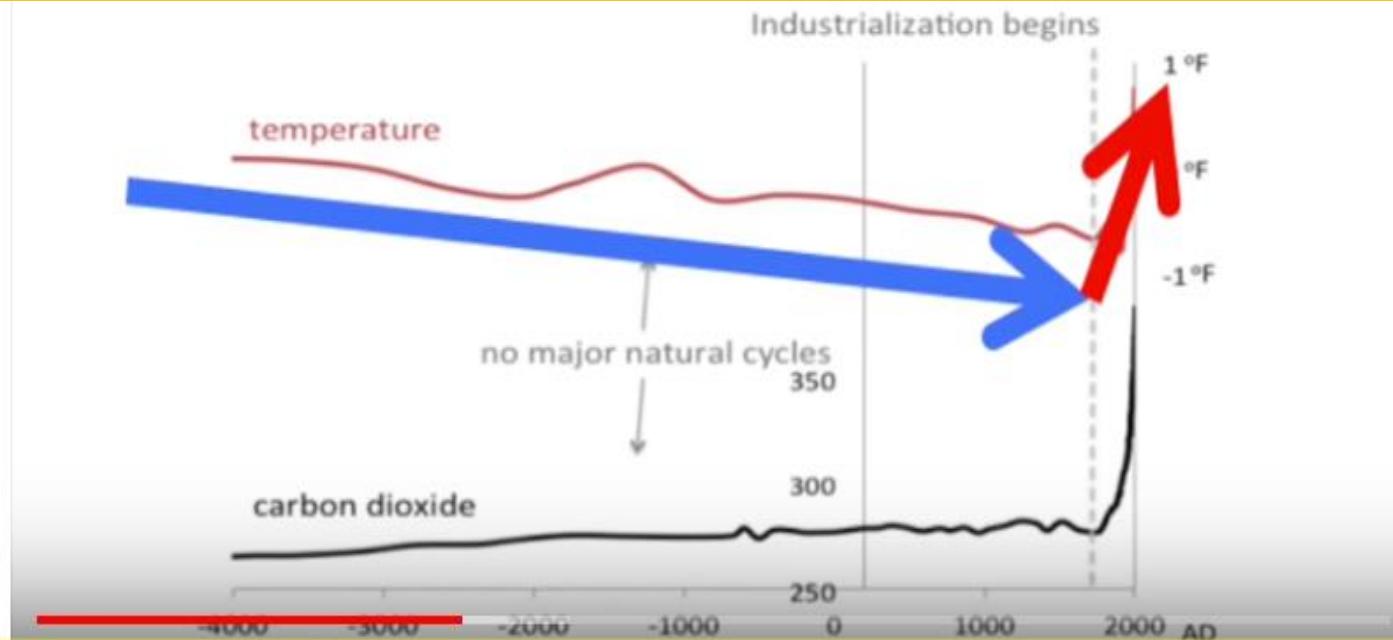


An Analysis of Katharine Hayhoe's Video and Internet-delivered Lecture at NMSU



Bob Endlich

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16 Feb 2019

Cruces Atmospheric Sciences Forum

Background

NMSU's "Climate Change Education Seminar Series"

Events: Grant money from Senator Tom Udall (D-NM)

Started Spring Semester 2018, ongoing

Climate Alarmists:

David DuBois, New Mexico State Climatologist

*Gregg Garfin, University of Arizona

David Hondula, Arizona State University

Isabel Montanez, University of California Davis

Scott Denning, Colorado State University;

Michael Walsh, IncubEx, LLC.

*Katharine Hayhoe, Texas Tech University

Joel Berger, Colorado State University

Jonathan Overpeck, University of Michigan

A. Park Williams, Columbia University

<These three at Rio Grande Theater>

Most in NMSU's Domenici Hall, Yates Auditorium.

Yates theater is mostly a first-rate viewing and production facility.

Videos are complete, well-produced from what I've observed.

<https://nmsuccess1.wordpress.com/>



NMSUCCESS

New Mexico State University Climate Change Education Seminar Series

[About](#)

[Speaker Schedule](#)

[Speaker Bios](#)

[Talk Videos](#)

<https://nmsuccess1.wordpress.com/talk-videos/>

Talk Videos

Click on the links below for videos of recent NMSUCCESS presentations.

Dave Dubois: [Why are We Concerned about a Changing Climate](#) (4/17/2018)

Gregg Garfin: [A Look ahead for the Southwest: Hotter and More Arid](#) (4/25/2018)

David Hondula: [On the Front Lines of Urban Warming](#) (9/19/2018)

Isabela Montañez: [Deep-Time Insight into Earth's Future](#) (10/3/2018)

Scott Denning: [The 3 S's of Climate Change: Simple, Serious, and Solvable](#)
(11/7/2018)

Content from the two I have examined is shallow and full of technical errors

Garfin:

Has a number of references, but he has errors and mis-statements of fact. <https://casf.me/gregg-garfins-color-alarmism-propaganda-25-april-2018-climate-lecture-nmsu/>

<https://casf.me/cASF-monthly-meeting-presentations/> PART ONE: Errors and Alarmism in Gregg

Garfin's 25 April 2018 Climate Lecture at NMSU

Hayhoe:

Practically no references, preachy, overt and covert religious overtones, masterful emotional manipulation, well-produced, highly controlled, textbook example of propaganda by a skillful presenter.

Video presentation, "Earthkeeping: A climate for change":

https://youtu.be/0HbbE74MrUc?list=PLZlaemZC4oceZ4MUIG5Aa_v0IlzoiTTch

NMSU Video: Set up was manipulative, almost overbearing. Audio volume from the floor was poor and the volume balance was not good.

<https://nmsu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=8a1fff29-6c55-42a2-b3c5-a9ed0124d435>

More on Hayhoe's video presentation, "Earthkeeping: A Climate for Change":
https://youtu.be/0HbbE74MrUc?list=PLZlaemZC4oceZ4MUIG5Aa_v0llzoiTCh

I recommend you watch it, maybe twice: observe the well-rehearsed and professional presentation quality.

She's quite at home with the audience, there is no stutter, reaching for words, she is polished.

She presents "the girl next-door" wholesomeness and church-going, God-fearing innocence.

Her use of symbolism, especially religious, Christian symbolism seems earnest, is highly manipulative and emotionally appealing.

She purports to separate the science from the religious; only a charade. Entire presentation is designed to provide an experience of Scientific Truth, followed by the zeal and commitment of a Christian Revival Meeting.

1964: "The medium is the message," phrase by Marshall McLuhan meaning the form of a medium embeds itself in the message, creating a symbiotic relationship: the medium drives how the message is perceived.

Hayhoe: skillful in using live presentation and video feed media; She's an absolute master of propaganda

Most of the rest will concentrate on her errors, mis-statements of fact and distortions.

First part is an analysis of this video, “Earthkeeping: A Climate for Change” with Dr. Katharine Hayhoe
Regent College “An Innovative Graduate School of Theology” 7 May 2016

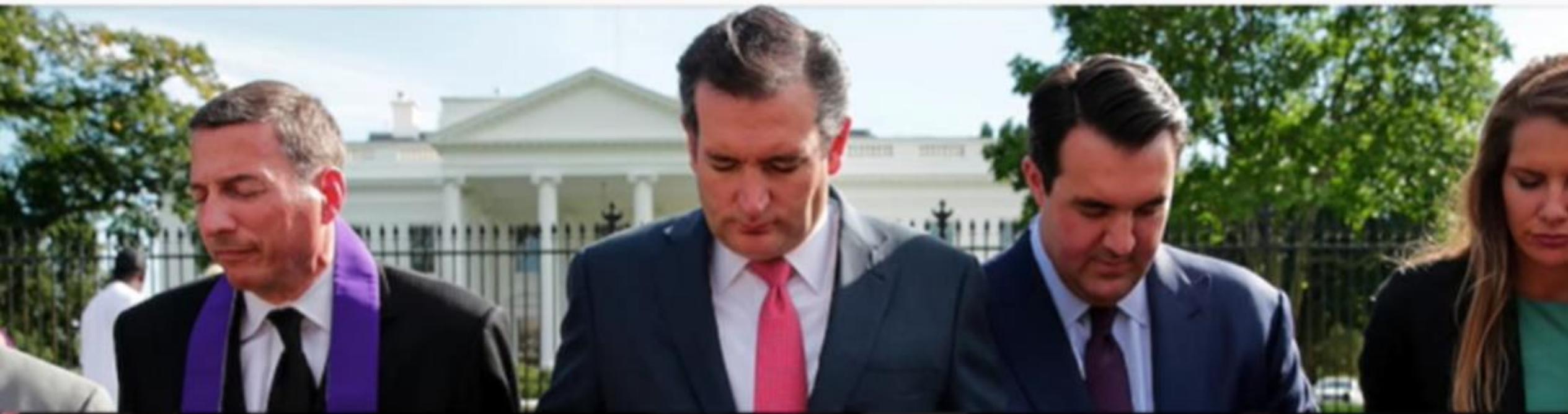


Thirty-six seconds into the presentation, she presents the first demonstrably false notion:
She is a Climate Scientist.
In this presentation she separates Objective Scientific Truth from Faith.



The Latest Books Economics Climate

Search...



ENVIRONMENT

You Can't "Believe" in Climate Change

It's not a religion. It's a scientific fact.

In upcoming graphics we will see how UN-SYSTEMATIC Madame Hayhoe's study really is.

sci·ence

/'sīəns/

noun

noun: science

the **systematic study**
of the structure and
behavior of the physical
and natural world
through **observation**
and **experiment**.

She sets herself up as the paragon of scientific virtue by establishing definitions

faith
/fāTH/ ◀

strong belief [in God or in
the doctrines of a religion]
**based on spiritual
apprehension rather
than proof.**

Now faith is the substance of
things hoped for,
the evidence of things not seen.

Hebrews 11:1 (KJ21)



1:57 / 25:17



SCIENCE

Now ~~faith~~ is the substance of
things ~~hoped for~~, **HERE AND NOW**
the evidence of things ~~not seen~~.

WE CAN OBSERVE

Hebrews 11:1 (KJ21)

A woman with long brown hair and glasses, wearing a dark tank top, is speaking into a microphone at a podium. Behind her is a large projection screen displaying a slide. The slide features a photograph of a lush green forest with a wooden bridge in the background. Overlaid on the slide is the text "Inspiring Change. Caring for Creation." in a serif font, followed by the website "arocha.ca" in a sans-serif font.

Inspiring Change.
Caring for Creation.

arocha.ca

"I don't BELIEVE in Global Warming, I look at the Science and what the observations and data are telling us"

Here she is saying, in essence, "Trust me, I will tell you what the observations and the data are telling us."

We will soon see how false a notion this is...



One-tenth of the way through, she says something she and I agree on

Faith and **science** are not in competition.

They are not two alternate and mutually exclusive systems of belief.

Quote that begins the false narrative:

"Science can tell us whether or not climate is changing..." False narrative is the implication that there has been a Halcyon Time when things were perfect and climate never changed.

Notice that Katharine is using a USCRN station.

The Irony is that she uses this only as a prop.

She does not use the USCRN Jornada Range station which shows significant cooling in her paper on warming and drought.



Climate IS Changing

Huge Font

FIRST

Quote that begins the false narrative:

"Science can tell us whether or not climate is changing..." The false narrative is the implication that there has been a Halcyon Time when things were perfect and climate never changed.

<http://en.wikipedia.org/wiki/File:Vostok-ice-core-petit.png>

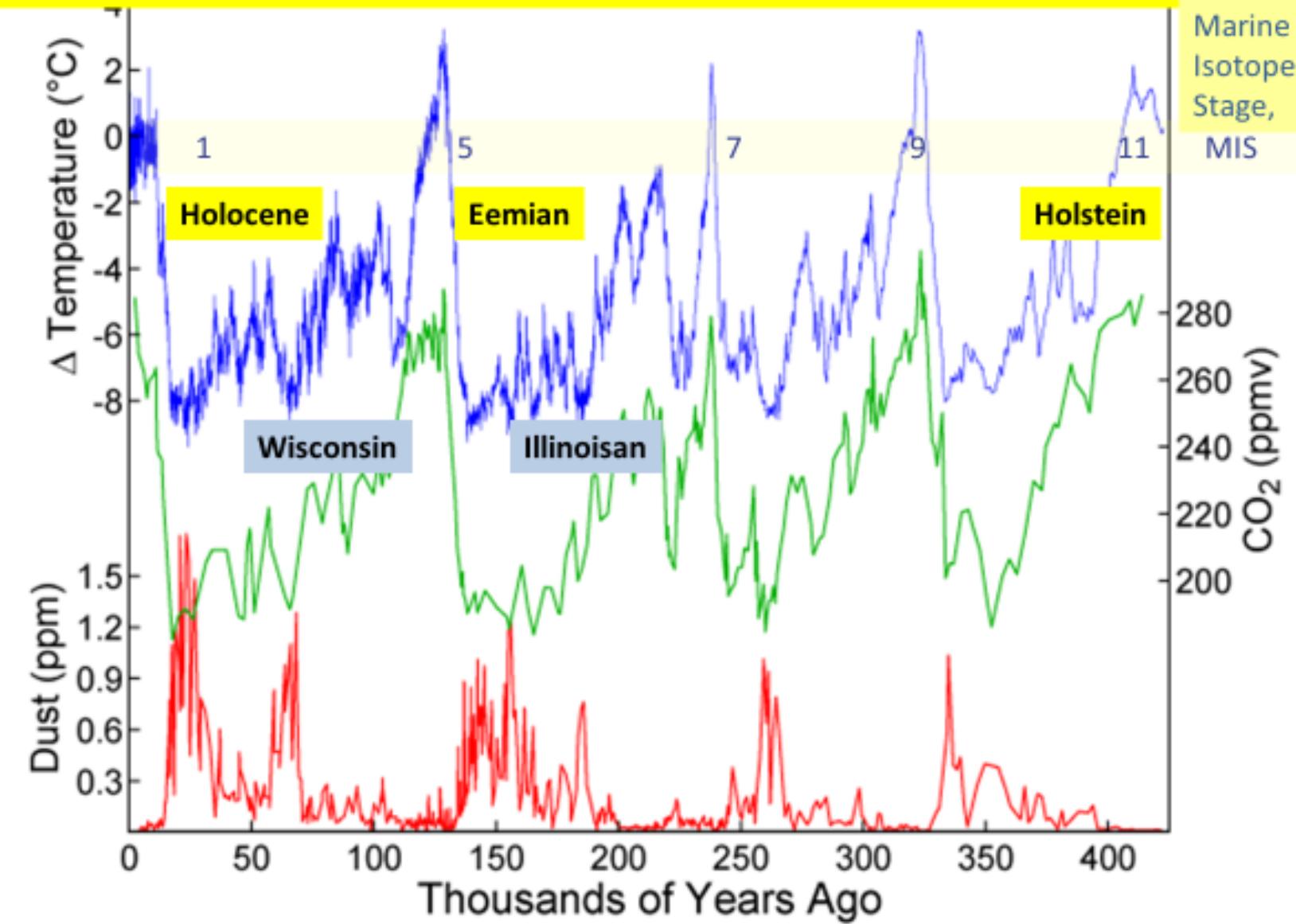
Bob's question to Katharine

Like here, in the past 400,000 years?

Using the very Vostok Ice Cores
Al Gore told us to study?

There was never a time when climate
was not changing.

The reality of course is that
Climate is always changing
Half the time temperature
The Blue Line
Is increasing, the other half
It is decreasing.



Quote that begins the false narrative:

“Science can tell us whether or not climate is changing...” The false narrative is the implication that there has been a Halcyon Time when things were perfect and climate never changed.

Bob's question to Katharine

Like here, in the past 10,000 years?

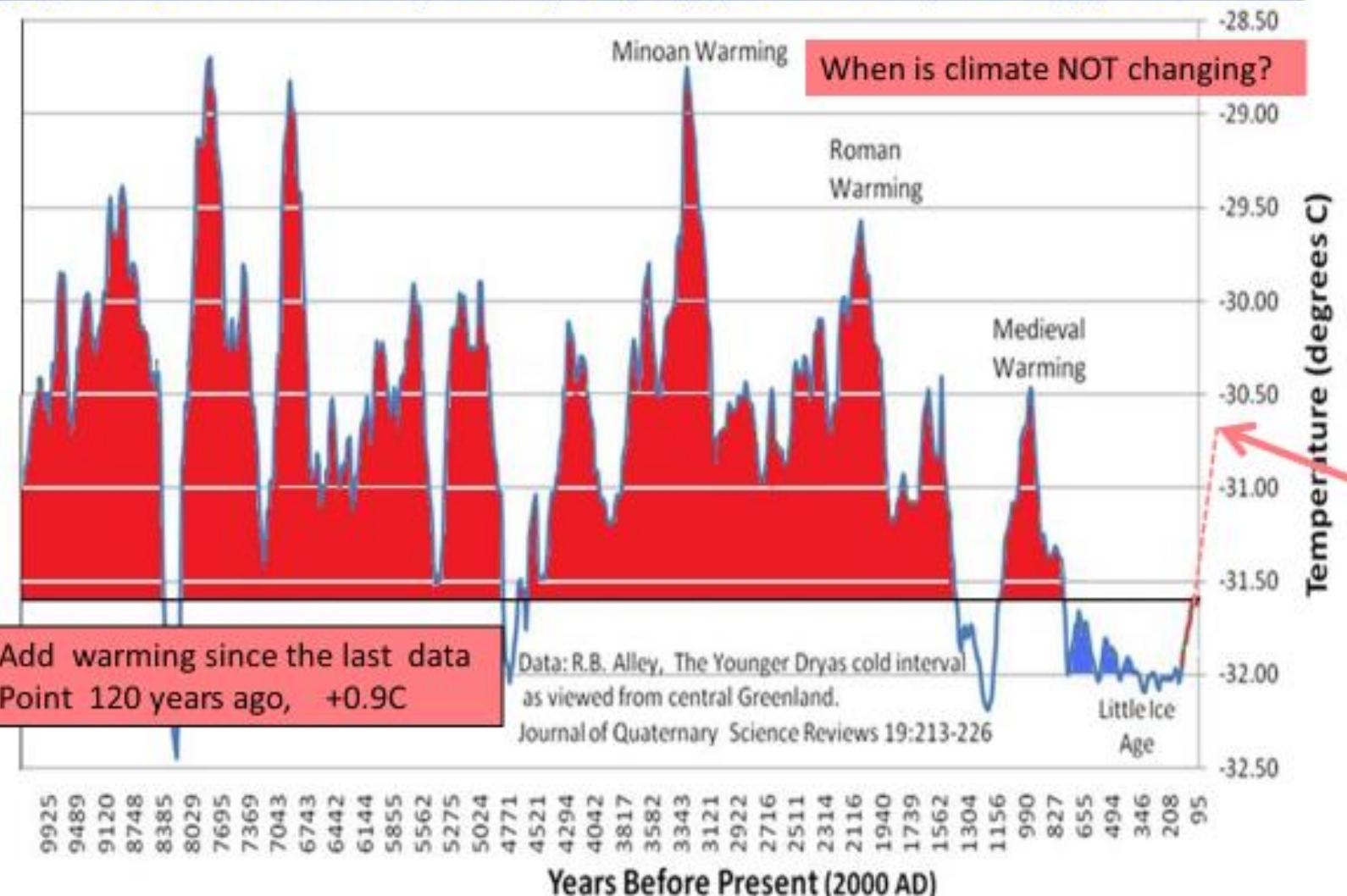
Here is another set of Ice Cores
Greenland's GISP2 Ice Cores

There was never a time when climate
was not changing.

The reality of course is that
Climate is always changing
Half the time temperature
The Blue Outline
Is increasing, the other half
It is decreasing.

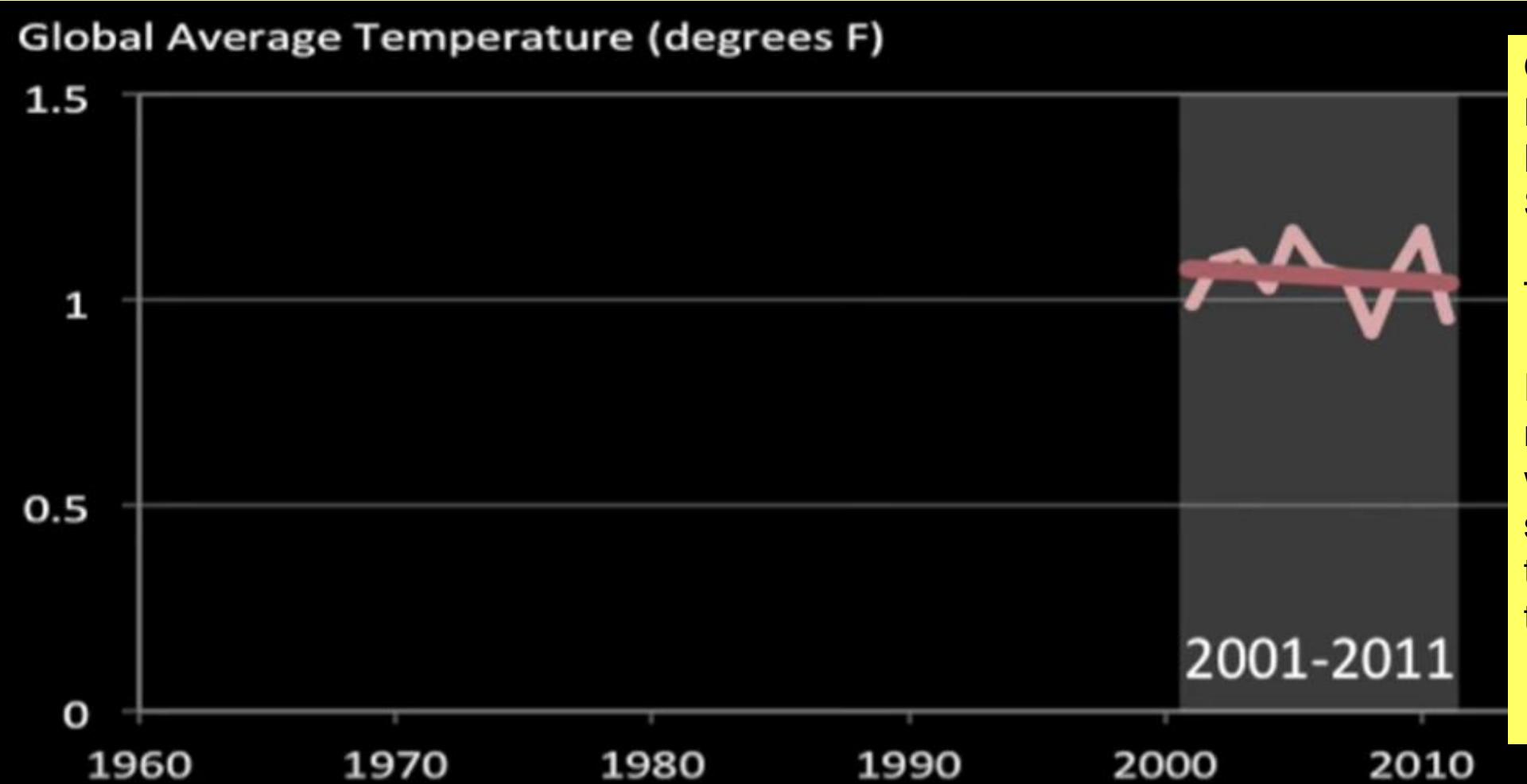
Greenland GISP2 Ice Core - Temperature Last 10,000 Years

<http://wattsupwiththat.files.wordpress.com/2013/03/gisp2-ice-core-temperatures.jpg?w=960&h=720>



At one point in the video she calls skeptics “Denialists.” Nice. Judgmental. So Christian
“Your Uncle Joe or one of his news sites will say, “Oh that Global Warming. It stopped seventeen years ago.”
“It comes from carefully selecting just the data you want.”

“But what’s missing?”



One thing Katharine does NOT mention at this point But which is obvious to Students of this subject...

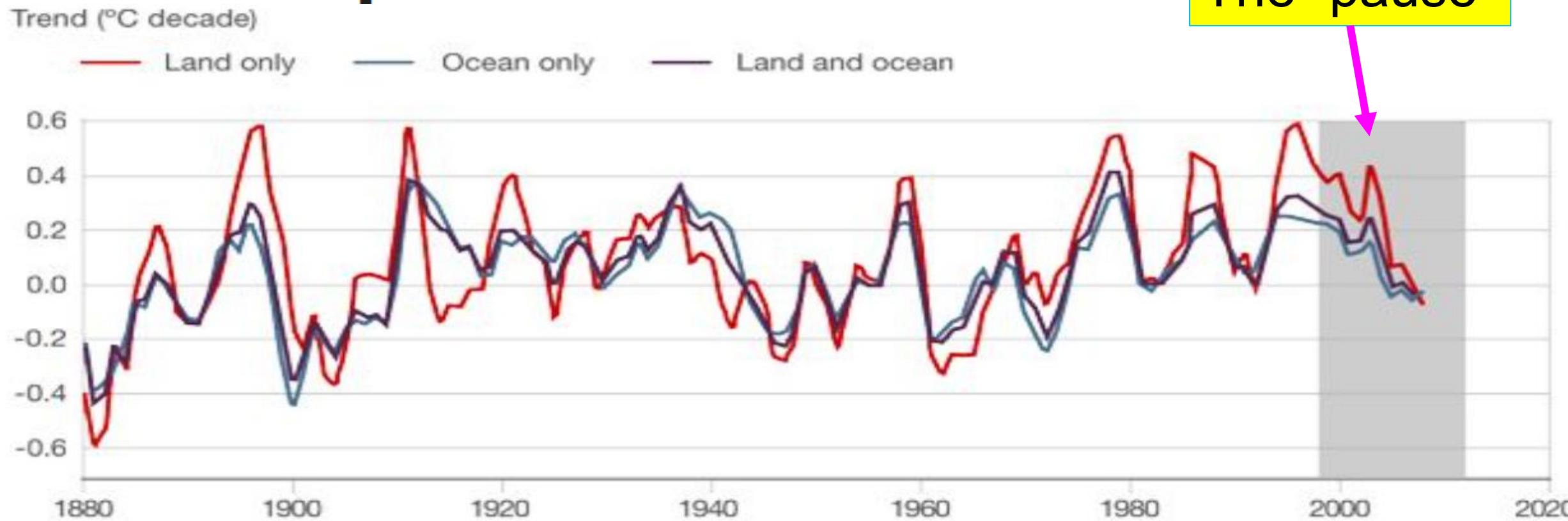
The models were wrong

Experts said that you could not say that the models were wrong if there was seven years of cooling... then ten years of cooling then fifteen years of cooling

Science & Environment

Global warming pause 'central' to IPCC climate report

The “pause”

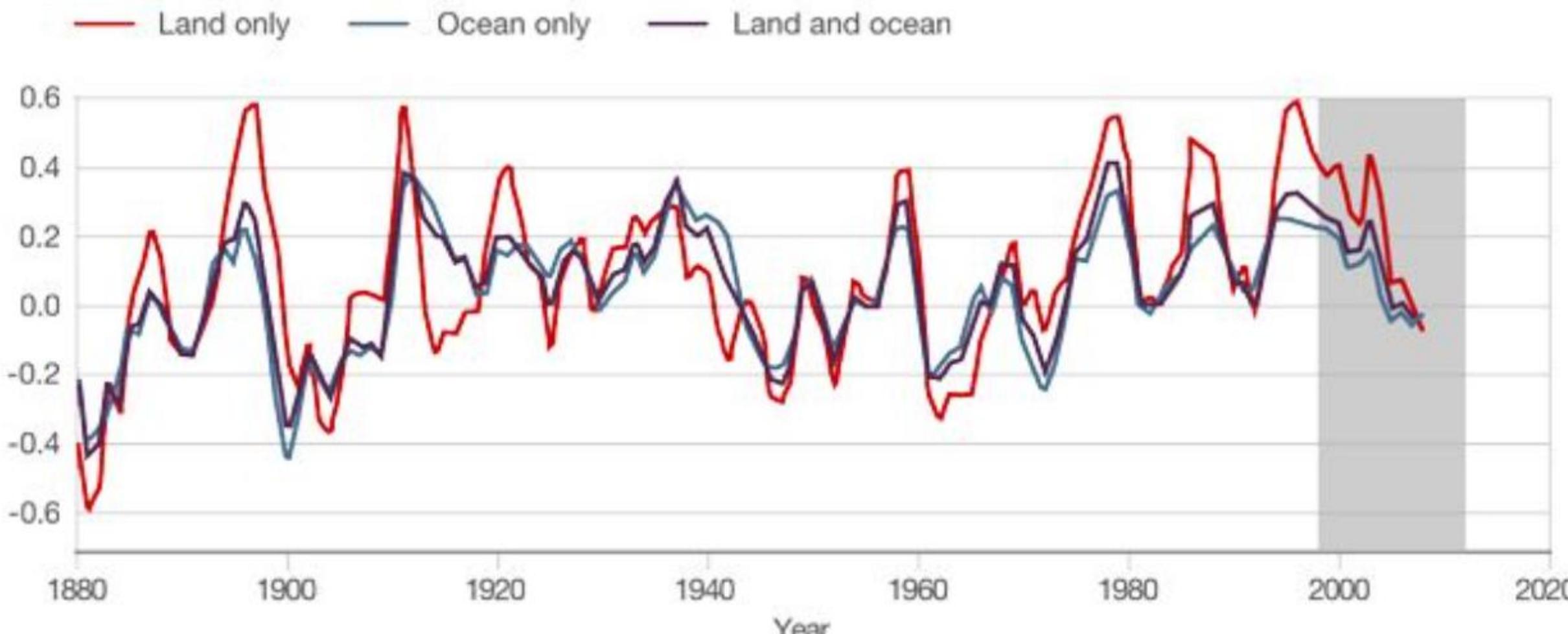


Here is a BBC story from about that time <https://www.bbc.com/news/science-environment-24173504>

Pause in global warming

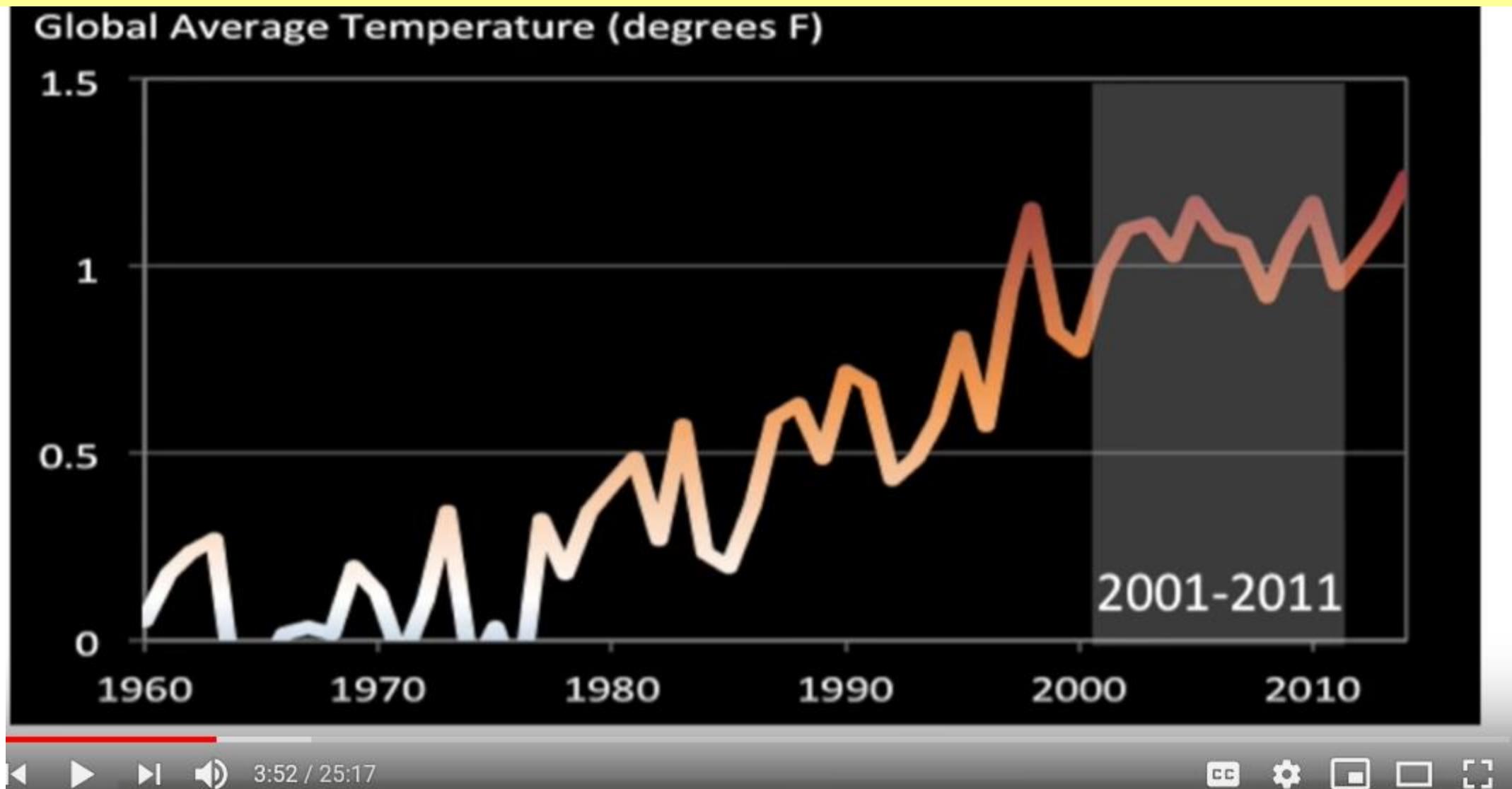
Running nine-year trends in surface warming and upper ocean heat uptake. The recent slowdown in global warming is highlighted by the grey shading.

Trend ($^{\circ}\text{C}$ decade)

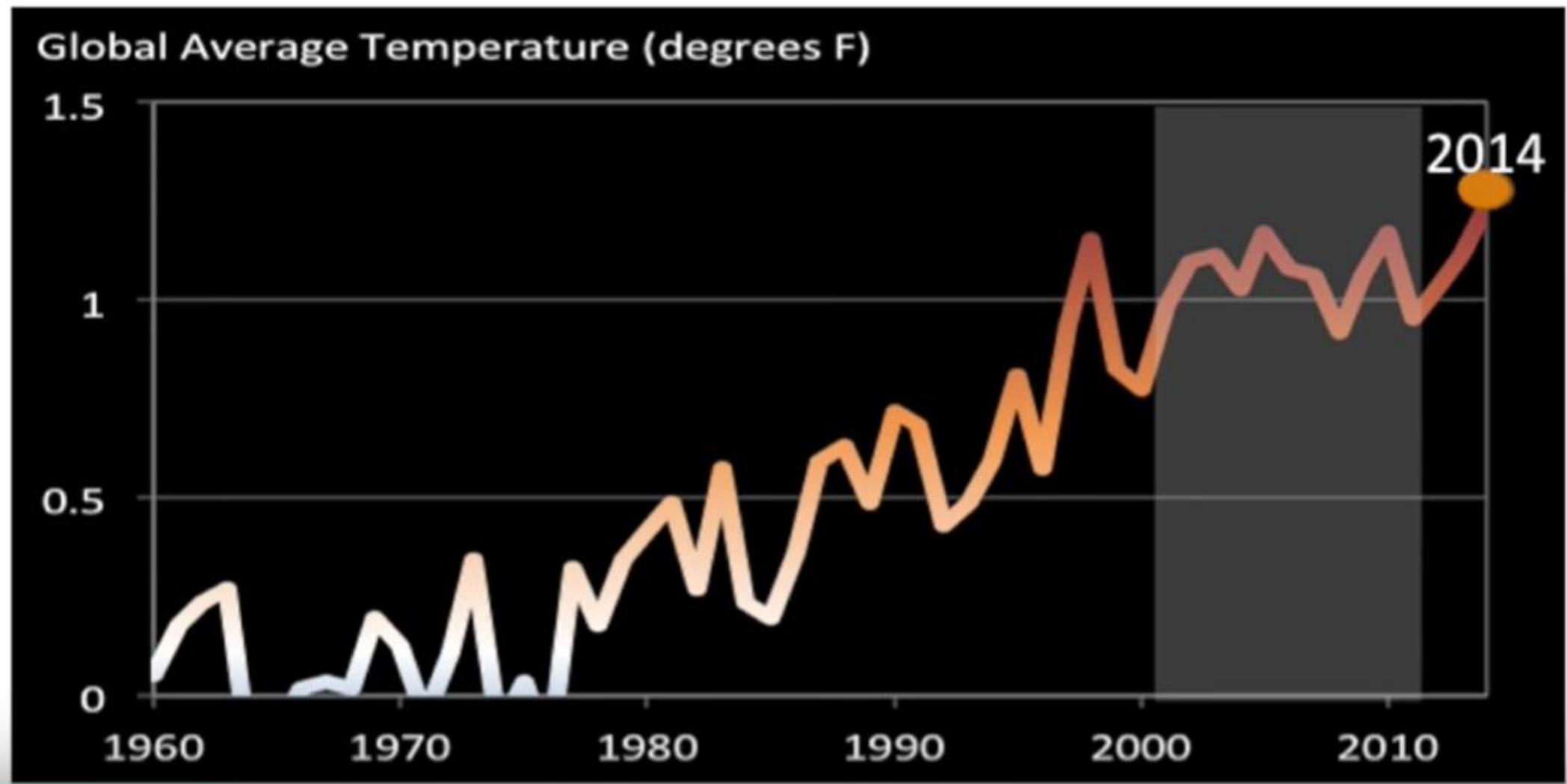


Referring to her previous slide, she says, "it comes from just selecting the data you want." "As scientists, we have to look at the whole thing."

"When we fill in "the rest of the data," we see a very different picture."

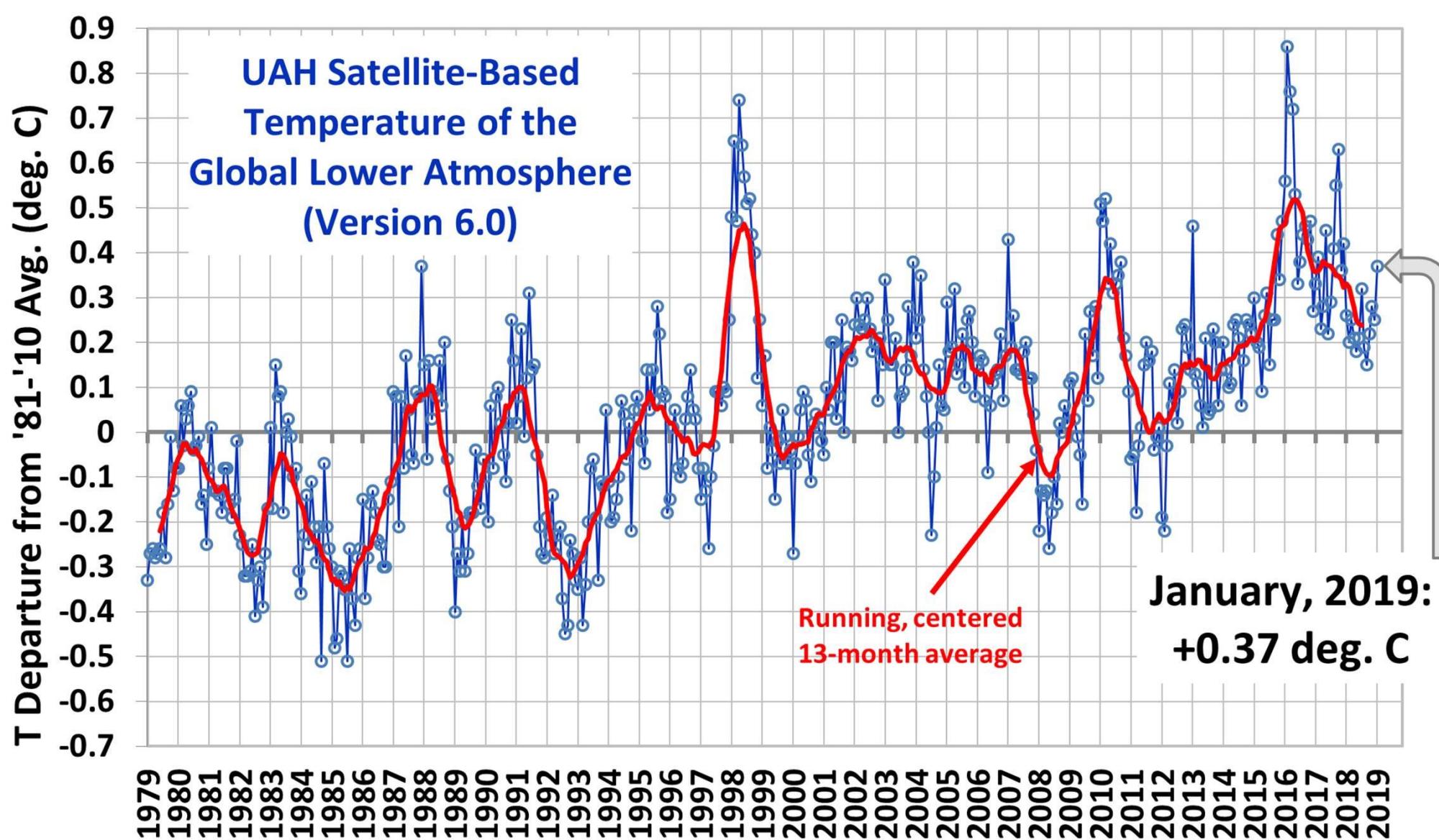


When we fill in the data we see that last year was the hottest year on record....



http://www.drroyspencer.com/wp-content/uploads/UAH_LT_1979_thru_January_2019_v6.jpg

Never mentioning, of course, that 2014 as well as 1997 and 2010 were El Nino years, when warm waters from near Indonesia spread across the tropical Pacific, almost halfway across the world, raising global temperatures to a spike, as happened in previous El Nino years. Satellite TLT temperatures are temperatures “in the greenhouse”

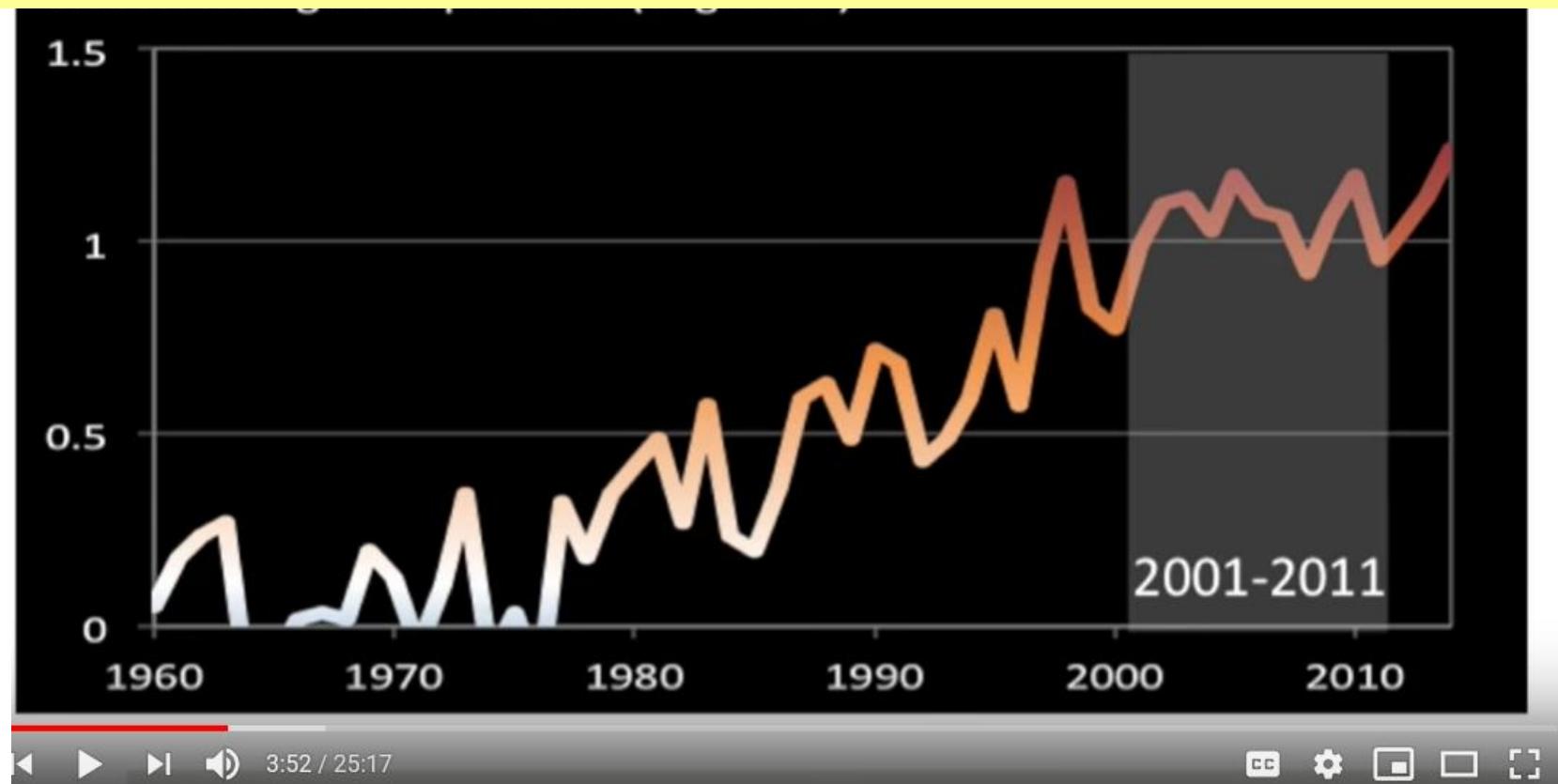


Let's look at this again!

Referring to the previous slide, she says, "it comes from just selecting the data you want."
"As scientists, we have to look at the whole thing."
"When we fill in "the rest of the data," we see a very different picture."

We know now and Dr Hayhoe should know, that the Atlantic Multidecadal Oscillation, the AMO, has a period of 60 years, so why is she showing us only 50 years?

We know the answer, it is because Dr Hayhoe herself is "just selecting the data SHE wants"



Why doesn't she show us these data?

<http://people.oregonstate.edu/~schmita2/Teaching/ATS421-521/2015/papers/hansen81sci.pdf>

28 August 1981, Volume 213, Number 4511

SCIENCE

Climate Impact of Increasing Atmospheric Carbon Dioxide

J. Hansen, D. Johnson, A. Lacis, S. Lebedeff
P. Lee, D. Rind, G. Russell

Atmospheric CO₂ increased from 280 to 300 parts per million in 1880 to 335 to 340 ppm in 1980 (1, 2), mainly due to burning of fossil fuels. Deforestation and changes in biosphere growth may also

The major difficulty in accepting this theory has been the absence of observed warming coincident with the historic CO₂ increase. In fact, the temperature in the Northern Hemisphere decreased by

Greenhouse Effect

The effective radiating temperature of the earth, T_e , is determined by the need for infrared emission from the planet to balance absorbed solar radiation:

$$\pi R^2(1 - A)S_0 = 4\pi R^2\sigma T_e \quad (1)$$

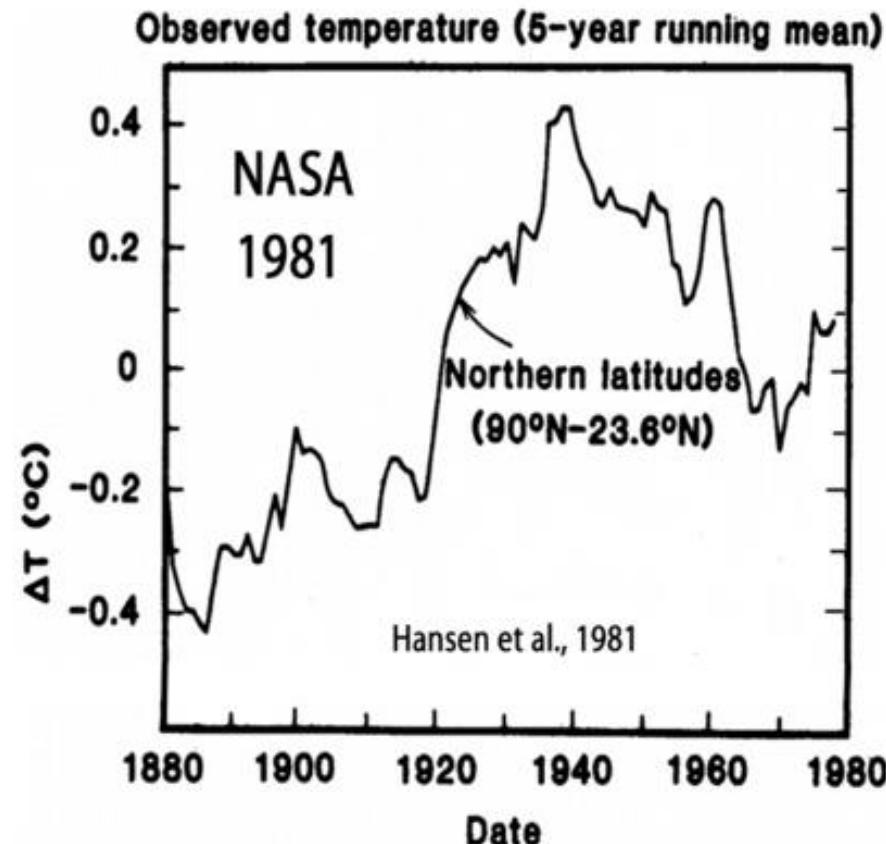
or

$$T_e = [S_0(1 - A)/4\sigma]^{1/4} \quad (2)$$

where R is the radius of the earth, A the albedo of the earth, S_0 the flux of solar radiation, and σ the Stefan-Boltzmann constant. For $A \sim 0.3$ and $S_0 = 1367$ watts per square meter, this yields $T_e \sim 255$ K.

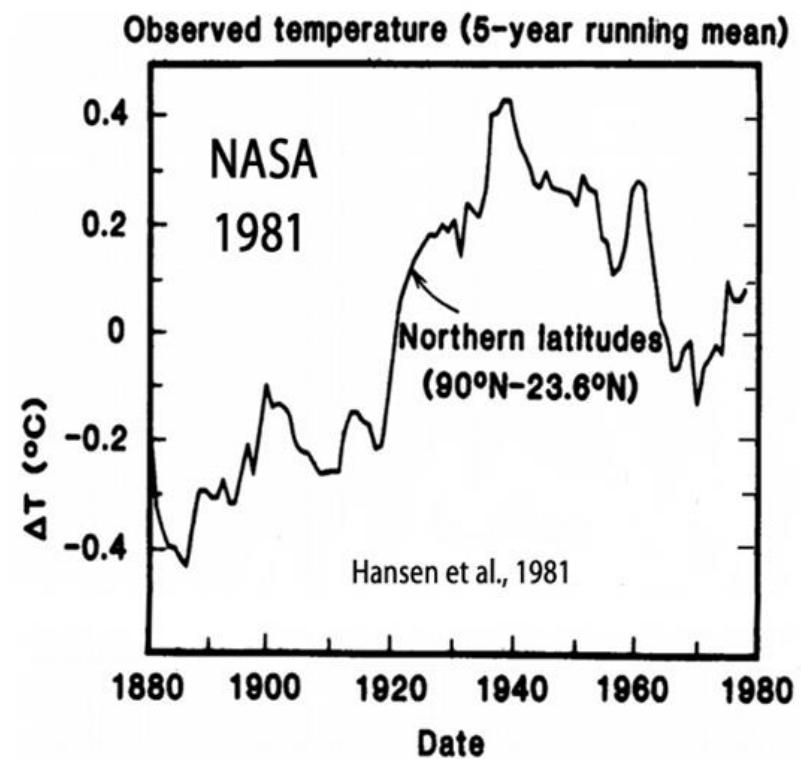
The mean surface temperature is $T_s \sim 288$ K. The excess, $T_s - T_e$, is the greenhouse effect of gases and clouds, which cause the mean radiating level to be above the surface. An estimate of the greenhouse warming is

A graph of "observed temperature" for the Northern Hemisphere was included in the paper to illustrate these climatic trends.



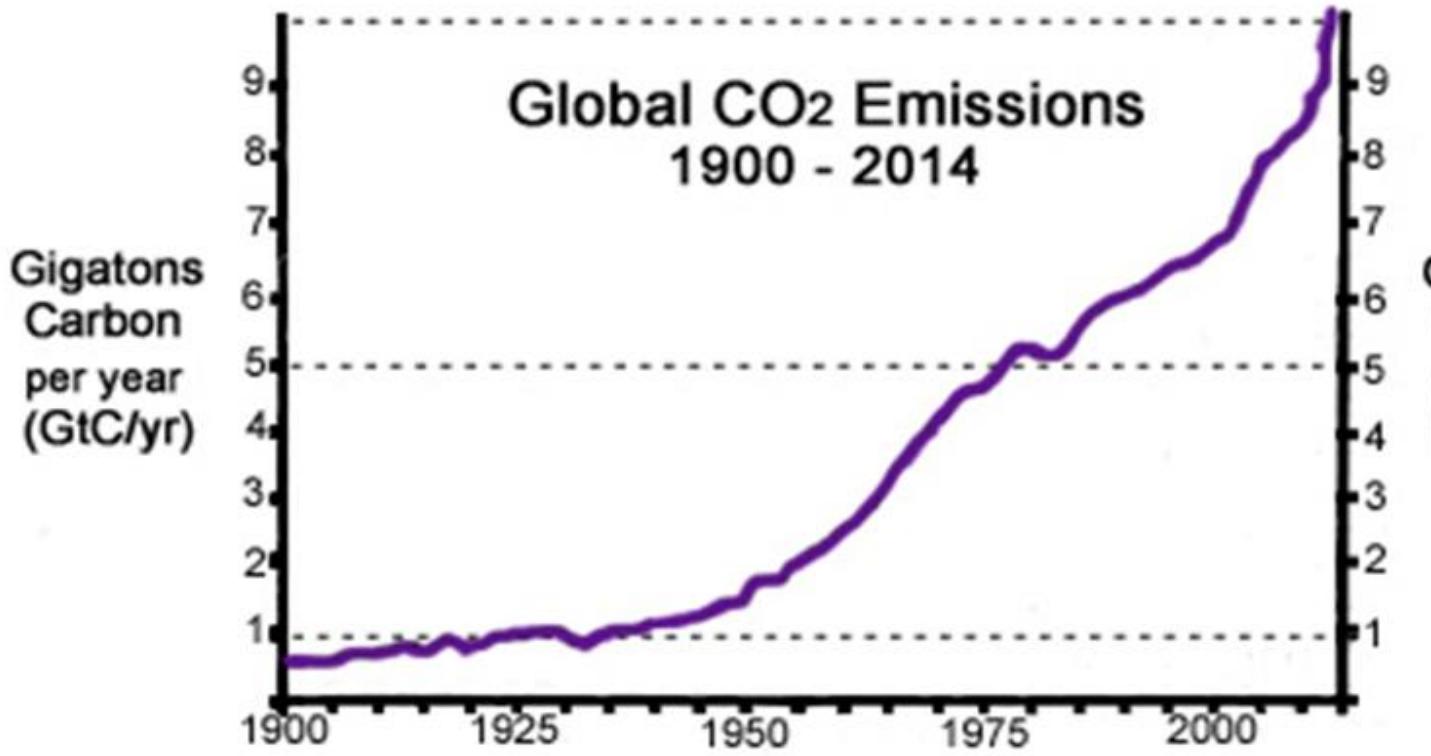
Katherine Hayhoe starts her chart in 1960

A graph of "observed temperature" for the Northern Hemisphere was included in the paper to illustrate these climatic trends.



Graphically shows why Madame Hayhoe starts her chart in 1960... because it avoids much of the temperature falls of the 1940s and 1950s when CO₂ emissions QUADRUPLED!

"Inconvenient charts with an Inconvenient message"



Anthropogenic CO₂ emissions plodded along steadily at about 1 GtC/year (gigatons of carbon per year) during the 1900 to 1945 period.

After 1945, human emissions exploded. They reached 4 GtC/year by the 1970s...while temperatures plummeted

<http://notrickszone.com/wp-content/uploads/2016/11/CO2-Emissions-1900-2014-GtC-per-year-ps.jpg>

At 4:46 “we see sinking villages in Alaska...Up in the Arctic we see what used to be permanently frozen ground, with houses tumbling into the sea...”



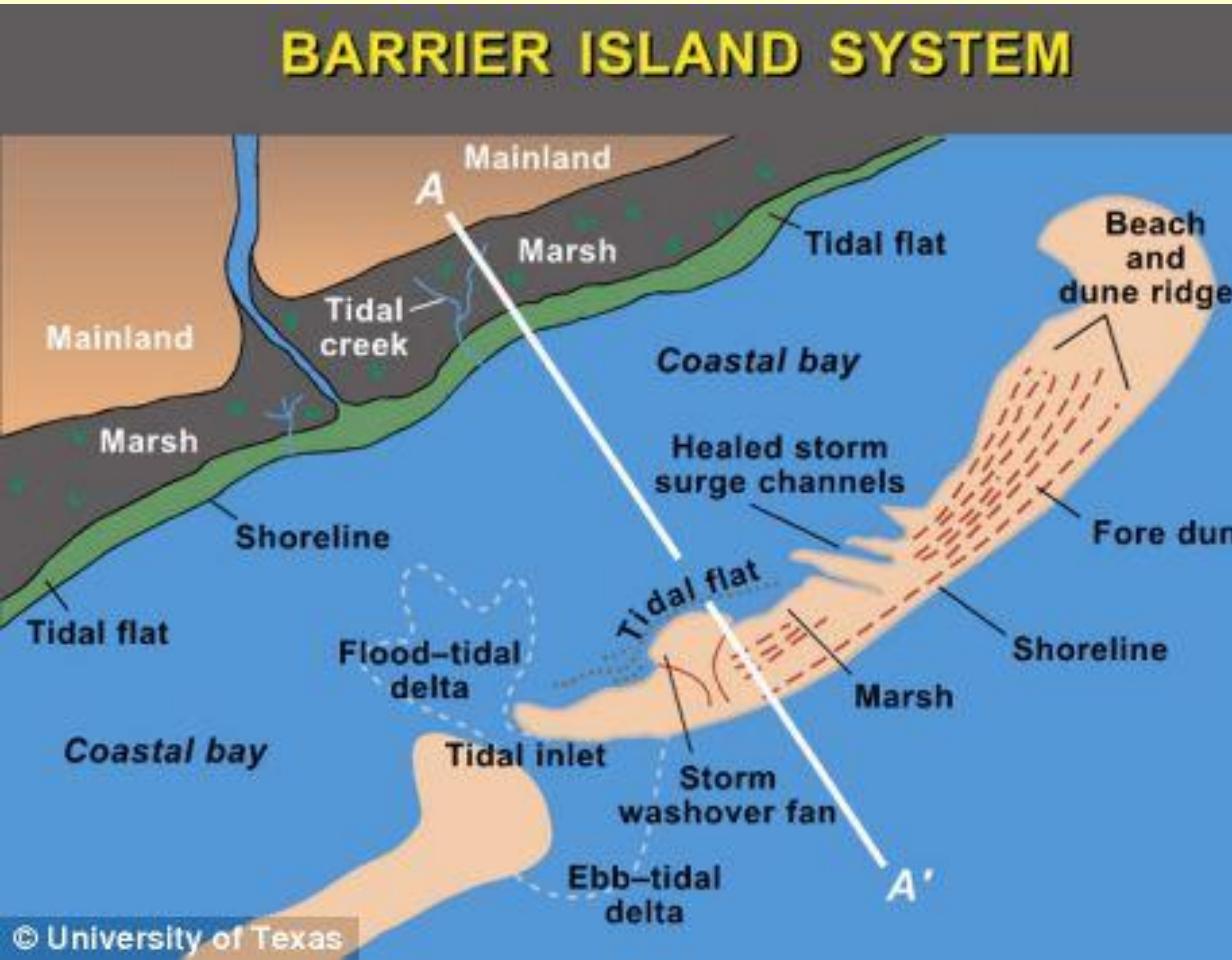
This manufactured home was placed on the barrier island at Shishmaref Alaska

Barrier Islands and Barrier Beaches are ephemeral lands which occur at coastal plain shorelines.

They migrate; they have not the slightest elements of permanence about them.

They are vulnerable to storms, especially big storms at high tide.

Humans are unable to permanently stop barrier island erosion.





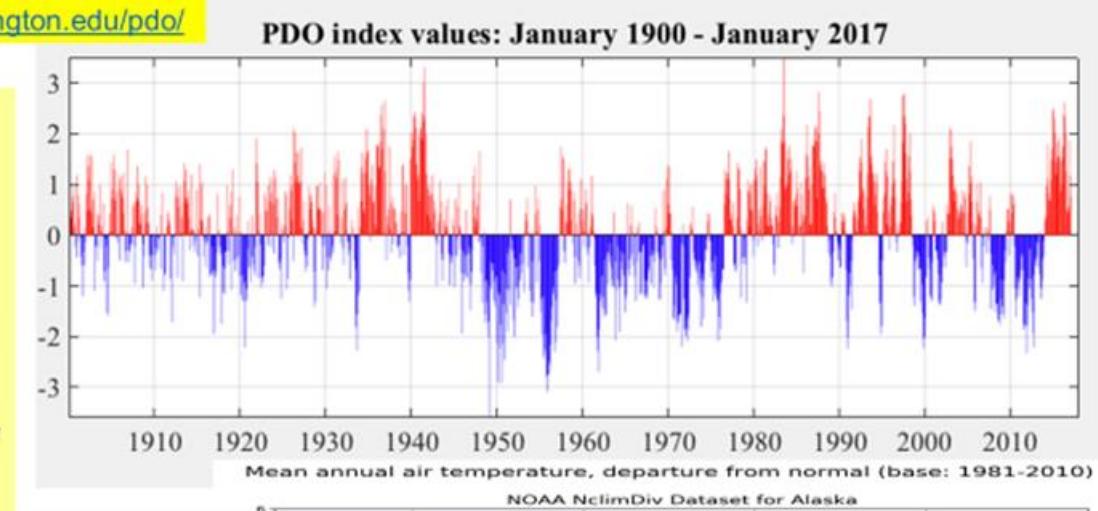
Left: Madame Hayhoe says that the house collapse is from human-caused CO₂-fueled Global Warming

<http://research.jisao.washington.edu/pdo/>

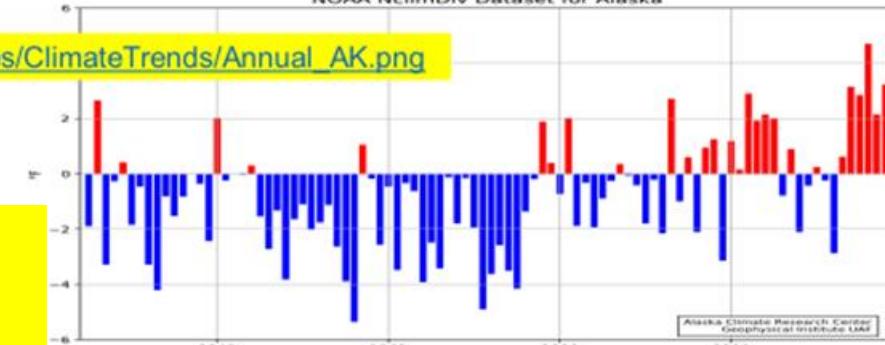
Top: Pacific Decadal Oscillation Index from the University of Washington.

Bottom. Alaska annual Temperature Trends from the University of Alaska.

Alaska's Temperatures are Controlled by the Pacific Decadal Oscillation.



http://climate.gi.alaska.edu/sites/default/files/ClimateTrends/Annual_AK.png

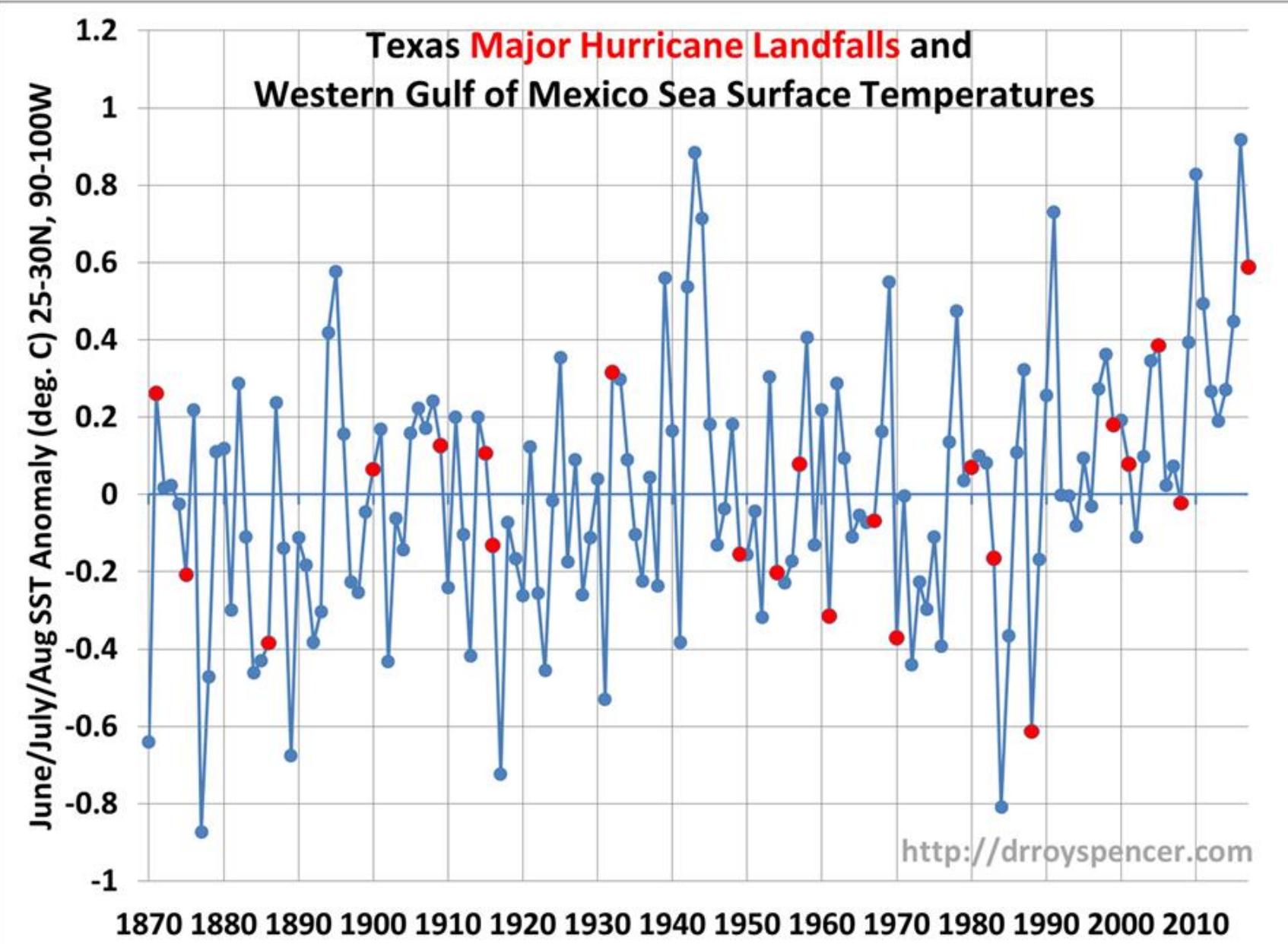


Right: Comparing the index for the 60-year Pacific Decadal Oscillation and Temperature Trends from the University of Alaska, we find the PDO is the reason for the temperature changes, not "Global Warming."

At 5:25 "Down in the Gulf (of Mexico) we see warm ocean water feeding "stronger and stronger hurricanes"

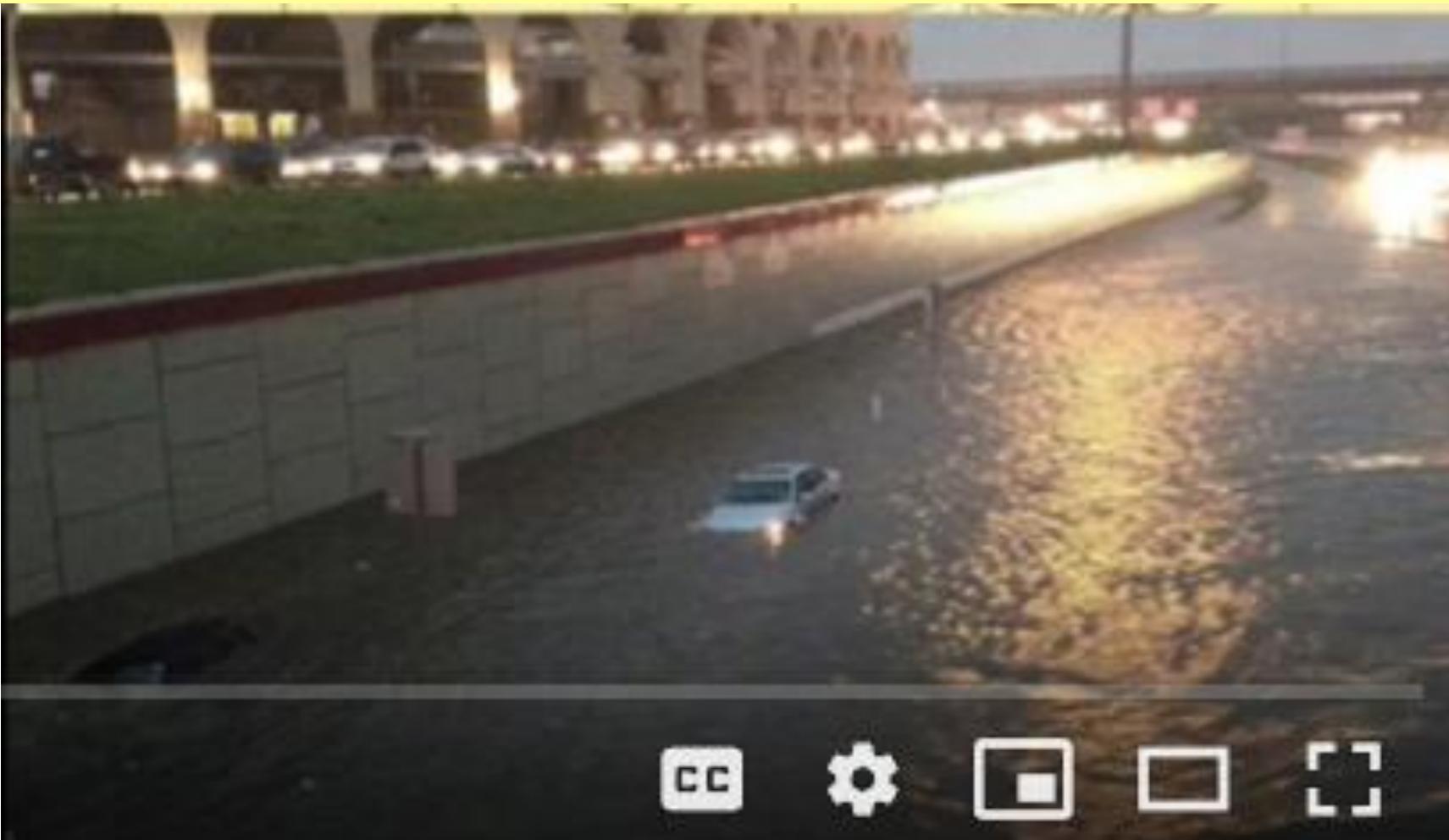


At 5:25 “Down in the Gulf, we see warm ocean water feeding “stronger and stronger hurricanes/” ”



Red dots indicate years of major hurricane strikes in Texas, plotted on average SST departures from normal by year over the western Gulf of Mexico (25-30N, 90-100W).

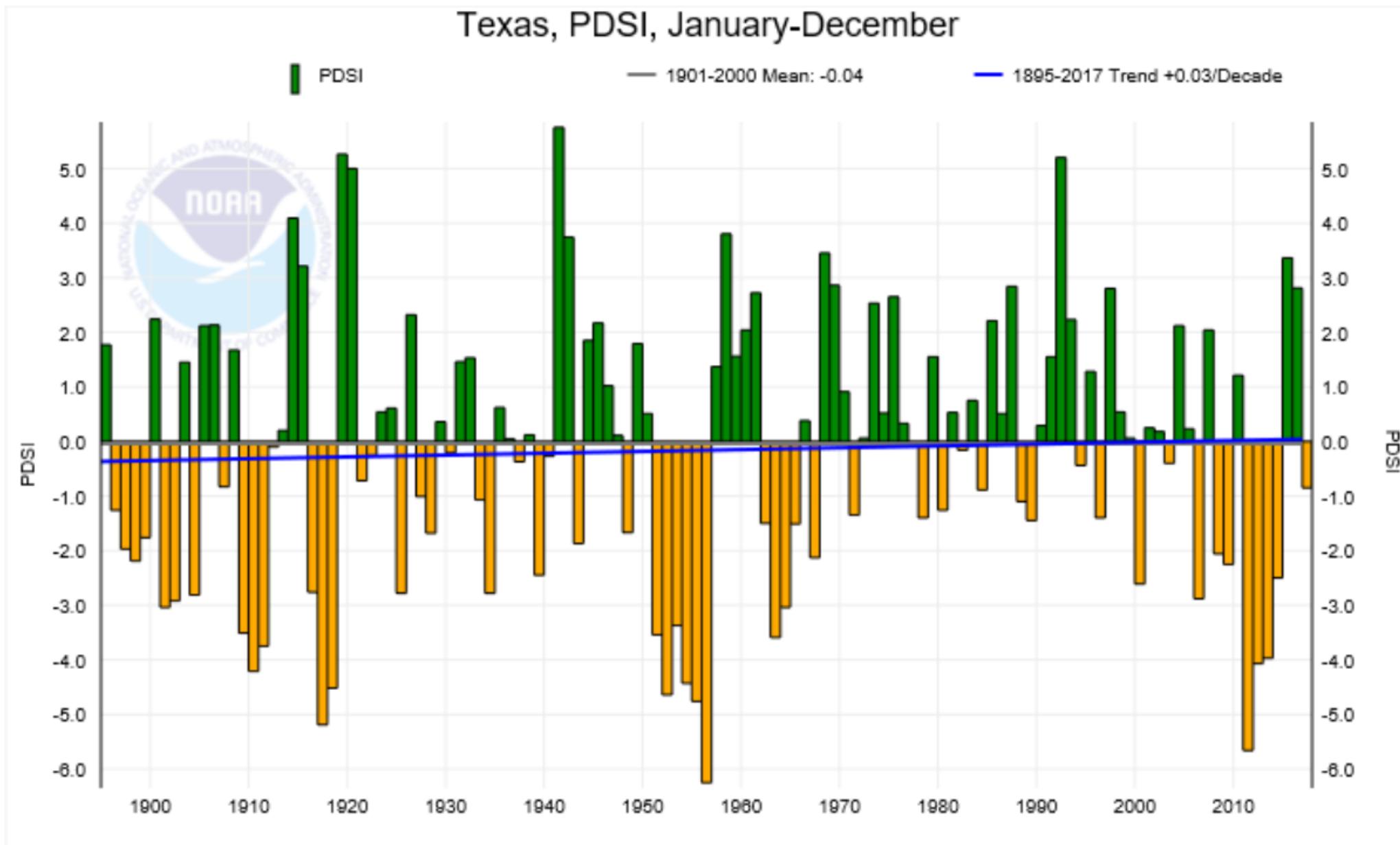
6:46 “Down where I live, in Lubbock Texas, we have had a crippling drought since 2011, but that drought has been punctuated by events like this...”



“This is a six-lane highway...going through the middle of town...”

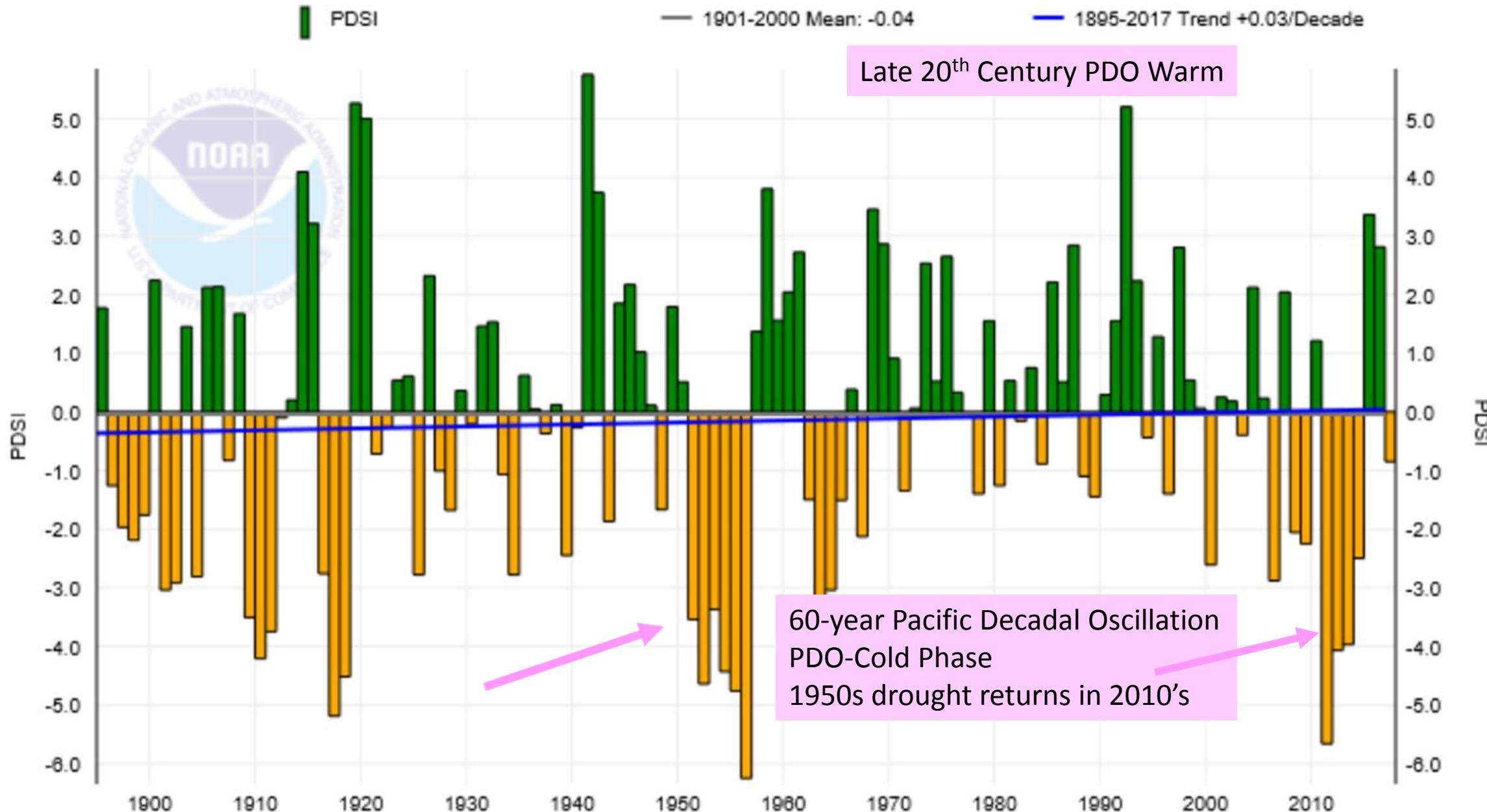
...as if this had never happened before...

https://www.ncdc.noaa.gov/cag/statewide/time-series/41/pdsi/12/12/1895-2018?base_prd=true&firstbaseyear=1901&astbaseyear=2000&trend=true&trend_base=10&firsttrendyear=1895&lasttrendyear=2018

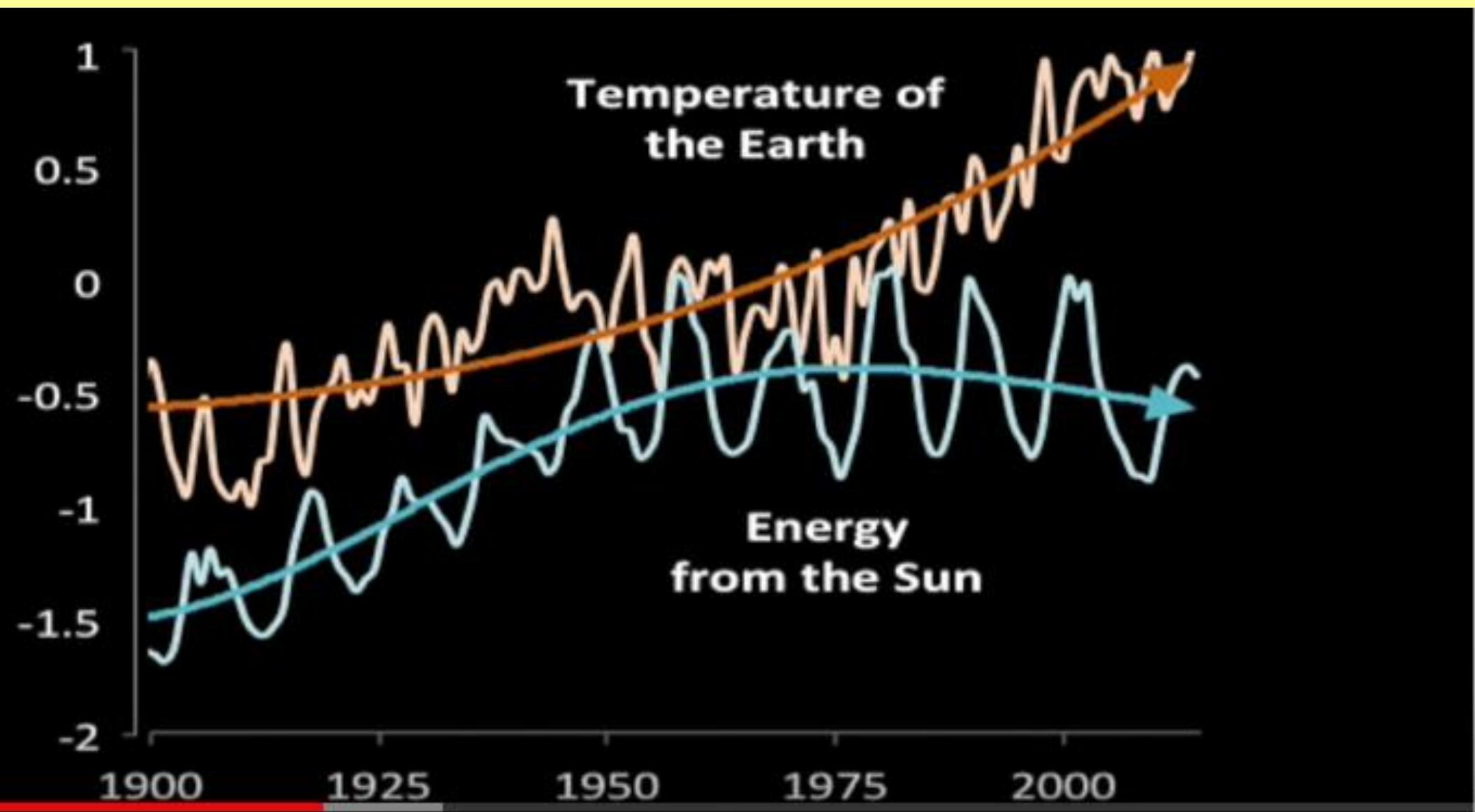


As if this had never happened before...

Texas, PDSI, January-December

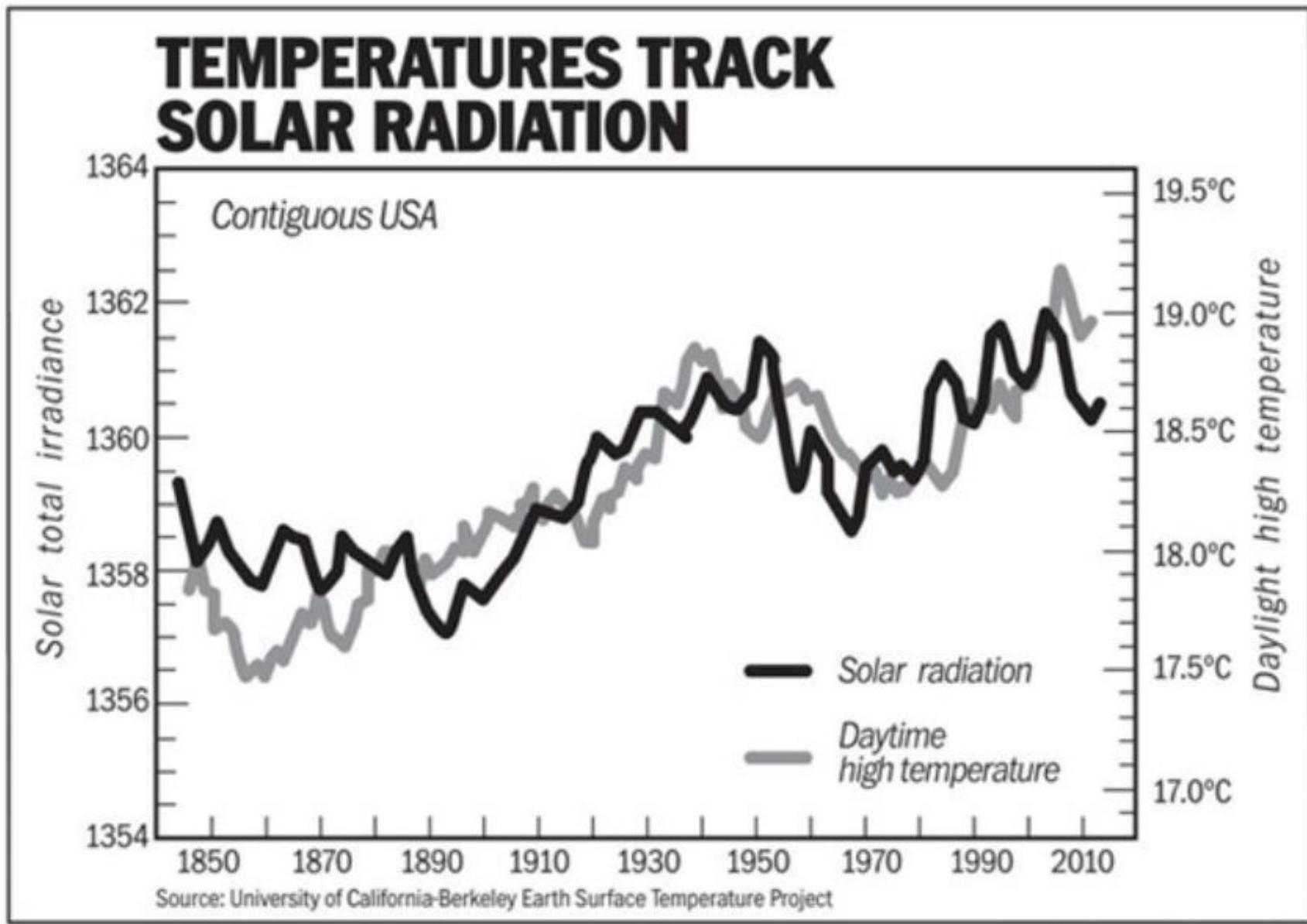


At this point in the video, Hayhoe asserts that the temperature of the earth and the energy from the sun diverge. Pretty graphic, no source or reference. Time domain, 1900-2000



7:11 / 25:17





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.

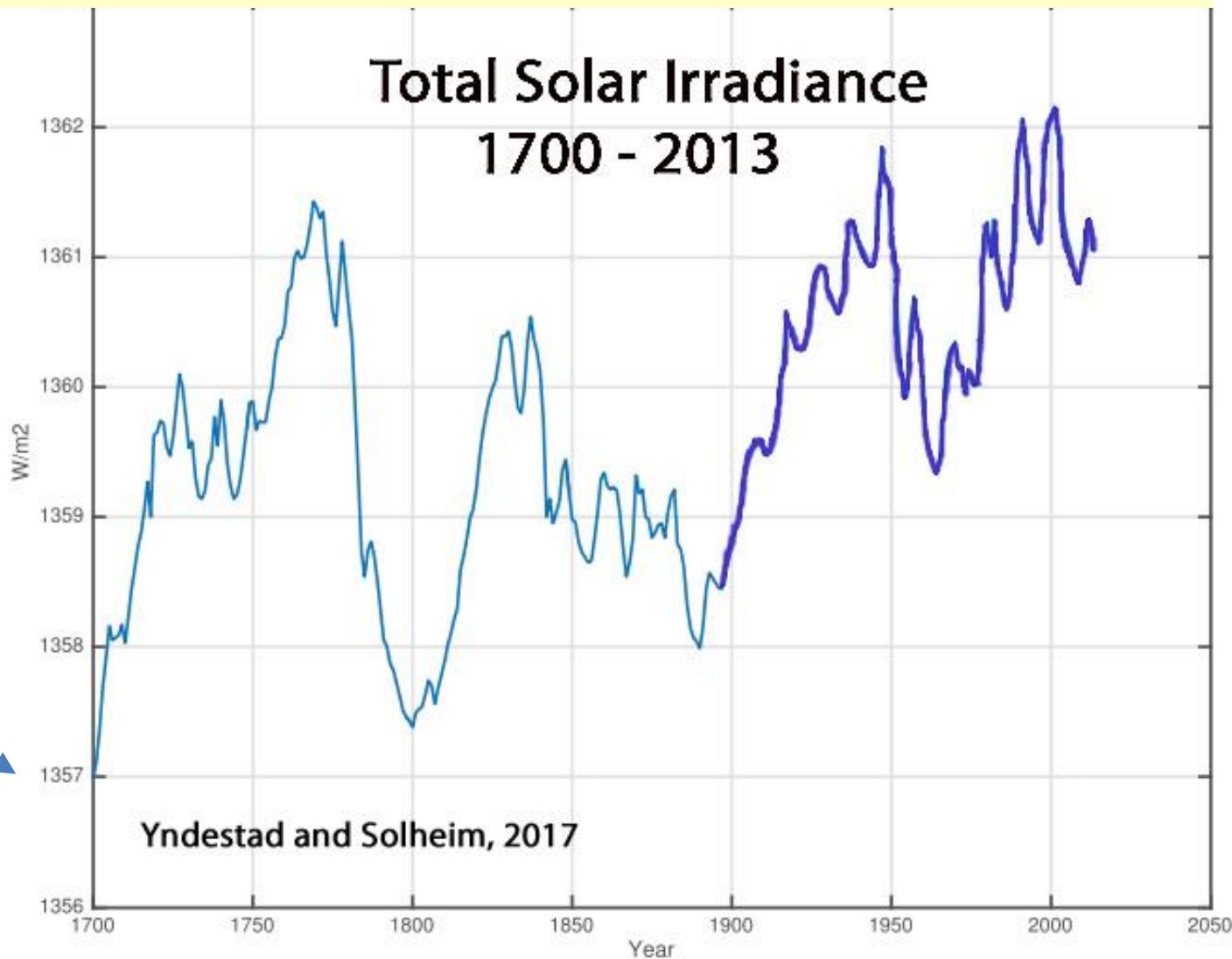
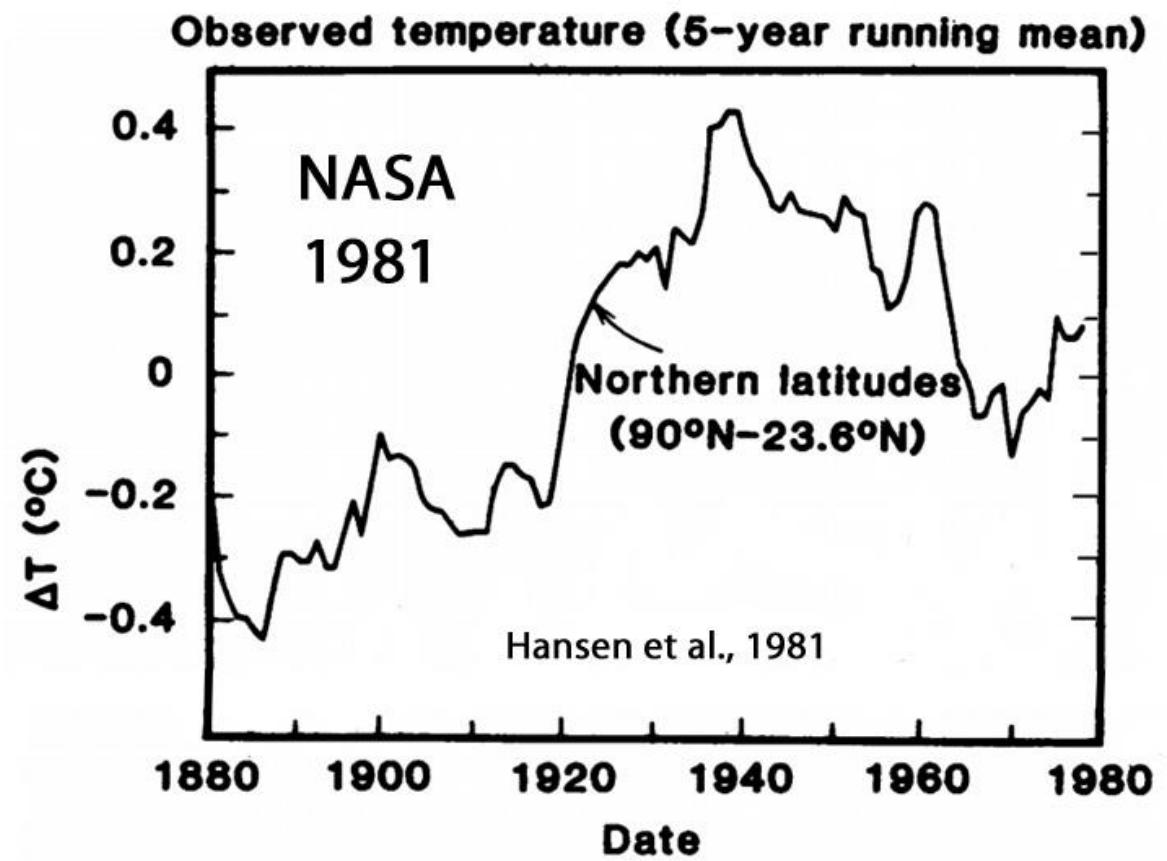
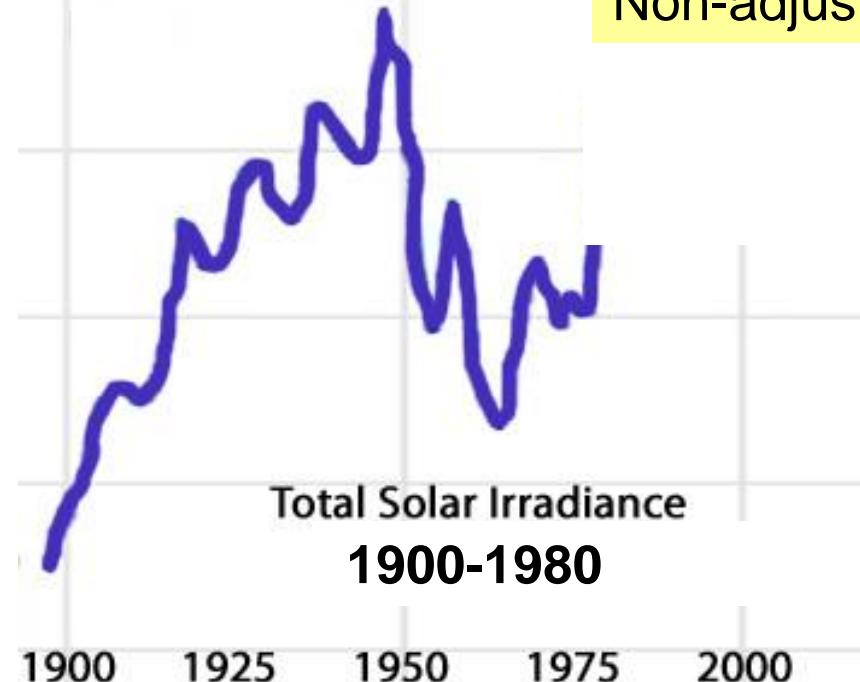
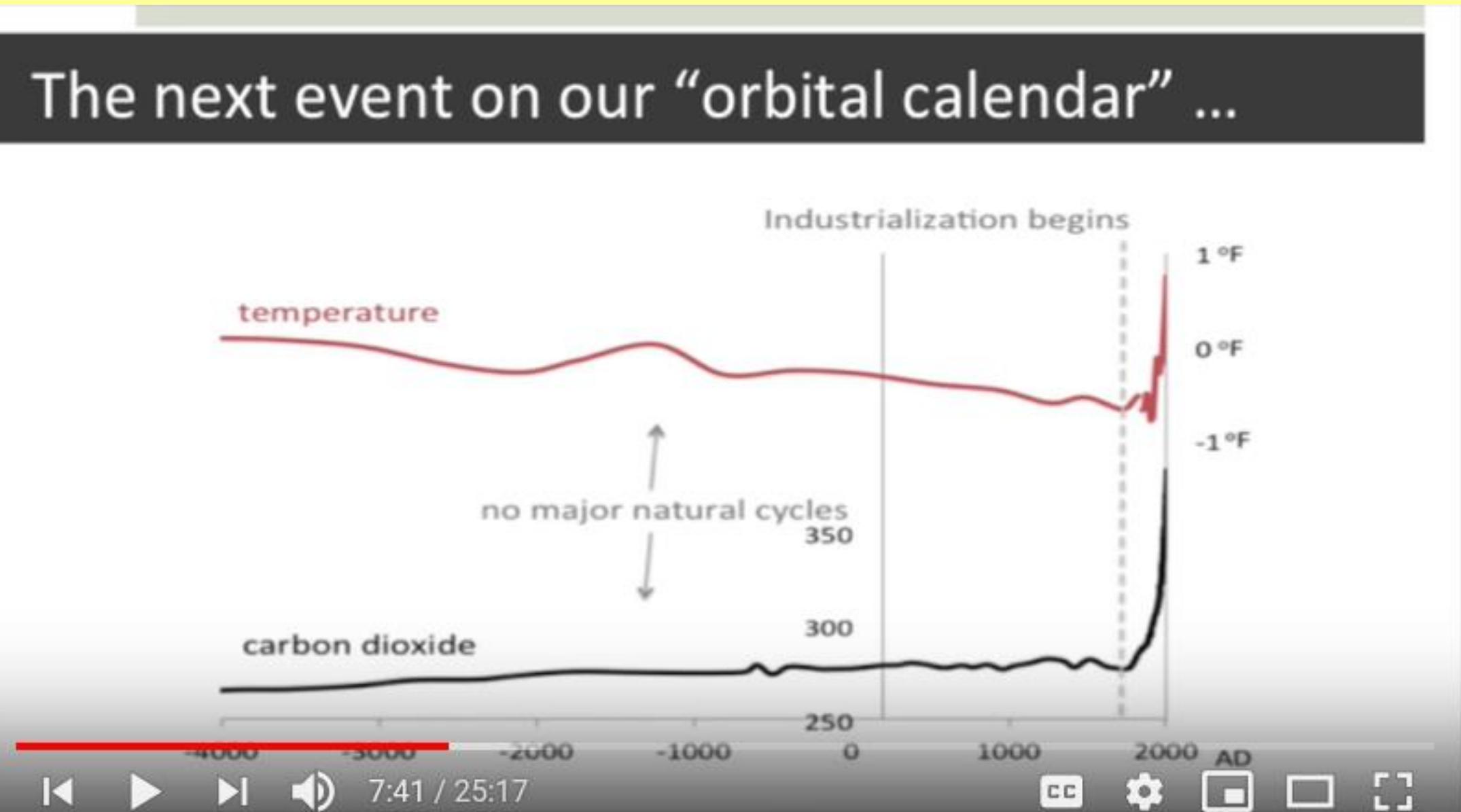


Fig. 3. TSI-HS total solar irradiance from 1700 to 2013 A.D. ([Scafetta and Willson, 2014](#)).

Non-adjusted temperature data appear to correlate with solar forcing



Here Hayhoe displays a graphic of CO₂ and temperature, no source or reference, for the past 6,000 years.
NB, She shows “no major natural cycles” for this period.
NB, She shows present temperatures are warmest of the past 6,000 years.



"Science can tell us: Here is the event that changed our long slow fall into the next ice age"

The Industrial Revolution



8:04 / 25:17



Burning coal, gas and oil
produces carbon dioxide



8:35 / 25:17



“This blanket is made up of heat-trapping gases like Carbon Dioxide.”

The NATURAL greenhouse effect



8:51 / 25:17

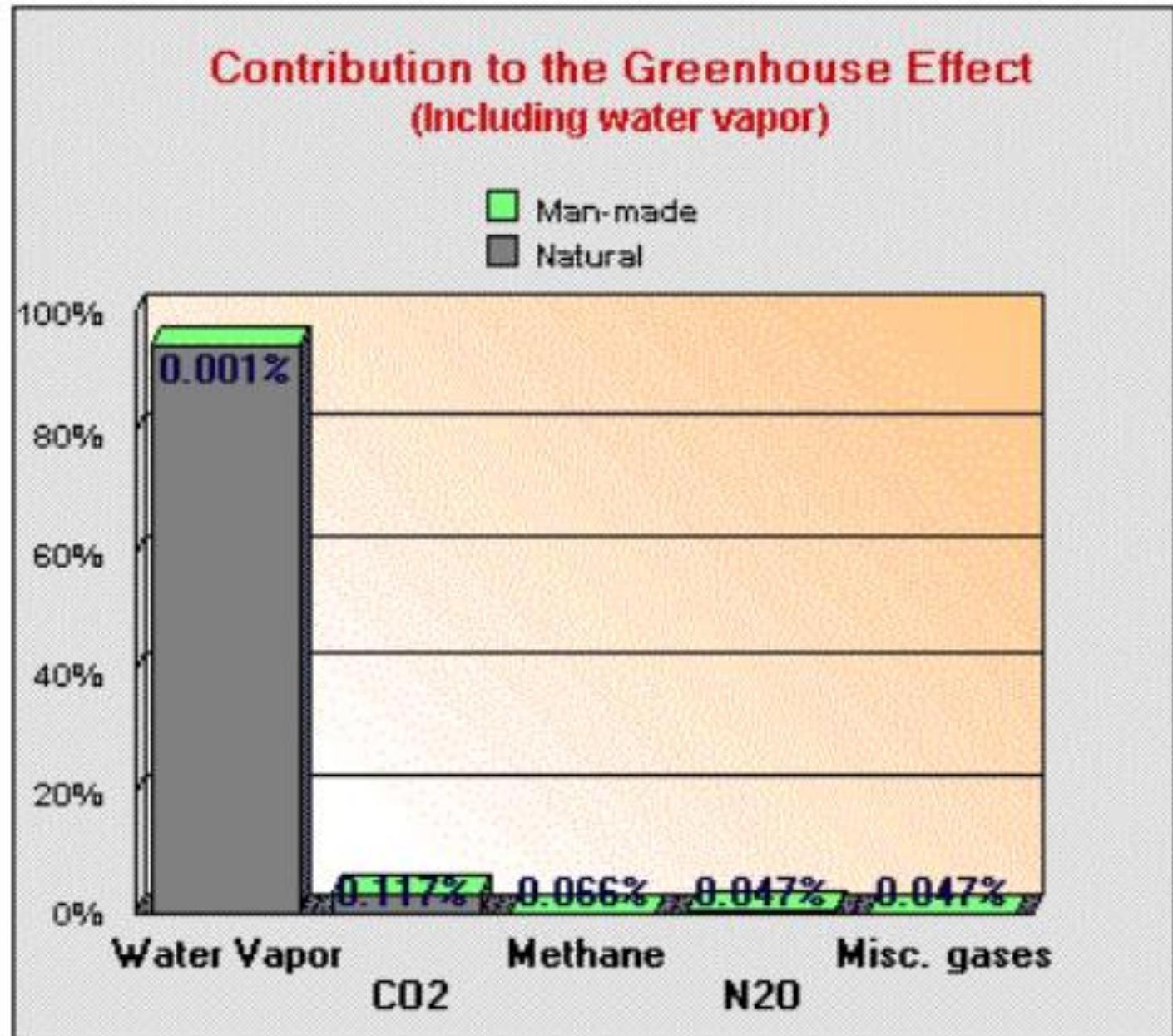


Katharine Hayhoe “forgot” the most Important greenhouse gas in the Atmosphere-Water Vapor.

So, I found the Water Vapor:

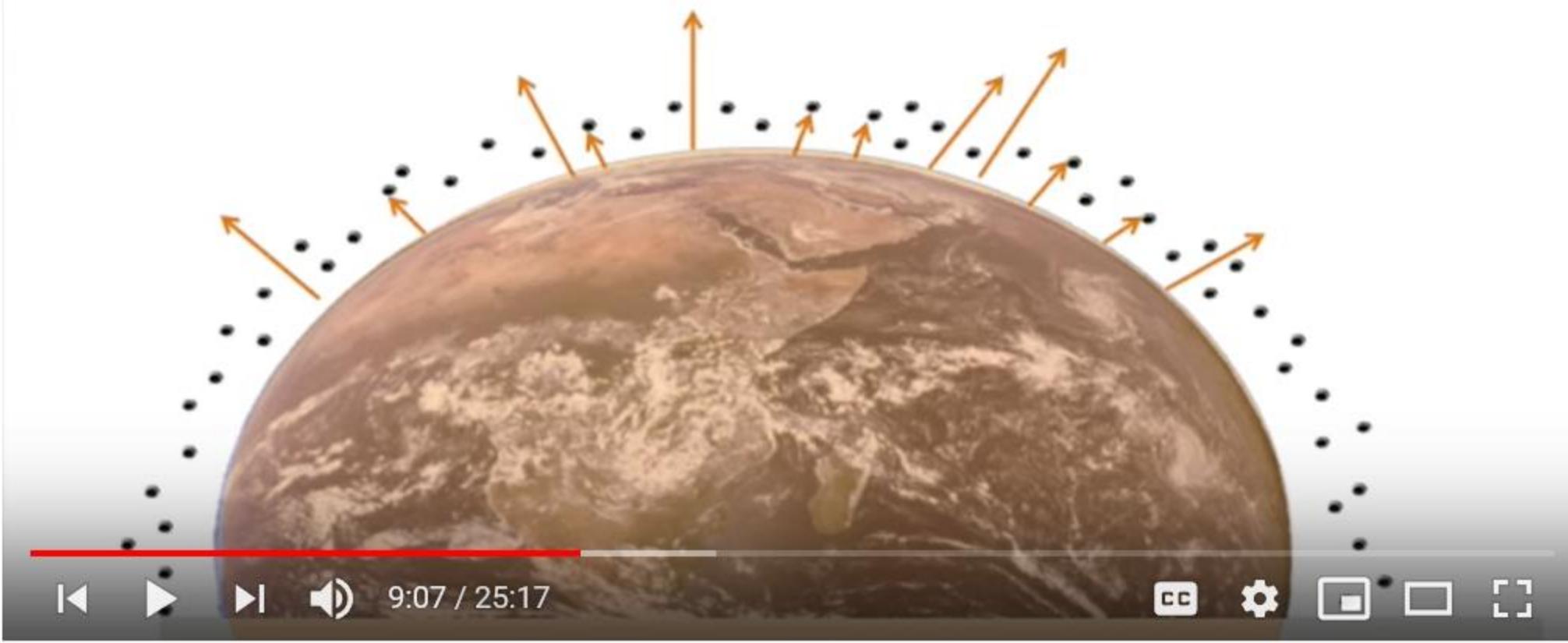
These graphics were made from DOE files that were here:

http://www.eia.doe.gov/cneaf/alternate/page/environment/appd_d.htm



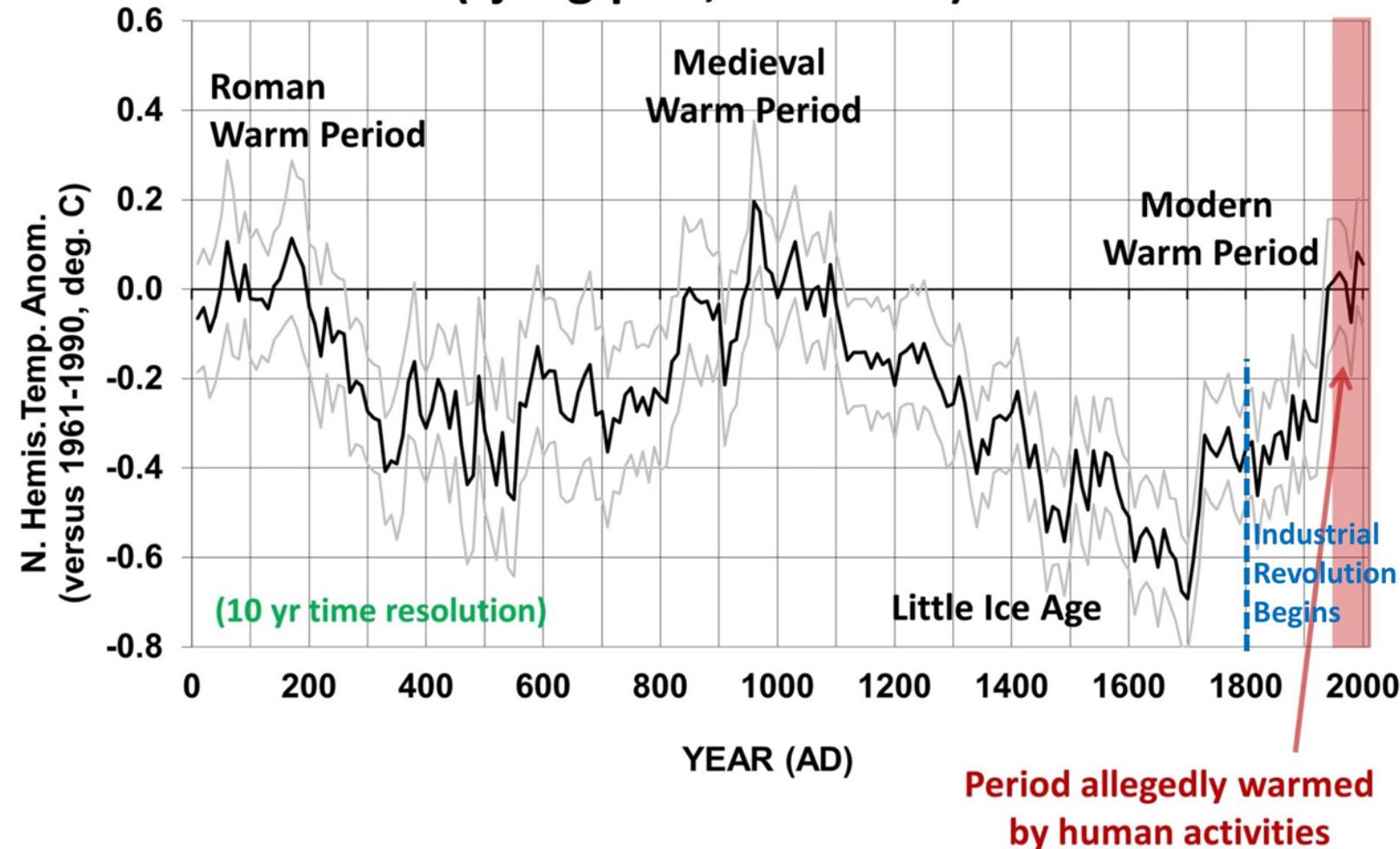
“...and the Earth’s Heat energy is trapped. TRAPPED, by those little gases!”

The NATURAL greenhouse effect



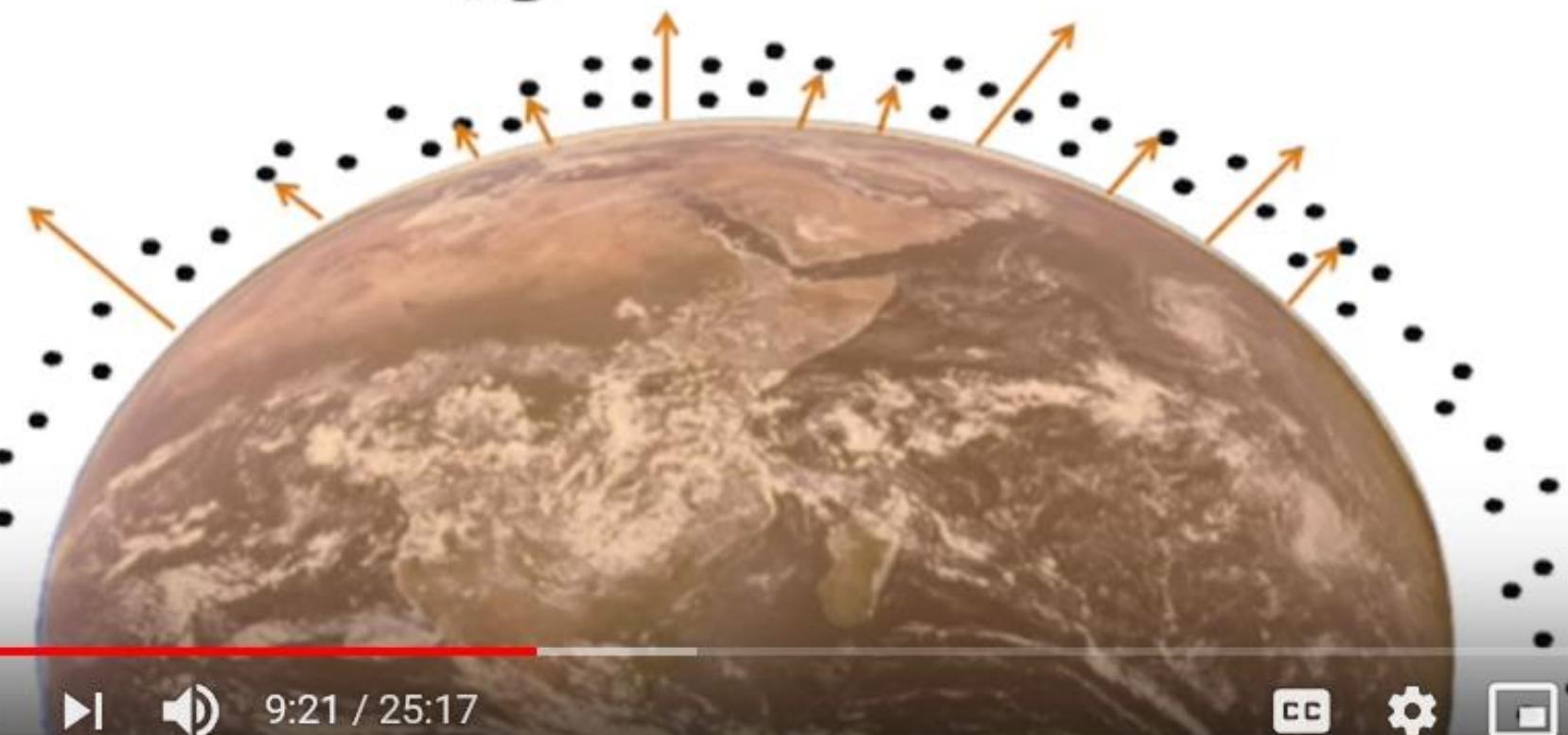
WE can measure how much of this heat is trapping, and we KNOW that's WHY the planet is warming!

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



The ARTIFICIAL greenhouse effect

+ 43% more



Katharine Hayhoe's selective foray into History of Science

We've known about this for a really long time



Joseph Fourier
(French, 1768-1830)



John Tyndall
(English, 1820-1893)



Svante Arrhenius
(Swedish, 1859-1927)



Guy Callendar
(English, 1898-1964)



Charles Keeling
(American, 1928-2005)



9:34 / 25:17

Source: 2014 U.S. National Climate Assessment



William Henry (chemist)

From Wikipedia, the free encyclopedia

William Henry

Born 12 December 1774

Manchester, England

Died 2 September 1836 (aged 61)

Pendlebury, England

Nationality English

Known for Henry's law

Awards Copley Medal (1808)

Scientific career

Fields chemistry
physician

William Henry (12 December 1774 – 2 September 1836) was an English chemist. He was the son of Thomas Henry and was born in Manchester England.

In 1803 he developed what is known today as Henry's Law.



Henry's Law

An everyday example is given by one's experience with carbonated soft drinks, which contain dissolved carbon dioxide.

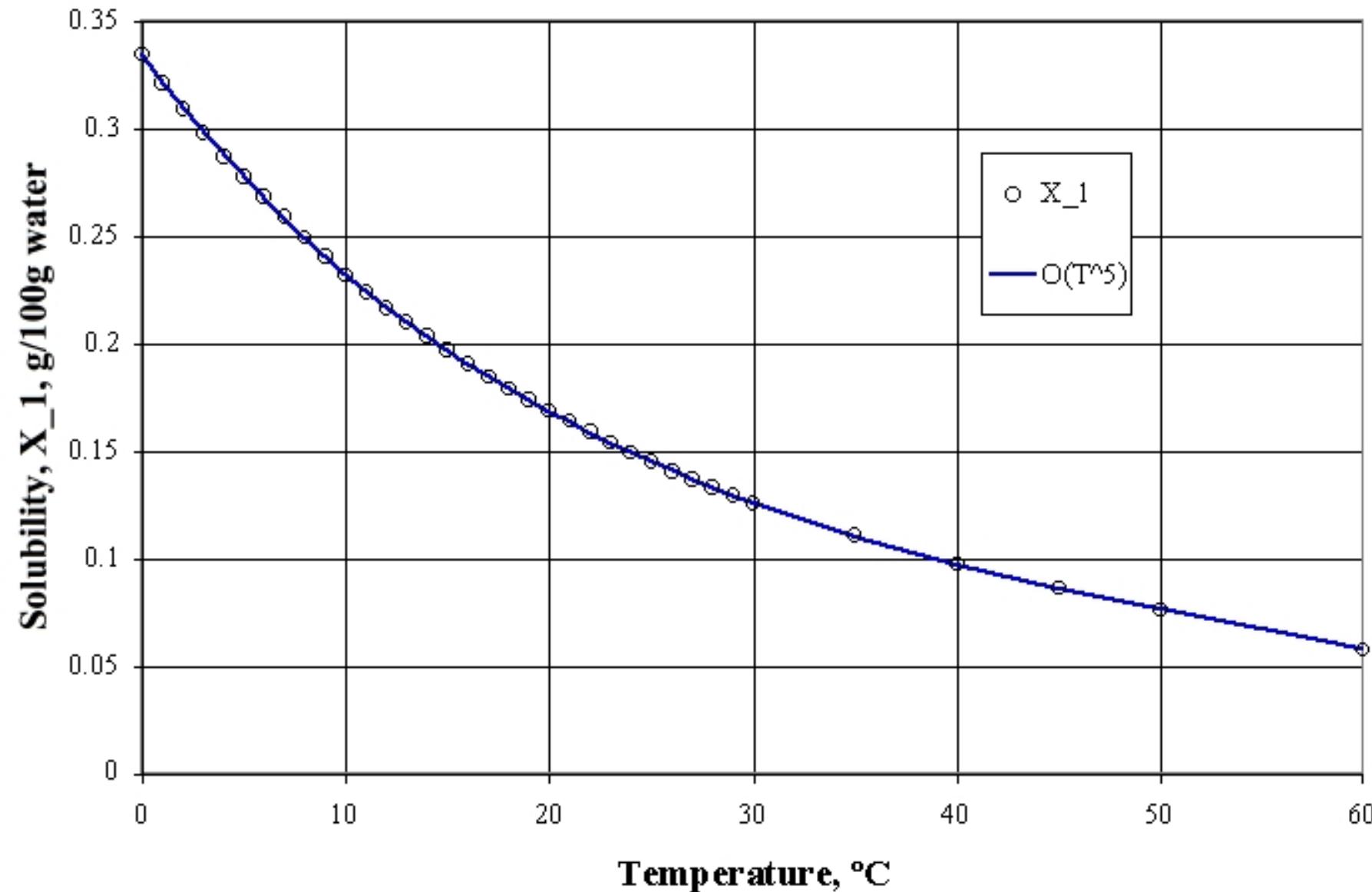
Before opening, the gas above the drink in its container is almost pure carbon dioxide, at a pressure higher than atmospheric pressure.

After the bottle is opened, this gas escapes, moving the partial pressure of carbon dioxide above the liquid to be much lower, resulting in degassing as the dissolved carbon dioxide comes out of solution.

Henry's Law

As the water temperature Increases,
The solubility of CO₂ Decreases

CO₂ SOLUBILITY IN WATER



The reason why Madame Hayhoe doesn't remember William Henry:

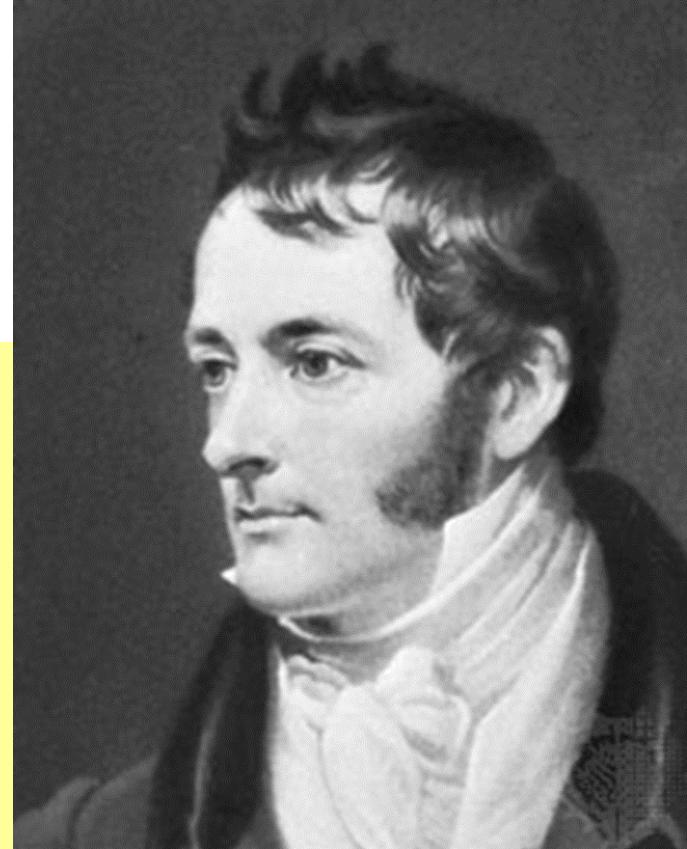
Henry discovered It's the TEMPERATURE of the aqueous solution <Ocean Water> that determines the amount of dissolved gas in that solution which is driven into the air or into the solution.

The Alarmists say that the Dissolved Gas CO₂ controls the temperature of the water and the air

But Henry told us the TEMPERATURE is the controlling factor.

This is why Hayhoe remembers the Physicists, but not the English Chemist who gave us

HENRY's LAW.... William Henry



Katharine Hayhoe is wandering off the reservation of science and into political thought: CONSENSUS.

It's as if what people think or say determines what happens in the physical world.

This part of the Lecture is presented
as if it is science:

THIS is SCIENCE?



97% of Scientists Accept Man-Made Warming?

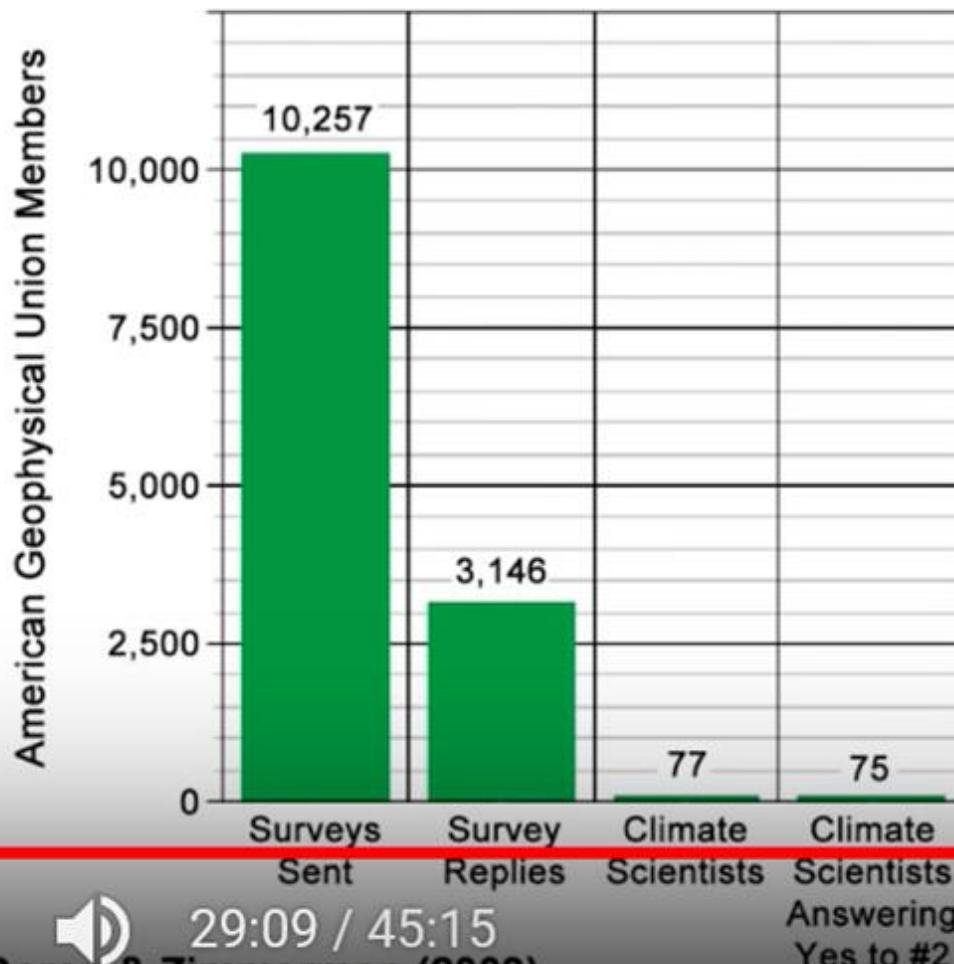
Distortions by Dr. Hayhoe:

Some 77 of 10,257 scientists answered two questions, one poorly worded.

“significant factor in temperature,” becomes “primary cause in climate change.”

<https://www.youtube.com/watch?v=mtHreJbr2WM>

AGU Climate Science Survey Results



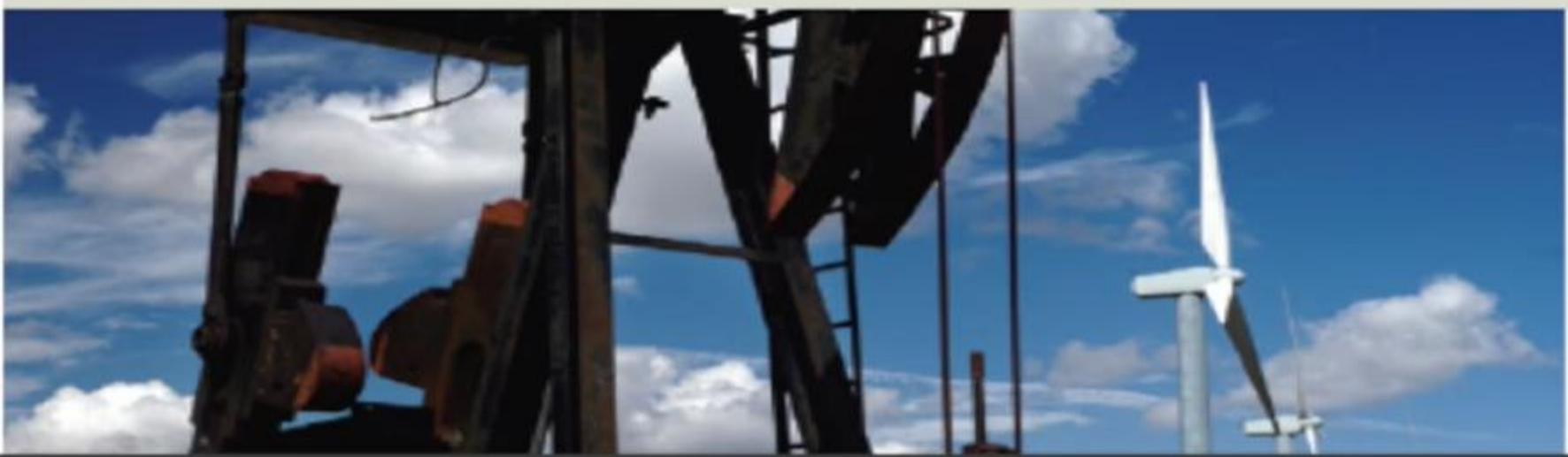
- 1. When compared with pre-1800 levels, do you think that mean global temperatures have generally risen, fallen, or remained relatively constant?**
- 2. Do you think human activity is a significant contributing factor in changing mean global temperatures?**



29:09 / 45:15

Doran & Zimmerman (2009)





Our Choices Matter

THIRD



10:31 / 25:17



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

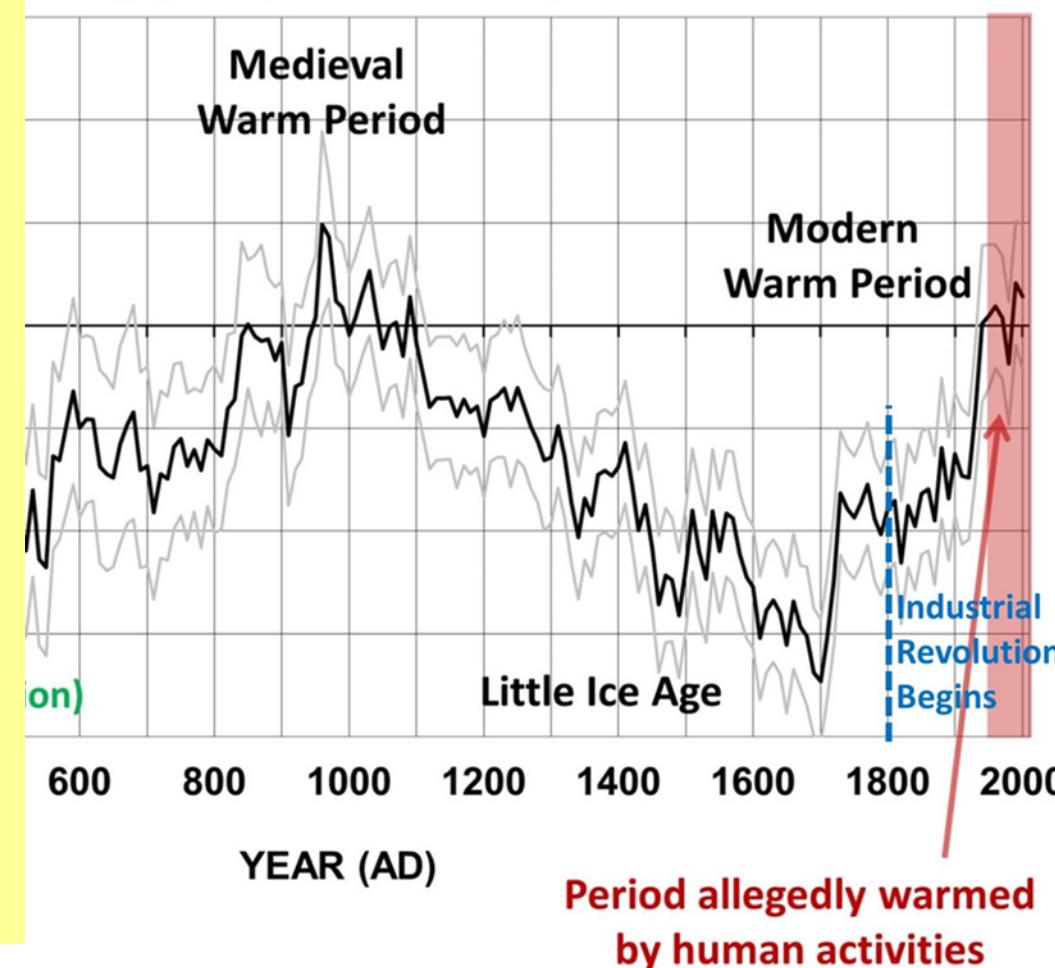
Previous slide is THIRD.

In this section she says,

Climate is Changing! again implying that this is a rare event, its not.

We are causing the change! (no doubt in voice or presentation)

Third: OUR CHOICES MATTER!



Religious symbolism in this graphic. Marvelous imagery to support the propaganda of the message.

Rusty pumpjack in foreground is “Dirty Energy.” Dark. Shadowy.

The wind turbine is White. Pure. New. Clean, Shining in the Sun. Blue Sky White Clouds.

Very Large! Font





Mariana Alves-Pereira, PhD



When wind turbines create
VibroAcoustic Disease

Vibroacoustic Disease (VAD) Clinical Stages

Mild

1-4 years of LFN exposure

Slight mood swings, indigestion & heartburn, repeated mouth & throat infections, bronchitis.

Moderate

4-10 years of LFN exposure

Chest pain, back pain, fatigue, fungal & viral skin infections, allergies, blood in urine, inflammation of stomach lining.

Severe

> 10 years of LFN exposure

Psychiatric disturbances, headaches, hemorrhages of nasal & digestive mucosa, duodenal ulcers, spastic colitis, varicose veins & hemorrhoids, decreased vision, severe joint pain, severe muscular pain, neurological disturbances.



derelict wind turbines

Why wind turbines endanger bats

Researchers have known for a while that wind turbines are a bigger threat to bats than to birds. About 90 percent of the bats killed near turbines in a recent study showed signs of internal hemorrhaging caused by quick changes in air pressure, known as barotrauma.



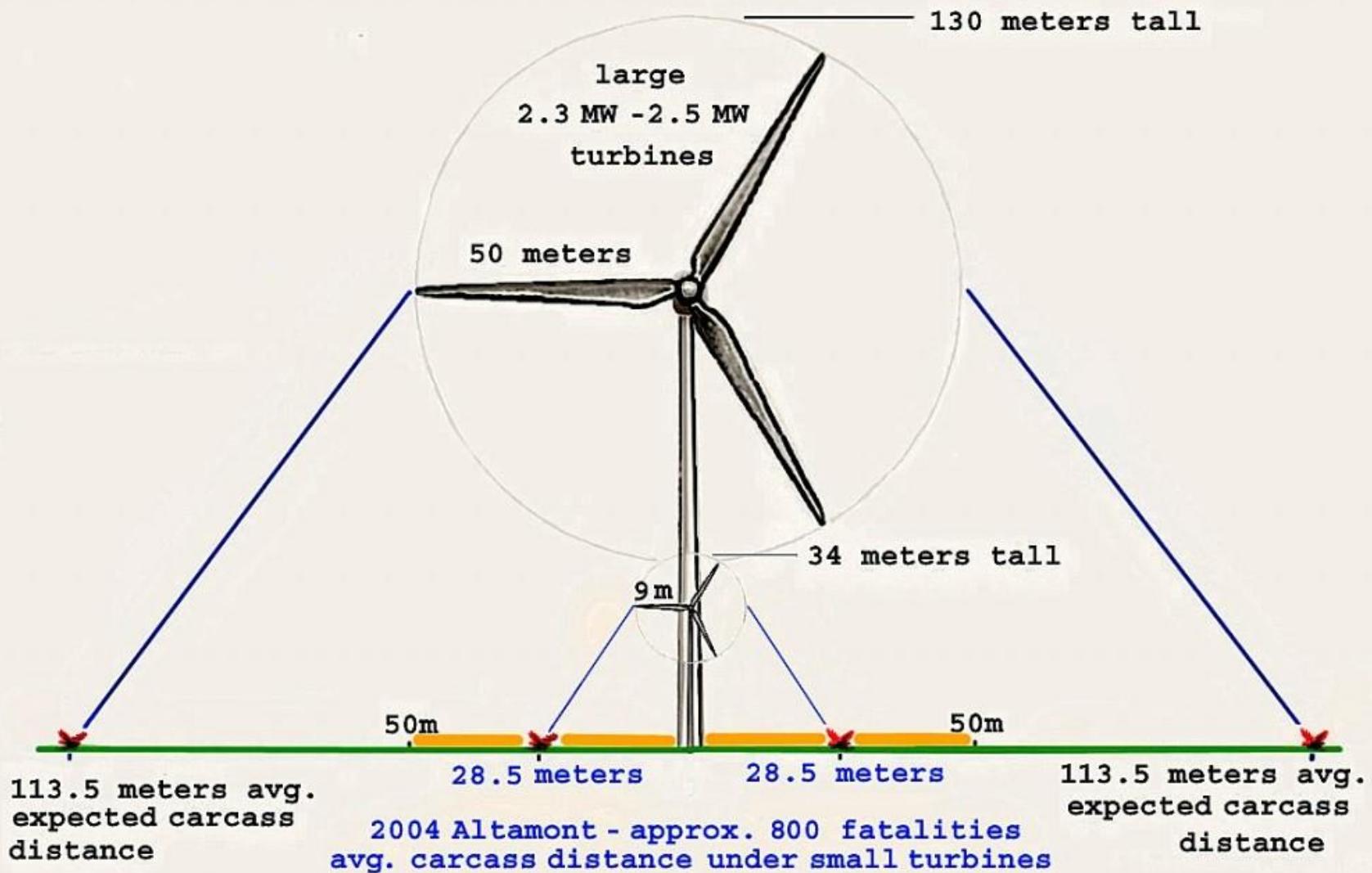
1. Bats should be able to avoid the blades of turbines using echolocation. In the study, only half of the dead bats had been hit by blades, and they may have been hit after they hemorrhaged.

2. Turning turbines create low-pressure areas near the tips of the blades. When a bat flies into these areas, the air in its lungs is at a higher pressure than the surrounding air. It expands and can rupture tiny vessels around the lungs. In effect, the bat's lungs explode.

3. The effect is similar to a scuba diver who gets the bends when the air pressure in his lungs has not had a chance to equalize with the pressure at the surface. Birds do not have the same problems. Their lungs are different than those of mammals.

HIDING WIND TURBINE MORTALITY

Wind industry studies deliberately use 50-60 meter mortality search areas on their large turbines so their studies will miss most of the fatalities



This is why search areas should be 200 meters

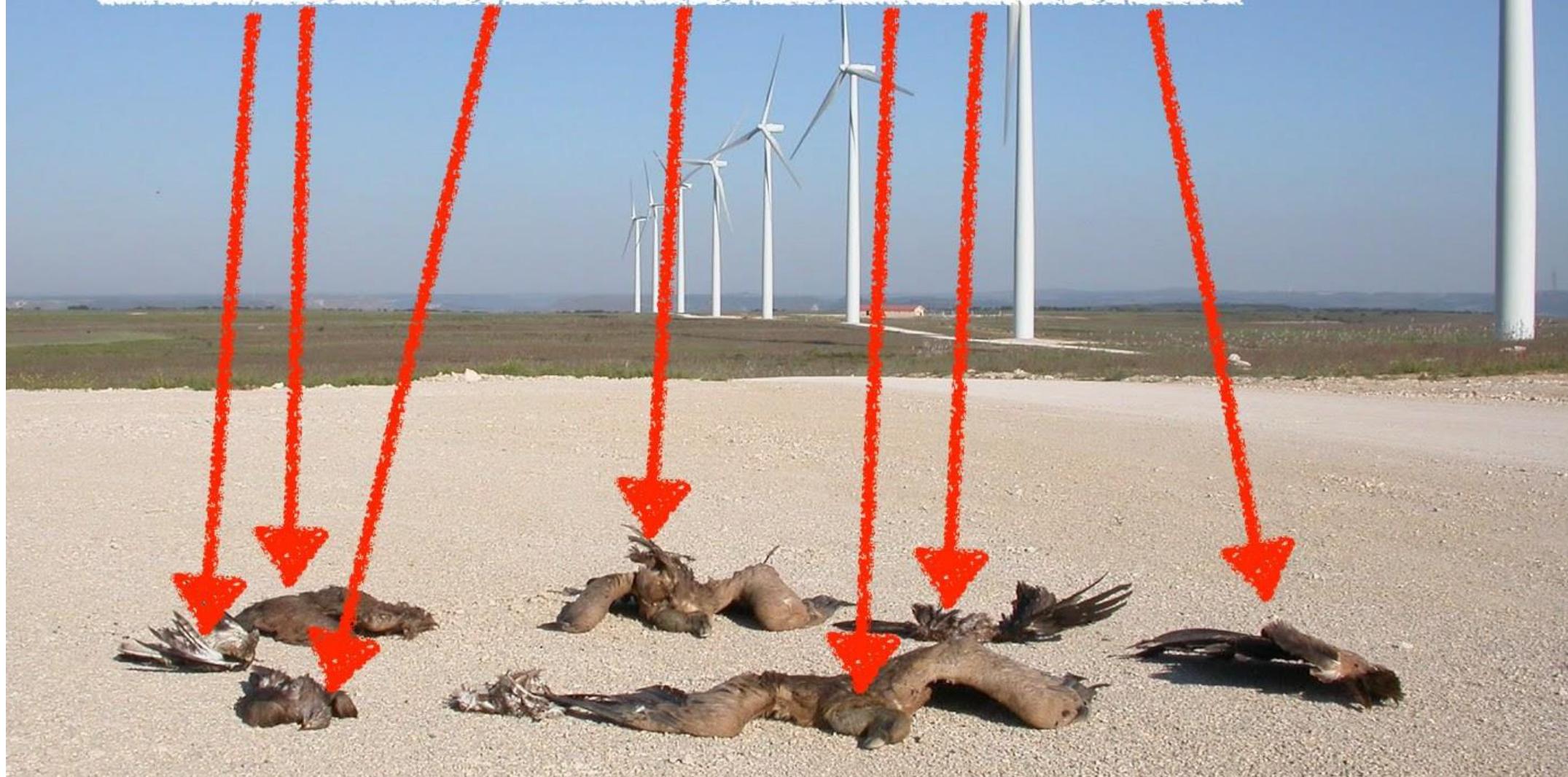
Caution

The following images may be disturbing to some individuals

Viewer Caution is Advised



TRADE SECRETS







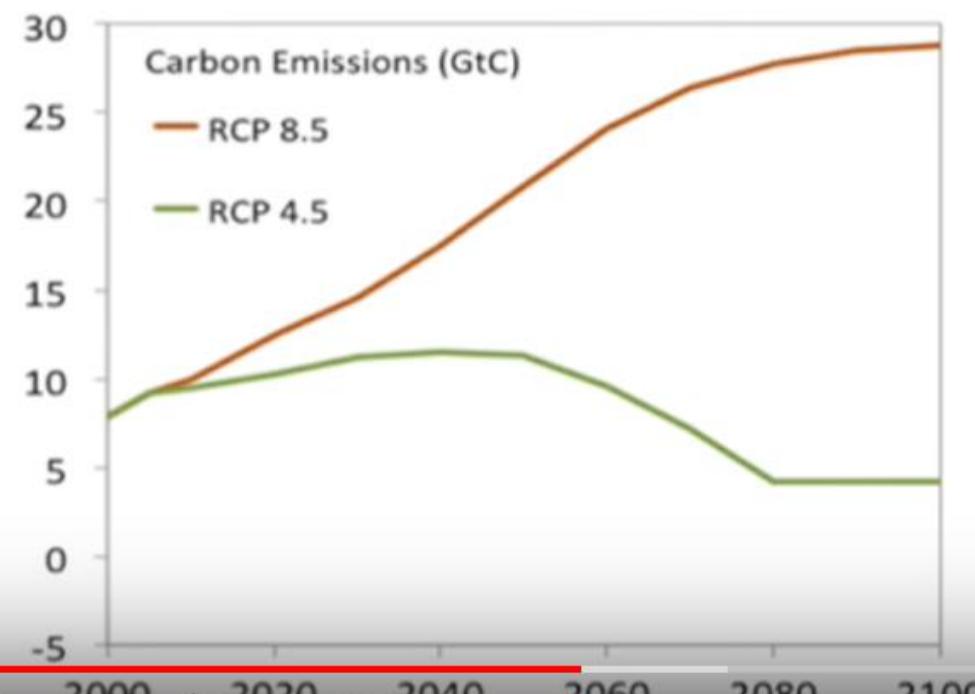
"highly educated Climate Modeler" Hayhoe:

"...OR, are we going to be able to reduce our CARBON emissions?"

From her words, she does not know the difference between CARBON as in Coal, and CARBON DIOXIDE the colorless, odorless trace gas essential for carbon-based life forms, 9th grade General Science knowledge.

Is she THAT ignorant? I think not; this is deliberate manipulation of the audience.

Future change depends on our choices now



We have seen imagery like this before:

<https://casf.me/gregg-garfins-color-alarmism-propaganda-25-april-2018-climate-lecture-nmsu/>

Sun low in the sky, long atmospheric path, all of the blue light scattered out, leaving the red-orange hue.

Dark red and orange colors for an ominous-looking scene. Red = Danger.



Back Lighting:

The stacks are in shadow and appear black

The underside of the plume is close to black.

In this image, the plumes merge clouds in shadow
Also appear black

Hayhoe continues Garfin's effective use of color to enhance the propaganda of the message.



Hayhoe's hellish image



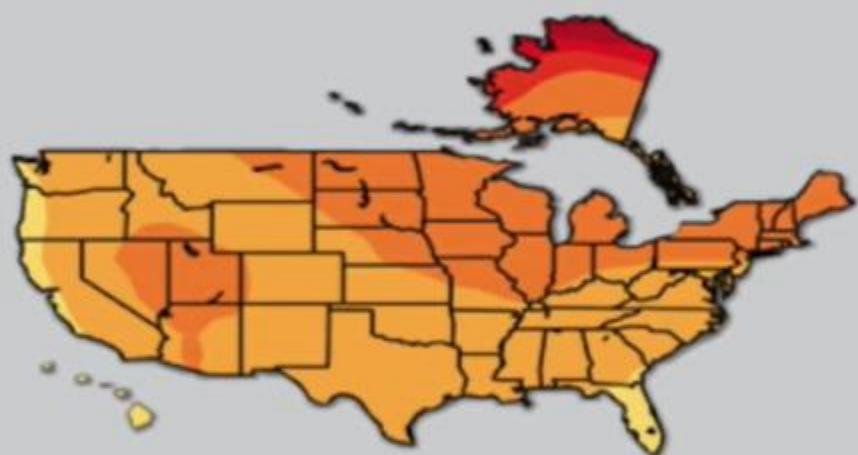
Coal-Fired Power Plant in Page, Arizona

Look at this message. What WILL happen! She pitches this model output as Scientific Truth.

As if Climate Models have utility.

Science can show us what will happen
depending on the choices we make

Lower Scenario



Higher Scenario



Degrees F

3 4 5 6 7 8 9 10 15



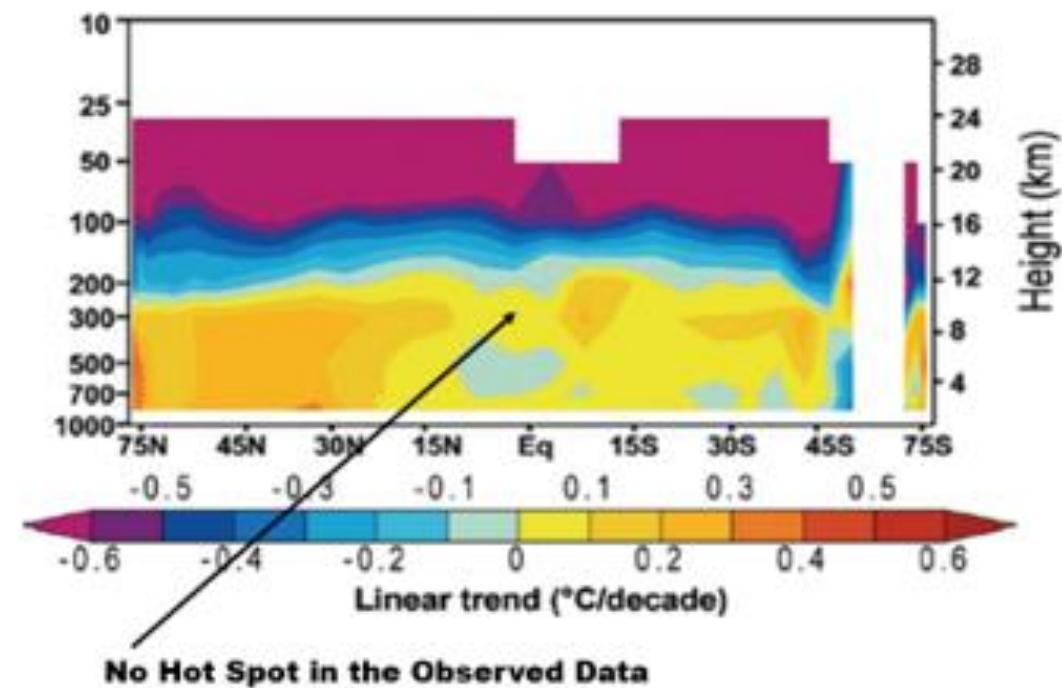
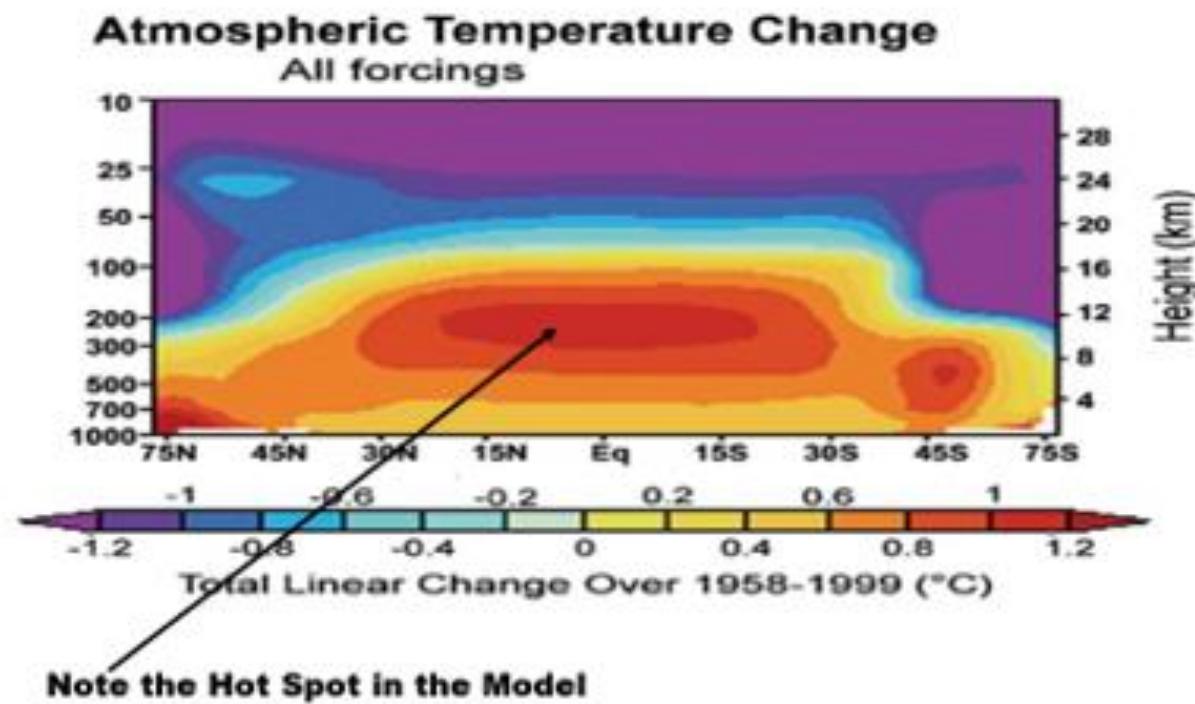
11:05 / 25:17



Sidebar discussion on the utility of climate models

Predictions and analysis of their goodness

HOT SPOT IN THE MODELS, LEFT.... BUT NOT AT ALL IN THE DATA, RIGHT





CMIP5 Coupled Model Intercomparison Project

WCRP World Climate Research Programme

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CMIP5

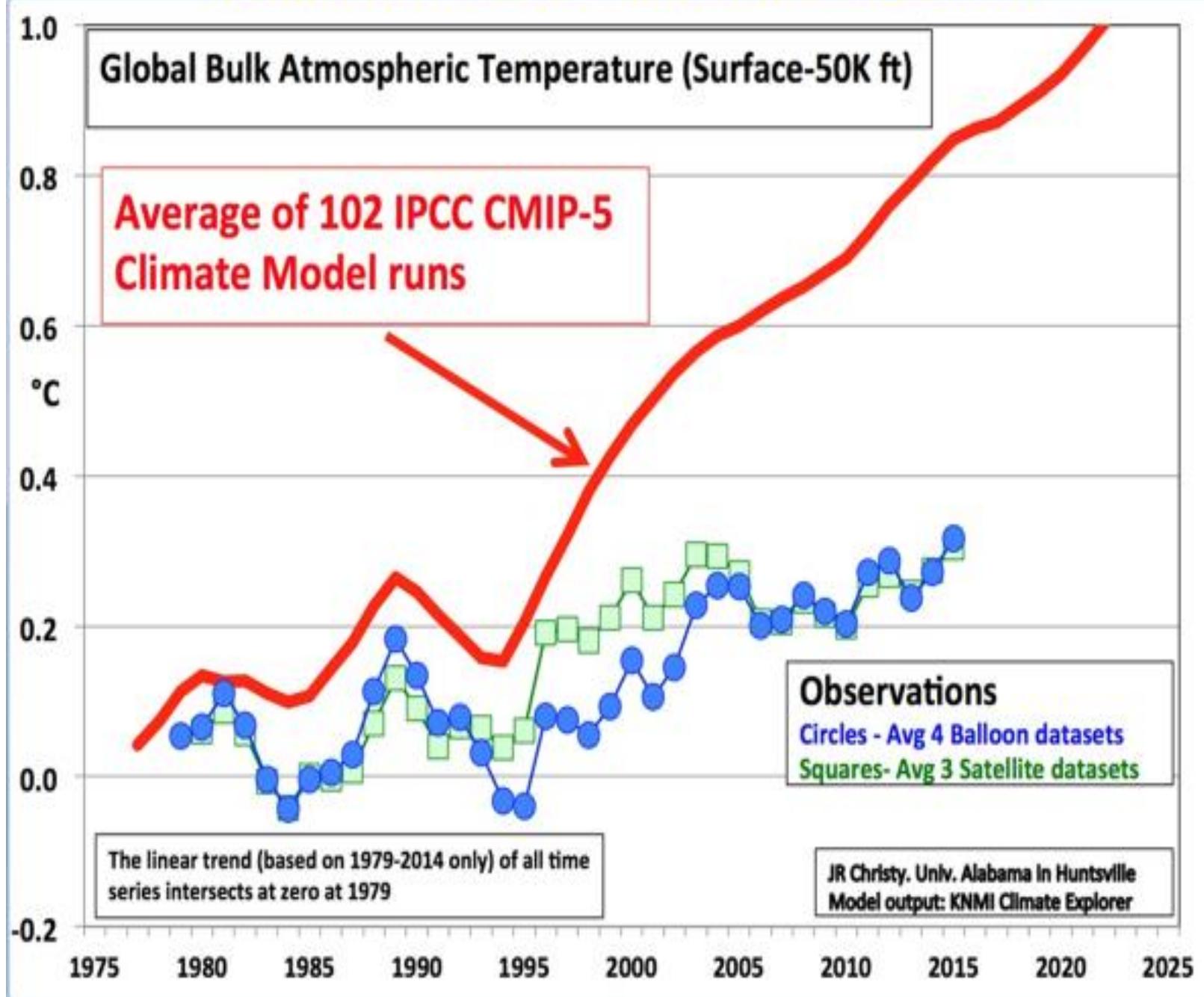
Home

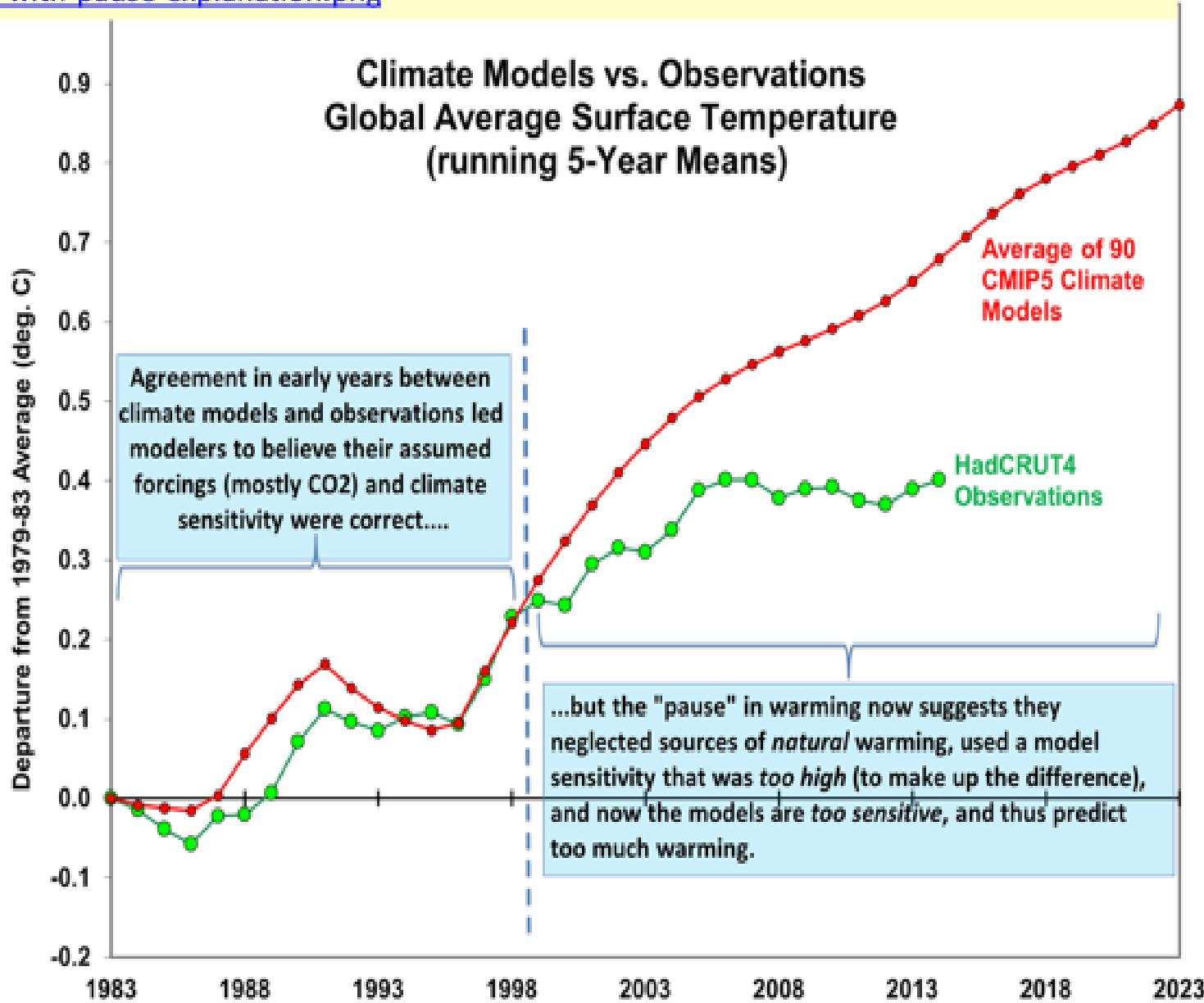
[CMIP5 Overview](#)

[CMIP Home](#)

[CMIP Home](#) \ [CMIP5 Home](#) \ [Overview](#) \

CMIP5 - Coupled Model Intercomparison Project Phase 5 - Overview





Anomalies and Trends of Sea-Ice Extent and Atmospheric Circulation in the Nordic Seas during the Period 1864–1998

Feb 2001



Multi-year cycles in Nordic Sea Extent over the 140-year period of record

Bob's analysis

Smaller cycles appear to mimic the 3-year to 7-year periodicity of the ENSO cycles.

Others appear to mimic the 18 years between the grand El Niños in 1998 and 2016

Torgny Vinje Norwegian Polar Institute, Oslo, Norway

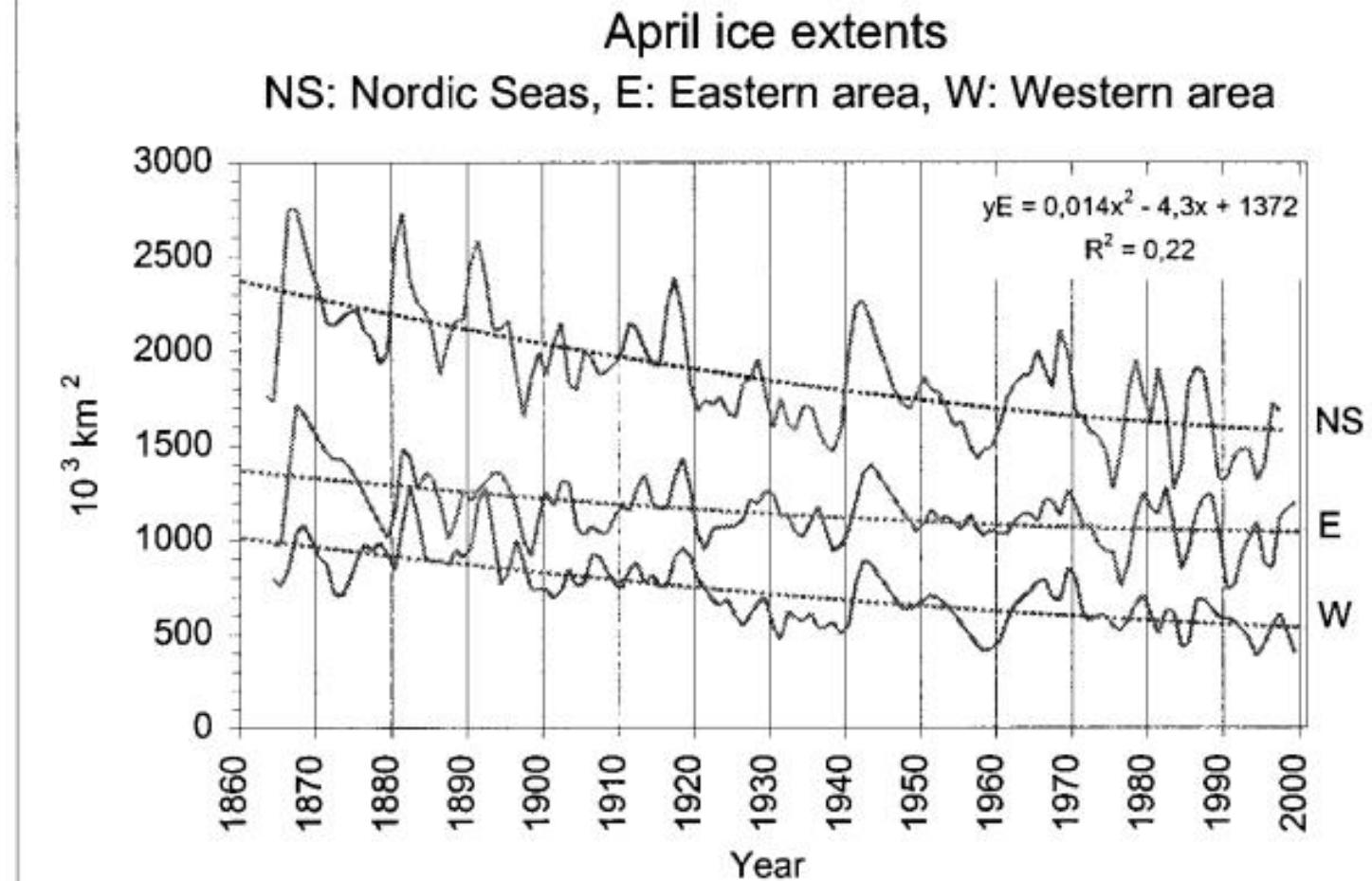


FIG. 2. Time series of the Apr ice extent in the Nordic Seas (NS), eastern area (E), and western area (W) given by 2-yr running mean and regression lines. Linear year-to-year interpolations of the ice extent have been made for the western area for 1940 and 1944–46, and for the eastern area for 1868–70, 1874–78, 1880, 1892, 1894, 1940–41, 1943–48, and 1961. Observations for Apr 1942 are missing.

Page last updated at 10:40 GMT, Wednesday, 12 December 2007

Arctic summers ice-free 'by 2013'

By Jonathan Amos

Science reporter, BBC News, San Francisco

Scientists in the US have presented one of the most dramatic forecasts yet for the disappearance of Arctic sea ice.

Their latest modelling studies indicate northern polar waters could be ice-free in summers within just 5-6 years.

Professor Wieslaw Maslowski told an American Geophysical Union meeting that previous projections had underestimated the processes now driving ice loss.

Summer melting this year reduced the ice cover to 4.13 million sq km, the smallest ever extent in modern times.



Arctic summer melting in 2007 set new records



Open

More details

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<https://content.usatoday.com/communities/ondeadline/post/2009/12/gore-new-study-sees-nearly-ice-free-arctic-summer-ice-cap-as-early-as-2014/1>

Dec 14, 2009

Gore: Polar ice cap may disappear by summer 2014

By [Douglas Stanglin](#), USA TODAY

Updated

New computer modeling suggests the Arctic Ocean may be nearly ice-free in summer as early as 2014, Al Gore said today at the U.N. climate conference in Copenhagen.

The former vice president said the new projections suggest an almost-vanished summer ice cap could disappear much earlier than foreseen by a U.S. government agency just eight months.

"It is hard to capture the astonishment that the experts in the science of ice felt when they saw this," Gore told reporters and other conference participants at a joint briefing with Scandinavian officials and scientists, his first appearance at the two-week session.



Q LATEST STORIES

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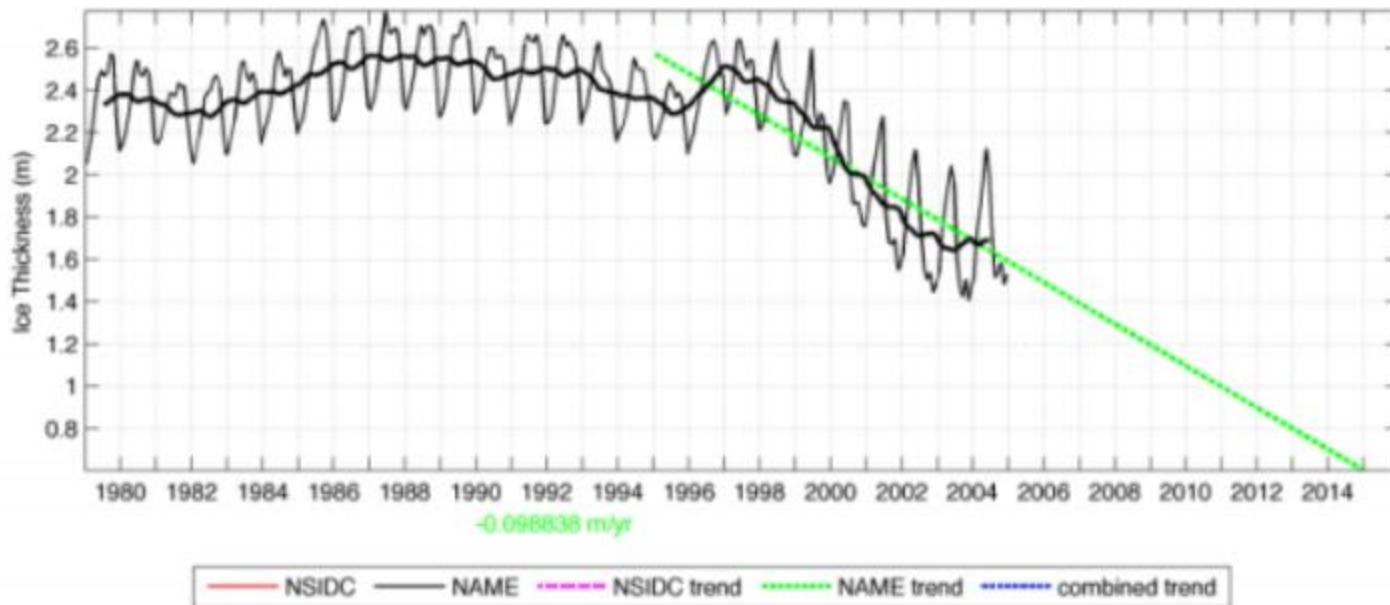
Arctic death spiral: Naval Postgrad School's Maslowski "projects ice-free* fall by 2016 (+/- 3 yrs)"

But in the land of make-believe, Watts and Goddard say: "Arctic ice extent and thickness nearly identical to what it was 10 years ago."



Wieslaw Maslowski
Naval Postgraduate School

Modeled ice thickness: 1.5-2.0 m or ~35%

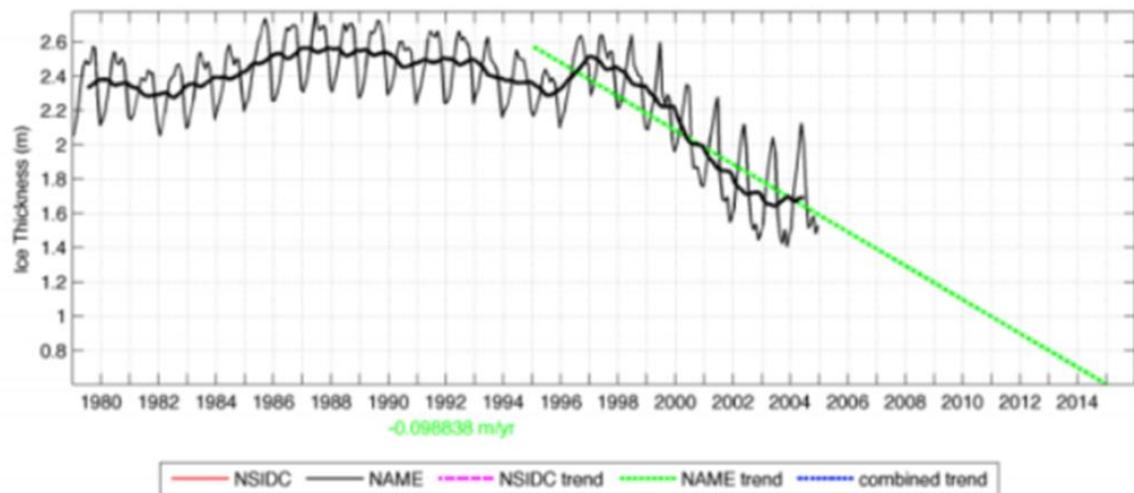


<https://thinkprogress.org/arctic-death-spiral-naval-postgrad-schools-maslowski-projects-ice-free-fall-by-2016-3-yrs-8451a607c916>

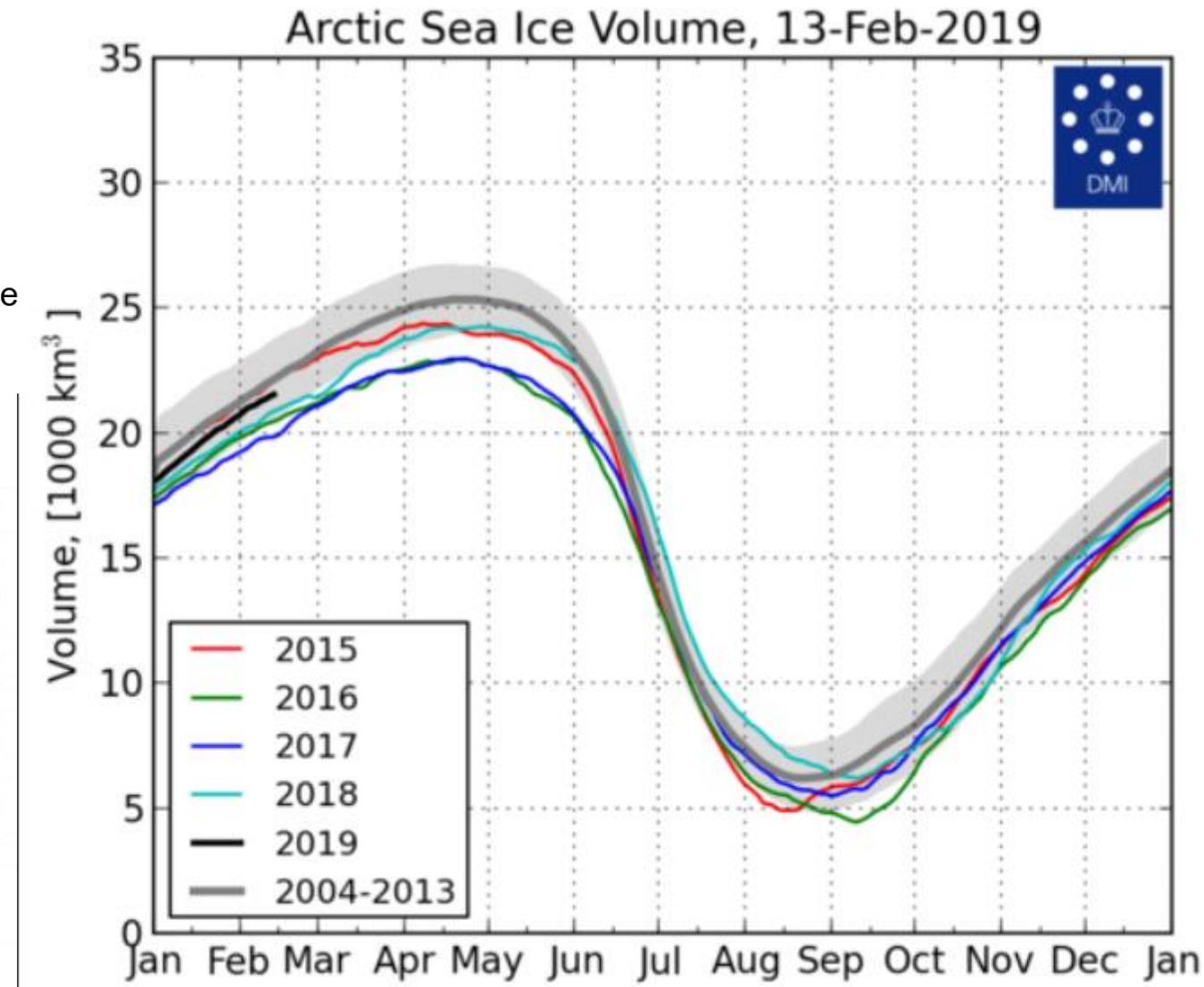
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http://ocean.dmi.dk/arctic/icethickness/images/FullSize_CICE_combine_thick_SM_EN_20190213.png

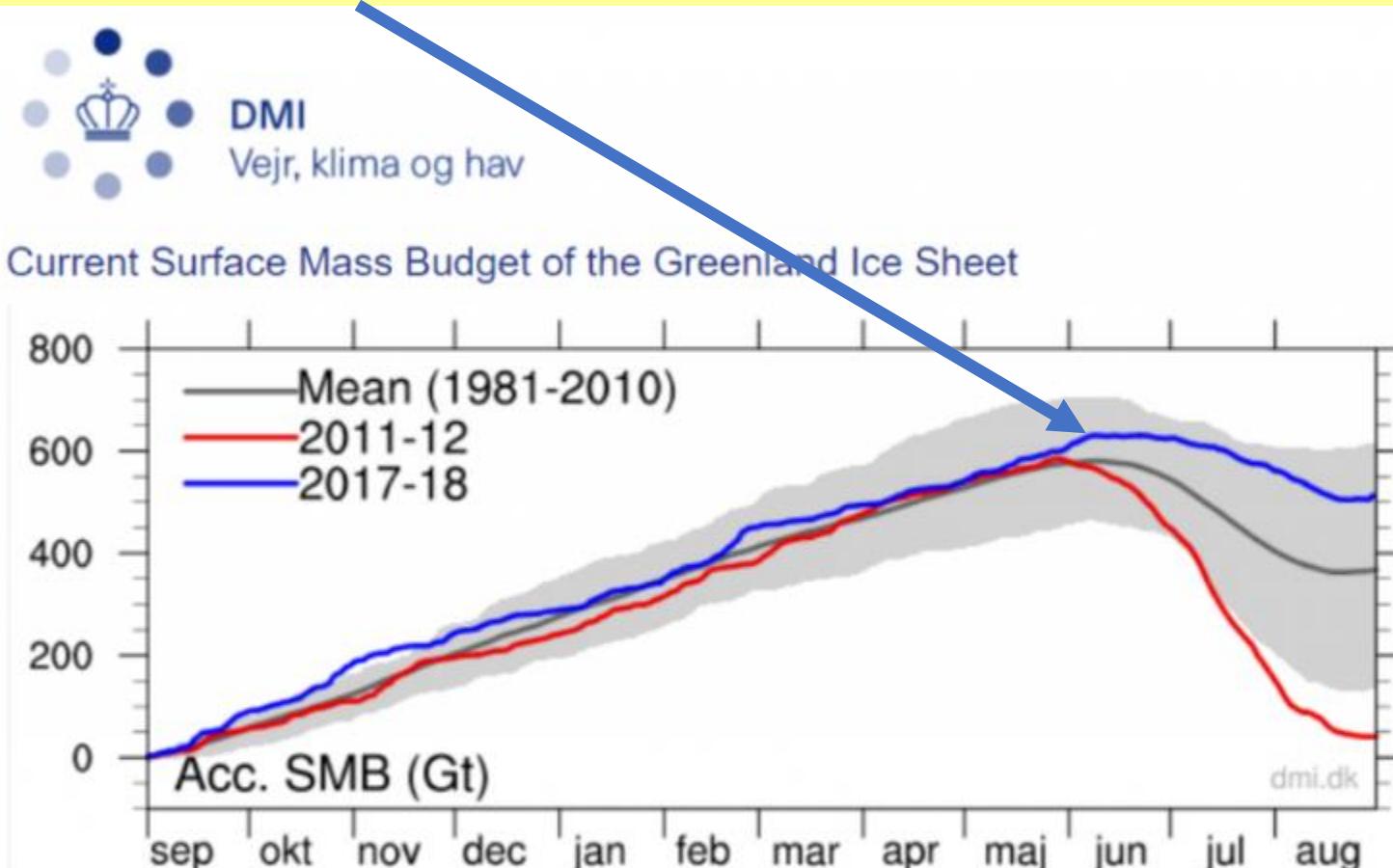


Another figure of merit for Arctic Ice, the Mass of Ice on Greenland.

The Danish Meteorological Institute measures snowfall; estimates change in ice and snow mass on a daily basis. These data are put on the DMI web site almost daily.

<https://www.dmi.dk/en/groenland/maalinger/greenland-ice-sheet-surface-mass-budget/>

2017-2018 Data are in blue below.

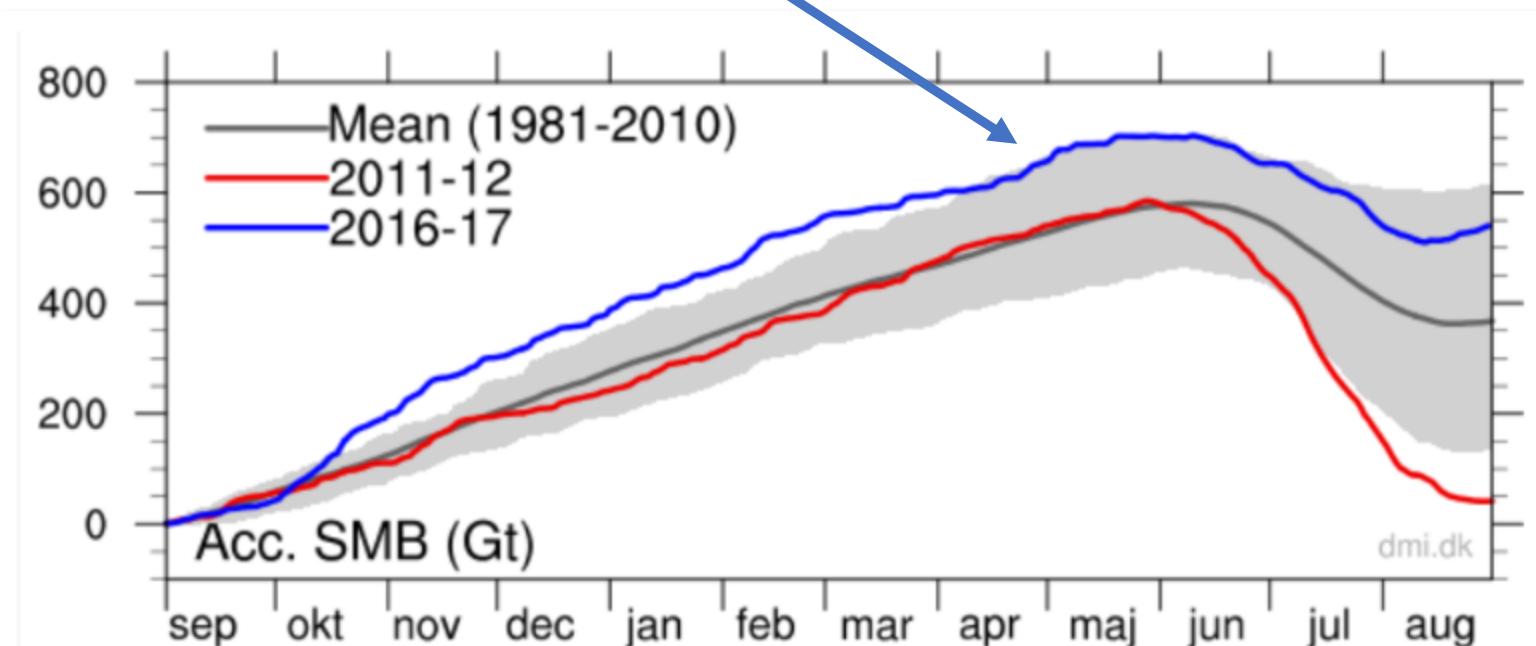


Top: The total daily contribution to the surface mass balance from the entire ice sheet (blue line, Gt/day).

Bottom: The accumulated surface mass balance from September 1st to now (blue line, Gt) and the season 2011-12 (red) which had very high summer melt in Greenland. For comparison, the mean curve from the period 1981-2010 is shown (dark grey). The same calendar day in each of the 30 years (in the period 1981-2010) will have its own value. These differences from year to year are illustrated by the light grey band. For each calendar day, however, the lowest and highest values of the 30 years have been left out.

2016-17, previous year, showed also a huge increase in Ice Mass on Greenland

Last year Greenland gained a little more ice, about 50% above normal.



Top: The total daily contribution to the surface mass balance from the entire ice sheet (blue line, Gt/day).

Bottom: The accumulated surface mass balance from September 1st to now (blue line, Gt) and the season 2011-12 (red) which had very high summer melt in Greenland. For comparison, the mean curve from the period 1981-2010 is shown (dark grey). The same calendar day in each of the 30 years (in the period 1981-2010) will have its own value. These differences from year to year are illustrated by the light grey band. For each calendar day, however, the lowest and highest values of the 30 years have been left out.

A sequence of events

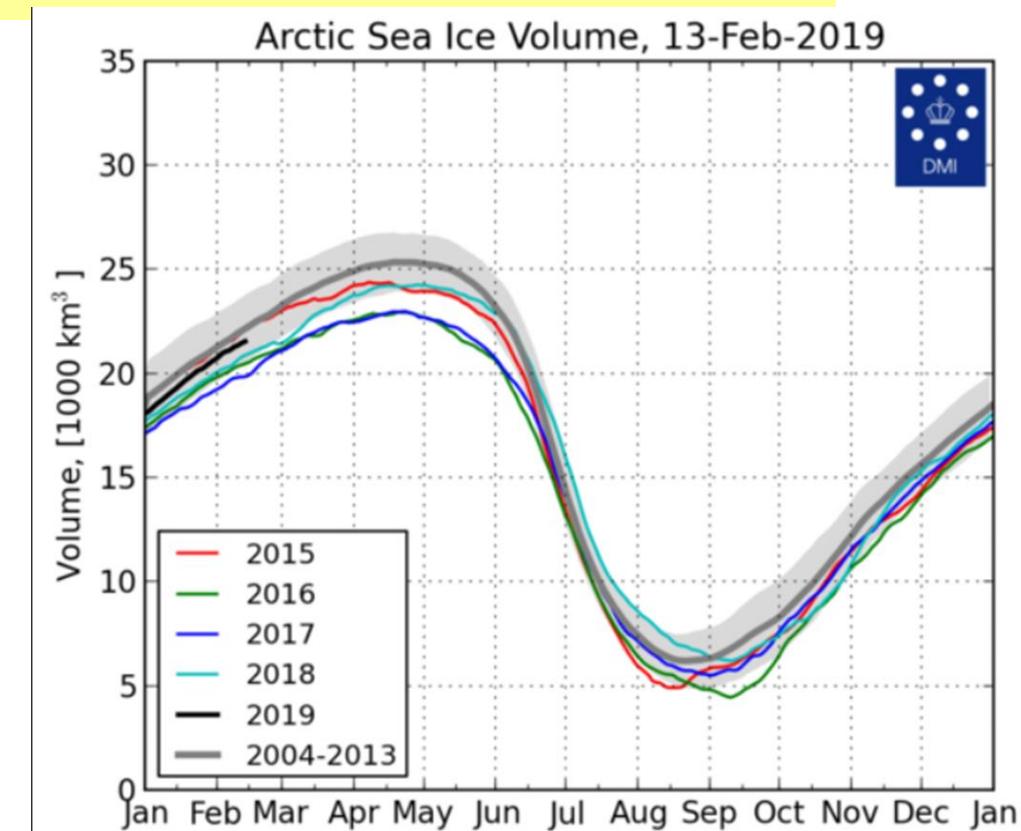
Feb 2001 Torgny Vinje Norwegian Polar Institute, Oslo, Norway publishes Nordic Ice history

12 Dec 2007 Mazlowski of NPGS announces modeling results at AGU, Arctic Ice to disappear by 2013

6 Jun 2010 Joe Romm announces, «Arctic Sea Ice Death Spiral»

14 Dec 2010 Al Gore announces Polar Ice «may disappear» at COP 15 Copenhagen

Despite this consensus, there has been no indication
the rate of loss of Arctic Sea Ice has changed



In 2001 Torgny Vinje Norwegian Polar Institute, Oslo, Norway publishes observations that Nordic Sea Ice Shows a long term decline beginning before 1860

There are ~20 year large cycles and ~3-7 year cycles.

Rate of loss of ice is decreasing over time.

Naval Post Graduate School forecast

Bob Comment: Obviously, Maslowski, reviewers thought CO₂ radiative forcing would dominate for two decades, overcoming natural behavior since 1860, INCREASING rate of loss.

They were wrong.

Not only is CO₂ forcing so weak as to be invisible, natural cycles still dominate. Modelers have no clue of the driving mechanism of natural cycles.

How can you model what you don't understand?

April ice extents
NS: Nordic Seas, E: Eastern area, W: Western area

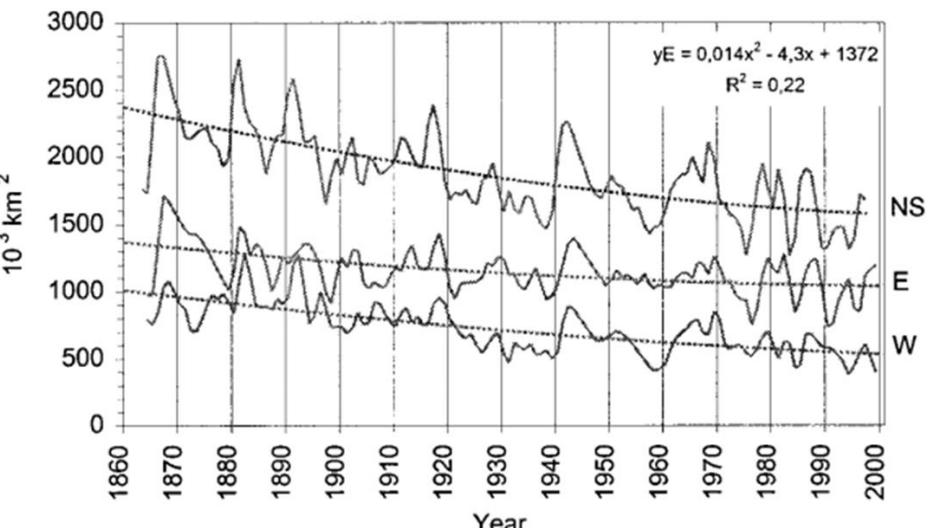
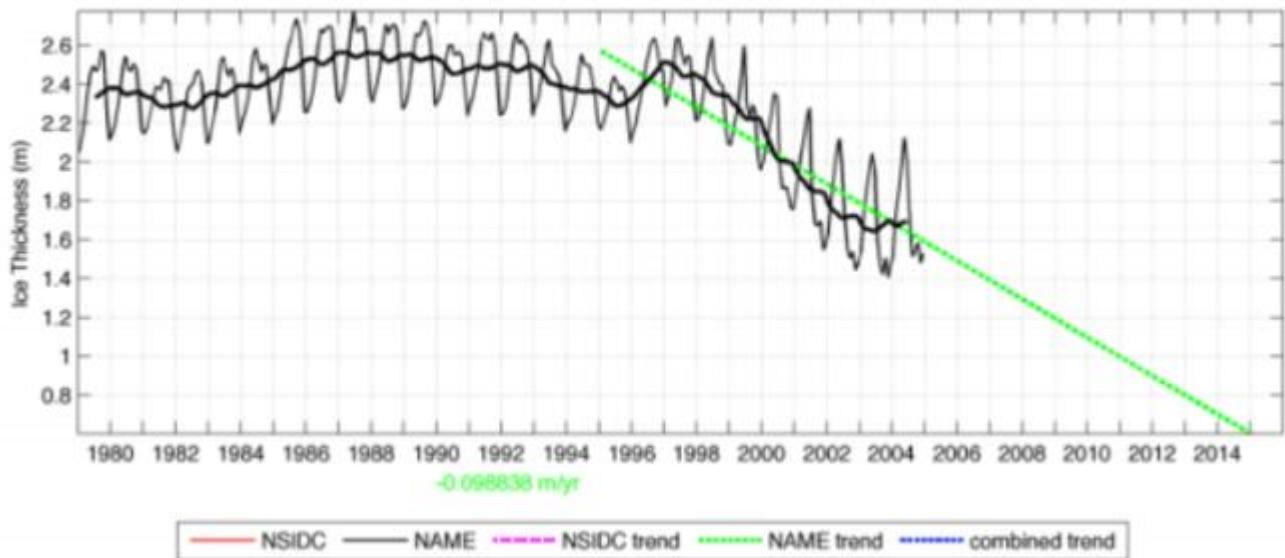


FIG. 2. Time series of the Apr ice extent in the Nordic Seas (NS), eastern area (E), and western

Modeled ice thickness: 1.5-2.0 m or ~35%

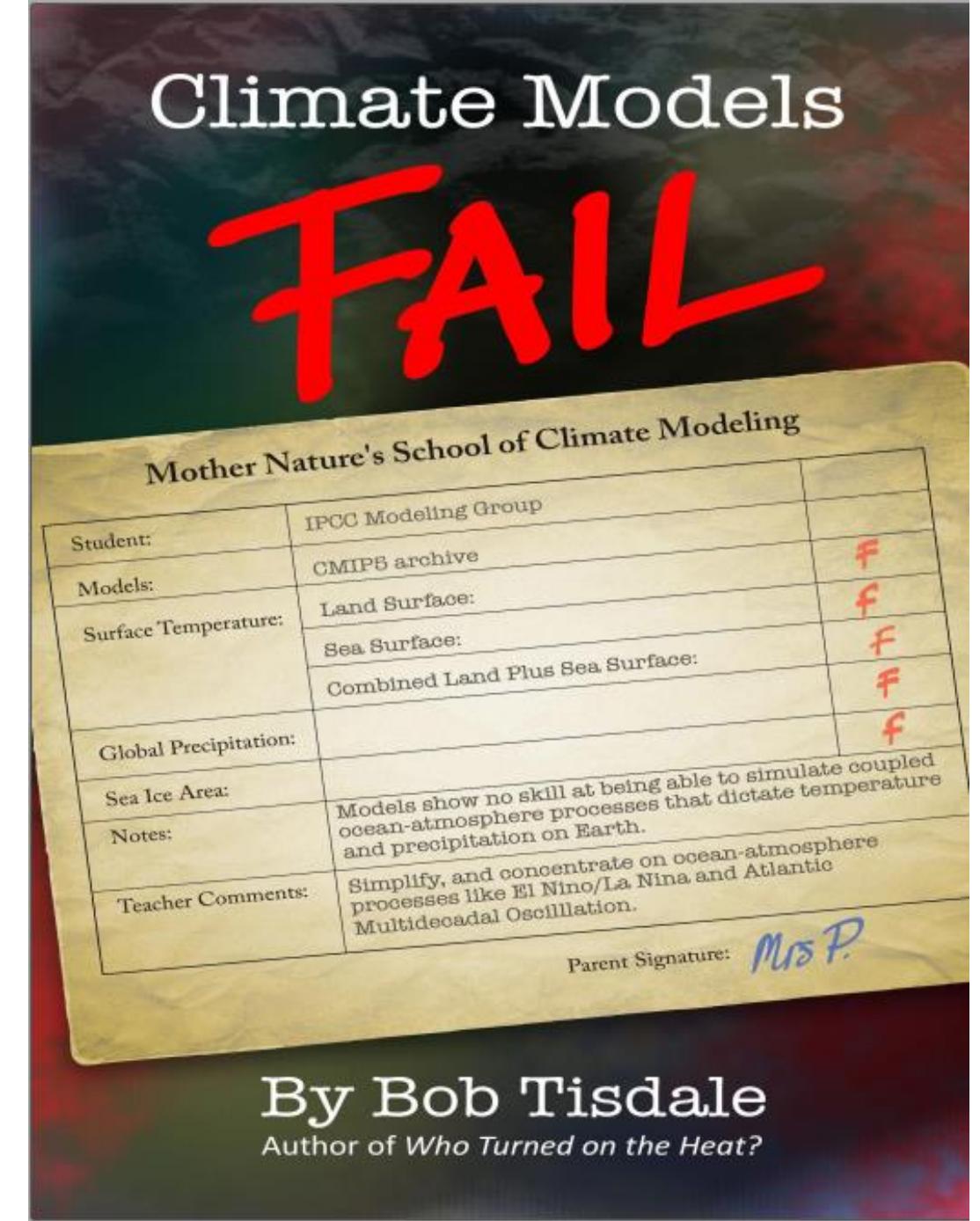


This is an e-book by Bob Tisdale

I can email it to you

Also:

<https://bobtisdale.wordpress.com/>



Bob Tisdale – Climate Observations

Sea Surface Temperature, Ocean Heat Content, and Other Climate Change Discussions



New eBook – Kindle Edition: Dad, Is Climate Getting Worse in the United States?

Posted on July 25, 2018

And the subtitle is, *Book 2 in the DAD, WHY ARE YOU A GLOBAL WARMING DENIER? Series* [Continue reading →](#)

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- 97% Consensus
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CHAPTER 1.2 SUMMARY

Climate models are portrayed by political entities and the media as splendid tools for forecasting future climate <What Katharine Hayhoe does in her presentation>

The climate science community, however, is well aware that climate models are deeply flawed.

Rarely are the models' chronic problems presented to the public and policymakers.

In this chapter,

I cited scientific studies that showed that the models are flawed at simulating, for example:

The coupled ocean-atmosphere processes of El Niño and La Niña, the world's largest drivers of global temperature and precipitation.

Continuation: scientific studies that showed that the models are flawed at simulating, for example

Sea surface temperatures

Precipitation—globally or regionally

Clouds

Influence of El Niño events on hurricanes

Coupled ocean-atmosphere processes associated with decadal and multidecadal variations in sea surface temperatures, which strongly impact land surface temperatures and precipitation on those timescales

http://www.wrh.noaa.gov/twc/monsoon/monsoon_variability.php

Climate Change and the Monsoon

A question of concern is how the North American Monsoon will be altered in the future as a result of climate change. Global warming projections are given by numerical computer models, such as those documented by the Intergovernmental Panel on Climate Change. Unfortunately the IPCC models poorly represent the North American Monsoon in the Southwest. Hence this question does not have an accurate answer at this time.

Here we have a presumably mid-level professional employee of the NWS, trying to provide good technical information on a complex subject, the variability of the North American Monsoon of the southwestern USA, and this employee blurts out the truth:

The Intergovernmental Panel on Climate Change, or IPCC, models “poorly represent the North American Monsoon in the Southwest.”

Who else has noticed that the IPCC models do poorly?

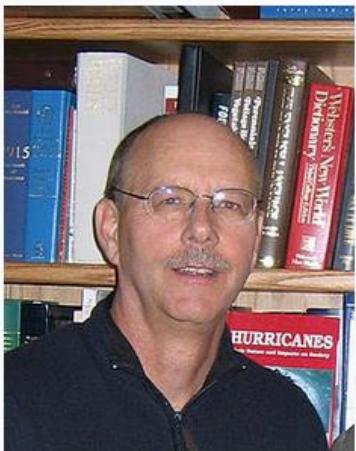
Climate Science: Roger Pielke Sr.

[HOME](#)[MAIN CONCLUSIONS](#)[MESSAGE FROM R.A. PIELKE SR.](#)

Pielke Research Group: News and Commentary



Roger A. Pielke Sr.



Born October 22, 1946 (age 70)
United States

Fields Meteorology, Climatology, Earth
System Science

Institutions University of Colorado Boulder,
Colorado State University, Duke
University, University of Virginia,
NOAA Experimental Meteorology
Lab

Alma mater Towson State College (B.A.,
1968), Pennsylvania State
University (M.S., 1969; Ph.D.,
1973)

Climate Science: Roger Pielke Sr.

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Pielke Research Group: News and Commentary

BY RPIELKE | OCTOBER 9, 2012 · 7:00 AM

Quotes From Peer Reviewed Paper That Document That Skillful Multi-Decadal Regional Climate Predictions Do Not Yet Exist



[The Huge Waste Of Research Money In Providing Multi-Decadal Climate Projections For The New IPCC Report](#)

there is an enormous amount of money being spent to provide multi-decadal regional climate forecasts to the impacts communities. In this post, I select just a few quotes from peer reviewed papers to document that the climate models do not have this skill. There are more detailed on this post also (e.g. [see](#)).

As the first example, from

Dawson A., T. N. Palmer and S. Corti: 2012: [Simulating Regime Structures in Weather and Climate Prediction Models](#). Geophysical Research Letters. doi:10.1029/2012GL053284 In press.

We have shown that a low resolution atmospheric model, with horizontal resolution typical of CMIP5 models, is not capable of simulating the statistically significant regimes seen in reanalysis,It is therefore likely that the embedded regional model may represent an unrealistic realization of regional climate and variability.

Other examples, include

Taylor et al, 2012: [Afternoon rain more likely over drier soils.](#) Nature.
doi:10.1038/nature11377. Received 19 March 2012 Accepted 29 June
2012 Published online 12 September 2012

“...the erroneous sensitivity of convection schemes demonstrated here is likely to contribute to a tendency for large-scale models to ‘lock-in’ dry conditions, extending droughts unrealistically, and potentially exaggerating the role of soil moisture feedbacks in the climate system.”

Driscoll, S., A. Bozzo, L. J. Gray, A. Robock, and G. Stenchikov (2012),
[Coupled Model Intercomparison Project 5 \(CMIP5\) simulations of climate following volcanic eruptions,](#) J. Geophys. Res., 117, D17105,
doi:10.1029/2012JD017607. published 6 September 2012.

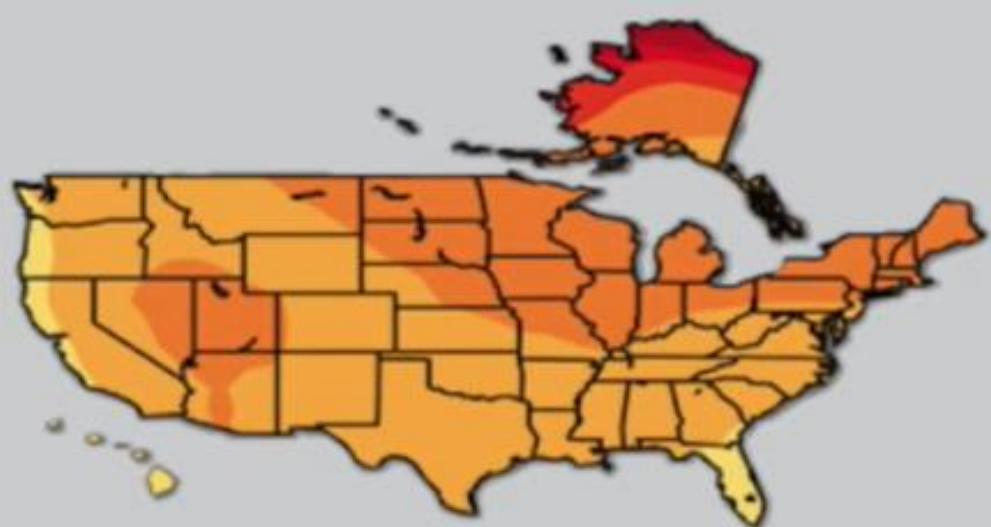
The study confirms previous similar evaluations and raises concern for the ability of current climate models to simulate the response of a major mode of global circulation variability to external forcings.

[Back to Katharine Hayhoe](#)

Science can show us..

Science can show us what will happen
depending on the choices we make

Lower Scenario



Higher Scenario



Degrees F

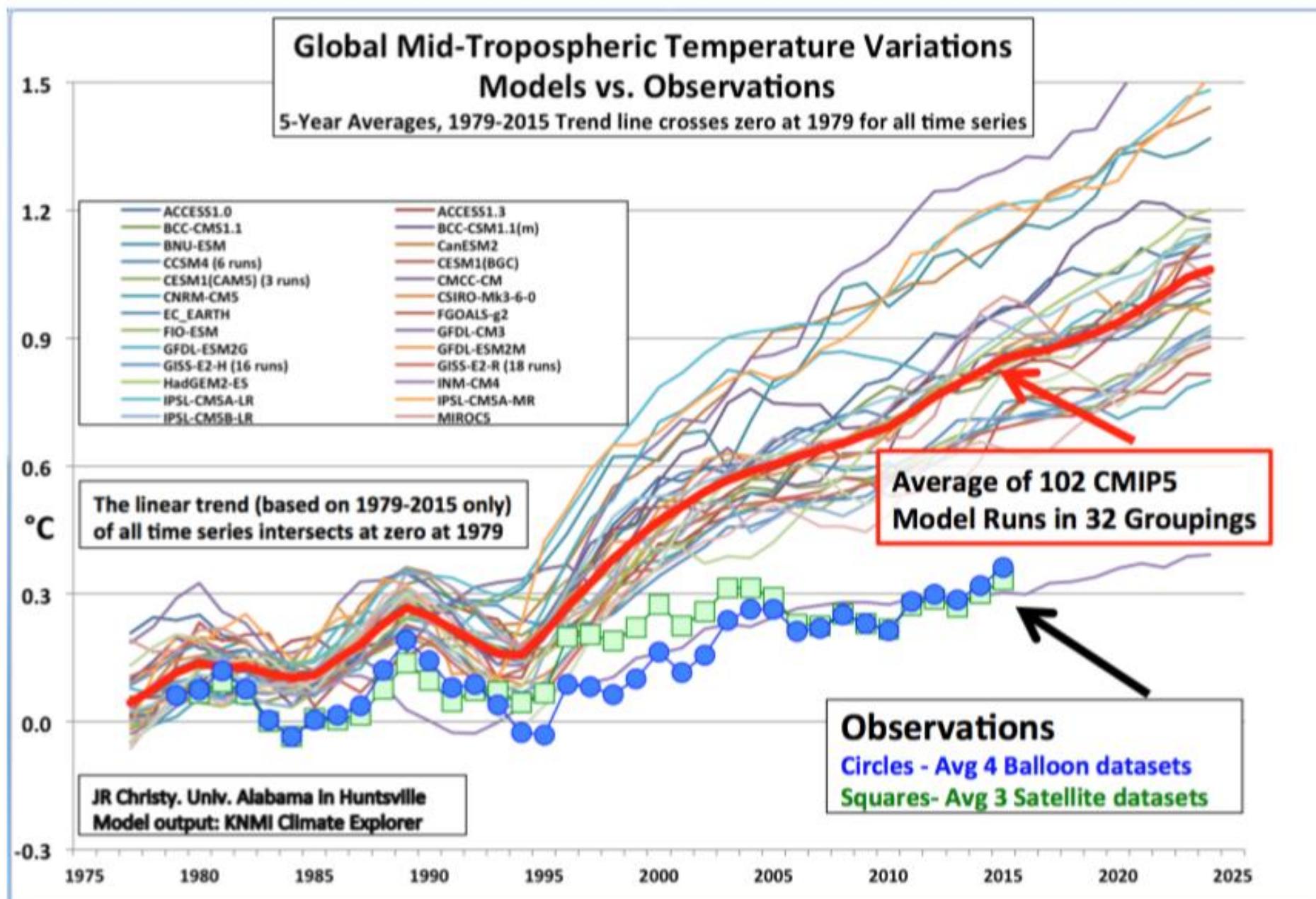


11:05 / 25:17

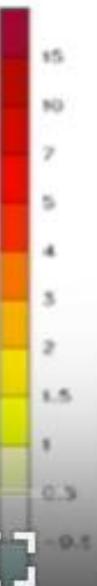
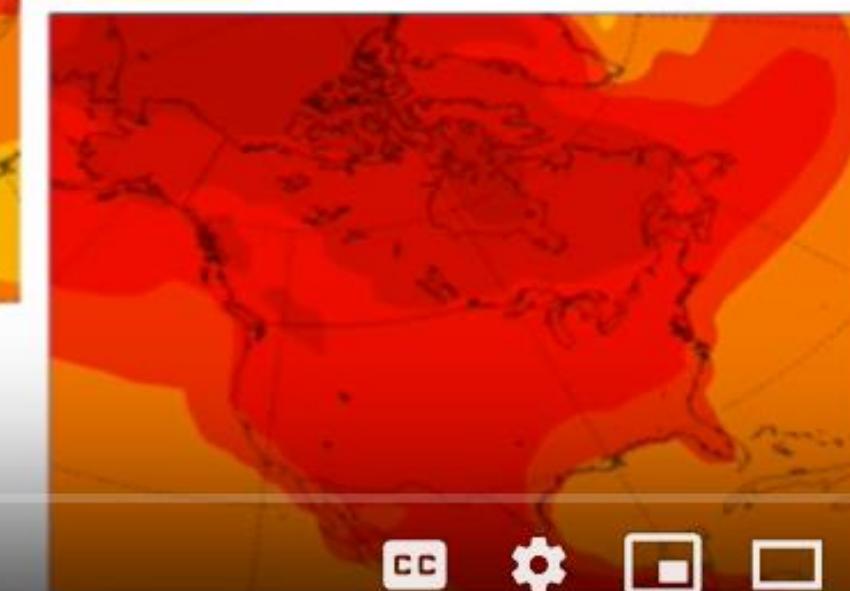
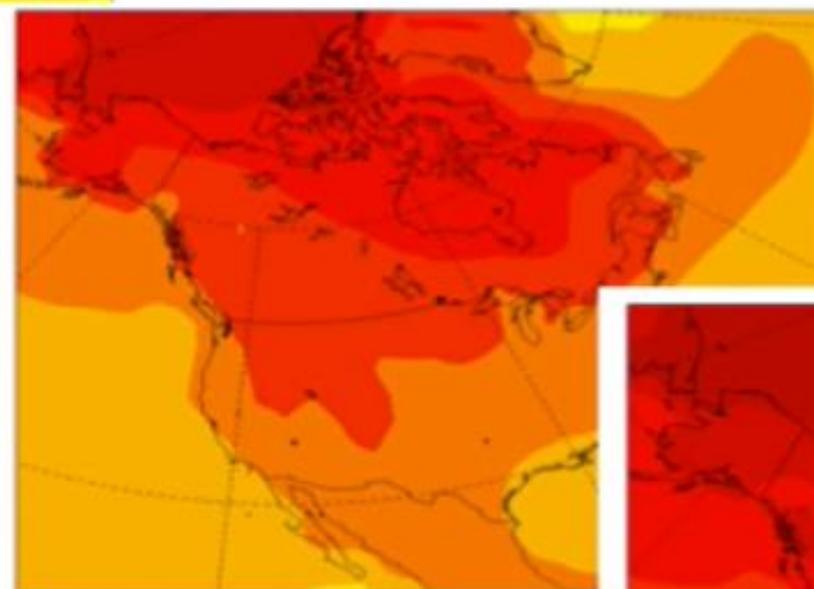
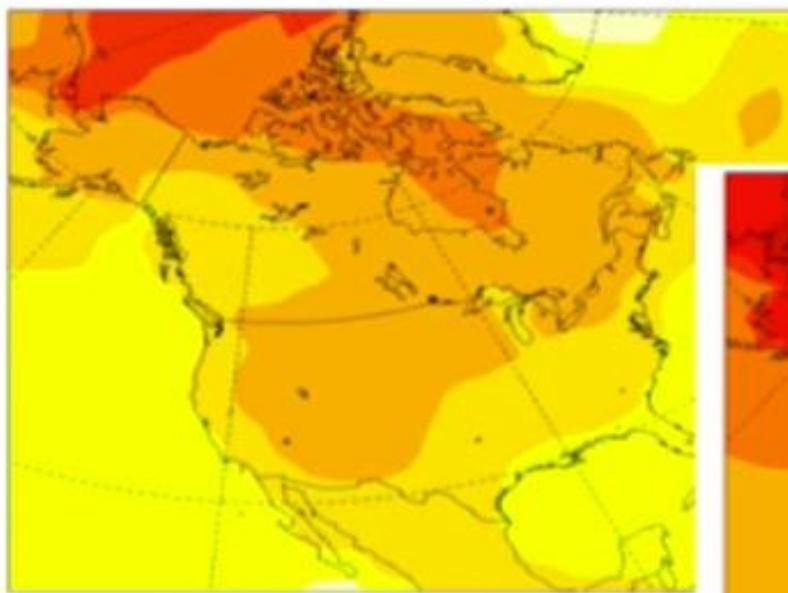


No it can't! Each of these models passed "peer review"

<https://docs.house.gov/meetings/SY/SY00/20160202/104399/HHRG-114-SY00-Wstate-C20160202.pdf>



... and for Canada

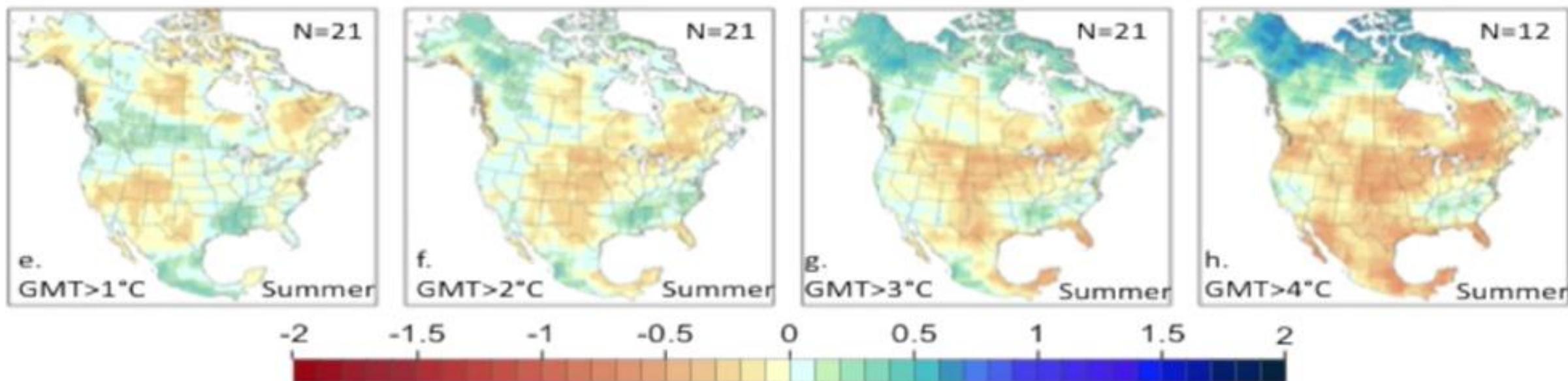


11:12 / 25:17



Drought risk for North America

Hayhoe's model postulates warming brings drought. What do observations and history show?



Increasing amounts of global warming



THE JORNADA

Rangeland Research Programs

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AGRICULTURE AND OTHER LAND USES

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Meteorological data collected at USDA NMSU Jornada Range present a different picture from that presented by Dr Hayhoe



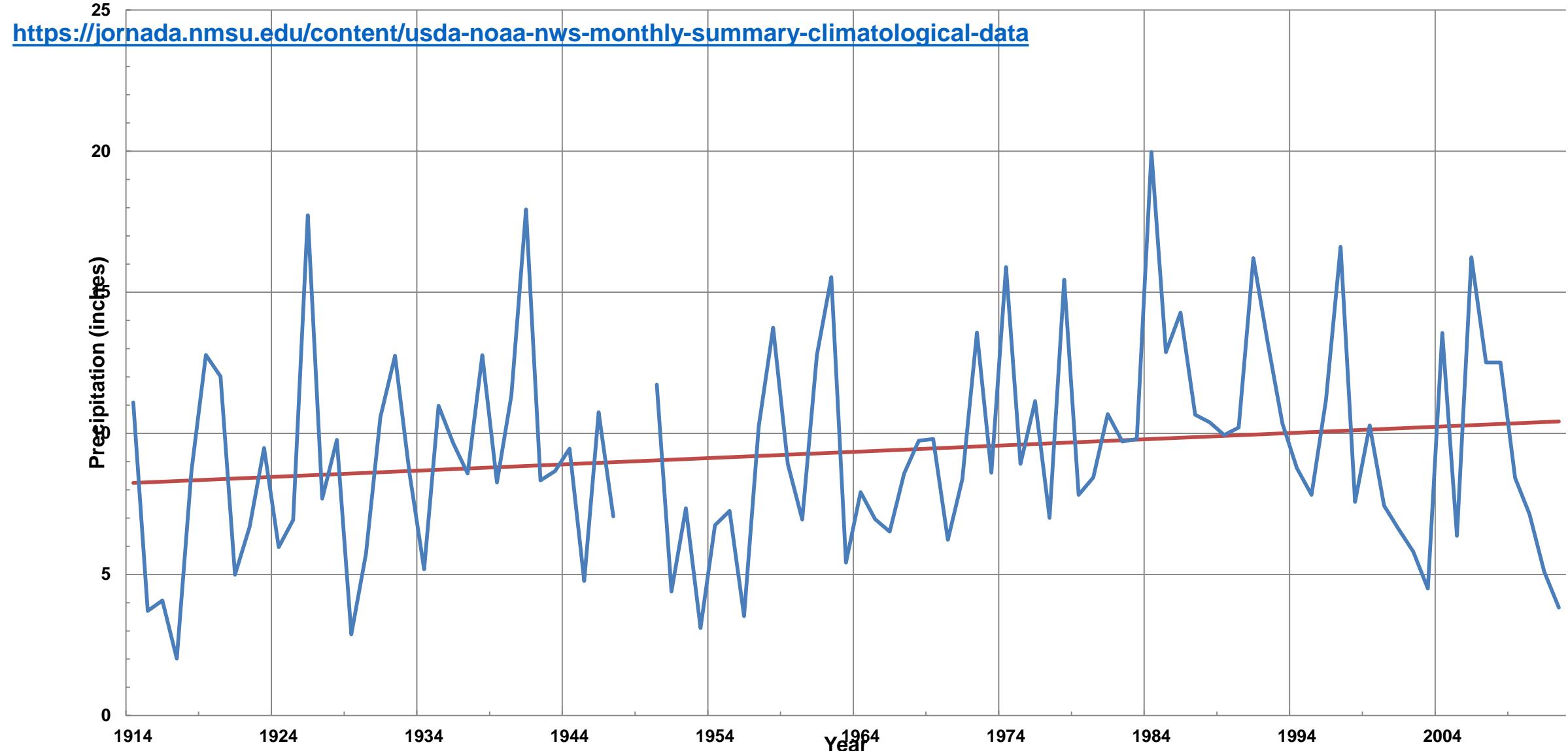
Science

- Long Term Agricultural Research
- Long Term Ecological Research
- National Ecological Observatory Network
- National Wind Erosion Research Network

Technologies

- Assessment, Inventory & Monitoring
- Ecological Site Descriptions
- JournalMap
- Monitoring & Assessment Tools

Jornada Range Precipitation



A hundred years of data show that warming is bringing increasing rainfall in Southern New Mexico, as shown from measurements on the Jornada Range.

US Climate Reference Network

NM Las Cruces 20 N

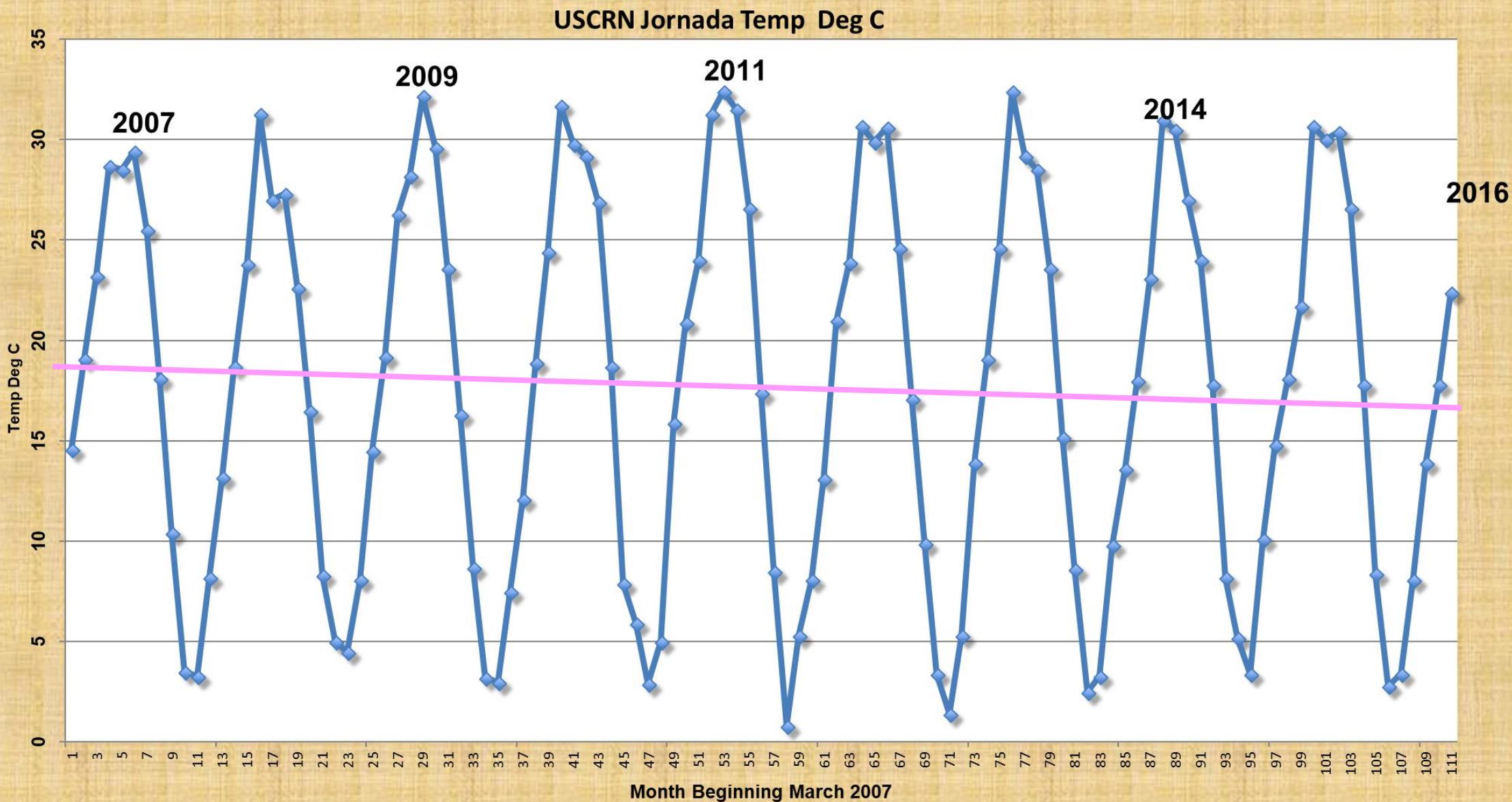
Jornada USDA ARS Experimental Range (Jornada Hq Site)
32.6 N 106.7 W 4324'
March 1, 2007



Triple-Redundant Temperatures... Aspirated Thermistors...located 20 Miles North of Las Cruces

https://www1.ncdc.noaa.gov/pub/data/uscrn/products/monthly01/CRNM0102-NM_Las_Cruces_20_N.txt

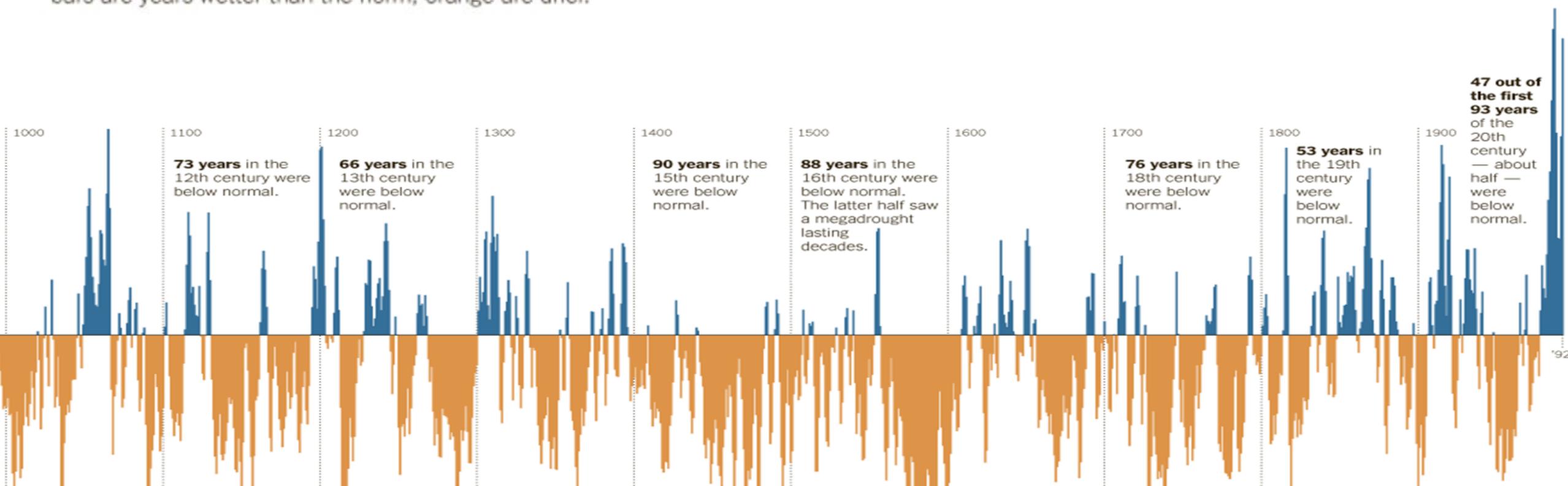
USCRN Jornada data, short period of record. Slope of the trend line dramatically different from Dr Hayhoe's model Initialization. Actual temperatures from just north of Las Cruces show 2C or 3F cooling 2007-2016.



Graphic from University of Arizona Tree Ring Lab: Wettest in last 2000 years, late 20th Century PDO Warm Period

The Longest Measure of Drought: 21 Centuries of Rainfall in New Mexico

This chart shows deviation in annual rainfall levels from a 20th-century benchmark (the period from 1931 to 1990), beginning in 137 B.C. and running through 1992. Blue bars are years wetter than the norm; orange are drier.



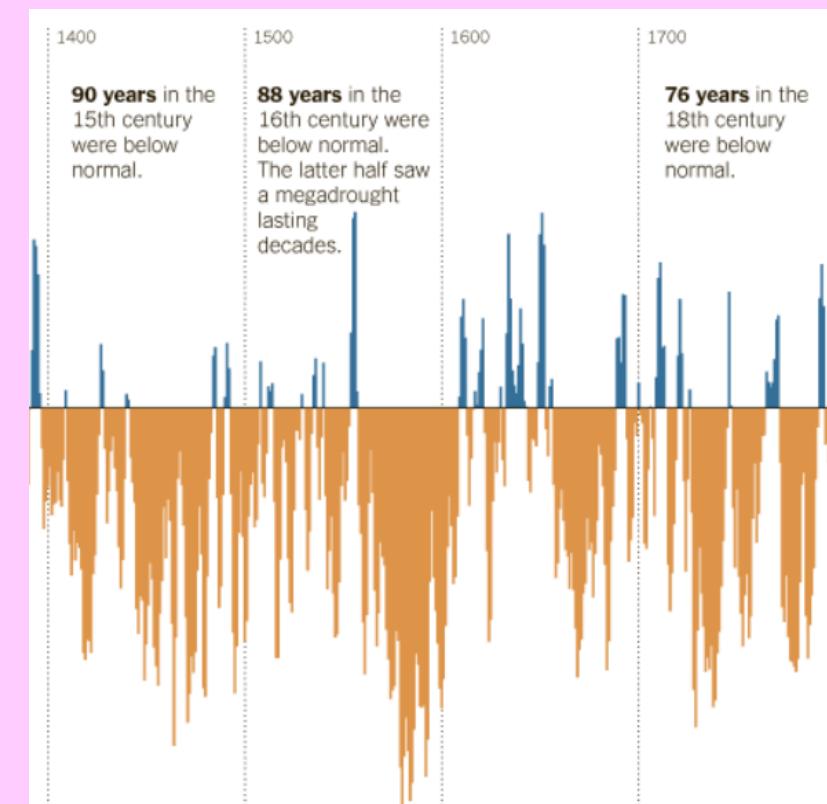
U of A Tree Ring Lab showed late 20th century was the peak rainfall last 2000 years in New Mexico.

Katharine Hayhoe posits that warmth brings drought and water scarcity, and that cool temperatures bring fewer droughts.

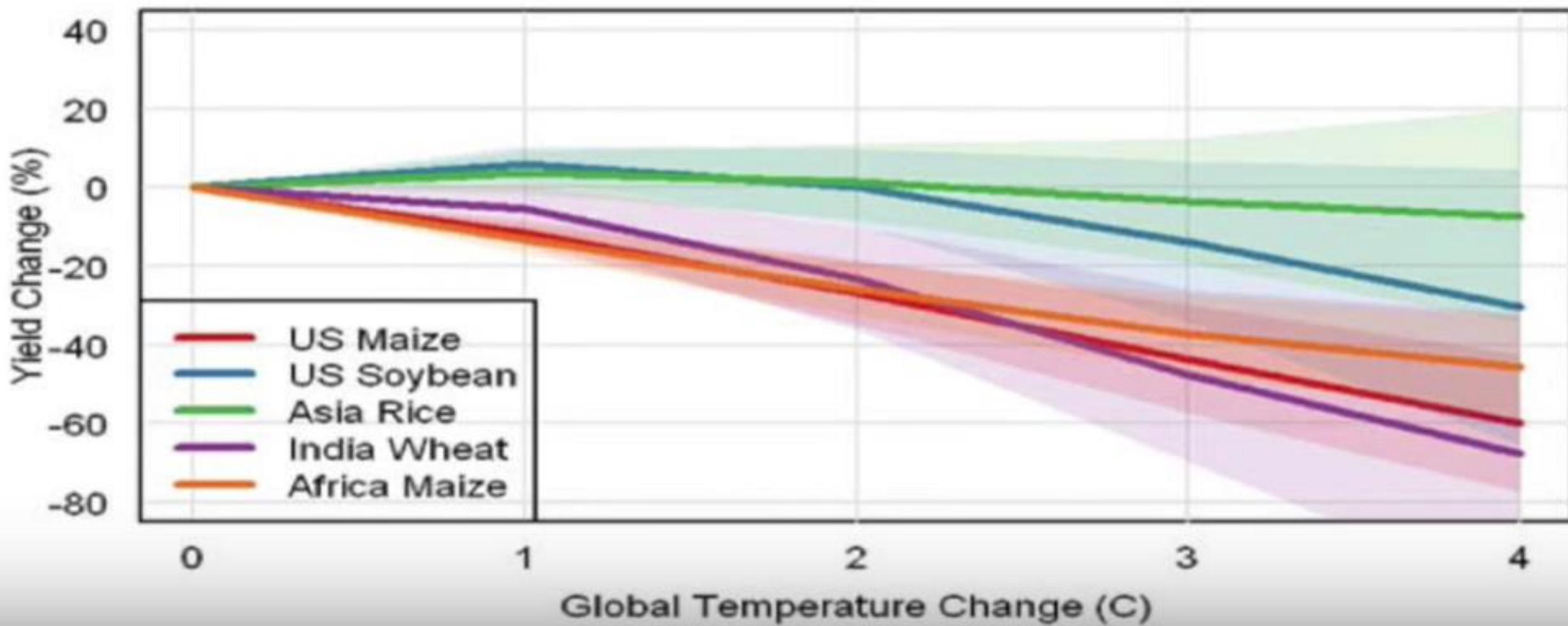
2000-year tree ring time series data show the Little Ice Age was very dry here, Spanish mission history of New Mexico's Abo' Mission in Mountainair confirms.

Abo' Mission Church was established in 1629, mission was expanded 1640, mission... abandoned in late 1600s
... **because of the punishing drought**, famine and disease,
<https://www.nps.gov/sapu/learn/historyculture/abo.htm>

Examining the previous graphic from 1500 to 1700 shows the story:



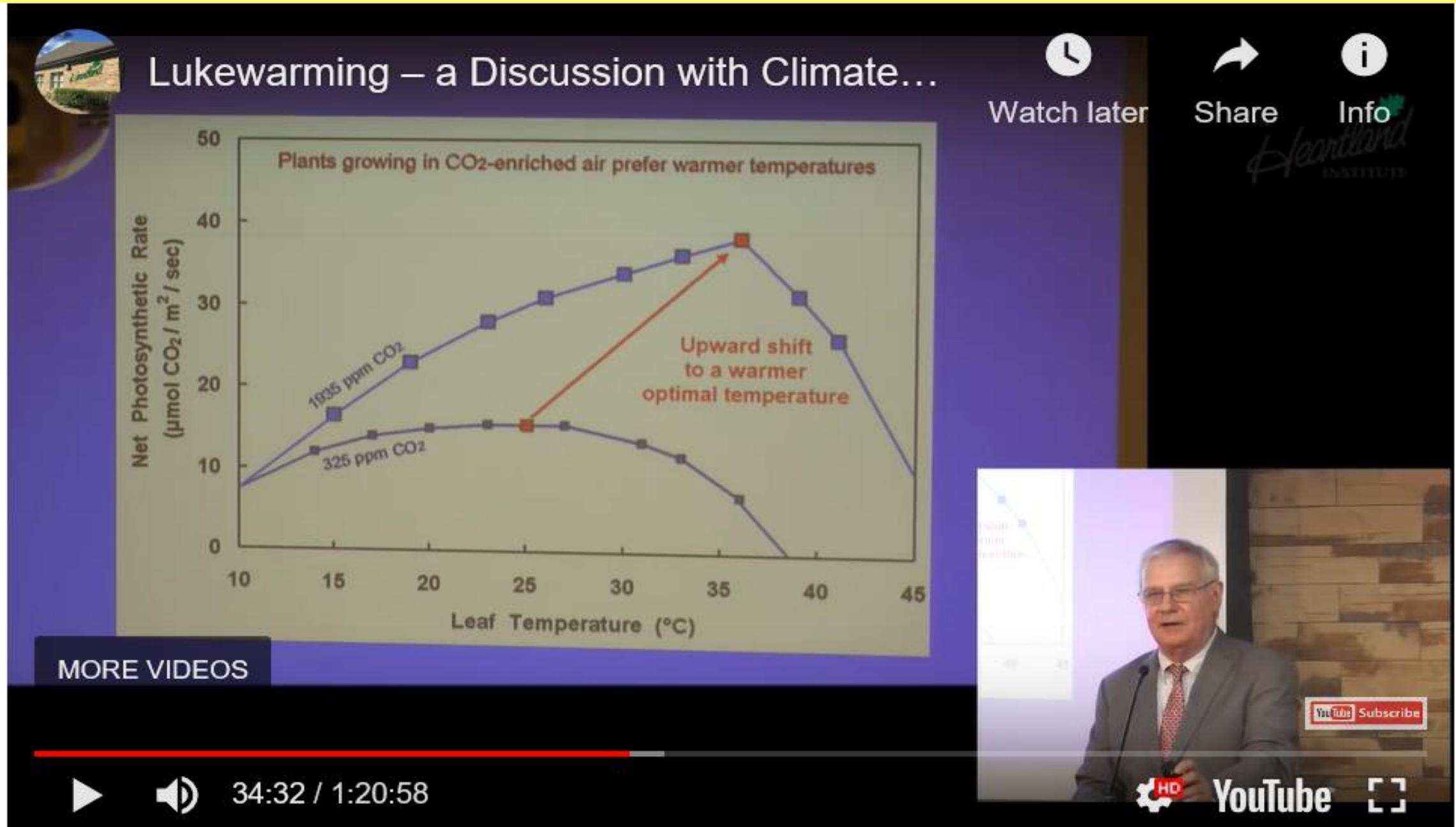
Crop risks for the world



11:52 / 25:17



Dr Patrick Michaels of Cato presented on his book Lukewarming in a presentation to The Heartland Institute,
video location: <https://www.youtube.com/watch?v=DOFoJo6zwEU>



As temperature and $\langle \text{CO}_2 \rangle$ increase above the base level in early 20th century time, the optimum photosynthetic temperature and plant productivity increase dramatically.

The plants rapidly respond to these increases because every plant we live with today developed during periods of higher CO₂ on a much warmer planet than today.

Ammonia consumption goes to the Haber Process which turns natural gas into Ammonium Nitrate fertilizer.

From Wikipedia:

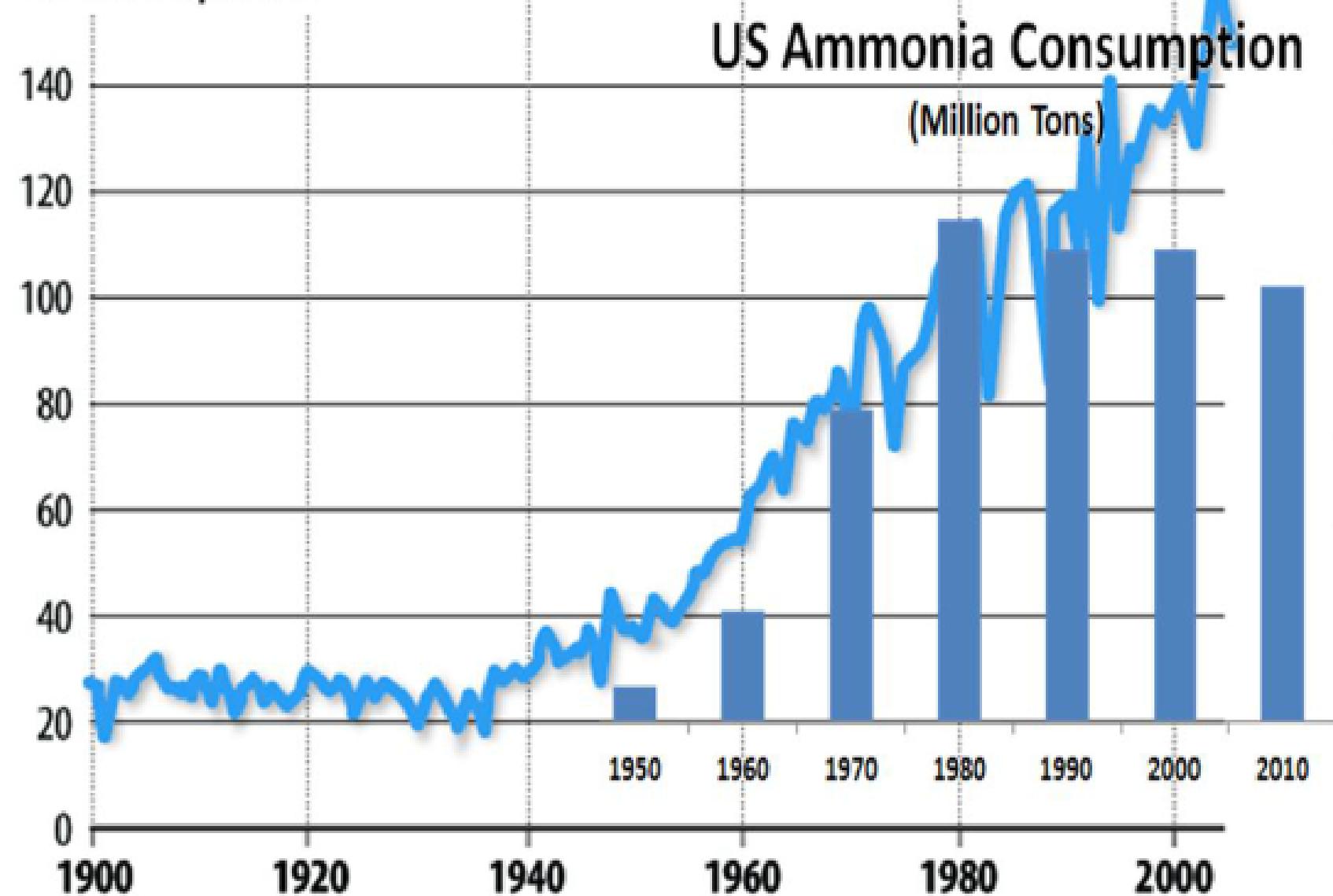
"The Haber process now produces 450 million tons of nitrogen fertilizer per year, mostly in the form of anhydrous ammonia, ammonium nitrate, and urea. Three to five percent of the world's natural gas production is consumed in the Haber process (around 1–2% of the world's energy supply)..."

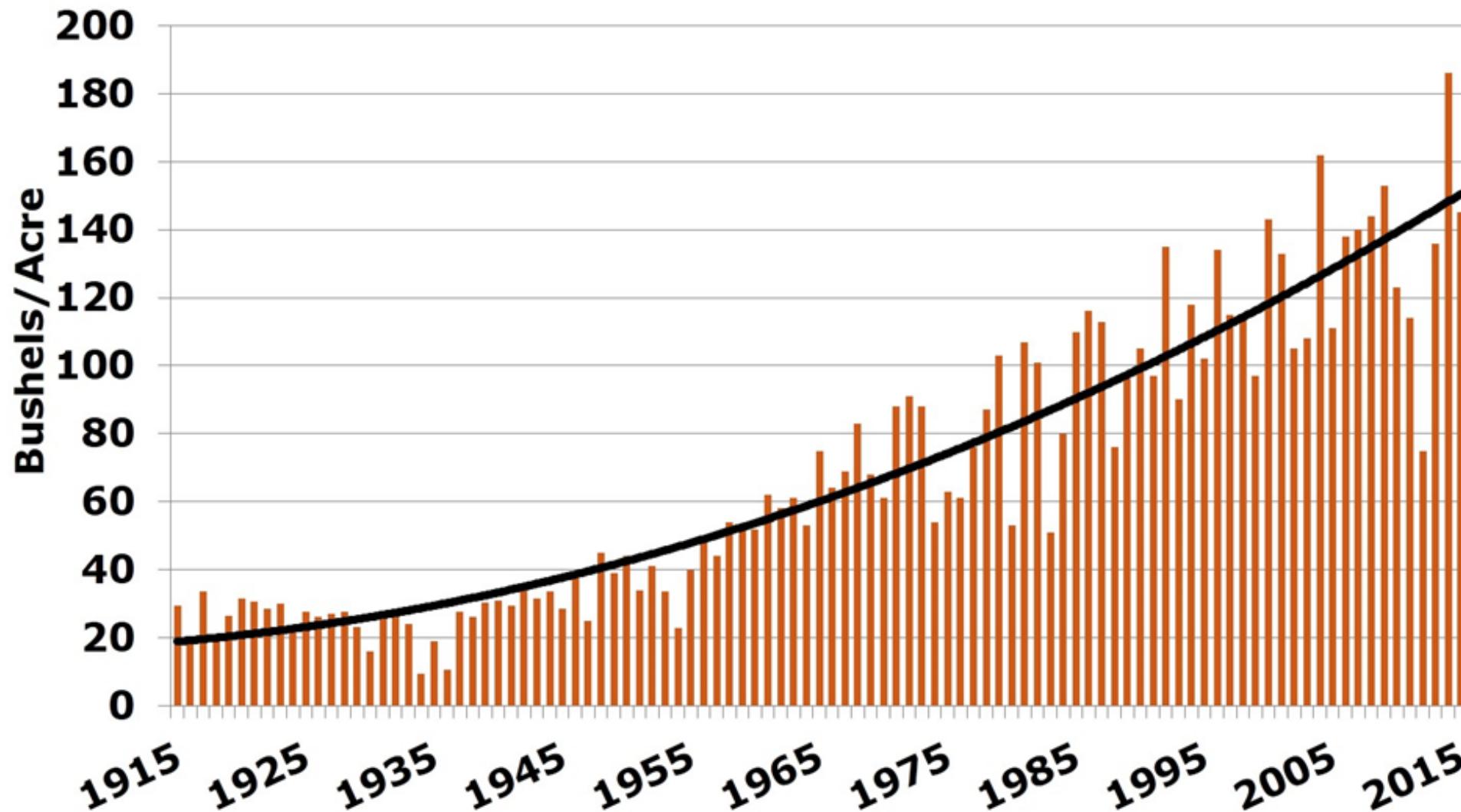
In combination with pesticides, these fertilizers have quadrupled the productivity of agricultural land."

U.S. Corn Grain Yields, 1900-2005

YIELD

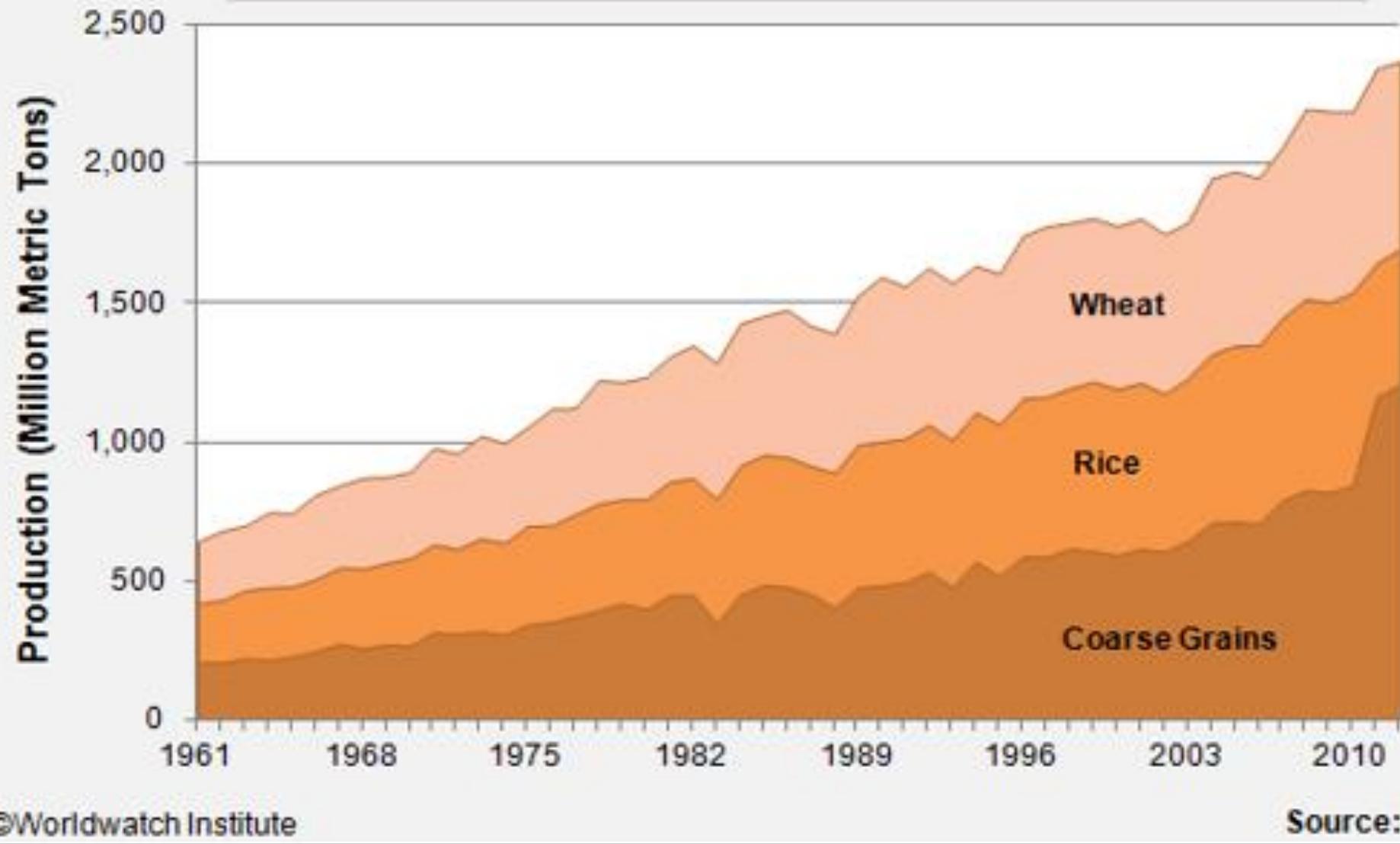
160 Bushels per Acre





Corn Production Efficiency in Missouri corn yields have increased over 1 bushel/acre per year. pounds of fertilizer and pesticide used to produce that corn has decreased. This double efficiency of increasing yields and decreasing input simultaneously sustains profits and environmental quality.
Crop yields and corn production efficiency are increasing, not slipping, as Katharine Hayhoe asserts.

World Grain Production, 1961-2012



©Worldwatch Institute

Source: FAO

World grain production is increasing dramatically!

Increasing CO₂ leads to increasing wheat production, seen in the data at: <http://www.co2science.org/>

Corn

Percent Dry Weight (Biomass) Increases for
300, 600 and 900 ppm Increases in the Air's CO₂ Concentration:

This is what happens adding 300 and 600 PPM CO₂

For a more detailed description of this table, [click here](#).

Zea mays L. [Corn]

http://www.co2science.org/data/plant_growth/dry/z/zeam.php

Statistics

	300 ppm	600 ppm	900 ppm
Number of Results	54	10	
Arithmetic Mean	27.3%	33%	
Standard Error	5.3%	4.5	

Individual Experiment Results

Journal References	Experimental Conditions	300 ppm	600 ppm	900 ppm
Ali (2008)	Well watered and fertilized plants grown from seed to maturity in the field in open-top chambers in air that was charcoal filtered (CF, to remove ozone)	67%		
Ali (2008)	Well watered and fertilized plants grown from seed to maturity in the field in open-top chambers in air that was not charcoal filtered (NF) to remove ozone	37%		
Allen Jr. et al. (2011)	Plants grown from seed in pots placed within sunlit controlled-environment chambers for 39 days with daily irrigation (well-watered, WW), with biomass determinations being made 34 days after sowing	1%		
Allen Jr. et al. (2011)	Plants grown from seed in pots placed within sunlit controlled-environment chambers with irrigation being withheld from half of the plants starting 26 days after sowing (drought-stressed, DS), with biomass determinations being made 34 days after sowing	36%		
De Graff et al., (2007)	Shoot biomass (cultivated subspecies) of well watered plants grown from seed for four weeks within controlled-environment chambers in 0.25-l containers filled with a silt loam soil	10%		

Soybeans:

http://www.co2science.org/data/plant_growth/dry/g/glycinem.php

Percent Dry Weight (Biomass) Increases for 300, 600 and 900 ppm Increases in the Air's CO₂ Concentration:

For a more detailed description of this table, [click here](#).

Glycine max (L.) Merr. [Soybean]

Statistics

	300 ppm	600 ppm	900 ppm
Number of Results	238	25	3
Arithmetic Mean	48.3%	71.2%	61%
Standard Error	2.4%	7.9	11.3%

Individual Experiment Results

<u>Journal References</u>	<u>Experimental Conditions</u>	300 ppm	600 ppm	900 ppm
Ackerson et al. (1984)	field, open-top chambers			38%
Allen et al. (1988)	soil bins, growth chambers	38%	62%	
Allen et al. (1991)	soil bins, growth chambers	58%	61%	

Rice: http://www.co2science.org/data/plant_growth/dry/o/oryzas.php

300, 600 and 900 ppm Increases in the Air's CO₂ Concentration:

For a more detailed description of this table, [click here](#).

Oryza sativa L. [Rice]

Statistics

	300 ppm	600 ppm	900 ppm
Number of Results	289	22	3
Arithmetic Mean	35.2%	141%	34.3%
Standard Error	1.7%	37.5	3%

Individual Experiment Results

Journal References	Experimental Conditions	300 ppm	600 ppm	900 ppm
Aben et al. (1999)	hydroponics, 20 mg N L ⁻¹	32%		
Aben et al. (1999)	hydroponics, 40 mg N L ⁻¹	34%		
Aben et al. (1999)	hydroponics, 60 mg N L ⁻¹	32%		
Aben et al. (1999)	hydroponics, 100 mg N L ⁻¹	29%		
Alberto et al. (1996)	glasshouse, above-ground biomass	71%		
Alberto et al. (1996)	glasshouse, seed yield	83%		

**THIS IS WHERE
SCIENCE STOPS.**



12:11 / 25:17



25 YEARS AGO ...

Achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would **prevent dangerous anthropogenic interference with the climate system.**



13:14 / 25:17



Preview of an upcoming graphic....

These pines are subfossil trees above the present tree line and radiocarbon dated 1000 AD.

Visual proof the current warm period is not as warm as the Medieval Warm Period, 1000 years ago in western North America, and elsewhere.

<https://climateaudit.files.wordpress.com/2005/09/ohioshort.pdf>



Sub-fossilized pines above the tree line in the Sierra Nevada as published in *Climate Audit*.
Left, Whitewing Mountain (C. Millar) and Right, Boreal Plateau (Andrew Bunn)

How much is too much?



13:40 / 25:17



“We basically have three choices:

mitigation, adaptation, and suffering.

We’re going to do some of each. The question is what the mix is going to be.

John Holdren

President's Science Advisor; Harvard University



14:45 / 25:17



The High Priest John Holdren preaches “The Suffering,” and his Call: Redemption through Renewables.

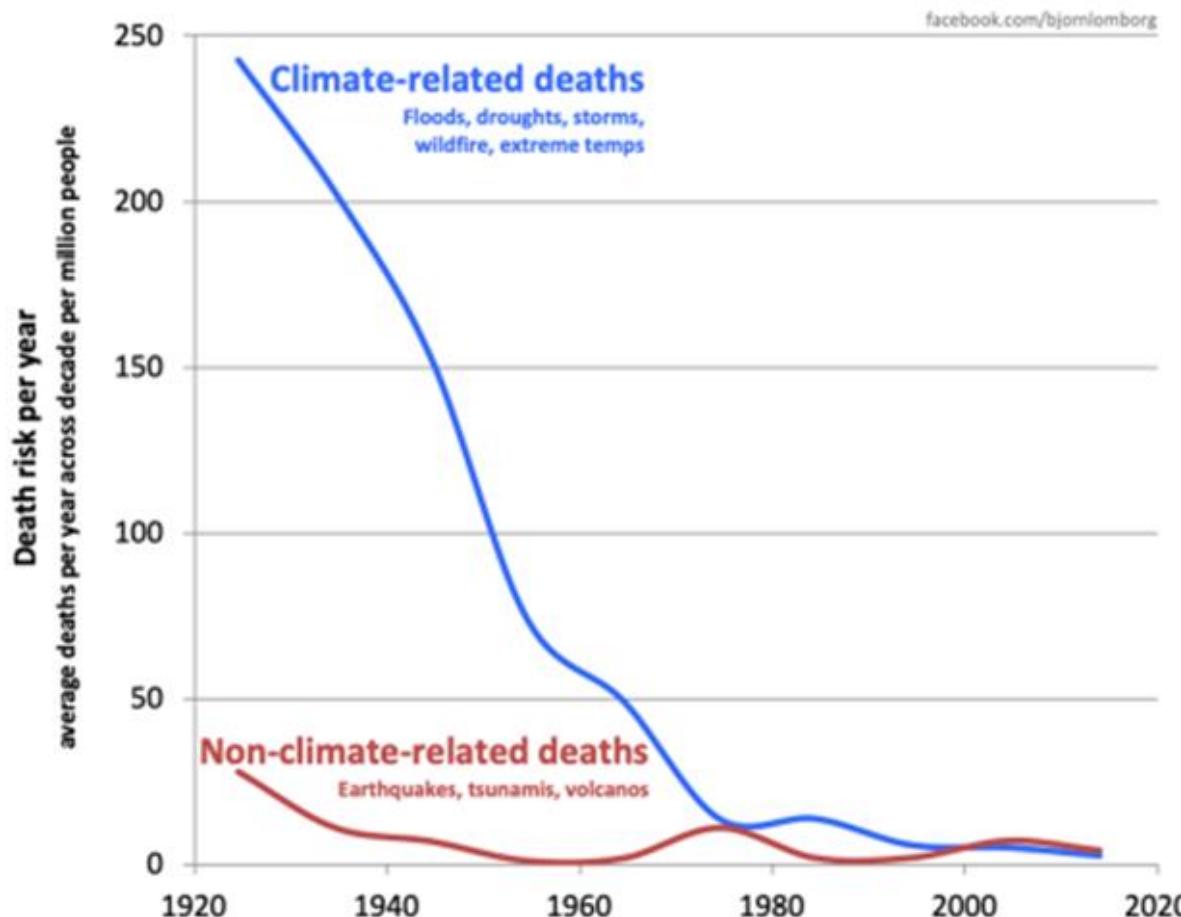
Recently Bjorn Lomborg published a graphic which shows that the human death rate from severe weather and climate-related phenomena has fallen at least by 99 ½ percent since 1920

Is this “The Suffering” of which John Holdren and Katharine Hayhoe speak?

<https://wattsupwiththat.com/2019/01/27/inverse-hockey-stick-climate-related-death-risk-for-an-individuals-down-99-since-1920/>

“If we look at the death risk for an individual, seen below, the risk reduction is even bigger – dropped almost 99% since the 1920s.”

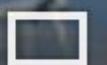
Global Death Risk from Climate and non-Climate Catastrophes, 1920-2018



INVESTING IN CLEAN ENERGY



18:28 / 25:17



"You have rusting old oil rigs being replaced by Shiny White Wind Turbines!"



<http://savetheeaglesinternational.org/wp-content/uploads/2011/02/pic12.jpg>



Georgetown Goes All In on Renewable Energy

by Jim Malewitz | March 18, 2015 | 37 Comments

[Comment](#)[Republish](#)[Email](#)[Tweet](#)[Recommend](#)

A Central Texas city is waving goodbye to fossil fuels.

Georgetown's municipal utility on Wednesday unveiled plans to abandon traditional electricity sources like coal and gas power plants, instead exclusively

"It was really primarily a price decision," said Keith Hutchinson, the city's spokesman.



21:43 / 25:17



<https://wattsupwiththat.com/2018/12/21/texas-city-featured-in-al-gores-inconvenient-sequel-lost-millions-in-its-green-energy-gamble/>

Texas City Featured In Al Gore's 'Inconvenient Sequel' Lost Millions In Its Green Energy Gamble, Plus reality denial from the BBC

charles the moderator / December 21, 2018

From The Daily Caller

Millions In Its Green Energy Gamble

Michael Bastasch | Energy Editor
12/18/2018 | Energy

10:55 PM

The city of Georgetown, Texas, lost nearly \$7 million this year on its green energy contracts.

- Al Gore featured the city in his “Inconvenient Sequel” film, which was released in 2017.
- Mayor Dale Ross said going green would save residents money, but now has cost them millions.



20 DEC 2018

Texan city fights Trump on climate change

Georgetown is powered by 100% renewable energy. Its Republican mayor is an unlikely climate change hero.

[Read the full article | BBC News website](#)

BBC

[Terms & conditions](#) | [Help](#)

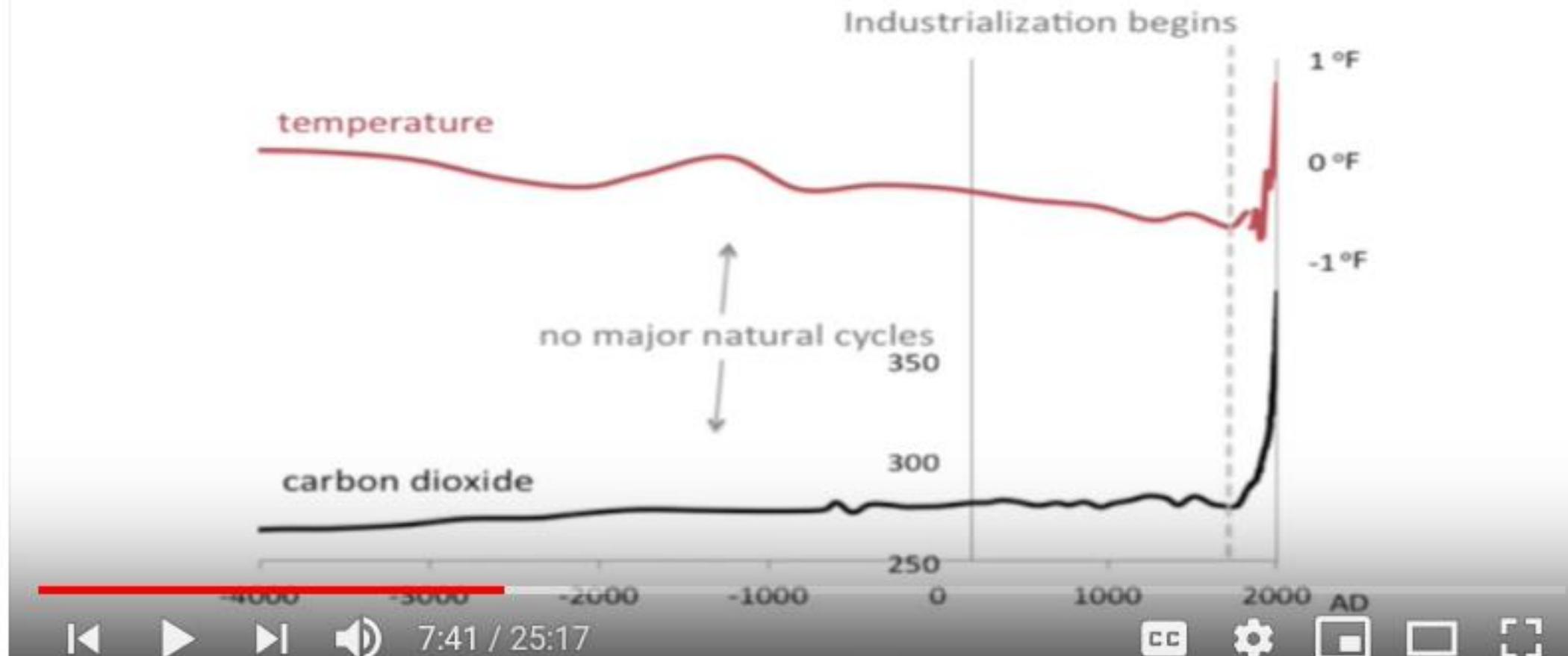
Next, the NMSU program 6 Feb 2019, Domenici Hall

Hayhoe's graphic of CO₂ and temperature, no source or reference, the past 6000 years.

NB, She shows "no major natural cycles" for this period.

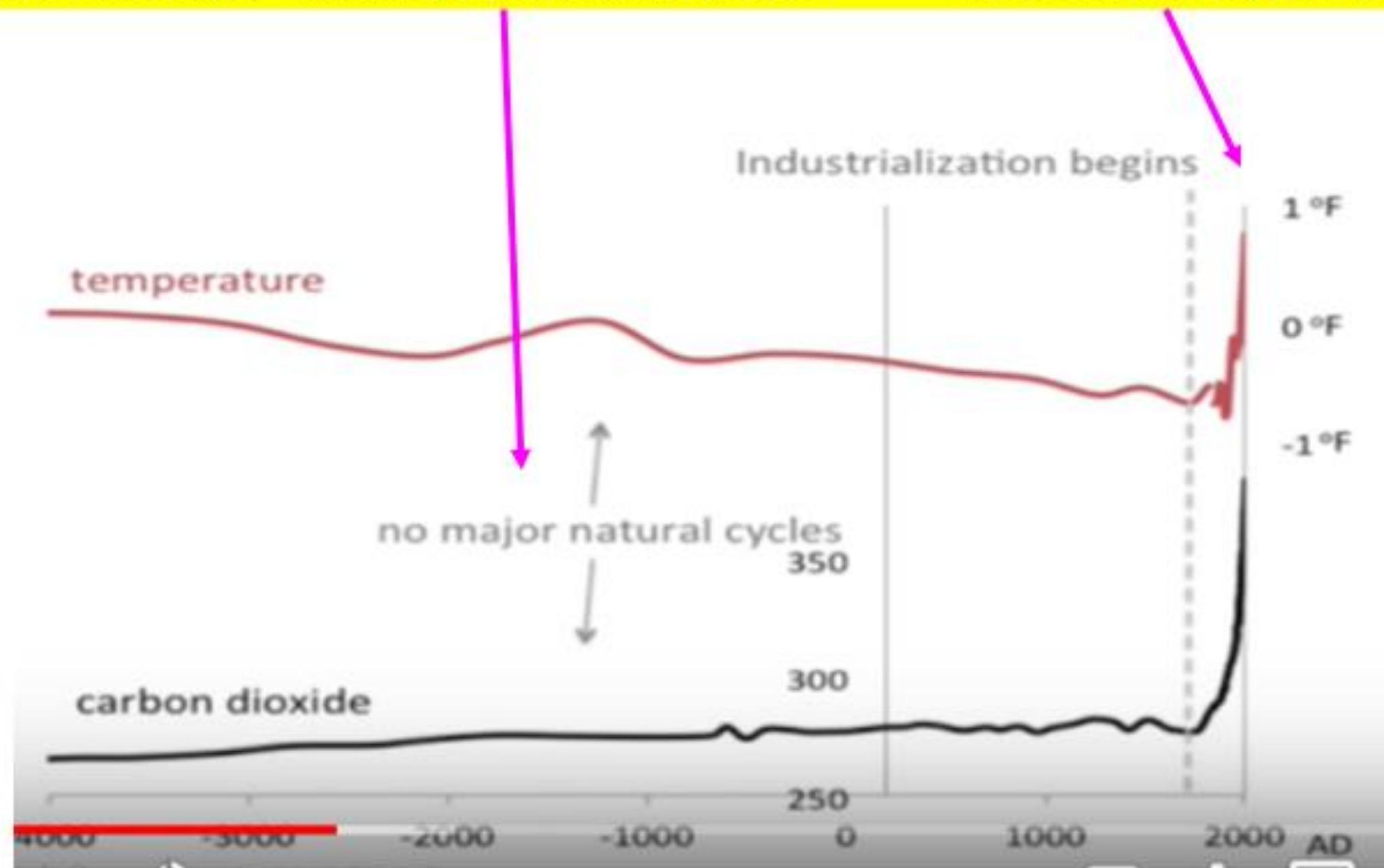
Present temperatures are warmest of the past 6000 years.

The next event on our "orbital calendar" ...

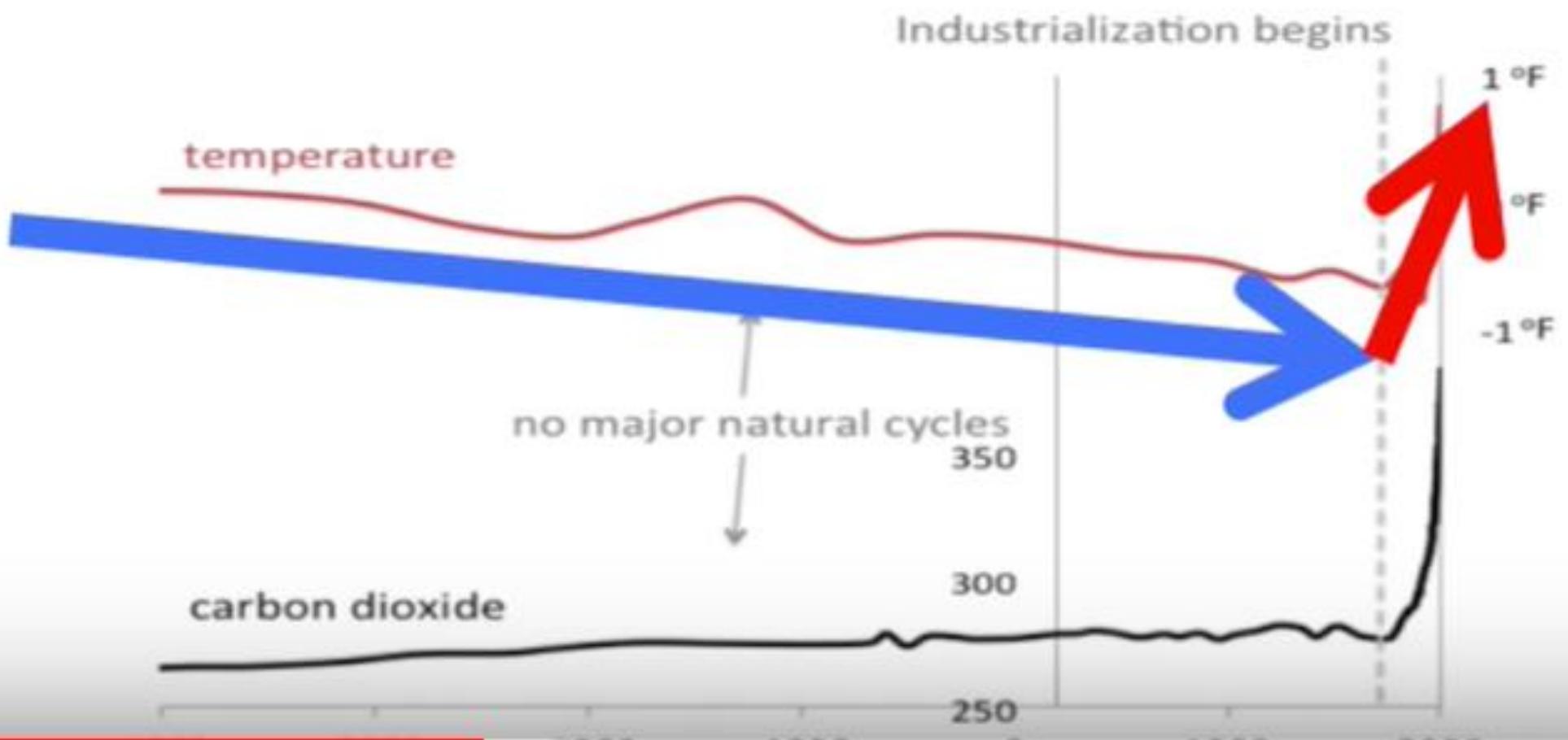


NB: She says, "no major natural cycles"

hottest last 6,000 years



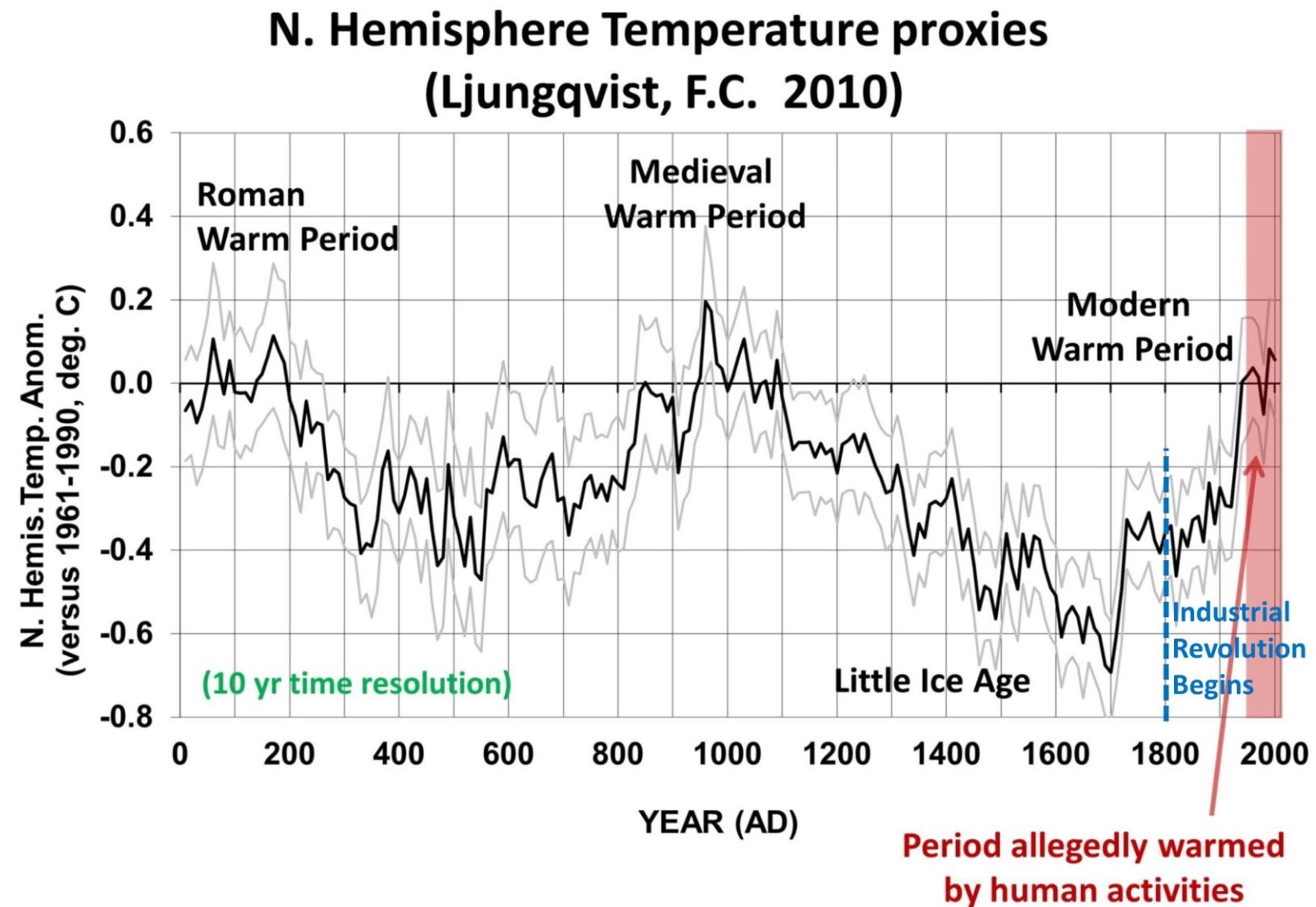
... until the Industrial Revolution, that is



7:54 / 25:17



This point seemed easiest to blunt her message,
clearly incorrect based on these data...



NB, ~1000 year cycles dominate the 2000-year time domain of this graphic

<http://notrickszone.com/2019/01/21/new-paper-modern-warming-was-driven-by-primarily-natural-factors-global-cooling-has-now-begun/>

A 2000-YEAR GLOBAL TEMPERATURE RECONSTRUCTION BASED ON NON-TREERING PROXIES

Climate histories are commonly reconstructed from a variety of sources, including ice cores, tree rings, and sediment. Tree-ring data, being the most abundant for recent centuries, tend to dominate reconstructions. There are reasons to believe that tree ring data may not properly capture long-term climate changes. In this study, eighteen 2000-year-long [1-1995 AD] series were obtained that were not based on tree ring data. Data in each series were smoothed with a 30-year running mean. All data were then converted to anomalies by subtracting the mean of each series from that series. The overall mean series was then computed by simple averaging. ... One persistent question is whether the MWP was "really" warmer than the end of the 20th century. Even keeping in mind that Figure 1 shows 30-year running means, it would indeed seem to show the MWP to be warmer than the late 20th century. The eighteen series used here show a mean difference of about 0.3°C between the MWP and the 20th century (range of 0 to 0.6°C difference over the periods).

Energy & Environment · Vol. 18, No. 7+8, 2007

Loehle, 2007
doi:10.1260/095830507782616797

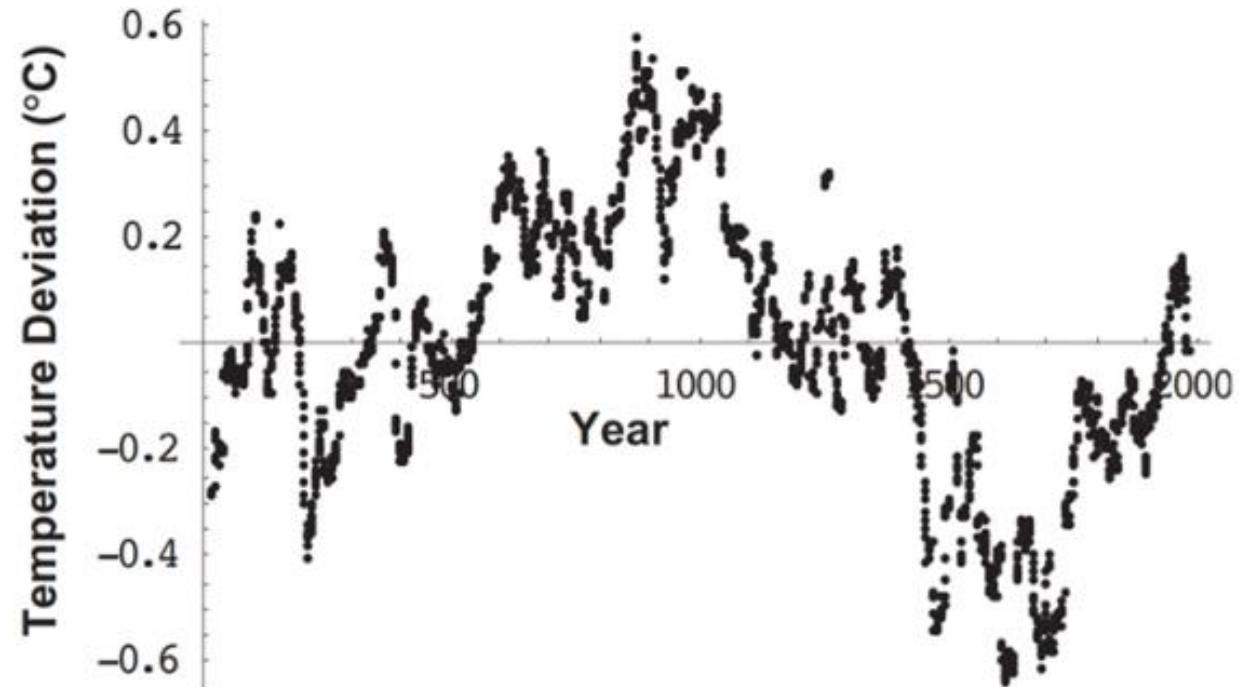


Figure 1. Mean of temperature data for 18 series.

Data archived at <http://www.ncasi.org/programs/areas/climate/LoehleE&E2007.csv>

A 2000-YEAR GLOBAL TEMPERATURE RECONSTRUCTION BASED ON NON-TREERING PROXIES

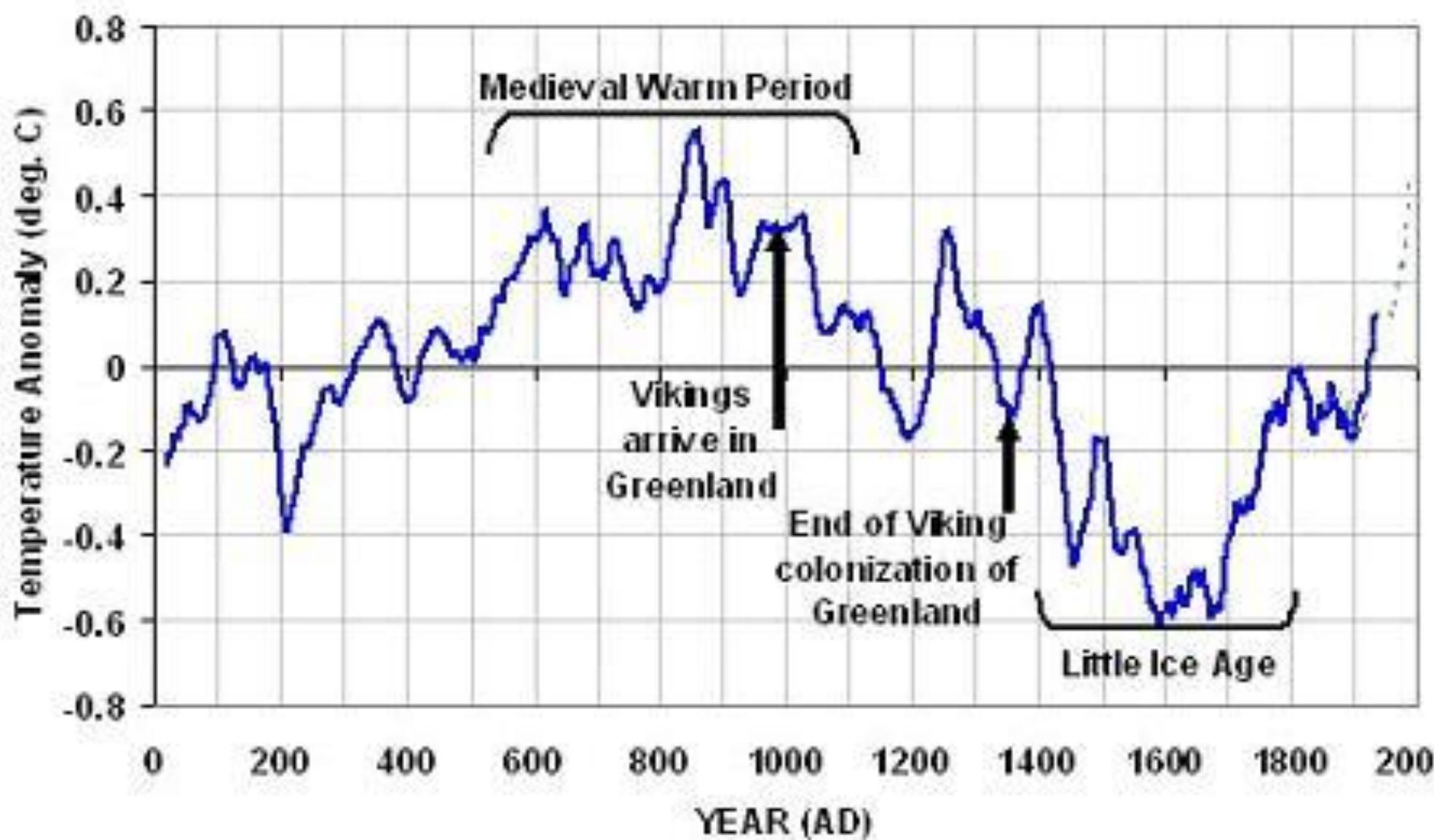
by

Craig Loehle

Reprinted from

**ENERGY &
ENVIRONMENT**

VOLUME 18 No. 7+8 2007

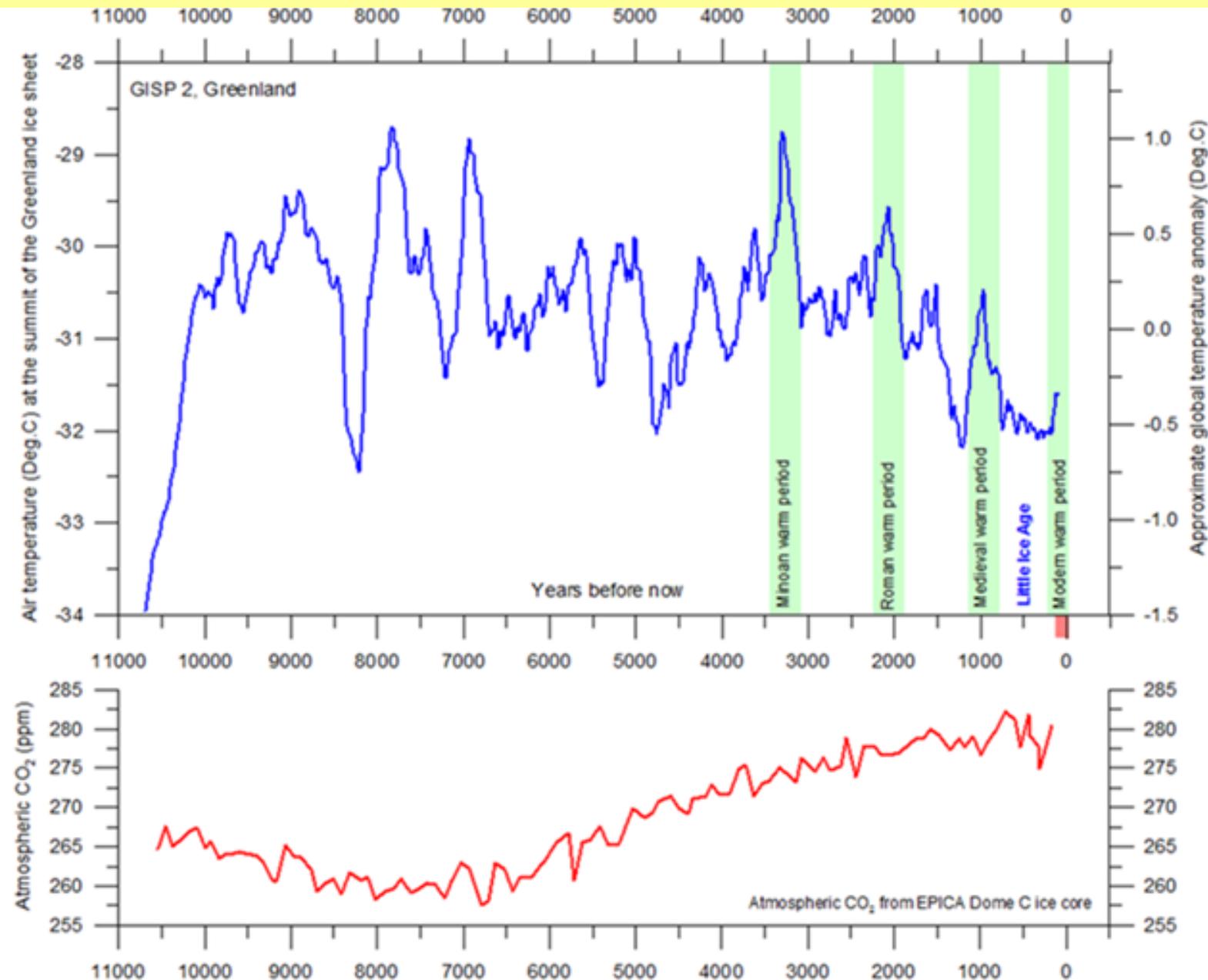


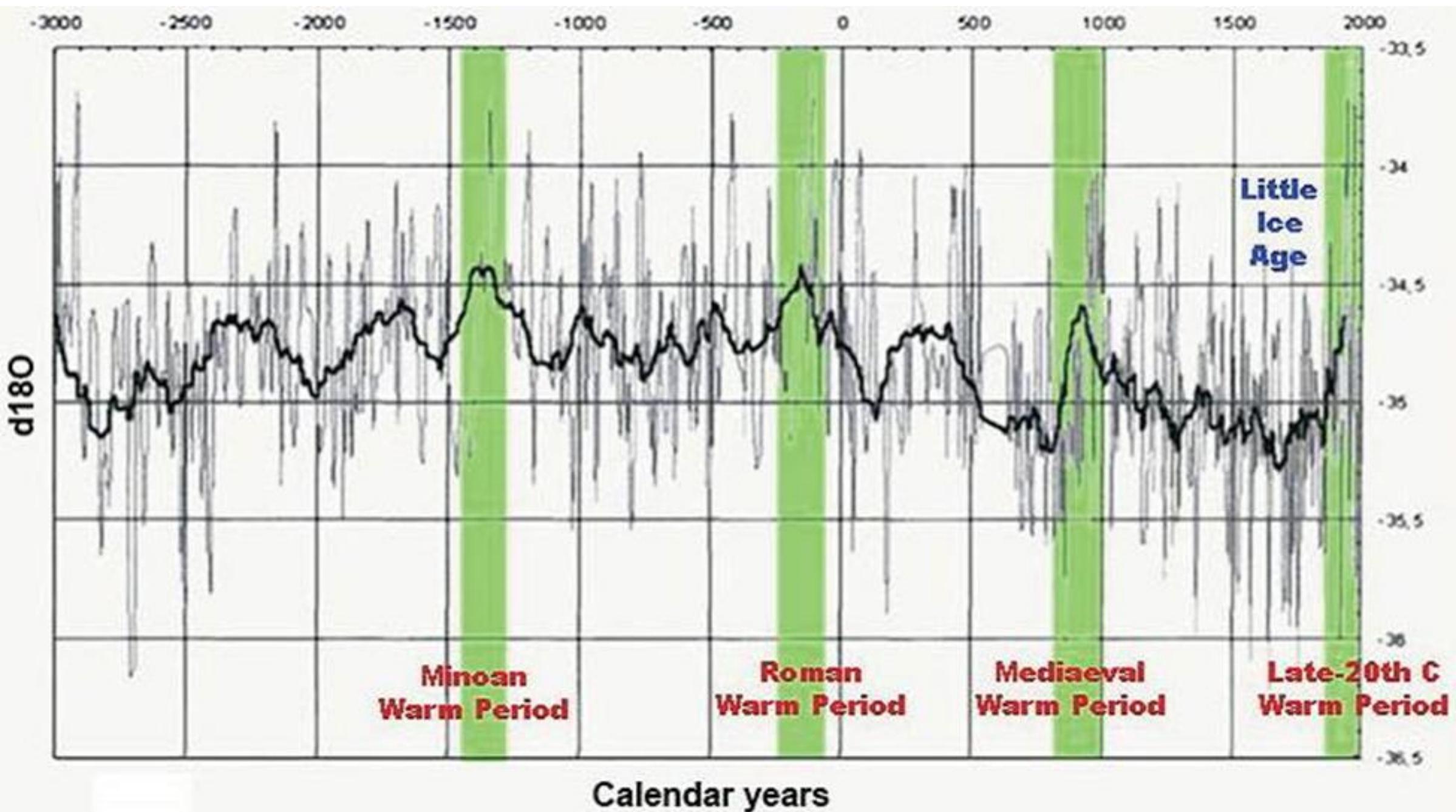
<http://www.climate4you.com/images/GISP2%20TemperatureSince10700%20BP%20with%20CO2%20from%20EPICA%20DomeC.gif>

Professor Ole Humlum
University of Oslo Department of
Geosciences:

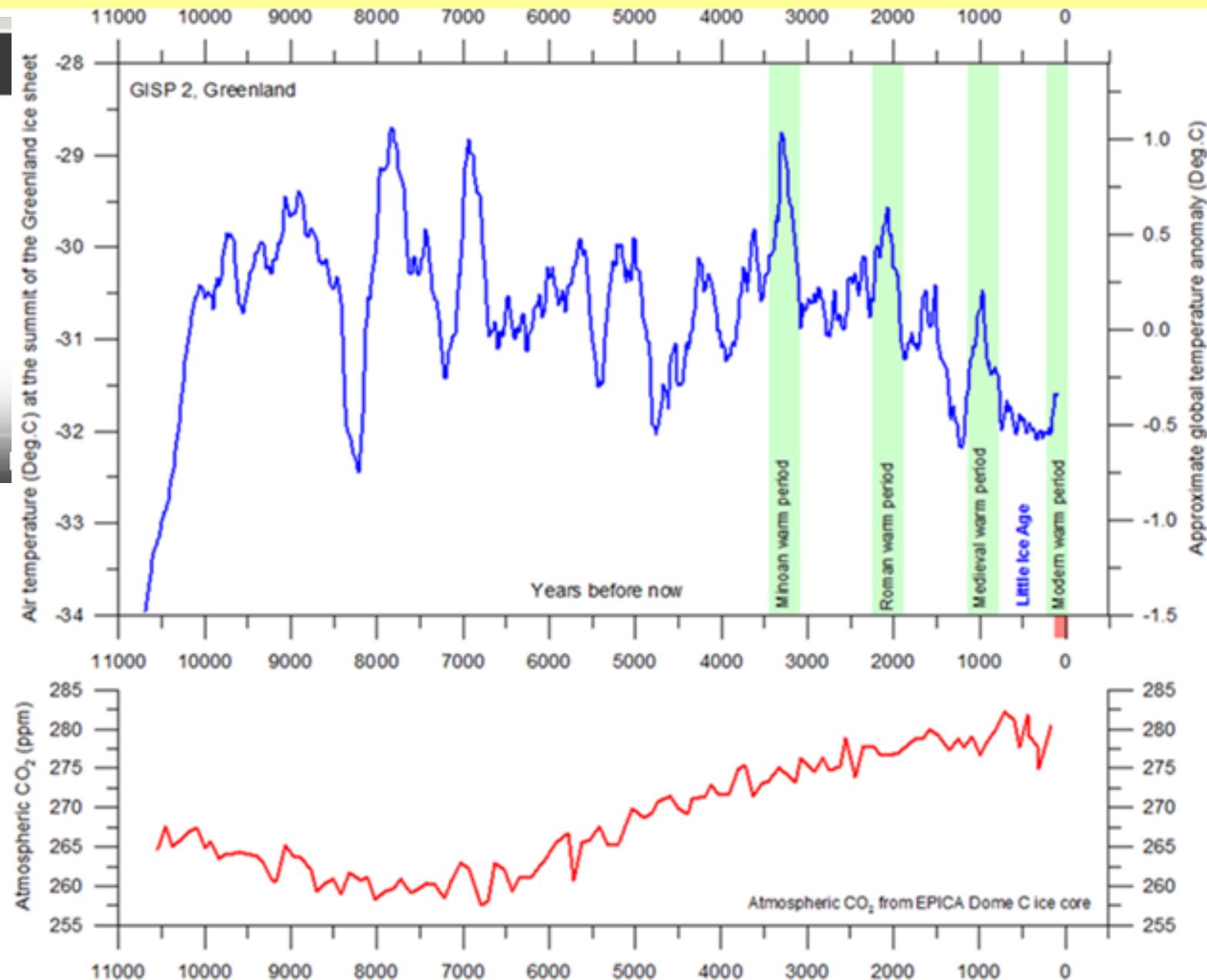
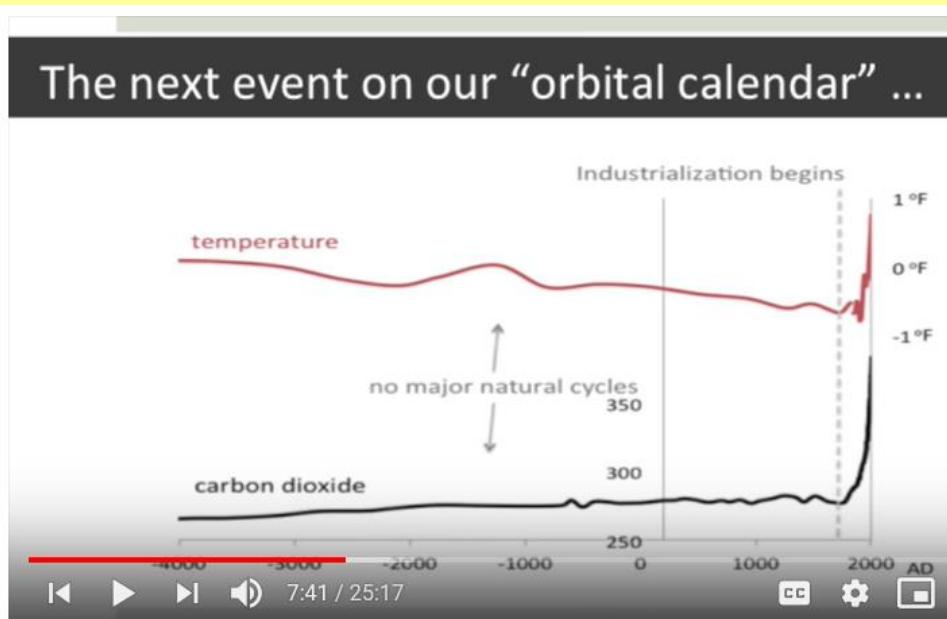
Temperature data from the GISP2 ice
cores (Blue)

$\langle \text{CO}_2 \rangle$ from the EPICA Dome C core
(Red)





<http://www.climate4you.com/images/GISP2%20TemperatureSince10700%20BP%20with%20CO2%20from%20EPICA%20DomeC.gif>



Temperature data from the GISP2 ice cores

<CO₂> from the EPICA Dome C core:

Remarkably different from Dr Hayhoe's

Previous lecture I attended by Gregg Garfin was hosted by members of the NMSU Biology Department...

A 5000-year old Spruce in the Canadian Arctic. This tree grew during the Holocene Climatic Optimum. Trees no longer live there because the climate is colder now. This is now tundra.

Holocene landscape development and climatic change in the low arctic,
Northwest Territories, Canada

[Palaeogeography, Palaeoclimatology, Palaeoecology](#)

[Volume 205, Issues 3-4, 30 March 2004, Pages 221-234](#)

**Professor Glen M. McDonald,
Director UCLA Institute for the Environment,
Full Professor, UCLA Dep't of Geography.
Chairman, Department of Geography
UCLA**

**Similar Photo also in
“A Primer on CO₂ and Climate,”
Howard C Hayden,
Vales Lake Publishing,
Pueblo, CO, pg 18.**



Photo is in Dr Hubert Lamb's book,
Climate, History, and the Modern World

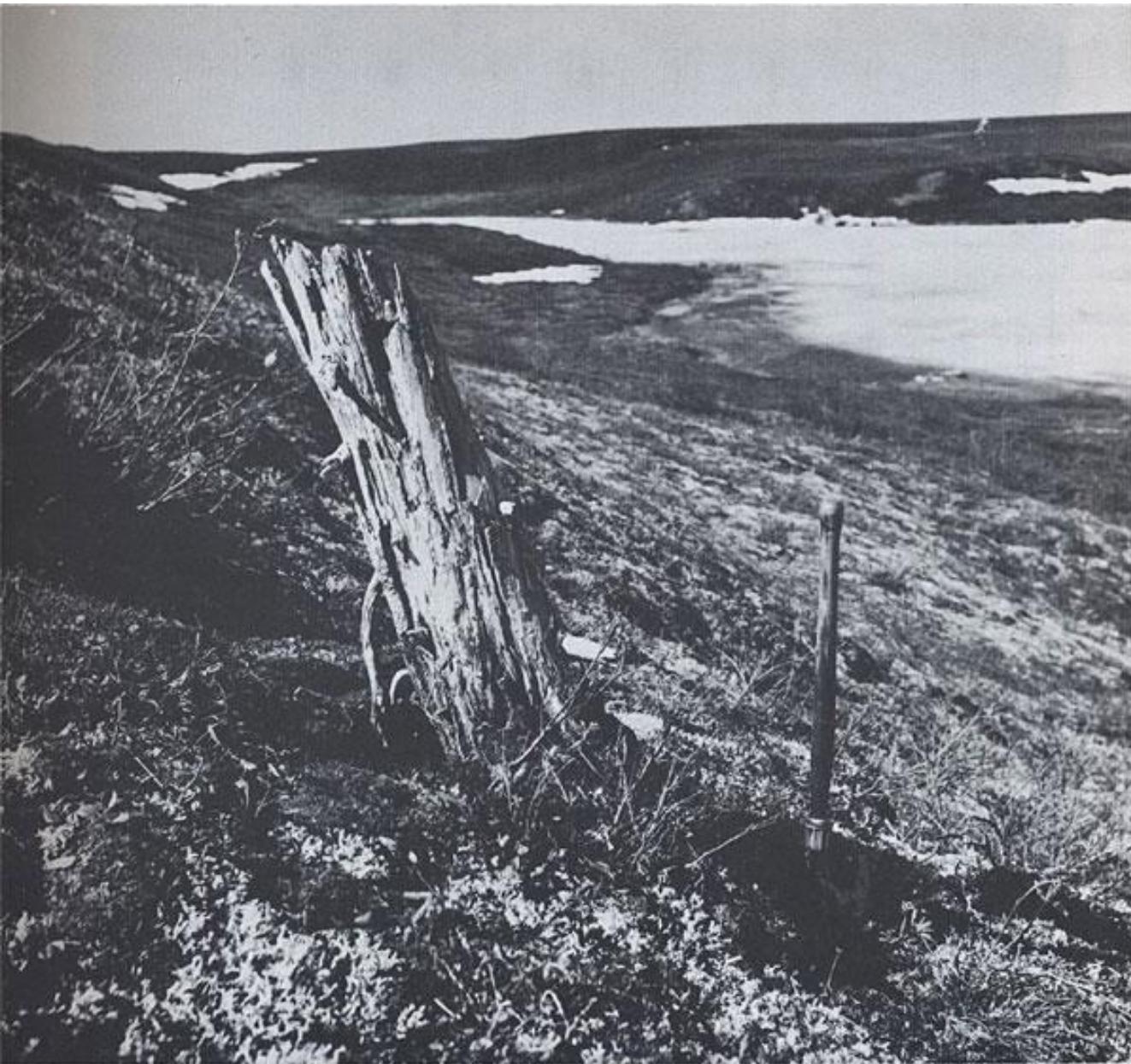


PLATE IV Tree stump (*Picea glauca*) in the north Canadian tundra.

The stump, radiocarbon dated about 4940 years (± 140) B.P., is seen still standing on a steep bank on the Tuktoyaktuk Peninsula ($69^{\circ}7'N$ $133^{\circ}16'W$) which borders the Arctic Ocean (Beaufort

Tree Stump (*Picea glauca*) in the north Canadian tundra.

The stump, radiocarbon dated about 4940 (± 140) years BP is seen still standing on a steep bank on the Tuktoyaktuk Peninsula ($69.7N$ $133.16W$) which borders the Arctic Ocean (Beaufort Sea) east of the McKenzie Delta in extreme northwest Canada. This tree, in what is now tundra, shows wider growth rings than the nearest present day spruce forest 80-100 km further south near Inuvik in the lowest part of the McKenzie River valley.

Photograph kindly supplied by Professor J. C. Ritchie of Scarborough College, Toronto University

https://www.conifers.org/pi/Picea_glauca.php

The Gymnosperm Database

Picea glauca

(Moench) Voss 1907

Common names

White spruce, Canada spruce, skunk spruce, cat spruce, western white spruce (var. *albertiana*, Canadian Rocky Mts), Porsild spruce (var. *porsildii*, Alaska), Black Hills spruce (var. *densata*, Dakota)).



White spruce

Plants



The Tuktoyaktuk Peninsula... location of the 5,000 year-old spruce which grew during the Holocene Climate Optimum.



Area around Tuktoyaktuk today: <http://www.tuktoyaktuk.ca/index.php/visiting/getting-here>



These pines are subfossil trees above the present tree line and radiocarbon dated 1000 AD. Visual proof the current warm period is not as warm as the Medieval Warm Period, 1000 years ago in western North America, and elsewhere.

<https://climateaudit.files.wordpress.com/2005/09/ohioshort.pdf>



Sub-fossilized pines above the tree line in the Sierra Nevada as published in *Climate Audit*. Left, Whitewing Mountain (C. Millar) and Right, Boreal Plateau (Andrew Bunn)

<https://nmsu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=8a1fff29-6c55-42a2-b3c5-a9ed0124d435>



Barriers to Acceptance of Climate Science, Impacts and Solutions

KATHARINE HAYHOE



Katharine Hayhoe: Master of the “Nancy Pelosi smile.”



Dr. Hayhoe

QUESTIONS?

Dr. Hayhoe

My question is at 1:08:30

QUESTIONS?

Bob: The problem with acceptance of Climate Science is, I disagree on the Science

You showed the temperatures today the warmest of the Holocene.

That clearly is **not** true.

Also, you don't show the Bond Cycles.

Hayhoe: The What Cycles?

Bob: The Bond Cycles, Thousand year cycles, Gerard Bond.

Hayhoe, Raising her Finger: "Sir, can I stop you? Have you ever voted Democrat?"



So why did I call them Bond Cycles?

Science
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RESEARCH ARTICLE



A Pervasive Millennial-Scale Cycle in North Atlantic Holocene and Glacial Climates

Gerard Bond*, William Showers, Maziet Cheseby, Rusty Lotti, Peter Almasi, Peter deMenocal, Paul Prior...

* See all authors and affiliations

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Science 14 Nov 1997:
Vol. 278, Issue 5341, pp. 1257-1266
DOI: 10.1126/science.278.5341.1257

<https://nmsu.hosted.panopto.com/Panopto/Pages/Viewer.aspx?id=8a1fff29-6c55-42a2-b3c5-a9ed0124d435>

QUESTIONS?



Dr. Hayhoe

Hayhoe, Raising her Finger: "Sir, can I stop you? Have you ever voted Democrat?"

Here we have it.

I ask a question about Science and she changes the subject and asks about politics.

So why did I call them Bond Cycles?

Log in | M

SHARE

RESEARCH ARTICLE



Persistent Solar Influence on North Atlantic Climate During the Holocene

Gerard Bond^{1,*}, Bernd Kromer², Juerg Beer³, Raimund Muscheler³, Michael N. Evans⁴, William Showers...

* See all authors and affiliations

0

Science 07 Dec 2001:
Vol. 294, Issue 5549, pp. 2130-2136
DOI: 10.1126/science.1065680

Persistent Solar Influence on North Atlantic Climate During the Holocene

**Gerard Bond,^{1*} Bernd Kromer,² Juerg Beer,³
Raimund Muscheler,³ Michael N. Evans,⁴ William Showers,⁵
Sharon Hoffmann,¹ Rusty Lotti-Bond,¹ Irka Hajdas,⁶ Georges Bonani⁶**

Surface winds and surface ocean hydrography in the subpolar North Atlantic appear to have been influenced by variations in solar output through the entire Holocene. The evidence comes from a close correlation between inferred changes in production rates of the cosmogenic nuclides carbon-14 and beryllium-10 and centennial to millennial time scale changes in proxies of drift ice measured in deep-sea sediment cores. A solar forcing mechanism therefore may underlie at least the Holocene segment of the North Atlantic's "1500-year" cycle. The surface hydrographic changes may have affected production of North Atlantic Deep Water, potentially providing an additional mechanism for amplifying the solar signals and transmitting them globally.

QUESTIONS?



Madame Hayhoe: Preaching...

There is no natural cycle within the climate system, because that would generate heat.

And that would violate conservation of energy

The data I have is accurate....

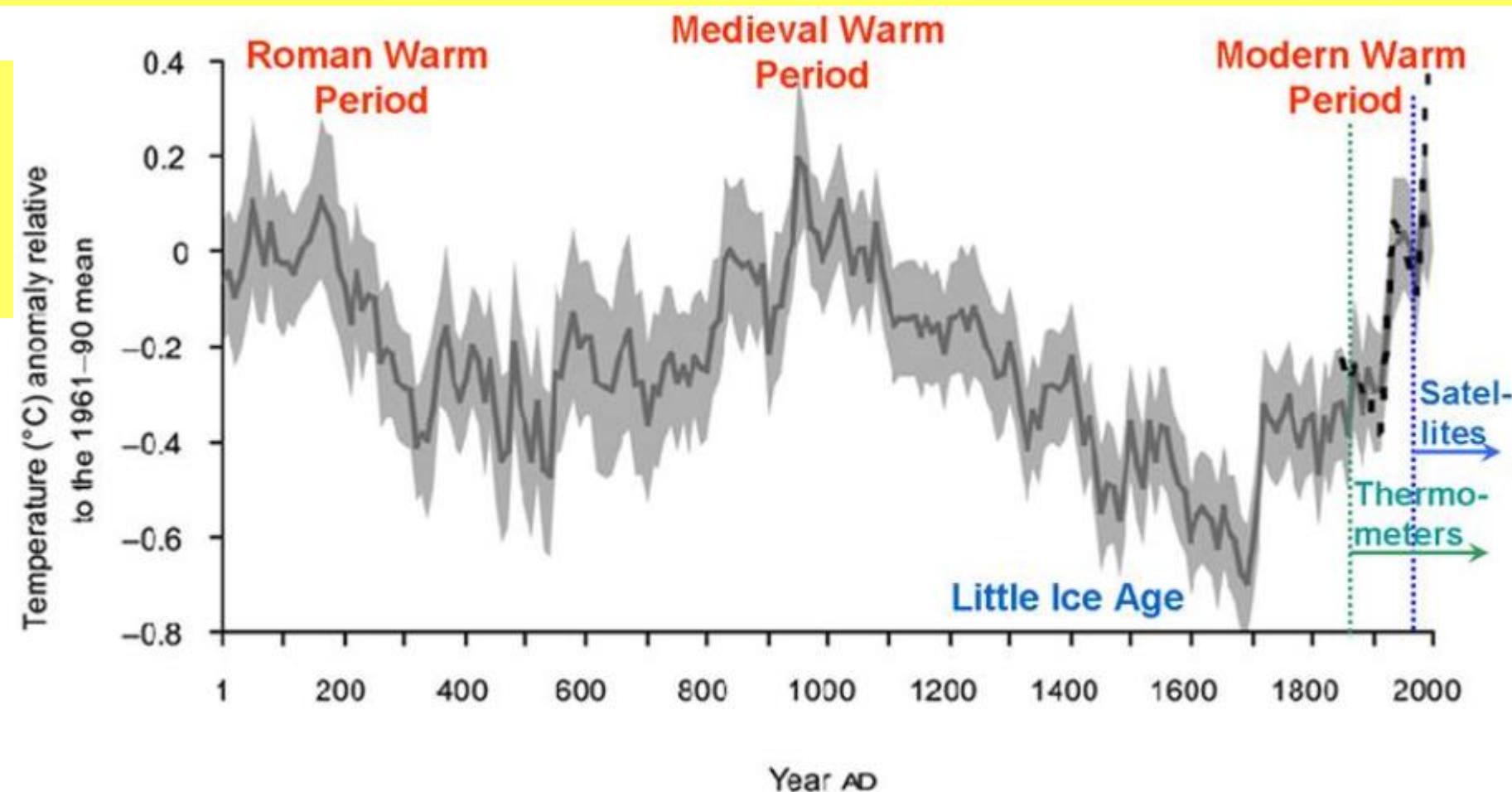
Go to the web site I referenced “Skeptical Science.com”

The articles link to individual studies within the “Peer-Reviewed-Literature”

You can't just stand up and say the data is fake

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.

<https://www.tandfonline.com/doi/abs/10.1111/j.1468-0459.2010.00399.x?journalCode=tgaa20>

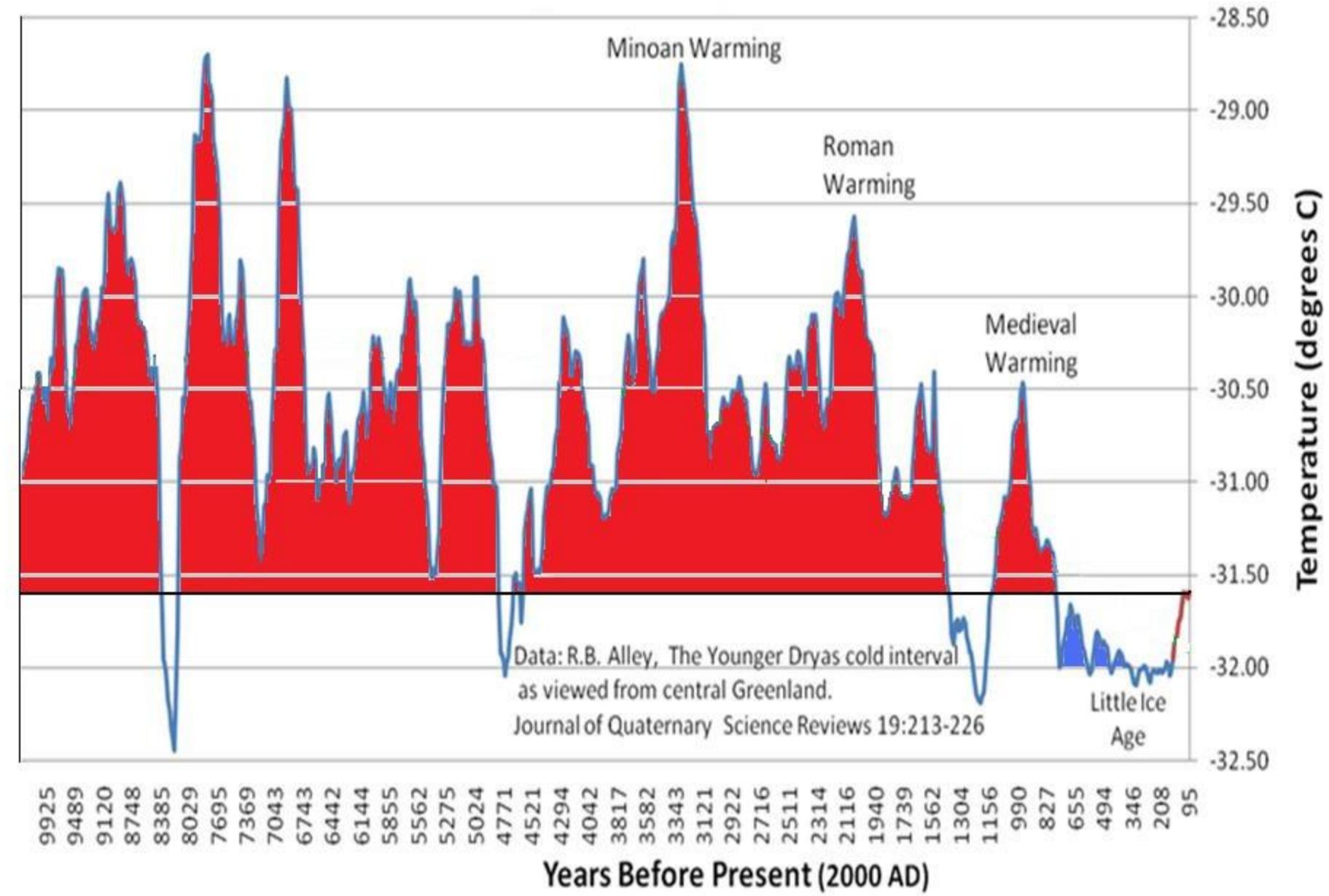


*Ljungqvist, F.C. 2010. A new reconstruction of temperature variability in the extra-tropical Northern Hemisphere during the last two millennia. *Geografiska Annaler: Physical Geography*, Vol. 92 A(3), pp. 339-351, September 2010. DOI: 10.1111/j.1468-0459.2010.00399.x

Hayhoe: "There is no natural cycle within the climate system, because that would generate heat. ...and that would violate conservation of energy"

Greenland GISP2 Ice Core - Temperature Last 10,000 Years

<https://wattsupwiththat.files.wordpress.com/2013/03/gisp2-ice-core-temperatures.jpg?w=960&h=720>



Here it comes...

Hi Bob,

The link to Katharine's talk is not up yet, but when it is, I will forward it to you. You can also check the website for updates: nmsuccess1.wordpress.com.

Regarding a counter-argument, I understand your passion, but to be honest, the only way we would consider a presentation from you is if you publish a scientific journal article on the subject.

Something that has gone through peer-review.

I realize you are a meteorologist, and like me, you are trained in interpreting data, and like me, you have an opinion, but unless you can show us that you have more credentials, such as a pertinent publication in the field, you will, like me, be simply a member of the audience.

Anyone can be critical of data and raise concerns, but to be credible, those concerns have to be recognized by other experts as being germane to the topic and important to advancing science.

,...but to be credible, those concerns have to be recognized by other experts as being germane to the topic and important to advancing science.

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.
<https://www.tandfonline.com/doi/abs/10.1111/j.1468-0459.2010.00399.x?journalCode=tgaa20>

“Persistent Solar Influence on North Atlantic Climate during the Holocene,” Gerard Bond et al, *Science*, 07 Dec 2001:Vol. 294, Issue 5549, pp. 2130-2136 DOI: 10.1126/science.1065680
http://www.essc.psu.edu/essc_web/seminars/spring2006/Mar1/Bond%20et%20al%202001.pdf

“A Pervasive Millennial-Scale Cycle in North Atlantic Holocene and Glacial Climates,” Gerard Bond et al, *Science*, 14 Nov 1997: Vol. 278, Issue 5341, pp. 1257-126 DOI: 10.1126/science.278.5341.1257
<http://ruby.fgcu.edu/courses/twimberley/EnviroPhilo/BondPap.pdf>