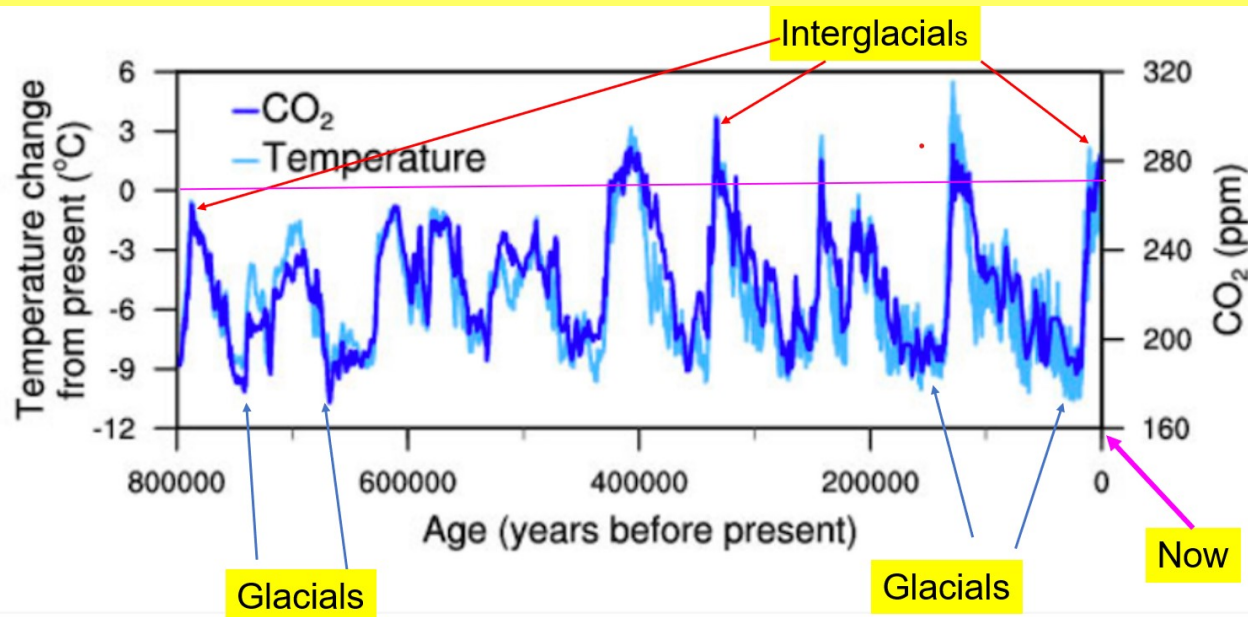


The Top Dozen Graphics Showing the Insanity of Global Warming Alarmist Ideas



Bob Endlich

bendlich@msn.com

Cruces Atmospheric Sciences Forum

16 Aug 2023, rev 24 Aug 2023

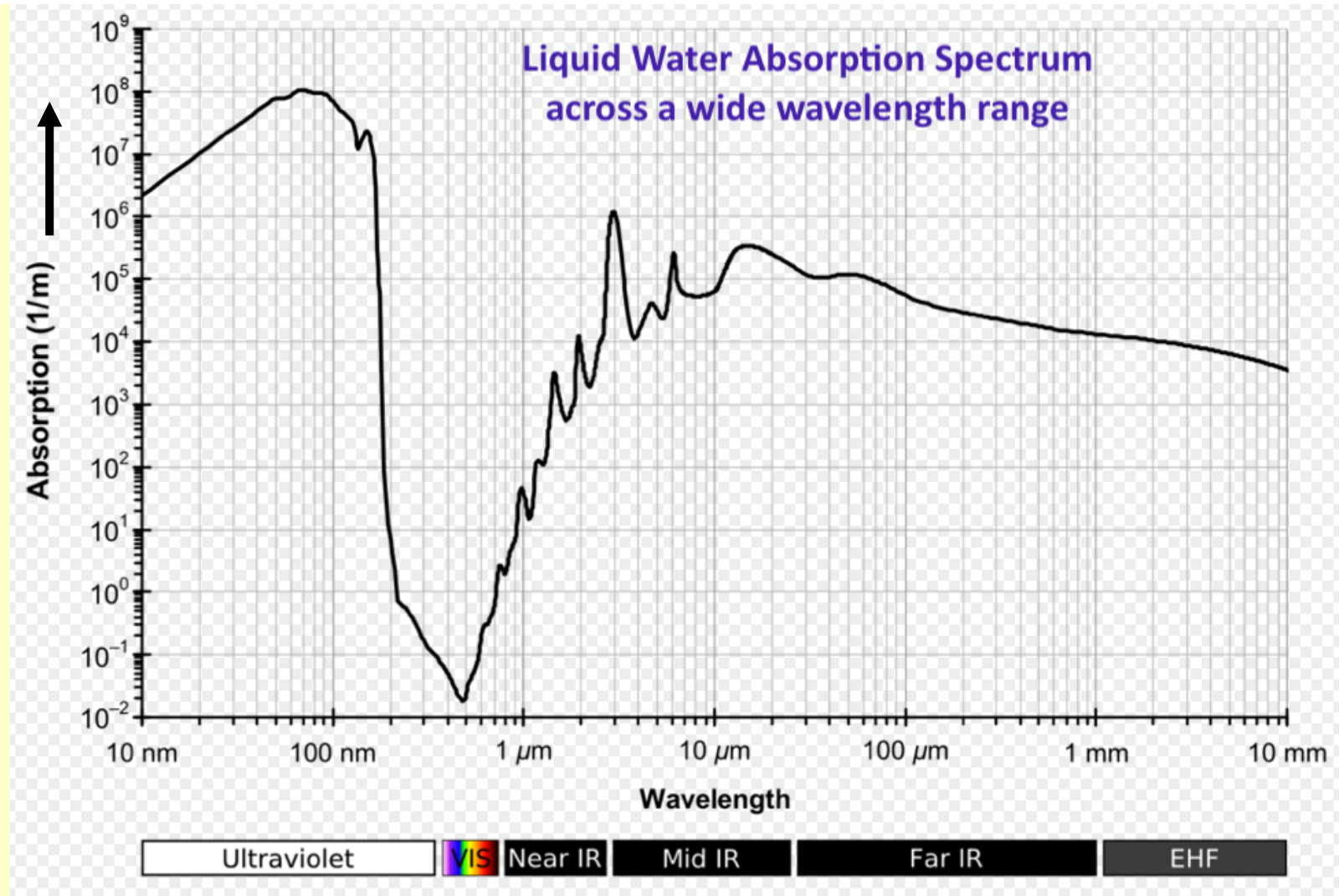
Explanation: At visible wavelengths, the colored portion of the spectrum shown with the red arrow in the diagram, the sun's radiation penetrates well into the water, because the absorption coefficient is low.

Britannica explains this phenomenon 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.

Increased water temperatures over time are caused by reduced cloudiness, allowing 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.



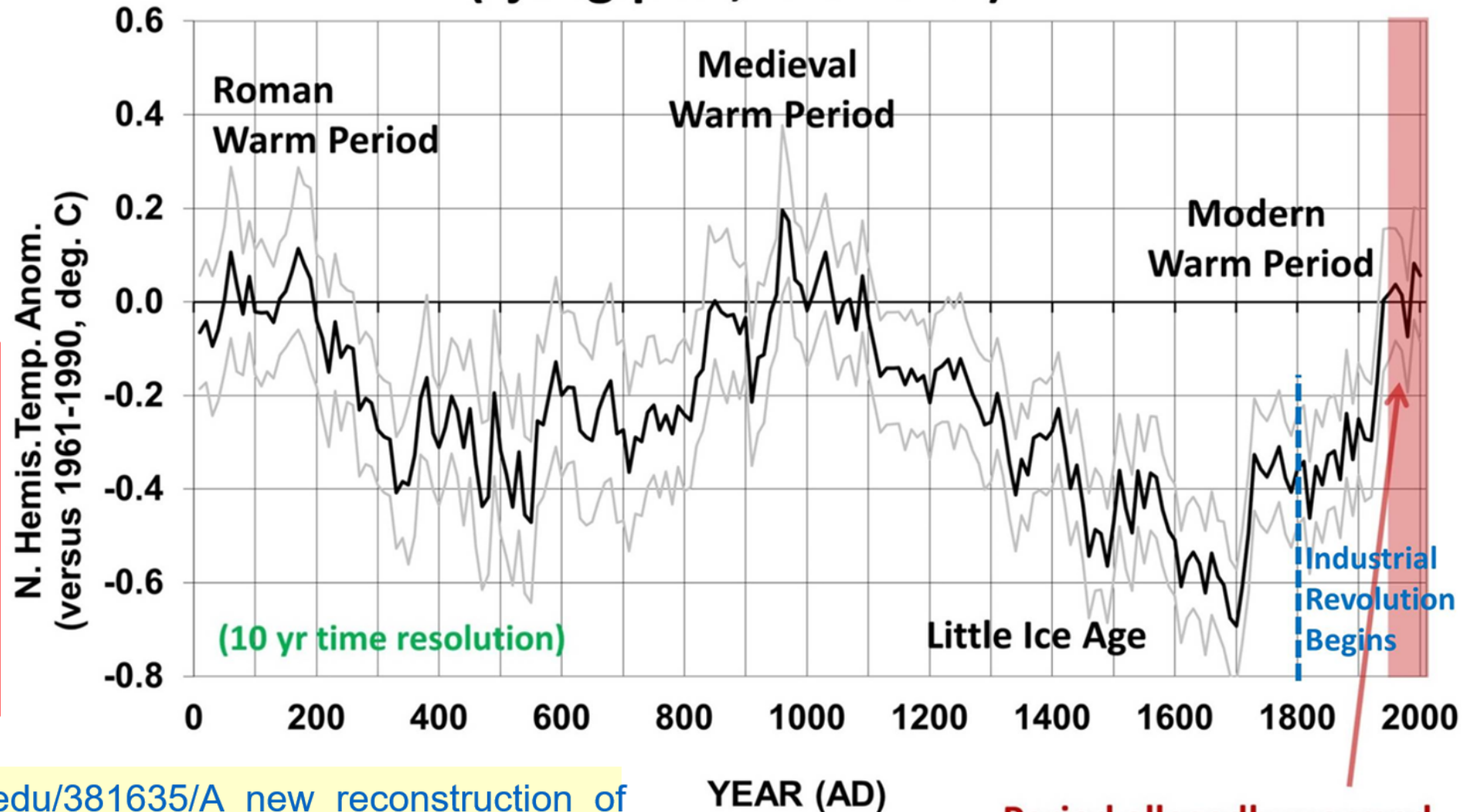
http://www1.lsbu.ac.uk/water/water_vibrational_spectrum.html

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

Ljungqvist finds the Bond Cycles....

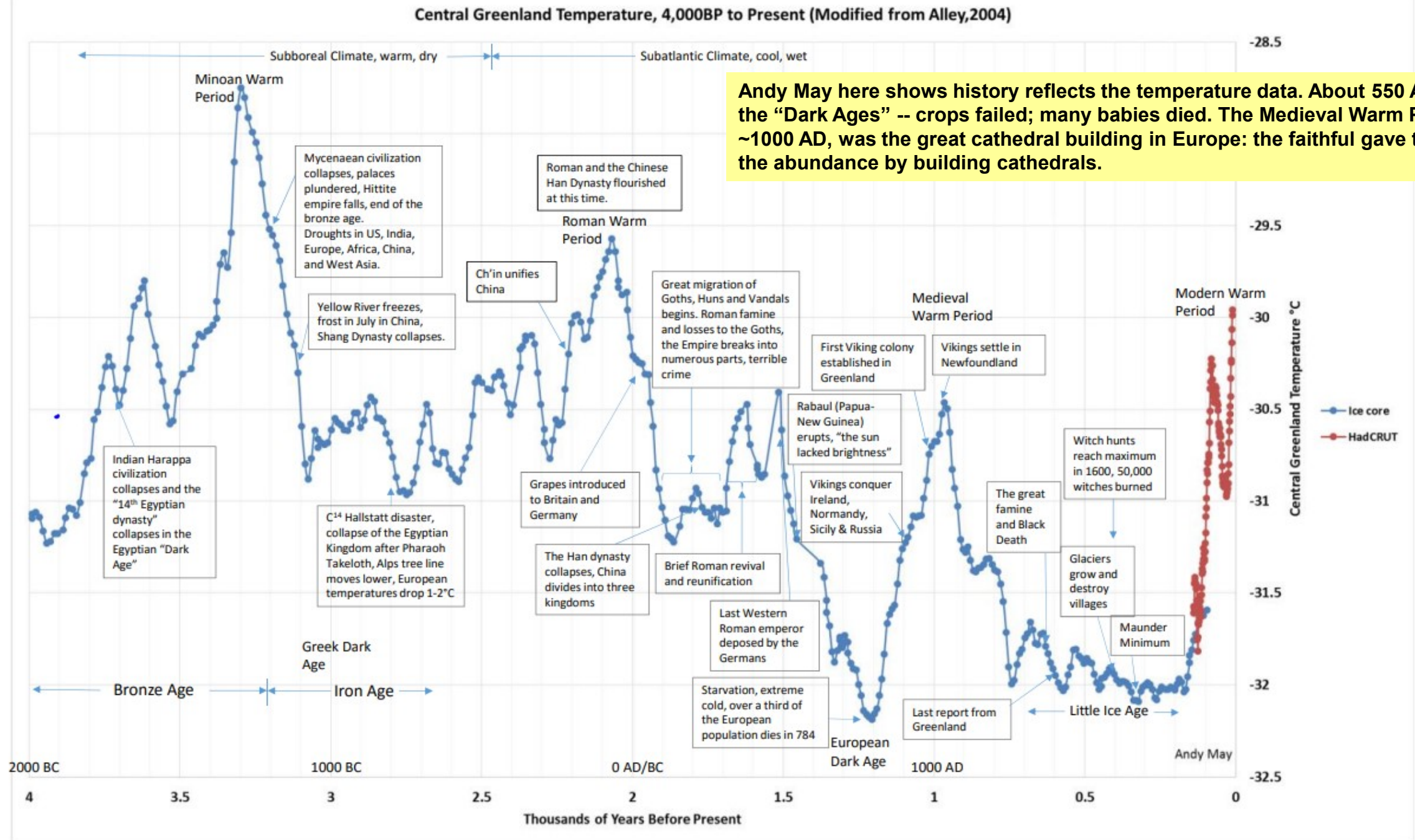
Spencer shows the alleged "human Influence" on the temperature record.

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)

**Period allegedly warmed
by human activities**



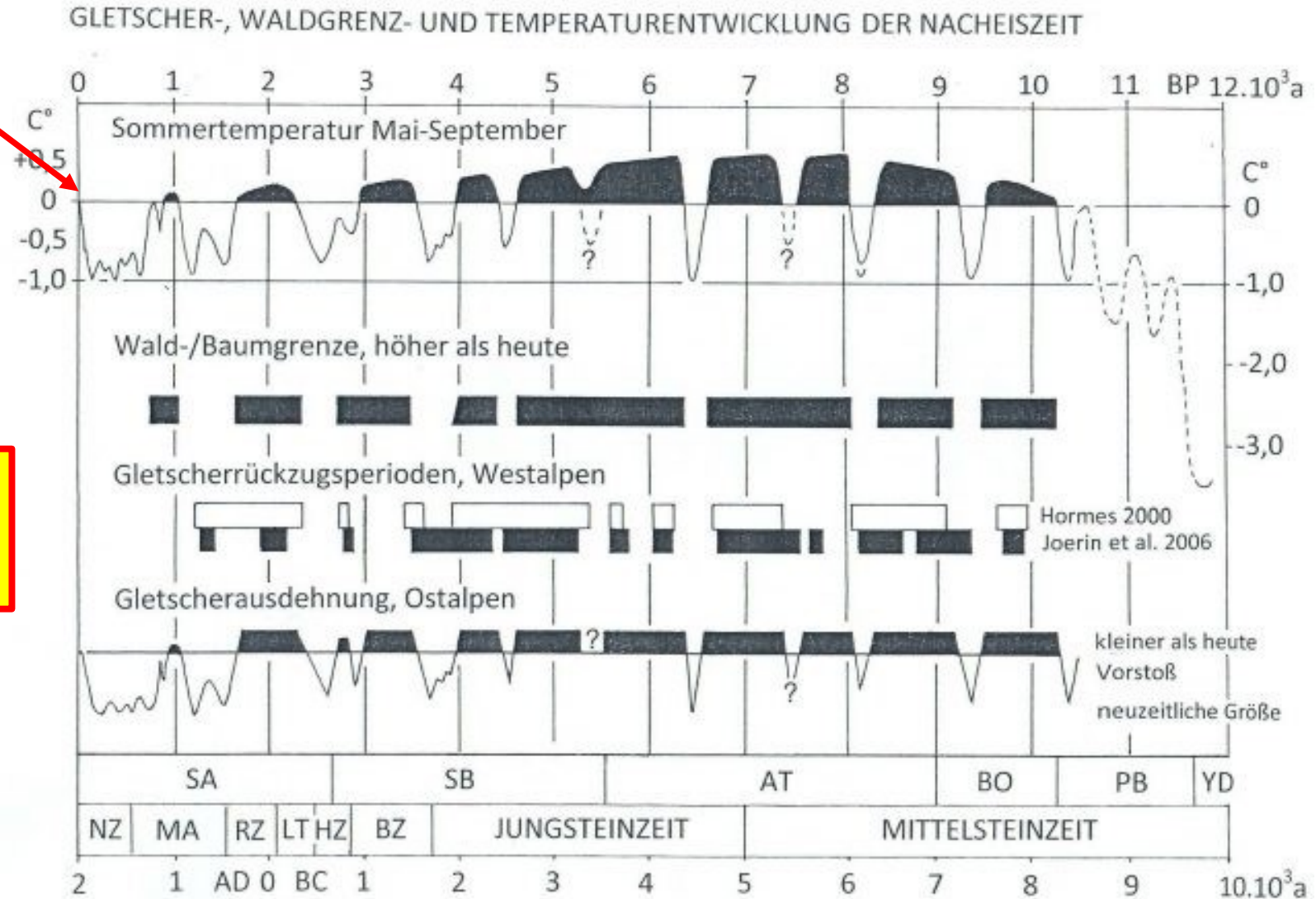
Analysis of ancient trees found in lateral moraines in the Austrian Alps by Prof G. Patzelt shows peak summer temperatures occurred about 8,000 years ago.

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.

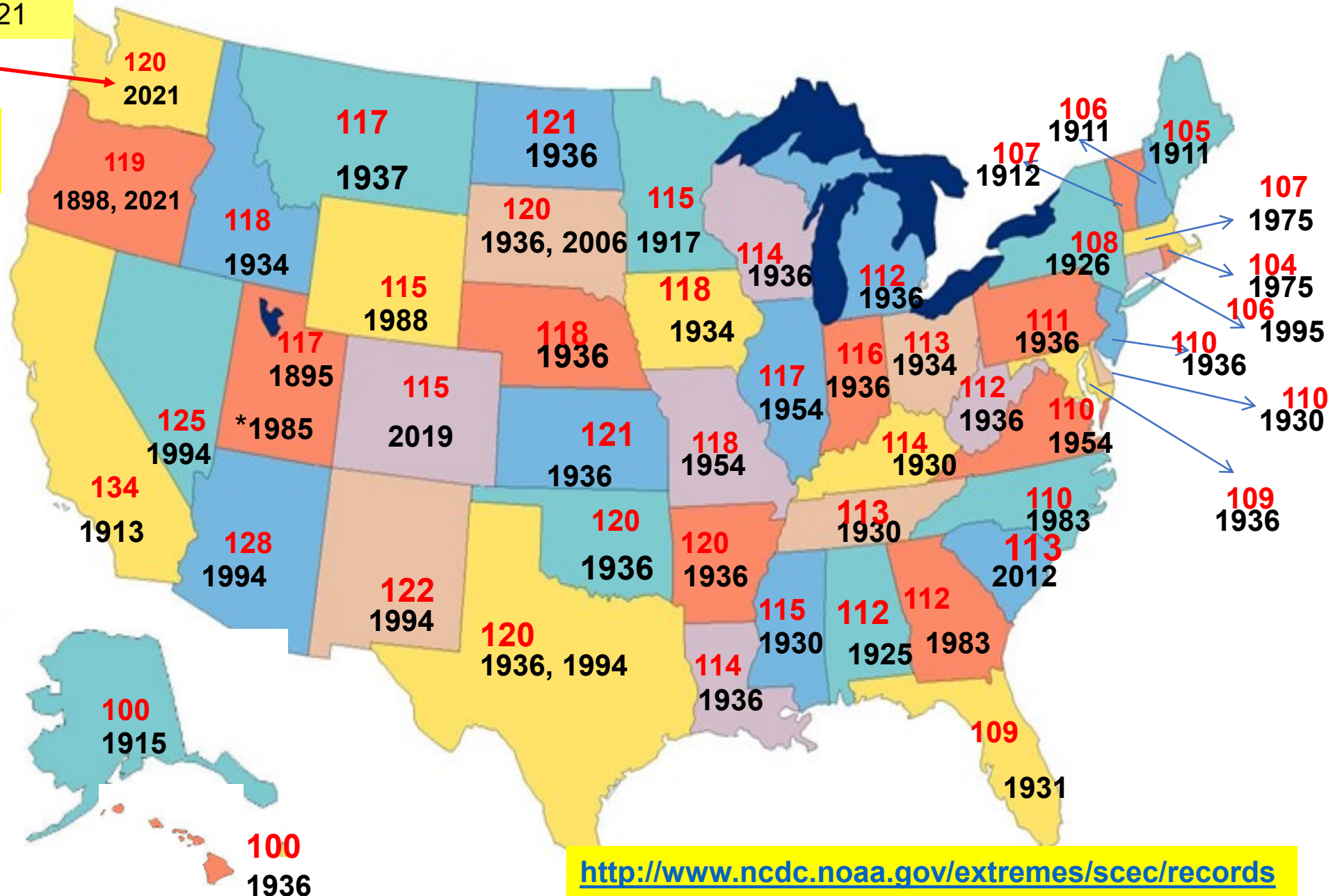
The data show that the 1930s was the hottest decade in the USA, when <CO2> was about 306 Parts Per Million, PPM.

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

US. Record Maximum Temperature F by State and Year

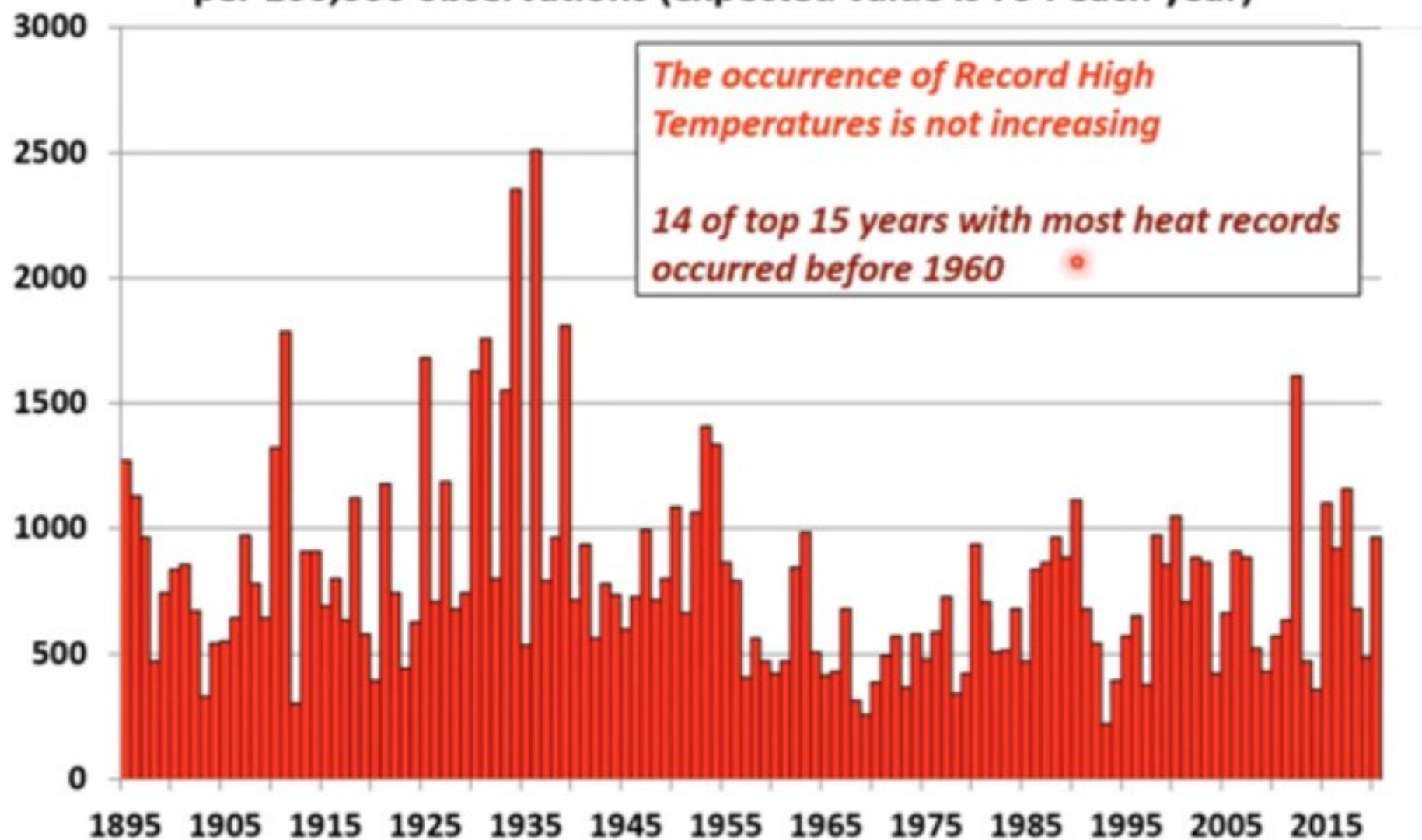
New Record 2021

OR Record of
1898, tied

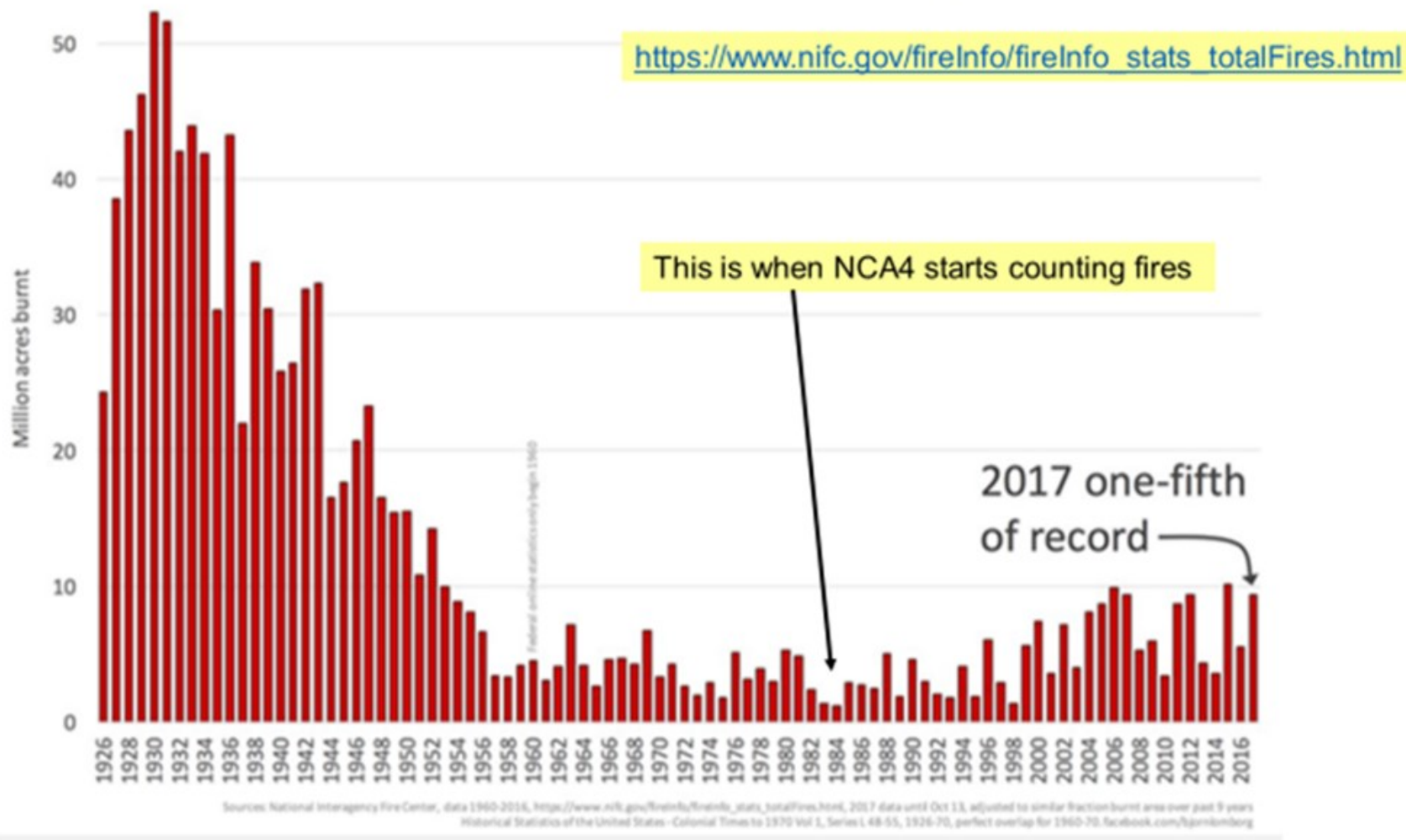


<http://www.ncdc.noaa.gov/extremes/scec/records>

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)

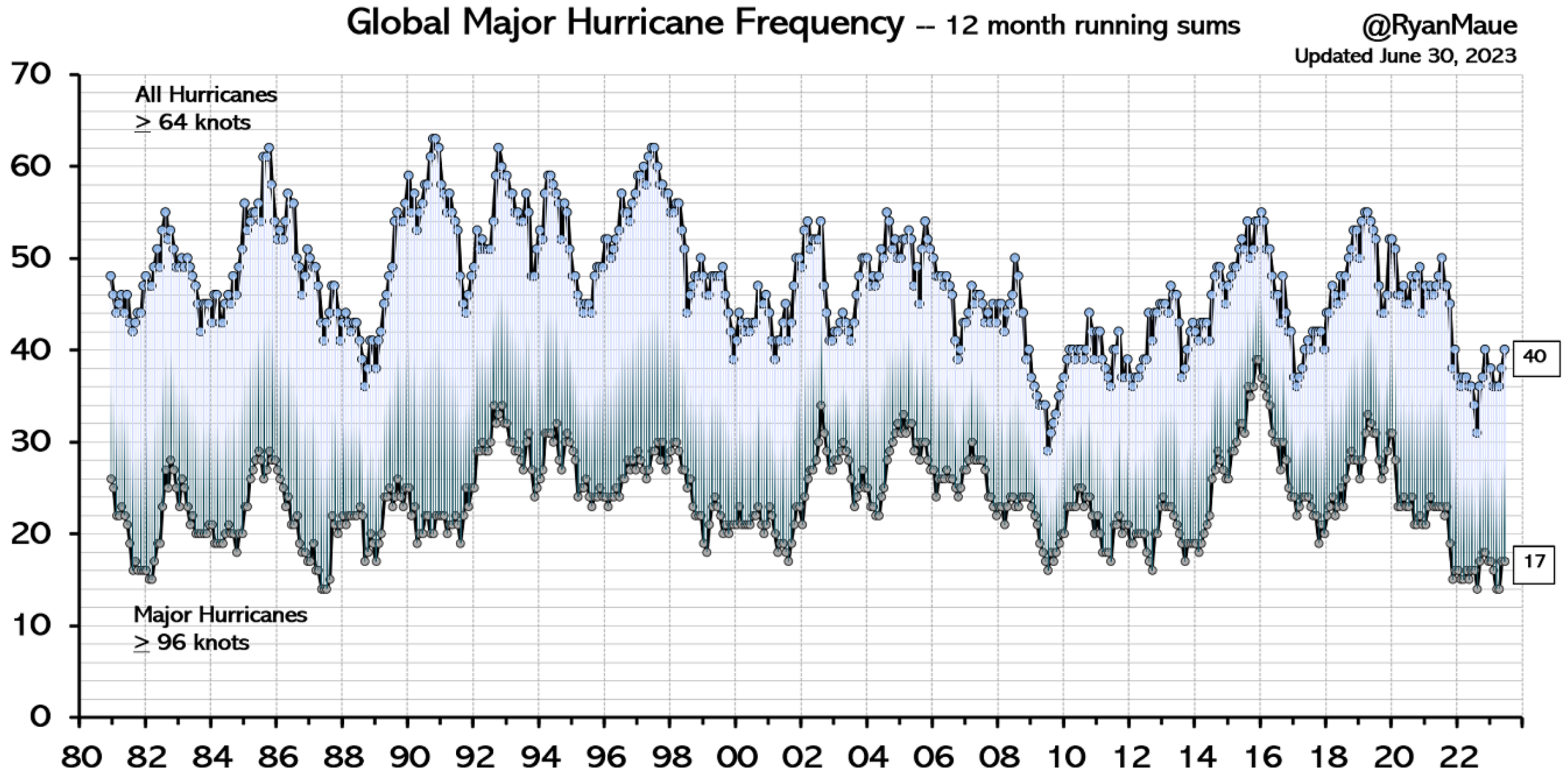


US Forest Area Burned 1926-2017



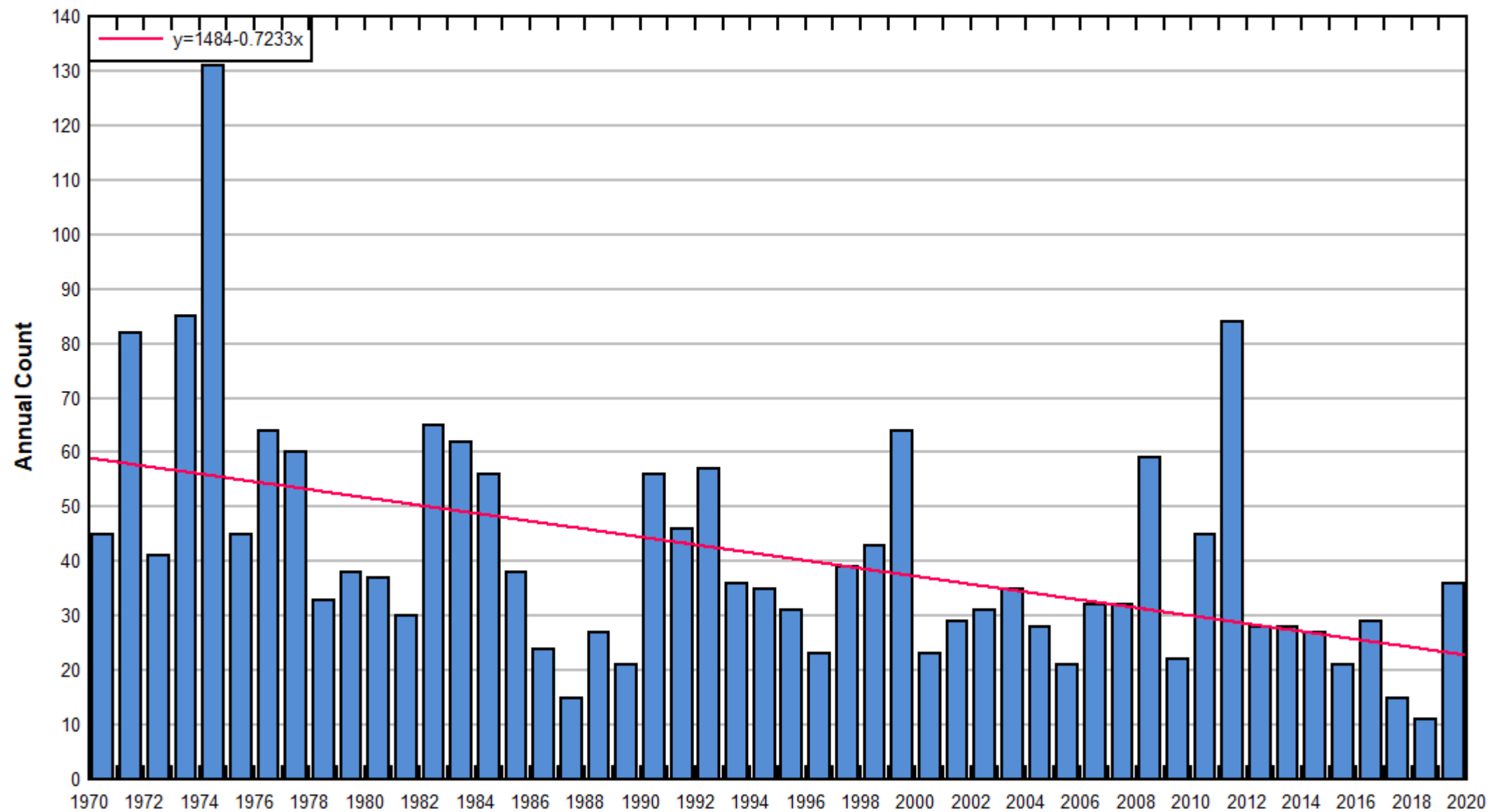
This is a plot Bob Endlich captured around 2017 from the National Interagency Fire Center which lists, in bar chart format, the number of reported acres burned on an annual basis, from 1926-2017. Sierra Club's characterization of 2021's forest fire losses as a little over 7 million acres lost as "horrific,"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

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.



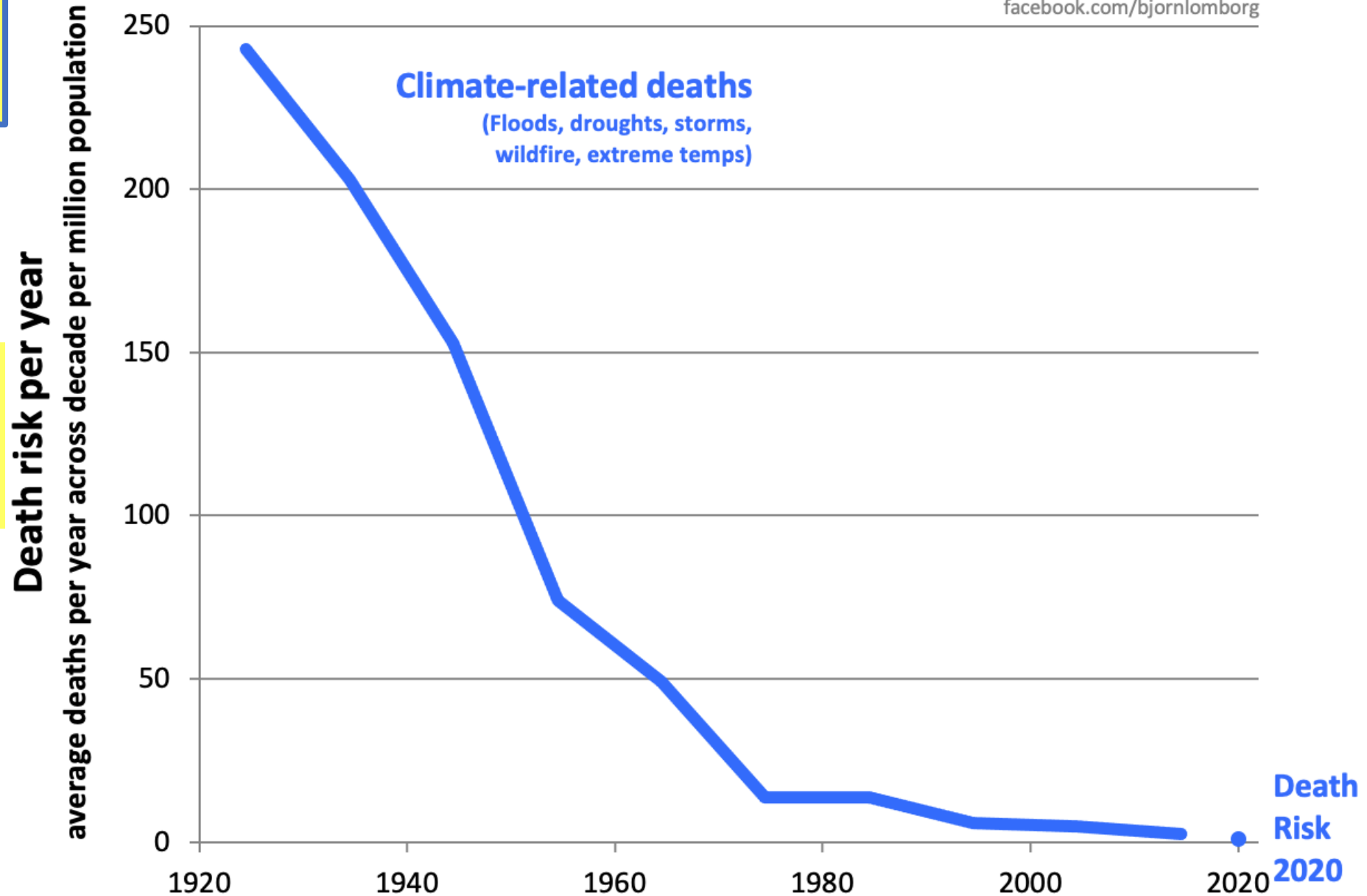
U.S. Annual Count of Strong to Violent Tornadoes (F3+) 1970-2020

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

IDEAS • CLIMATE CHANGE

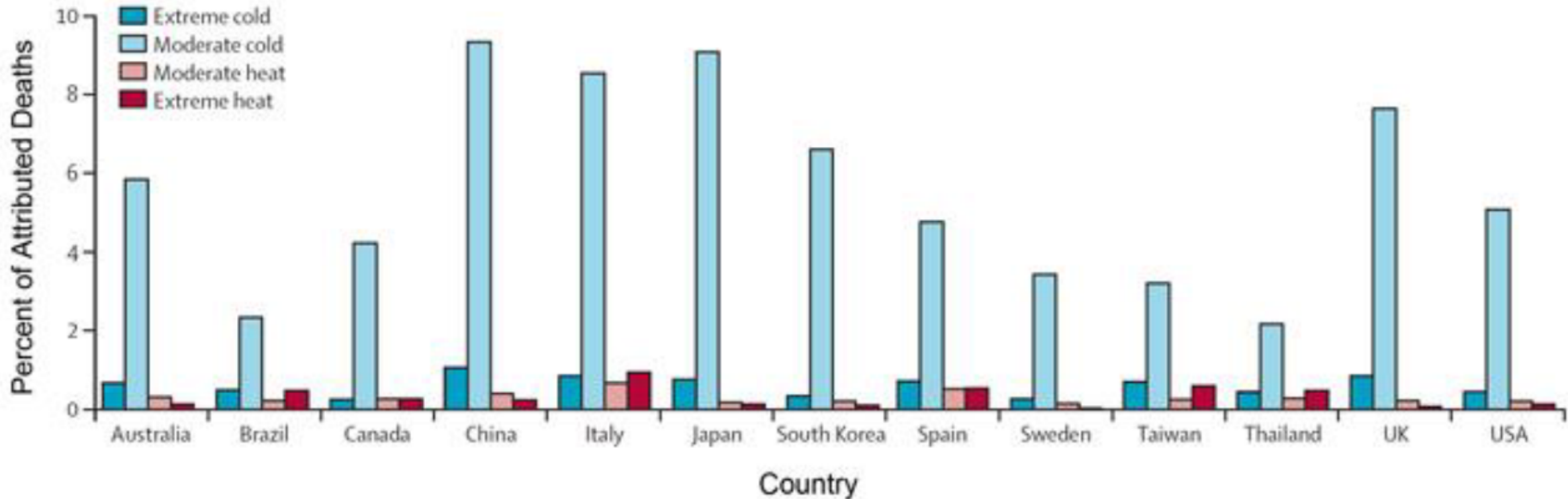
The Increasing Death Toll in the U.S. From Extreme Heat

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.

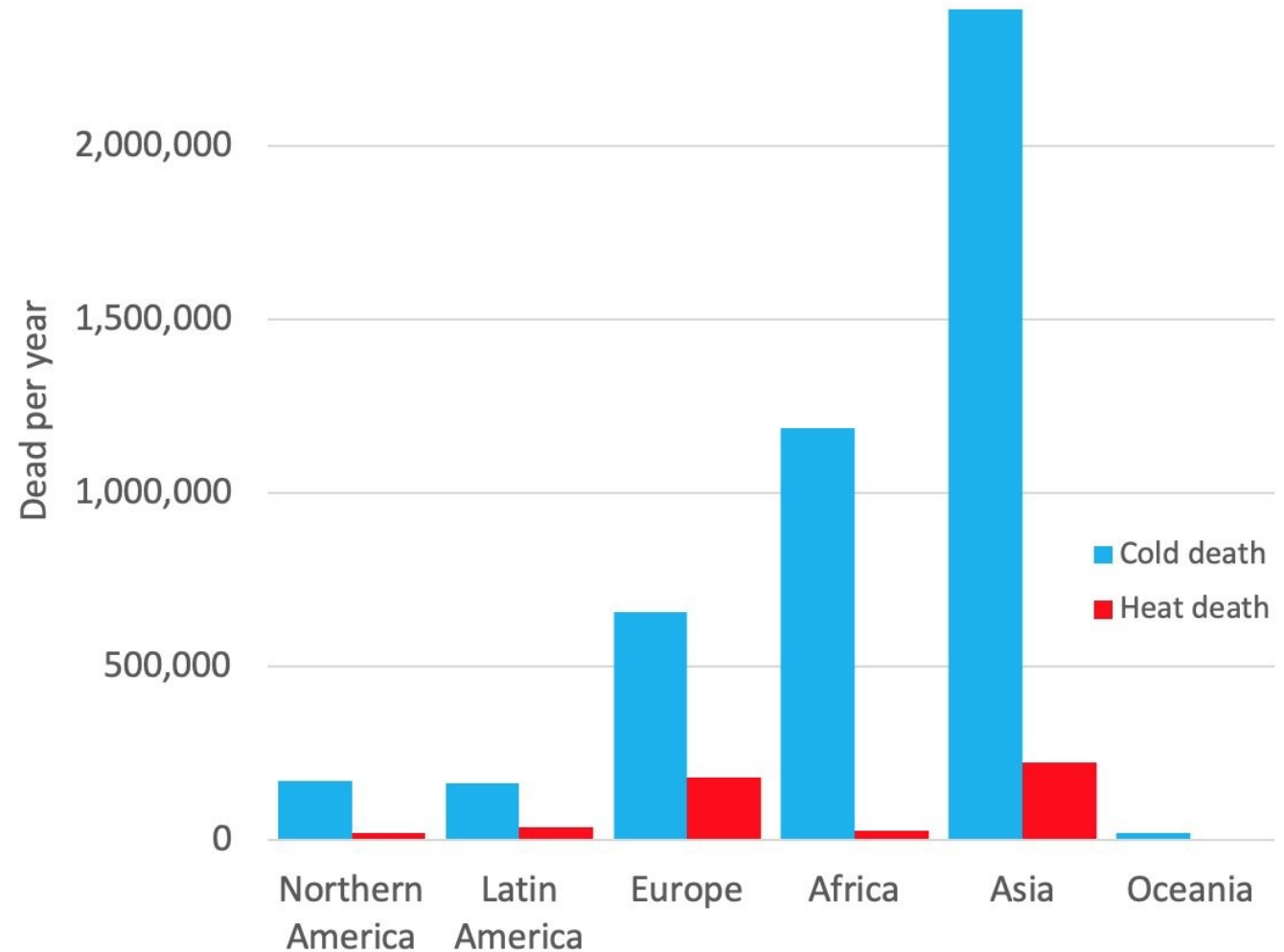
Percent of Deaths Due to Moderate and Extreme Episodes of Heat and Cold



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**

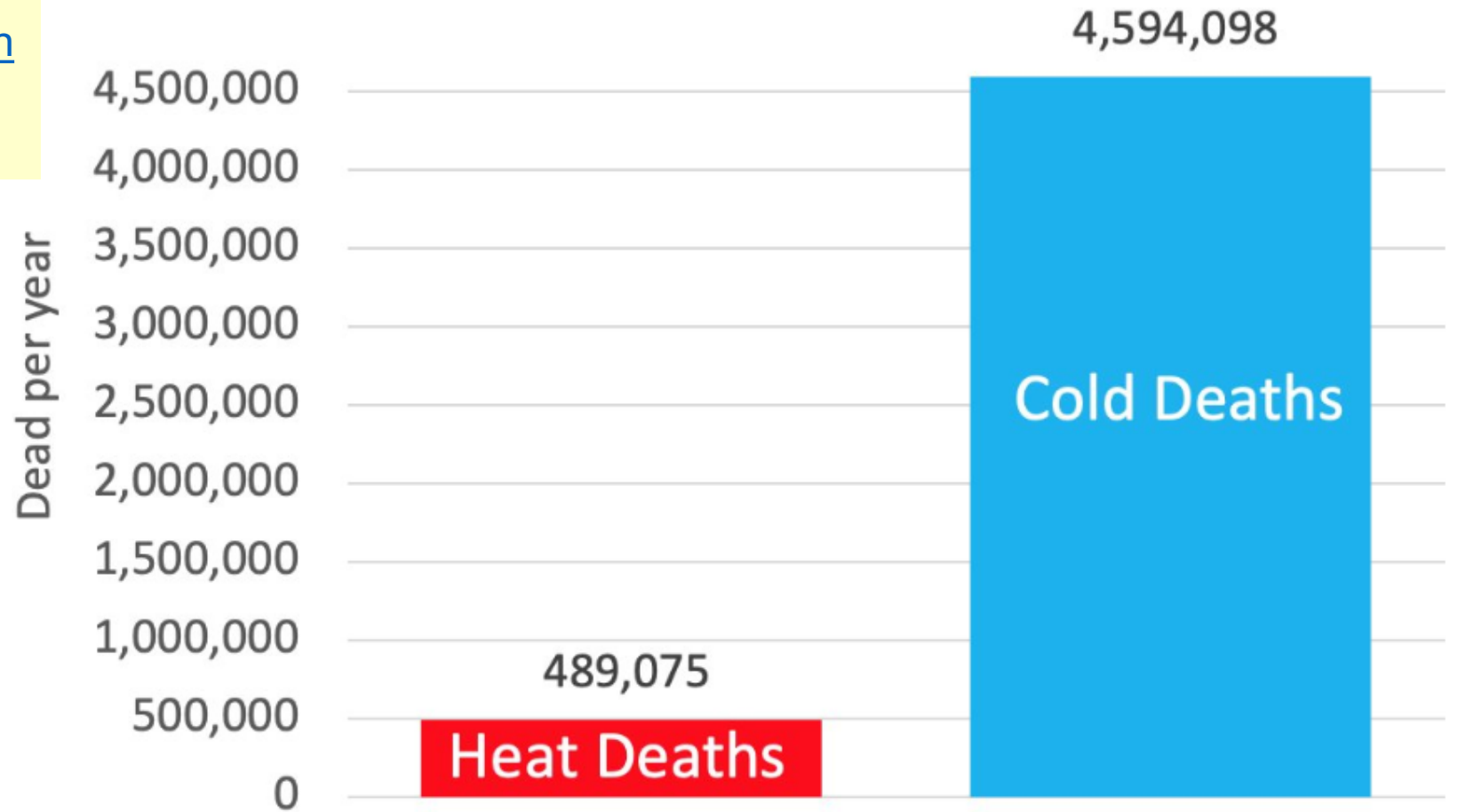
<https://www.climatedepot.com/2022/12/30/the-lancet-cold-weather-9x-more-likely-to-kill-than-hot-globally-4-5-million-people-die-of-cold-vs-489k-of-heat/>



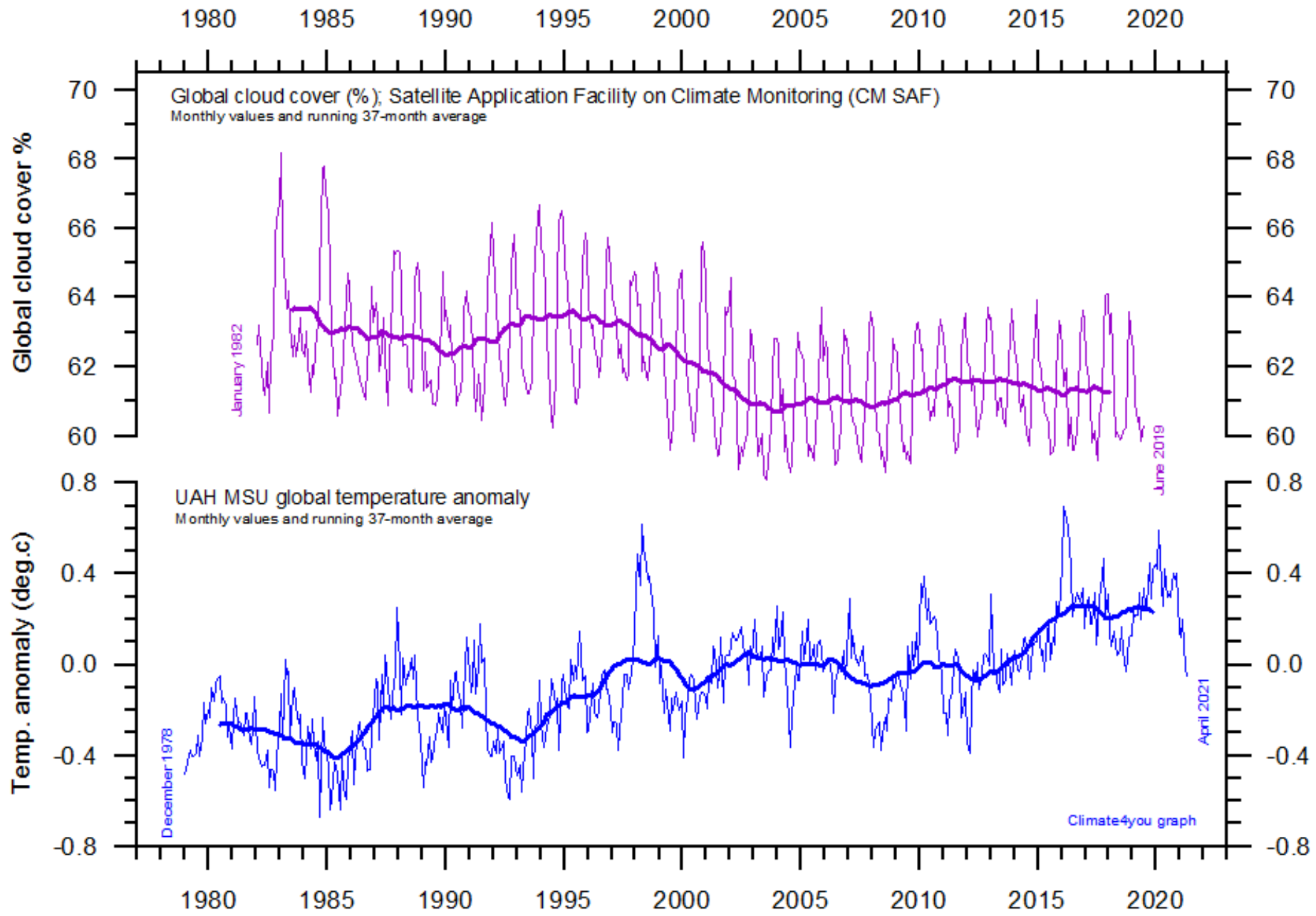
Annual dead from heat and cold across world 2000-19. Latin America includes the Carribean. Sources: "Global, regional, and national burden of mortality associated with non-optimal ambient temperatures from 2000 to 2019", Lancet July 2021, [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(21\)00081-4/fulltext](https://www.thelancet.com/journals/la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



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; the Sun's output changes 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, and two slides 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)

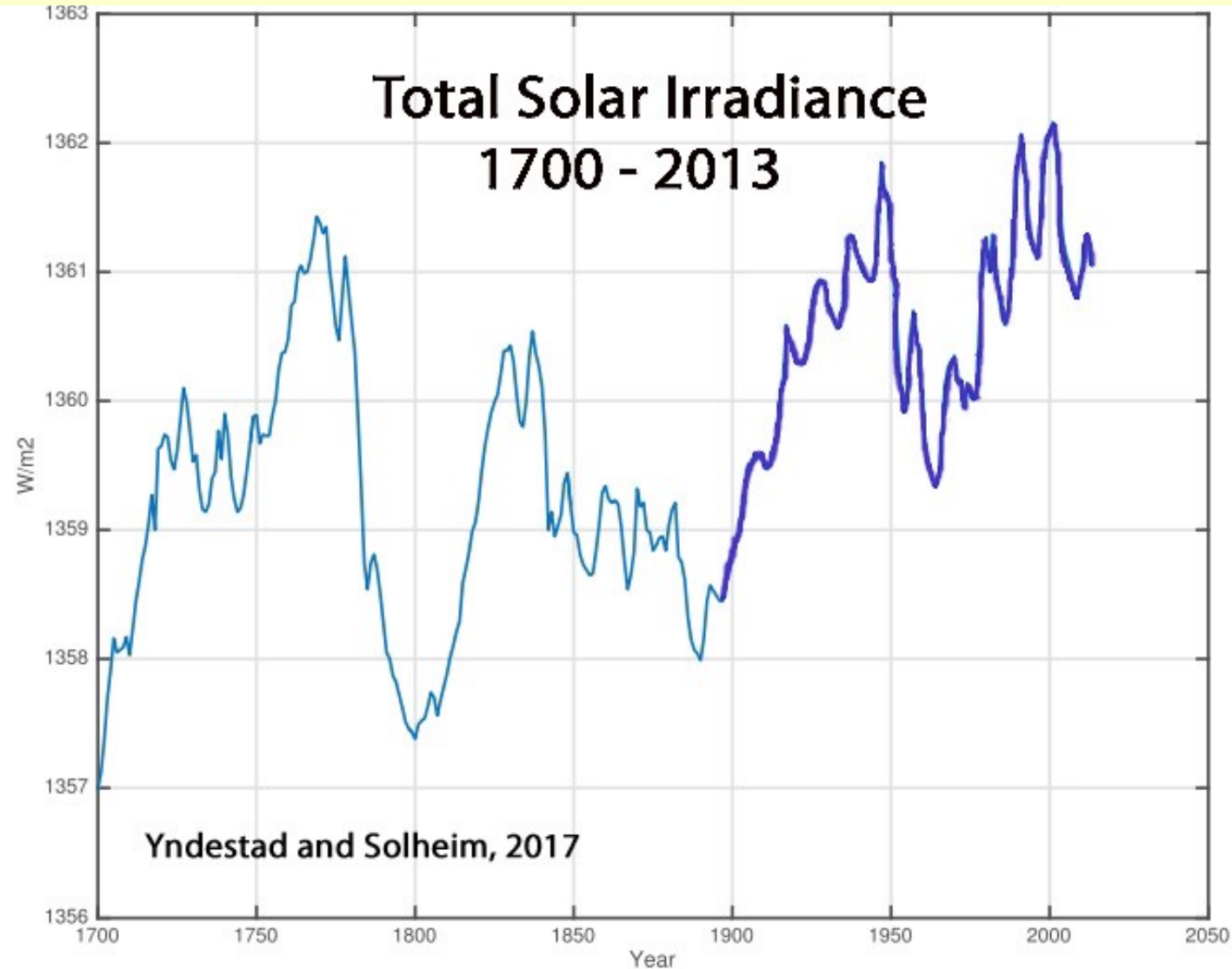
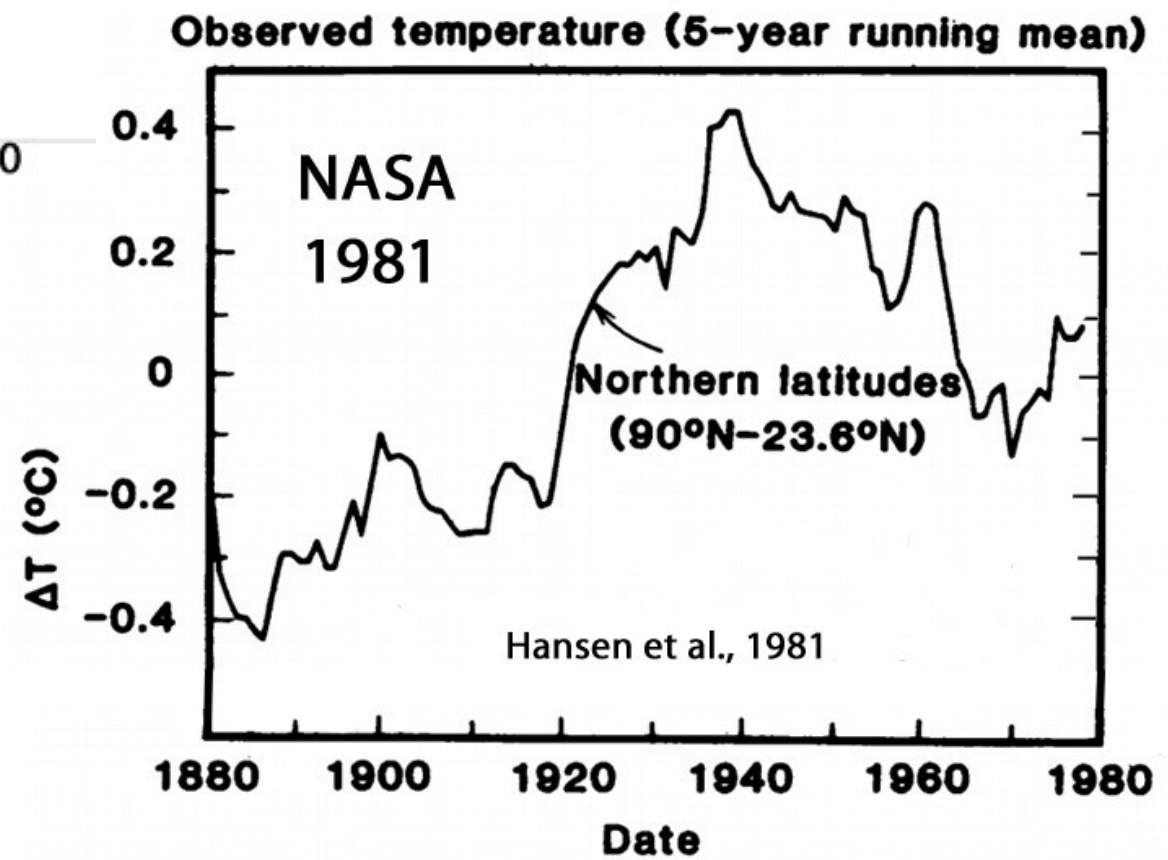
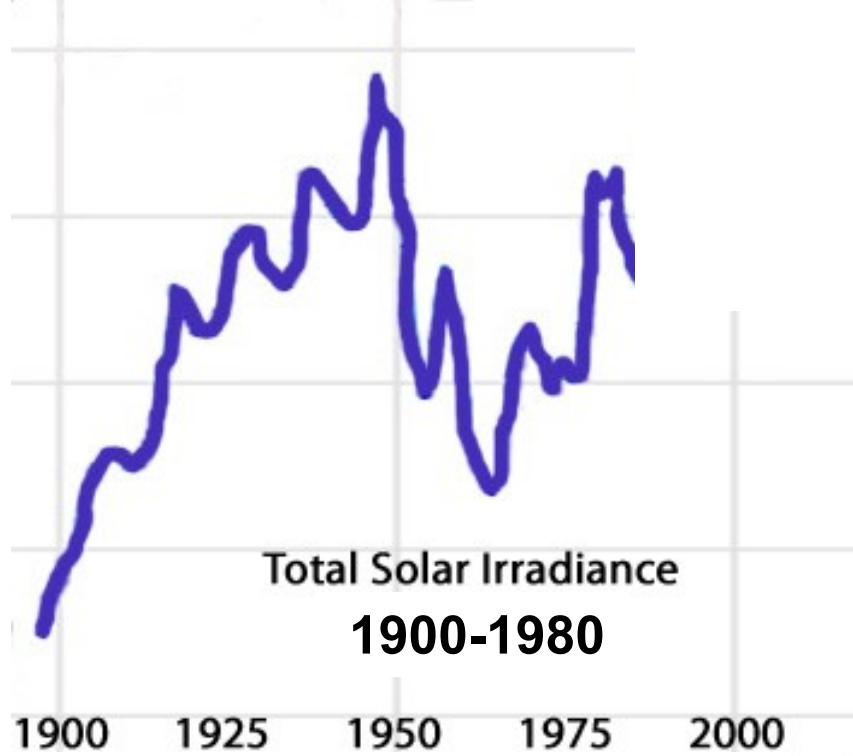
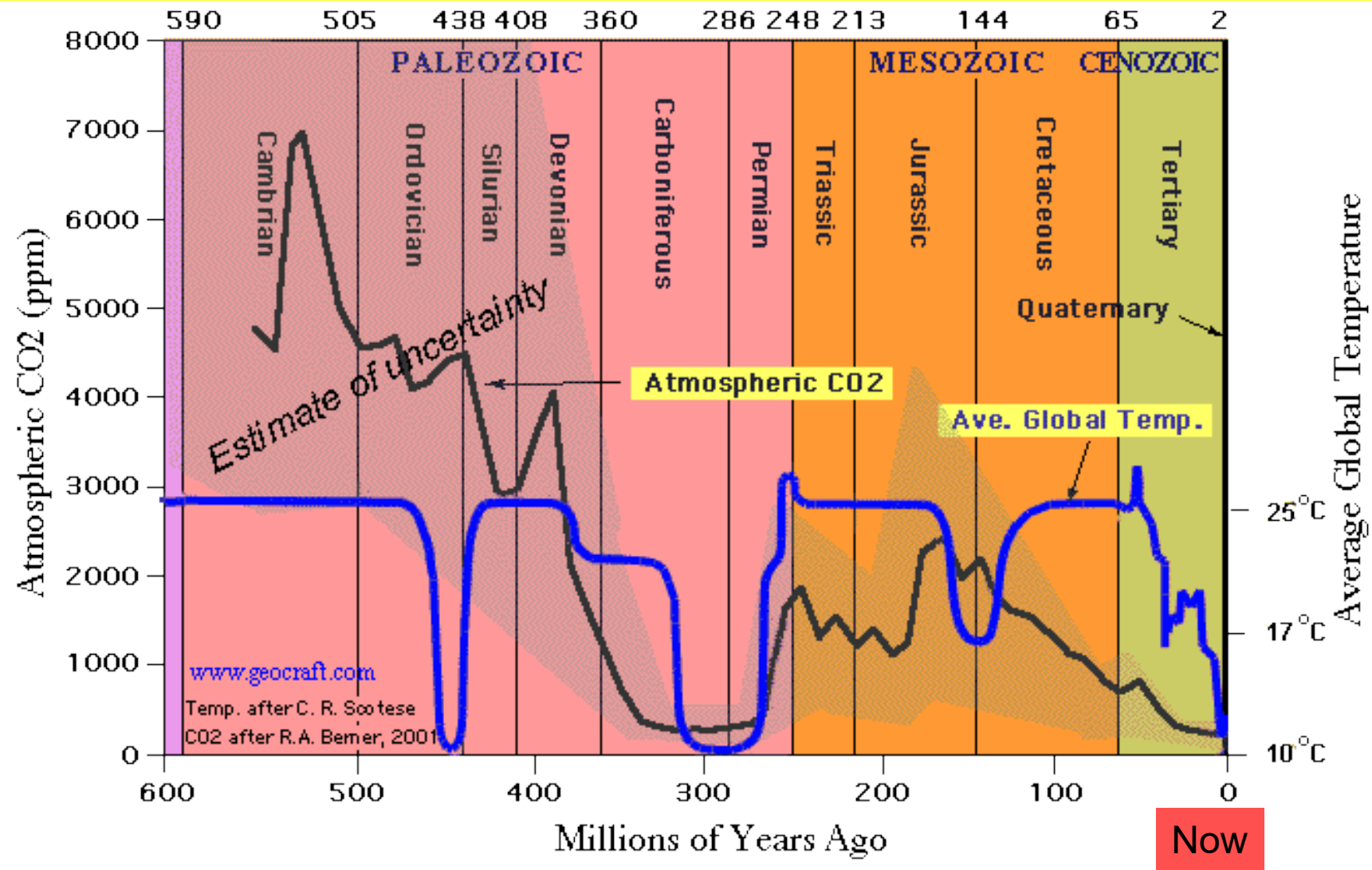
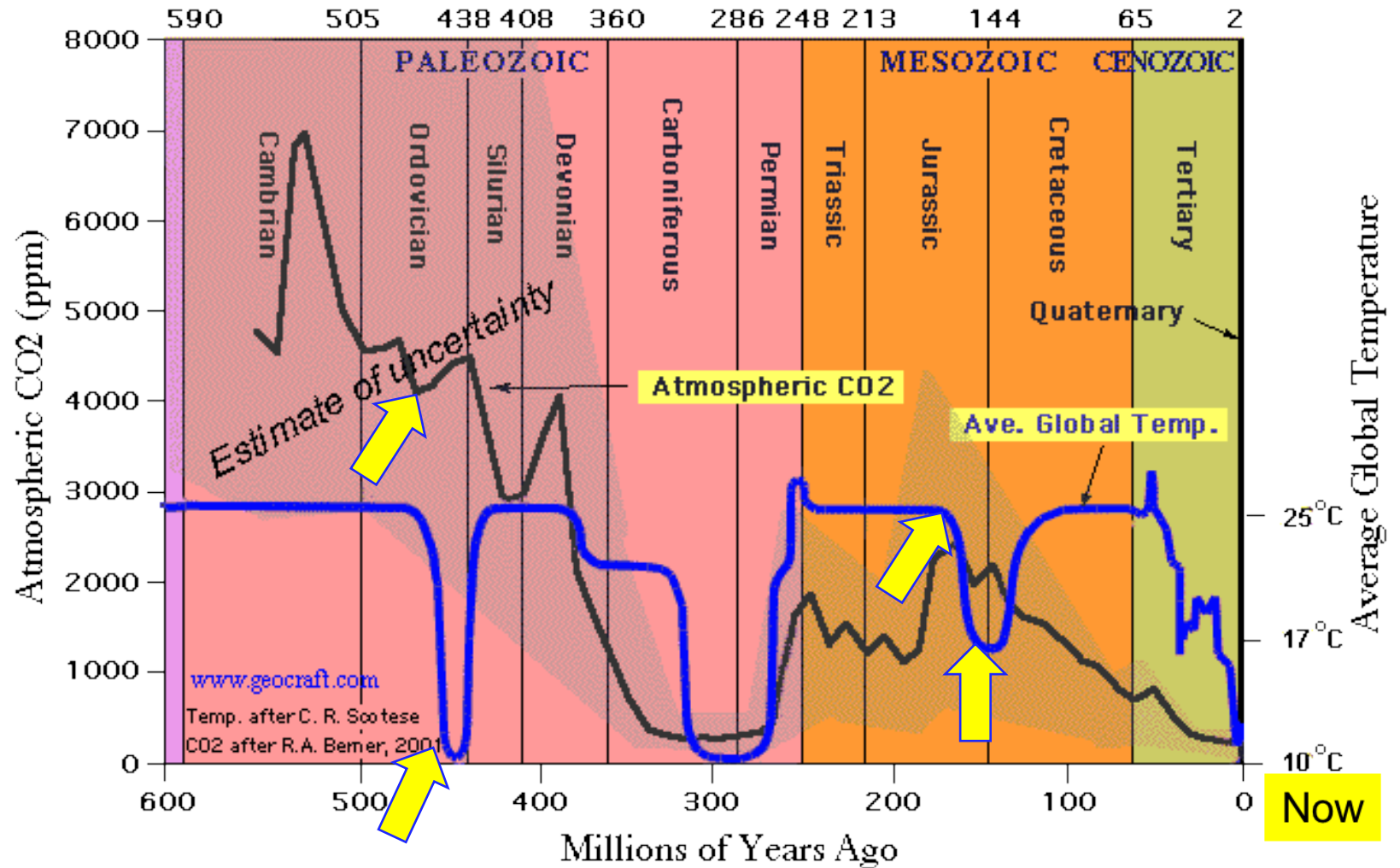


Fig. 3. TSI-HS total solar irradiance from 1700 to 2013 A.D. ([Scafetta and Willson, 2014](#)).





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.

Lessons from the Antarctic Ice Cores

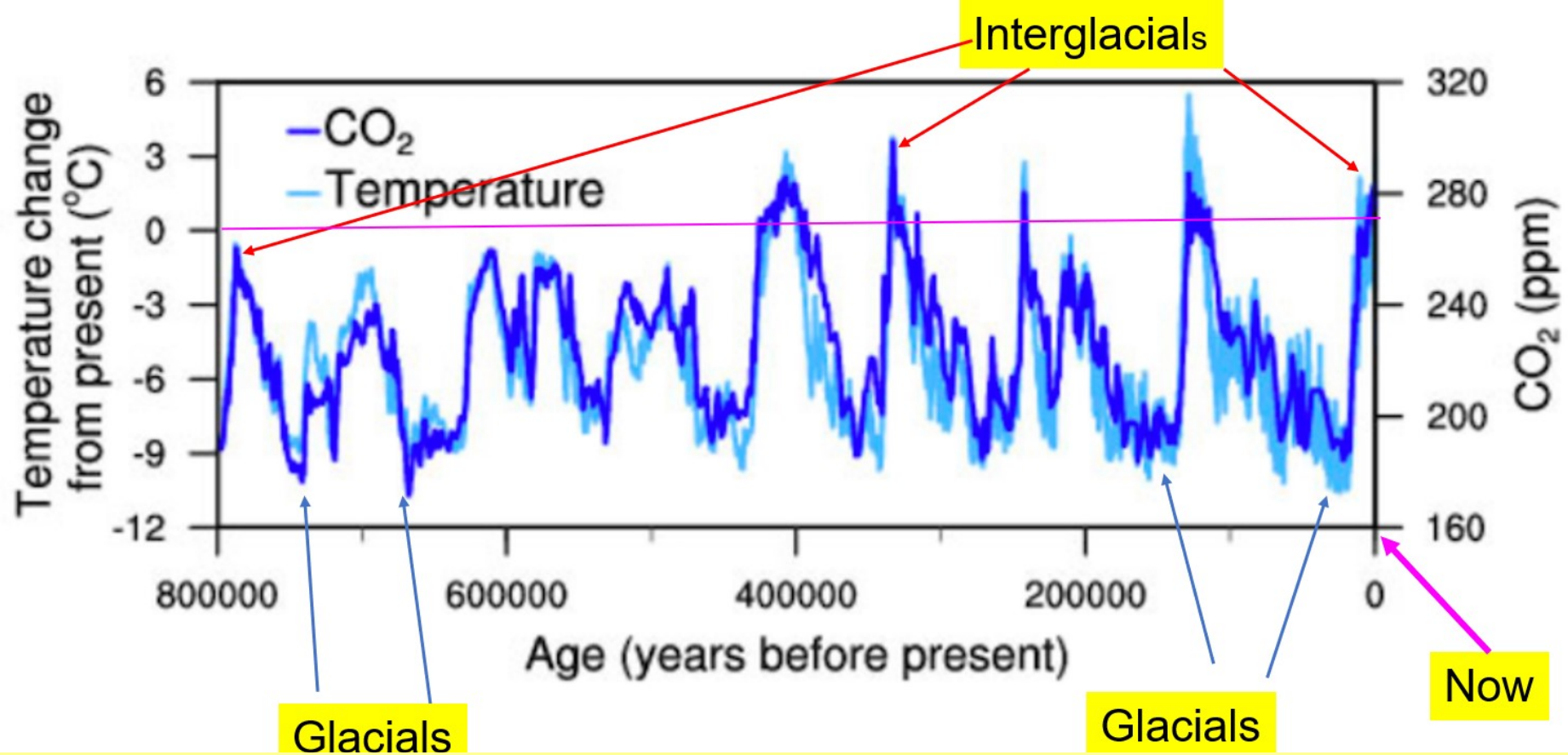
Al Gore and his science fiction movie, “An Inconvenient Truth,” introduced me to some important data, the Temperatures and CO₂ concentrations, data that did not exist when I was a Geology Student from 1959-1962.

The next two charts, from EPICA Dome C show temperature and CO₂ concentrations from Antarctic Ice Cores with the ~100,000-year Cycles of Glacial times, the low parts of the temperature curves, which last ~80,000 years and the Interglacials, the peaks in temperature lasting 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.

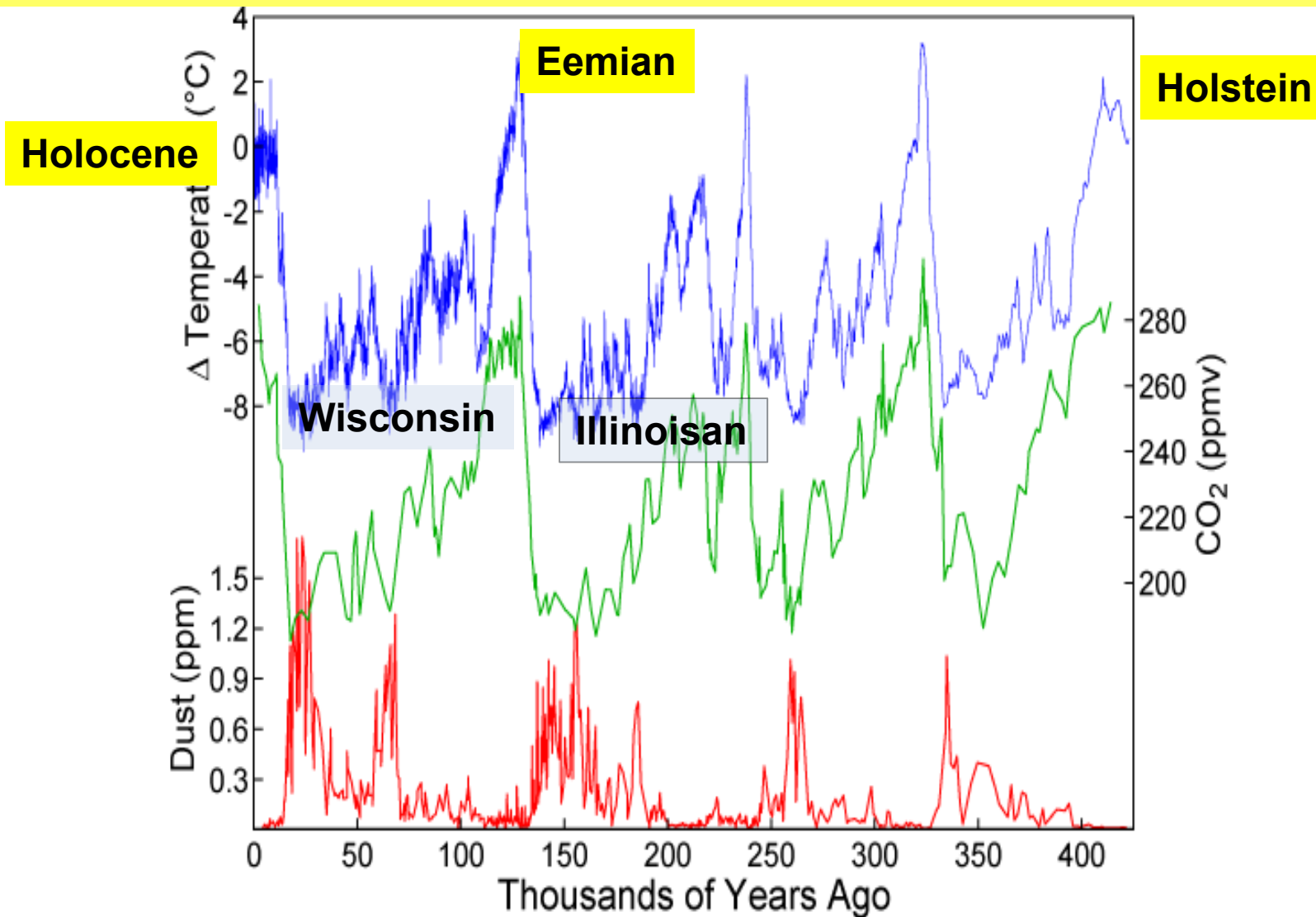
Some of the glacials and interglacials have names, but a [2005 work](#) by Lisieicki and Raymo assigned Marine Isotope Stage (MIS) numbers to their global “type section,” for the past 5.3 million years.

In particular, note well the 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 the previous interglacials, never exceeded 280 PPM CO₂.



Changes in Temperatures and CO₂ concentration over the past several 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 CO_2

Holocene **Coldest** of the five interglacials.

0 = Current Temp

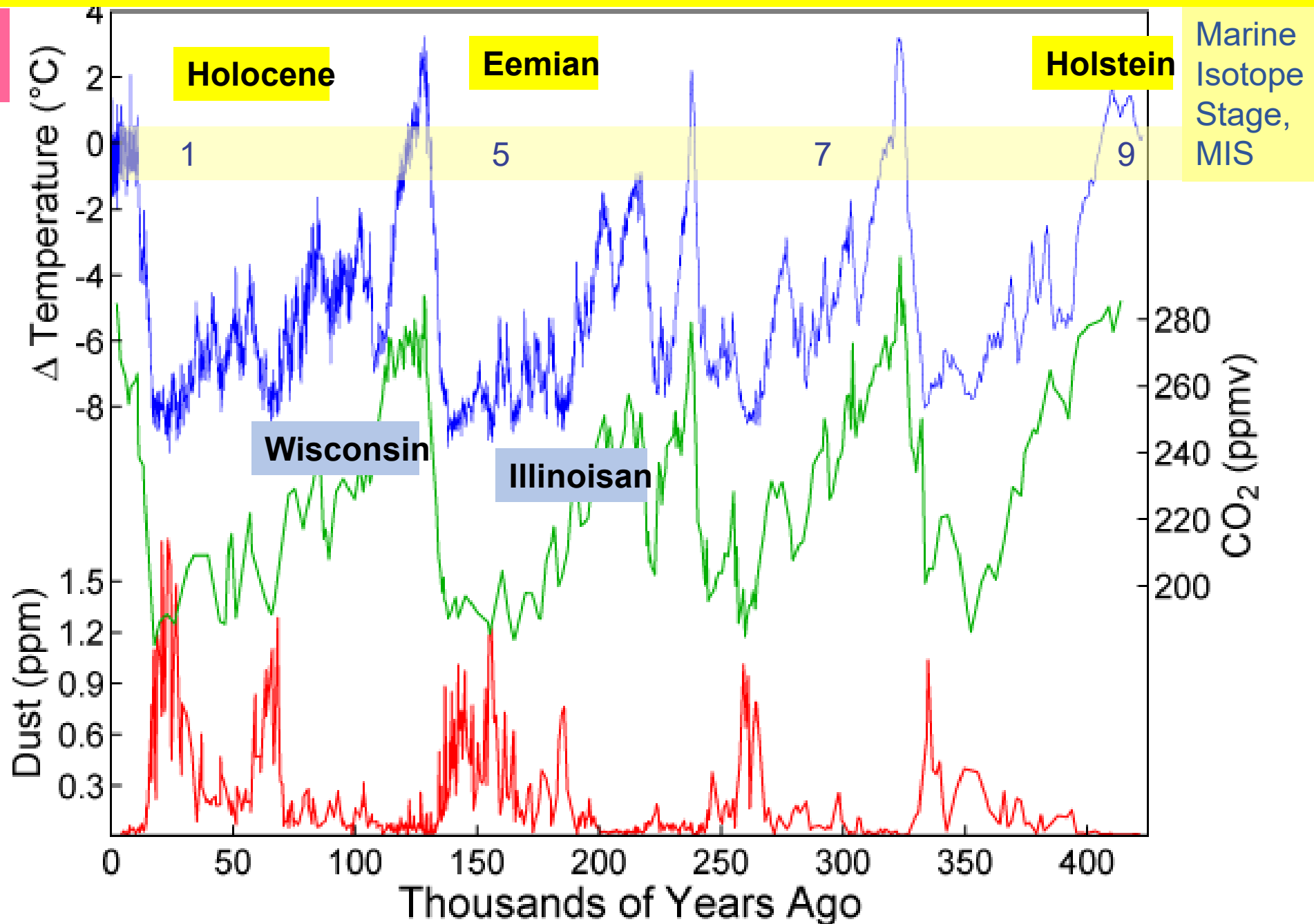
Blue = Temperature

Green = <CO₂>

Red = <Dust>

Notice <CO₂> never exceeded 280 PPM

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



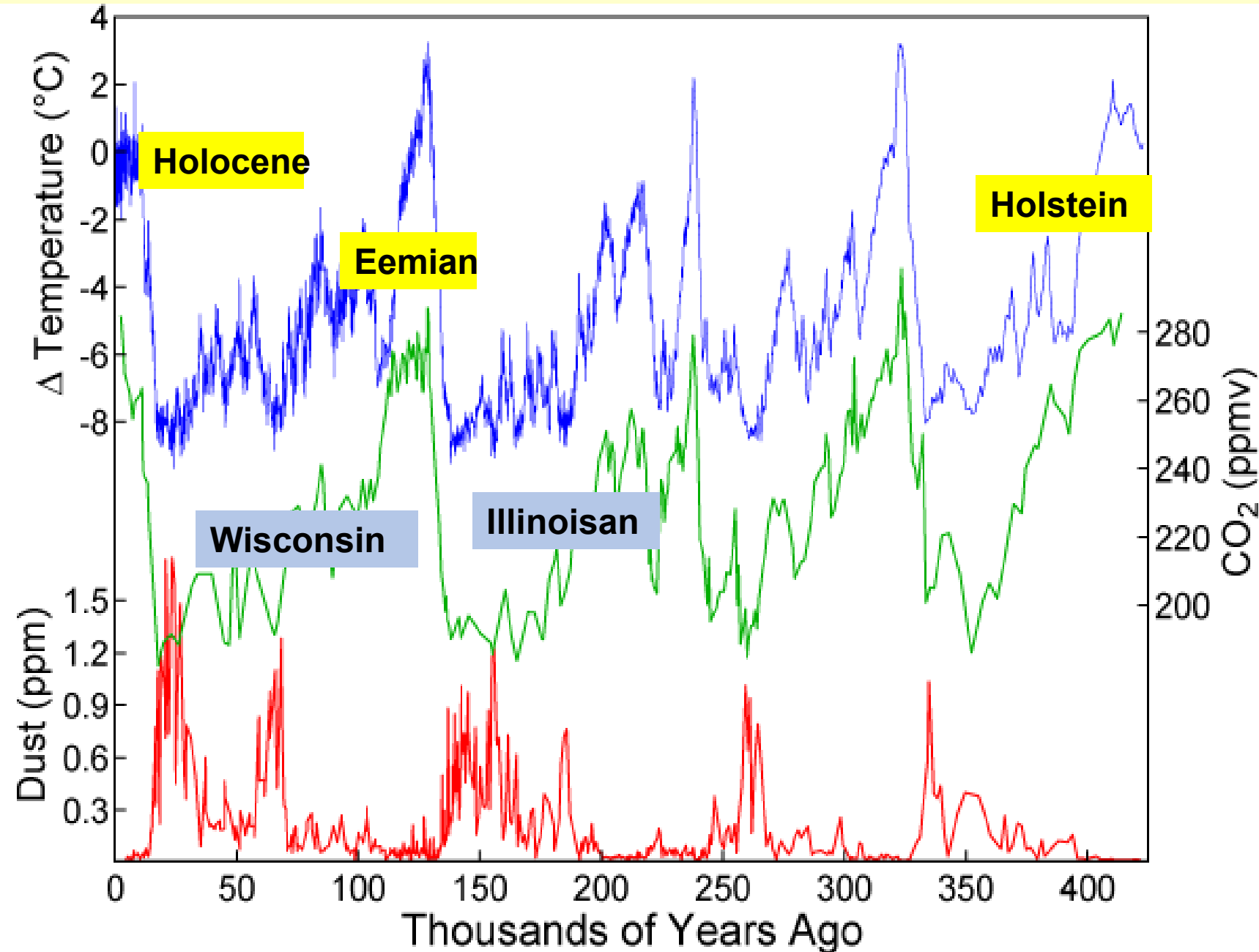
Present <CO₂> is ~417 PPM

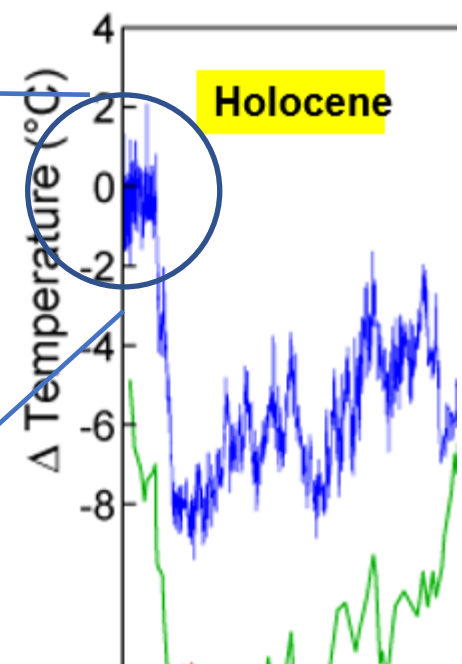
If CO₂ controlled temperature, this would by far be the warmest Interglacial of the five interglacials shown.

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

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

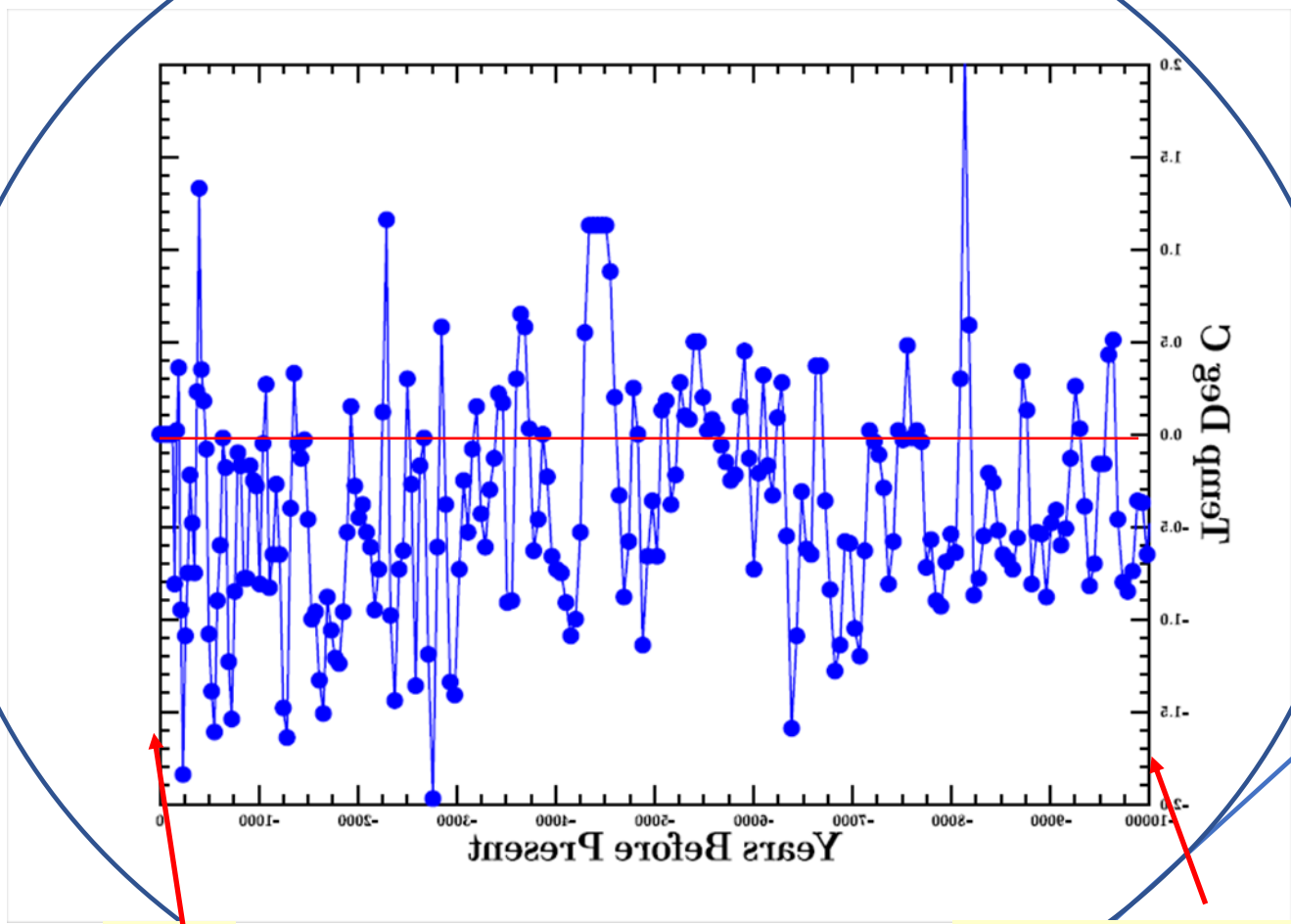
Look carefully at the temperatures in the Holocene.
Zero is the present temperature.
Note well that there are many +/- changes of 1-1/2 degrees C from the present and some +/- 2C changes.





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

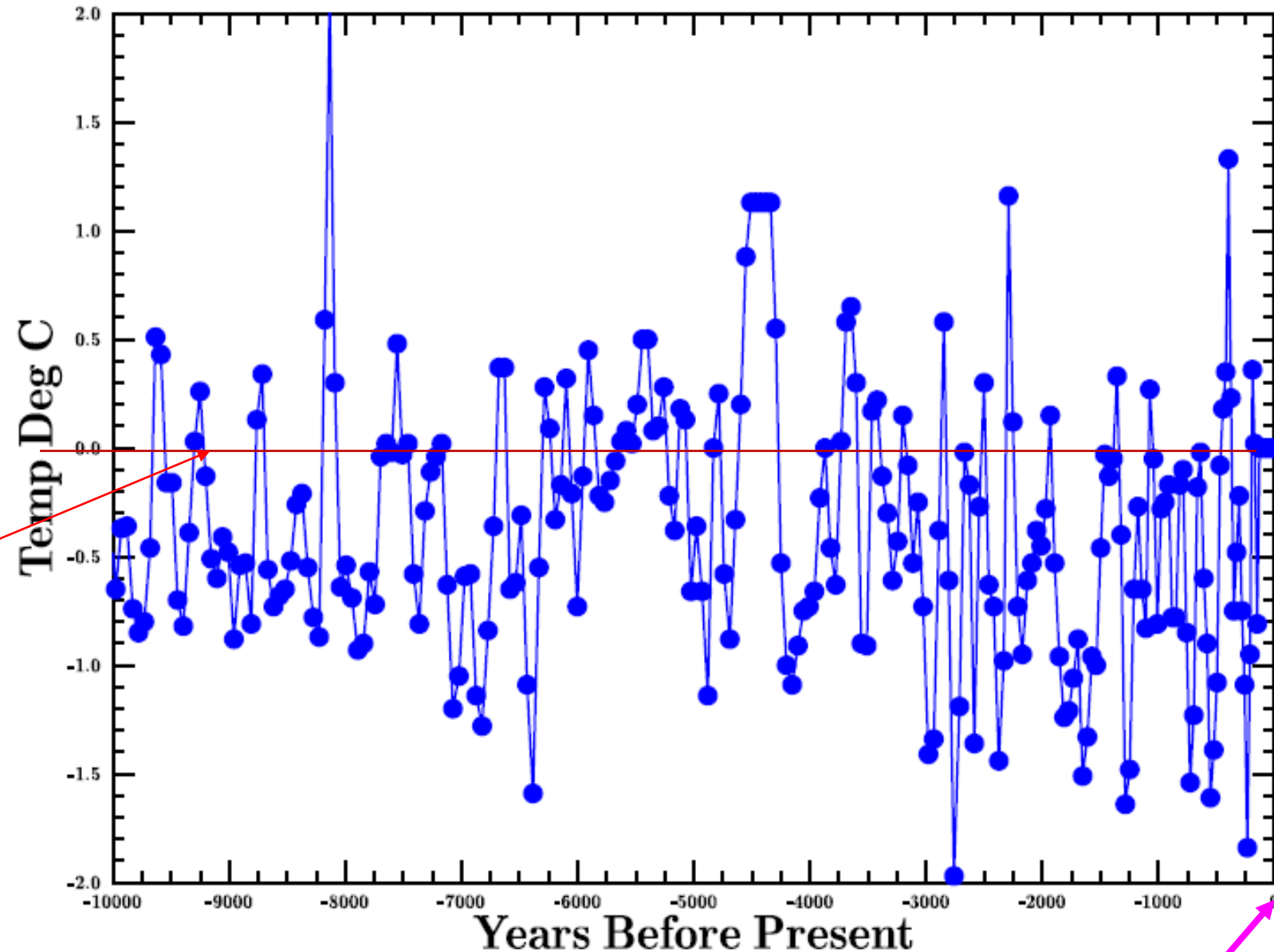
These are the temperatures from the Vostok Ice Cores, showing the last 10,000 years.

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.

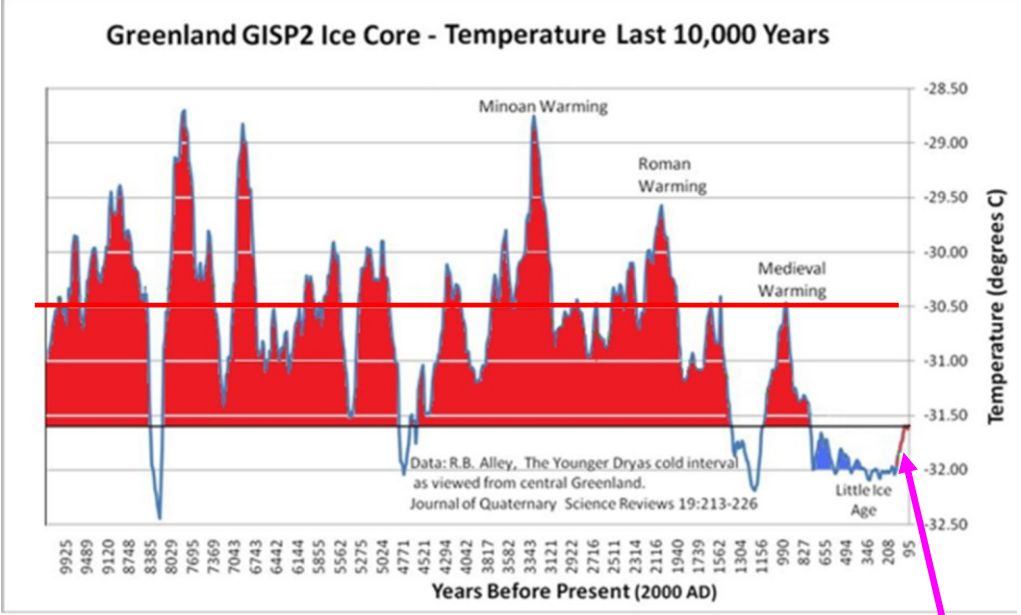
Red Horizontal line in Vostok Core, present temperature.

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

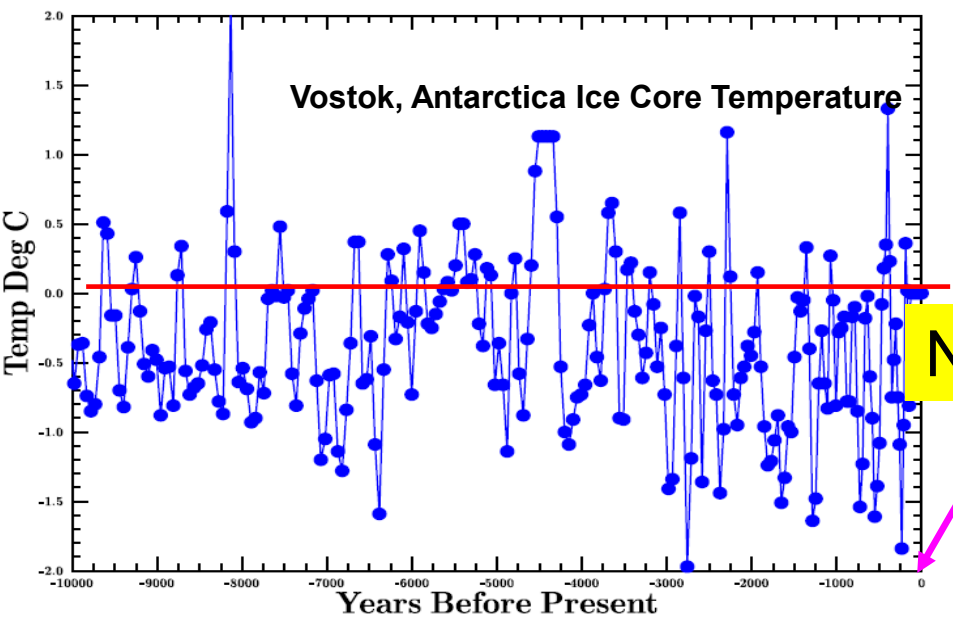
Data show improvements as we warm from the Little Ice Age.

“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.



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

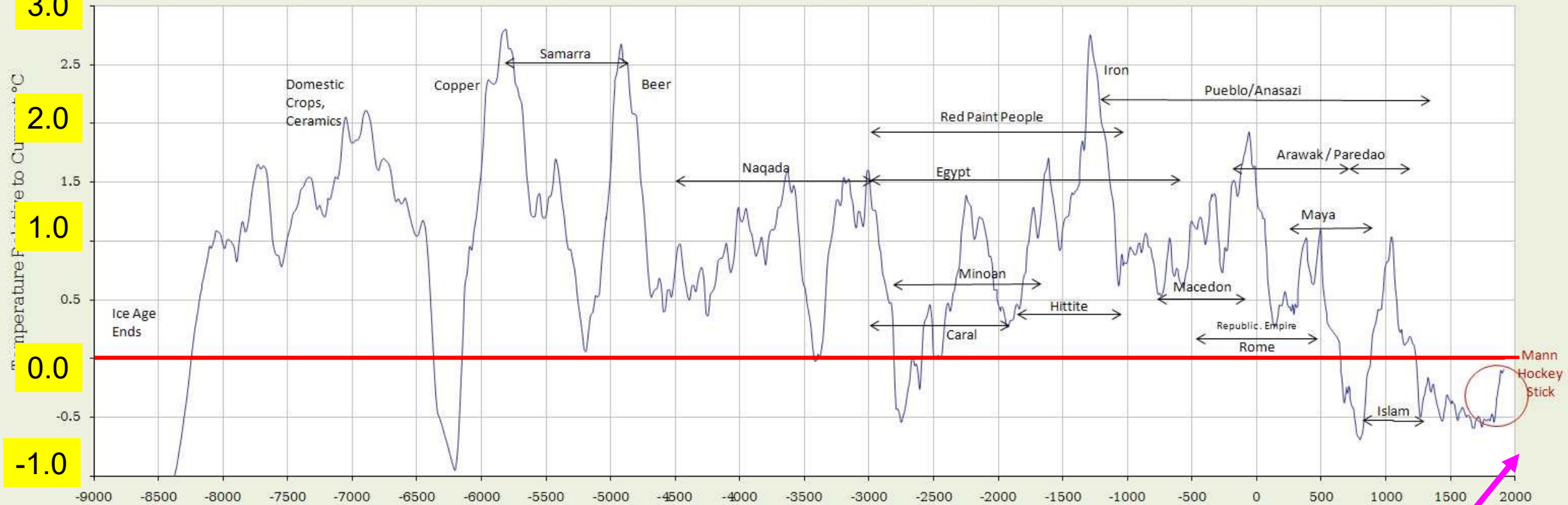
2.0

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"