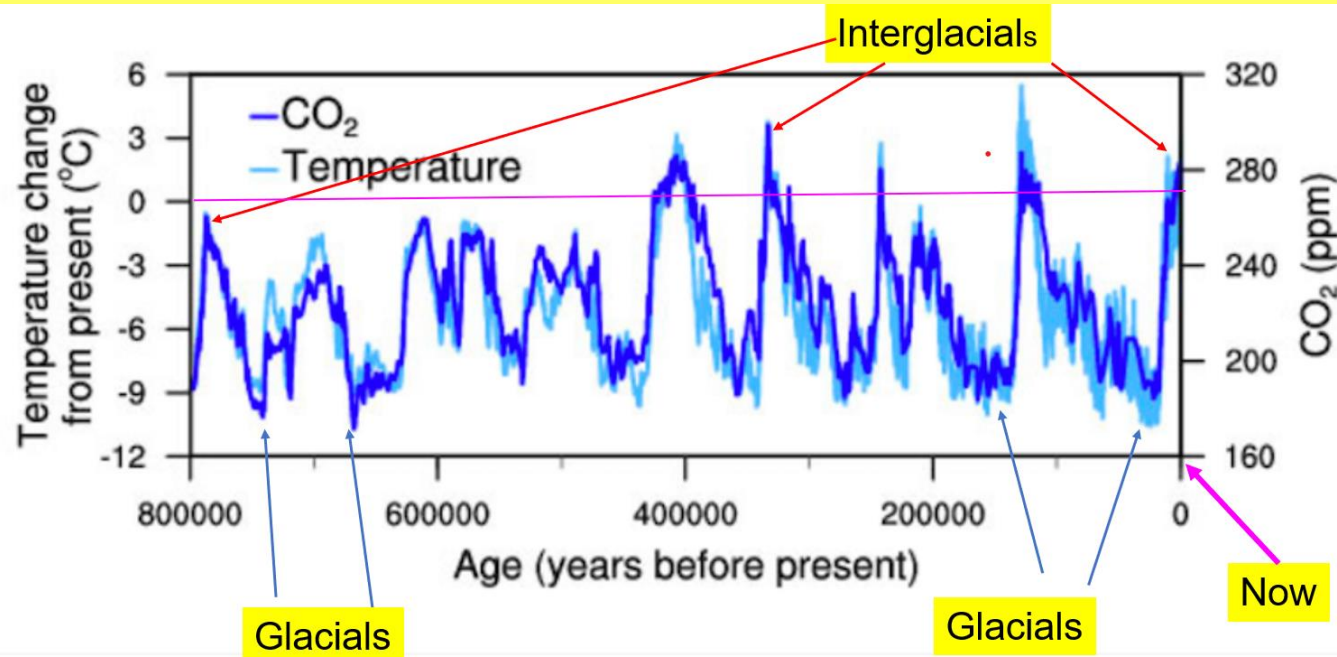


Scientist/Science Background Slides: Graphics Showing the Insanity of Global Warming Alarmist Ideas



Bob Endlich

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Cruces Atmospheric Sciences Forum

16 Aug 2023

(From the text of Ed Burlbaw's original email)

Bob and Jon,

On Saturday <15 Jul 2023> I was suggesting an addition to the web site of maybe 10 graphics showing, for example, the ice-core temperature data maybe identifying the Minoan and Roman warm periods; perhaps the Ice-core data showing the CO2 levels that were much higher than today, the tornado and hurricane graphic, deaths from heat and cold, forest fire data, solar cycles, ice extent for Arctic and Antarctic (or Greenland) and perhaps a couple of other simple ones I haven't thought of right off the bat. There are really only a few common arguments that keep coming up.

These should be quickly accessible from the main page so that they can be shown as easily as possible in response to some drive-by accusation of how the world is about to burn up. I don't think there would need to be much of a write-up for each one because we would explain the relevance of the graphic to whatever conversation or rebuttal we were in the midst of...

Ed Burlbaw suggested slides:

Minoan and Roman warm periods

<Ice-core> data showing the CO2 levels that were much higher than today

tornado and

hurricane graphic(s)

deaths from heat and cold,

forest fire data,

solar cycles,

ice extent for Arctic and Antarctic (or Greenland)

Bob's suggestions: I suggest these be Two Topics in New Visitors, perhaps:

- Scientist/Science Background Slides: Graphics Showing the Insanity of Global Warming Alarmist Ideas and....
- for Lay People, The Top Dozen Graphics Showing the Insanity of Global Warming Alarmist Ideas

Each Topic starts with this color pinkish slide with the topic subject and a description of that topic.

Only SUNLIGHT heats Earth's oceans, rivers, lakes and bays.

More CO₂ in the air, which emits radiation in the infrared part of the spectrum, does NOT cause water temperature of oceans, bays, rivers and lakes to increase.

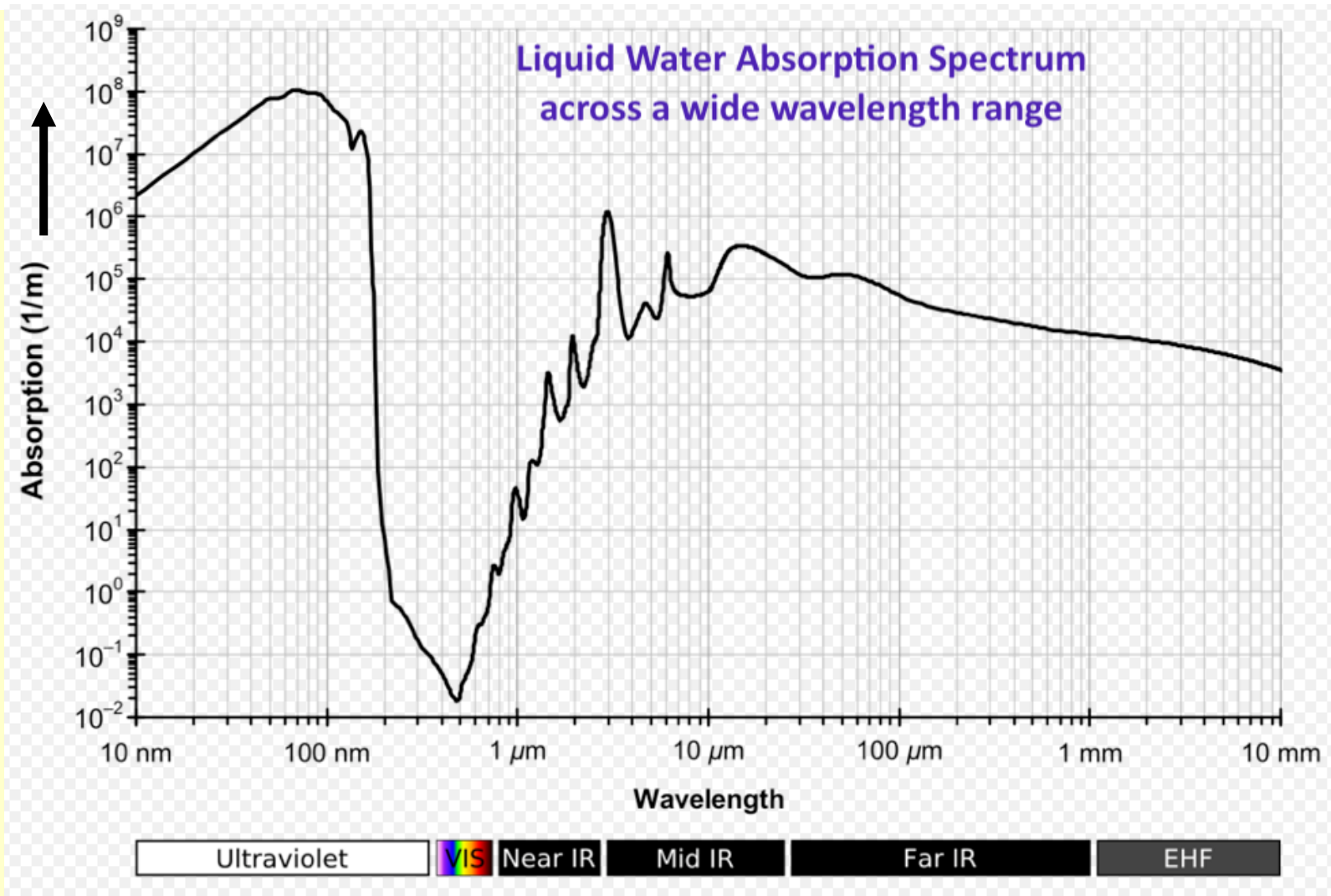
Explanation: At visible wavelengths, the colored portion of the spectrum shown with the red arrow in the diagram, the sun's radiation penetrates well into the water, because the absorption coefficient is low in the visible portion of the spectrum.

[Britannica](#) explains this as follows:
“Water is transparent to the wavelengths of electromagnetic radiation that fall within the visible spectrum and is opaque to wavelengths above and below this band.”

Water is heated by the sun's rays.

Reduced cloudiness allows more sunlight to heat the water over time.

More atmospheric carbon dioxide, emitting in the infrared, IR, can not and does not heat river, lake, or ocean waters.



http://www1.lsbu.ac.uk/water/water_vibrational_spectrum.html

A look at Historic Temperatures.

We'll start with Santa Rosa, NM; [the graphic](#), one of several showing similar results, comes from the CASF web site. Note well, the highest temperature was in the Dust Bowl with <CO₂> about 300 PPM; today's <Aug, 2023> <CO₂> is about 420 PPM.

Next, we'll look at "proxy" temperatures, reconstructions for the past ~2,000 years; these two graphics show the prominent ~1000-year "Bond" cycles named for the late Gerard Bond of Columbia U., who discovered them analyzing ocean sediment cores.

There is a temperature time series from Andy May, Petrophysicist, relating historical events to proxy ice core temperatures from Greenland. Colder times have more strife.

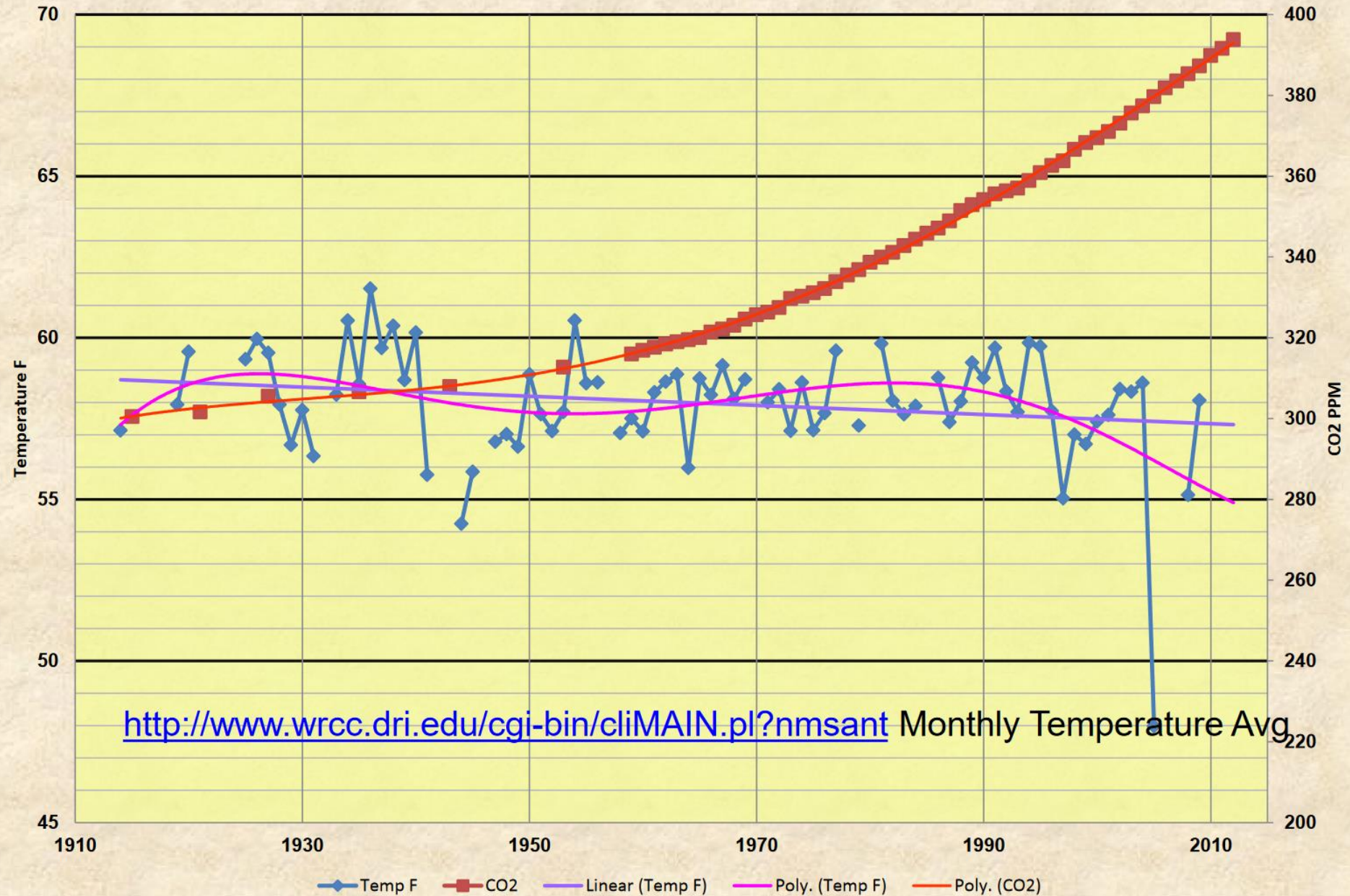
Next, two slides from Prof G. Patzelt, who studied temperatures he derived from ancient trees embedded in the lateral moraines of the Austrian Alps, also revealing the Bond Cycles, and extending back 11,000 years, or ~9,000 years BC.

These latter graphics show recent temperatures nowhere as warm as those ~4500 BC or around 6,500 years ago...at the peak of this present interglacial, the Holocene.

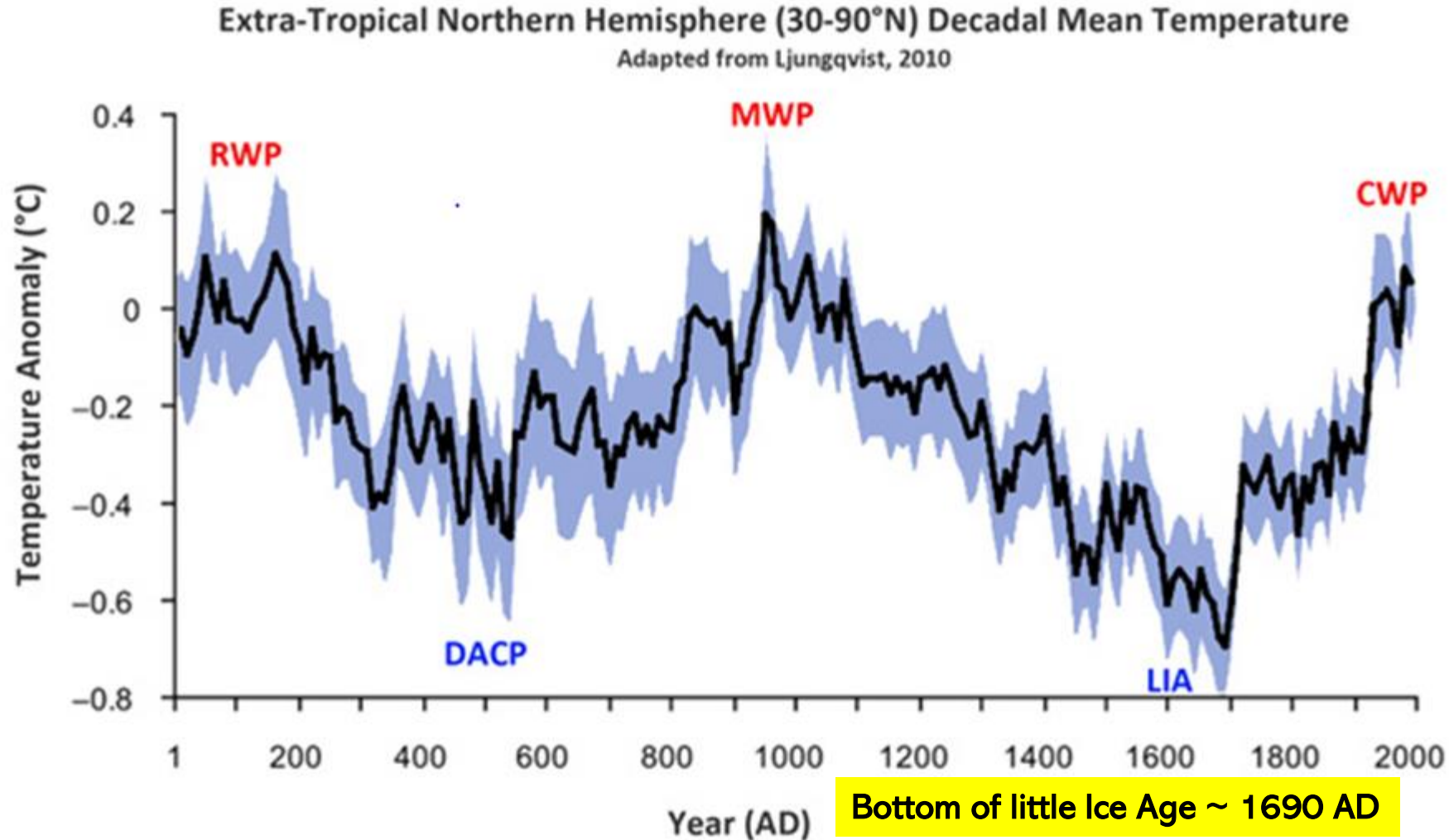
Santa Rosa, NM Temperature and CO2

Average Temperature fell 1.6F in 98 years

Highest temperatures were in the Dust Bowl years



Ljungqvist, F.C. 2010. "A new reconstruction of temperature variability in the extra-tropical Northern Hemisphere during the last two millennia." *Geografiska Annaler Series A* 92: 339-351.



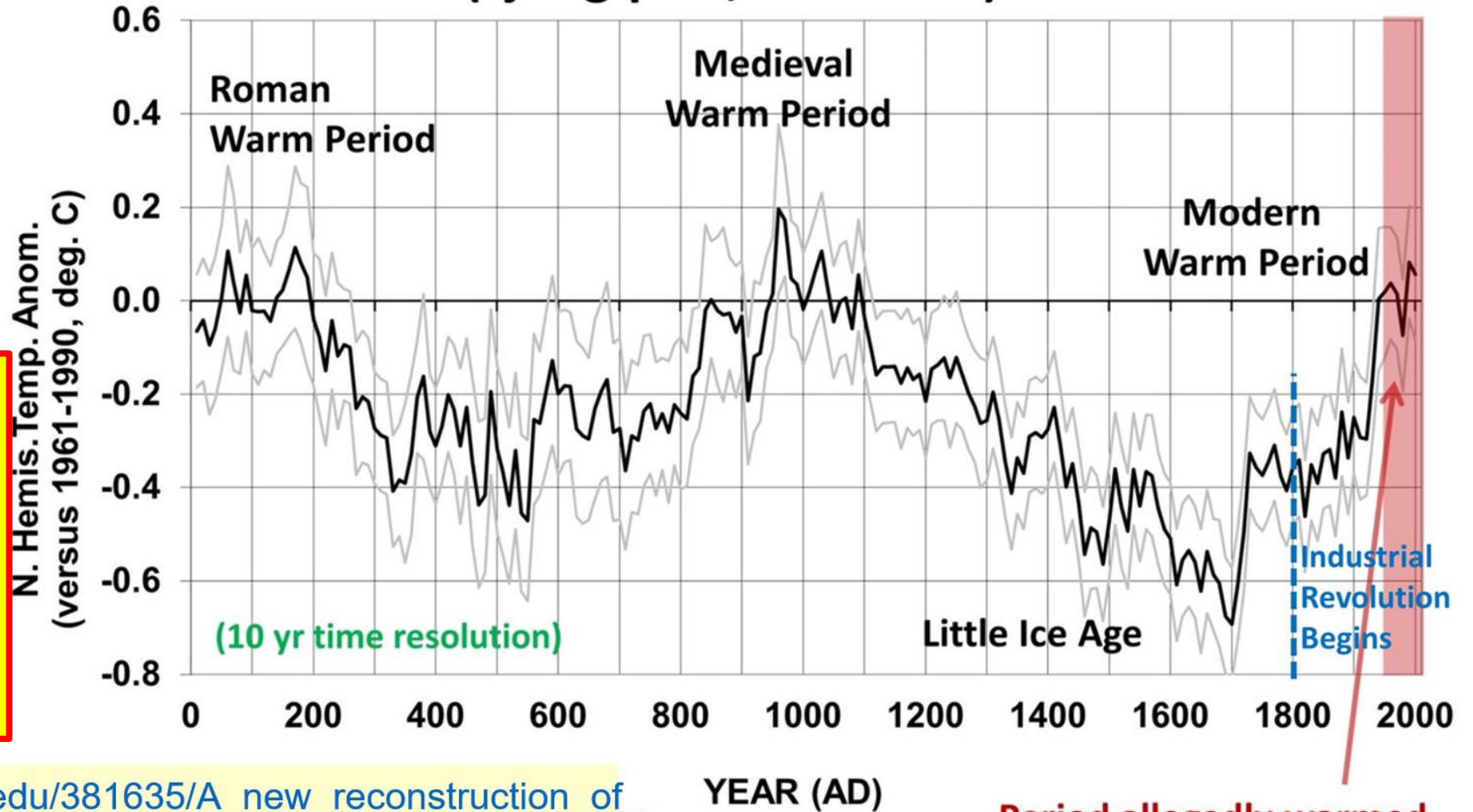
Reconstructed extra-tropical (30-90°N) mean decadal temperature variations relative to 1961-1990 mean of the variance-adjusted 30-90°N CRUTEM3+HadSST2 instrumental temperature data of Brohan et al.(2006) and Rayner et al. (2006). Adapted from Ljungqvist (2010).

N. Hemisphere Temperature proxies (Ljungqvist, F.C. 2010)

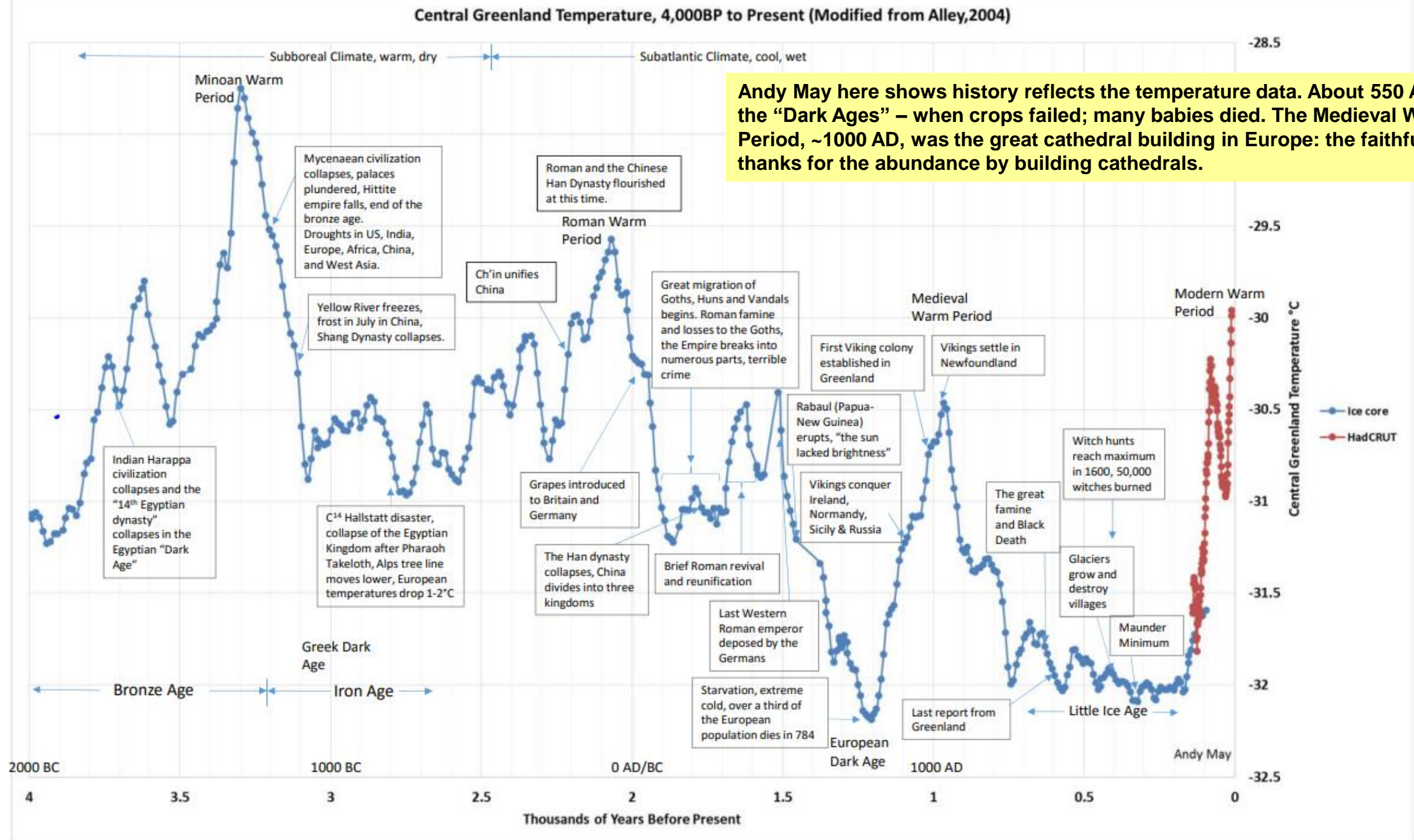
Ljungqvist finds the Bond Cycles....

Spencer shows the alleged "human Influence" on the temperature record.

The strong "jump" of Temperatures out of the Little Ice Age Was NOT caused by Humans.
What in the data would Show ANY human influence?



[https://www.academia.edu/381635/A_new_reconstruction_of_temperature_variability_in_the_extra-tropical Northern Hemisphere during the last two millennia](https://www.academia.edu/381635/A_new_reconstruction_of_temperature_variability_in_the_extra-tropical_Northern_Hemisphere_during_the_last_two_millennia)

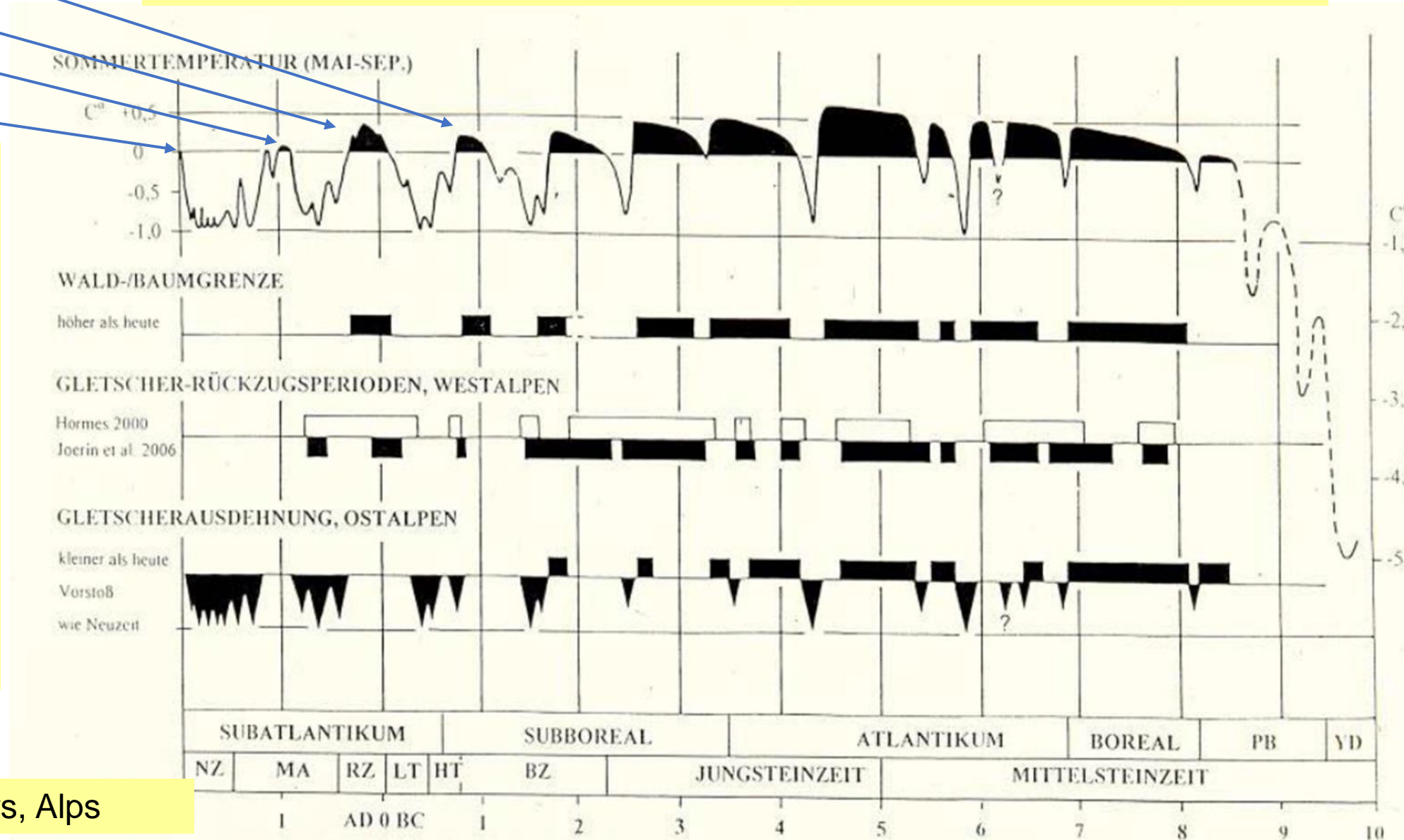


These are tree-ring-derived “proxy” temperatures from the Alps.

Minoan
Roman
Medieval
Present

http://www.iuf-berlin.org/wm_files/wm_pdf/prof._patzelt_berlin_4.12.2009.pdf

Top line of the graph below is the May to September Temperature time series



Top line shows ~thirteen separate warm periods since the last glacial maximum.

Present Warm period (...with more CO2!) appears weaker than almost all previous Holocene Warm Periods

Timeline, last 12,000 years, Alps

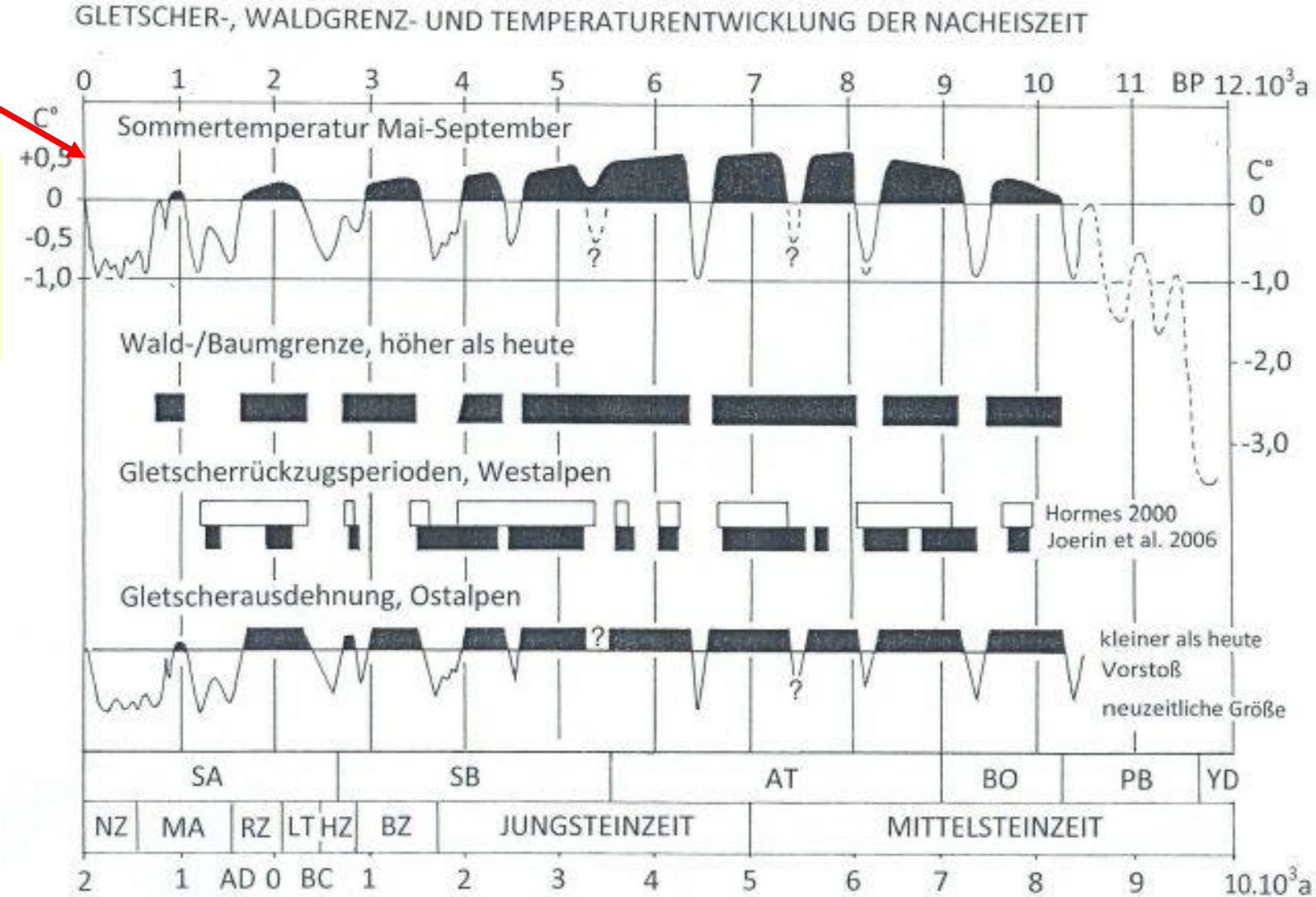
Analysis of ancient trees found in lateral moraines in the Austrian Alps by Prof G. Patzelt shows peak summer temperatures occurred about 8,000 years ago.

We are NOT headed into Climate Armageddon from the heat.

Now

<https://notrickszone.com/2020/01/25/world-leading-alps-glaciologist-shows-todays-climate-vegetation-and-glacier-situation-nothing-special/>

How could anyone find Human-Caused CO2-Fueled Global Warming in these data?



Official weather records from the USA show present temperatures are NOT extremely hot, much in contradiction to Main-Stream Media accounts.

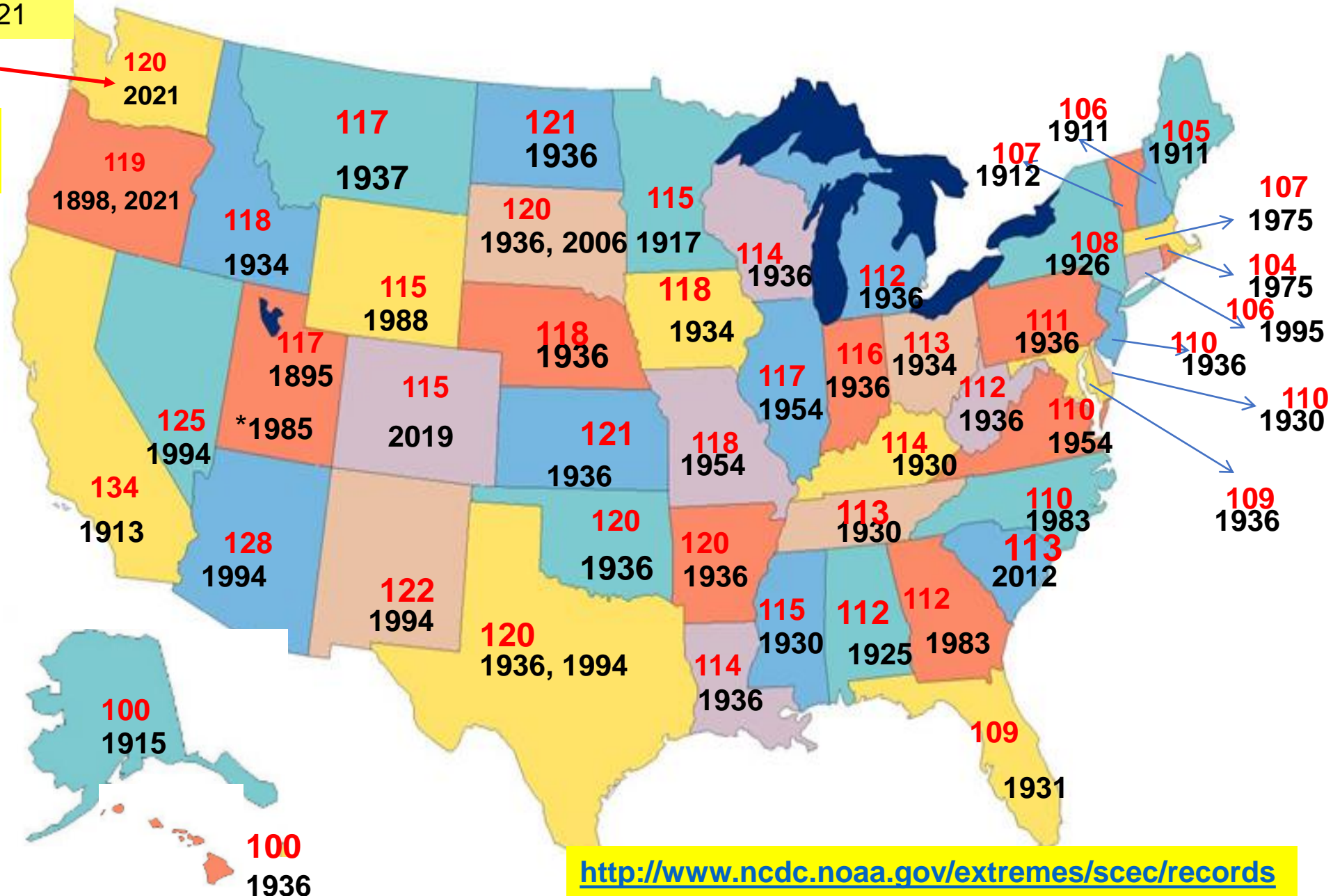
The data show that the 1930s was the hottest decade in the USA, when <CO2> was about 306 Parts Per Million, PPM.

For comparison, the July, 2023 <CO2> is/was 418 PPM

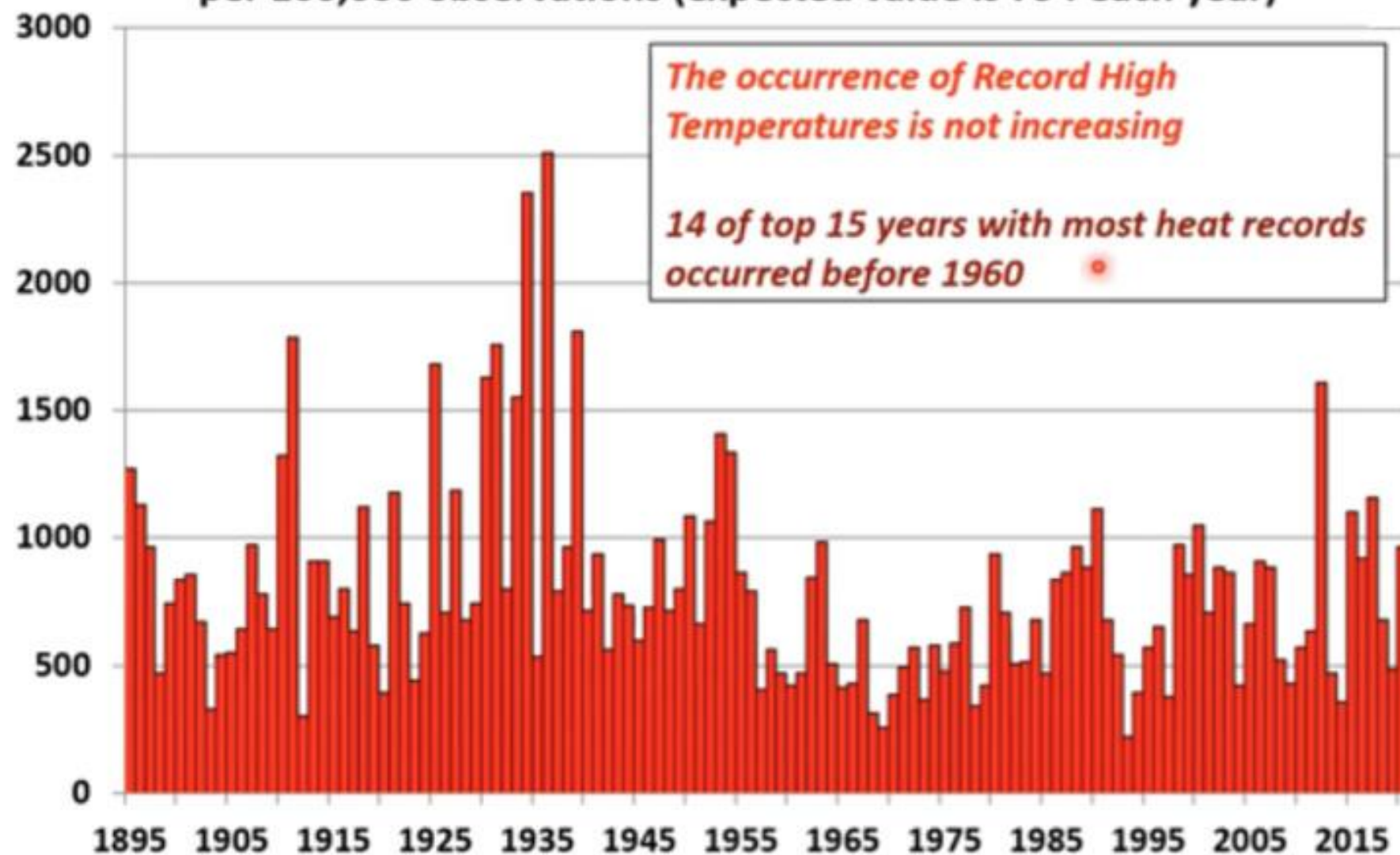
US. Record Maximum Temperature F by State and Year

New Record 2021

OR Record of
1898, tied



Number of Daily Record High Temperatures by year for 737 USHCN Stations with at least 105 years of record (1895-2020) per 100,000 observations (expected value is 794 each year)

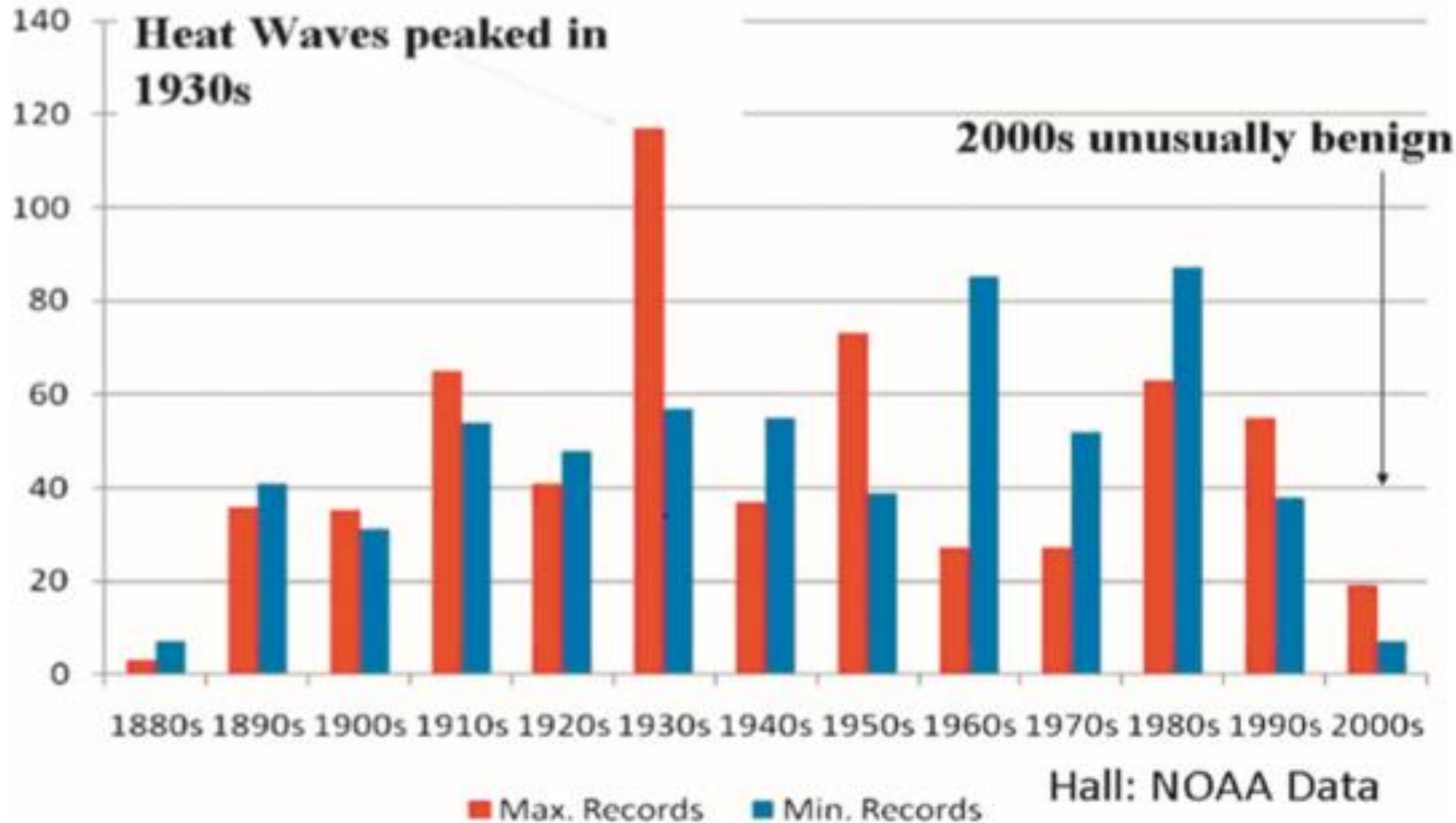


John R. Christy, The University of Alabama in Huntsville

NCEI/NOAA data downloaded 3 Dec 2020

U.S. State Maximum and Minimum Monthly Records by Decade

http://scienceandpublicpolicy.org/images/stories/papers/originals/surface_temp.pdf



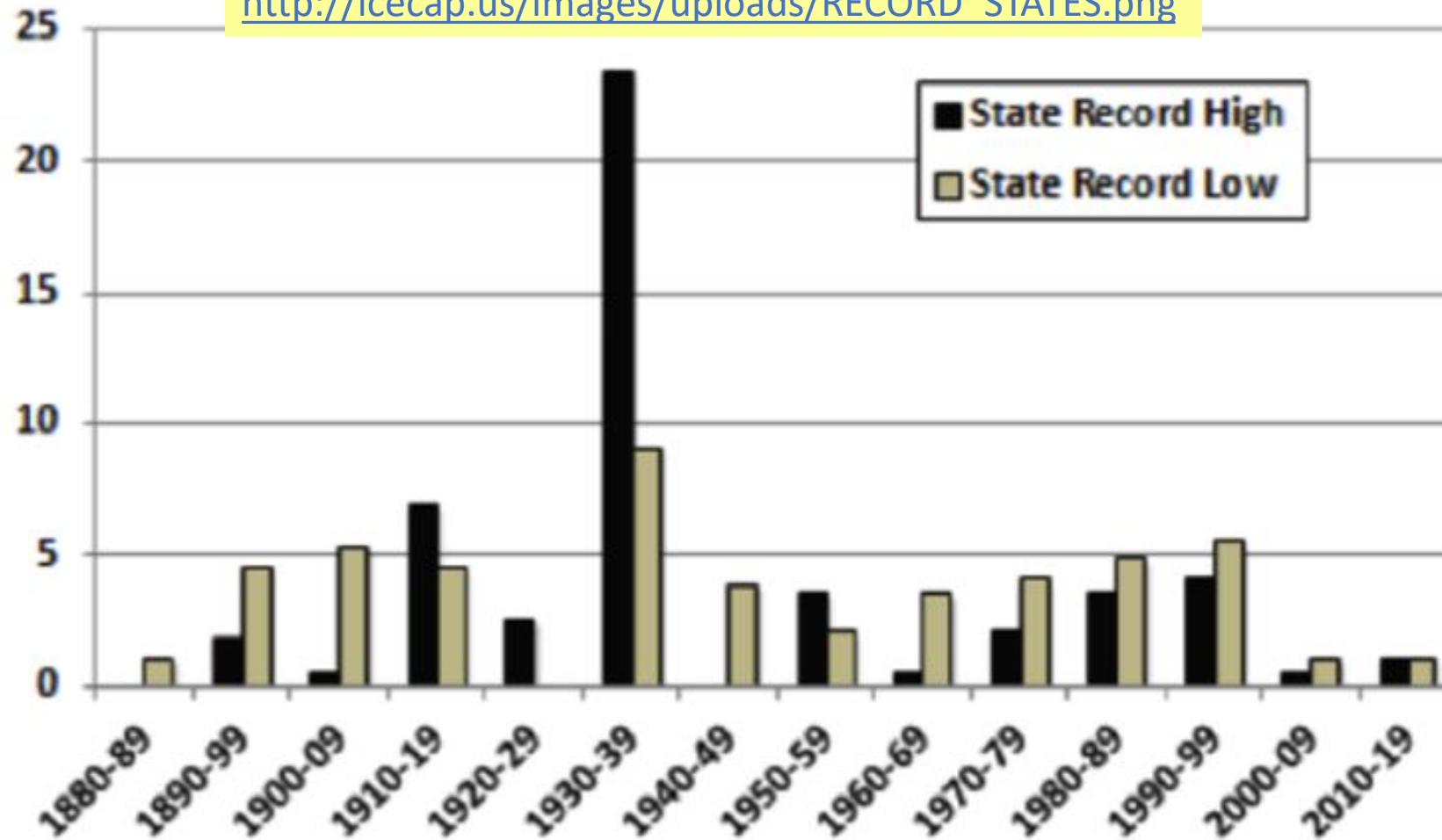
This graphic, similar to the NOAA Extremes data base referenced earlier, directly confounds and contradicts the notion that increasing <CO₂> is leading to increasingly warmer temperatures.

NB peak in the 1930s, when <CO₂> was ~307 PPM.

FIGURE 19 United States all-time monthly record lows and highs by decade. Compiled by Hall from NOAA NCDC data.

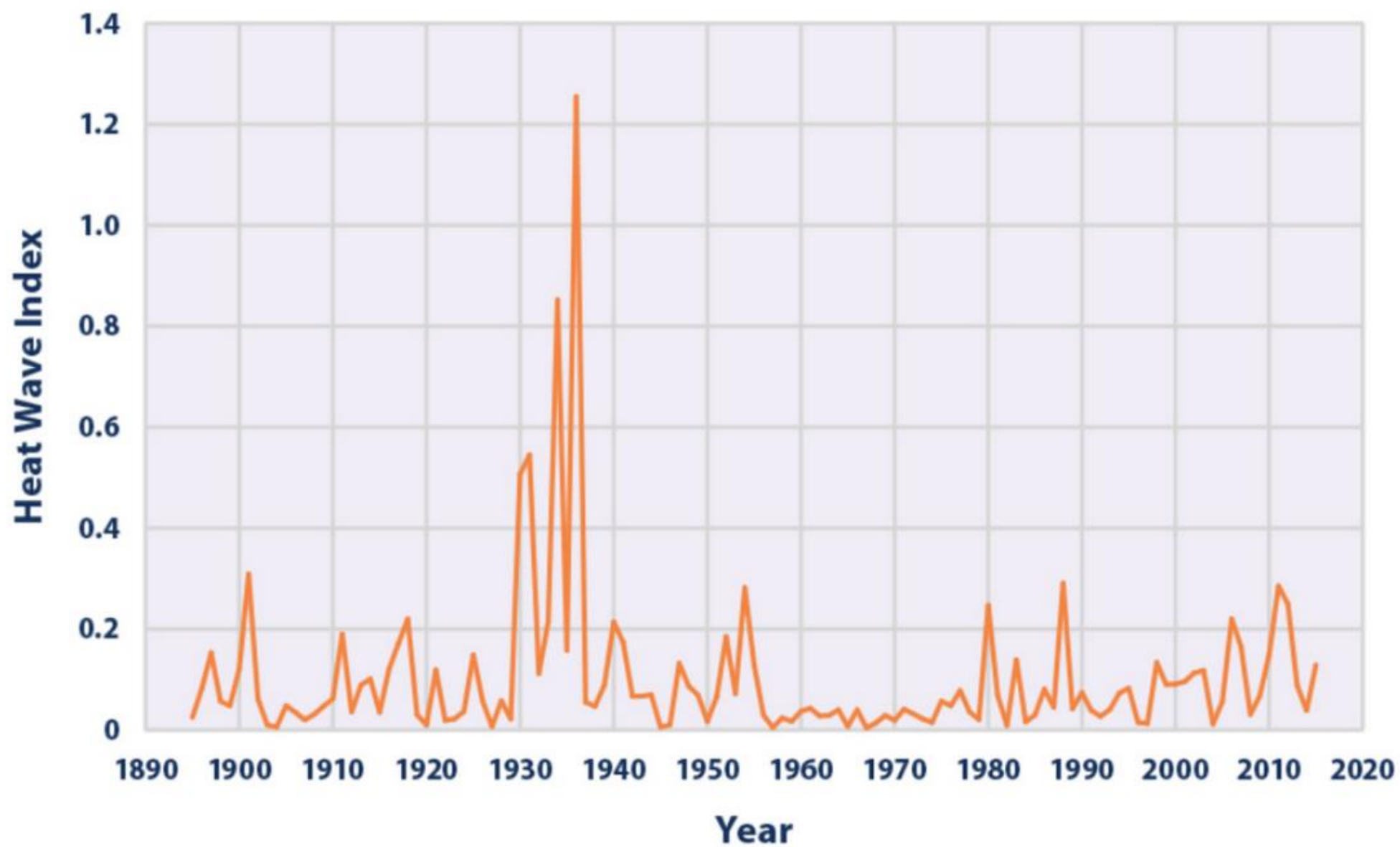
Number of State Record High & Low Temperatures by Decade

http://icecap.us/images/uploads/RECORD_STATES.png





United States Environmental
Protection Agency



The most important weather or climate event of the 20th Century was the Dust Bowl Years of the 1930s.

There are numerous claims of CO₂-driven “Existential Climate Crisis,” e.g., <https://www.capehart.com/biden-declares-climate-change-an-existential-treat/> but these claims are made as if the real weather and climate-driven hard times of the Dust Bowl years did not happen.

But the extremely adverse Dust Bowl events did happen, and the stories are within the time domain of domestic newspaper stories, some of which are in the next slides.

We wonder how so-called journalists write about modern “catastrophic temperatures,” when they are unaware of (or deliberately ignore) Newspaper stories, some from their own publications, showing the higher temperatures in the Dust Bowl Years.





https://realclimatescience.com/wp-content/uploads/2017/08/1280px-Dust_Bowl_-_Dallas_South_Dakota_1936_shadow.png



“Cattle went blind and suffocated. When farmers cut them open, they found stomachs stuffed with fine sand.”



Forest Fire Data

There are at least two stories in the forest fire data

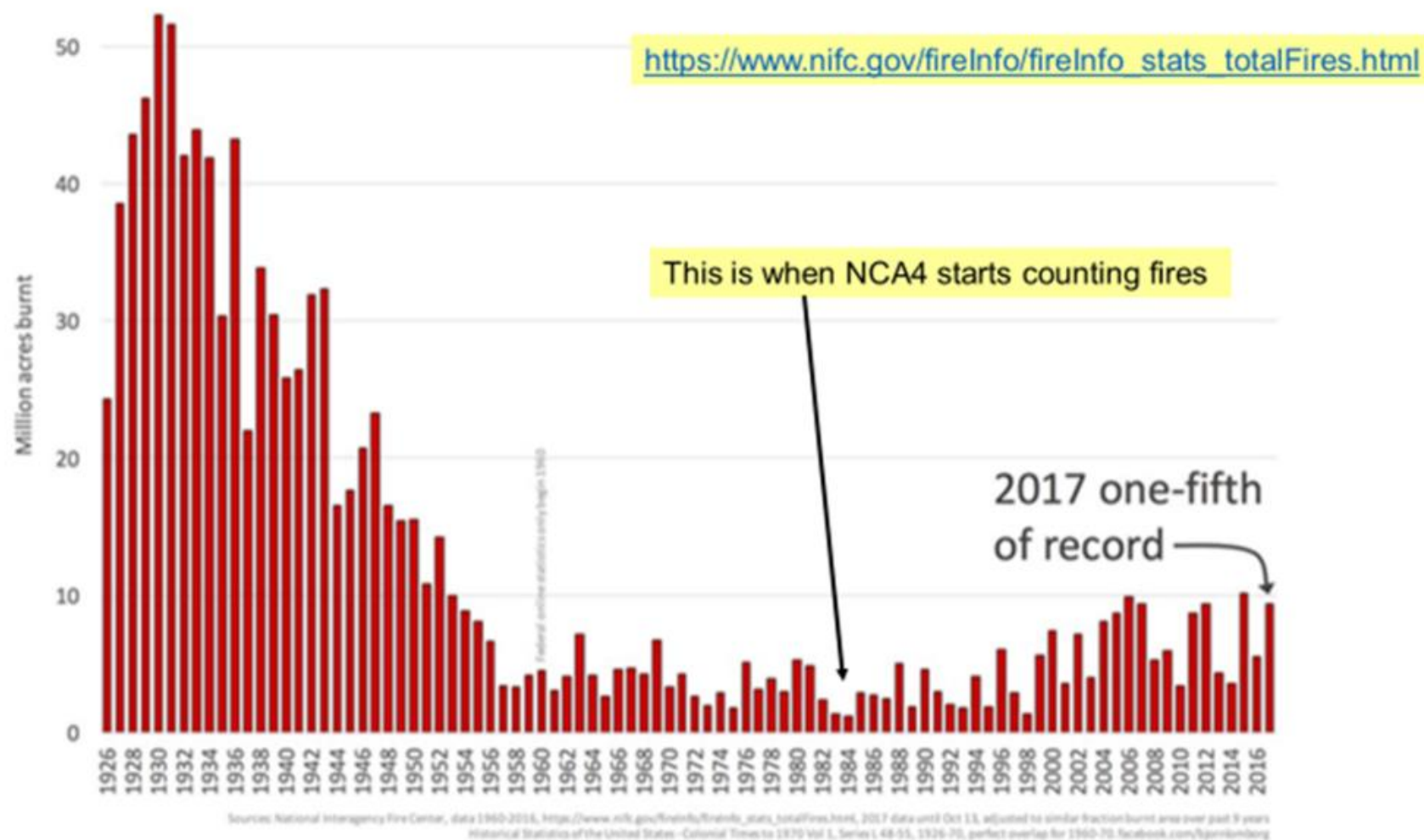
ONE: The mistaken notion that recent forest fires burning some 7 million acres per year in the USA have been “horrific,” or some sort of modern catastrophe.

That story is belied by the data themselves which show that the early 1930s had forest fires burning about 50 million acres per year.

TWO: The US Government lies, saying that there are no reliable forest fire burn data before the 1980s

That story goes out the window when you see publications such as the **New York Times** regularly reporting on the forest fire data; an example from Sunday 9 October 1938, is included below.

US Forest Area Burned 1926-2017

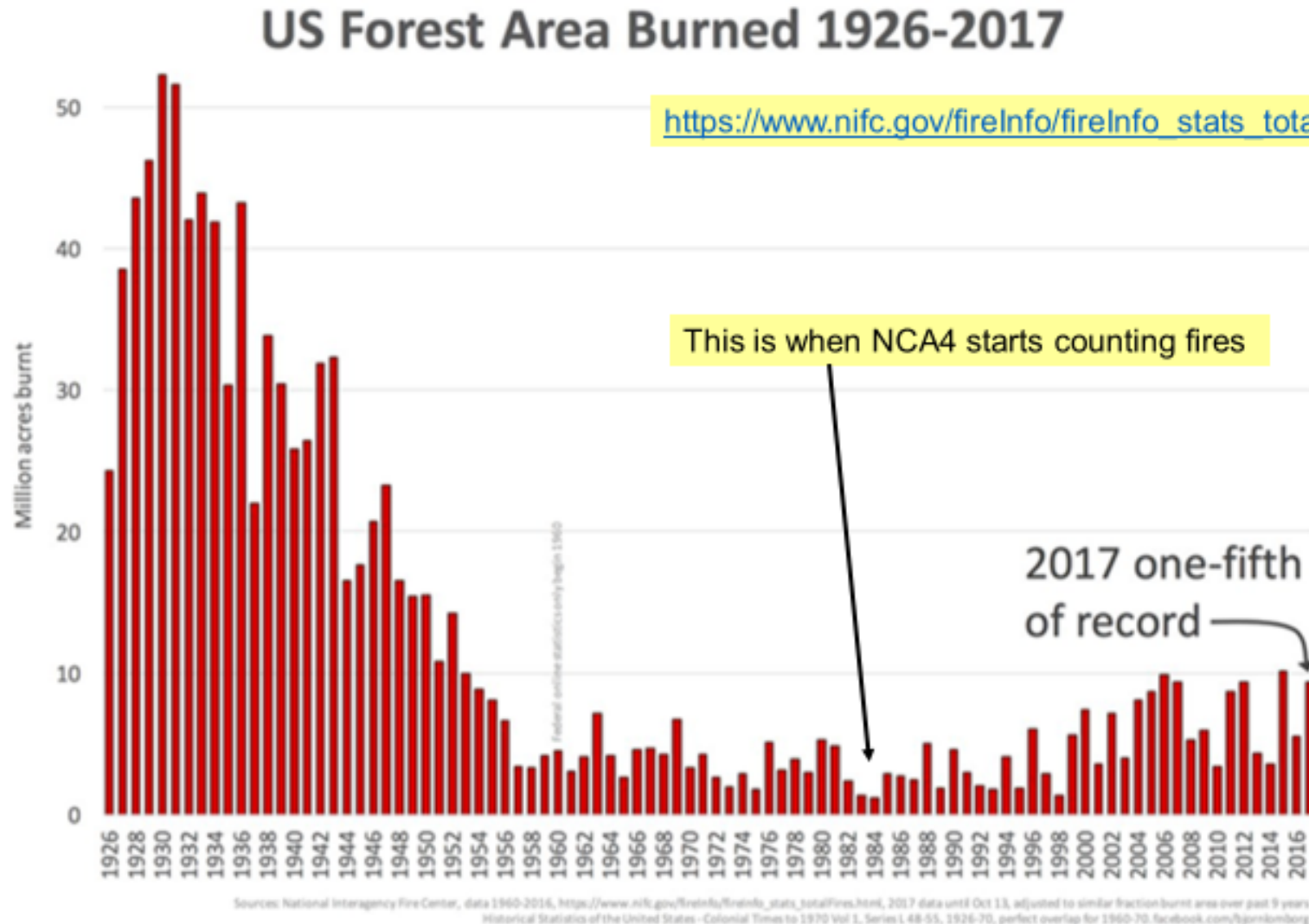


This is a plot Bob Endlich captured around 2017 from the National Interagency Fire Center which lists, in bar chart format, the number of reported acres burned on an annual basis, from 1926-2017. Sierra Club's characterization of 2021's forest fire losses as a little over 7 million acres lost as "horrific," given the burn acreage around 50 million acres in the years around 1930, shows a stunning lack of critical thinking and scholarship.

Sierra Club: “2021...another horrific fire season in the West”

The graphic below came from <https://casf.me/new-visitors/> specifically, https://casf.me/wp-content/uploads/2022/08/Extreme-Weather-Increasing_24-Apr-2019-updated-20-Aug-2022_.pdf

Recent fire seasons were well below the peak US fires, which occurred about 1930



Sierra Club: “2021: ANOTHER HORRIFIC FIRE SEASON IN THE WEST”

The National Interagency Fire Center, NIFC, lists the 2021 burned acreage as 7,125,643 acres burned. NIFC also says at, <https://www.nifc.gov/fire-information/statistics/wildfires>

“Prior to 1983, the federal wildland fire agencies did not track official wildfire data using current reporting processes. As a result, there is no official data prior to 1983 posted on this site.”

COMMENT: Obfuscates the fact that a good reporting system existed in prior years <https://realclimatescience.com/2018/09/forest-fire-burn-acreage-down-86-since-1930/>

From that post: *“Actual data wrecks their global warming scam, so climate experts simply throw out all data prior to the appropriately chosen start date of 1984.”*

This is one of many instances where US Government employees are active participants in the global warming scam.

THE NEW YORK TIMES, SUNDAY, OCTOBER 9, 1938.
***Forest Fires, One Every 3 Minutes in 1937,
Burned 21,980,500 Acres at \$20,668,880 Loss***

Special to THE NEW YORK TIMES.

WASHINGTON, Oct. 8.—Every three minutes on the average, during 1937, a forest fire started in the United States, but the year's total of losses was considerably under that of 1936.

The Forest Service of the Department of Agriculture reported today that 185,209 forest fires last year burned 21,980,500 acres of timber and caused damage estimated at \$20,668,880.

The number of fires in 1937 was 18 per cent less than in the previous year while the burned acreage was only slightly more than half the acreage burned in 1936.

The Service attributed the reduction to more favorable weather, improved fire-fighting technique, better fire detection, more cooperation by private woodland owners, the work of the Civilian Conservation Corps and less carelessness on the part of forest workers and visitors.

Ninety-four per cent of all the

acreage burned consisted of unprotected forest areas and more than 11 per cent of all unprotected forested lands burned over. The 121,449 fires on lands not protected burned approximately 20,637,000 acres, causing damage of more than \$18,000,000.

The average number of fires annually on unprotected areas during 1937 was 138,776,000 acres of Federally owned annual loss was 33,129,000 acres valued at \$33,613,000.

Fire protection is now given to 130,776,000 acres of Federally owned forest land needing protection, but only three-fifths of the 423,070,000 acres of private and State forest areas needing protection is protected by organized fire control systems.

Fires on Federal land in 1937 were restricted to an average area of 9.5 acres, as compared with the 1933-37 average of 43.3 acres. Fires on private lands showed a reduction from 48.6 acres to 23.1 acres.

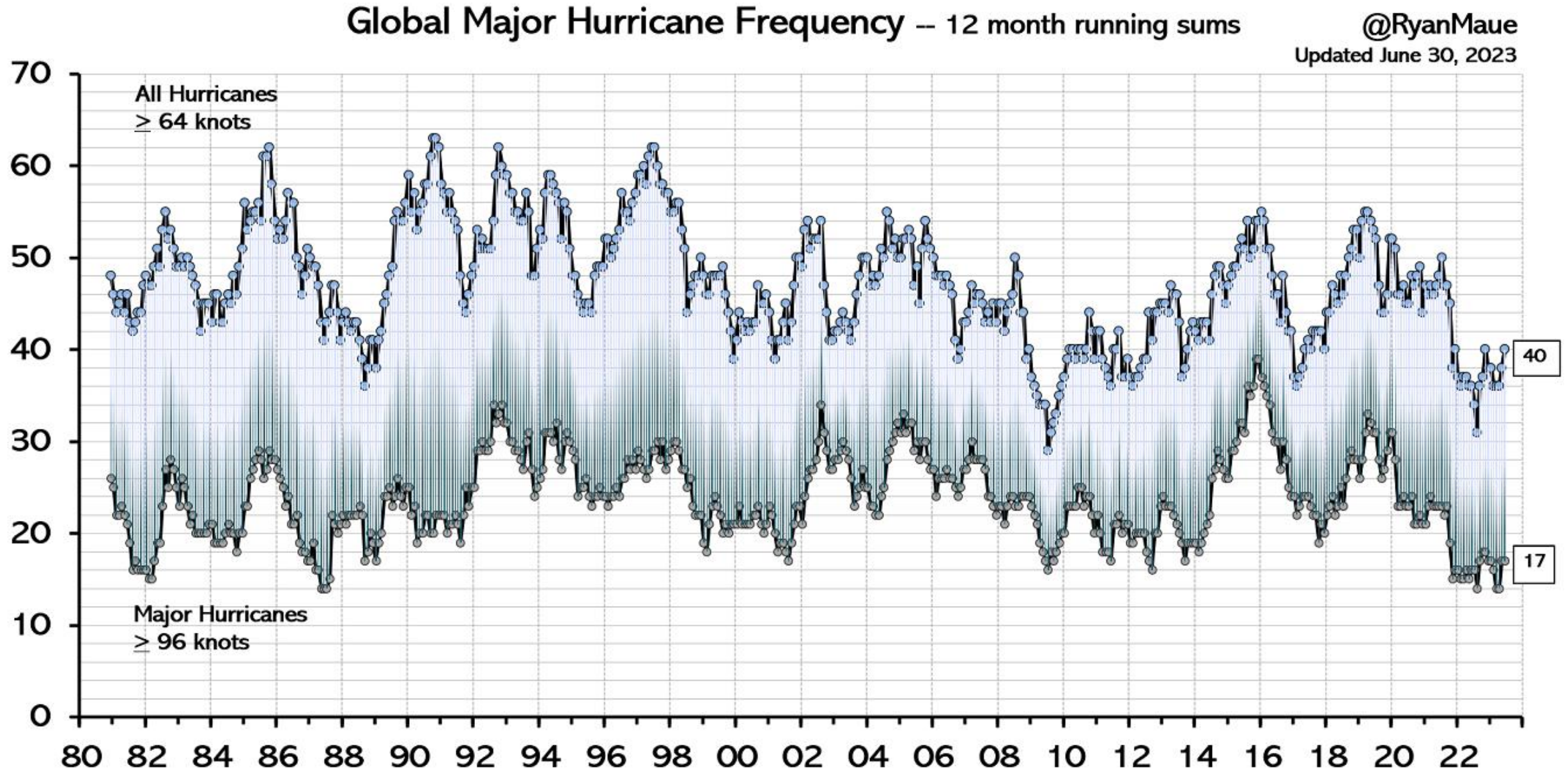
The New York Times says, “Climate Change Is Making Hurricanes Stronger, Researchers Find.”
<https://www.nytimes.com/2020/05/18/climate/climate-changes-hurricane-intensity.html>

This is just not true.

The data collected by Ryan Maue shows the number and intensity of hurricanes shows a strong interdecadal signal in the number and strength of hurricanes.

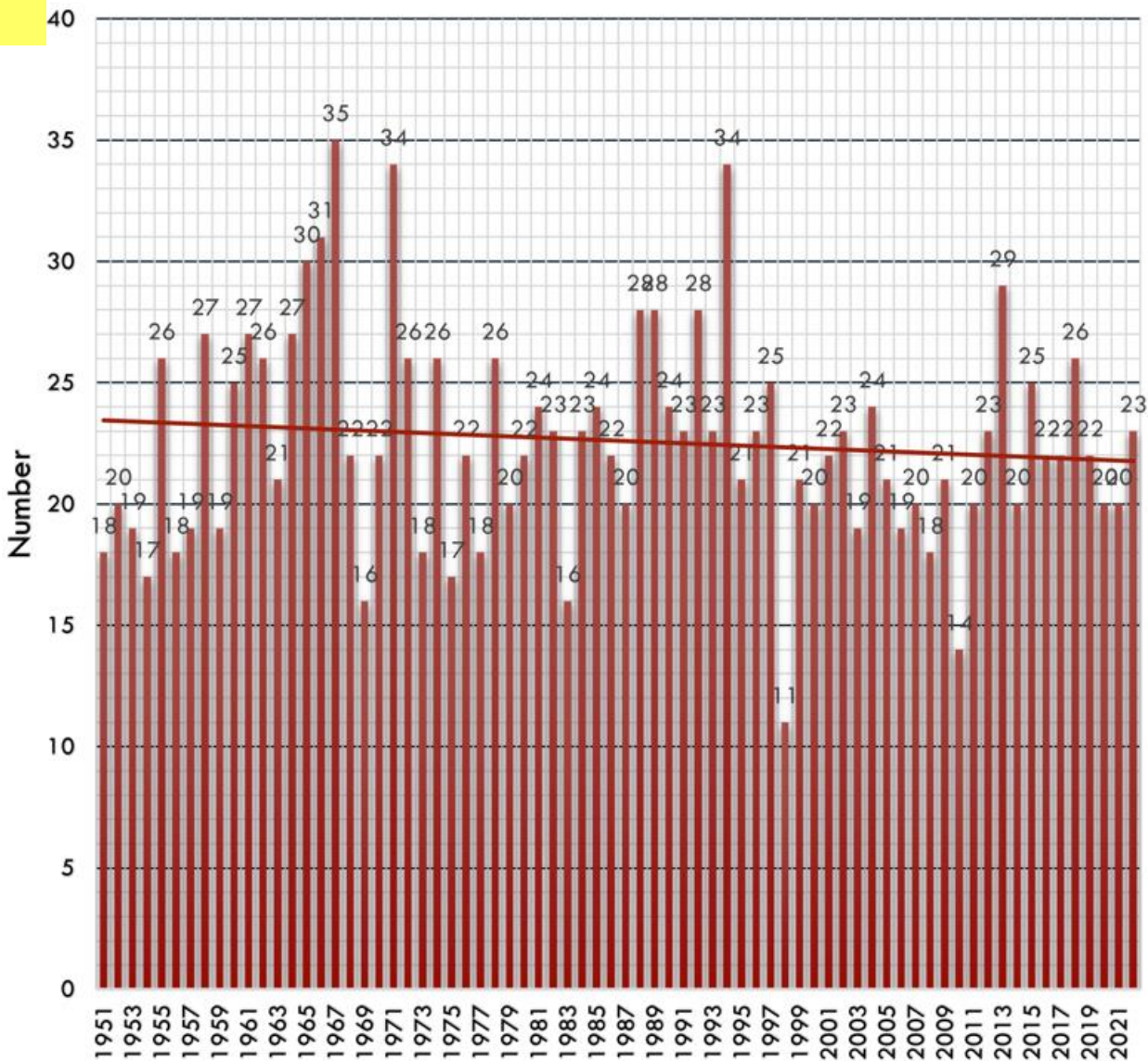
For major hurricanes, the strong interdecadal fluctuation signal is present, and there is no sign that major hurricanes are getting stronger or more frequent.

It is difficult to take Sierra Club writing about 'more powerful hurricanes' and 'alarm bells sounding' seriously, when Ryan Maue's data show quite the opposite happening in the real world, where we all live.



<https://notrickszone.com/2022/11/23/pacific-typhoons-continue-downward-trend-contradicting-alarmist-claims-of-more-storms/>

**Number of Typhoons Formed
for Jan - Oct
1951 - 2022**
Data Source: JMA
Chart Produced by @KiryeNet



<https://www.nytimes.com/2021/12/17/climate/wind-storms-tornadoes-climate-change.html>

The New York Times

Examining the Role of Climate Change in a Week of Wild Weather

The science suggests that the United States can expect more unusual and severe storms as the world heats up, increasing the urgency for action to protect communities.

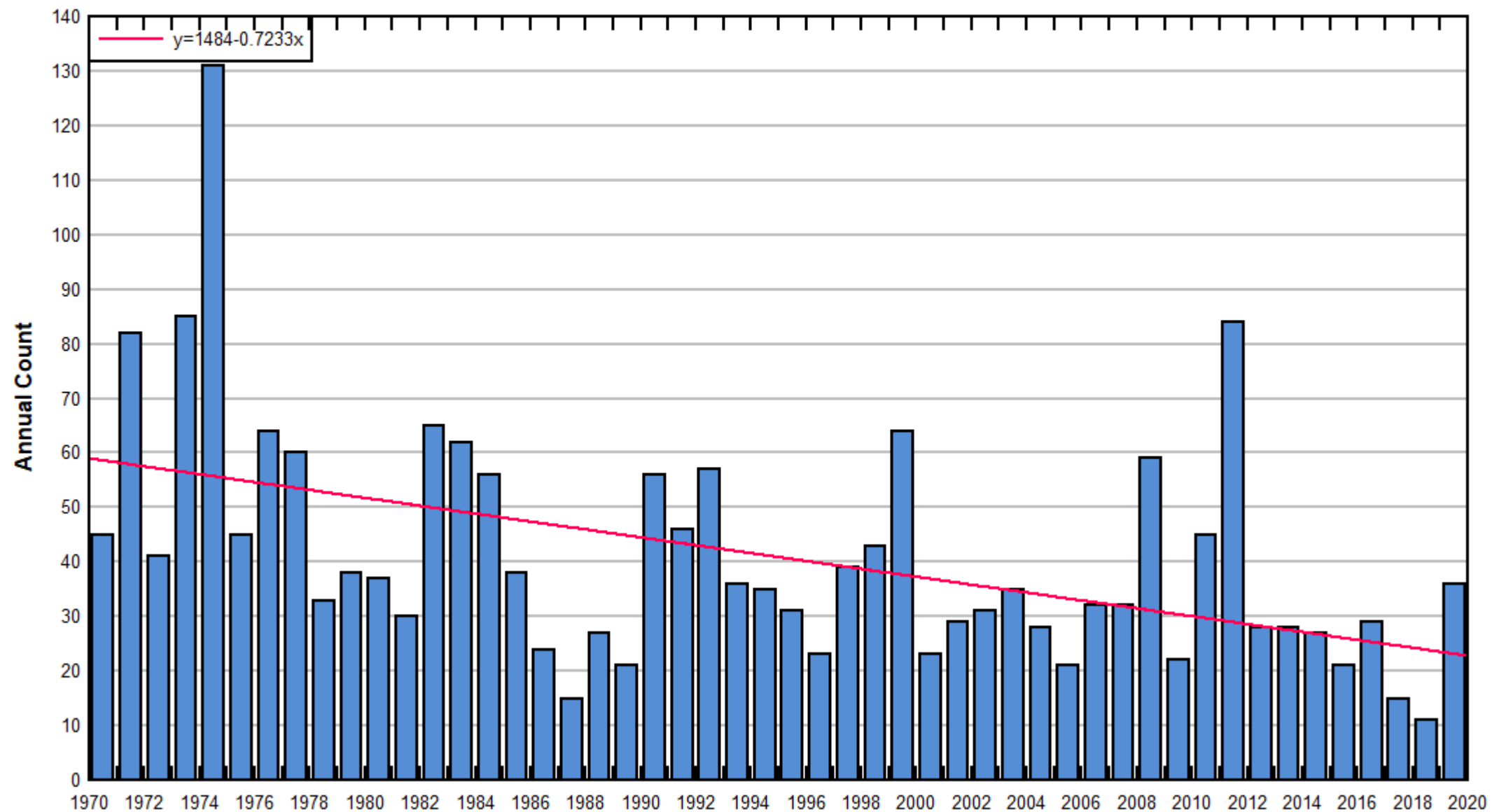
Actually, no.

The frequency of strong to severe tornadoes is down.

And the number of weather and climate-related deaths is down by over 99%

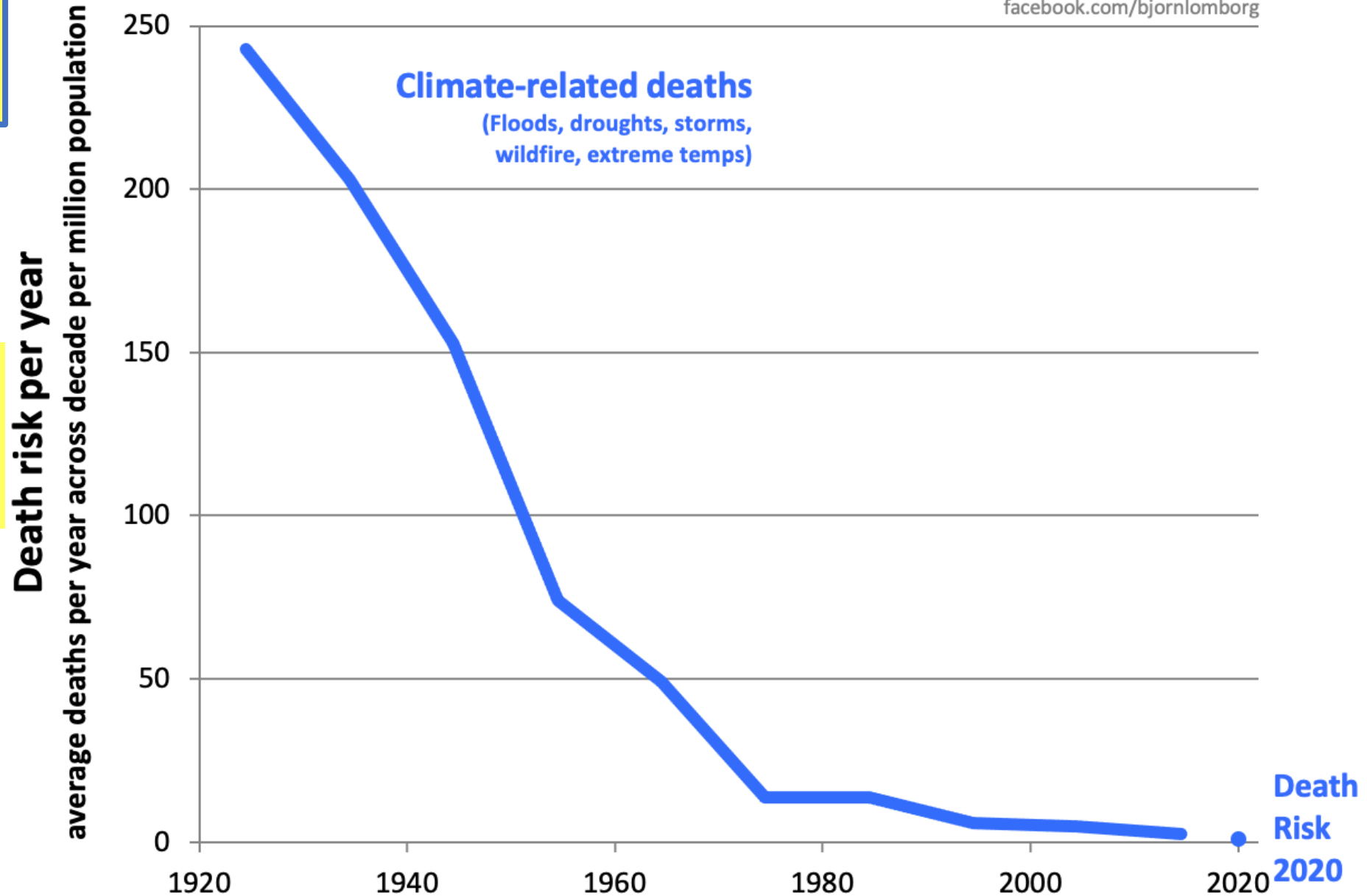
U.S. Annual Count of Strong to Violent Tornadoes (F3+) 1970-2020

Data Source: NOAA/NWS Storm Prediction Center



Climate-related Death Risk 1920-2020

facebook.com/bjornlomborg



OFDA/CRED International Disaster Database, www.emdat.be, deaths averaged over decades 1920-29, 1930-1939, ... 2010-2019, with data from 2020, as start of next decade, accessed January 1, 2021

After 100 years of climate change, 'climate related deaths' approach zero

<https://climateréalism.com/wp-content/uploads/2021/01/climate-related-deaths-1920-2020.png>

IDEAS • CLIMATE CHANGE

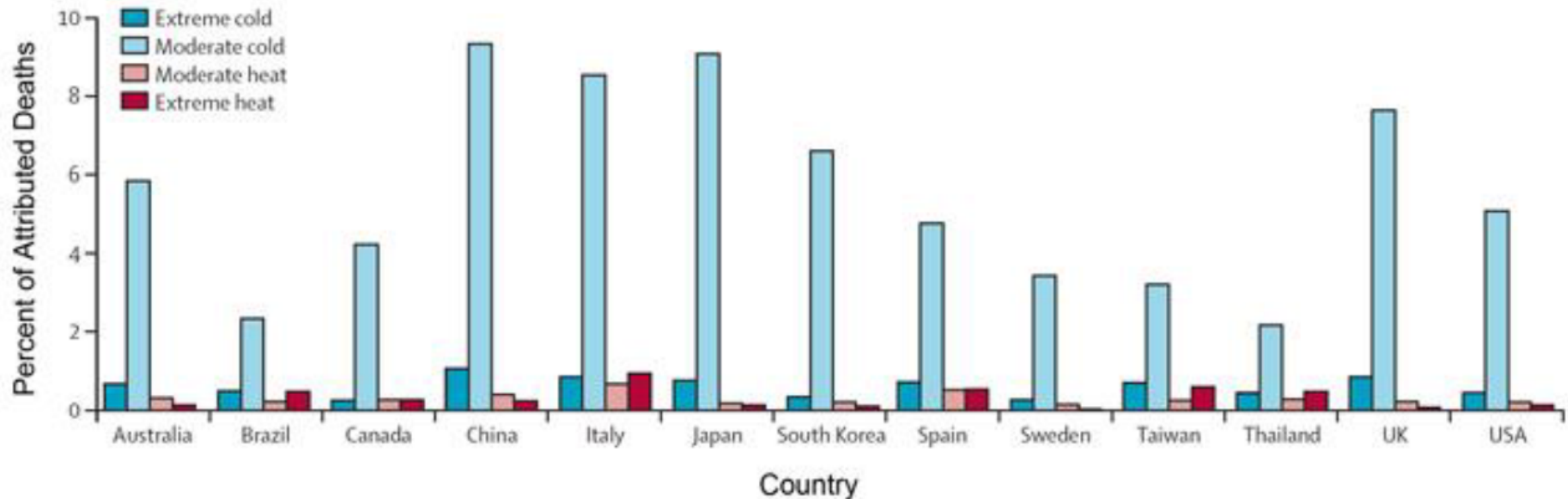
The Increasing Death Toll in the U.S. From Extreme Heat

“During the heat wave last summer in the Northwest, approximately 600 additional people died over a week in Oregon and Washington. As climate increases the frequency of extreme weather events like heat waves, my patients and many others will face severe health consequences. According to estimates by the National Weather Service, heat has been the single largest contributor to weather related deaths over the last 30 years.”

Cold waves kill many more people than heat waves.

If the Alarmists were correct, there'd be a lot more deaths from heat than cold. The Climate Alarm makes no sense.

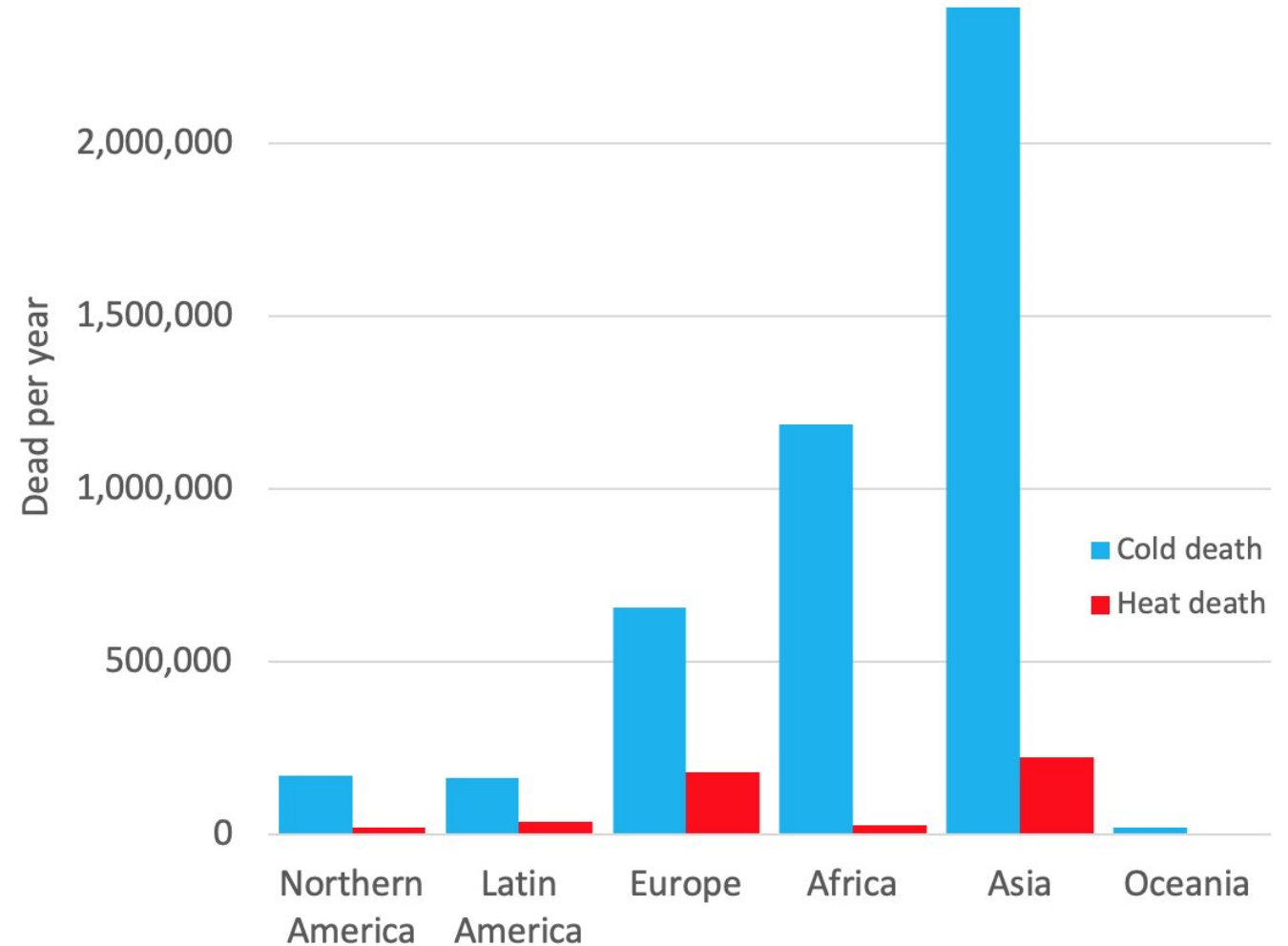
Percent of Deaths Due to Moderate and Extreme Episodes of Heat and Cold



Fraction of all-cause mortality attributable to moderate and extreme hot and cold temperature by country. (Source: Gasparrini et al., 2015).

***Lancet*: More Cold Death Than Heat Death Everywhere**

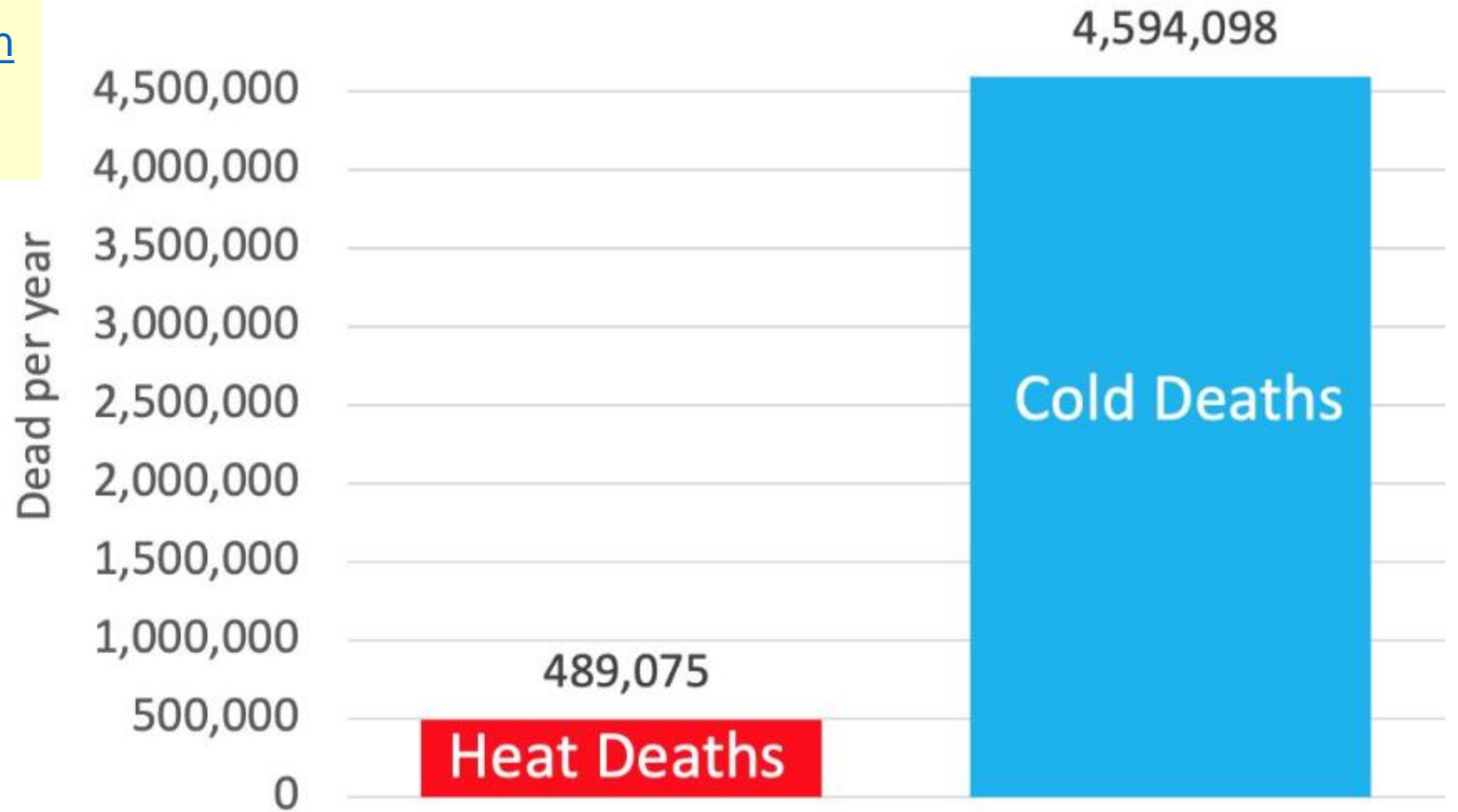
<https://www.climatedepot.com/2022/12/30/the-lancet-cold-weather-9x-more-likely-to-kill-than-hot-globally-4-5-million-people-die-of-cold-vs-489k-of-heat/>



Annual dead from heat and cold across world 2000-19. Latin America includes the Carribean. Sources: "Global, regional, and national burden of mortality associated with non-optimal ambient temperatures from 2000 to 2019", Lancet July 2021, [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(21\)00081-4/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(21)00081-4/fulltext), table 1, twitter.com/bjornlomborg

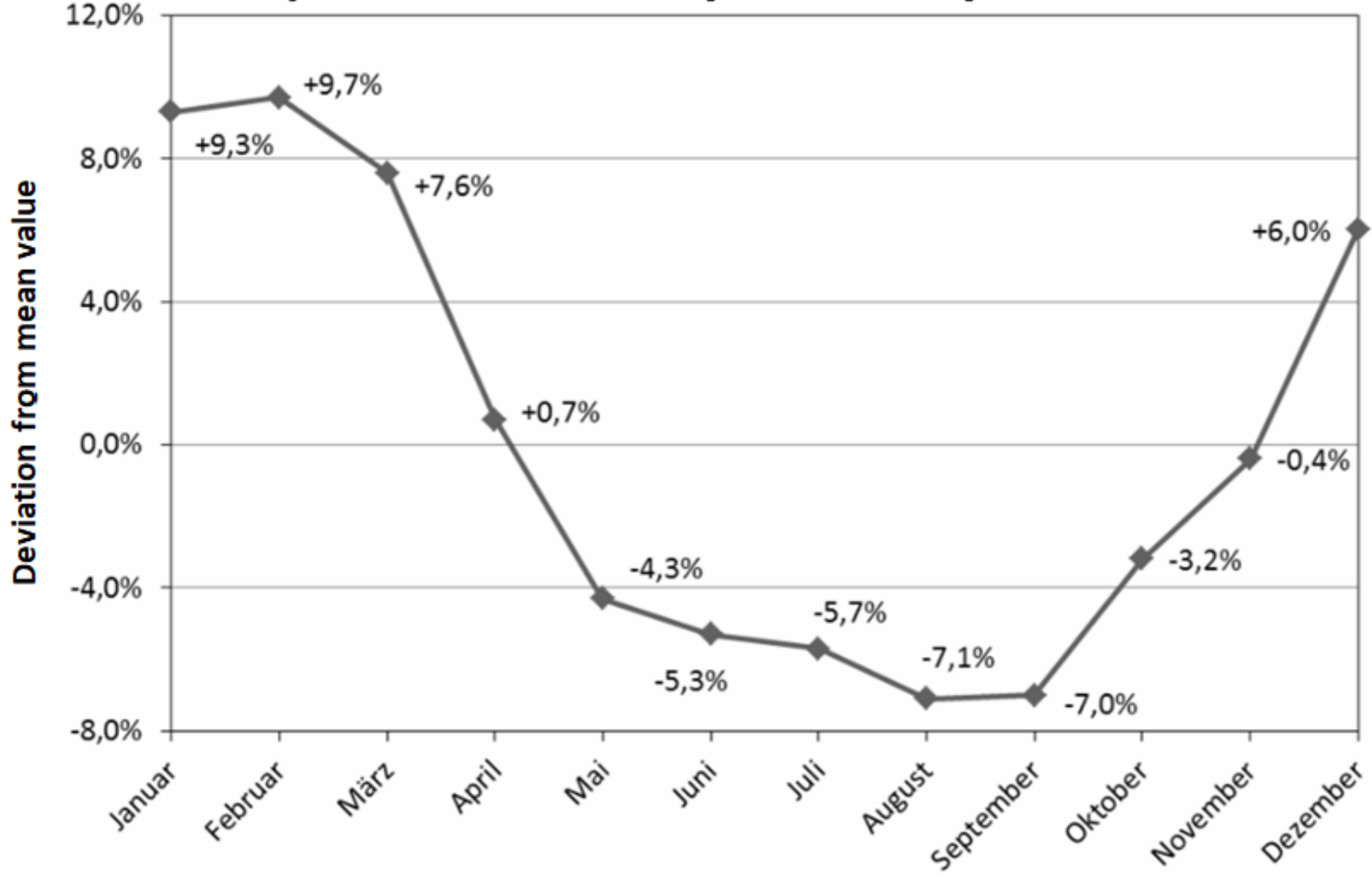
Lancet: 9x more Cold Death than Heat Death Globally

<https://www.climatedepot.com/2022/12/30/the-lancet-cold-weather-9x-more-likely-to-kill-than-hot-globally-4-5-million-people-die-of-cold-vs-489k-of-heat/>



Annual dead from heat and cold in world 2000-19. Sources: "Global, regional, and national burden of mortality associated with non-optimal ambient temperatures from 2000 to 2019", Lancet July 2021, [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(21\)00081-4/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(21)00081-4/fulltext), table 1, twitter.com/bjornlomborg

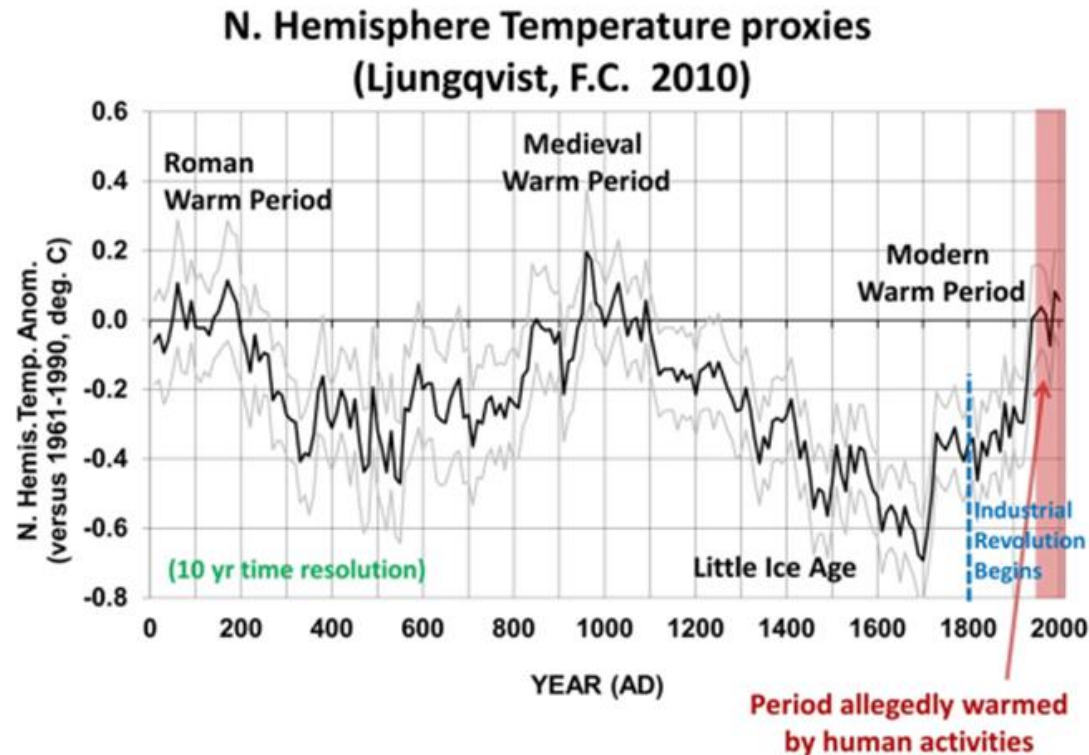
Comparative Monthly Mortality Risk



<https://notrickszone.com/2022/11/28/no-co2-induced-warming-trend-identifiable-for-the-entire-territory-of-italy-since-1948/>

Depth of the Little Ice Age was 1690. Ljungqvist, 2010.

<http://www.drroyspencer.com/wp-content/uploads/2000-years-of-global-temperatures-industrial-revolution-start.jpg>



Multi-proxy reconstruction also shows ~1000-year cycles in the Holocene

Central England Temperatures & Global CO₂ Emissions From 1659 to 2009

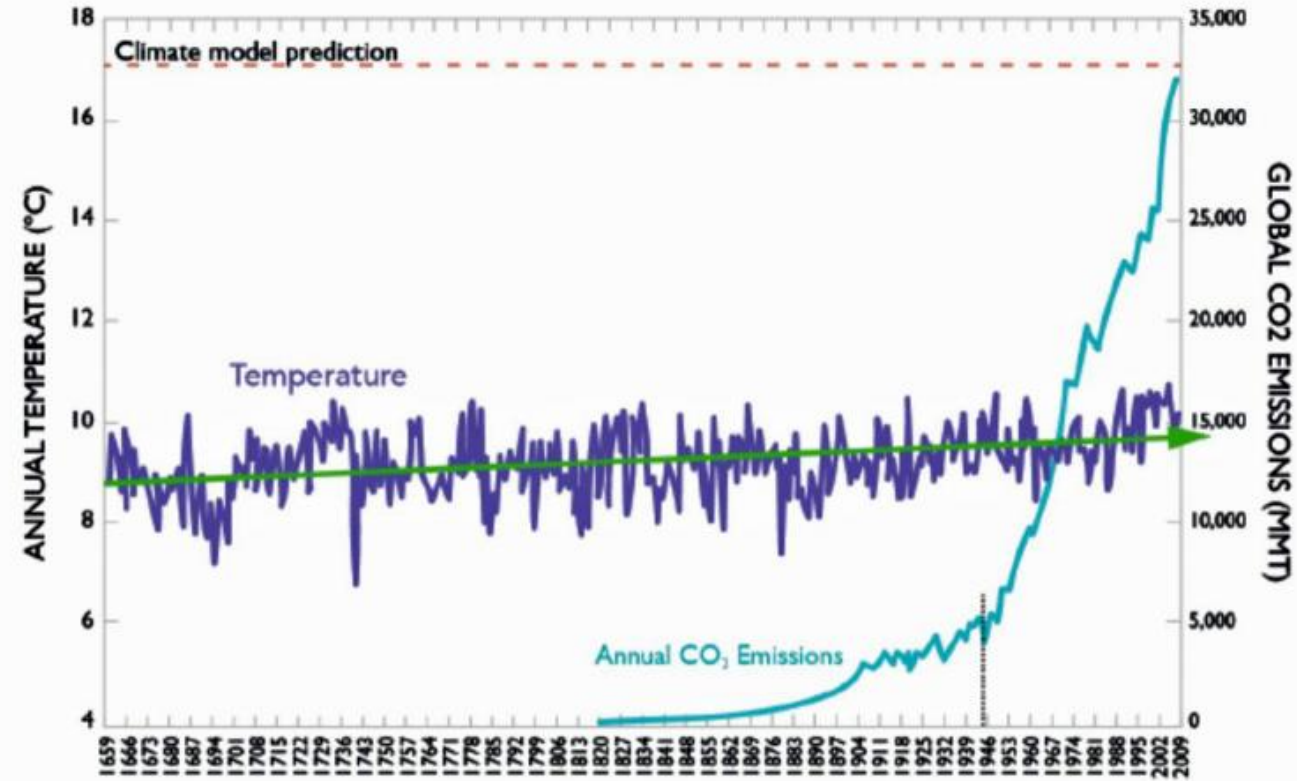


Figure 35. This is the longest known continuous measurement of temperature using a thermometer, from Central England, showing the continuous slow rise of temperature during the past 300 years. The exponential rise in carbon dioxide emissions beginning in 1850 has not been matched by a similar response from temperature. The spurt in temperature rise from 1694 to 1729 was longer and more pronounced than any rise since 1900. This gives no support for the CO₂-caused climate catastrophe storyline. The CO₂ Coalition has published a statistical analysis for the years 1900 to 2018 that clearly demonstrates that CO₂ is not the cause of the temperature increase during this period.*

* Caleb Rossiter, PhD, "Equal Warming, 1900 to 1950 versus 1950 to 2018: Why the UN Knows the First Half was Natural," CO₂ Coalition, April 9, 2020. <http://co2coalition.org/publications/equal-warming-1900-to-1950-versus-1950-to-2018-why-the-un-knows-the-first-half-was-natural/>.

A look at cloud cover data:

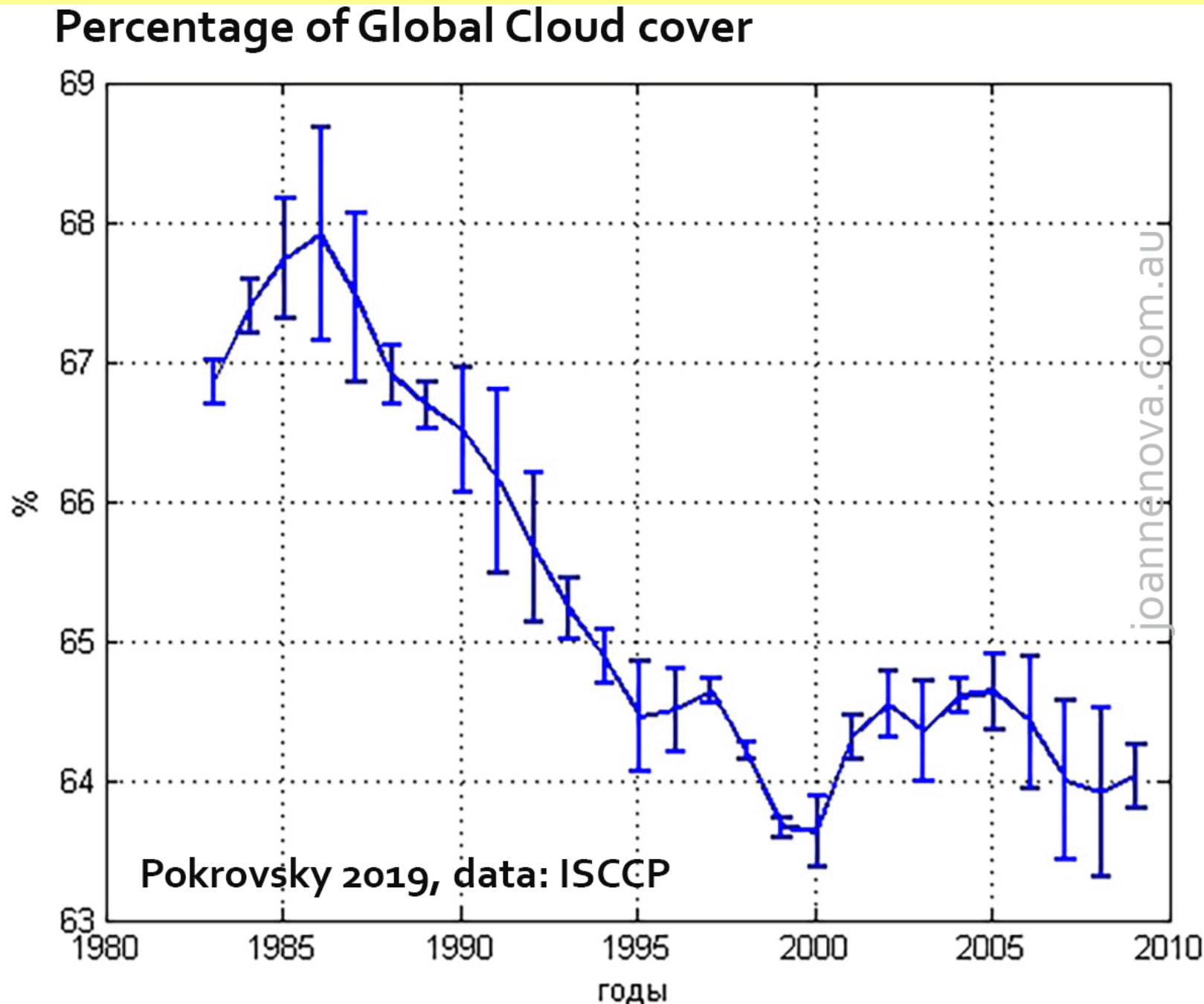
When cloud cover decreases, Earth temperatures increase.

Greenhouse gases or CO₂ isn't driving temperatures; less cloud cover allows the sun to heat the Earth, the oceans, and the earth-atmosphere system. First two graphics.

As a result of less of the Sun's energy being reflected directly back to space from the tops of clouds, more energy is absorbed at and near the Earth's surface, and the amount of the Sun's energy has increased, third graphic in this set.

The fourth graphic in this set shows another comparison, this one by Ole Humlum from Norway, showing the decrease in cloud cover matches up with the increase in global temperatures.

Cloud cover decreases....



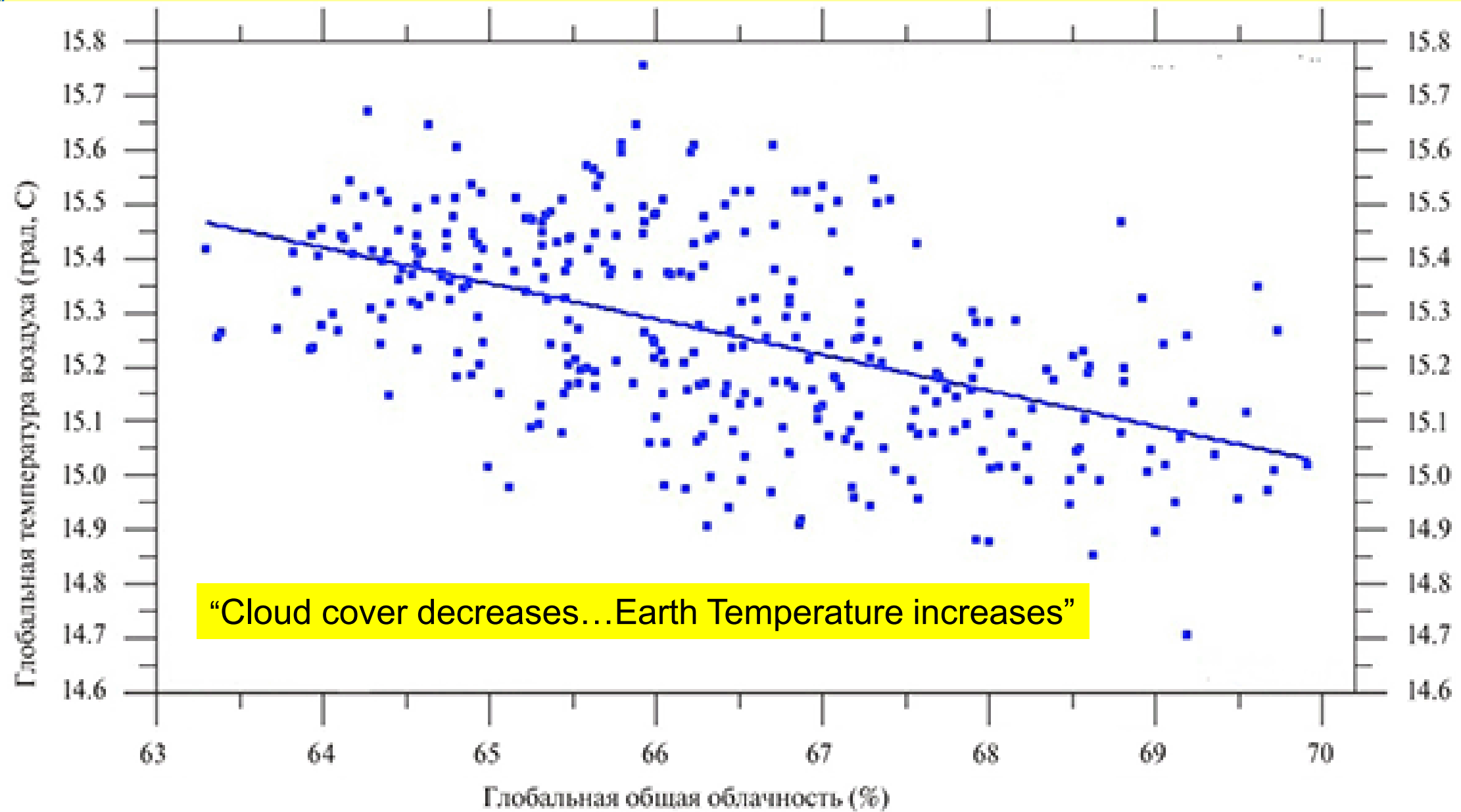
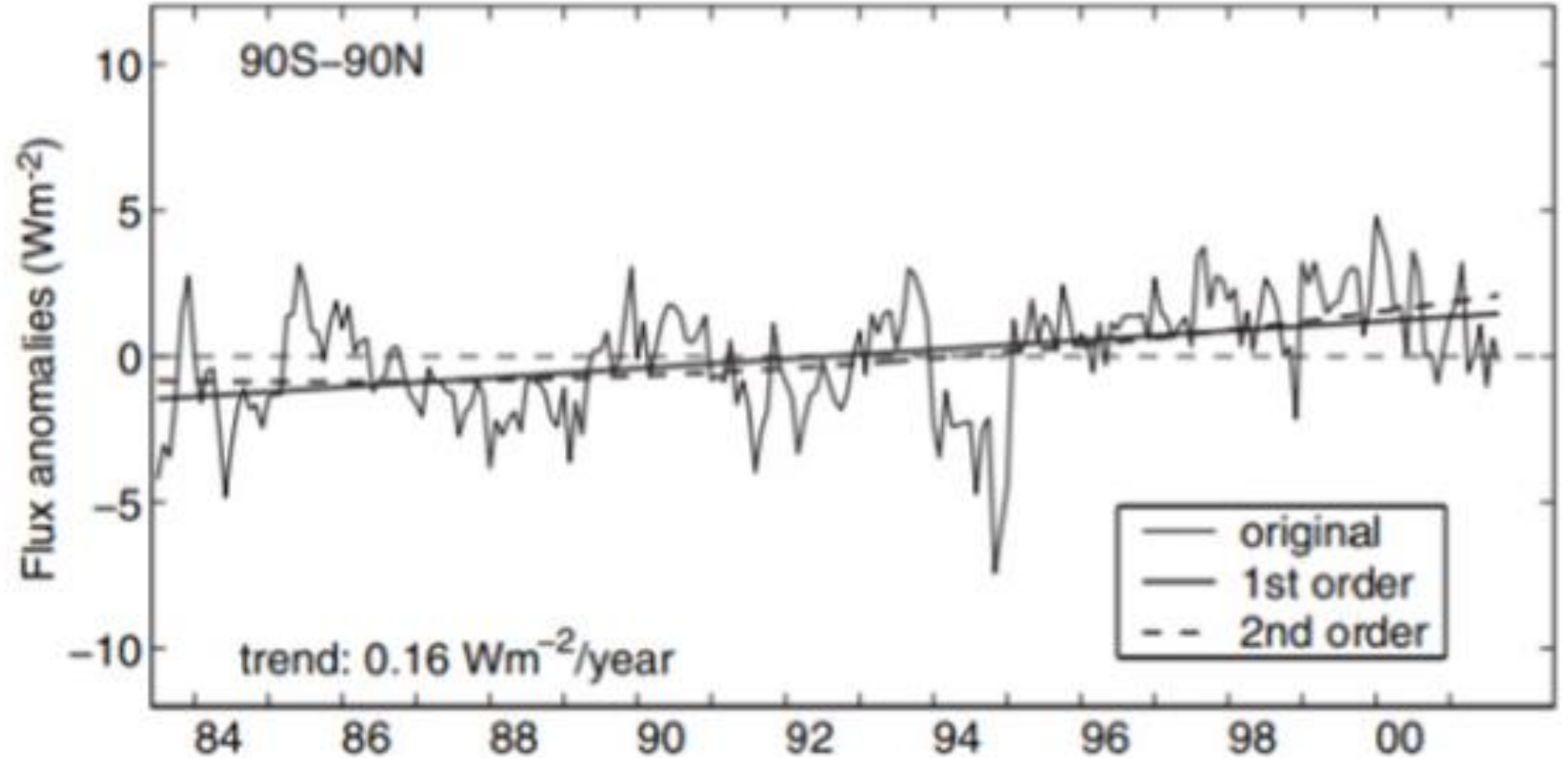
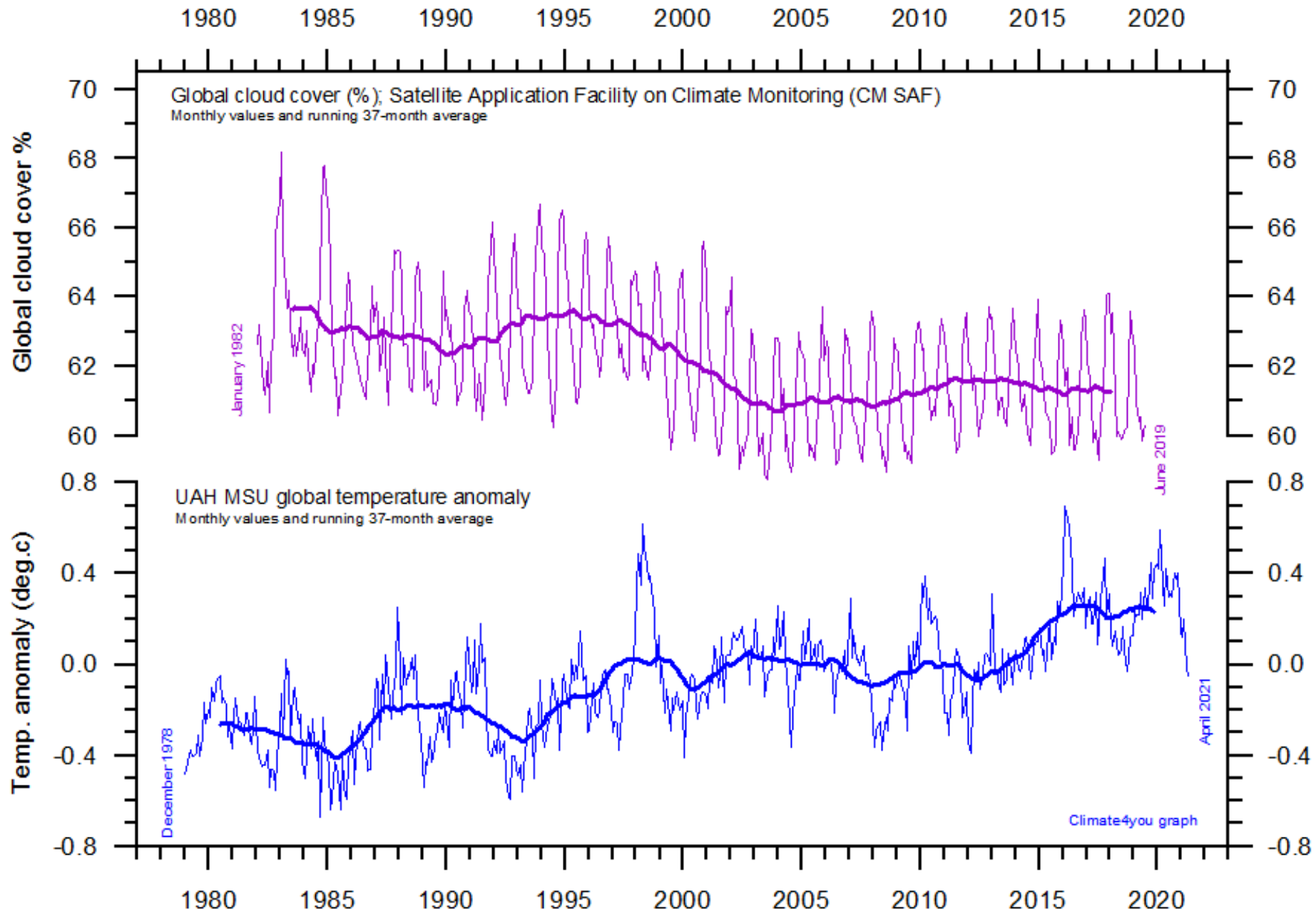


Fig. 9. Results of regression analysis of the series of global clouds (ISCCP) and surface air temperature (CRUTEM3).

Fig. 1. Linear and second-order least-squares fits to the original satellite-derived time series of S (from 1983 to 2001) averaged over the globe, after removal of the mean annual cycle. The linear slope (solid line) of the surface solar radiation is positive at $0.16 \text{ W m}^{-2} \text{ year}^{-1}$. The second-order polynomial (dashed line) indicates a small decrease from 1983 to 1992, with a reversal around 1992. Both the linear and the 2nd-order fits are significant at the 99% level of confidence.



As cloud cover decreases, Earth's temperatures increase as does the amount of radiation from that heat. (This and the next slide)



A look at Total Solar Irradiance, TSI, data:

When I was taking undergraduate courses, we were taught that the Sun's output did not change.... "the solar constant." We now know that's not true; both the Sun's output and the amount of solar radiation reaching the top of the atmosphere, change over time....

Yndestad and Solheim looked at Earth's irradiance from the Sun accounting for Earth's orbit about the center of mass of the Sun and the Gas Giants, Jupiter, Saturn and Uranus:

https://www.researchgate.net/publication/307894966_The_Influence_of_Solar_System_Oscillation_on_the_Variability_of_the_Total_Solar_Irradiance

The next chart shows the computed TSI Yndestad and Solheim published in 2017, accounting for the "dance" of the Sun about the center of mass of the Sun-Jupiter-Saturn-Uranus system since 1700.

I highlighted in Purple the TSI since 1900 in the next slide, then, in the second slide ahead, compared it with the northern Latitude temperatures published in SCIENCE by Hansen, et al, in 1981.

Non-Adjusted Temperature Data Appear To Correlate With 20th Century Solar Forcing

[Yndestad and Solheim \(2017\)](#) have released a reconstruction of solar activity (Total Solar Irradiance, or TSI) for 1700-2013. (coloring enhanced for presentation here)

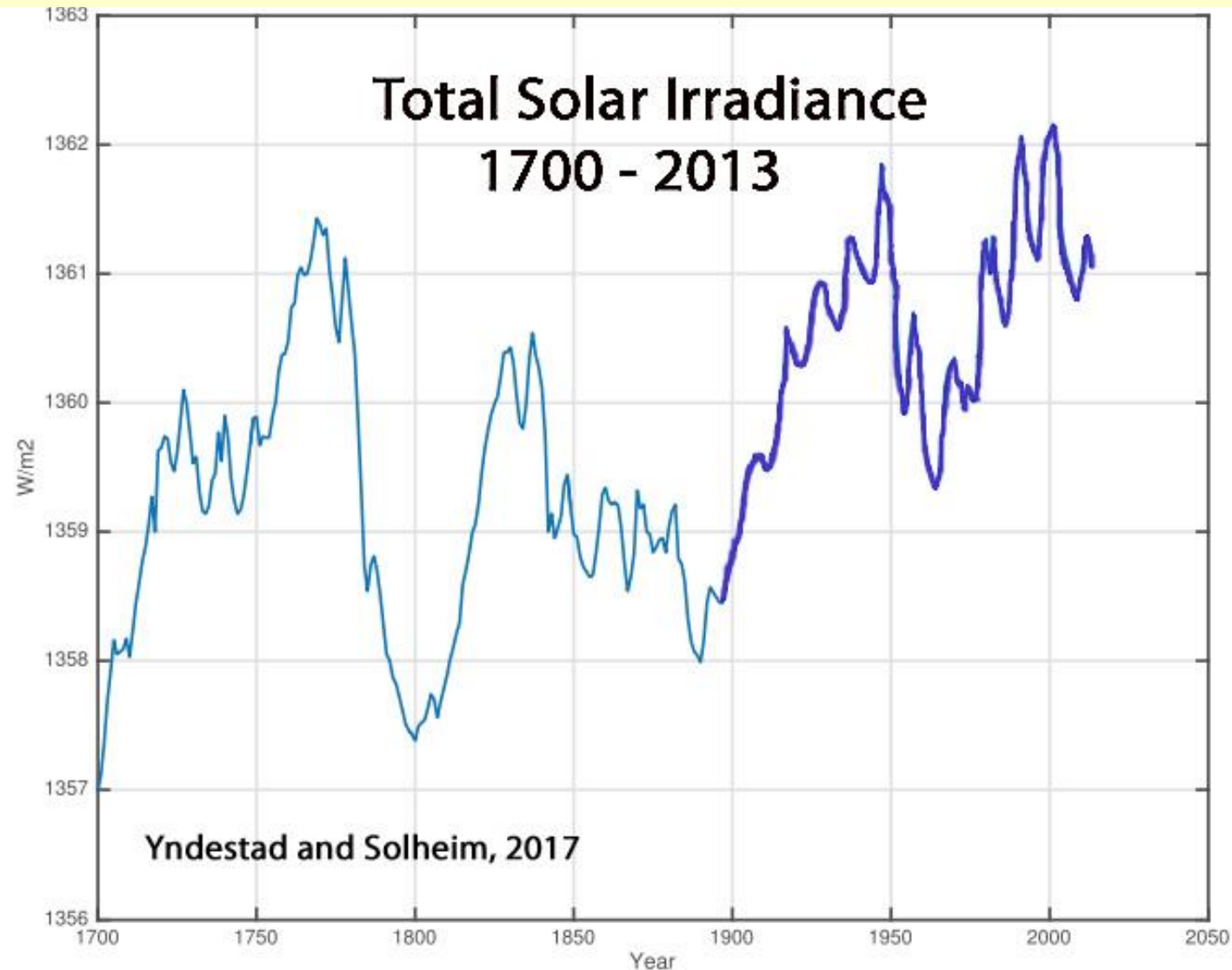
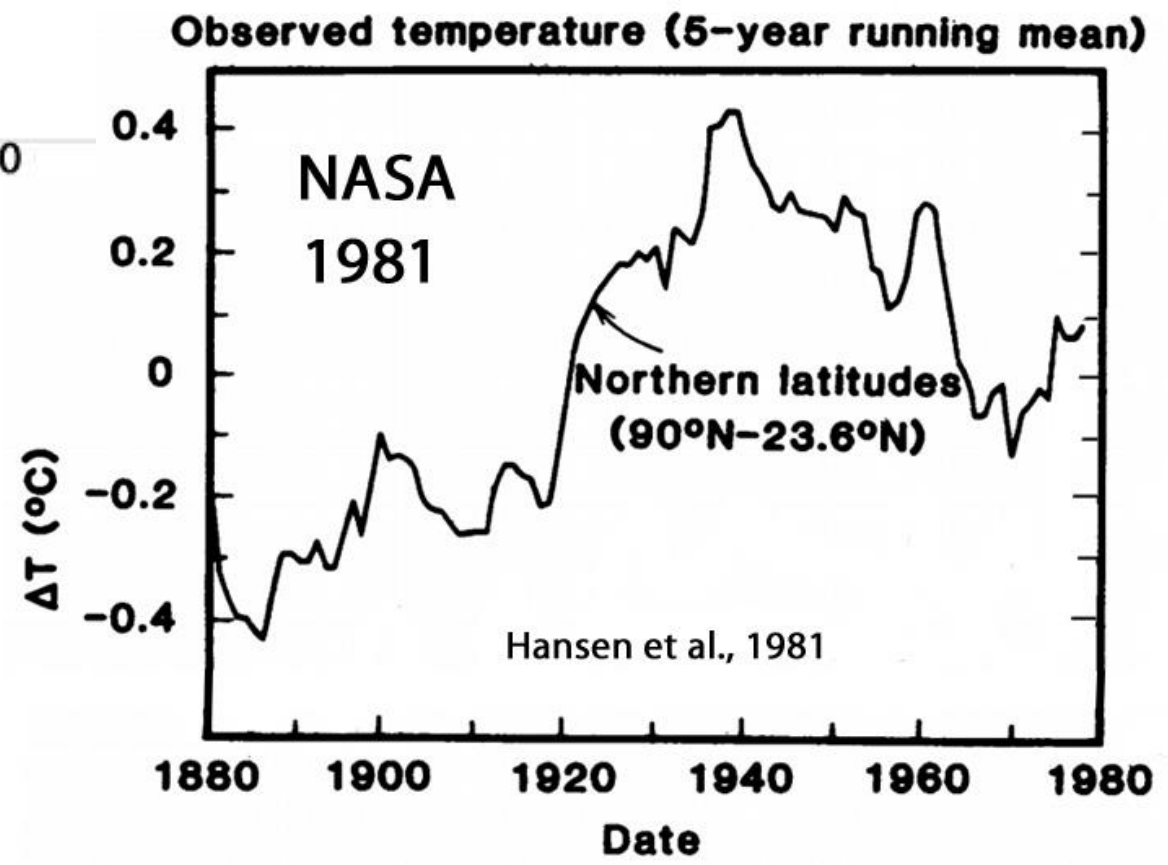
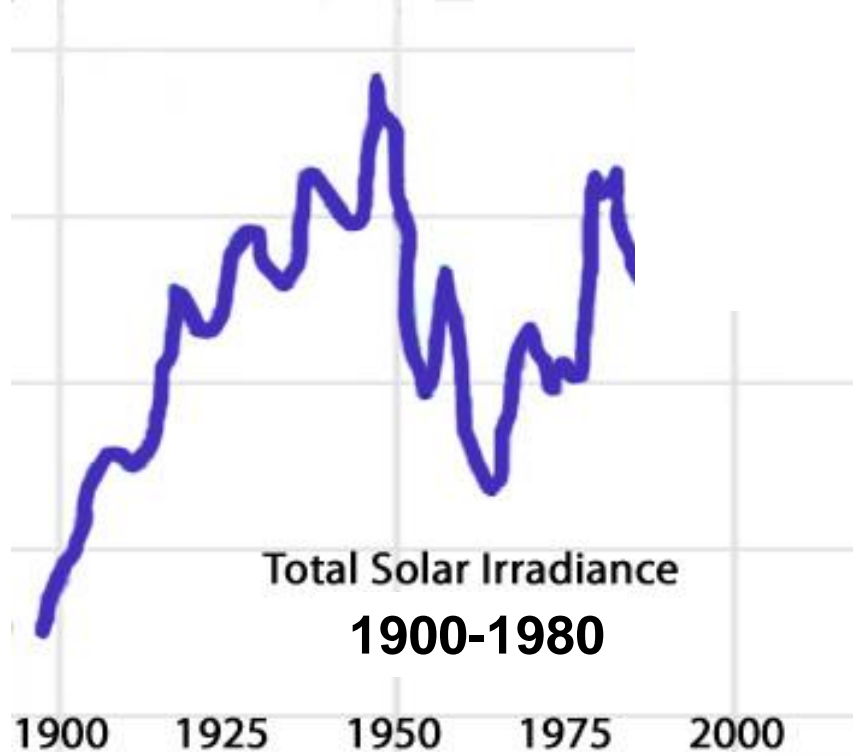
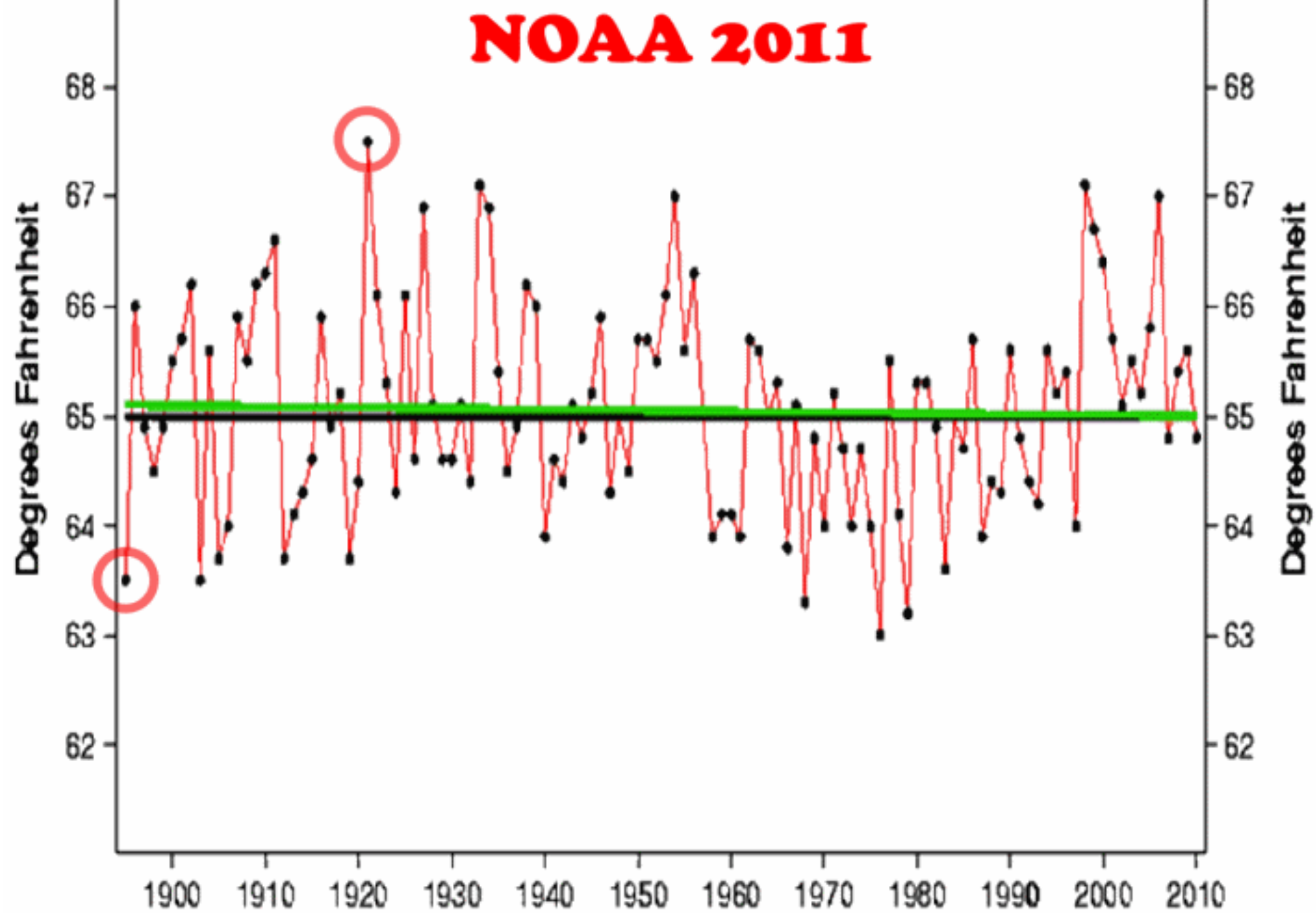


Fig. 3. TSI-HS total solar irradiance from 1700 to 2013 A.D. ([Scafetta and Willson, 2014](#)).



They are lying and cheating

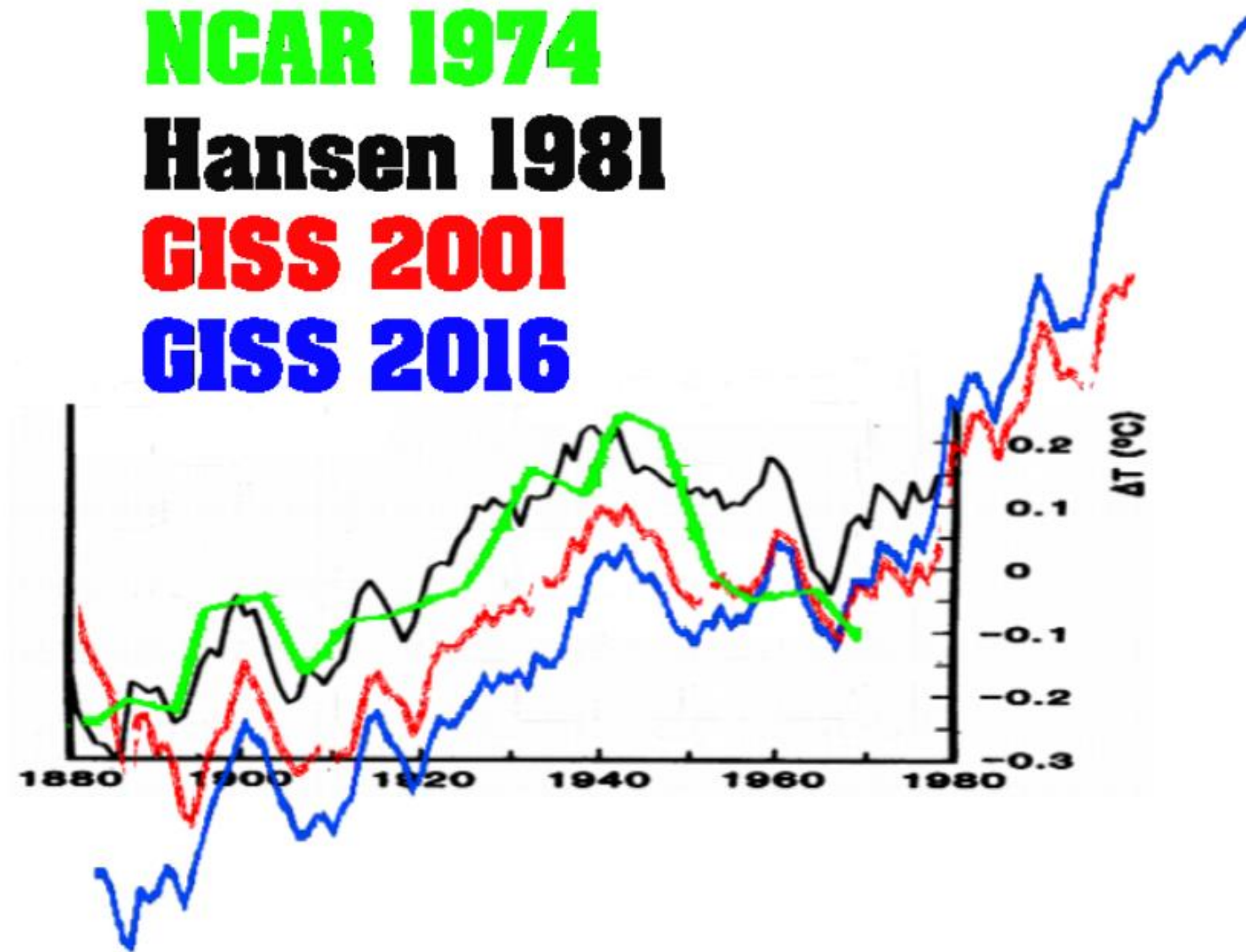
NOAA 2011



Here is fraud committed
by NASA GISS.

See for yourself.

Previously recorded
temperatures have been
changed to cool the past
and warm the most recent
temperatures.



<https://realclimatescience.com/2022/10/what-fraud-is-acceptable-in-the-science-community-2/>



What Fraud Is Acceptable In The Science Com...



Watch later



Share

The most dangerous man to any government is the man who is able to think things out... without regard to the prevailing superstitions and taboos. Almost inevitably he comes to the conclusion that the government he lives under is dishonest, insane, intolerable.

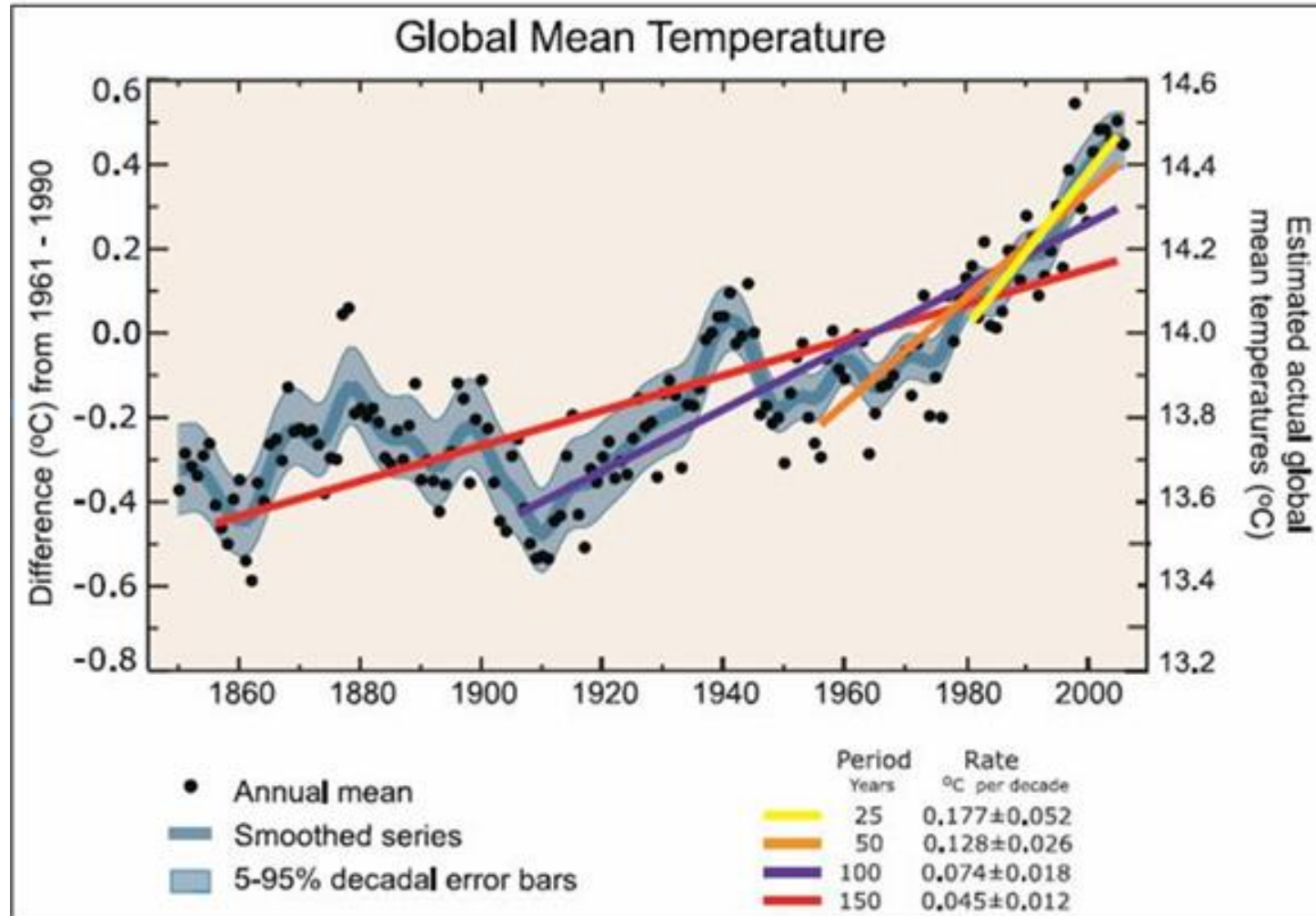
H. L. Mencken

The Intergovernmental Panel on Climate Change, the IPCC,
is lying and cheating...

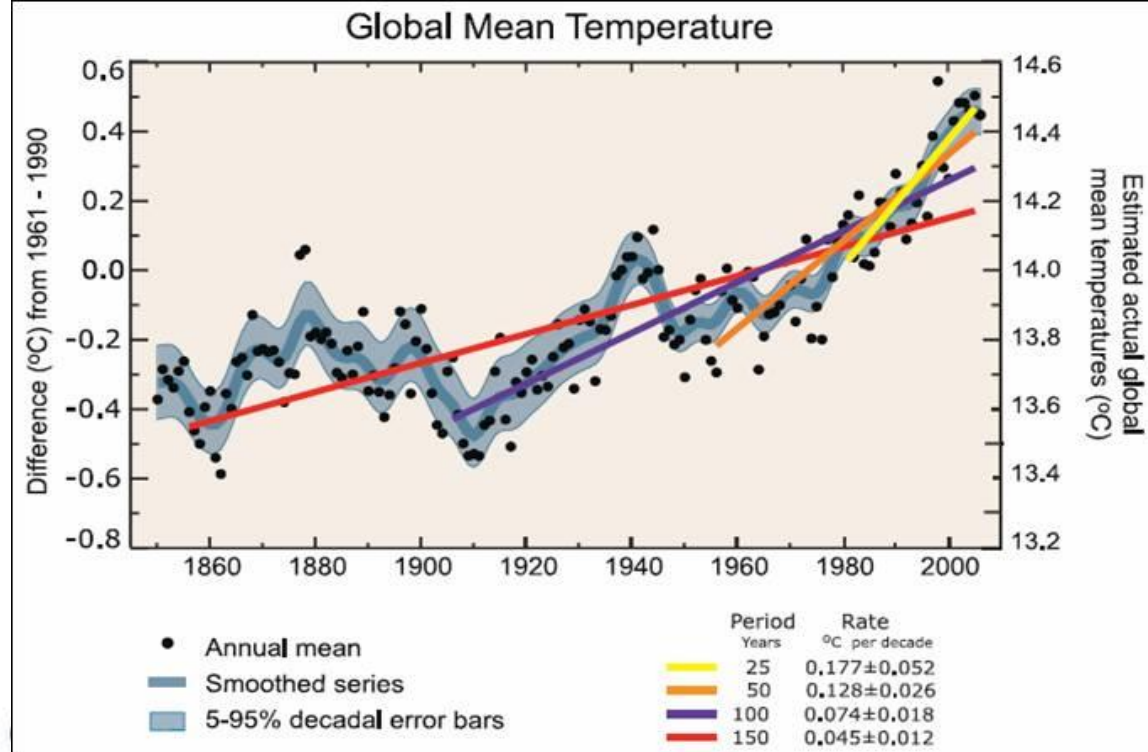
IPCC creates artificial acceleration by calculating short term linear trends within cyclical data. Below:

Fig. 3.1, Chapter 3, IPCC AR4 2007 report, which states,
“Note that for shorter recent periods, the slope is greater, indicating accelerated warming.” <underlining added>

[<http://www.ipcc.ch/pdf/assessment-report/ar4/wg1/ar4-wg1-chapter3.pdf>]

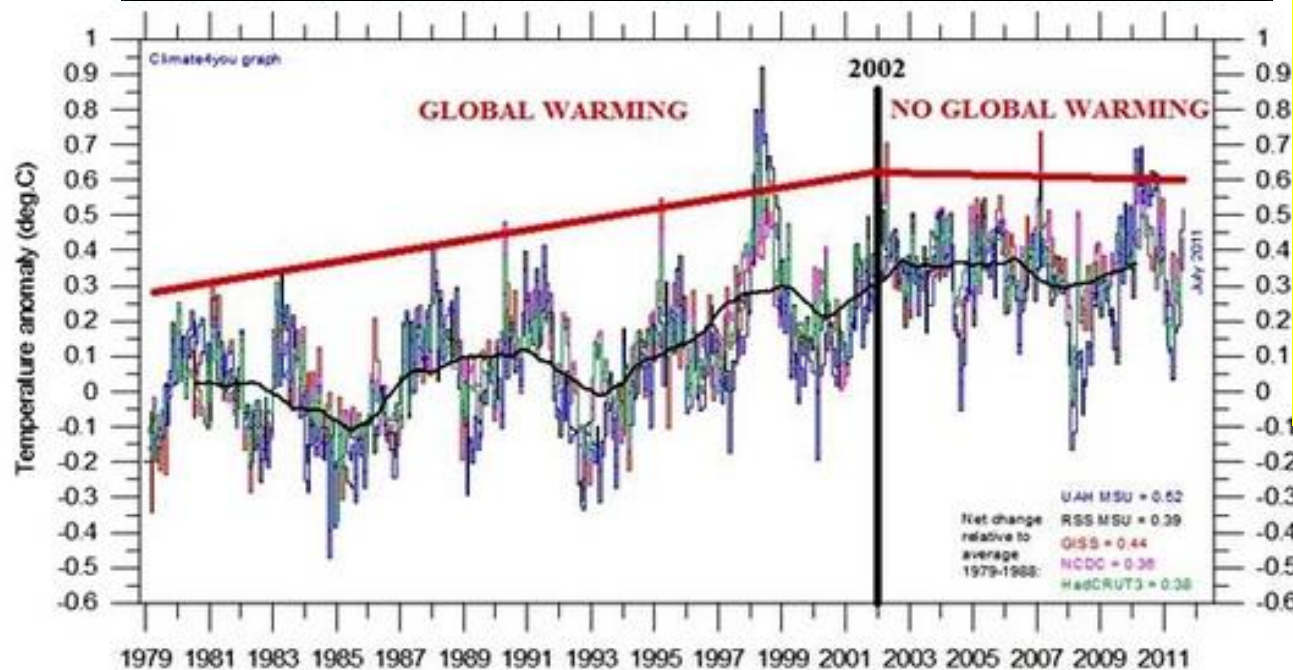


See for yourself:
as the period
gets shorter,
rate of rise of
temperature
increases.



**Now,
“the Rest of the Story”**

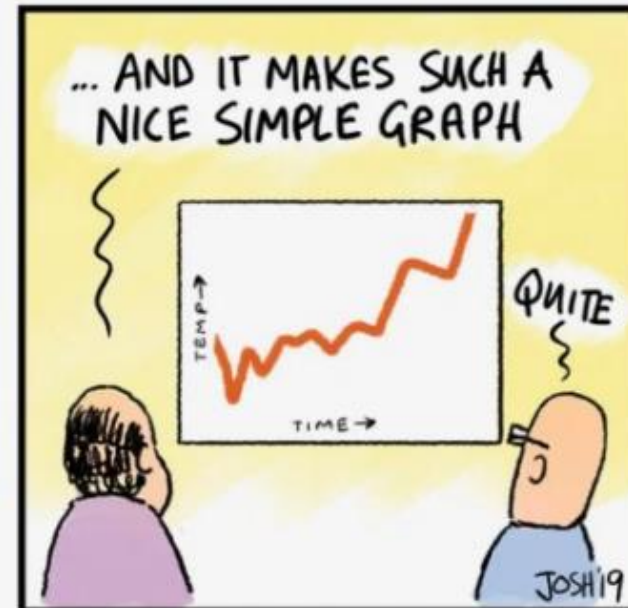
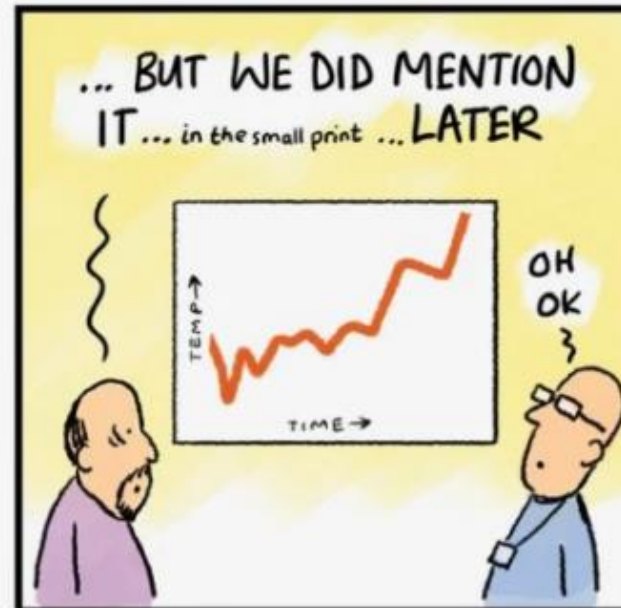
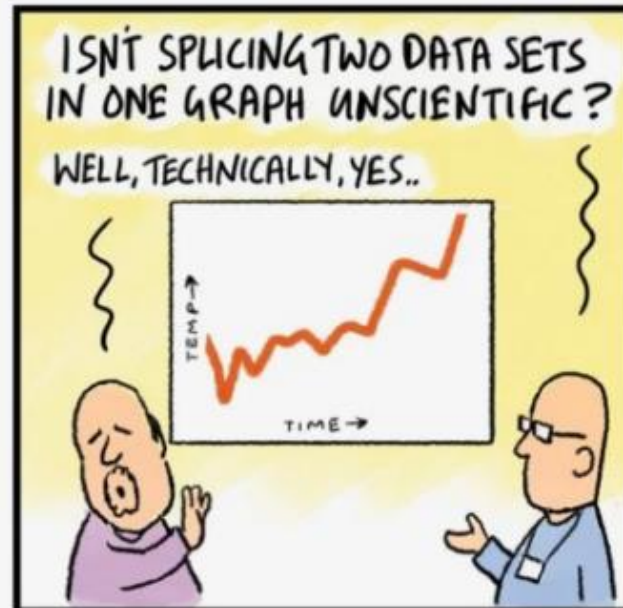
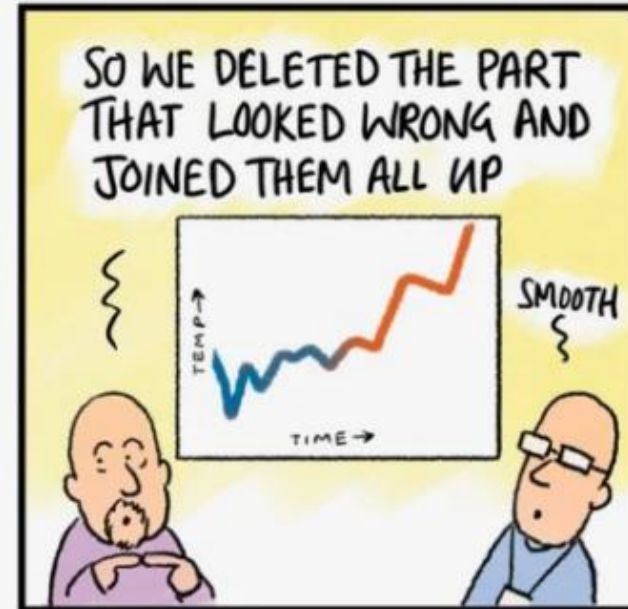
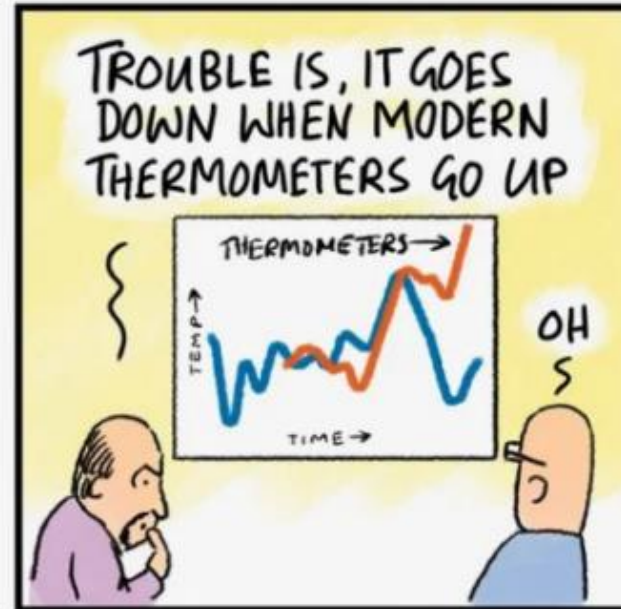
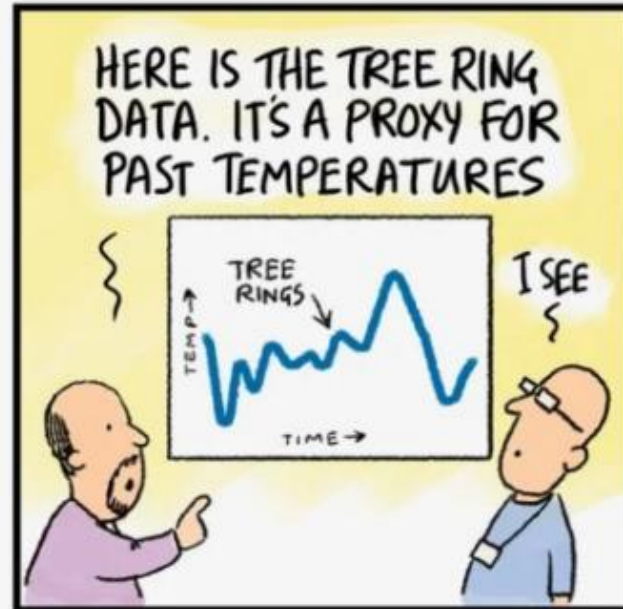
**Temperatures ceased
Rising and by many
Measures has been
Falling since ~1997,
Or, for about 16 years!**



**The IPCC graph
is deliberately
deceptive.**

**This is not science.
It is political activism.**

MIKE'S NATURE TRICK TO HIDE THE DECLINE



In the IPCC Third Assessment Report, they did worse than simply ignoring the problem. They deleted the declining portion after 1960, thereby giving a false sense of coherence between the proxies.

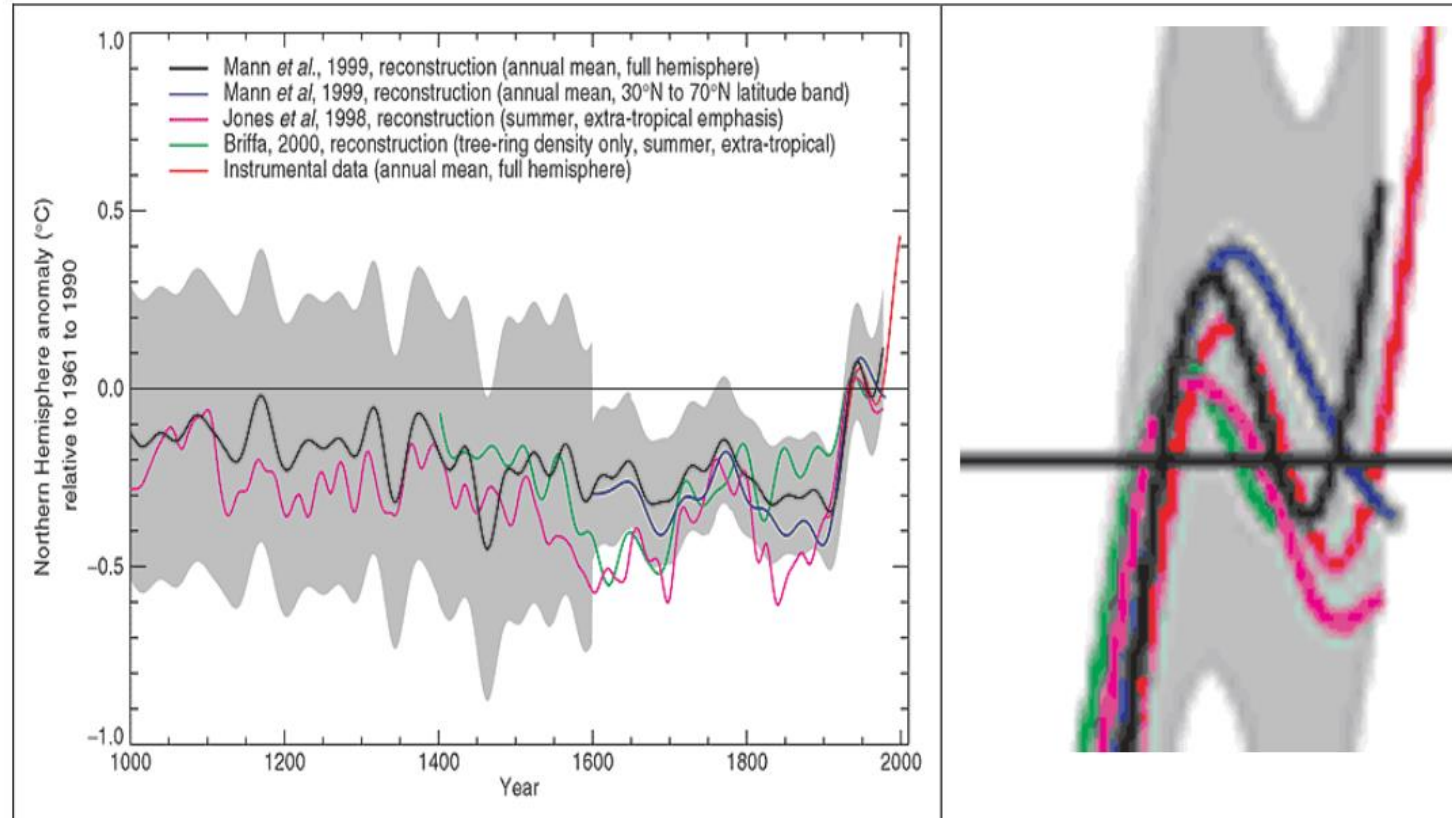


Figure 28. Left – IPCC TAR Spaghetti Graph. Right- blow-up of right hand portion. The divergent portion (after 1960) of the Briffa reconstruction (green) was deleted in IPCC TAR (green) 1960 and thus no visible “divergence”. Similar truncation in AR4.

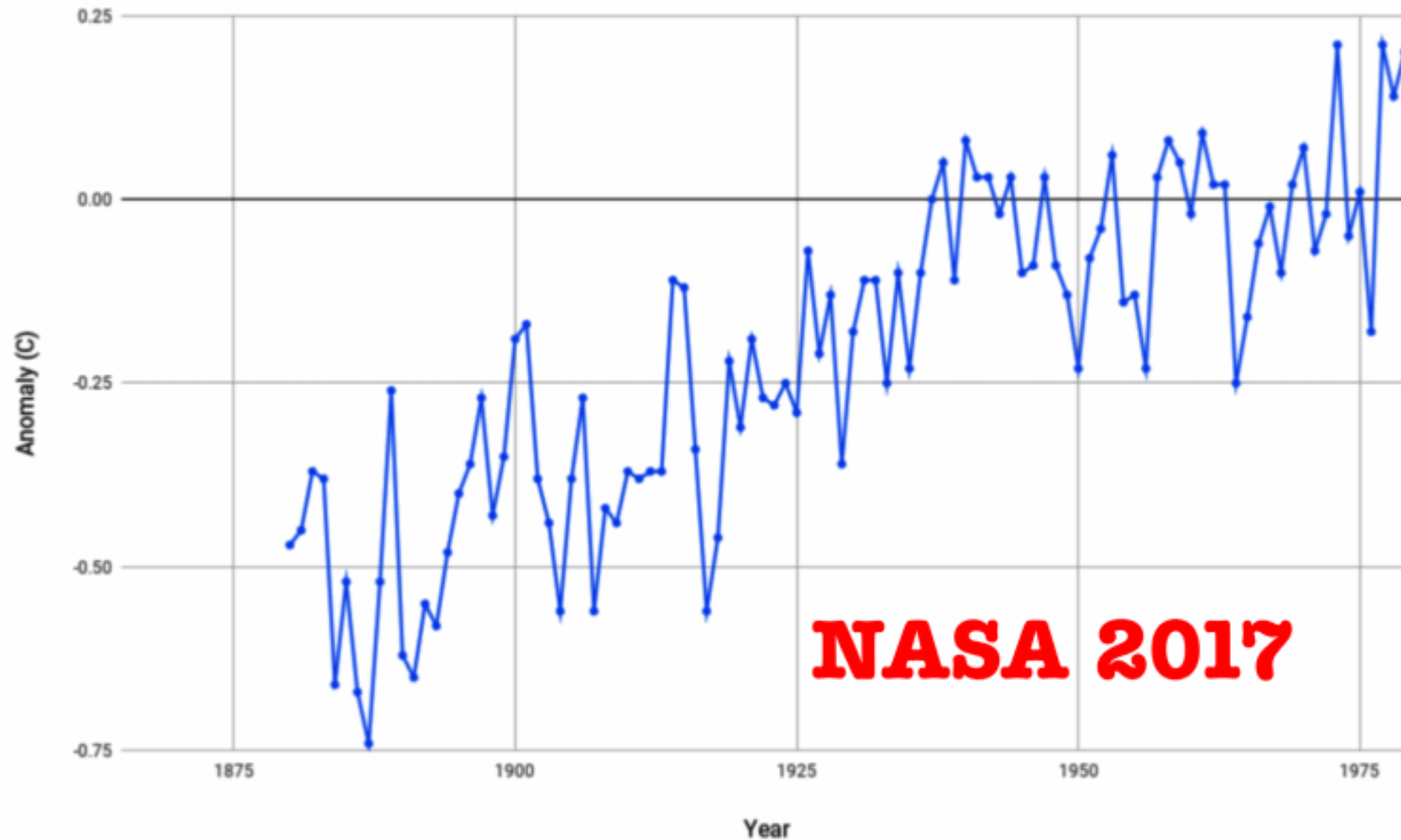
In AR4, as a reviewer, I asked them to restore the deleted portion. They refused saying that showing this information would be “inappropriate” (See [IPCC WG1](#) chapter 6

Here are the words from Steve McIntyre: <https://climateaudit.files.wordpress.com/2005/09/ohioshort.pdf>

NASA Cheating!

NASA eliminates the hot year of 1878. Look at the following chart in Slide Show mode.

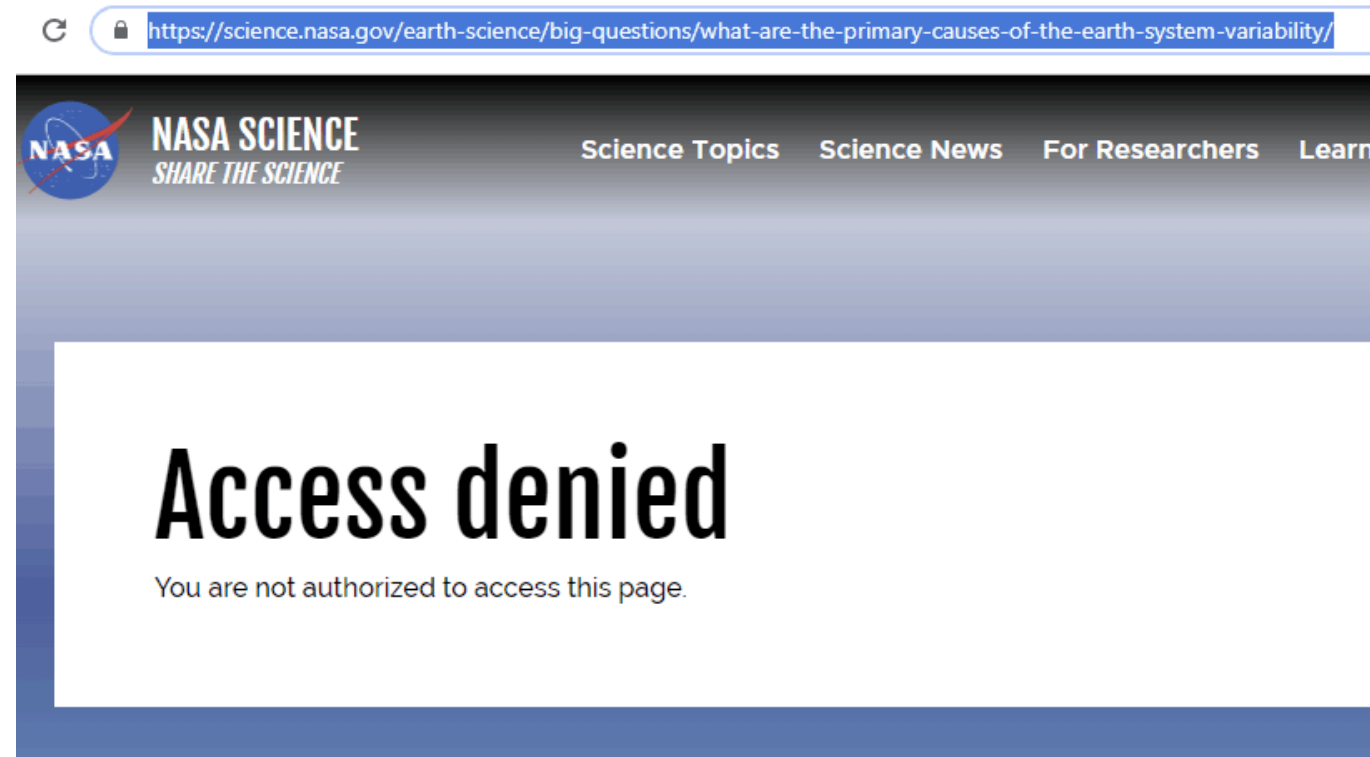
2017 Version Of Pre-1980 NASA Global Surface Temperature Anomalies



NASA hides page saying the Sun was the primary climate driver, and clouds and particles are more important than greenhouse gases

ZeroHedge asks: What the hell are NASA Hiding?

The NASA site used to have a page titled “[What are the primary forcings of the Earth system?](#)“. In 2010 this page said that the Sun is *the* major driver of Earth’s climate, that it controls all the major aspects, and we may be on the cusp of an ice age. Furthermore *NASA Science* said things like clouds, albedo and aerosol behaviour can have more powerful cooling effects that outdo the warming effect of CO2.



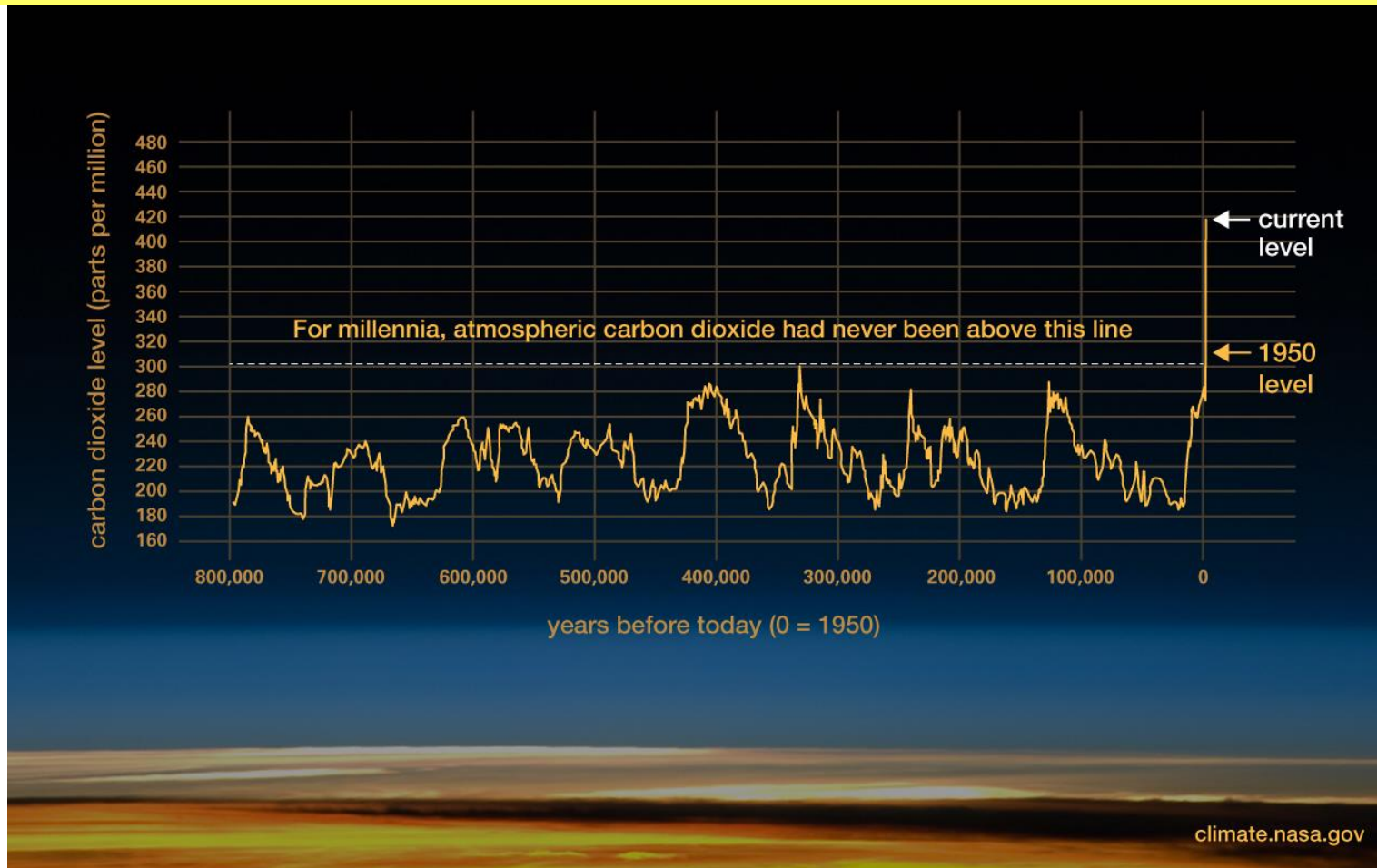
NASA shows a huge increase in $\langle \text{CO}_2 \rangle$ but NASA never says that there is NO corresponding increase in temperature.



GLOBAL CLIMATE CHANGE

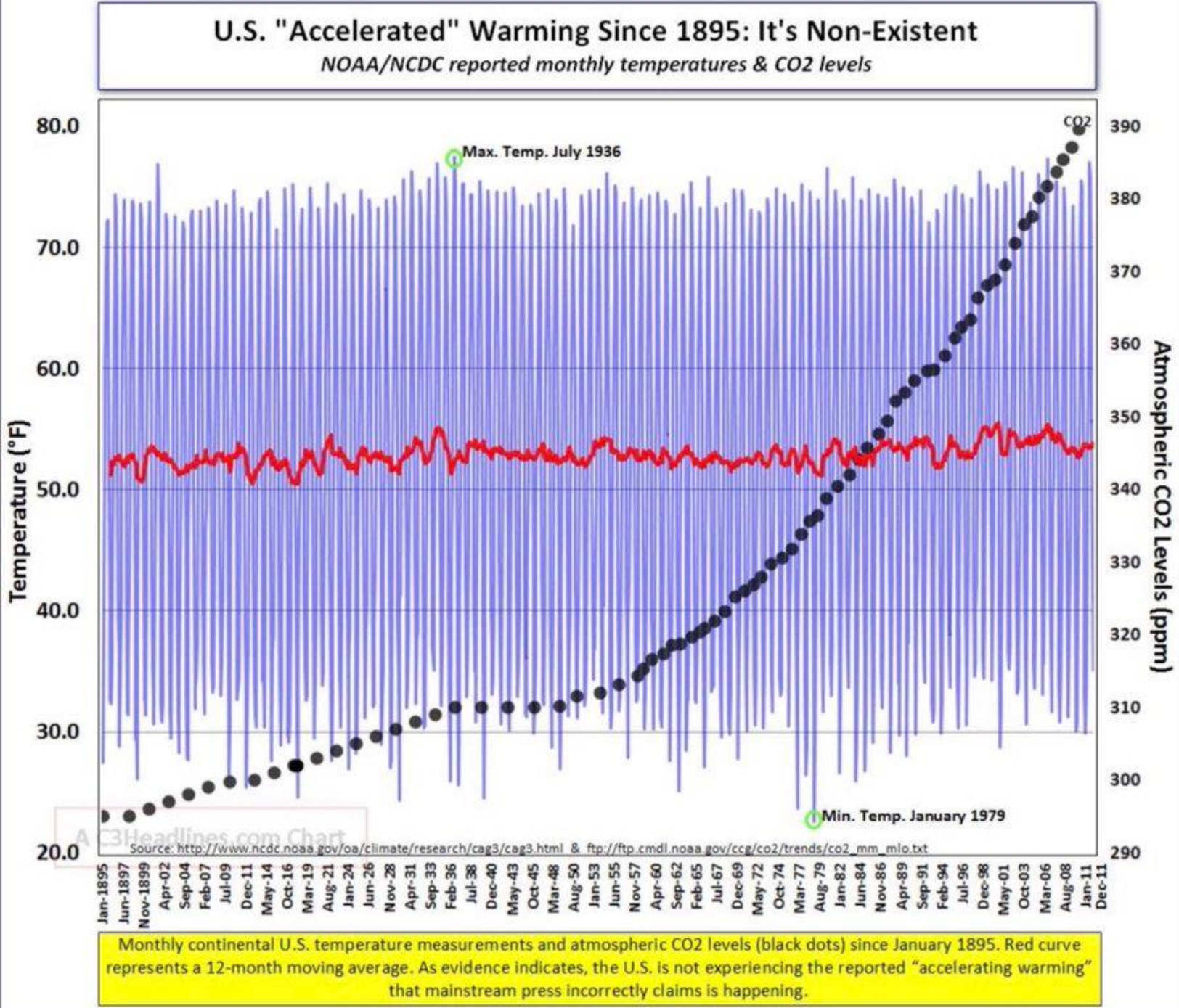
Vital Signs of the Planet

Ancient air bubbles trapped in ice enable us to step back in time and see what Earth's atmosphere, and climate, were like in the distant past. They tell us that levels of carbon dioxide (CO₂) in the atmosphere are higher than they have been at any time in the past 400,000 years. During ice ages, CO₂ levels were around 200 parts per million (ppm), and during the warmer interglacial periods, they hovered around 280 ppm (see fluctuations in the graph).



<https://www.climatedepot.com/2022/08/01/noaa-graph-as-annual-co2-has-risen-since-1895-here-has-been-no-comparable-acceleration-of-warming-reports-greenpeace-co-founder-dr-patrick-moore/>

<https://twitter.com/EcoSenseNow/status/155341985558193152/photo/1>



Points to ponder from the CO2 and Temperature Charts here.

Geologic data, especially those published by Dr Chris Scotese in the [Paleomap](#) Project, and the [CO2 concentrations](#) from the geologic past published by Robert Berner of Yale show these characteristics:

At the present, we are near the *minimum* of <CO2> and temperature.

There are important data showing that when <CO2> increases, temperatures plummet, Two Slides Ahead

There are no data showing that increases in CO2 cause temperatures to increase.

Look at the data. With up to 17X the present <CO2> there was never a “tipping point” from too much CO2.

In the Cambrian there was ~7,000 PPM CO2, and we are now down to ~420 PPM. Where did the CO2 go?

Answer: it is now in the limestone and dolomite rocks in the sedimentary rocks of the world.

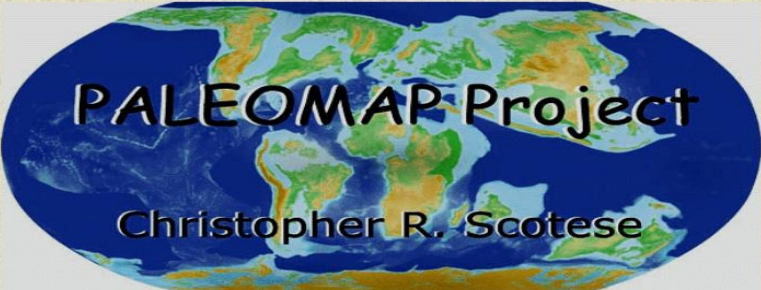
From the Permian to the end of the Cretaceous was the time of the dinosaurs, global temperatures were much higher than today. Dinosaurs lasted >205 million years.

COLD killed the dinosaurs and might kill our descendants.

References for Temperature and Carbon Dioxide data

<http://www.scotese.com/>

<http://ajsonline.org/content/301/2/182.abstract>



PALEOMAP Project
Christopher R. Scotese

Site Map
Earth History
Climate History
Research
Software
Order Form
Credits

Sci/Tech WebAwards 2001
SCIENTIFICAMERICAN.COM

Selected by Science Education
SCI LINKS
From NSTA

SCIENTIFIC AMERICAN
2002
SCI-TECH
WEB AWARDS

Goal of the PALEOMAP Project

✧ The goal of the PALEOMAP Project is to illustrate the plate tectonic development of the ocean basins and continents, as well as the changing distribution of land and sea during the past 1100 million years.

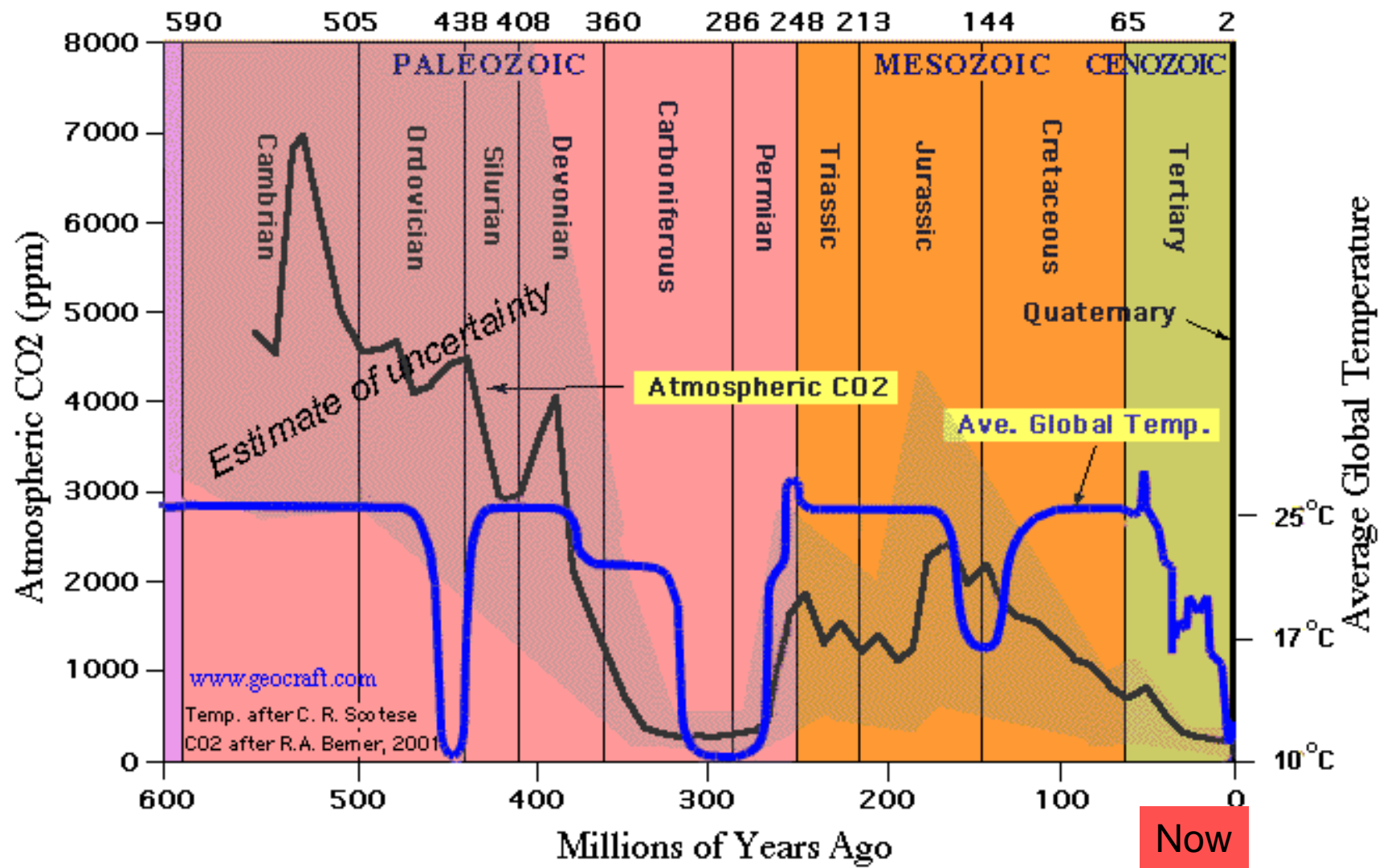
[AMERICAN JOURNAL OF SCIENCE, VOL. 301, FEBRUARY, 2001, P. 182-204]

GEOCARB III: A REVISED MODEL OF ATMOSPHERIC CO₂ OVER PHANEROZOIC TIME

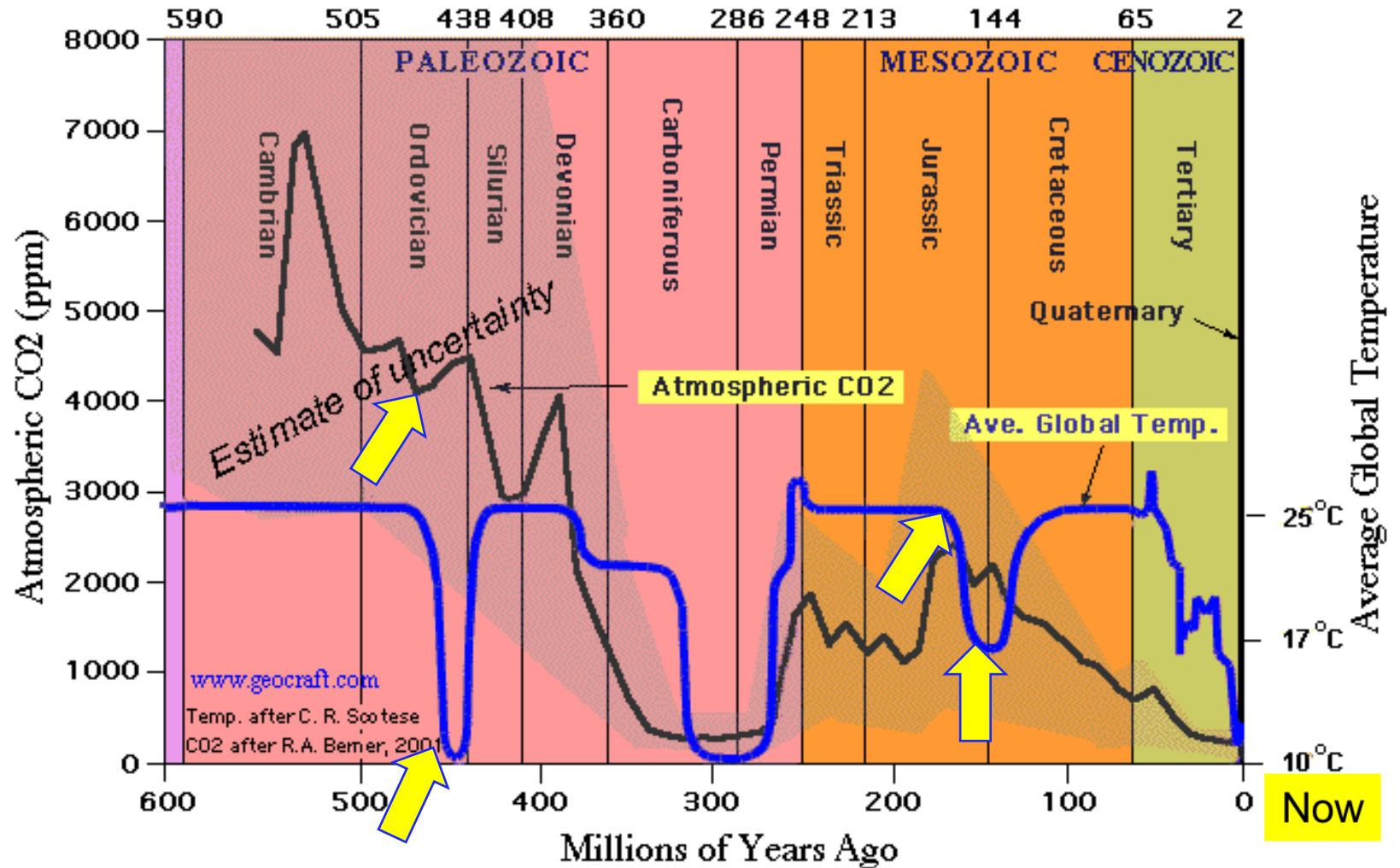
ROBERT A. BERNER and ZAVARETH KOTHAVALA

Department of Geology and Geophysics, Yale University,
New Haven, Connecticut 06520-8109

ABSTRACT. Revision of the GEOCARB model (Berner, 1991, 1994) for paleolevels of atmospheric CO₂, has been made with emphasis on factors affecting CO₂ uptake by continental weathering. This includes: (1) new GCM (general circulation model)



X-Axis Time: Cambrian 600 Million Years ago, Left Present on Right
Y-Axis Blue Average Global Temperature, Scotese Paleomap Project [Climate](#) Tab
Y-Axis Black Atmospheric <CO₂> Berner & Kothavala, Am J. Sci., 2001, p 182-204



SIDEBAR ON CO2 AND TEMPERATURE: If atmospheric <CO2> effect has such a great effect on Temperature and the feedbacks are so strong, why, at the end of the Ordovician, 450M years BP, did temperatures fall so precipitously, when <CO2> INCREASED from 4100 to 4500 PPM? Yellow Arrows. Similar effect at end of Jurassic. Yellow Arrows; <CO2> increased but temperatures fell, a lot.

MOST OF GEOLOGIC HISTORY THERE WAS A LOT MORE CO₂, and IT WAS A LOT WARMER.

Important Data from this Chart of Geologic History:

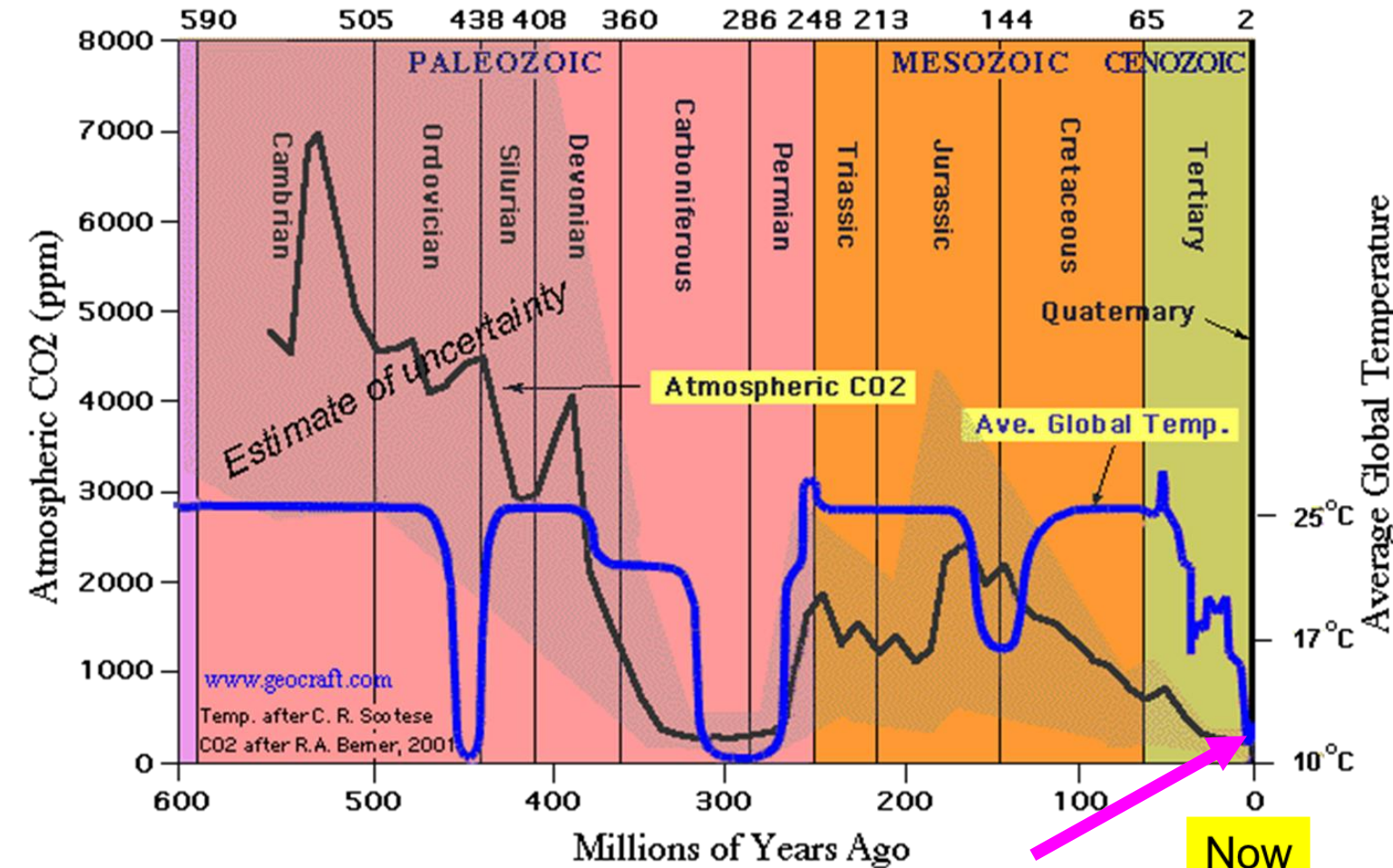
Chart shows last 600 million years during which the fossil record of plants and animals is clear.

There is no thermal runaway as posited by many alarmist models, despite <CO₂> being 17X more concentrated than now.

The Cambrian explosion of Trilobites and Brachiopods and the spread of Fish during the Devonian happened during warm times.

The long reign of Dinosaurs from the late Permian to the top of the Cretaceous, ~205 million years, was during warm times with some 1800-2800 PPM CO₂.

Humans, animals, and plants are carbon-based life forms. Life loves warm temperatures and lots of CO₂ in the air.
<Next Slide>



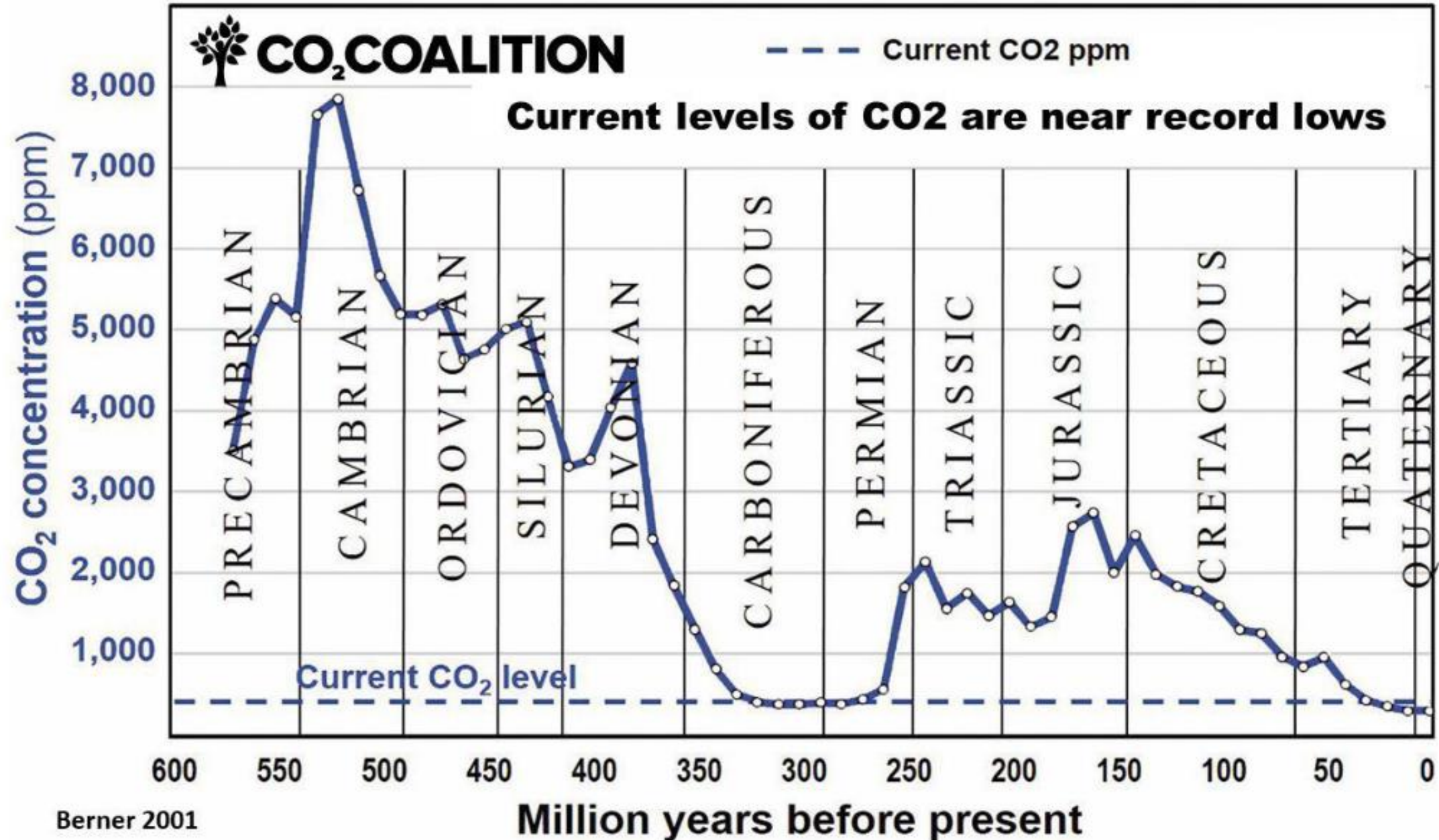
The Magenta Arrow shows the present time, temp and CO₂ levels

IPCC, other Alarmist Organizations posit that warming of 2C above the modern minimum in the Little Ice Age is an “Existential Threat” to humanity, but the data show warmer is better for plants and animal life.



Carbon-based life forms

This is another way to look at <CO₂> over geologic time, with over 17X more CO₂ in the Cambrian, when life exploded.



Lessons from the Antarctic Ice Cores

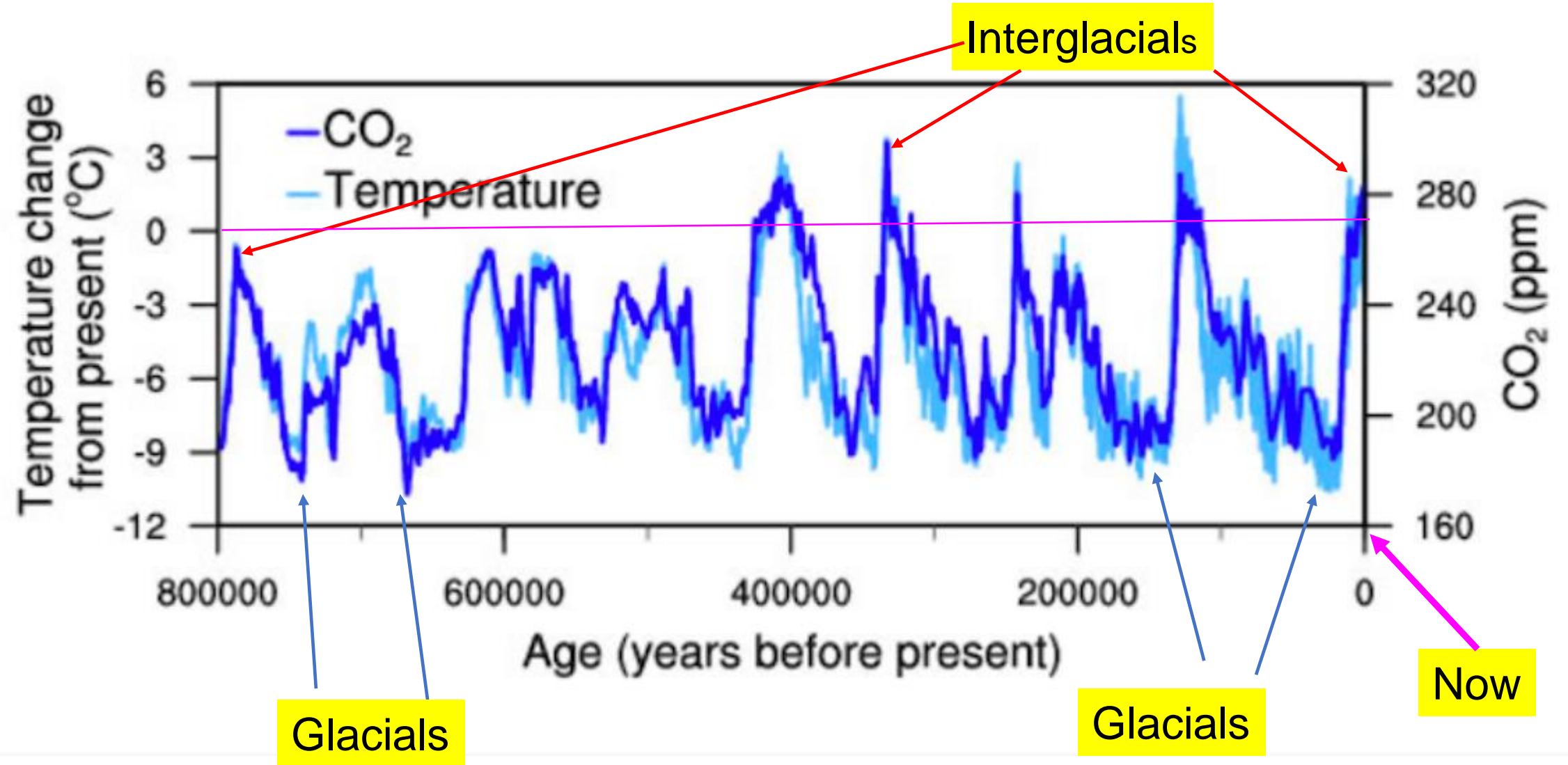
Al Gore and his science fiction movie, “An Inconvenient Truth,” introduced me to some important data, the Temperatures and CO₂ concentrations, data that did not exist when I was a Geology Student from 1959-1962.

The next two charts, from EPICA Dome C, show temperature and CO₂ concentrations from Antarctic Ice Cores with their ~100,000-year glacial periodicity. Coldest parts of the temperature curves, the Glacials, last ~80,000 years, and the Interglacials, the peaks in temperature cycles, last 20,000 years or fewer.

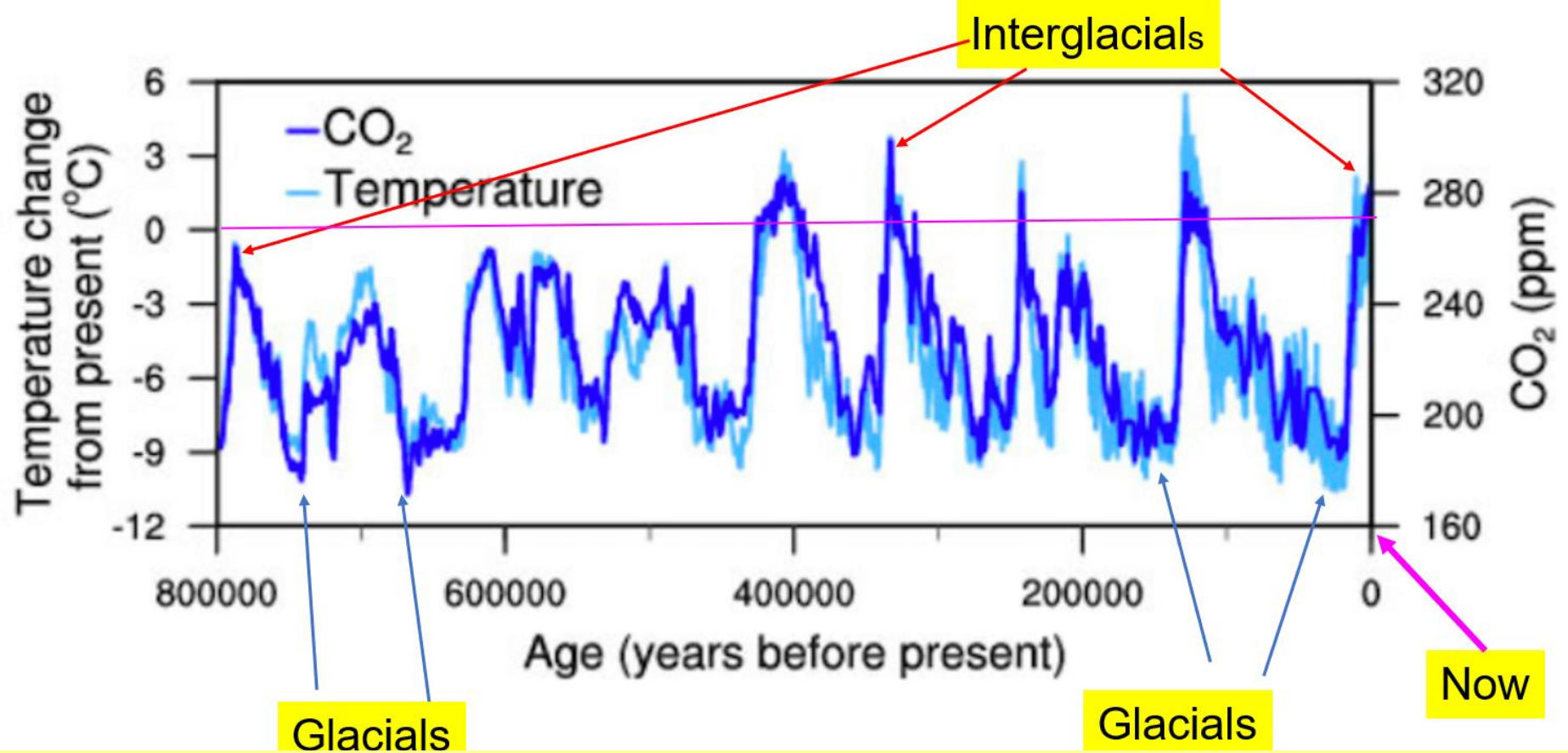
The next three charts are the Vostok Ice Cores from Vostok Station, not far from the South Pole in Antarctica. Note well the data plotted on the Y-axis, with the X-Axis being time.

Some of the glacials and interglacials have names, but a [2005 work](#) by Lisieicki and Raymo assigned Marine Isotope Stage (MIS) numbers to their global “type section,” for the past 5.3 million years.

In particular, note well the second Vostok Chart with the pink text box noting that of the five interglacials in the Vostok Ice Core plotted, the present interglacial, the Holocene, or MIS 1, IS THE COLDEST of the Five Interglacials. This characteristic shows definitively that CO₂ does not control temperatures, because today with ~417 PPM CO₂. This interglacial, is the COLDEST and in the previous interglacials, <CO₂> never exceeded 280 PPM.

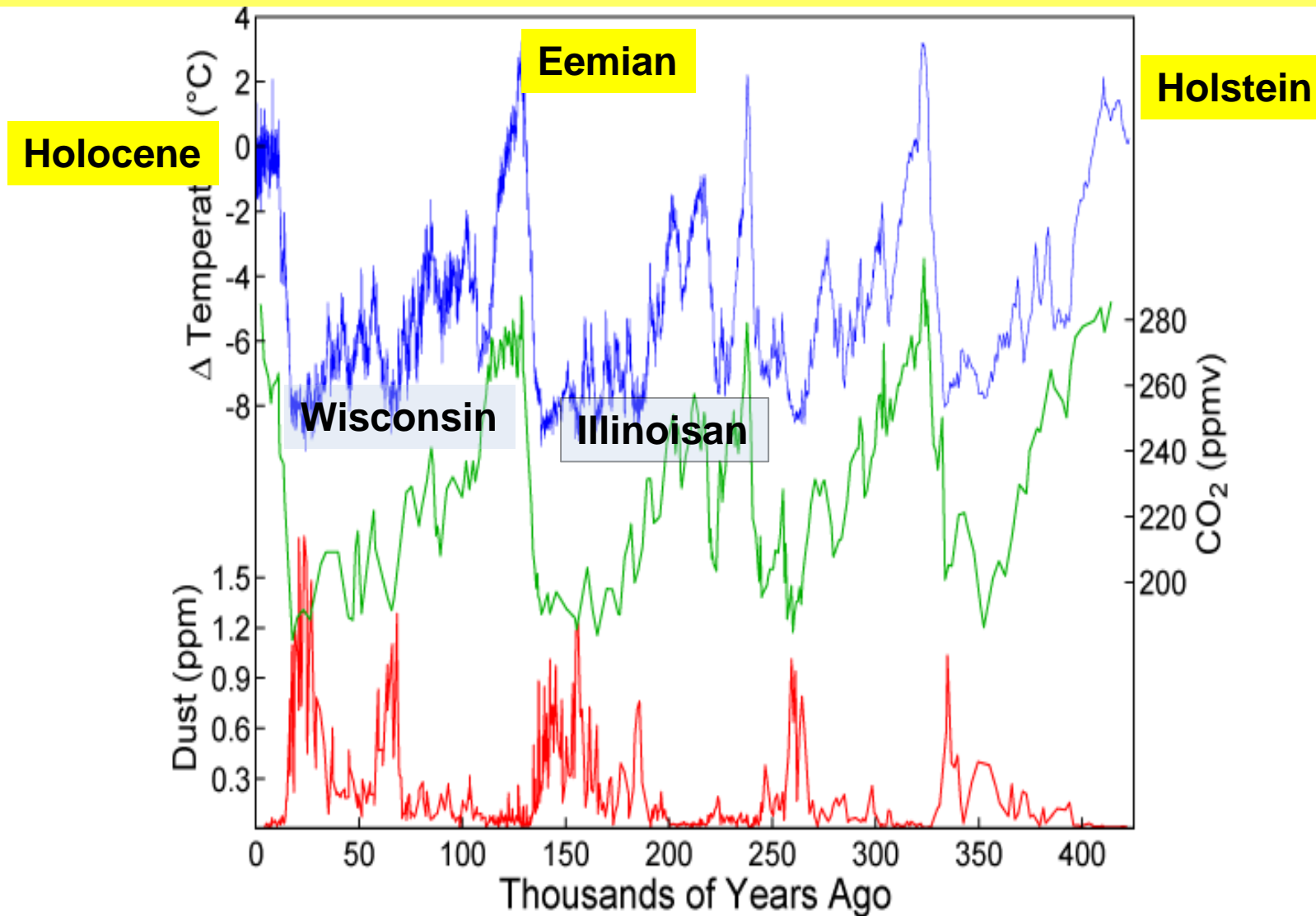


Changes in Temperatures and CO₂ concentration over the past eight hundred thousand years, based on analysis of the EPICA Dome C ice core from Antarctica.



Changes in Temperatures and CO₂ concentration over the past eight hundred thousand years, based on analysis of the EPICA Dome C ice core from Antarctica.

Temperatures from the last 800,000 years based on EPICA Dome C show about 100,000-year cycles. Over 80,000 years of glacial, followed by under 20,000 years of interglacials.



X-Axis Time Present Time, Left 450,000 years BP, Right

Y-Axis Blue Temperature difference “anomaly” from mean, last 10 K years

Y-Axis Green, Scale on Right atmospheric <CO₂>

Holocene is the **Coldest** of the five Interglacials.

0 = Current Temp

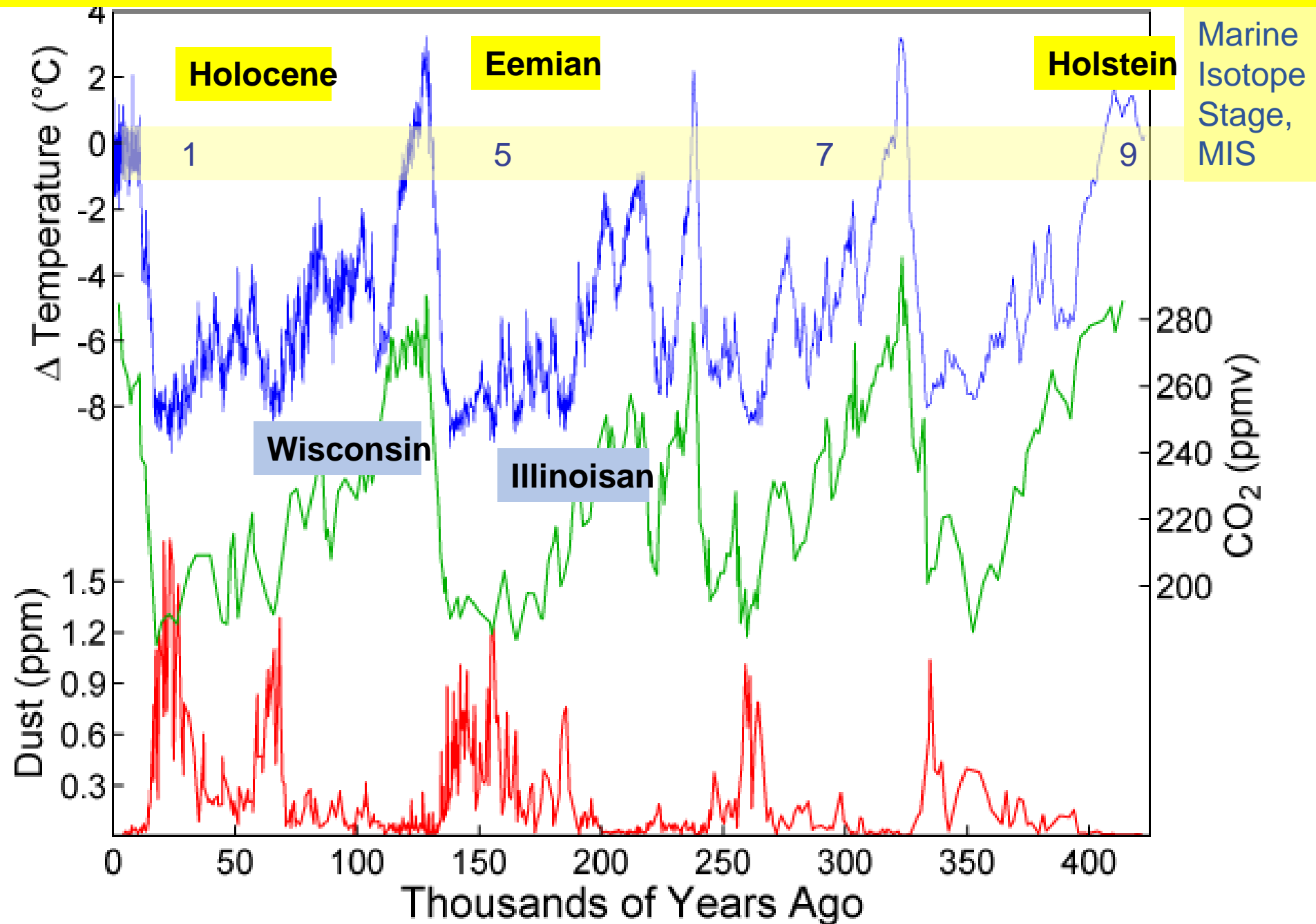
Blue = Temperature

Green = <CO₂>

Red = <Dust>

Notice <CO₂> never exceeded 280 PPM

Vostok Ice core data
Al Gore uses in
"An Inconvenient Truth."



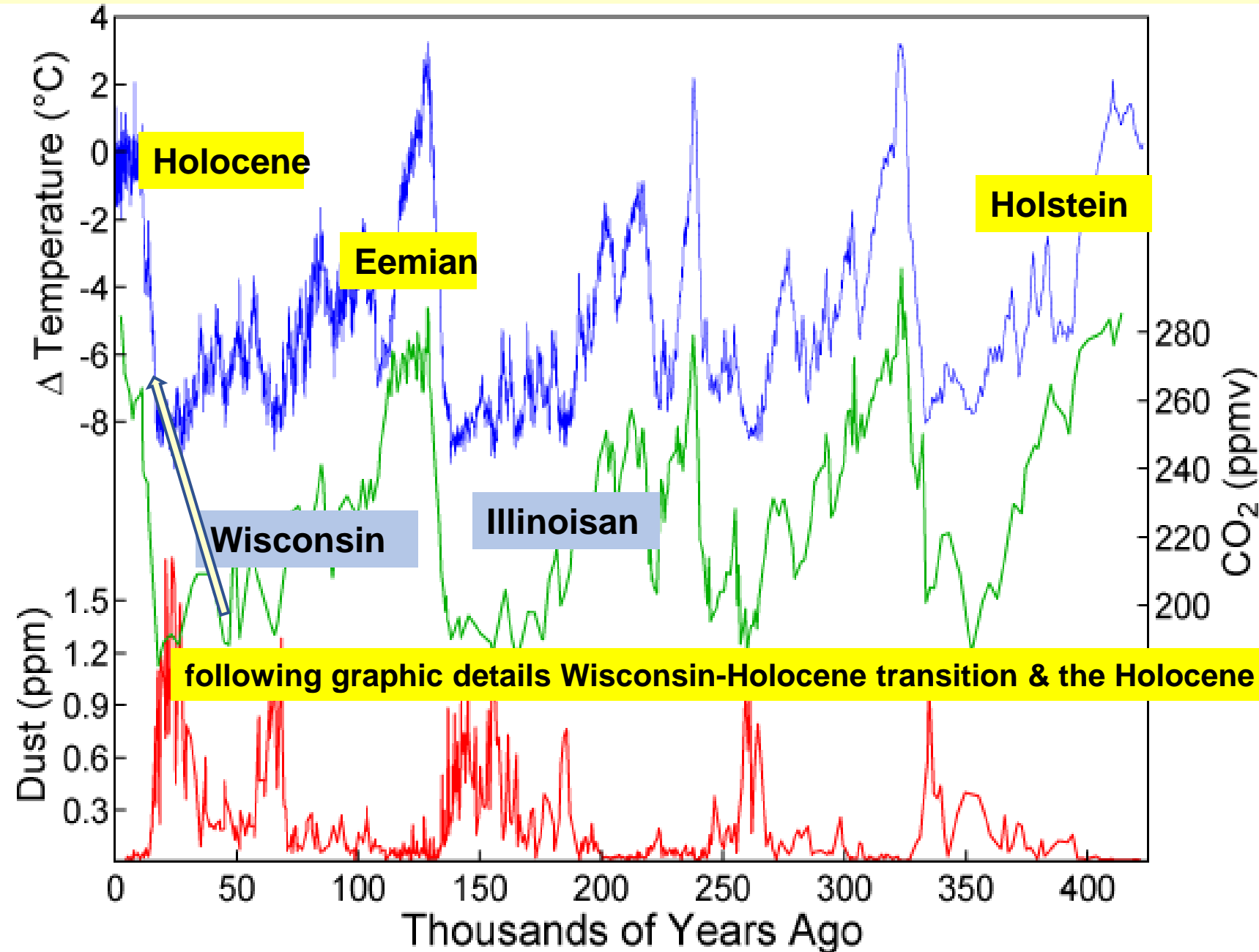
Present <CO₂> is ~417 PPM

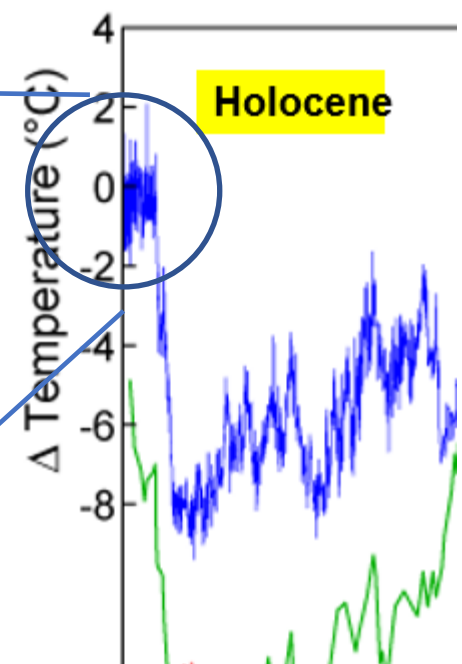
If CO₂ controlled temperature, this would by far be the warmest Interglacial of the five interglacials shown.

But it is by far the coldest of the five interglacials.

Just looking at the chart shows that CO₂ does not control temperature.

Look carefully at the temperatures in the Holocene. Zero is the present temperature. Note well that there are many +/- changes of 1-1/2 degrees C from the present and some +/- 2C changes.

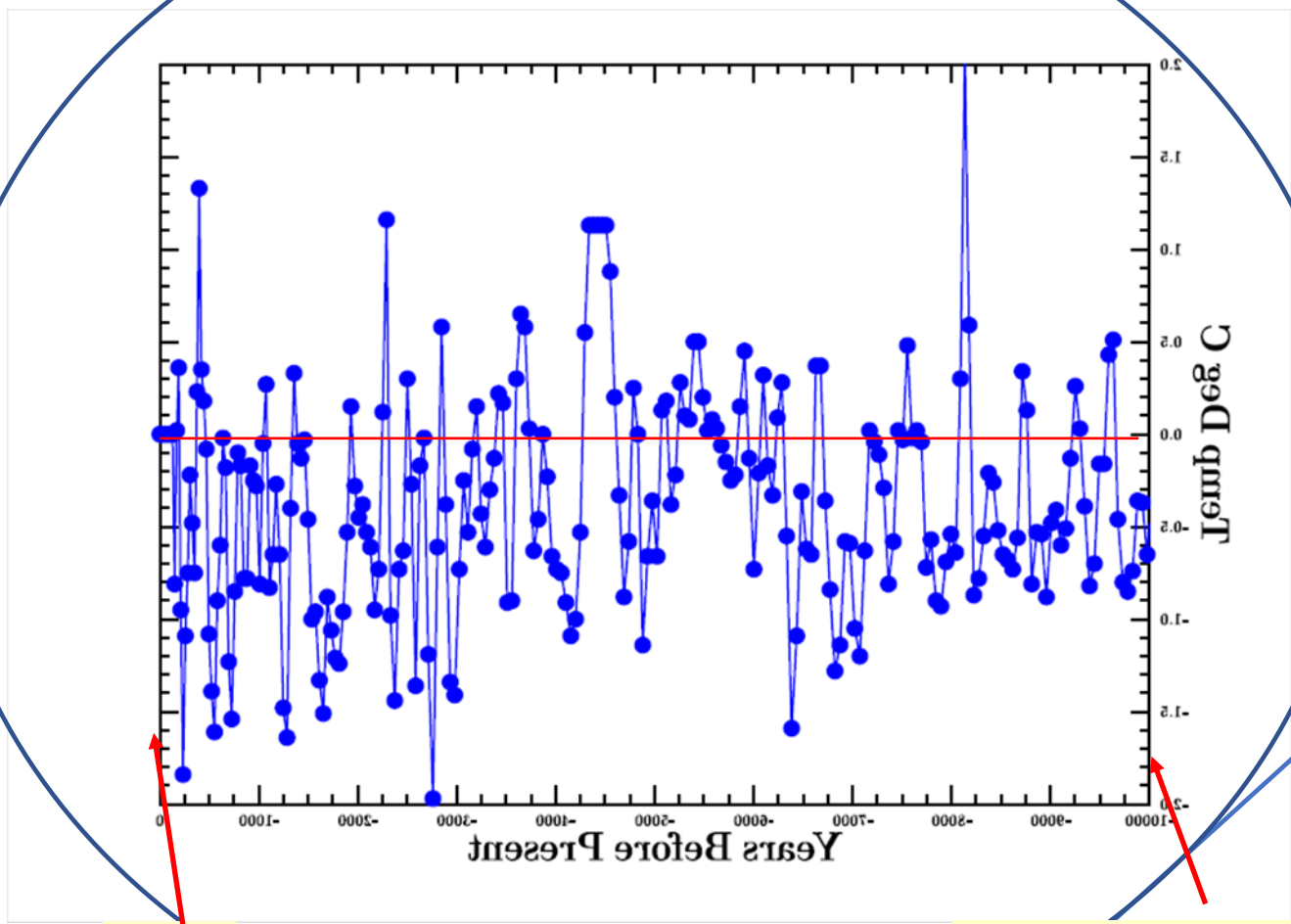




Holocene

Y-Axis Delta Temp Deg C.
X-Axis Years before Present.

I flipped the large Holocene plot so that the reader can see it is a blow-up of the Vostok Ice Core temperatures, with the prominent temperature maximum 8000 years ago.



Now

10,000 Years Ago

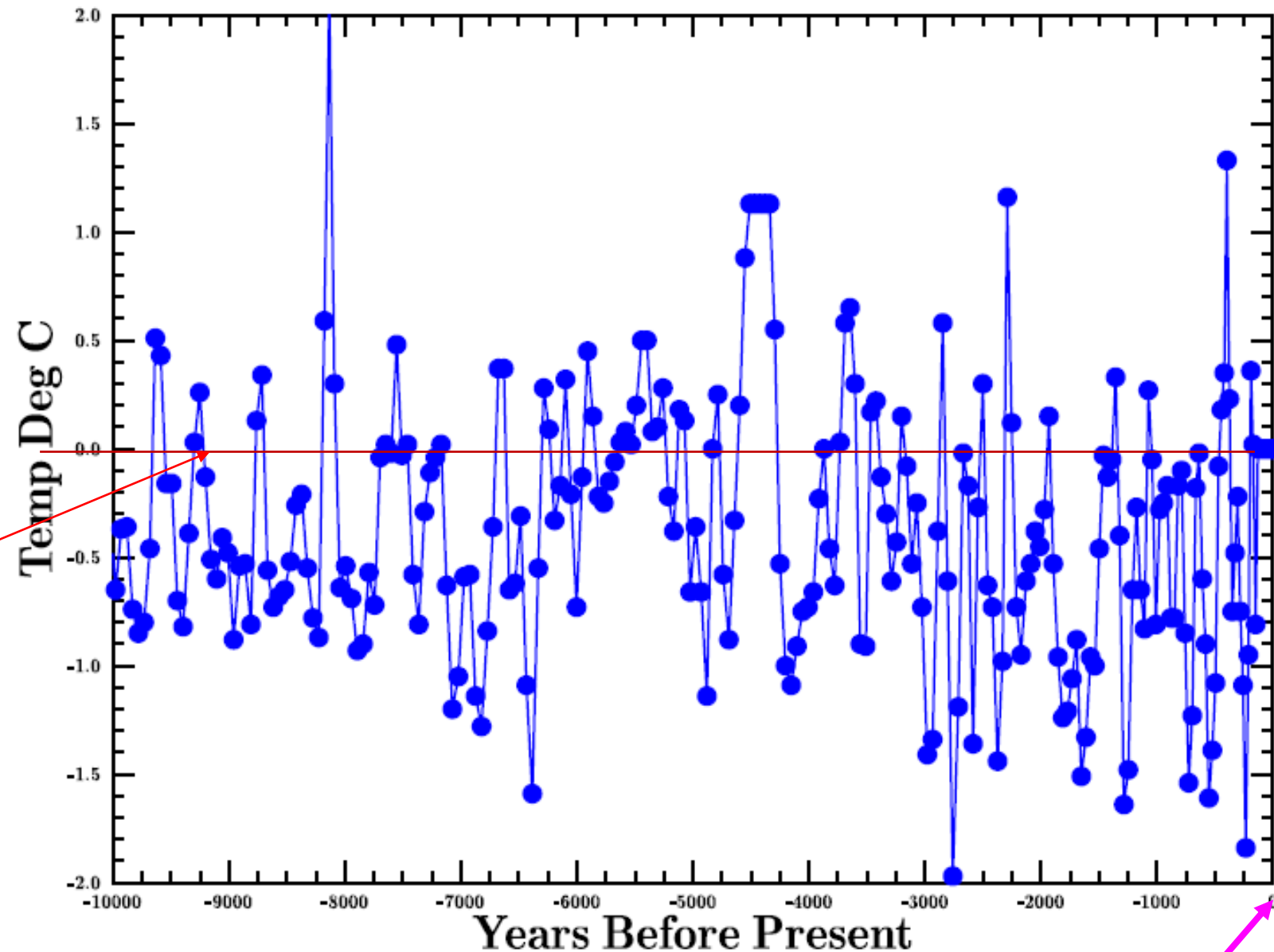
These are the temperatures from the Vostok Ice Cores, showing the last 10,000 years.

It is difficult to see the justification for declarations of “climate crisis,” “climate emergency,” and cries of “existential threat.” made by alarmists.

There is no “human-caused, CO2-fueled global warming” data set when you look at present temperatures compared with the past temperatures in this chart.

Present temperature is plotted as 0.0C, the temperature base line.

In fact, there is no threat from human-caused CO2-fueled global warming.



Now

Holocene temperatures from Ice Cores, the last 10,000 years.

Top graphic is from Greenland, GISP2 ice core, in Red

Bottom graphic is from Antarctica, Vostok ice core, in Blue

Red horizontal in GISP2 line is ice temp of -30.50C

Both plots show a +/- 2C deviation from the red line.

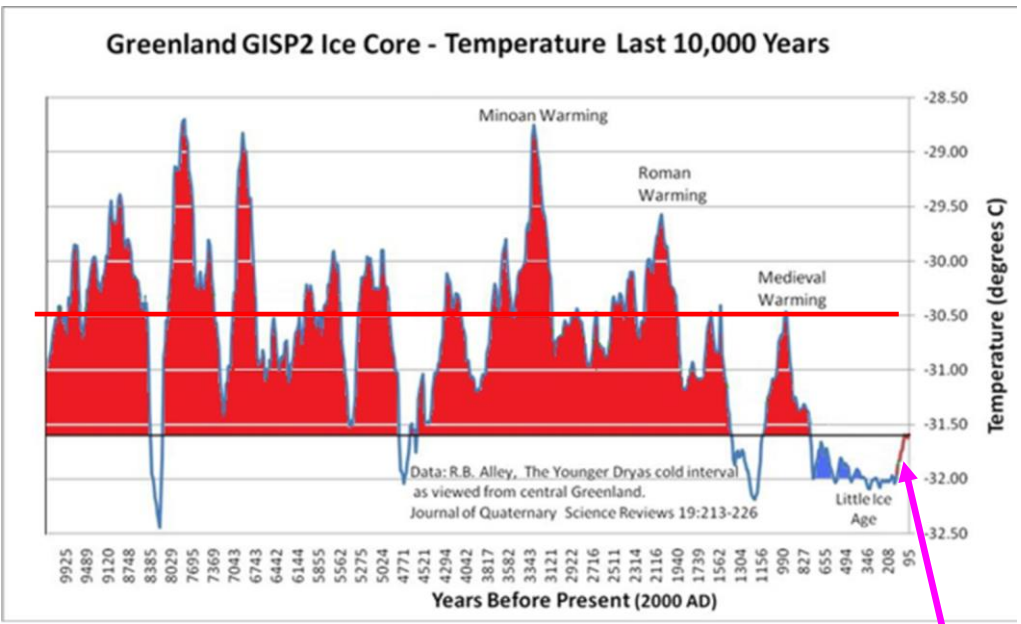
Red Horizontal line in Vostok Core, present temperature.

Both plots show that a 1.5C rise from the Little Ice Age minimum is nothing to be concerned about, rather celebrated.

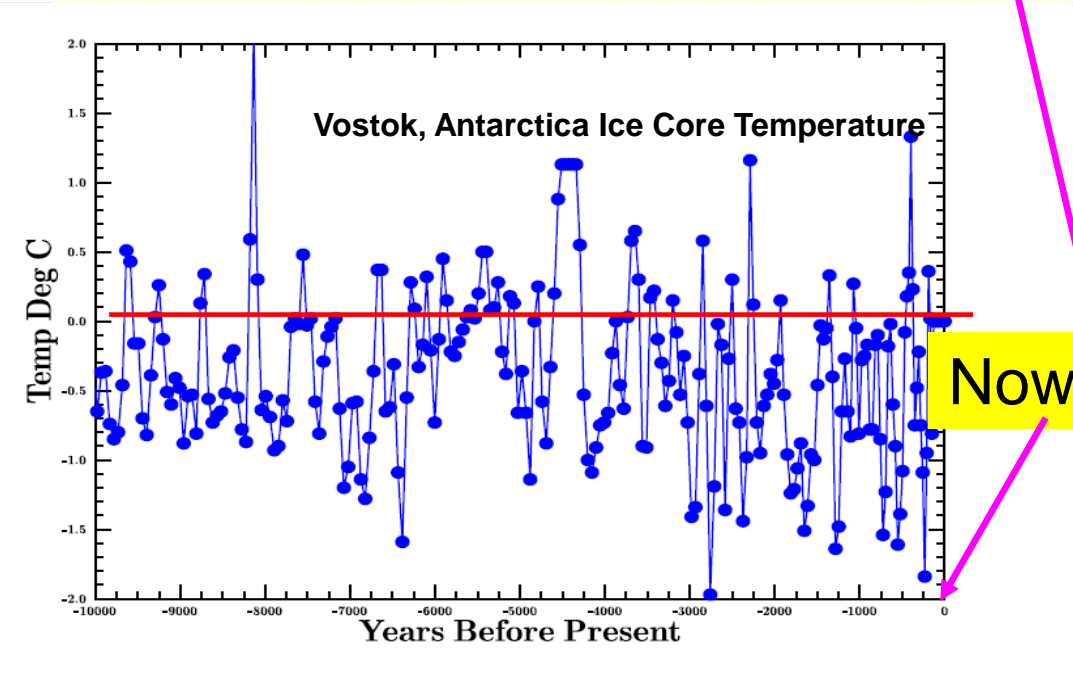
Data show improvements as we warm from the Little Ice Age.

“The Human Condition is improving. Rapidly.”

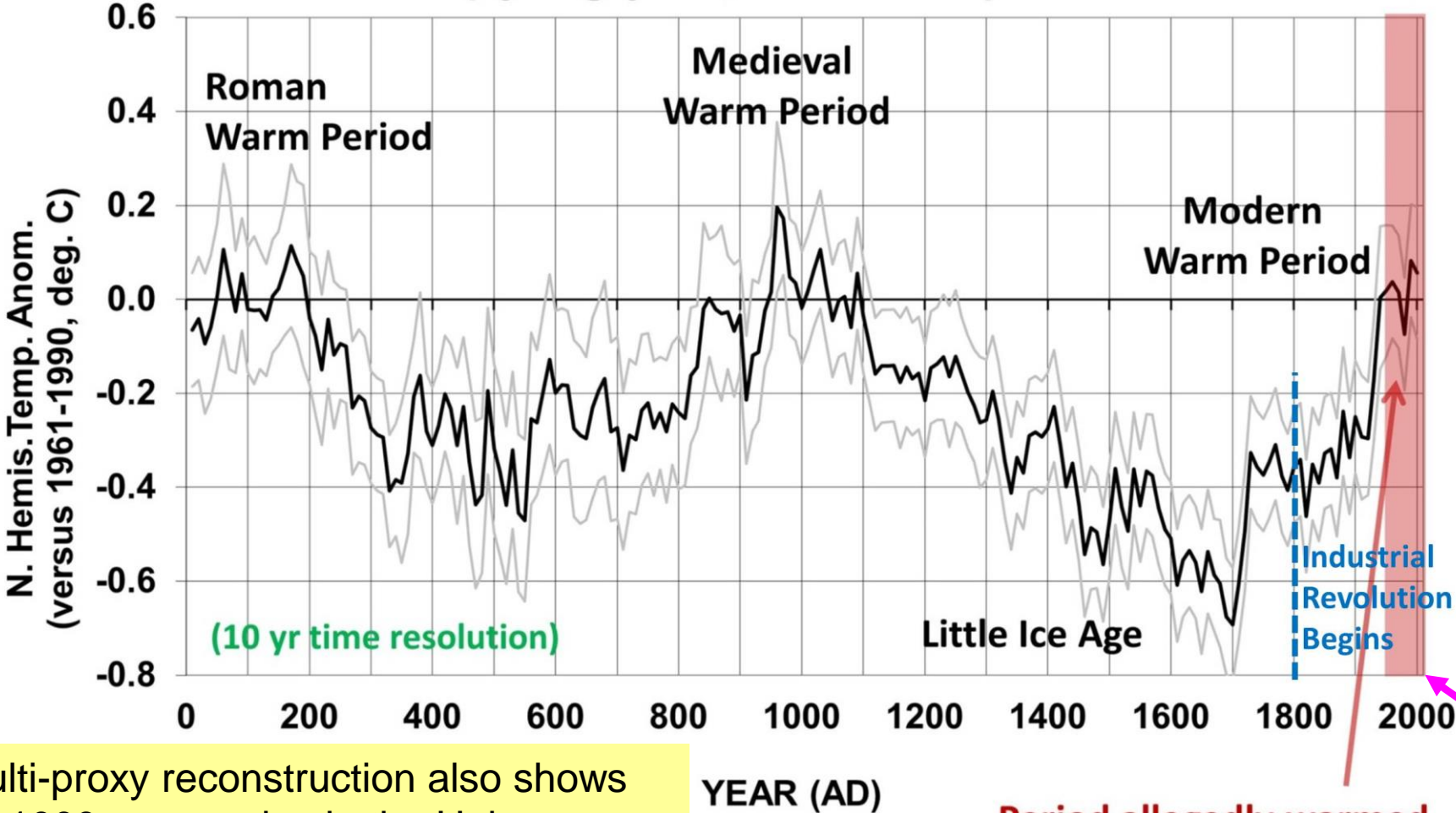
The red line axes in each plot were chosen to show a center line and a line of departure for the +/-2C temperature variations which have occurred over the past 10,000 years, one from the ice cores of each hemisphere.



X-Axis, Time Oldest on Left, Present on Right
Y-Axis, Temperature from the O16/O18 ratio , Greenland GISP2 Ice Core
Coldest Down, Warmer Up.



N. Hemisphere Temperature proxies (Ljungqvist, F.C. 2010)



Multi-proxy reconstruction also shows
~1000-year cycles in the Holocene

History reflects these data. About 550 AD was the “Dark Ages” -- crops failed; babies died. The Medieval Warm Period, ~1000 AD, was the great cathedral building in Europe; the faithful gave thanks for the abundance by building cathedrals.

Times in the recent past, temperature trace above the red line, show times in the past that were hotter than today.

Temp C

3.0

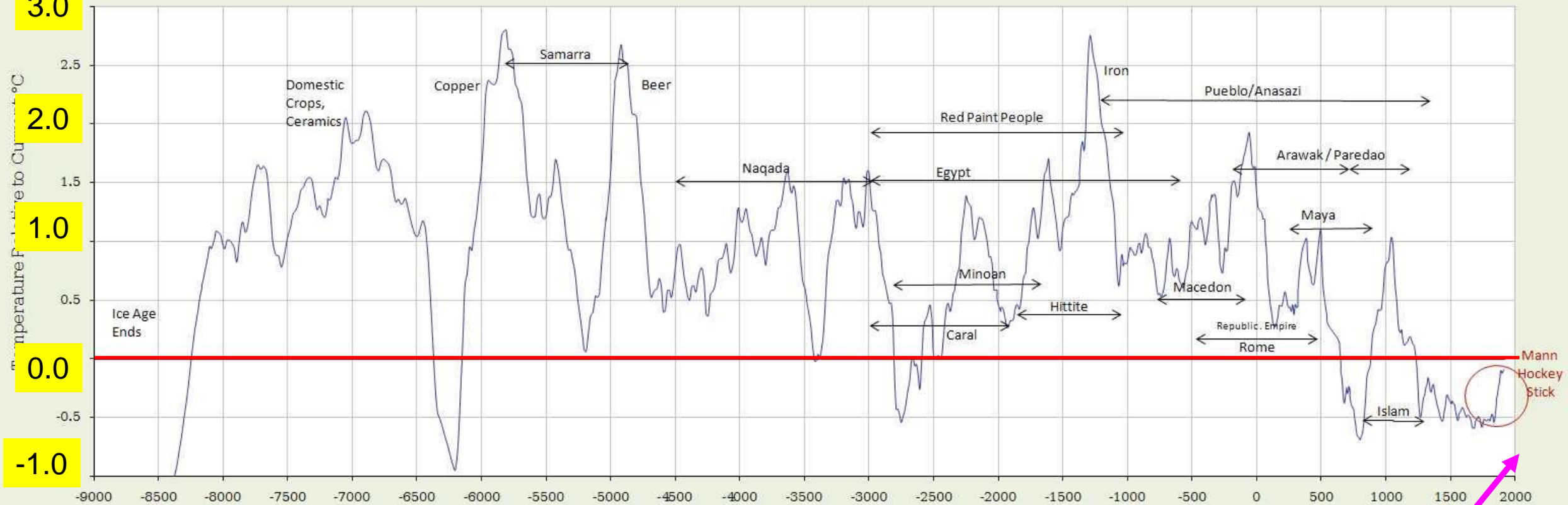
2.0

1.0

0.0

-1.0

GISP 2 Greenland Ice Core Temperature - Current Interglacial



Data Source: Alley, R.B., 2004. GISP2 Ice Core Temperature and Accumulation Data. IGBP PAGES/World Data Center for Paleoclimatology Data Contribution Series #2004-013. NOAA/NGDC Paleoclimatology Program, Boulder CO, USA.

Year

Now

If you understand this chart, you will see the ignorance of the climate Alarmists' cries of "Existential Threat"