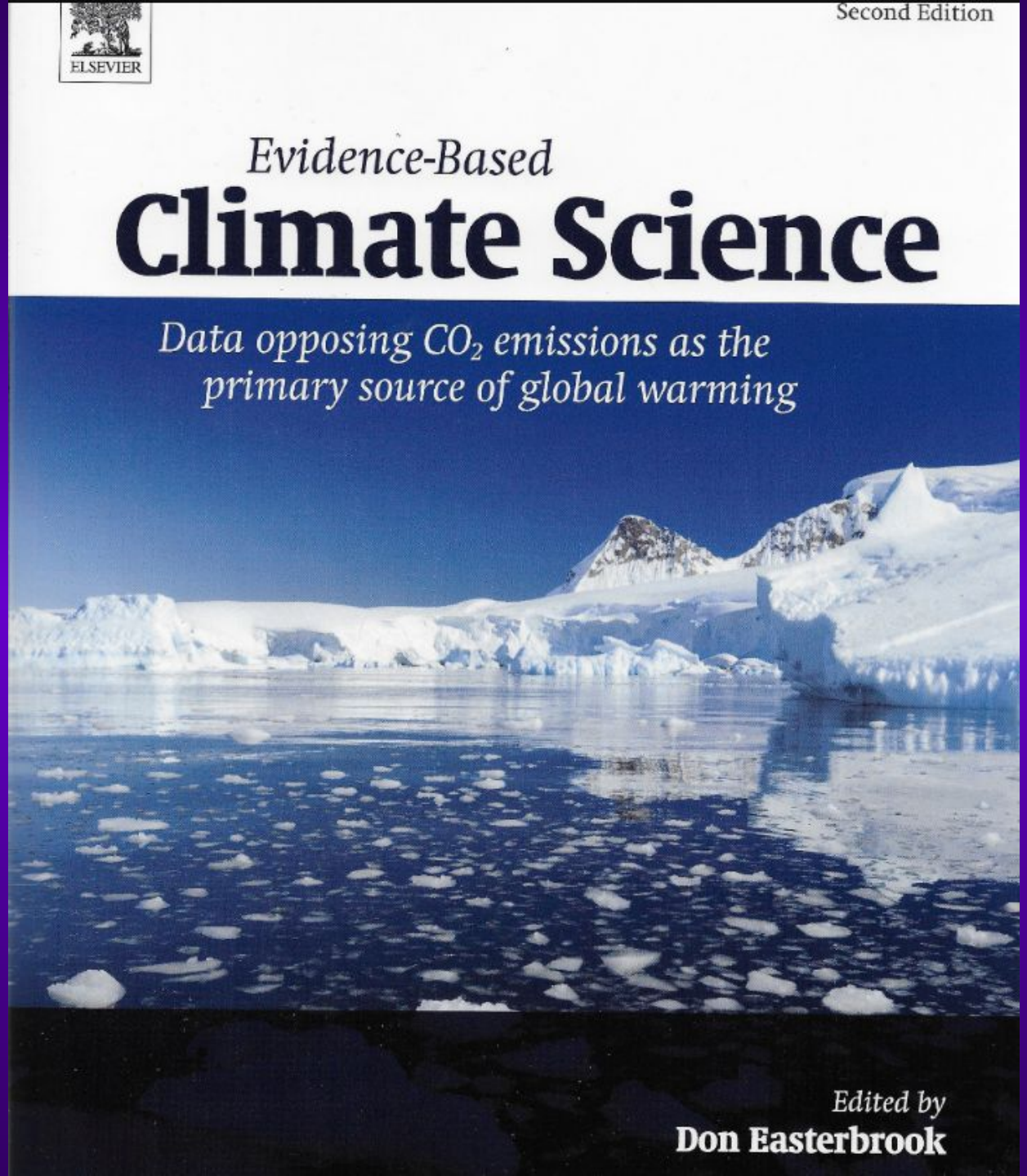


CONTENTS

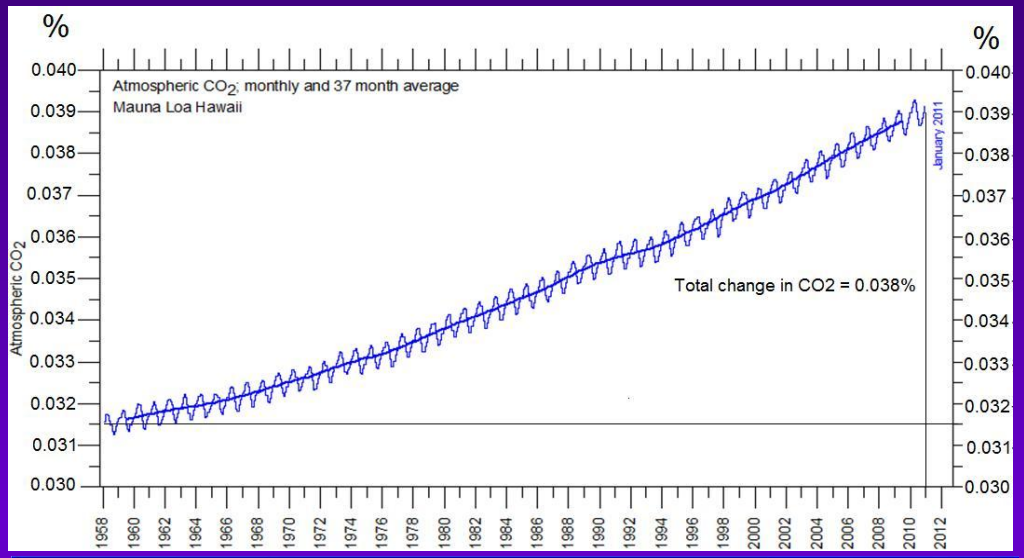
Topics

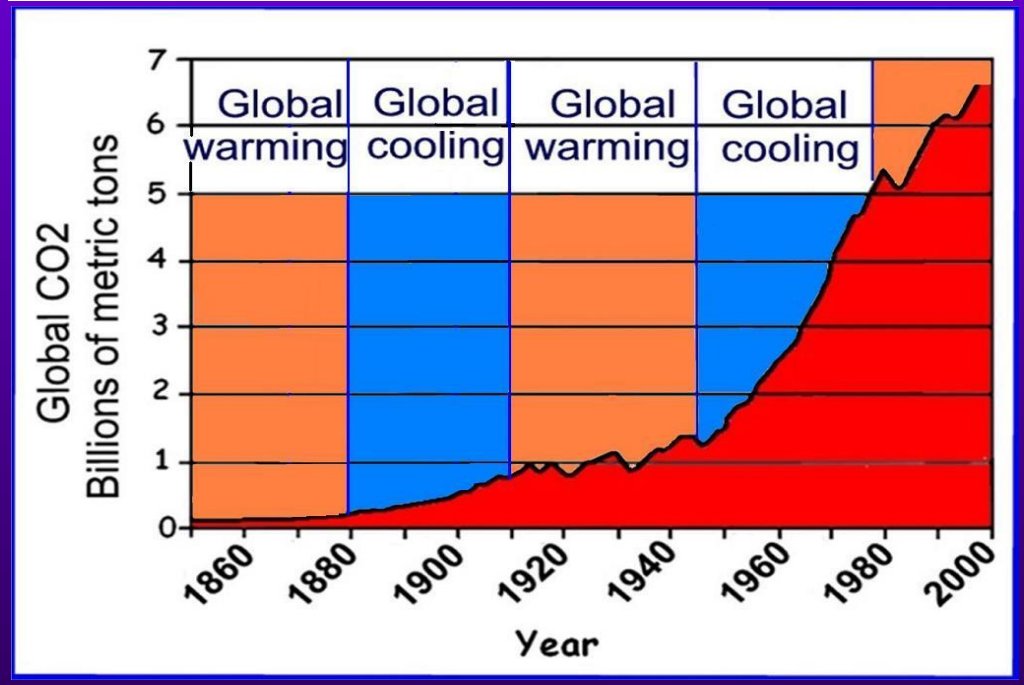
- *1. Carbon dioxide is not the cause of global warming.*
- *2. Climate changes are caused by fluctuations of the sun's magnetic field that affect cosmic radiation reaching the earth and its effect on reflection of solar energy by clouds.*
- *3. A consistent, recurring pattern of climate changes in the past 500 years allows predictions of climates in coming decades.*
- *4. NOAA, NASA, EPA, and other governmental agencies have blatantly tampered with weather records. What needs to be done to restore scientific integrity.*

Proof that carbon dioxide is an insignificant factor in global warming

Testing the concept that CO2 causes global warming

- CO2 emissions soared after 1945.
- Any climate changes before 1945 cannot have been caused by CO2
- If global warming is caused by CO2 temps should correlate with CO2.

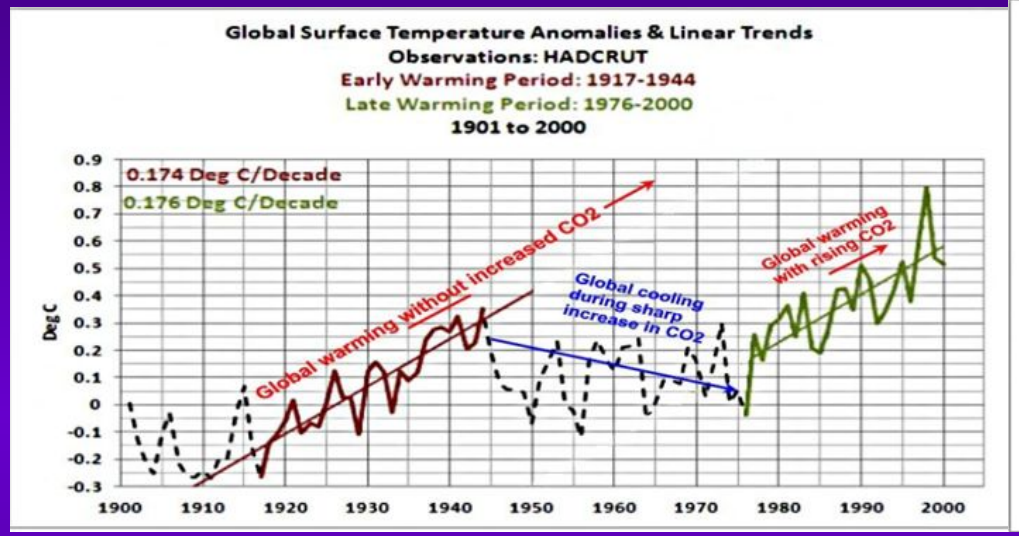


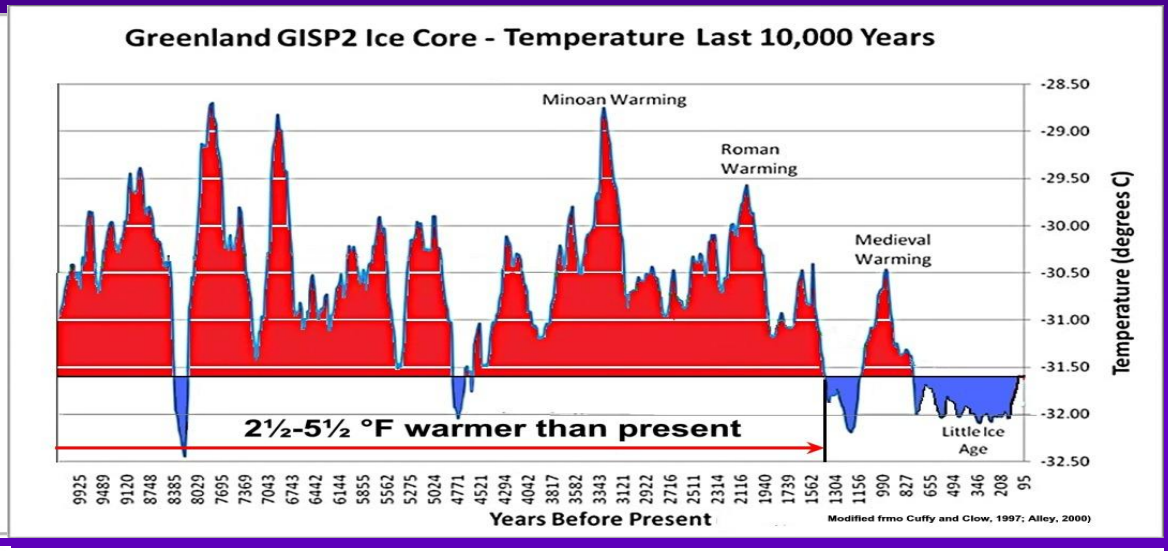


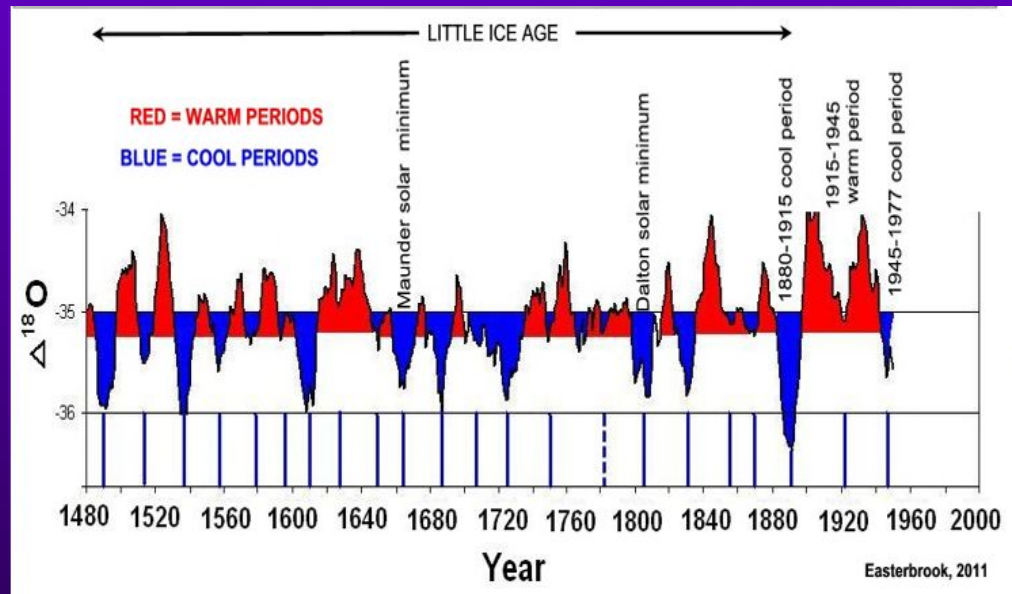
30 years of global cooling occurred during the sharpest rise in human CO_2 emissions

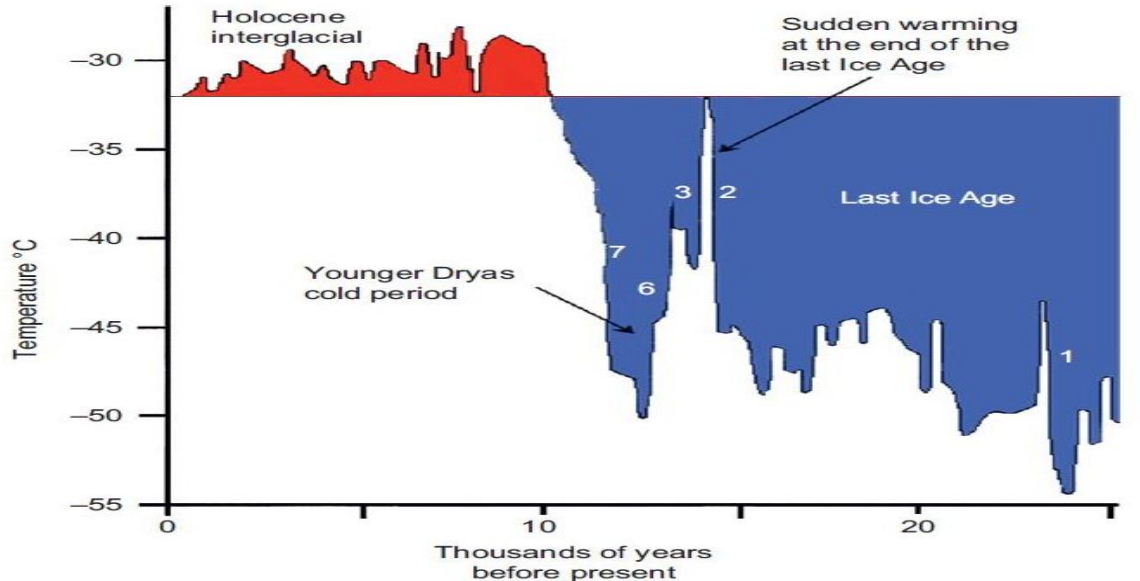
Global warming from ~1915 to ~1950 occurred *before* the rise of atmospheric CO_2.

20 periods of global warming have occurred since 1500 AD and many hundreds more occurred earlier, none of which could have been caused by increased CO_2.



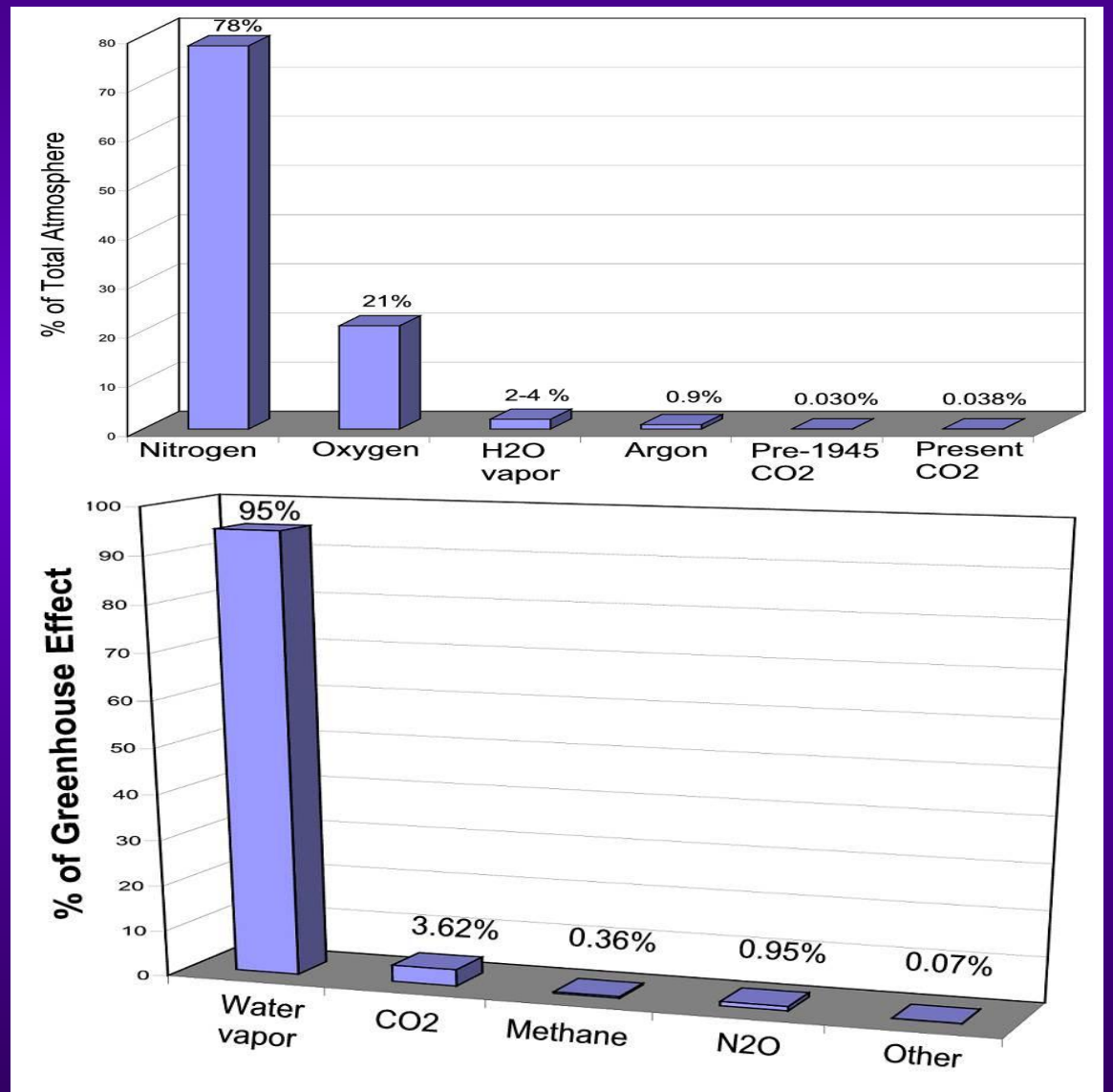




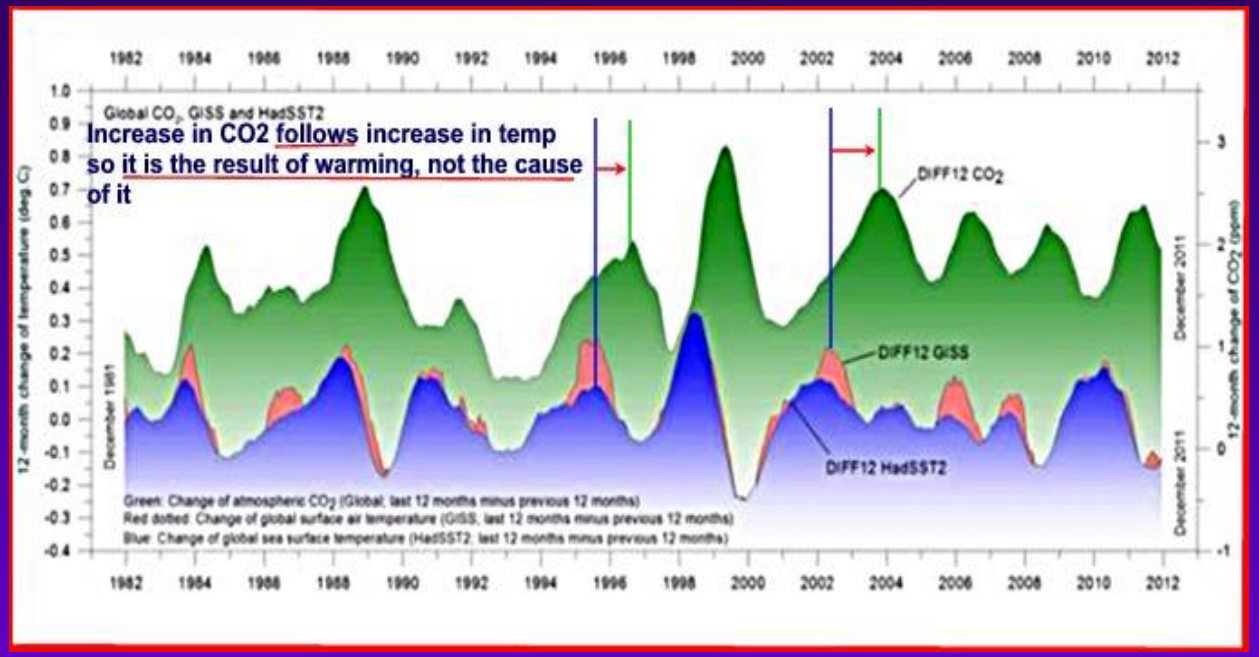


CO_2 can *not* cause significant global warming by itself--the amount of CO_2 in the atm. is miniscule

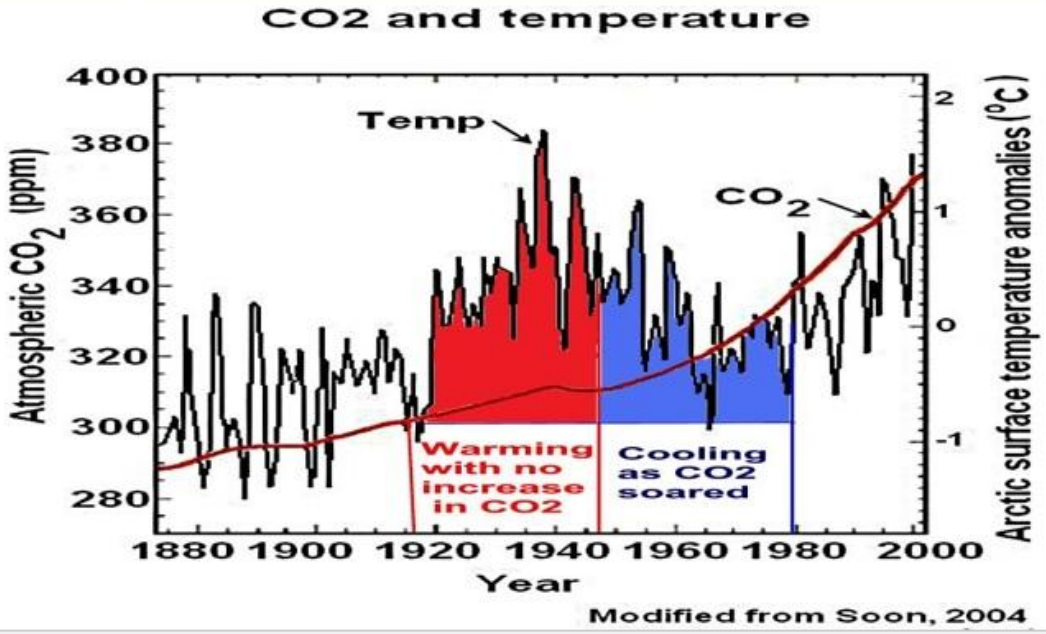
- The atmosphere consists of 0.040% CO_2
- Since 1950s, CO_2 has increased by only 0.008%
- CO_2 is responsible for 3.62% of the greenhouse effect.
- Water vapor accounts for 95% of greenhouse effect.
- Water vapor (which causes 95% of greenhouse warming has not increased



CO2 *always* lags global warming so it cannot be the cause of the warming



FACT: THERE IS NO CORRELATION AT ALL BETWEEN CO2 AND TEMPERATURE



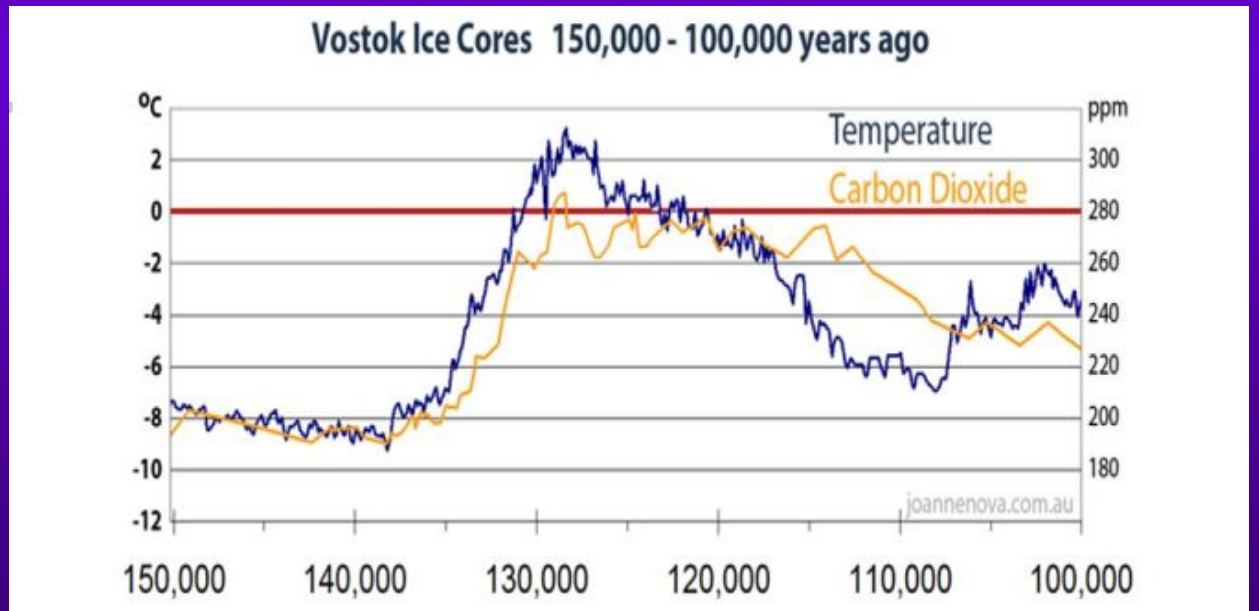
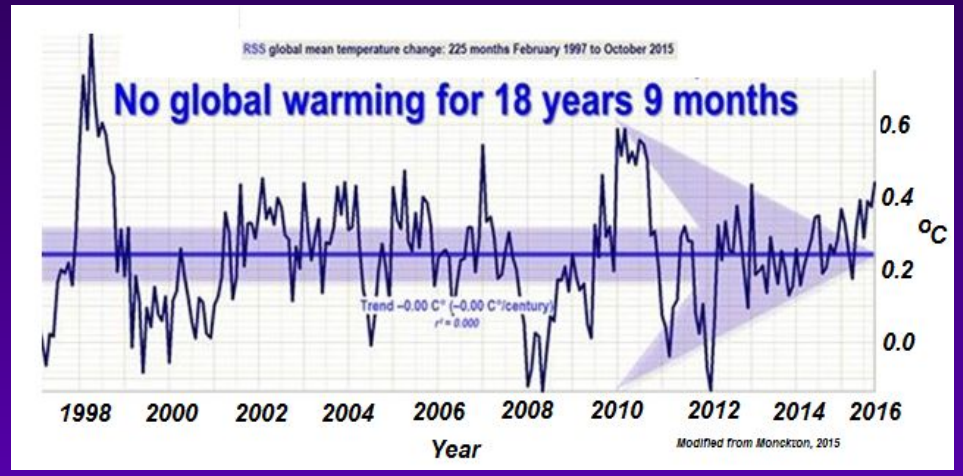
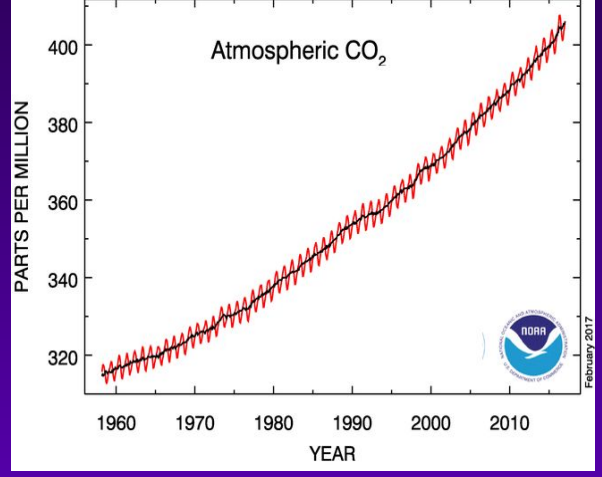


Figure 5.7.2. Temperature and CO_2 levels detail for 100,000-150,000 years ago from the Vostock ice core (Petit *et al.*, 1999; Fischer *et al.*, 1999; Monnin *et al.*, 2001; Caillon *et al.*, 2003. From Joanne Nova, 2013, http://joannenova.com.au/global-warming-2/ice-core-graph/.

CO2 has continued to rise, but there has been NO global warming in ~20 years.

This shows that CO2 has no significant effect on atmospheric temperature



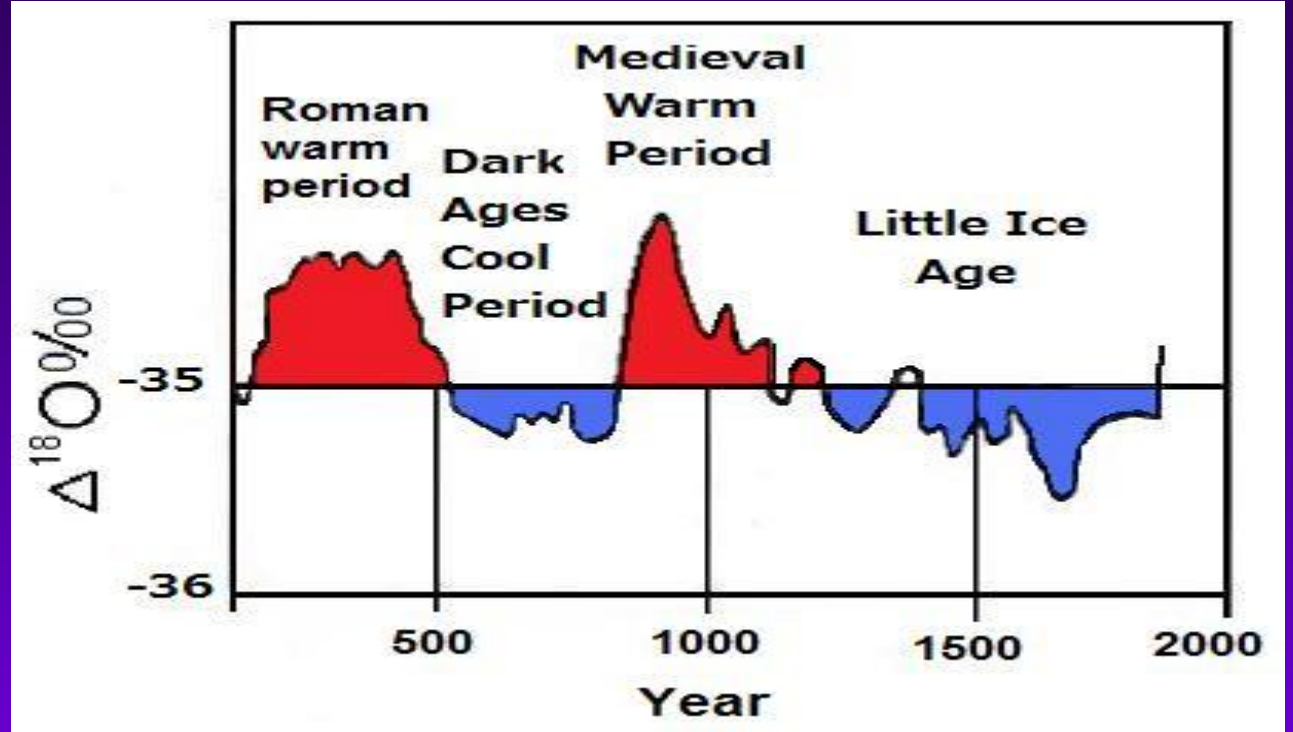


- CONCLUSIONS
- Many hundreds/thousands of global warming events have occurred in the geologic past *before* the rise of CO2 and thus could *not* be caused by CO2. Only 0.1% of global warming periods correlate with increased CO2.
- The amount of atmospheric CO2 is miniscule—only 4 molecules in 100,000 in air and makes up only 3.6% of the greenhouse effect. It increased only 0.008% during global warming from 1980 to 2000, not enough to cause any significant warming.
- CO2 always lags global warming during interglacial periods and over short time spans, so cannot be the cause of warming.
- *Carbon dioxide has no significant effect on global temperature.*
- *Cutting carbon dioxide emissions will not change atmospheric CO2*

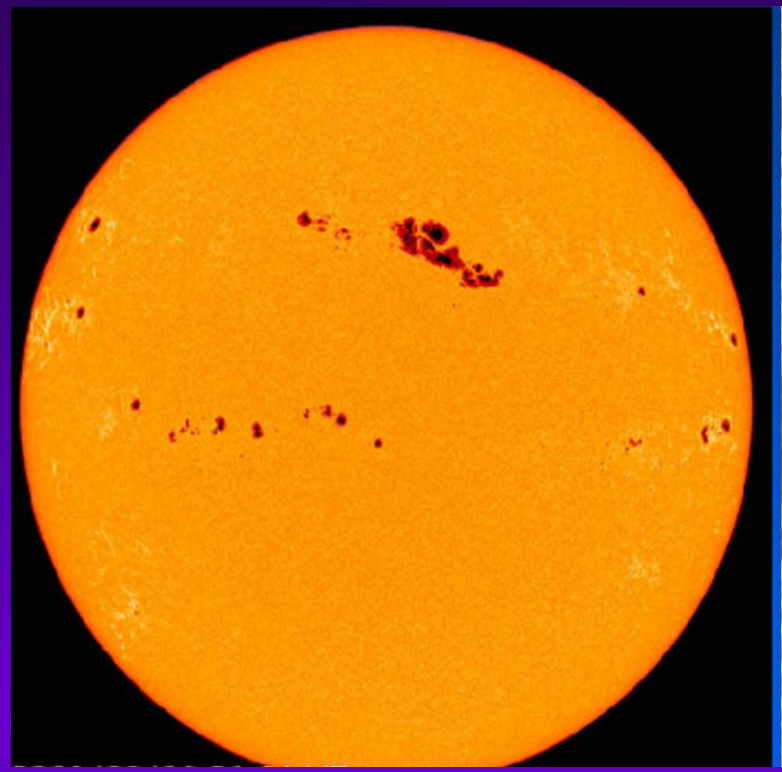
What *is* the cause of global warming?

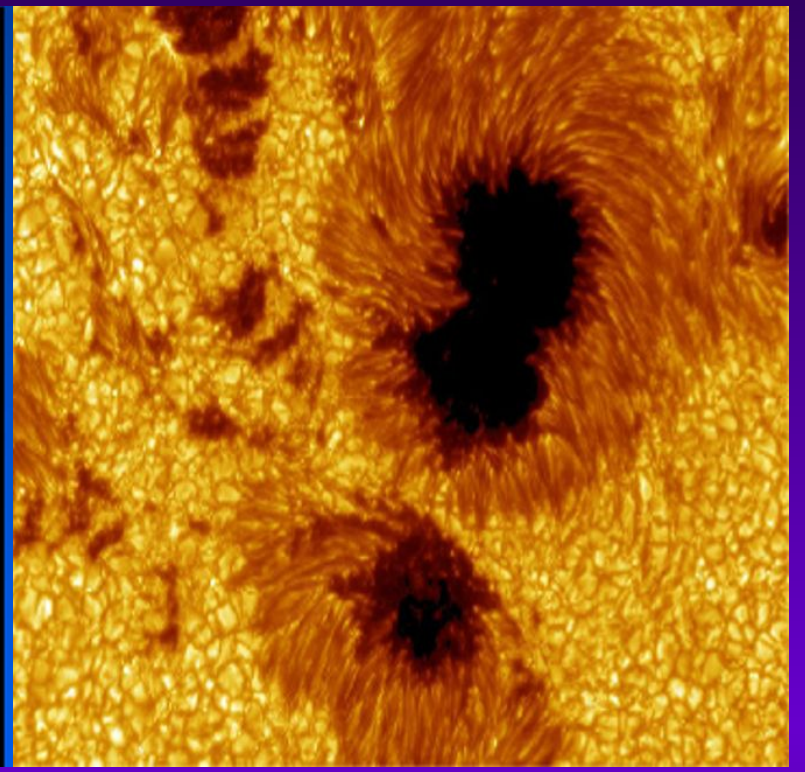
How can we determine ancient temperatures?

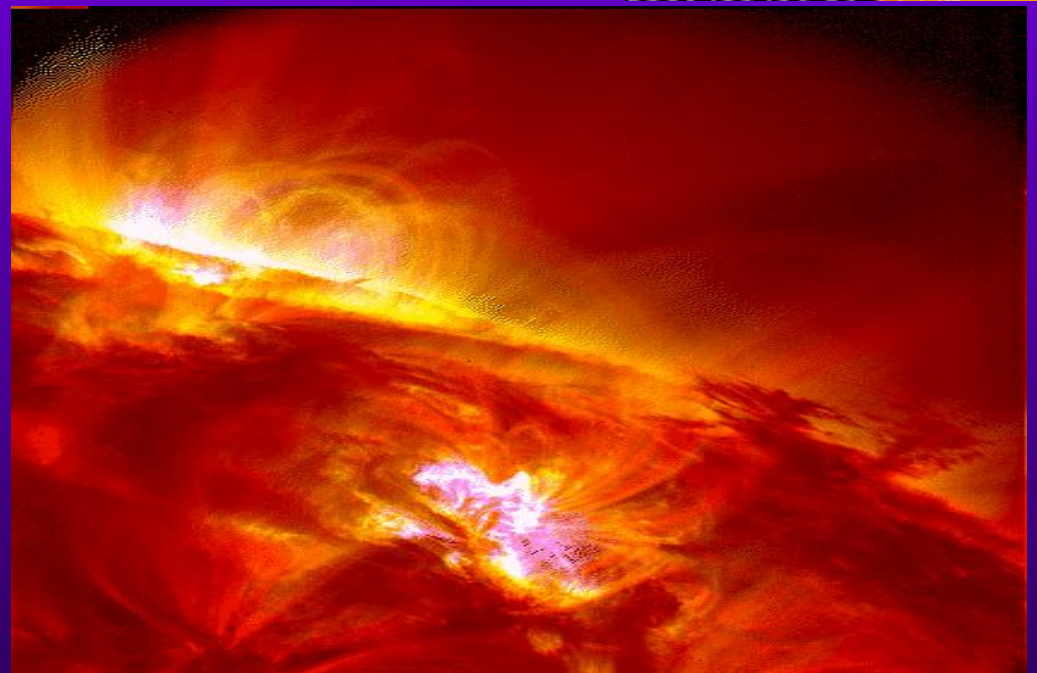
- Historic measurements
- Isotope measurments from ice cores
- Glacial fluctuations
- Changes in temp sensitive fossils
- Isotope measurements from fossils
- Isotope measurements from cave deposits
- Tree rings



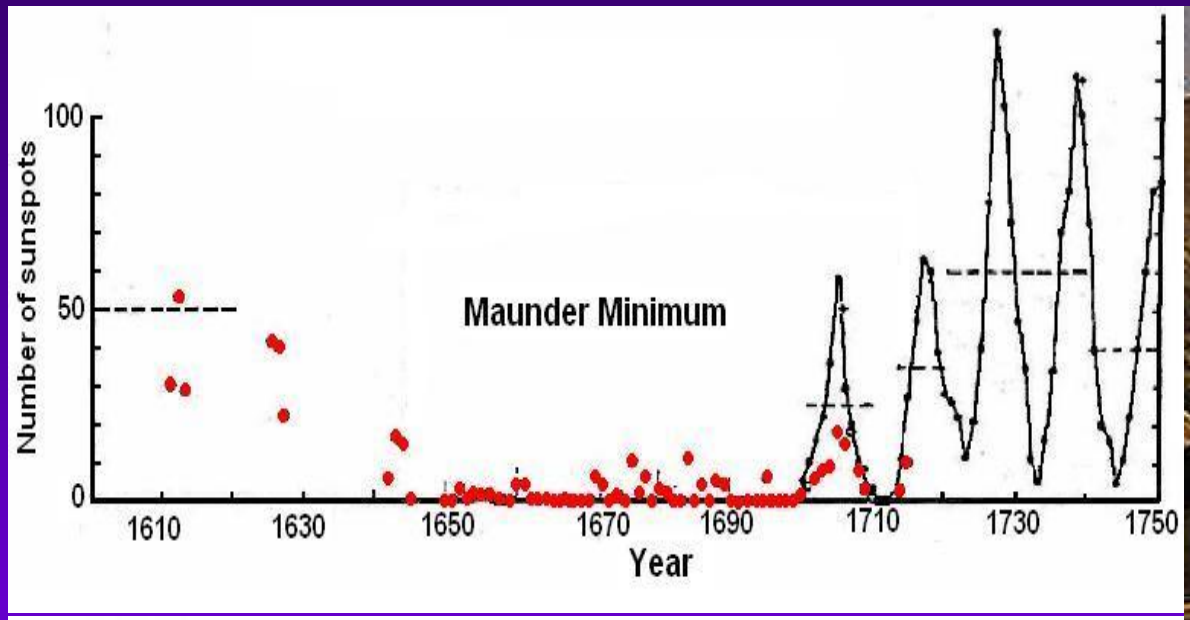
Sun spots

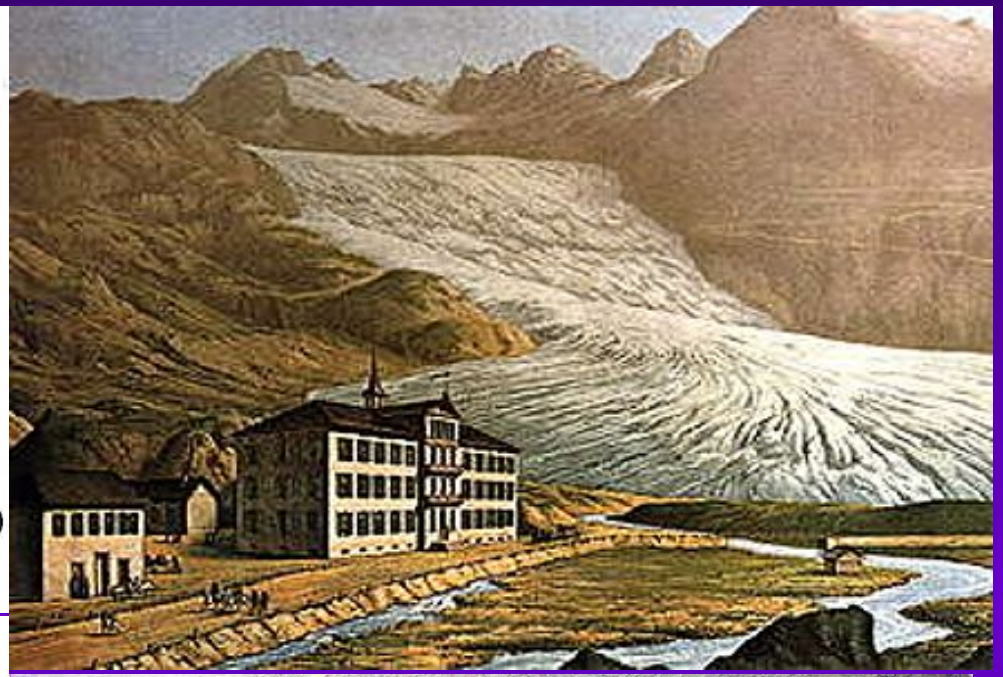


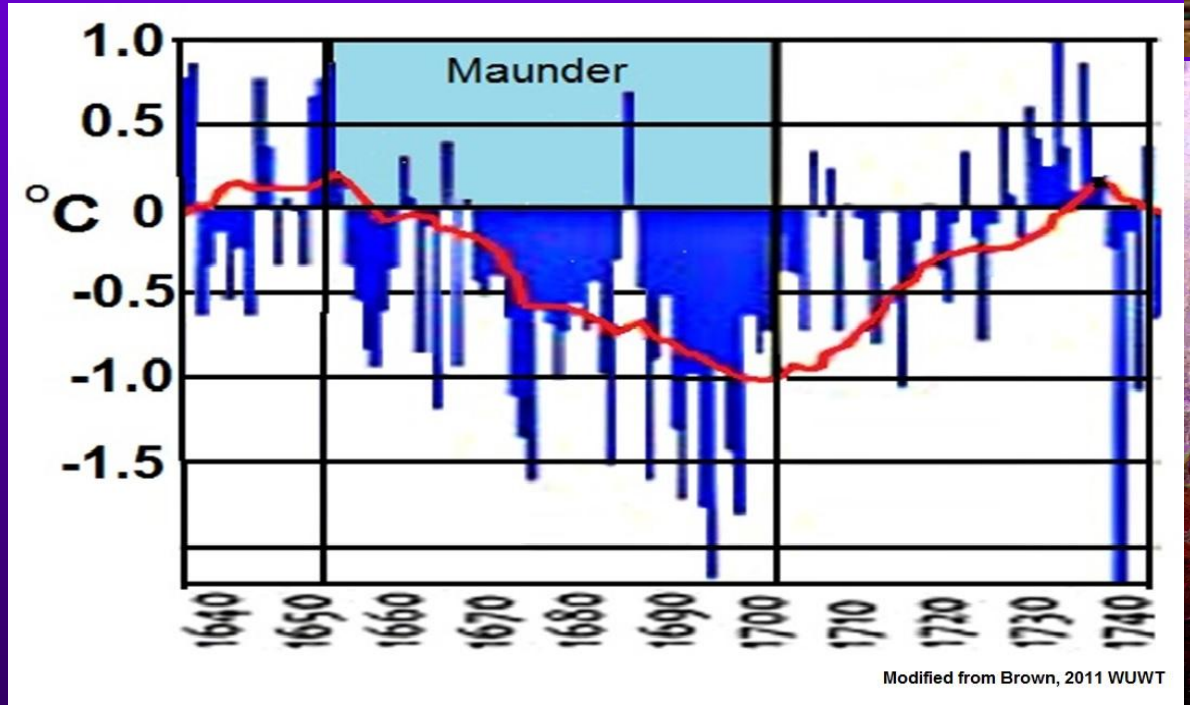




New evidence for the cause of climate change

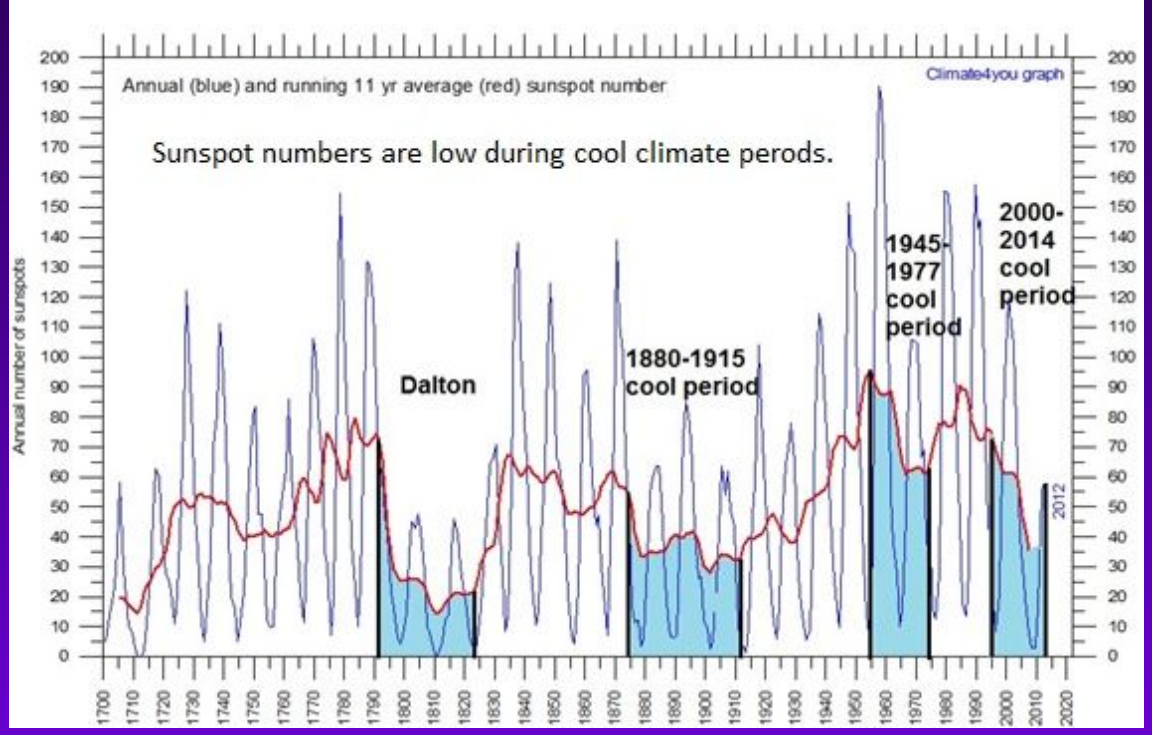


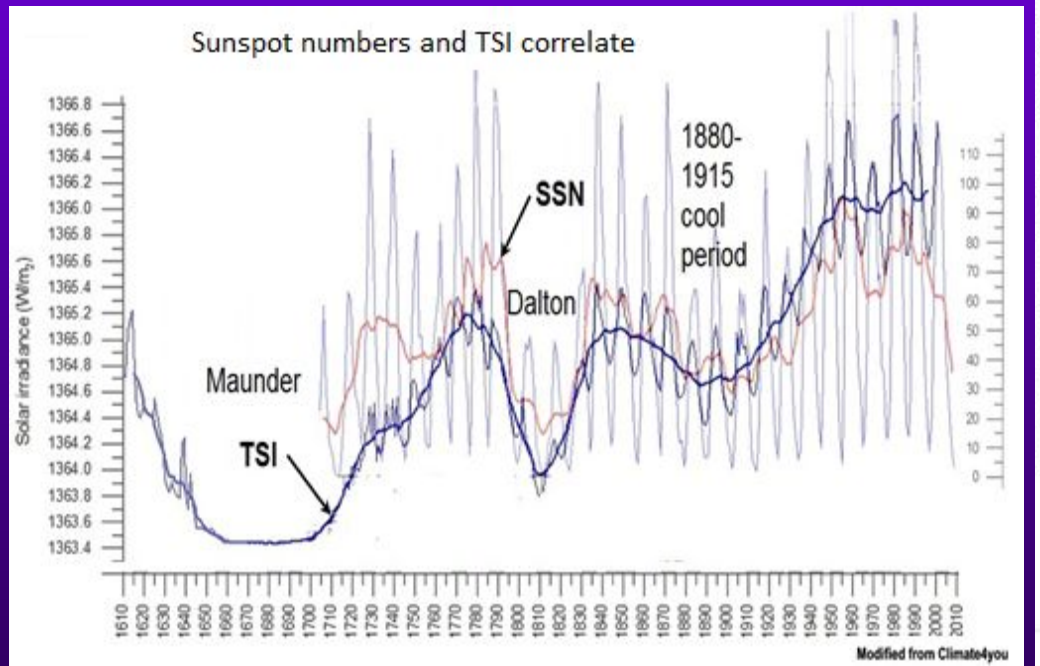


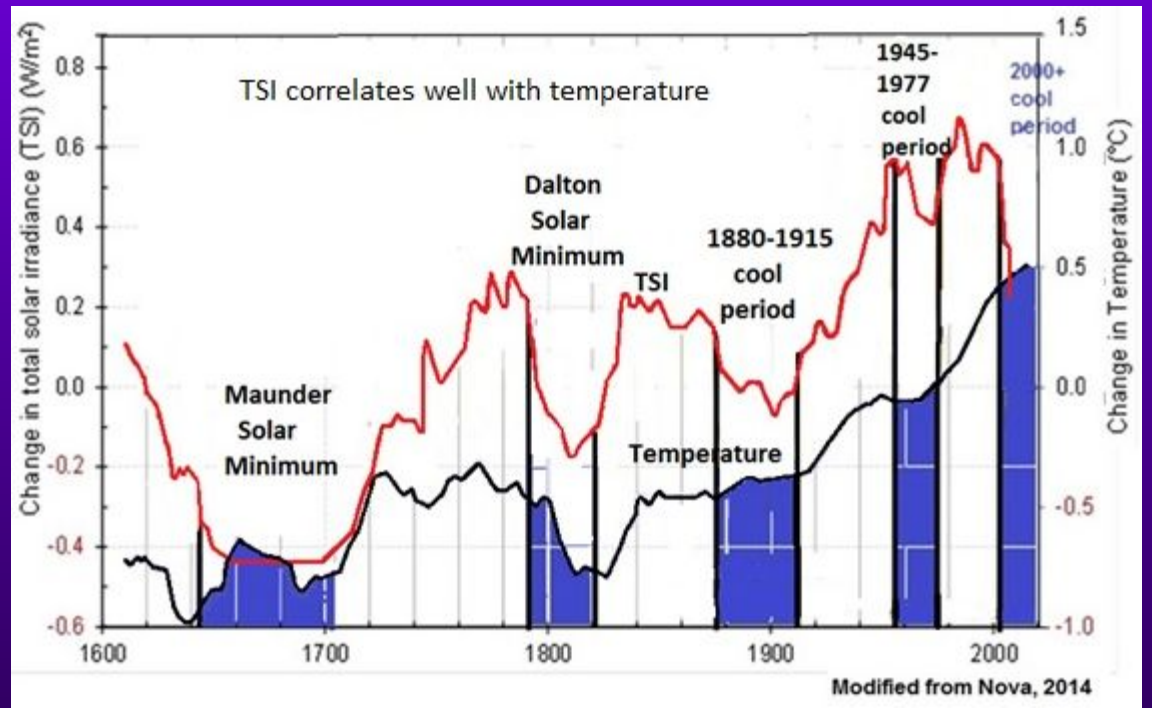


Low numbers of sunspots (SSN) and low total solar irradiance (TSI) are associated with cool climate.

High numbers of sunspots (SSN) and high total solar irradiance (TSI) are associated with warm climate





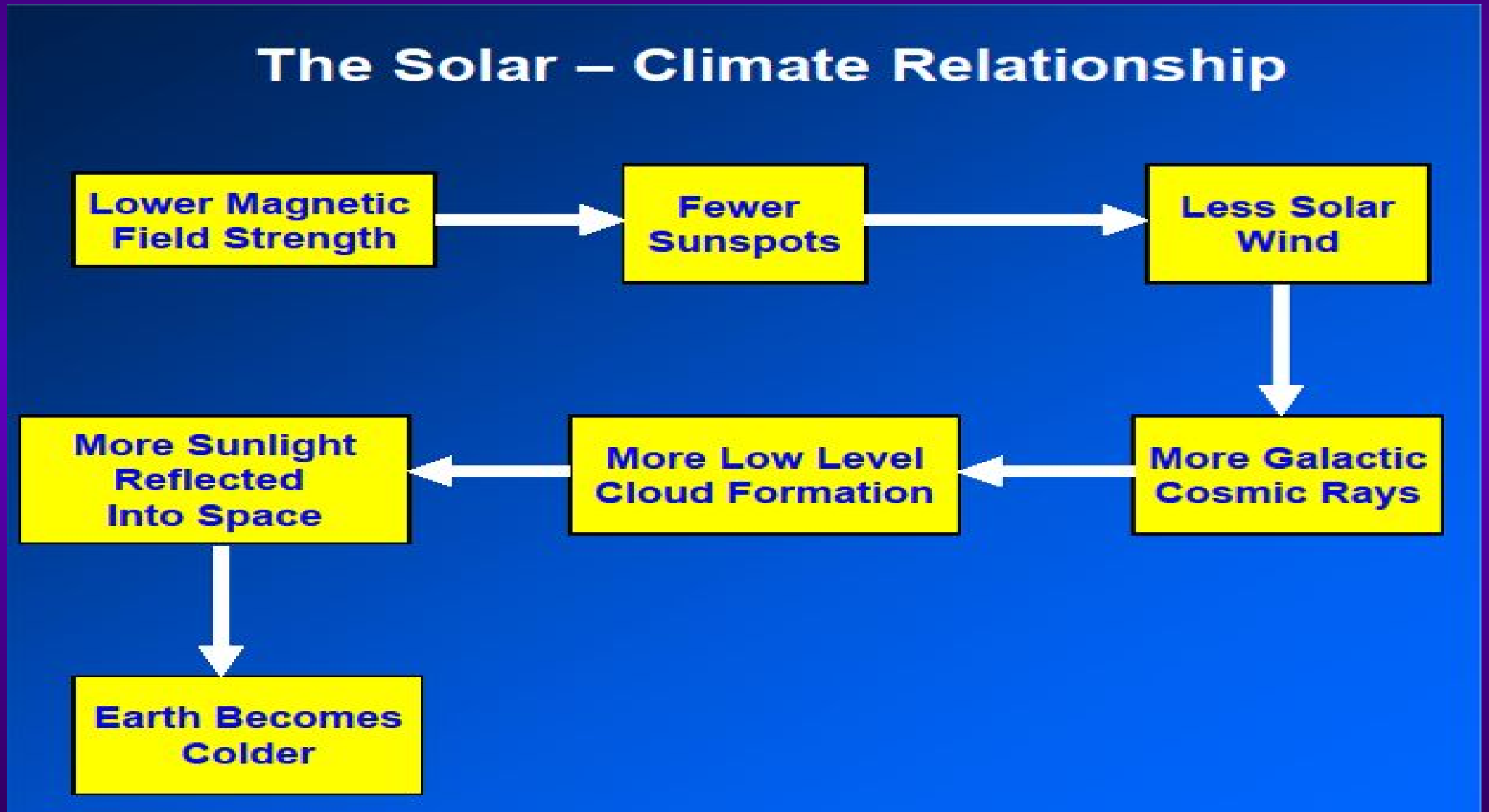


Relationship of sun spots and solar irradiance to global climate

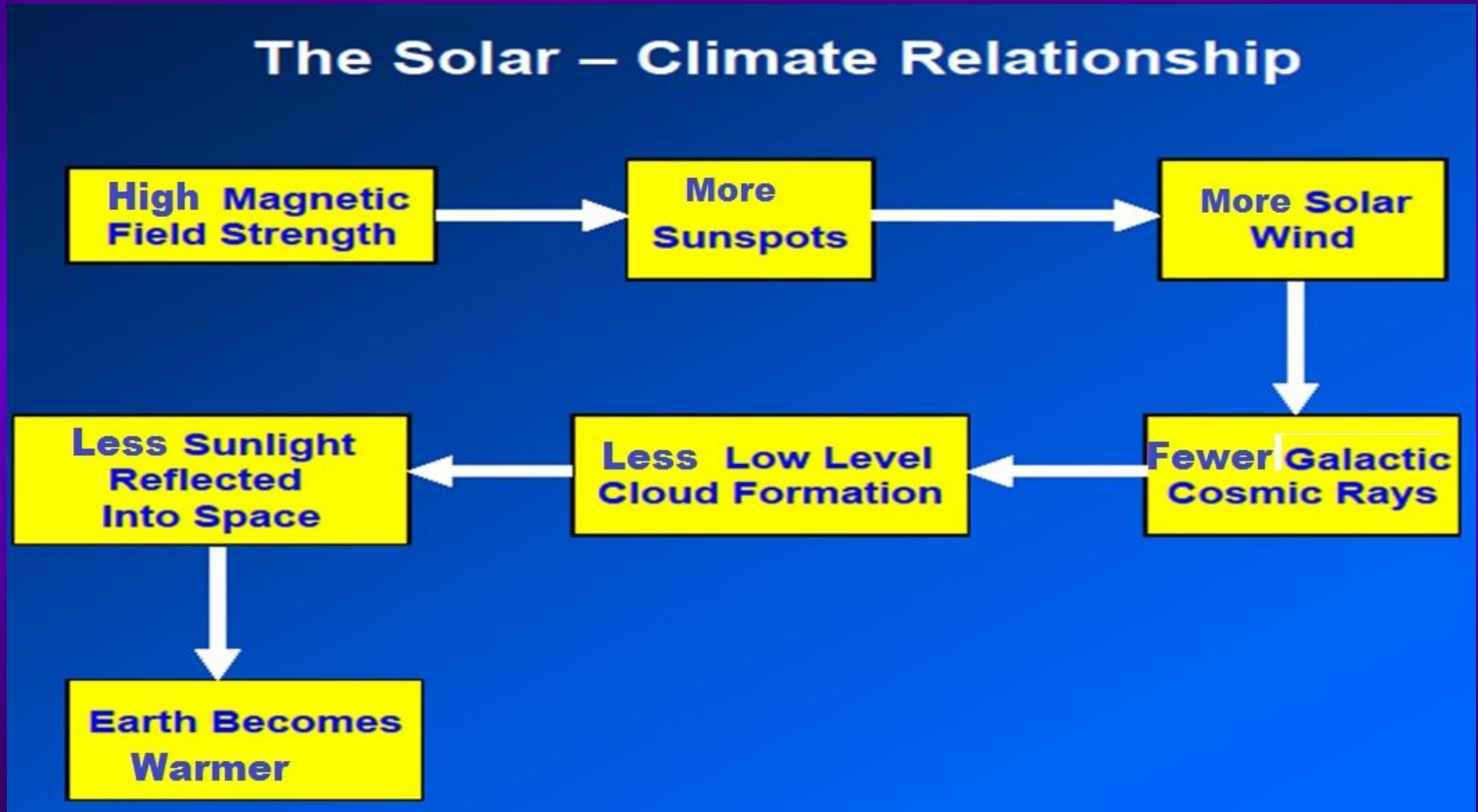
- Cause and effect or symptoms of a common cause?
- Relationship to the solar magnetic field.
  - During times of low sun spots and low solar irradiance, the sun's magnetic field weakens.
  - A weak solar magnetic field lowers the shielding effect on cosmic radiation getting to the Earth, allowing more radiation to reach the atmosphere.

Radiation penetrating the atmosphere produces ions (charged particles) that act as nucleation centers for condensation of water vapor (clouds).

The Svensmark concept

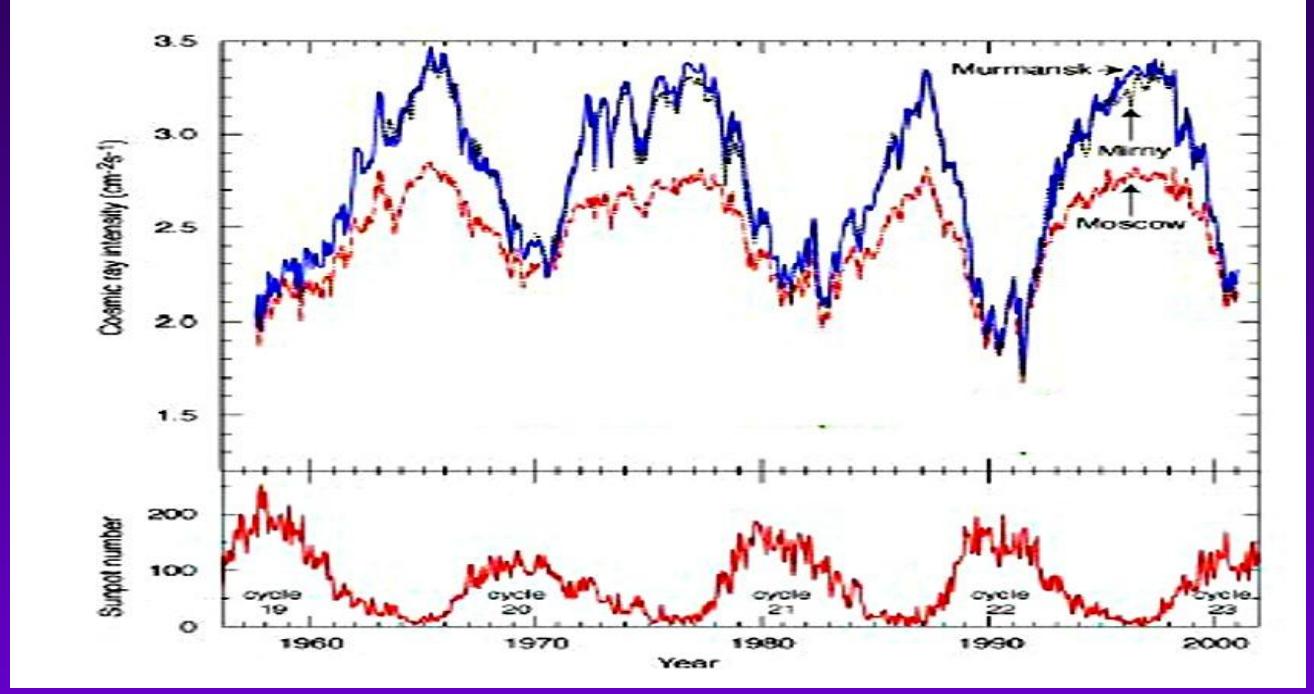


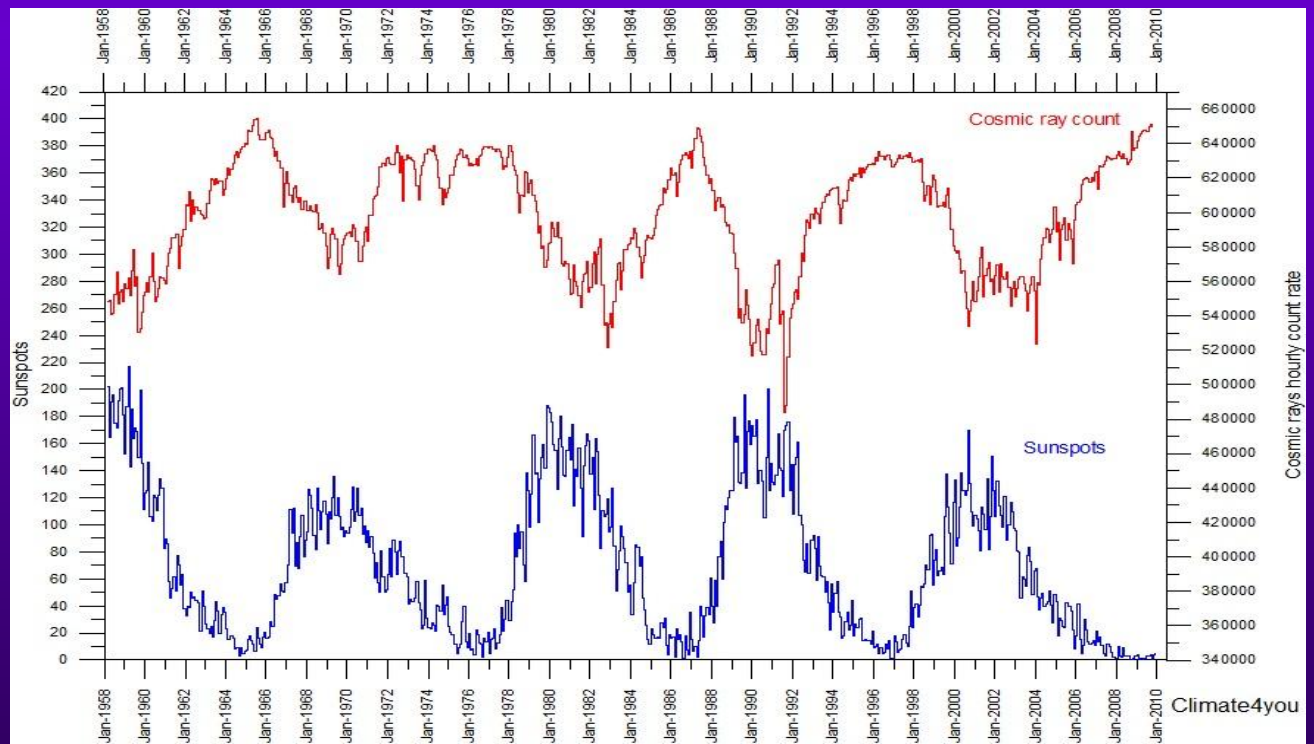
Global warming



Sun spots and cosmic rays

Cosmic ray incidence increases with low sun spot numbers

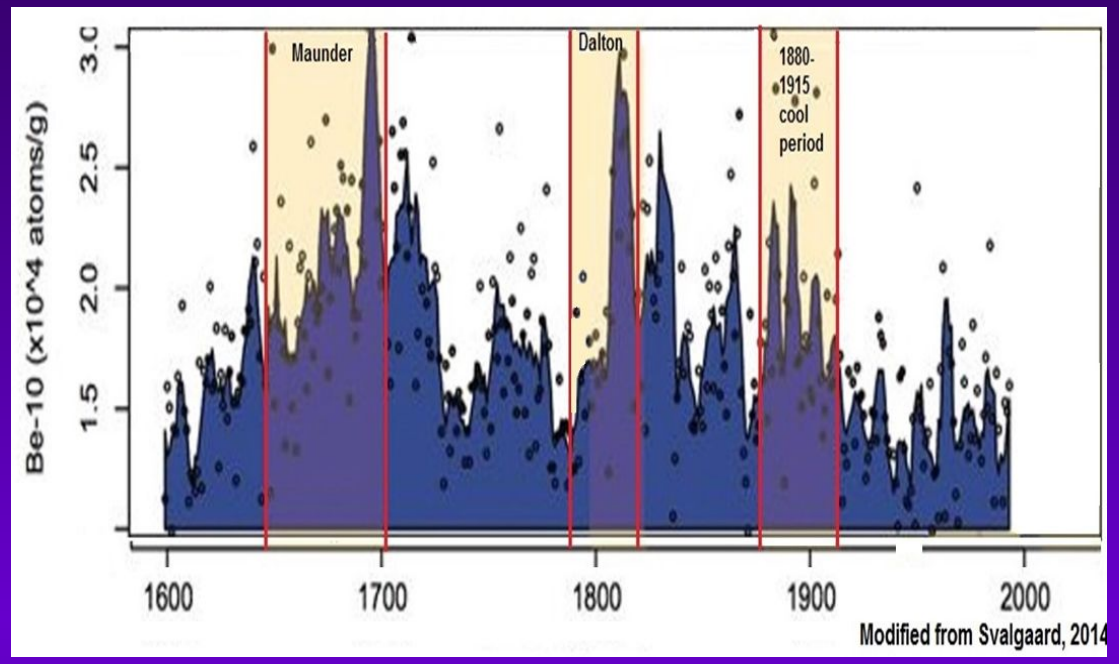


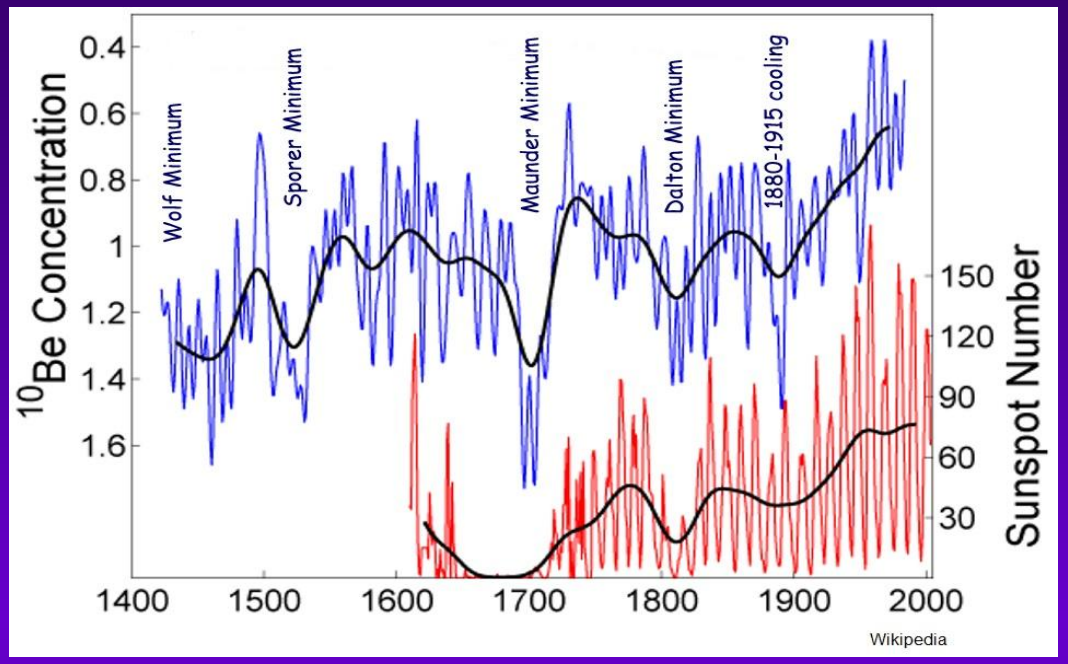


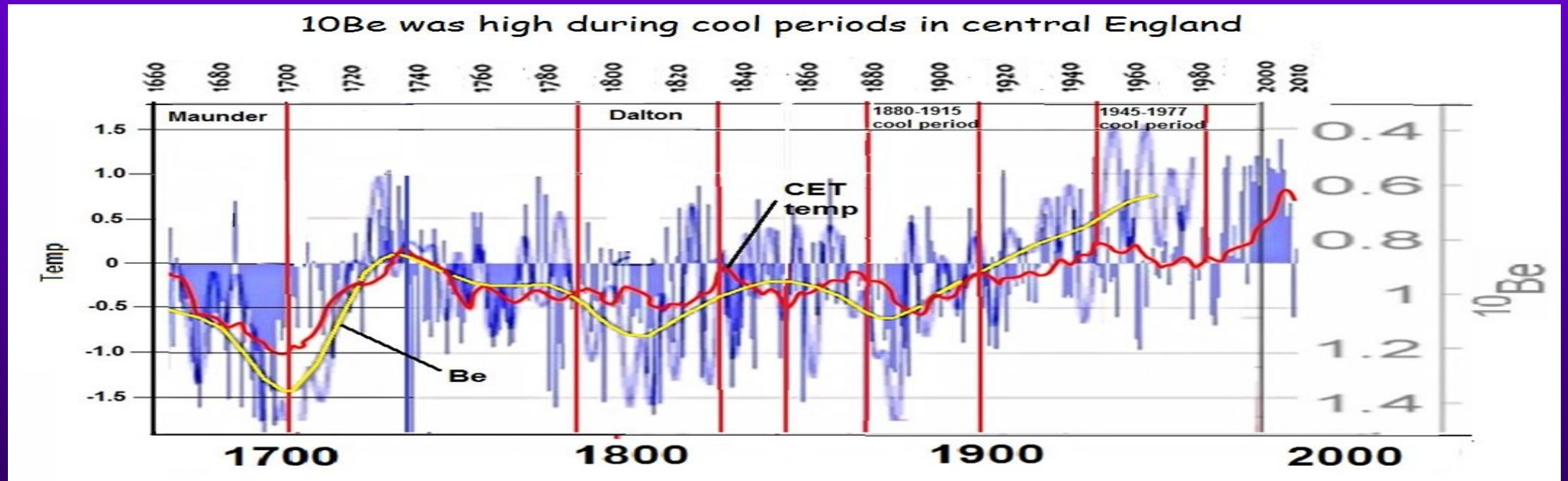
Using beryllium and radiocarbon to check the Svensmark hypothesis

- The production rate of radiocarbon varies with the neutron influx, causing $^{14}C_6$ ages to differ from calendar age. Comparison of ^{14}C ages with ages of tree rings gives a measure of ^{14}C production rates (and thus changes in cosmic radiation)
- ^{10}Be is produced in the atmosphere by cosmic ray spallation of oxygen and also changes with variations in cosmic ray flux.

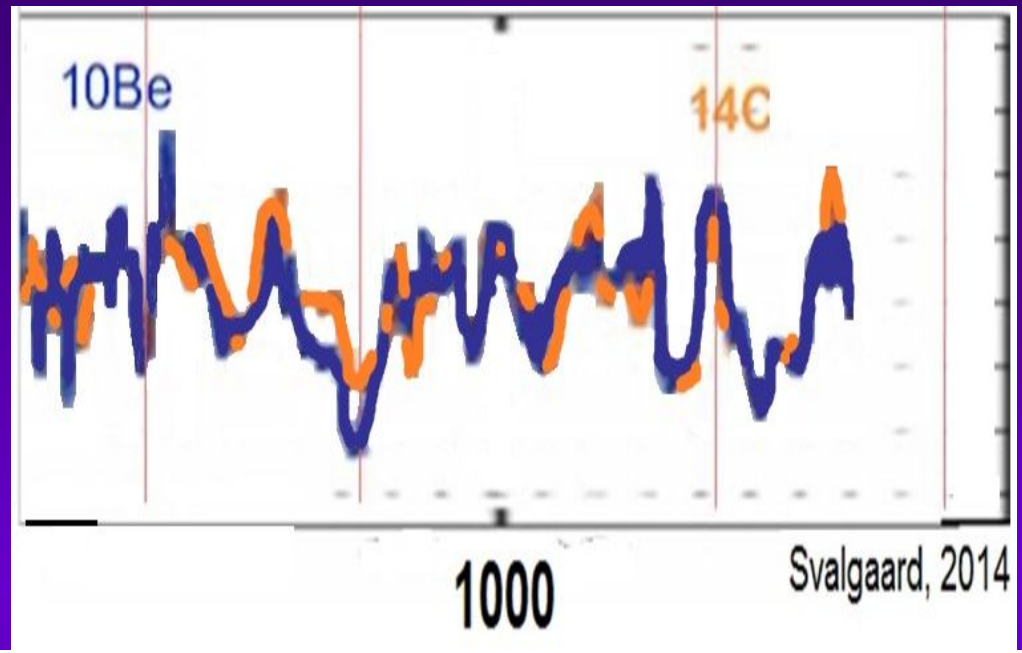
^{10}Be was high during cold periods and during low sunspots

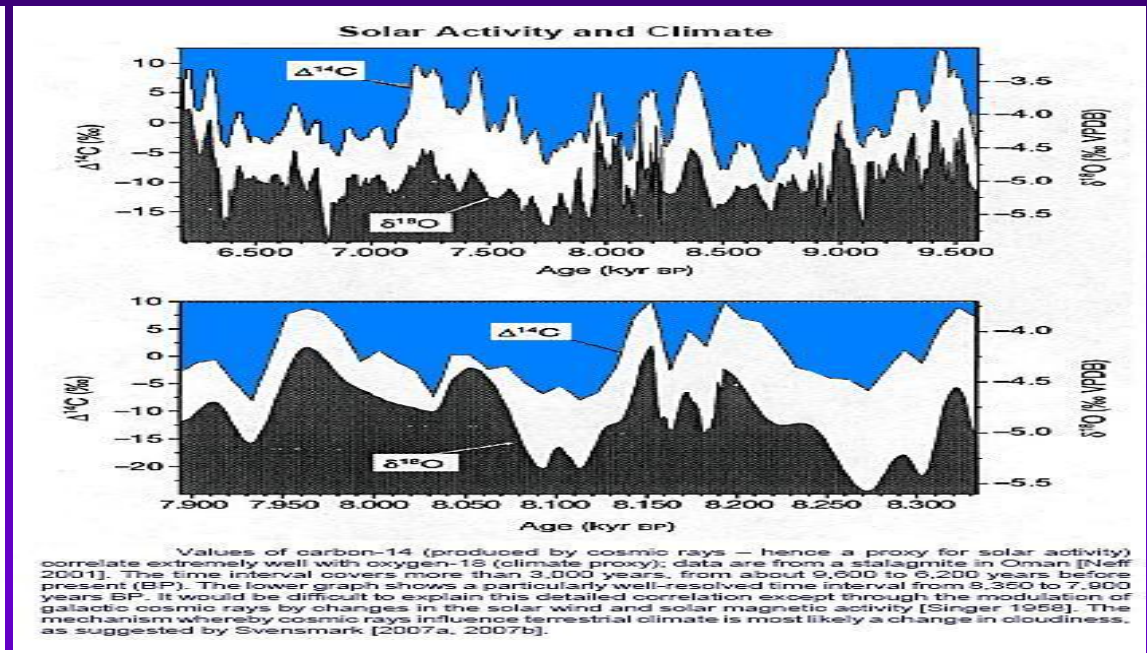


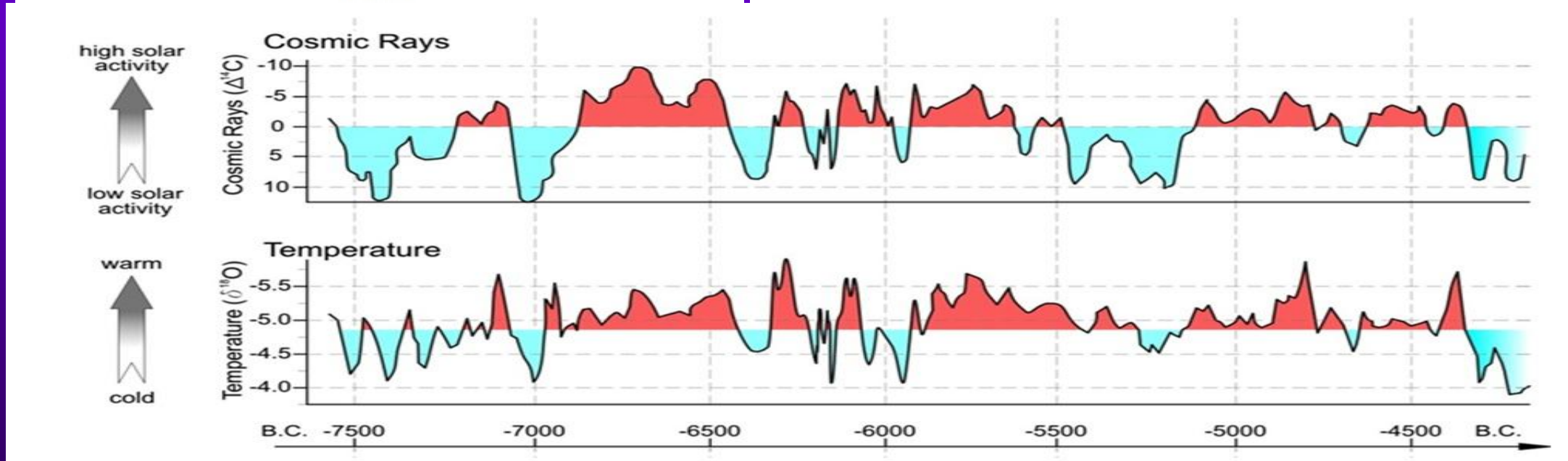




Both ^{10}Be and ^{14}C record increased cosmic activity







Conclusions

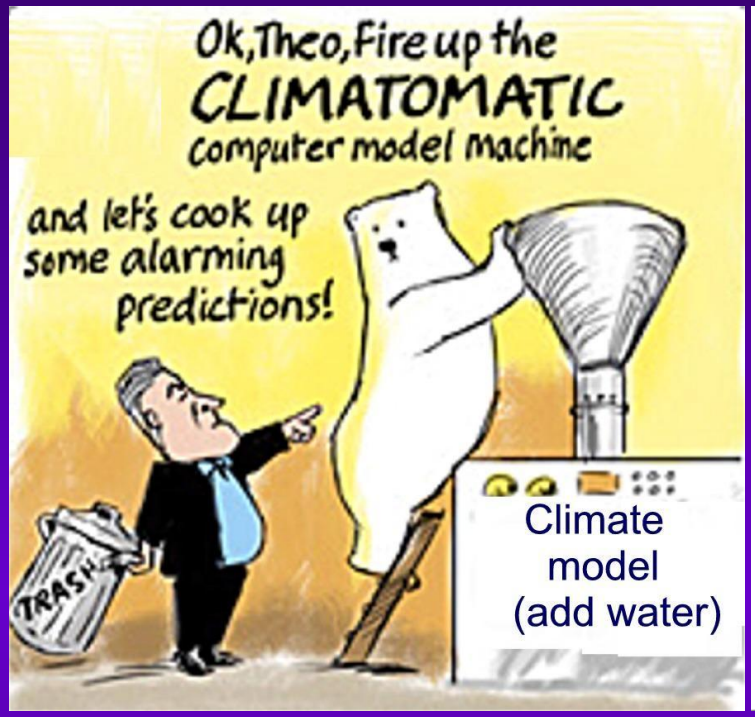
Variations in the production rates of beryllium and radiocarbon in the upper atmosphere confirm good correlation between incoming cosmic radiation and global climate.

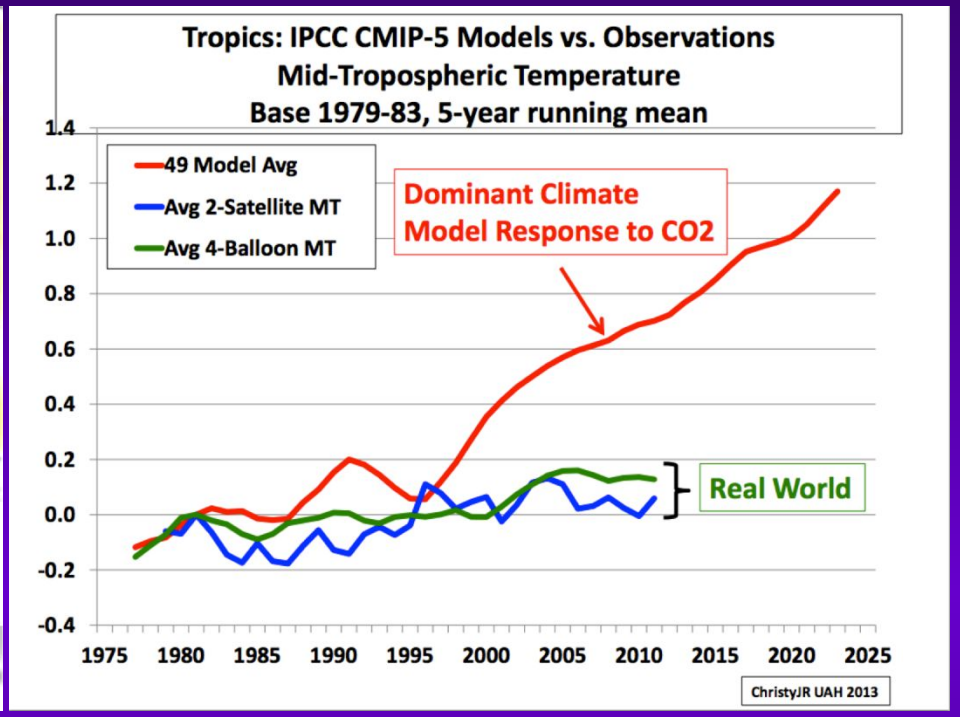
- Good correlation of SSN, TSI, solar magnetism, cosmic ray intensity, and production rates of ^{14}C and ^{10}Be and global temperature indicate cause-and-effect relationships between them.
- The Maunder, Dalton, 1890-1915, and 1945-1977 cool periods were all characterized by low SSN, low TSI, low solar magnetism, and high production rates of ^{14}C and ^{10}Be.
- The data confirm that low solar magnetic fields increase cosmic radiation that induces atmospheric condensation, leading to increased cloudiness and cooler temperatures (Svensmark).

WHAT'S IN STORE FOR THE NEXT 30 YRS?

How can climate be predicted?

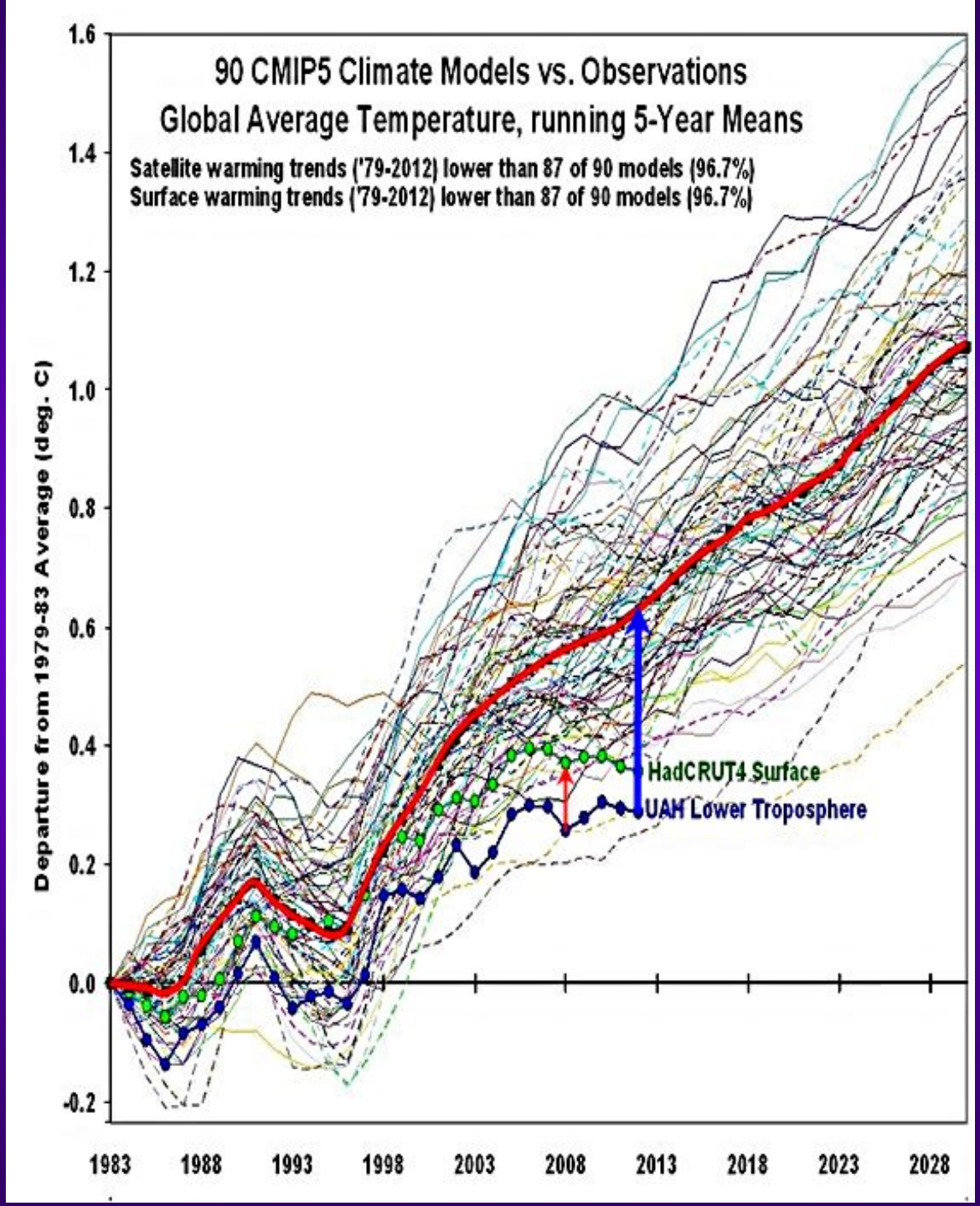
1. Computer models





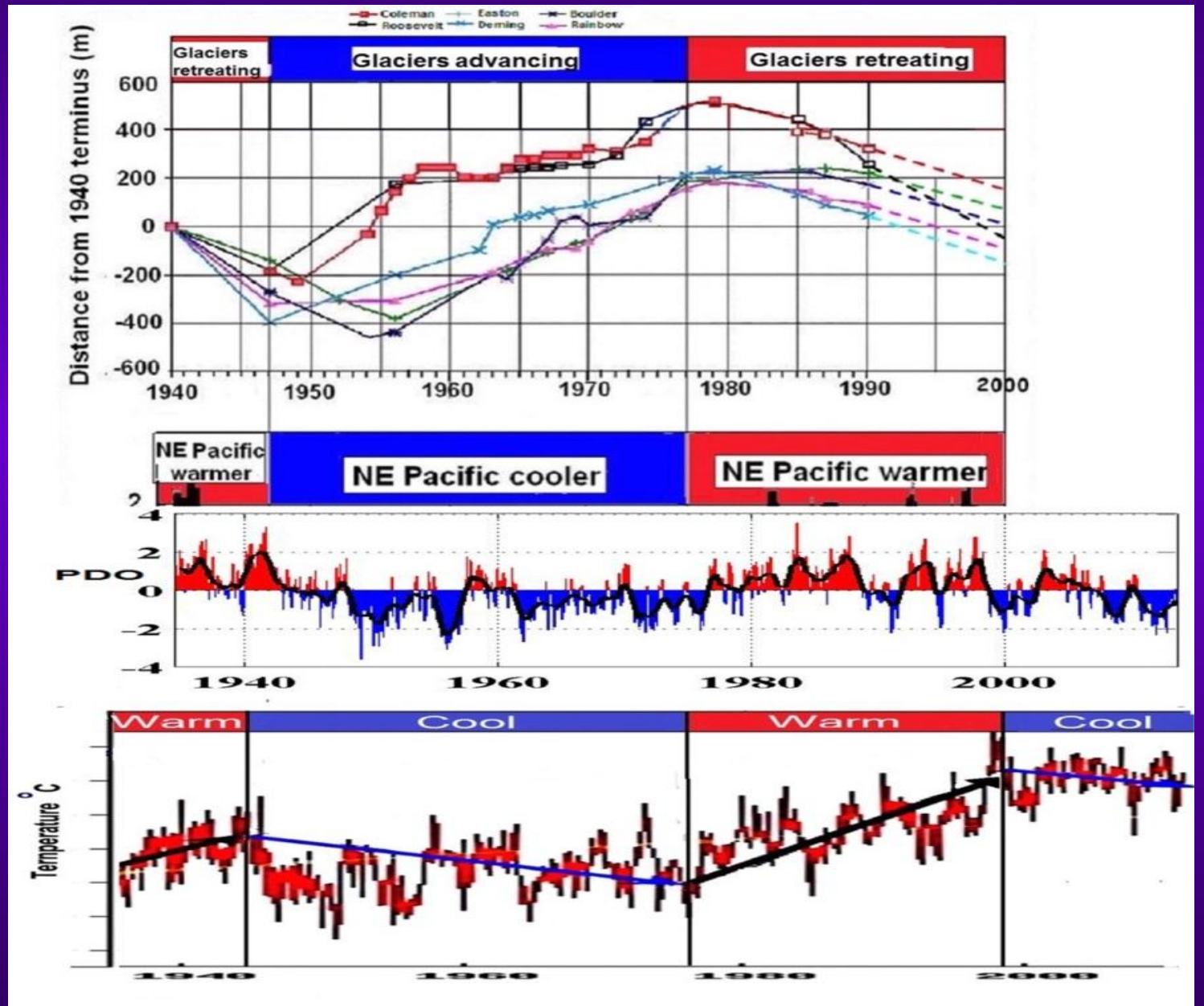
2. In order to predict where we are heading, we need to know where we've been. The past is the key to the future.
Using real, physical evidence to establish well-defined, cyclical patterns of warming and cooling allows us to project that pattern into the future.

COMPUTER MODELS HAVE FAILED MISERABLY

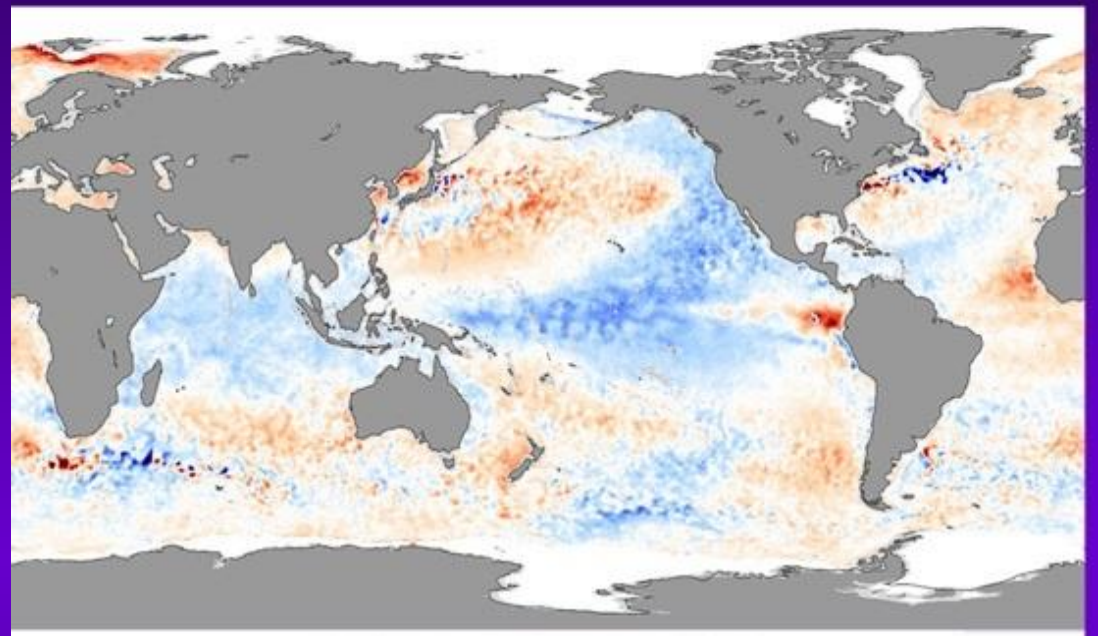


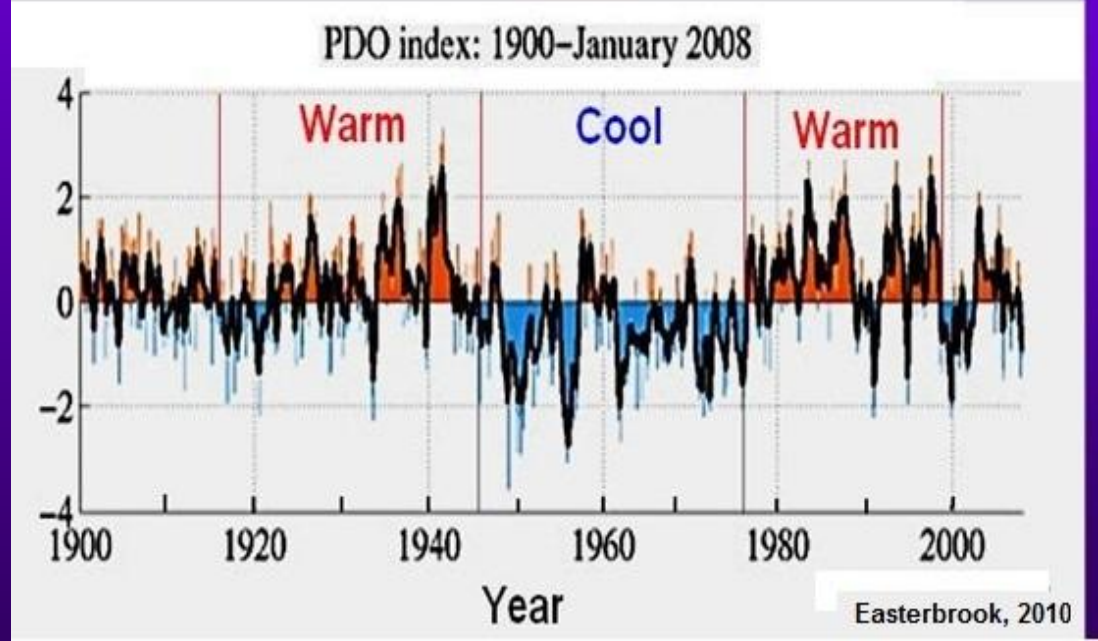
Using recurring cyclical patterns to predict future climates

Glacier fluctuations match the Pacific Decadal Oscillation (PDO) which matches global temperature

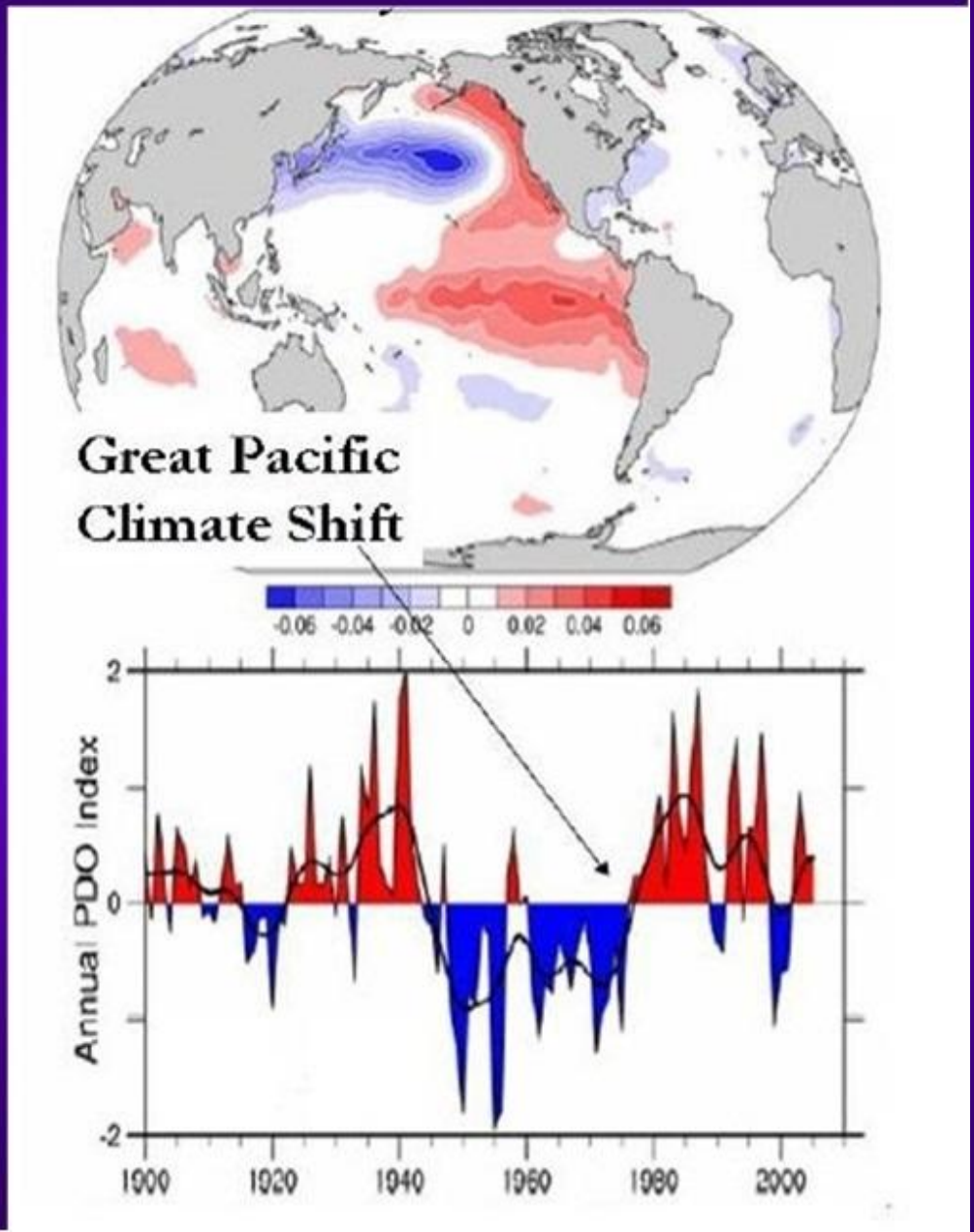


PDO COLD MODE (1945-77)

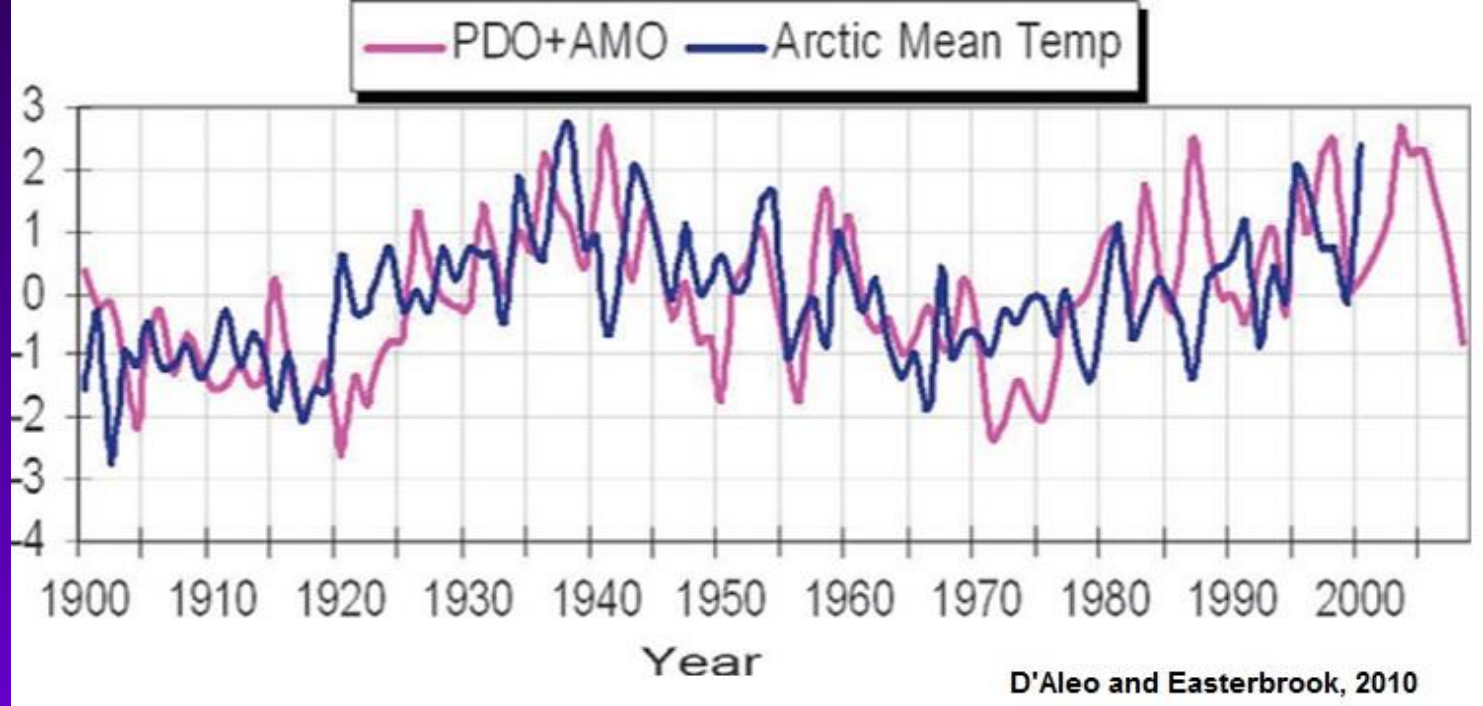




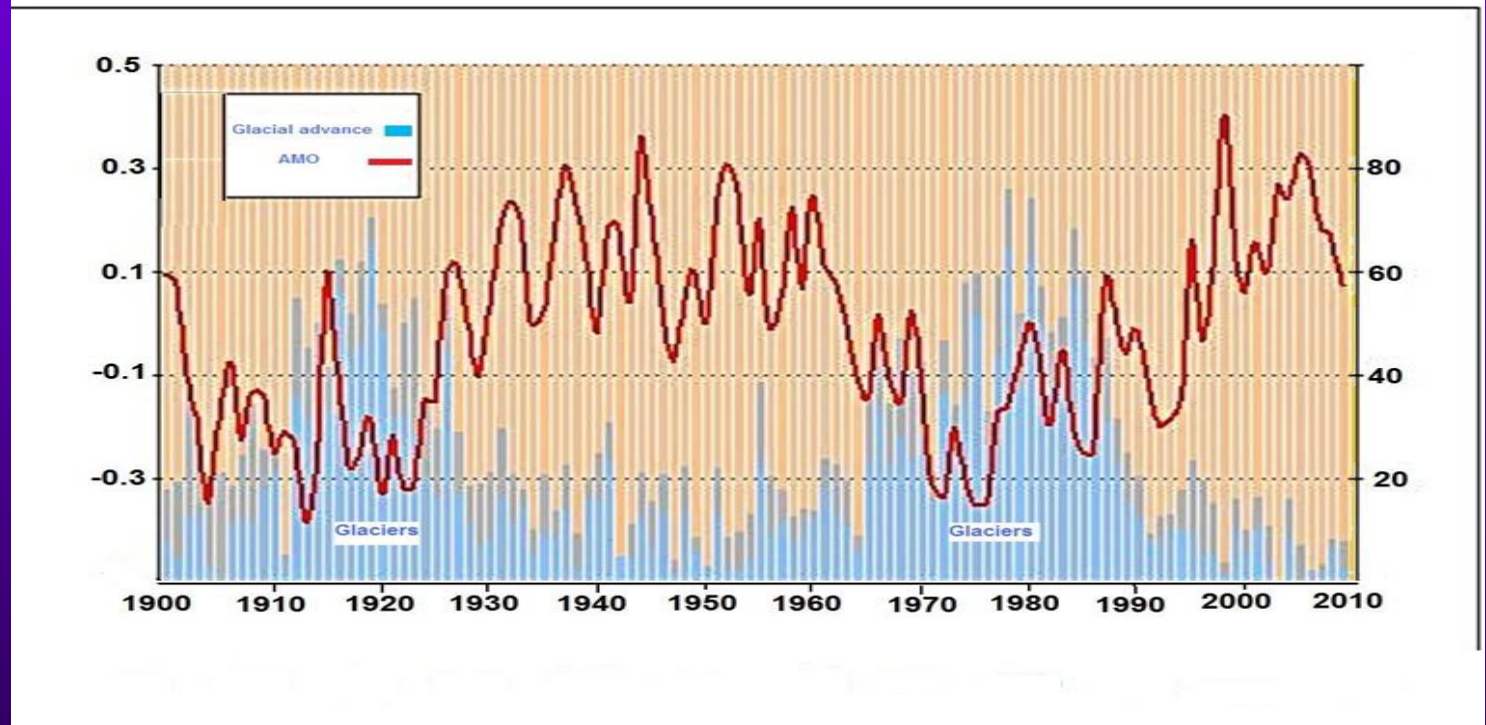
PDO WARM MODE (1977-98



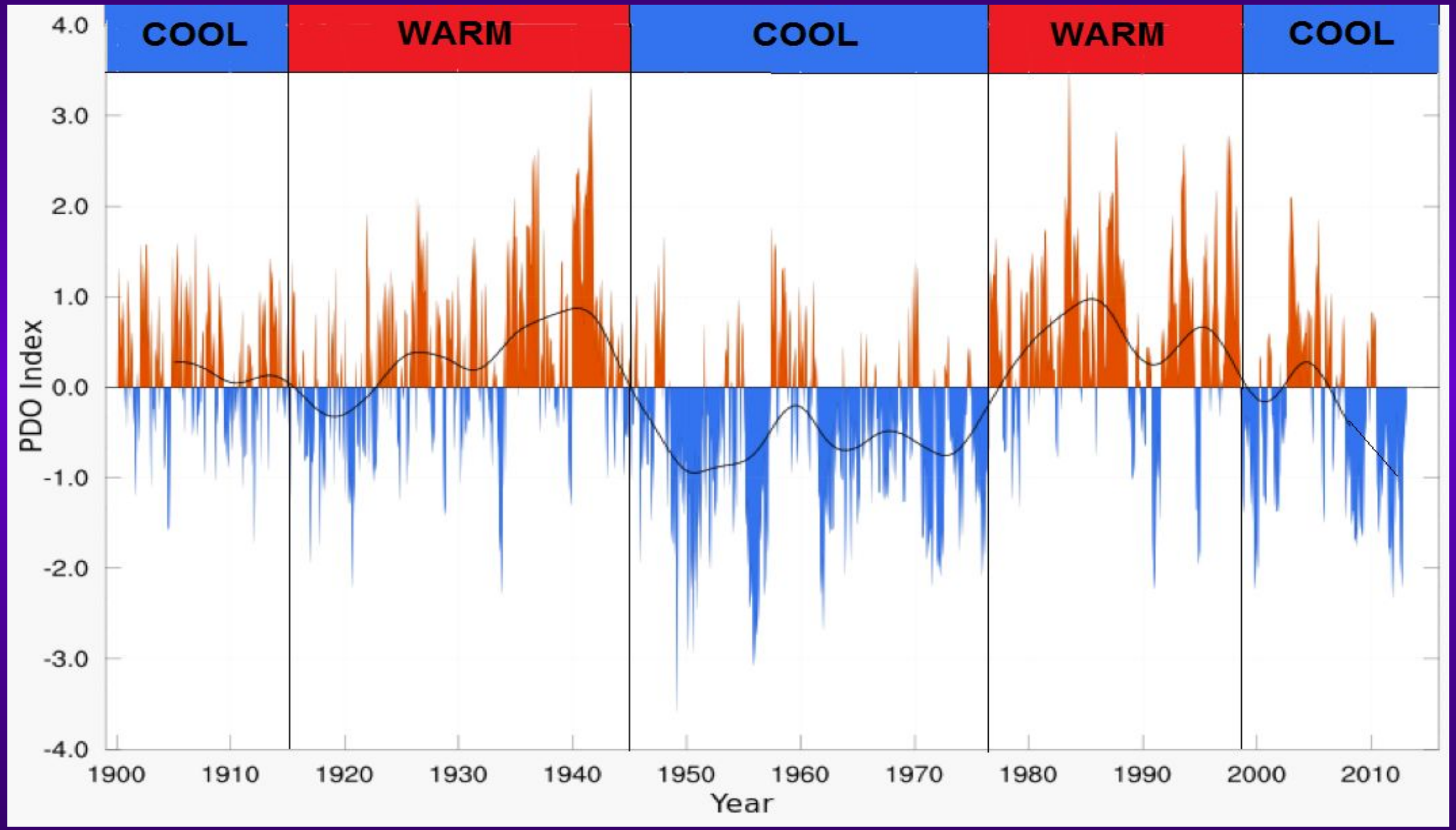
Good correlation of PDO + AMO and Arctic mean temperatures and glaciers in the Alps



D'Aleo and Easterbrook, 2010

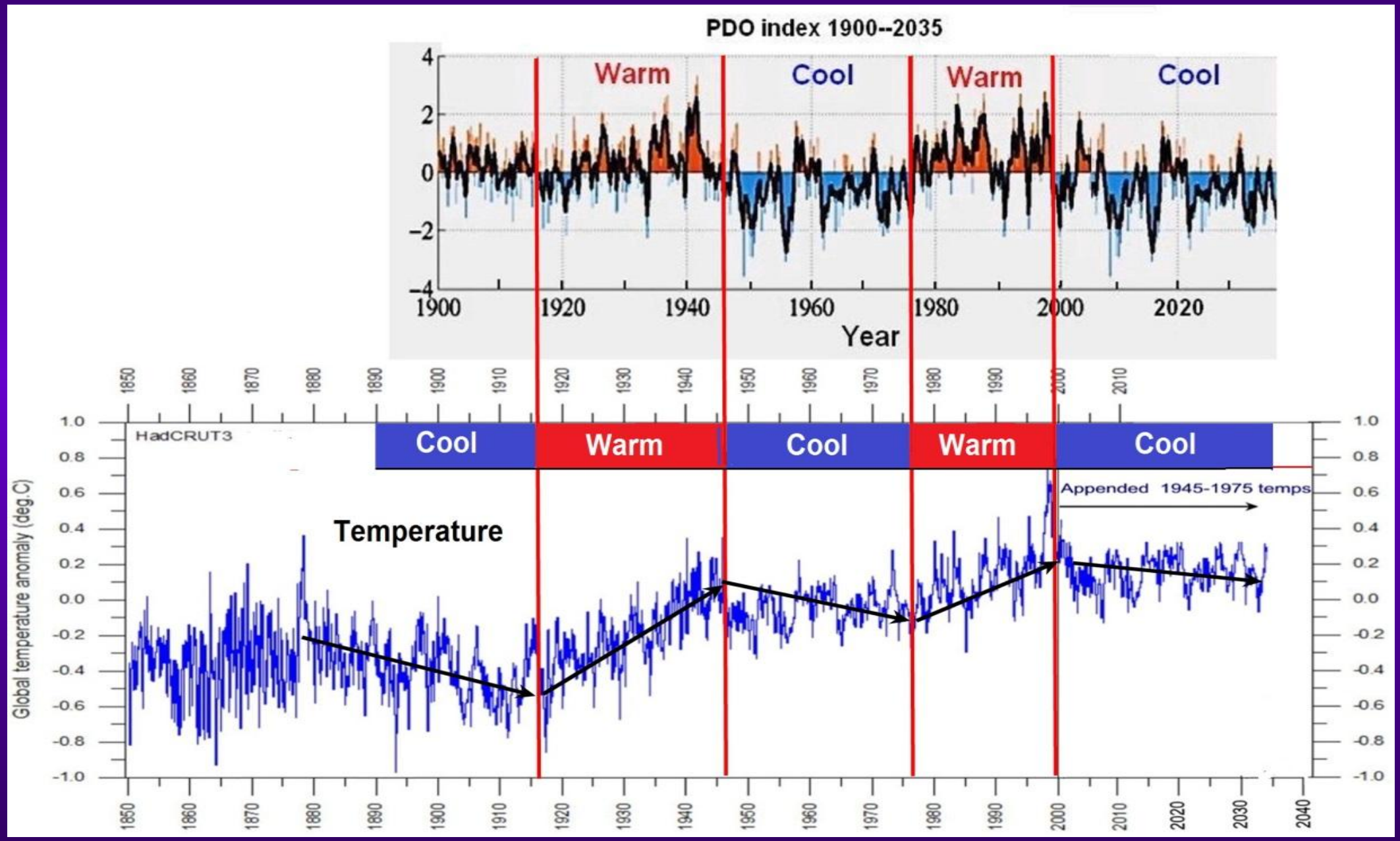


PDO 1900-present



Modified from http://jisao.washington.edu/pdo/

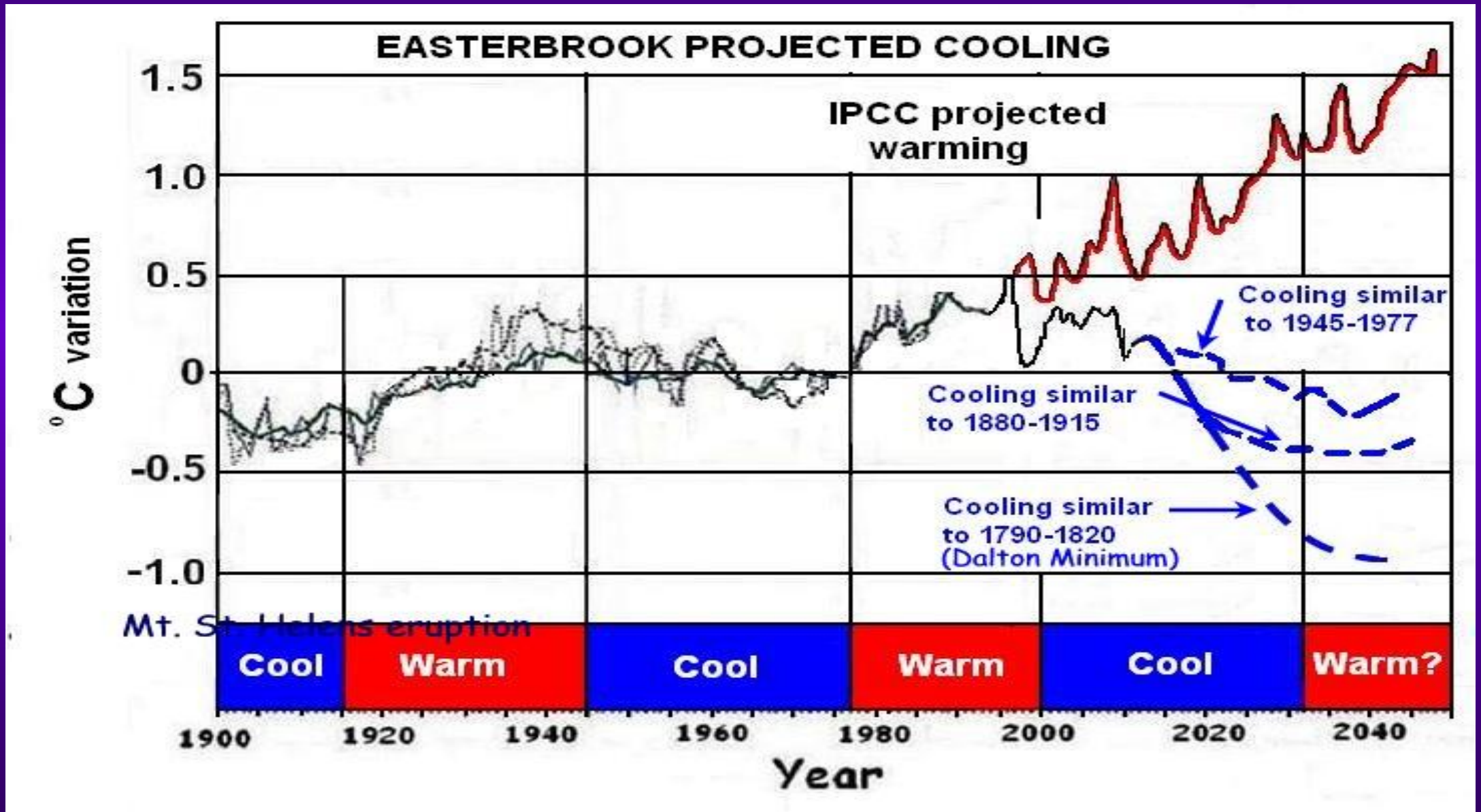
Pattern of repeated warm/cool PDOs



DJE predictions in 2000

- "Global warming is over" (Easterbrook, 2000, 2010)
- "The current warm cycle should end in the next few years, and global warming should abate, rather than increase, in the coming decades." (Easterbrook, 2000)
- "The current warm cycle should end soon and global temperatures should cool." (Easterbrook, 2006

How cold will it get?



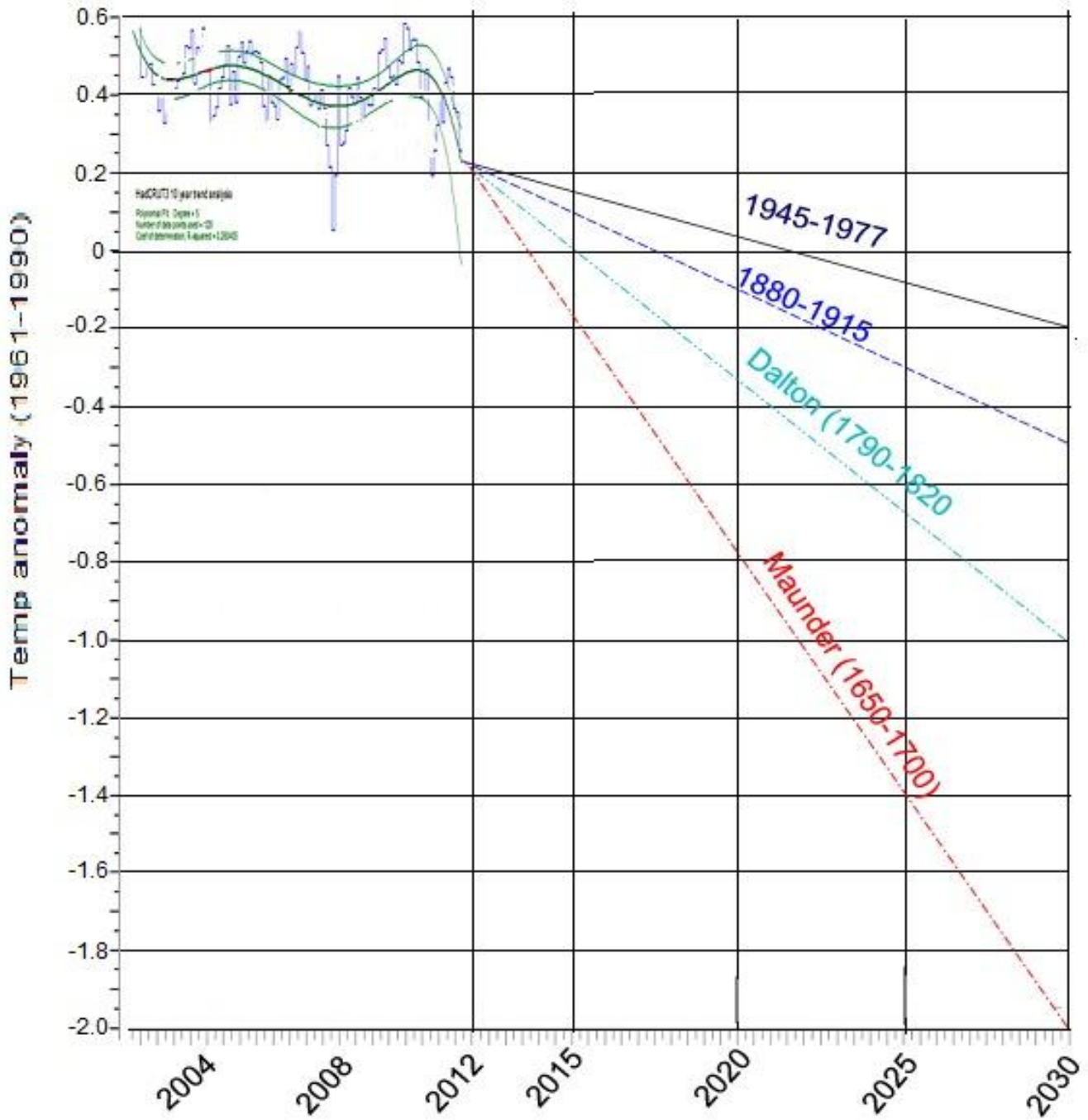
How cool will it get?

1, Like 1945-1977?

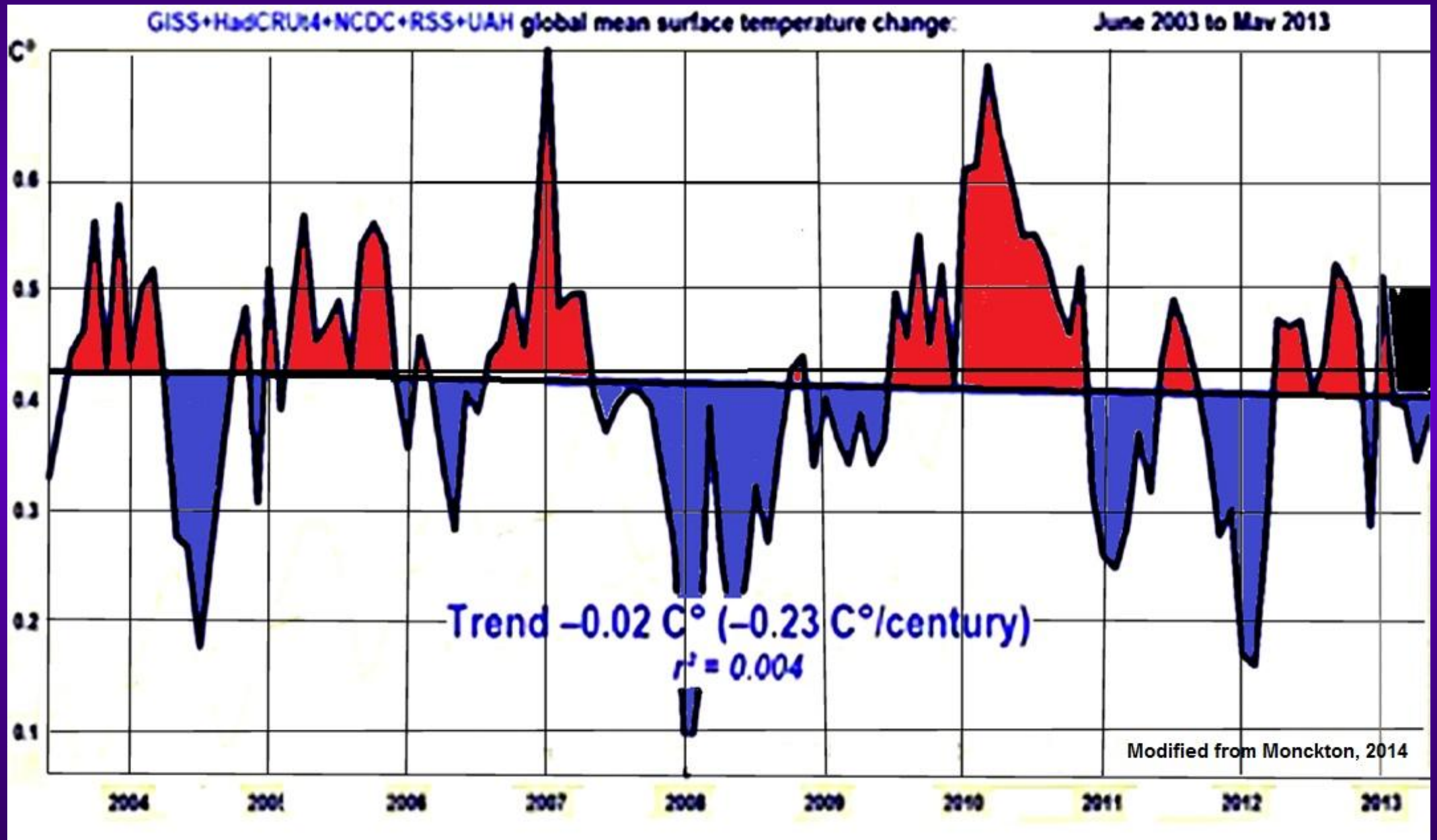
2. Like 1880-1915?

3. Like 1790-1820 Dalton Minimum?

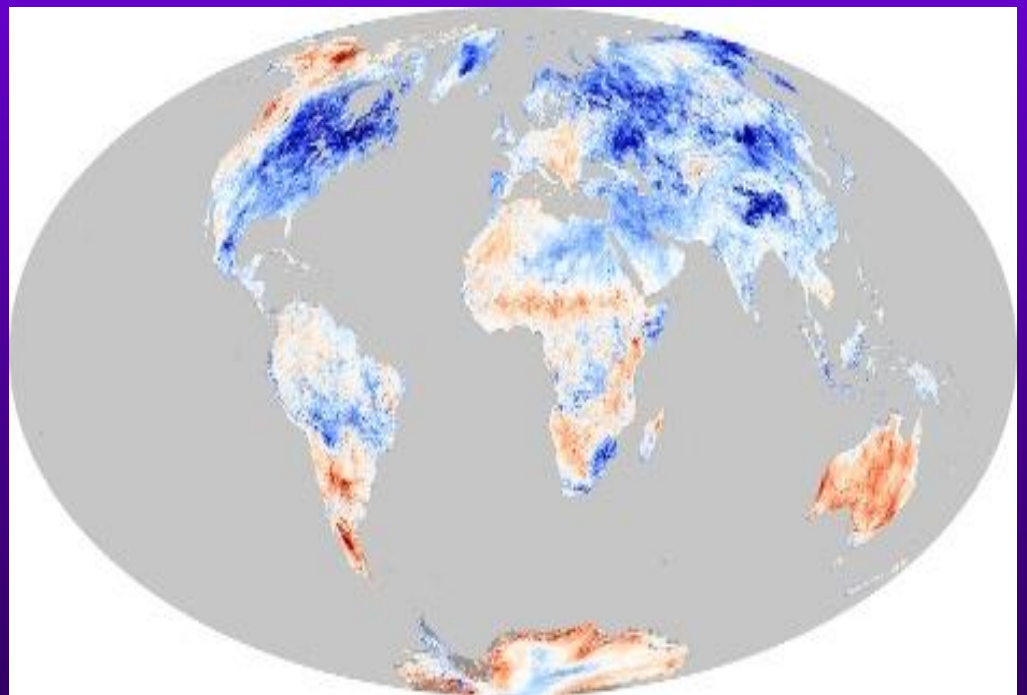
4. Like 1650-1700 Maunder Minimum?

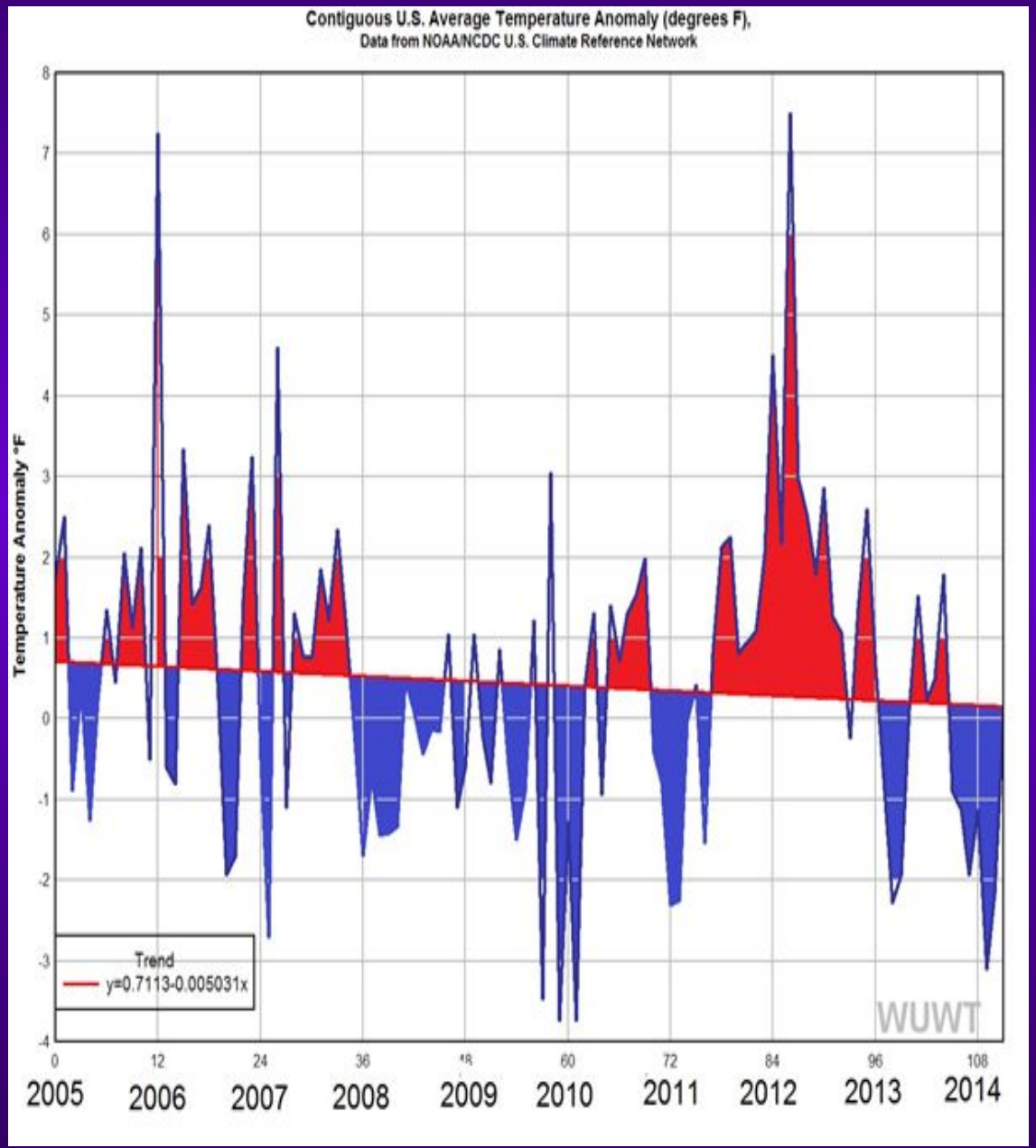


How well is the 2000 cooling prediction doing?

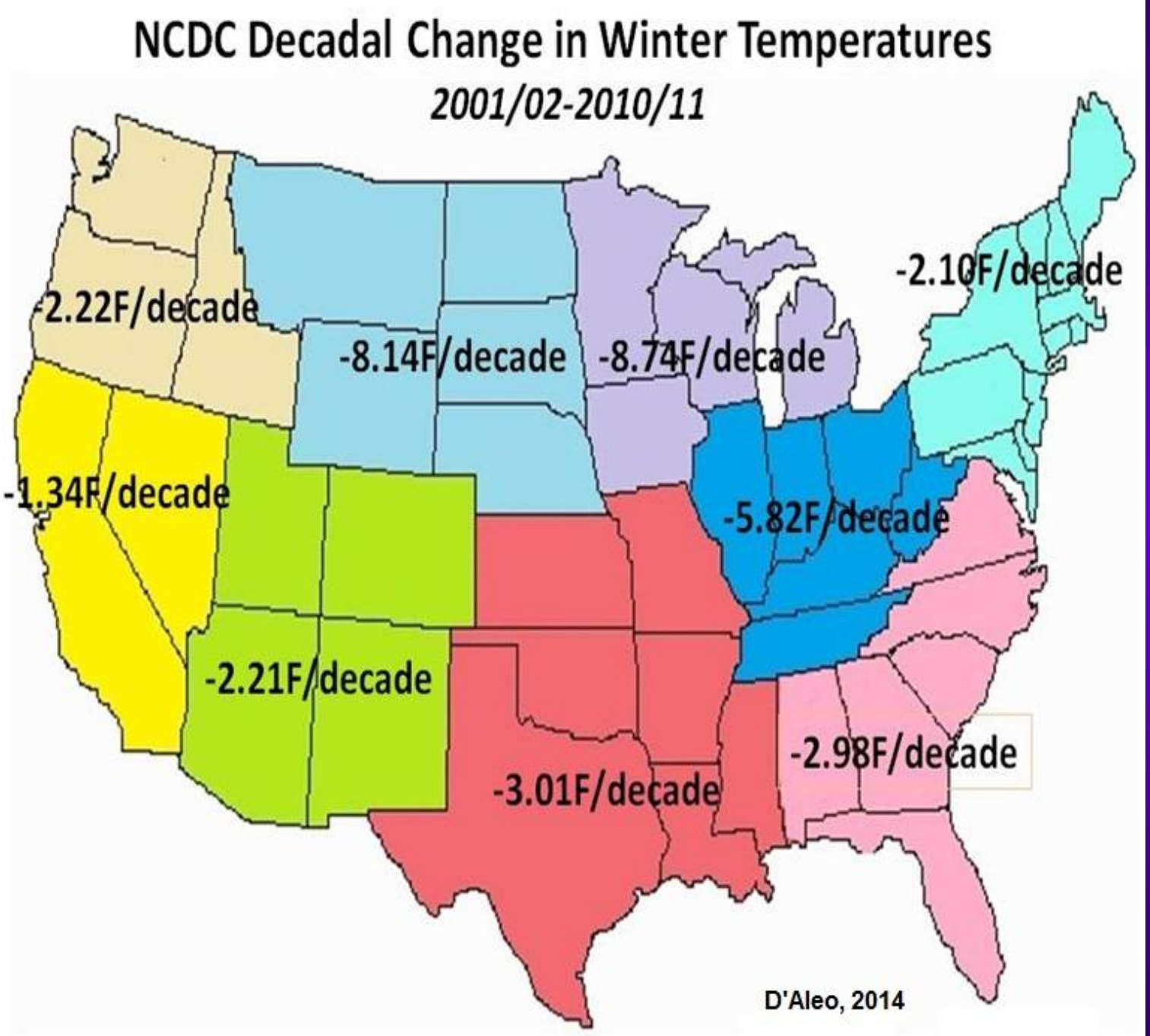


GLOBAL COOLING HAS OCCURRED FOR PAST 15 YEARS





Winters in the US have been much cooler than usual in the past 15 years




STOP GLOBAL WARMING!
STOP GLOBAL WARMING!
WE'VE GOT TO WORK ON OUR TIMING.
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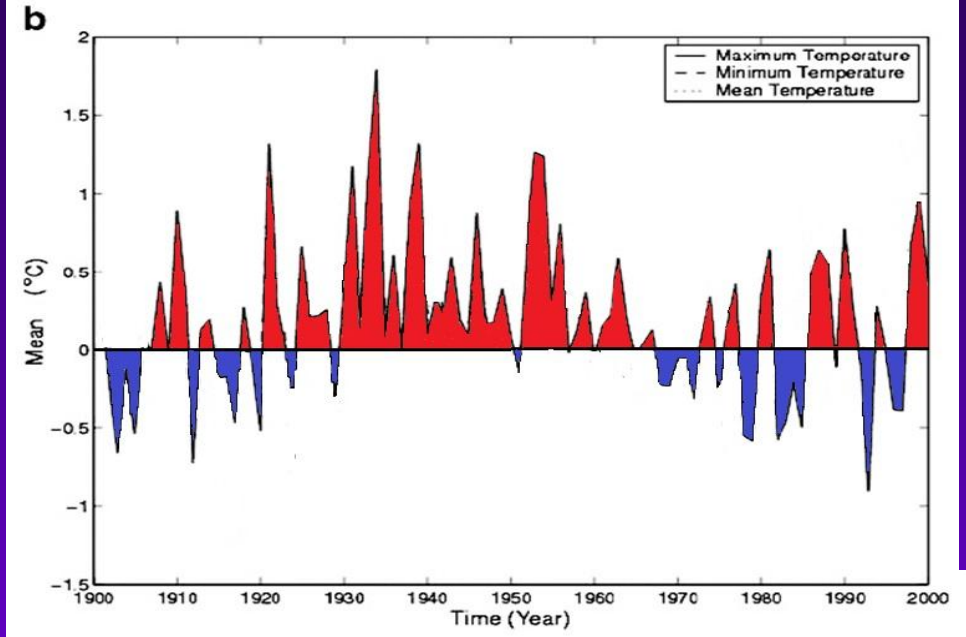
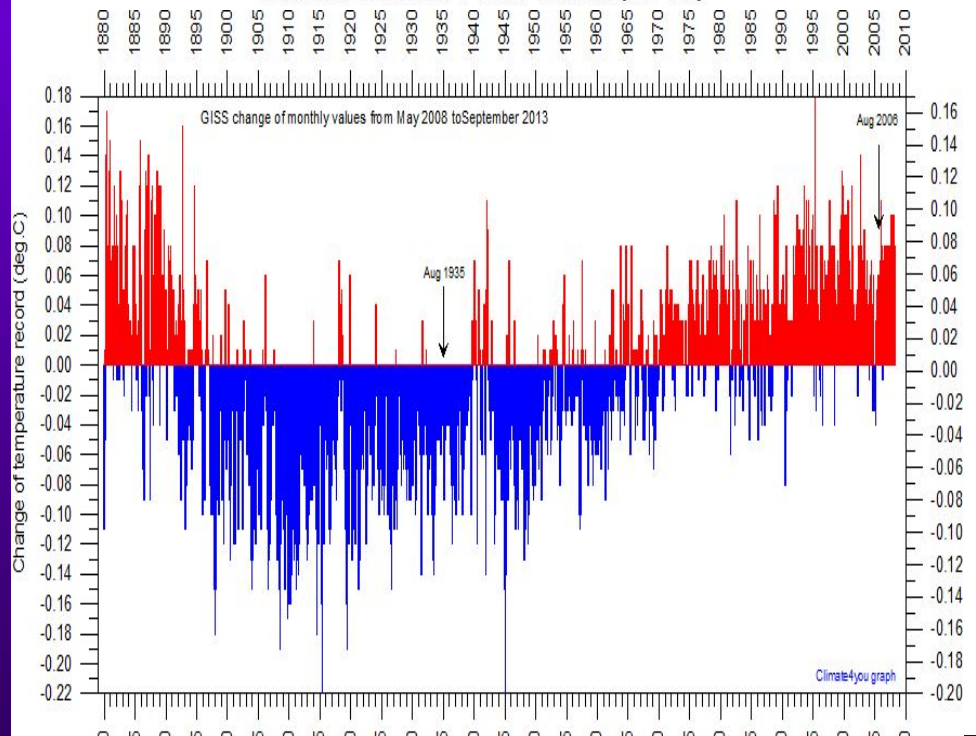
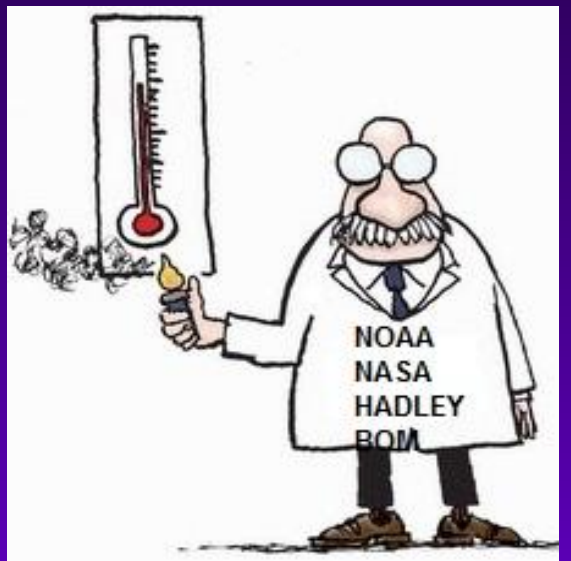


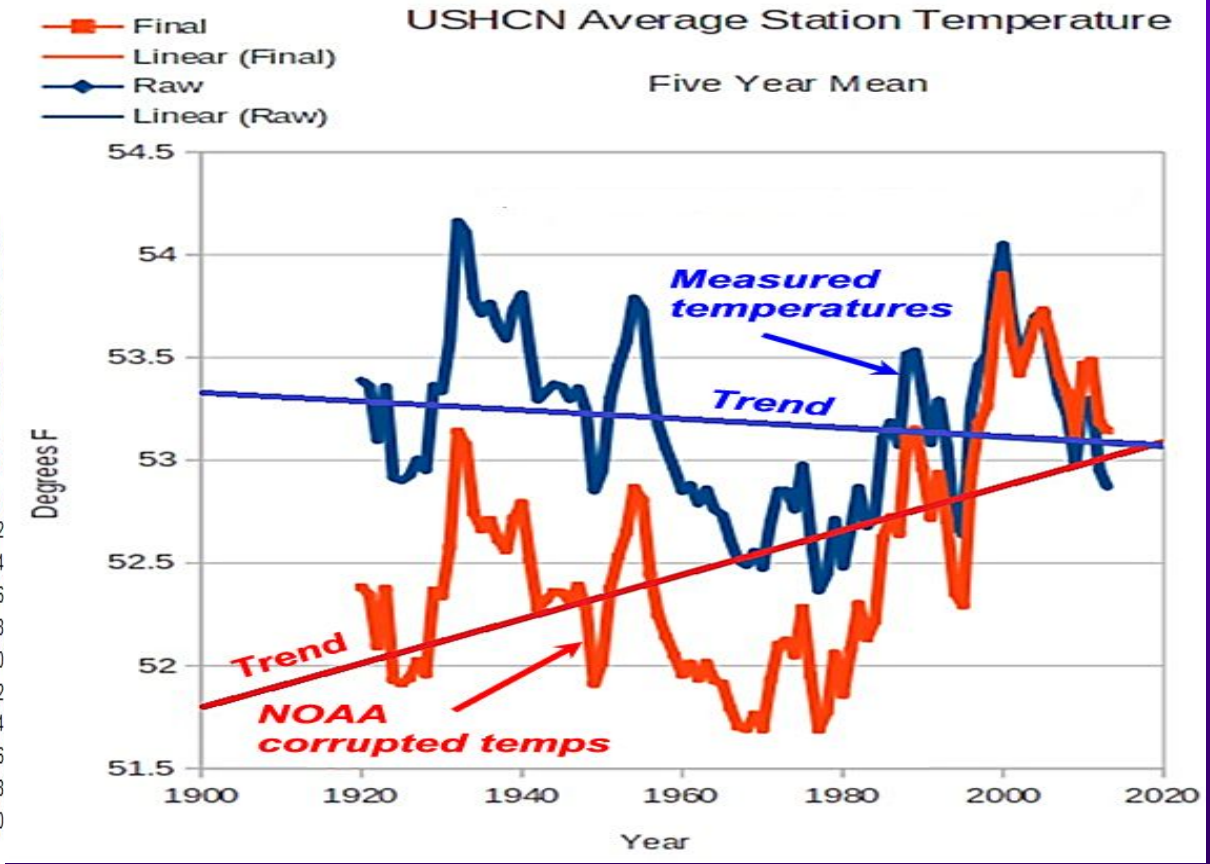
Figure A. Non-homogenized temperatures for the contiguous United States. From Shen (2011)



'COOKING THE BOOKS'

Data tampering and fabrication of false data by NOAA and NASA

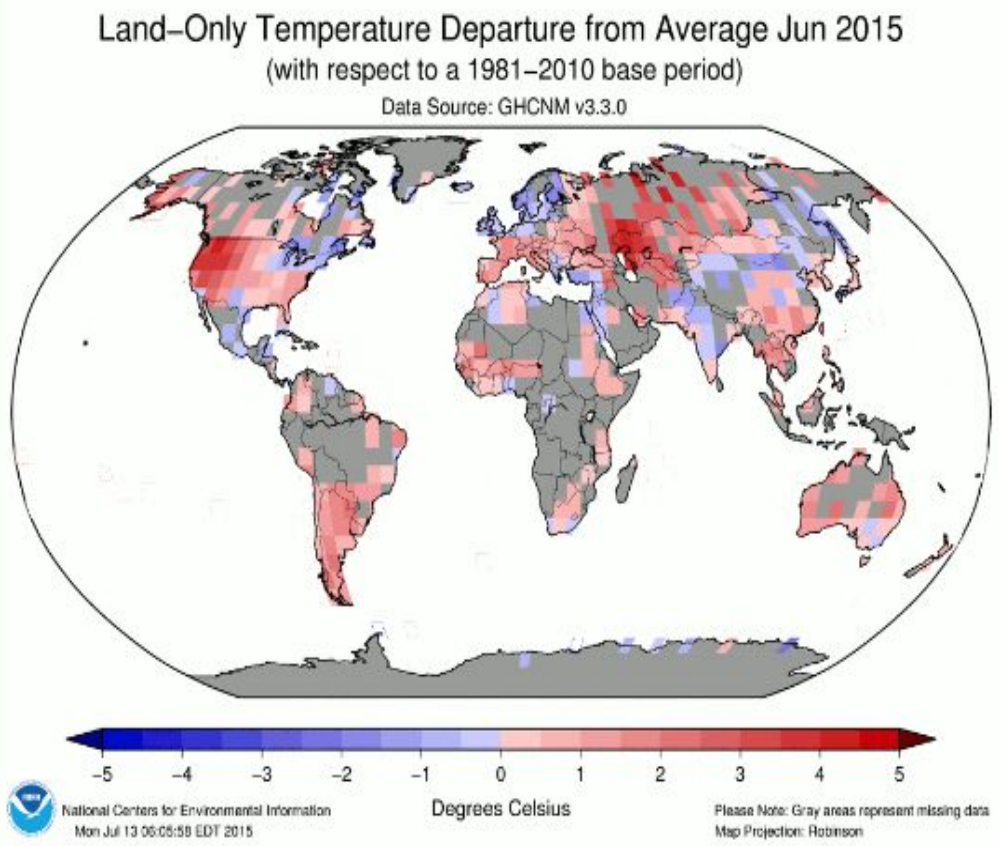


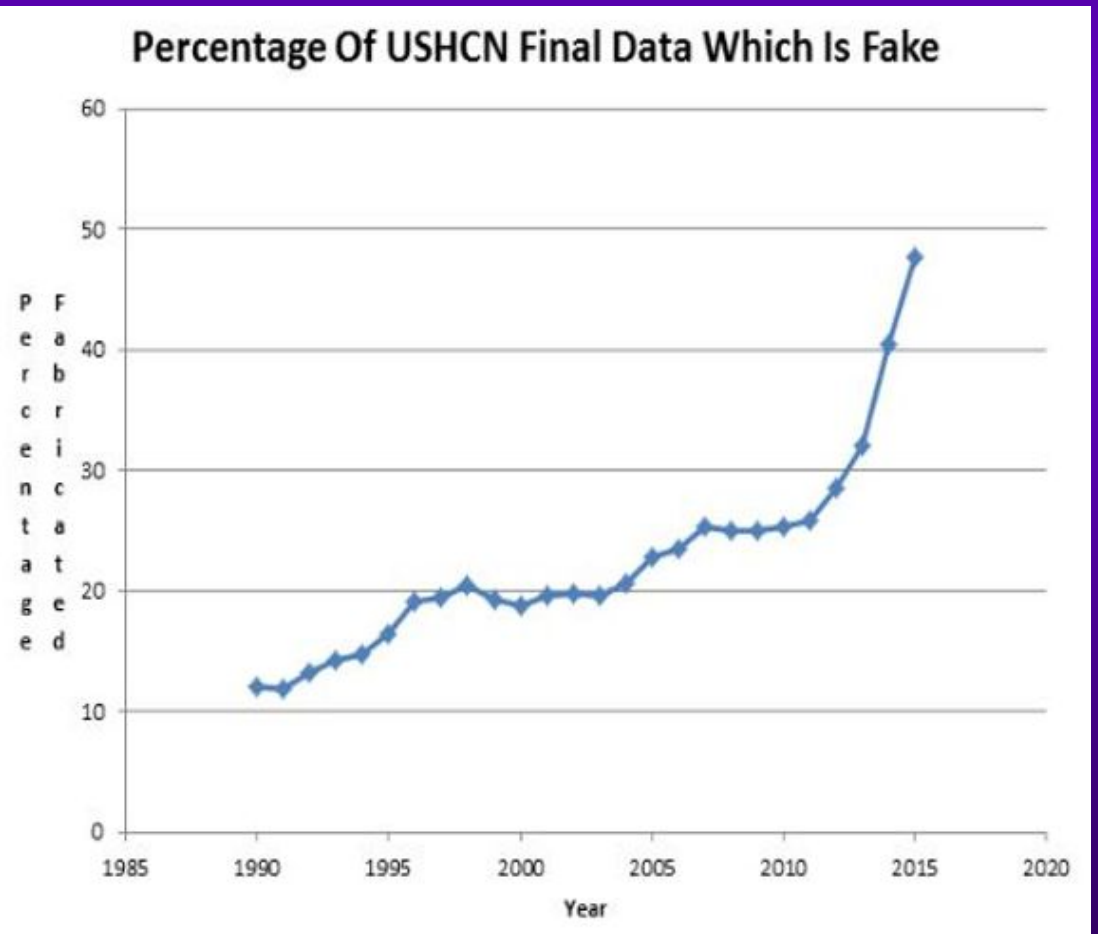


NOAA fake data

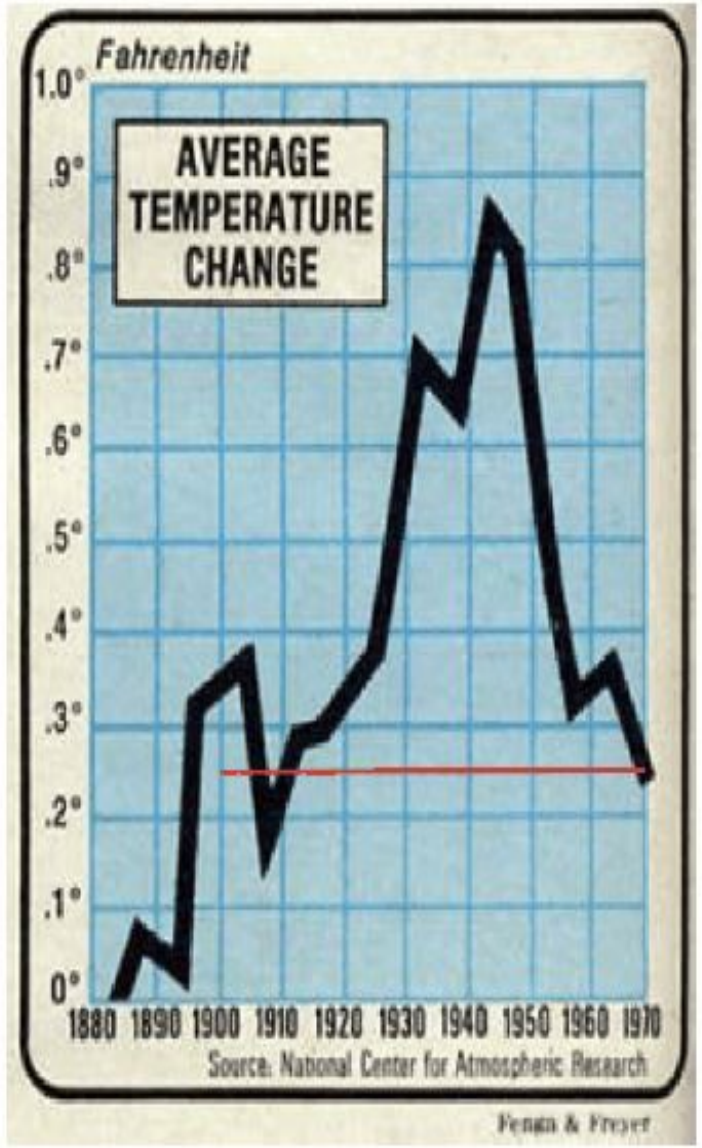
No data available in gray areas.
Temperatures are made up over large areas where there is no real data.

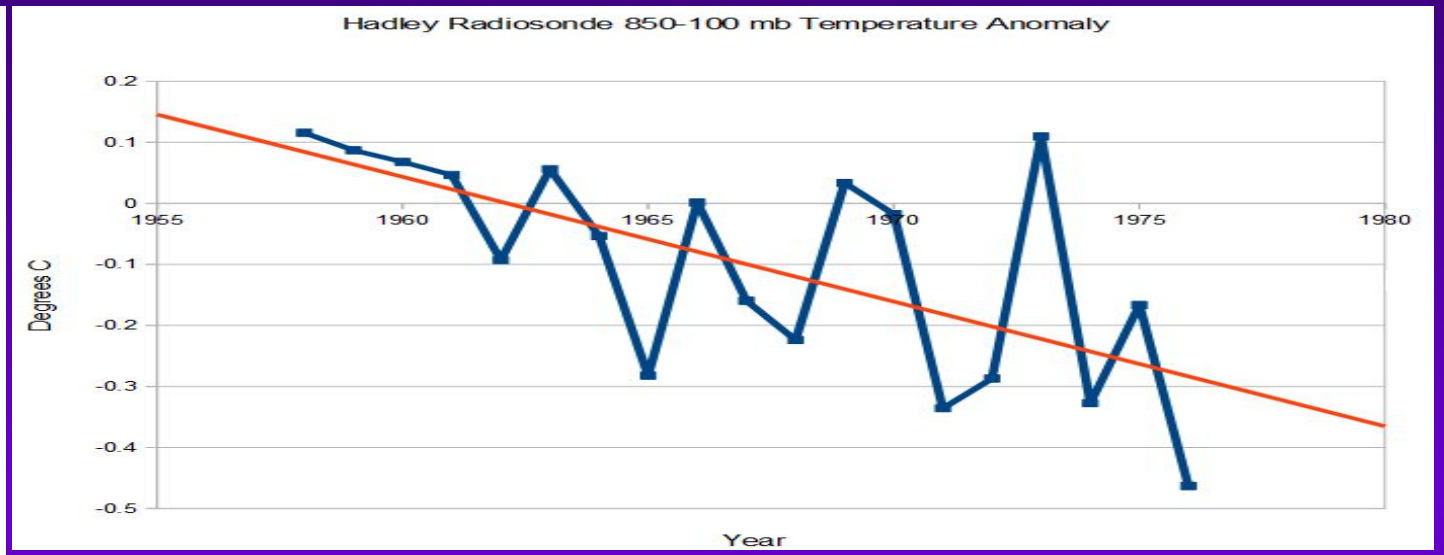
Almost half of the NOAA temperature data is not from actual measurements but from non-existent stations

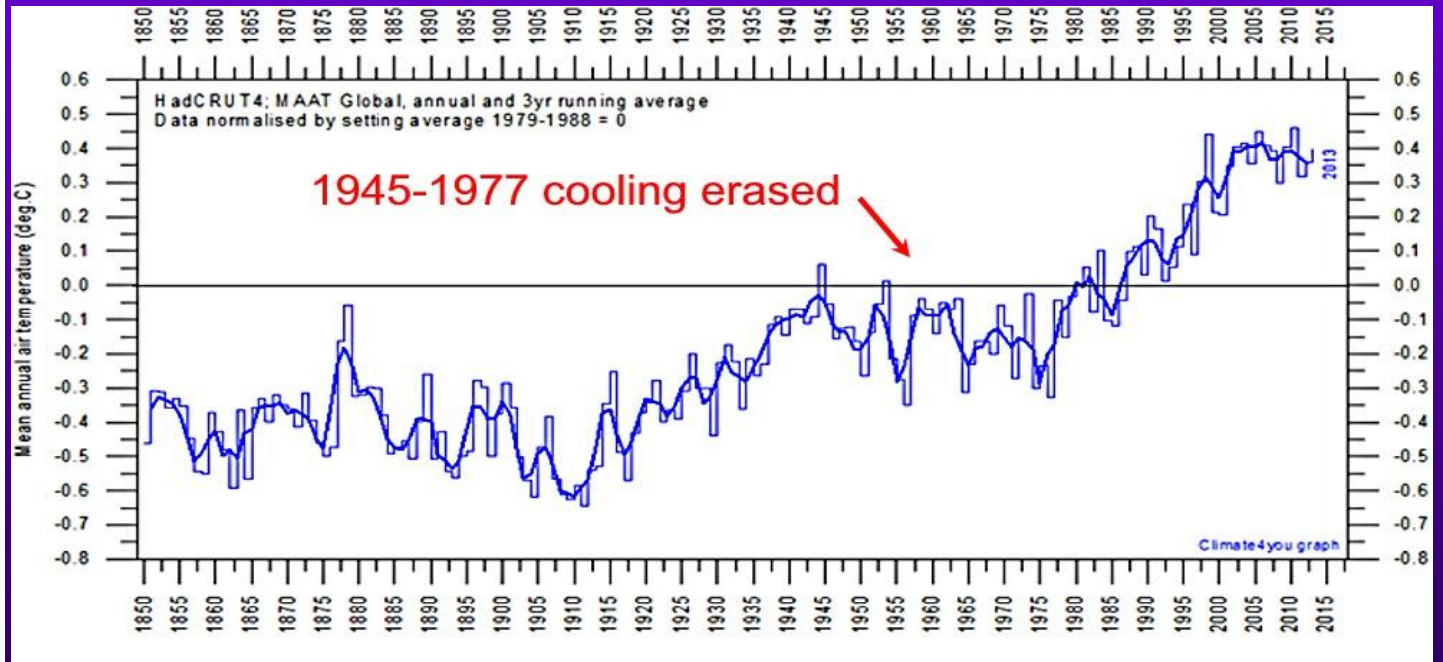




ERASING THE 1945-1977 COOLING







What can be done to restore integrity to science and repair the altered NOAA and NASA data?

- Return to use of the scientific method, rather than rigid dogma.
- Withdraw from the Paris agreement.
- Withdraw funding from all UN climate activities.
- Rescind the EPA 'endangerment finding' that has empowered EPA climate directives.
- Withdraw funding of all climate projects in EPA, the Dept of Energy, the State Dept, and other government agencies.
- NASA -- Remove the director of NASA's climate division, cease all funding of NASA climate programs, remove all tampered climate data, restore original data, and transfer all climate data to NOAA.
- NOAA – Replace the director of NOAA, remove all tampered climate data, and restore original data.
- National Science Foundation – replace director and staff, replace present grant review process, and cease funding dubious climate projects.

Summary

- Global warming and cooling has gone on for thousands of years, long before human CO2 emissions rose.
- Carbon dioxide is not a significant factor in climate change.
- New evidence confirms the role of the sun's magnetic field in global climate change.
  - Decline in the solar magnetic field allows more cosmic radiation to reach the Earth.
  - Good correlation of production rates of beryllium and radiocarbon in the atmosphere with sun spots, solar irradiance, and global temperature confirm the effect of changes in cosmic radiation that produce changes in cloudiness.
  - Increased cloudiness produces global cooling; decreased cloudiness produces global warming.
- A consistent, reoccurring pattern of global warming and cooling that has occurred for hundreds of years provides a basis for predicting future climate changes.
- Projection of past reoccurring climate patterns into the future indicates global cooling for the next several decades. Slight global cooling has occurred since about 2000, as predicted.
- Changes in EPA, Dept of Energy, NOAA, NASA, and other government agencies need to be implemented in order to restore scientific integrity.


TELL ME AGAIN WHY GLOBAL WARMING IS BAD...