



# Climate Change

Slides made/taken by Gina from videos

Links to videos on the slides for anyone to follow talks



# Summary Notes

- According to surface weather stations, average temperatures have gone up 0.8-1.1 C over more than a century (we are talking about the average anomaly per station) but:
  - There is a lot of noise in the data so that even this figure is not that reliable
    - not all the same weather stations have been used in the data set over the 140 year since they were established, so again a lot of inconsistencies
    - urbanisation effects and changes in measuring tools have impacted the reliability/consistency of the measurement
  - the 0.8-1.1 is an average, when looking at the individual data points from each weather stations, some weather stations have reduced, others have remained stable, others have gone up by 1, others have gone up by more than 1. The average of the anomalies across 3000 stations basically means nothing as there are only 2 possibilities, either that anomaly average goes up or down, nothing else can happen. So in essence one can not say that the temperature of the earth has gone up but one could say that some parts of the earth have, others have not....and what about what happens in the atmosphere (until 10km high ? and what happens in the depth of the oceans?)
  - the 1 degree C is a very small number compared to:
    - variation that happens at a given station in any given day (can be zero early morning and 20 at noon)
    - variation around the average that happens at any given station (looking at Lindzen's graph that average can fluctuate +/- 4 C which is 5x times more than the 1 degree average)
  - the reason why the 0.8-1 degree C occurs on average is:
    - because it is getting hotter at the poles, very small change at the tropics
    - because the minimum lower temperatures are going up, we are not seeing the highest temperatures going up (in essence it is getting a bit less cold during the nights)
- Let's assume we forget about all the data issues mentioned above, what is the impact of this small warming ?
  - No measurable negative impact:
    - absolutely no trends in the extreme weather events (droughts, floods, tornadoes,...), if anything else the number of victims have dramatically gone down because we are much better prepared to deal with these extreme weather events
    - same for sea level rise that has been going up steadily for more 10,000 years with no meaningful increase in the rate of the rise over the last 30-40 years contrary to what is often said (see Koonin which shows that the rate of rise was as high during the 1920 to 1950 period than it has been for the last 40 years)
  - measurable positive impacts:
    - earth has never been as green as today allowing to feed 8B people (thanks to CO2 which is key for plants). CO2 is NOT a pollutant, it is an essential gas for the survival of all vegetal and animal species.
    - less deaths as 20x more people die from cold than heat
    - Canada has 35M people, while the US has 350M while being much smaller in surface, why? Most of Canada is not habitable, 95% of the Canadians live within a 0 to 100km distance from the US border because further north it is far too cold



# Summary Notes

- the argument then is that if we can not measure the negative impacts today, we will see it happen in the near/medium future as models expects much more warming weather if CO2 emission continue to increase but:
  - the uncertainty of models remains as poor today as 30 years ago (they are still showing today the same uncertainty interval of 1.5 to 4.5 C more warming in 2100 they were showing 30 years ago)
  - the predictability of the models is very poor as all the forecast of the last 40 years have exaggerated the expected warming by a factor of 3 on average (see Christie's data where he uses the more accurate satellite data observations which are more accurate than weather stations, the satellite data exists for a bit more than 40 years and they clearly show that all the models have been wrong)
  - the models are wrong because they build in a big positive feedback (if CO2 increases then temperature increases, if temperature increase there is more evaporation from the ocean which lead to more water vapour in the atmosphere. Water vapour is the most important greenhouse gas, hence when water vapour increases this must lead to even more warming). However there appears to be more empirical proof of a negative feedback which is much more logical because a positive feedback would necessarily lead to an unstoppable runaway system.
- Hence people argue we need to use the cautionary principle and do everything we can to avoid the risk of getting the worse scenario but:
  - When looking at the IPCC negative impact/cost projections of the worst case scenario (the one with the most warming), the costs amount to 4% of GDP by year 2100. Taking a country like the US where the GDP is currently around 20T\$, this means that the US GDP (if it grows by 2%/year) will hit 80T\$ by 2102 instead of 2100 !!.....who cares
  - However the costs associated with trying to become net zero emitters by 2050 is astronomical so the cautionary principles makes no sense.
  - Fossil fuel still represents 80% of the worlds' energy. The investment needed to replace that with renewables is astronomical.
  - Furthermore despite all the measures taken over the last 30 years mainly by the western world, CO2 keeps on increasing at the same rate because China, India, Indonesia,...keep on building fossil fuel power plants to drive their economies forward. Consequently, the efforts in the west both costly and also totally futile. They run the risk of seriously weakening the west vis-à-vis China. China is positioning itself to be the dominant player in solar, electric vehicles and batteries while continuing to power their economies with fossil fuels. Hence some in the west (the EU mainly) will shift from being dependent on Russia, Middle East,...for fossil fuel to becoming dependent on China for Solar, EV, batteries
- Progress on eradicating poverty depends on availability of energy and for now this energy today is primarily carbon
- Changing the energy systems too fast can lead to growing dependence of the west on oil imports, premature destruction of assets, which will have negative economic implications if world moves ahead with decarbonization too quickly

Renewable/climate change agenda has been too ambitious because the world realities and 80% fossil fuel dependent global energy system can hardly stomach such a hasty series of actions. Transformation cannot happen over night. The west has accelerated the transition without due preparation and forced non-Western countries to comply without consultation. An 'either you are with us or against us' approach will not work in a multipolar system.



# **Dr John Christy: Testing Climate Claims –2021**

<https://www.youtube.com/watch?v=D2Cd4MLUoN0>



# Dr John Christy: Testing Climate Claims –2021

<https://www.youtube.com/watch?v=ULpGDnuz308;>

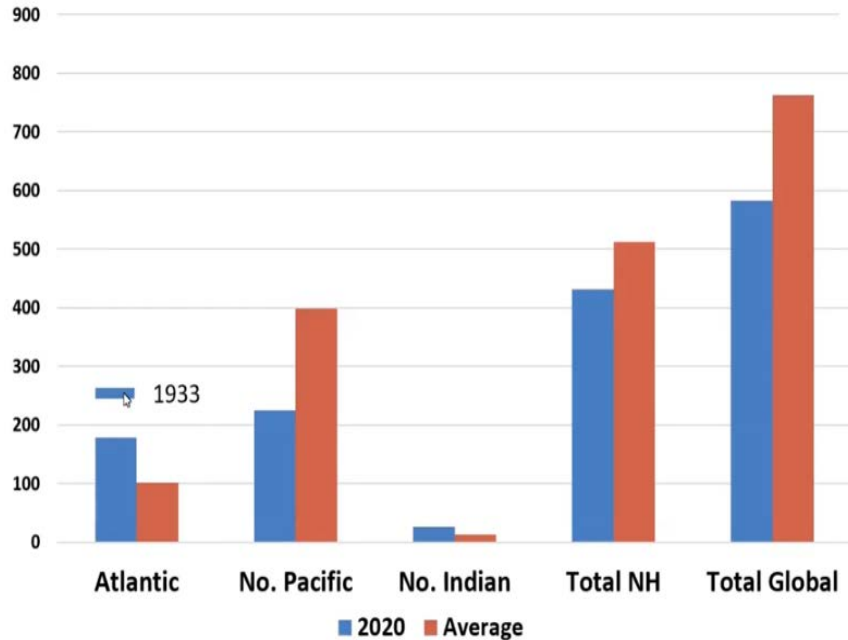
<https://www.youtube.com/watch?v=D2Cd4MLUoN0>

- Data analysed from satellites to analyse temperature of deep layer (from surface to 15000 feet)
- Things are simply not getting worse: hurricanes, tornadoes, floods, heat waves, droughts. Except tornadoes are significantly down but that can change.
- Warming rate of 1.5 degrees per century is warming that has taken place in the geologic past and a rate that is much more gradual than dire projections of media
- Looking at aspects of in the time that there has indeed been an increase in CO<sub>2</sub> & therefore there is indeed a greater radioactive forcing & CO<sub>2</sub> is a GHG, but we do not see the response that people claim should be there
- The models of the climate warming proponents have extremely negative sides in that they terrible harm because without energy life is brutal and short & for now carbon is the safest way to have energy
- Making energy policies based on false climate models is dangerous, especially for the poor.
- The extra heat is not killing people today
- Impoverished world is going to do what it is going to do and use carbon fuels
- We need to focus on pollution (e.g. water), these are things that are terribly harmful and are killing people today and we know how to fix
- Solar and wind make no sense as they cause lots of problems to balance the grid
- Nuclear could help solve issues to provide a modern economy the energy it needs, but red tape often in the way

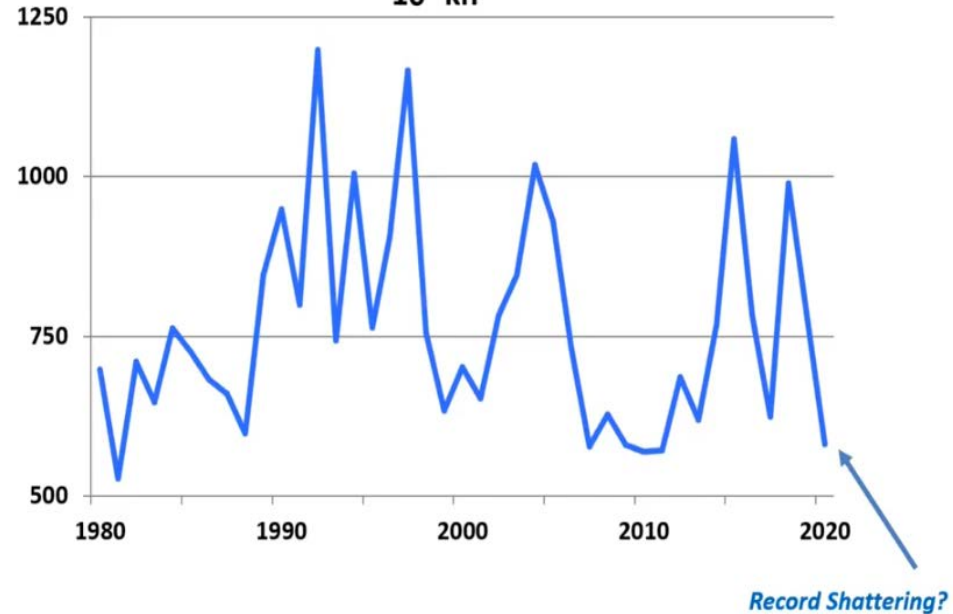


# Cyclone/Hurricane Occurrences

Accumulated Cyclone (hurricane) Energy 2020 v. Average



Global Accumulated Cyclone Energy 1980-2020  
 $10^4 \text{ kn}^2$

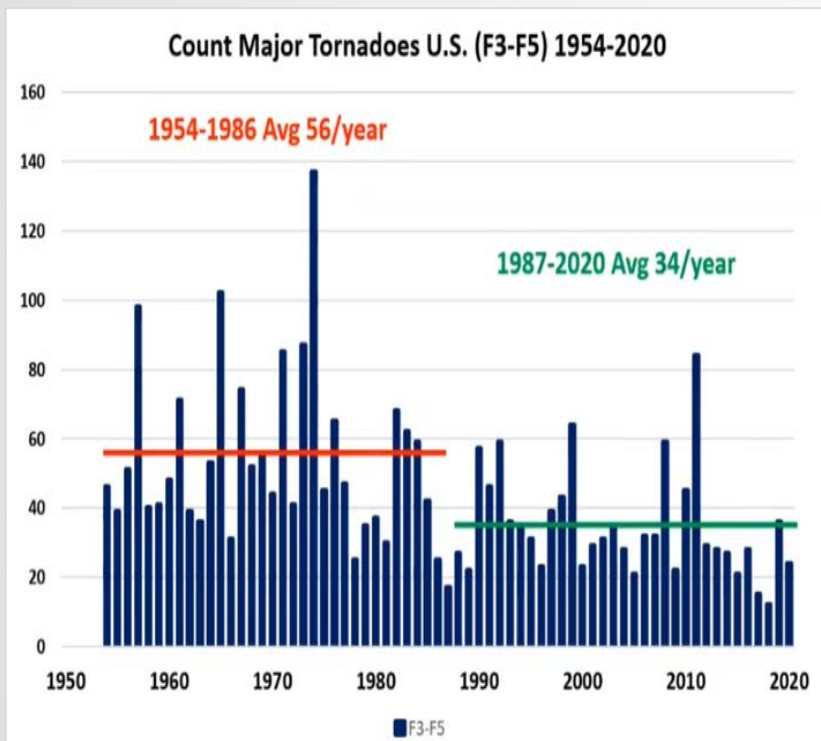


Accumulated Cyclone Energy (ACE) data shows that overall 2020 was lower than average.

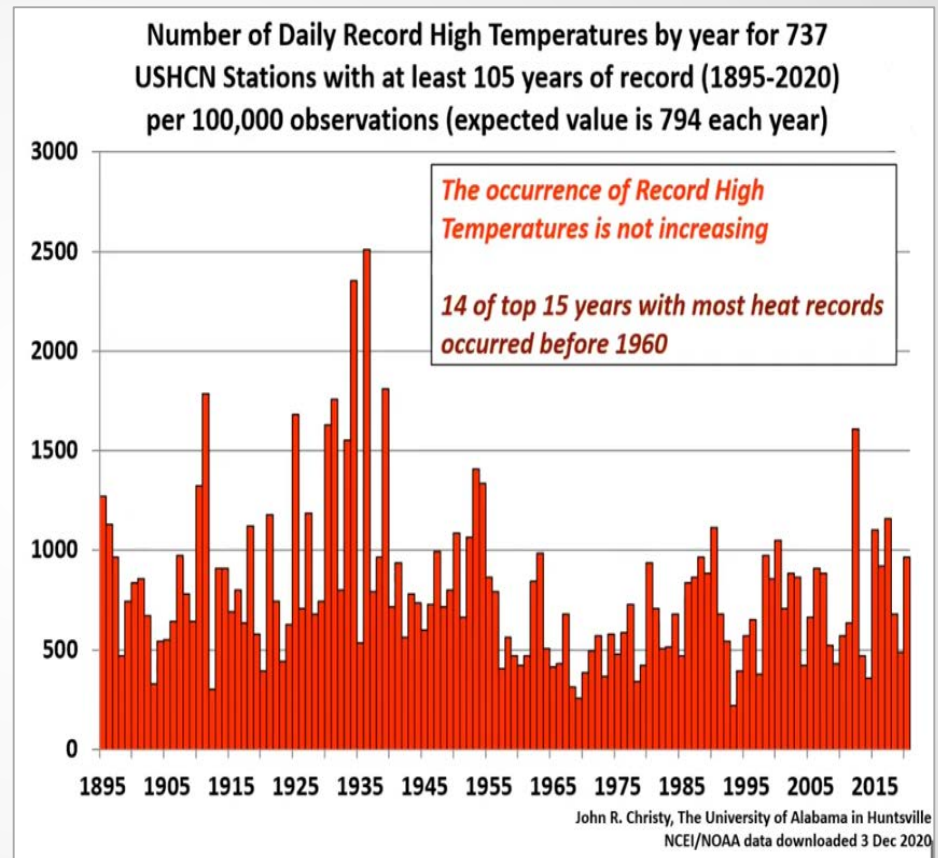


# US Tornadoes & Hottest Days

*14 of the top 15 years with the most heat records were before 1960*



Number of tornado events has declined since the 1990s



Number of hot days US experiencing at present is same as 120 years ago.



# US & Global floods, Droughts

## Global Drought Indices 1950-2019

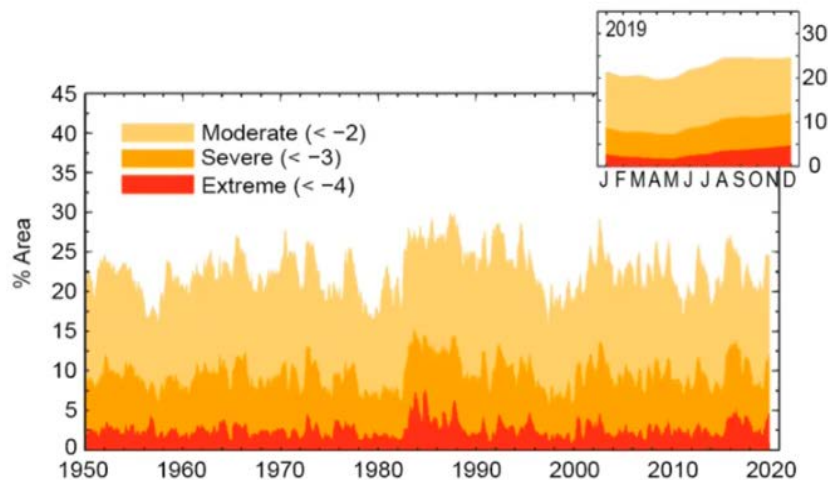
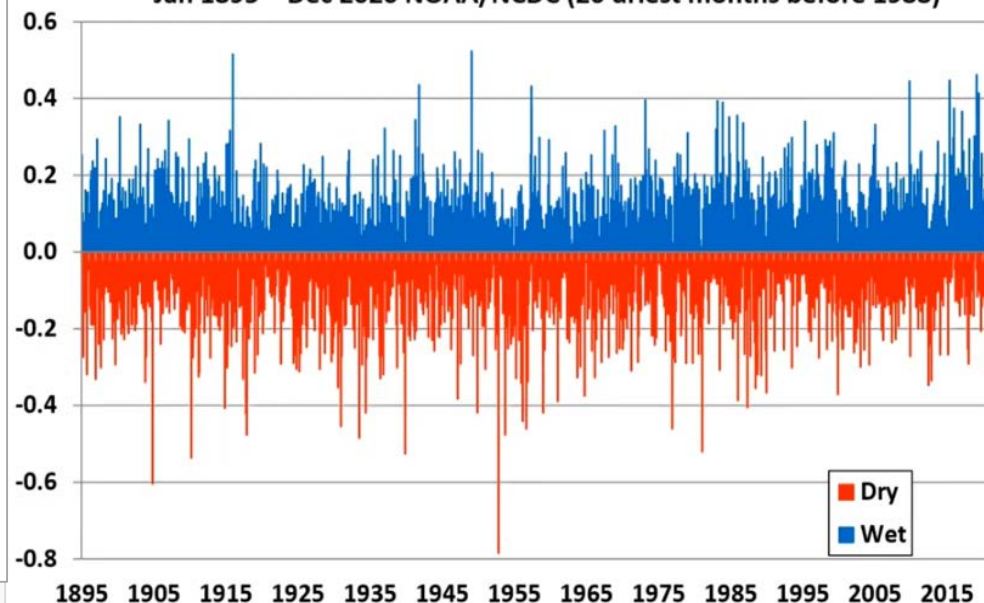


Fig. 2.34. Percentage of global land area (excluding ice sheets and deserts) with scPDSI indicating moderate ( $< -2$ ), severe ( $< -3$ ) and extreme ( $< -4$ ) drought for each month of 1950–2019. Inset: Each month of 2019.

AUGUST 2020 | State of the Climate in 2019

BAMS

## Monthly Fraction of US with Very Wet (flood-like) or Very Dry (drought) Conditions Jan 1895 – Dec 2020 NOAA/NCDC (20 driest months before 1888)



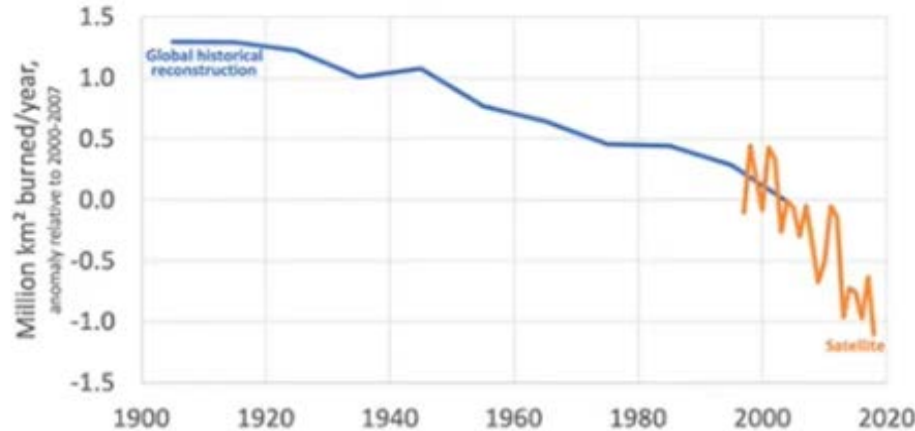
Overall, the global drought trend is flat

Graph indicates that there haven't been any long-term changes in droughts/floods over the years. In fact, the occurrence of droughts has slightly decreased.

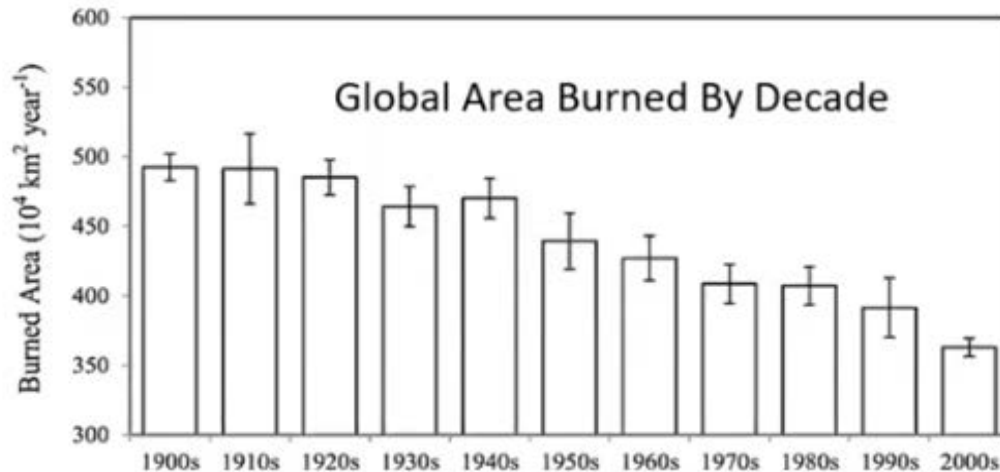


# Global Burned Areas

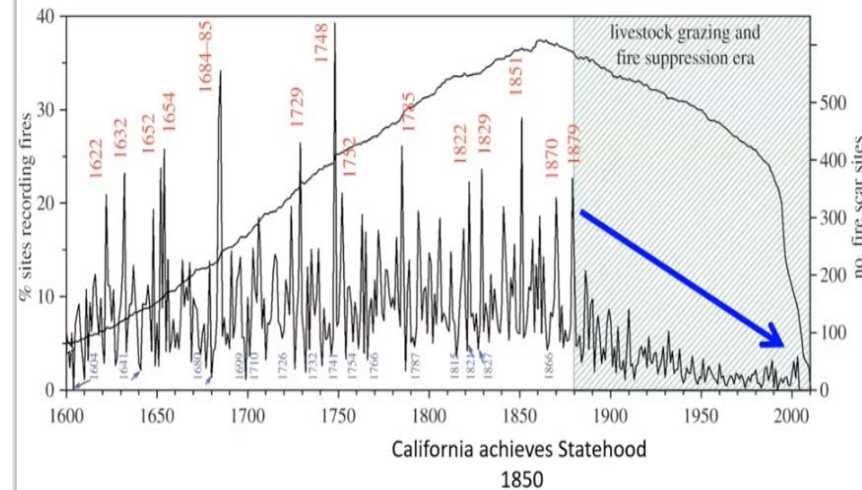
Global Burned Area 1901-2018



Global Area Burned By Decade



Journal of Geophysical Research: Biogeosciences, Volume: 119, Issue: 3, Pages: 249-263, First published: 14 February 2014, DOI: (10.1002/2013JG002532)



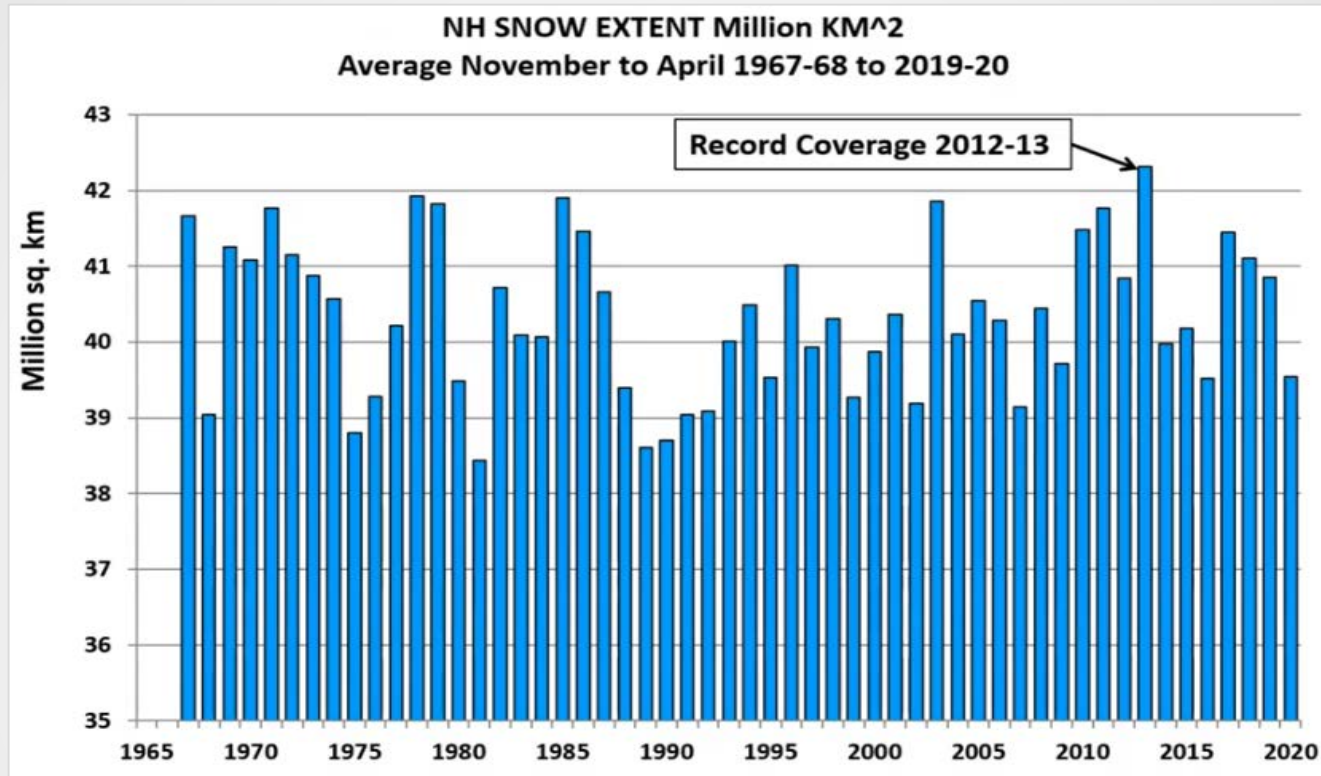
## Wildfire Incidence in North America 1600-2000

Number of wildfires & forest fires declined over the years due to application of fire suppression techniques



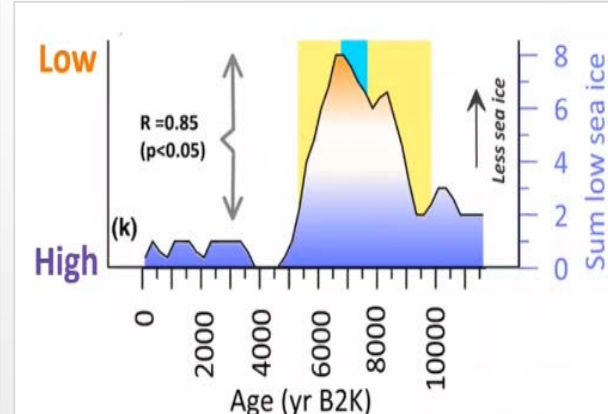
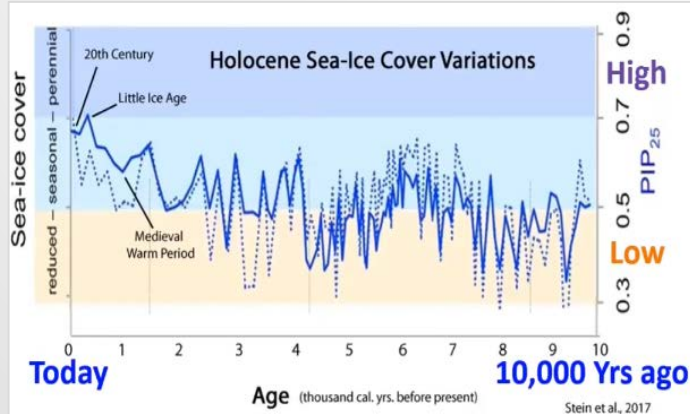
# Snow and Ice Coverage

No apparent trend in snow coverage, with roughly the same amount of snowfall recorded in northern hemisphere each year



Sea ice cover reached its maximum around 1850 (end of the Little Ice Age).

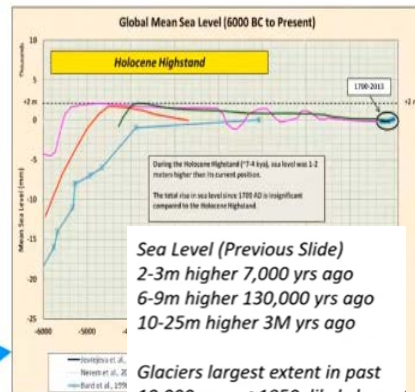
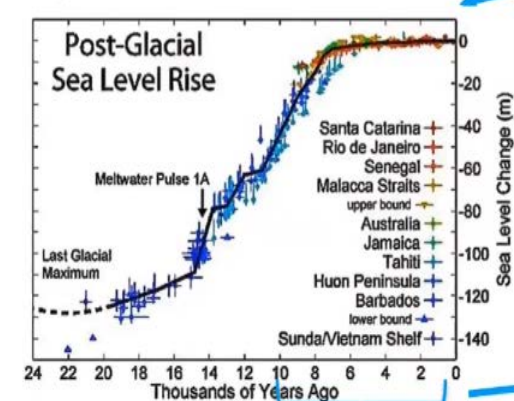
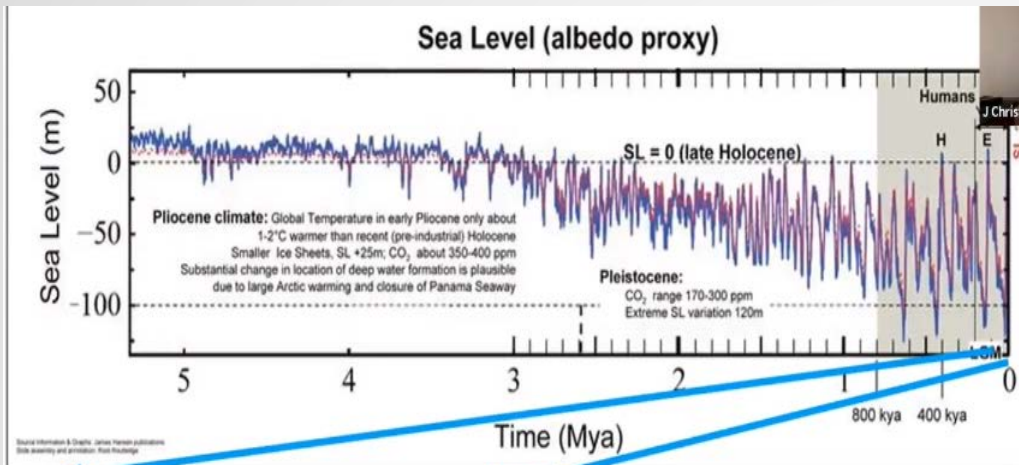
Today is on left and on right is 10,000 years ago



We're in a kind of coldish period; low ice values dominated 6,000-8,000 years ago



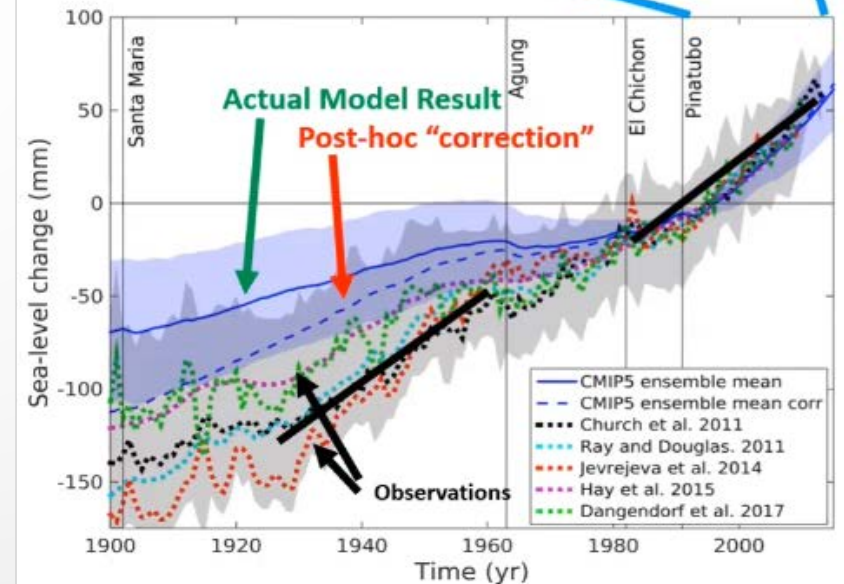
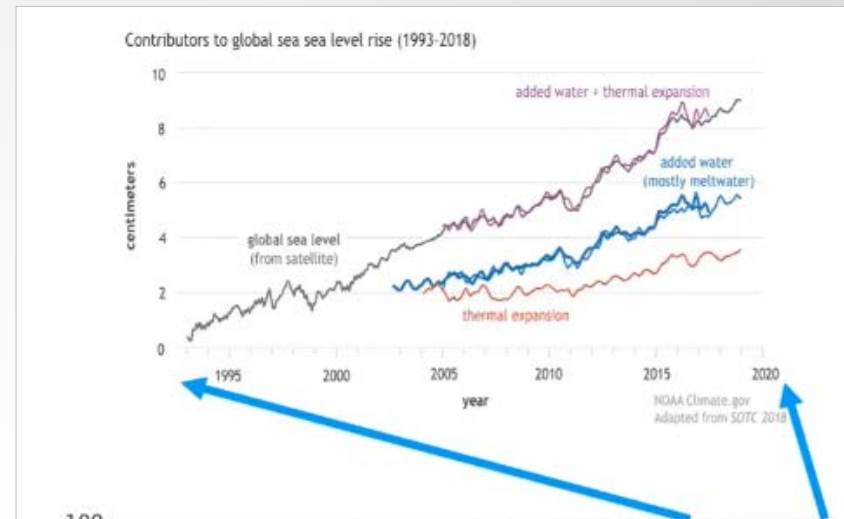
# Sea Levels



Glaciers largest extent in past 10,000 years ~1850, likely lowest sea level in that period

Sea Levels started rising in 1860 and continued to present

Rate 1925-1960 similar to 1980-2018.



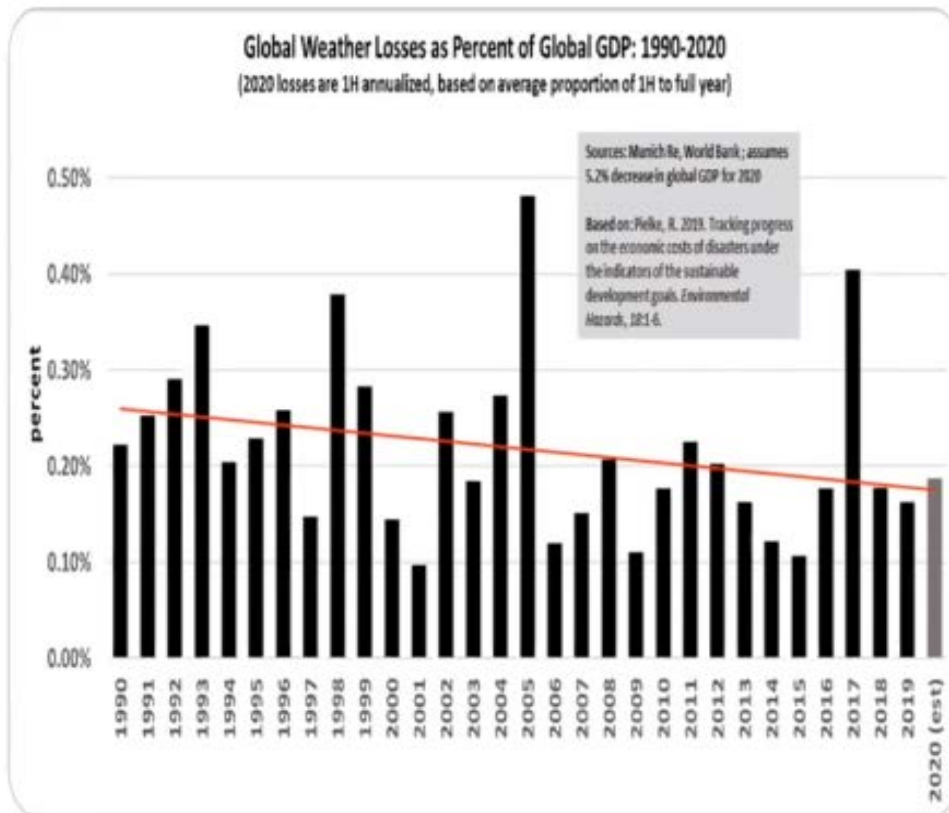
2-3 m higher 7,000 years ago  
6-9 m higher 130,000 years ago  
10-25 m higher 3 million years ago

Rise of 3 cm per decade (30 cm per 100 years)  
is not a challenge that cannot be overcome.

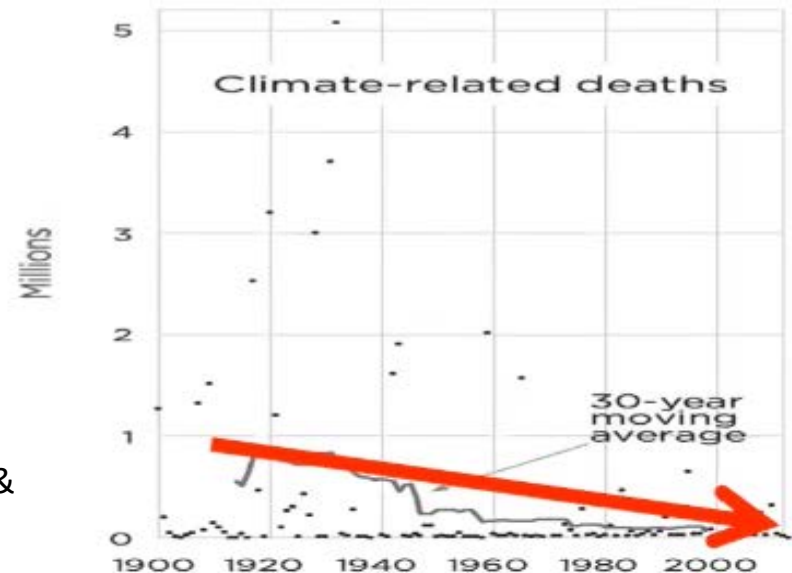
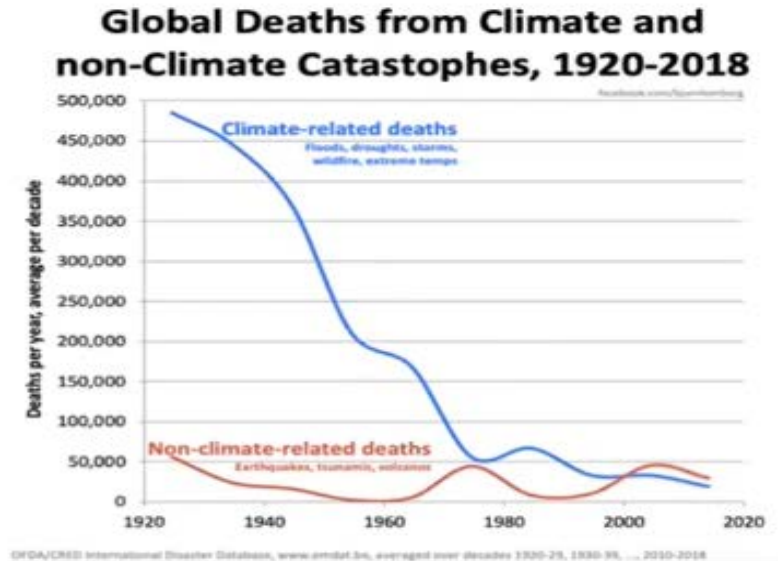


# Climate-Related Deaths & GDP Losses

*The last century's warming has been good for Humanity*



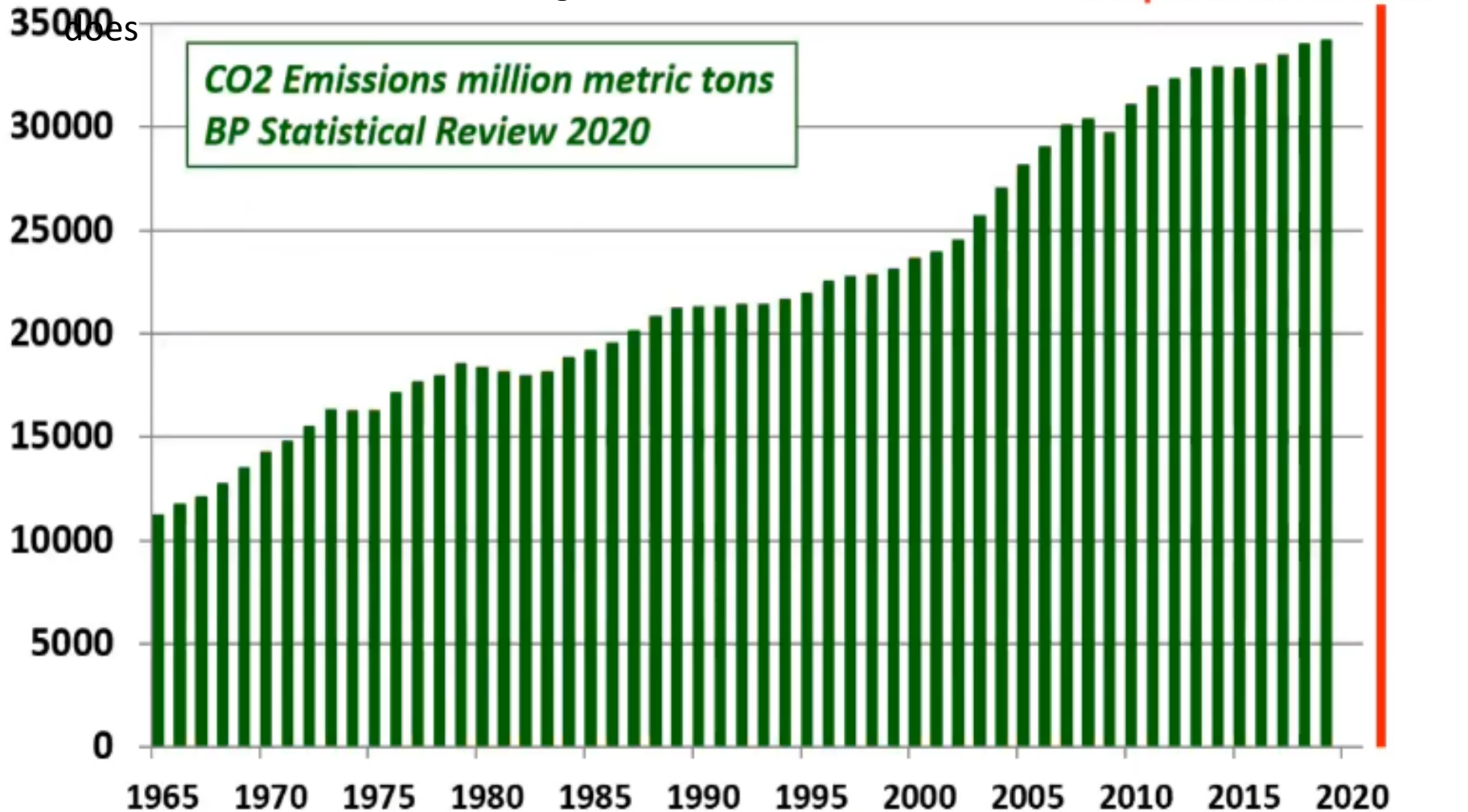
Better preparations for extreme conditions, accurate forecasting & improved alert systems have reduced deaths associated with climate change financial losses to the market





# C02 Emissions

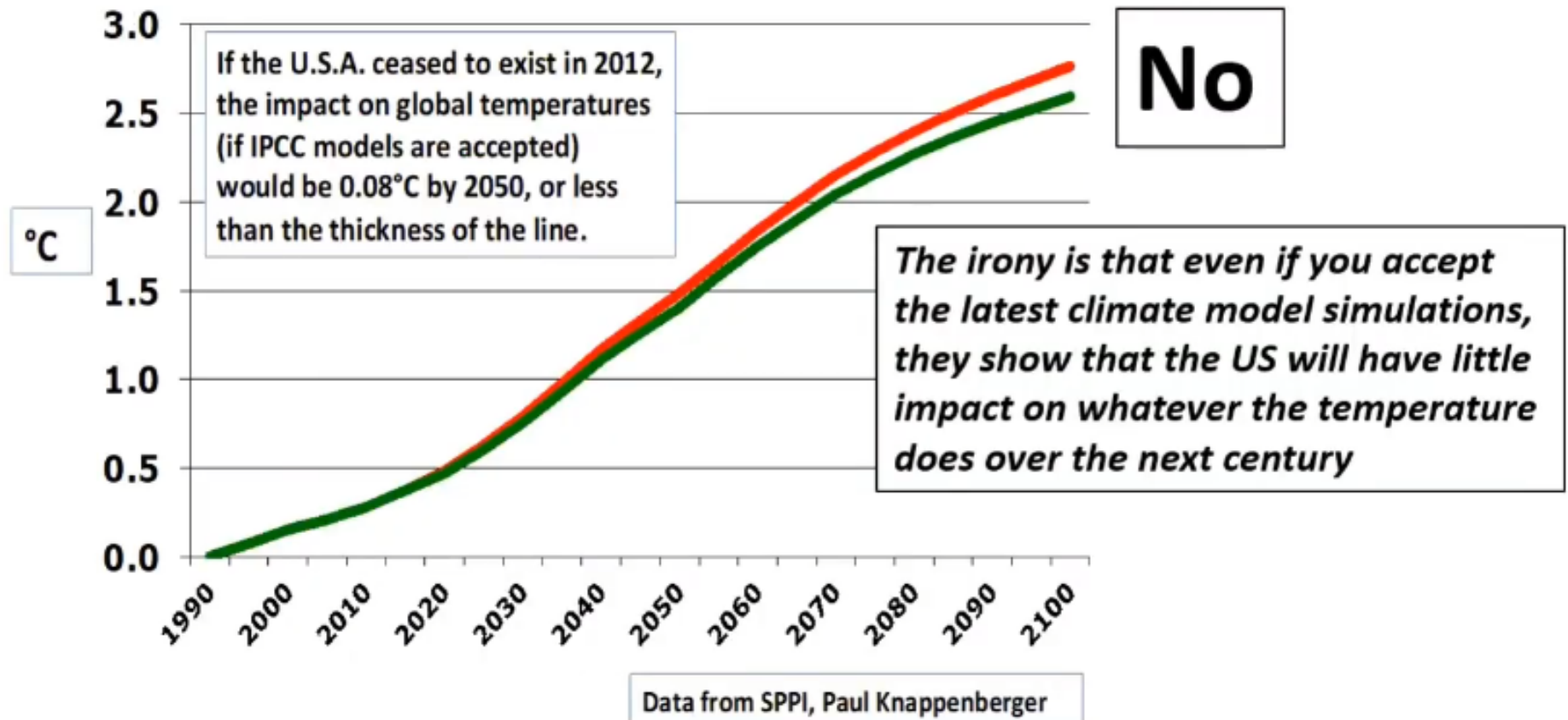
Developing nations want to come out of poverty so will continue to consume carbon regardless of what the west does





# Will CO2 Regulations “save” the planet?

Red – Temperature IPCC A1B Emissions  
Green – U.S. stops all emissions 2012

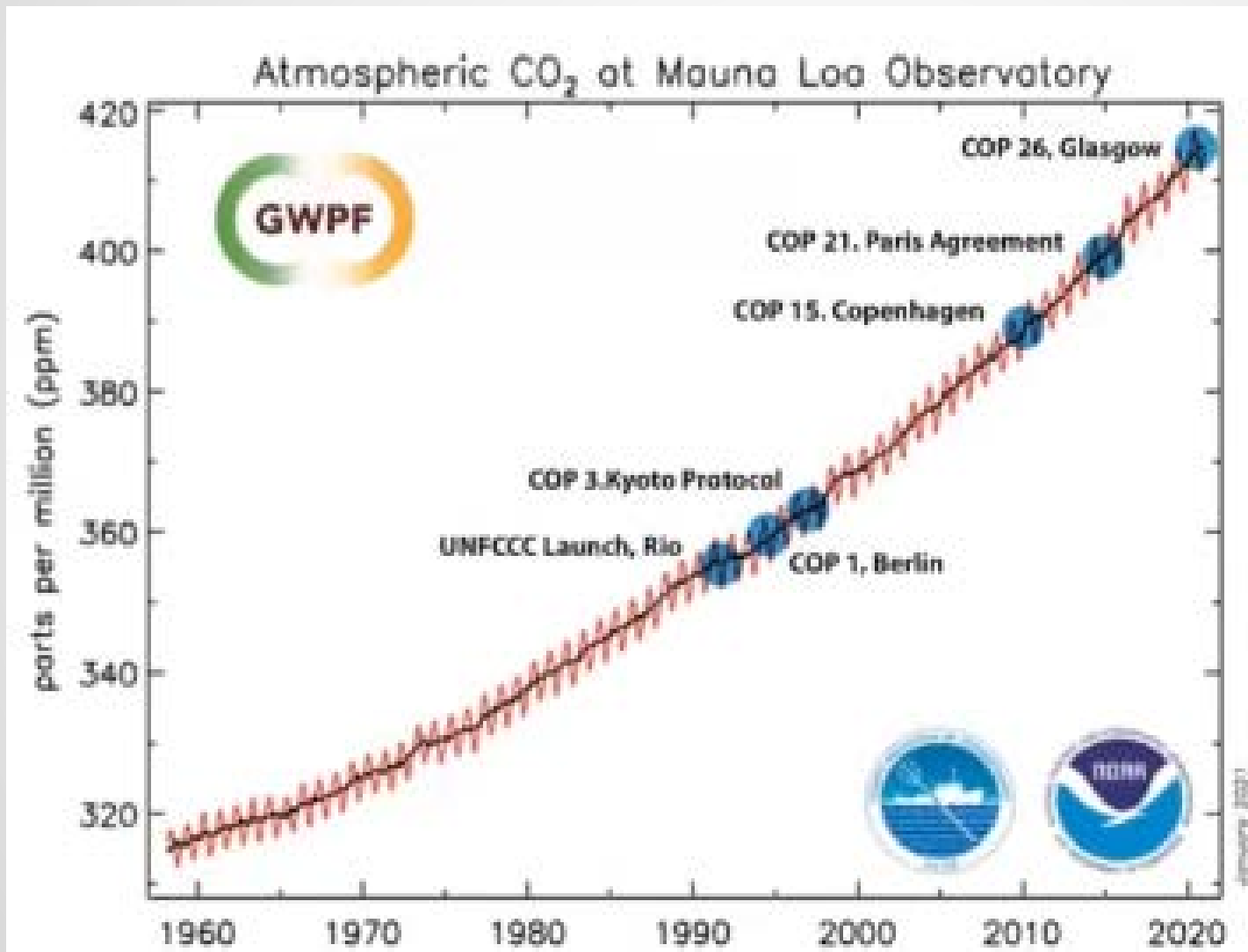


An analysis by Christy for the US Congress: even if the US would “cease to exist” (thereby eliminating its entire emissions), the impact on climate would hardly be noticeable, not even talking about enacting a legislation to driver slower



# Effects of Climate Measures

## Reality Check: 30 Years of Climate Policy Achievements



### 3 conclusive points:

1. Established global warming theory significantly misrepresents the impact of extra greenhouse gases.
2. Weather that affects people the most is not becoming more extreme or dangerous (& we're better at handling weather problems).
3. Progress towards eradicating poverty based on accessible and affordable energy (which today is carbon) is continuing.



## **Andy May – How to Measure Climate Change**

<https://www.youtube.com/watch?v=QhKvZg212nU>



# Global Mean Surface Temperature (GMST)

- Average of land weather stations and **Sea Surface Temperatures** (SST) has been the official IPCC measure of climate change
- Solar and orbital effects on climate are **regional**, so focusing on global averages is **misleading**. Both orbital procession and orbital obliquity affect temperature by latitude, only CO<sup>2</sup> is quasi-global.
- Surface weather is chaotic at all time scales; climate limit of 30 years is **arbitrary**
- July: Vostok station, Antarctica average low air temp of -95°F/-70°C / July: Doha average high air temp is 106°F/41°C - So what does a July global mean of +41 and -70C tell us?

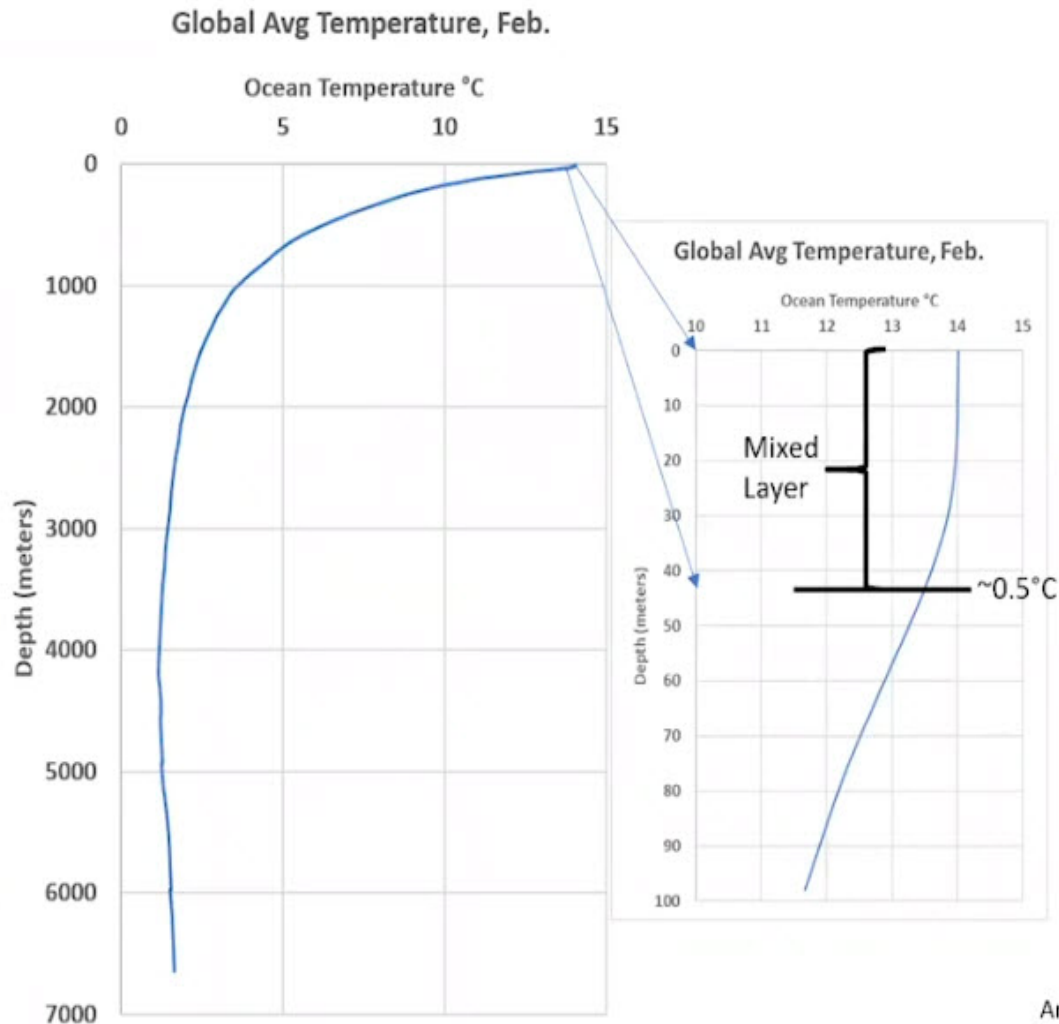


# Ocean Temperature Profile

## Ocean Temperature Profile



Andy May



Andy May

- The Ocean mixed layer is in constant communication with the surface, oceans cover 71% of the surface.
- Defined as a turbulent zone with nearly constant temperature and density (within  $\sim 0.5^{\circ}\text{C}$  of surface)
- Below the mixed layer the age of the temperature increases with depth, dependent upon ocean current speed and direction
- Model needed; it could be the best record of past ocean surface temperatures.
- Data from University of Hamburg



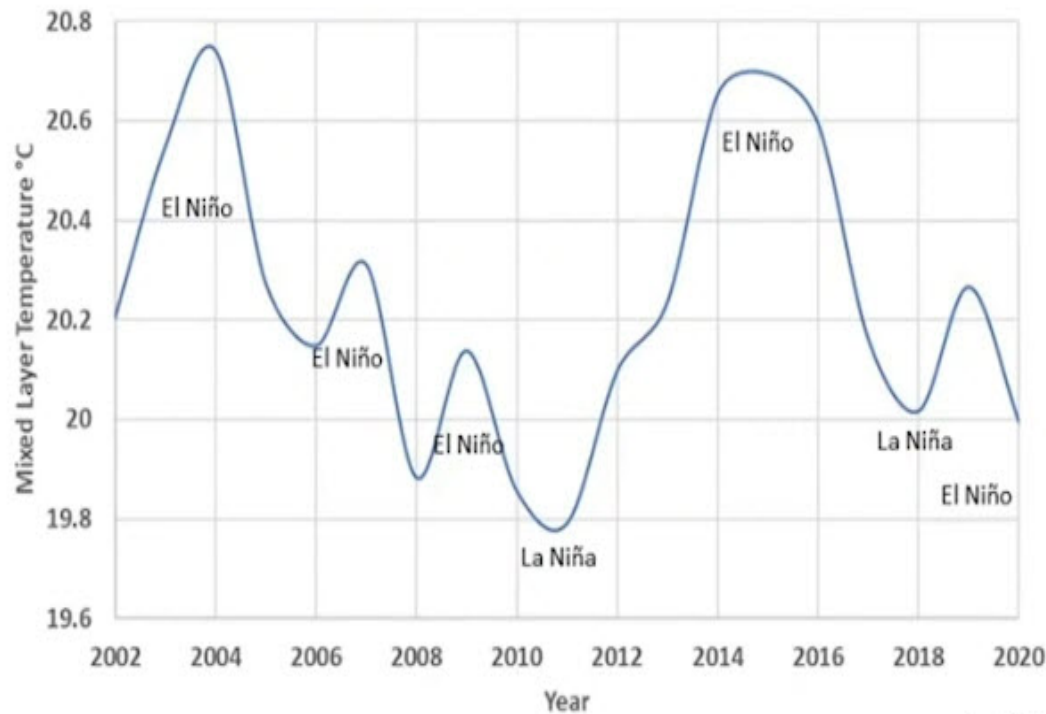
# Ocean Mixed Layer

## Ocean Mixed Layer



Andy May

Global Average Mixed Layer Temperature  
JAMSTEC buoy, Argo, and Triton data



Andy May

- On average, the upper 72 meters of the ocean
- 27x the heat capacity of the whole atmosphere
- Atmosphere temperature increases  $27^{\circ} > \text{mixed layer } 1^{\circ}$
- Constant communication with atmosphere
- Current temperature trend is down
- Only good data from ~2005 to 2020



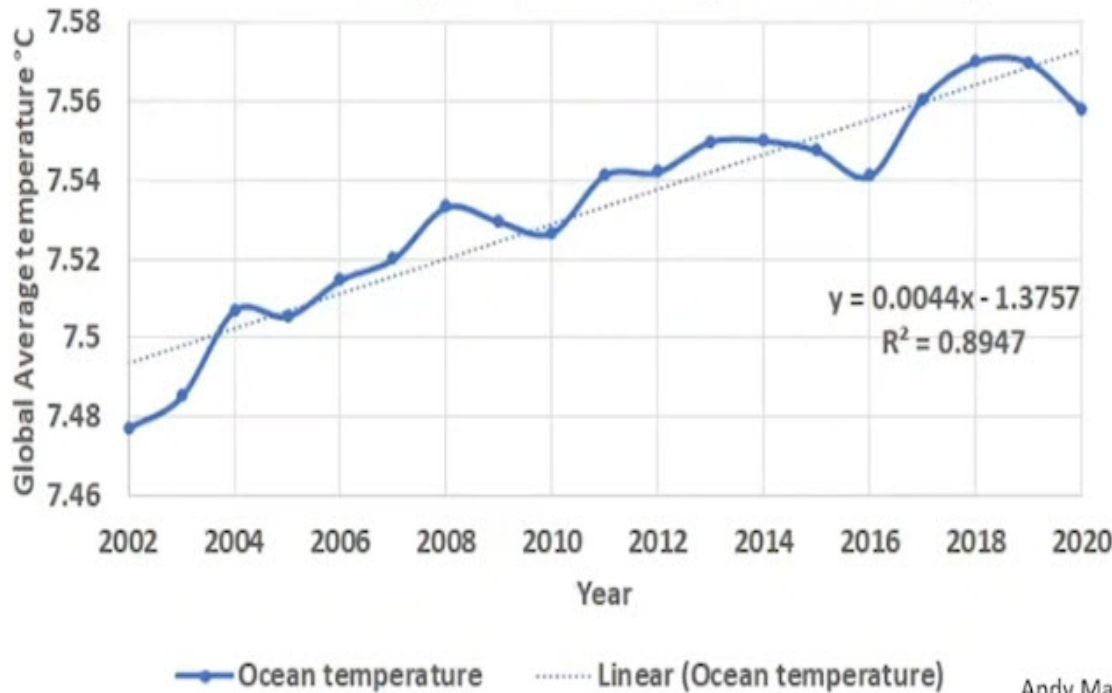
# Deeper Ocean

## The Deeper Ocean



Andy May

Ocean temperature to 100 to 2,000 meters  
Area Weighted (JAMSTEC Argo and Triton data)



Andy May

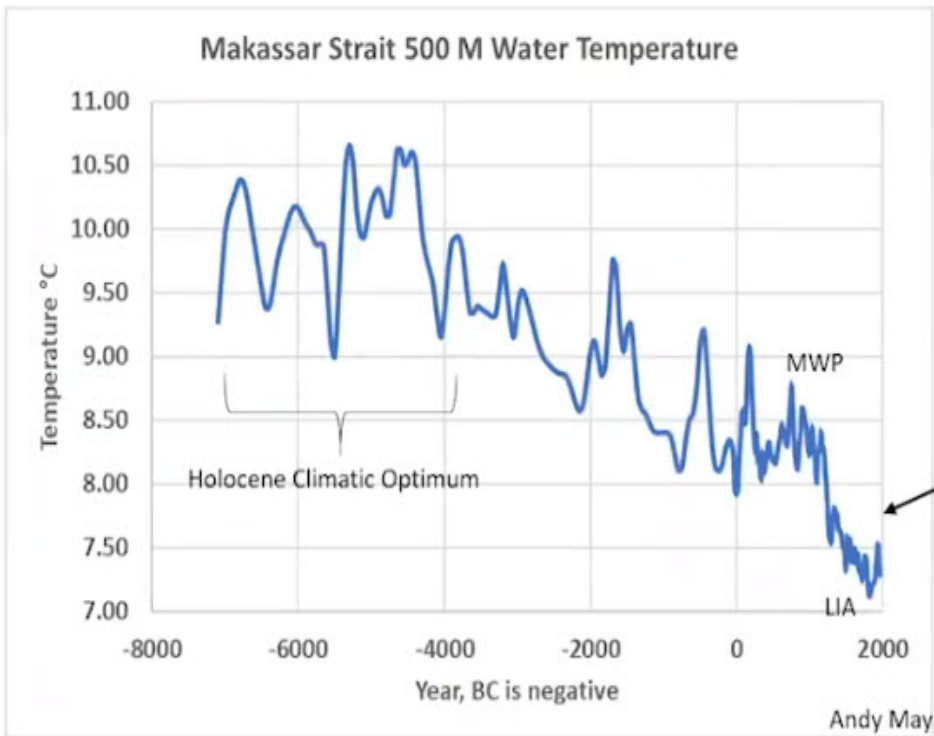
- No ENSO events
- Little and/or slow communication with the surface
- Age of temperature increases with depth
- Temperature increase very linear
- Warming at 0.44°C/century
- Probably this warming is all natural
- Age of temperatures function of currents and depth
- Model needed



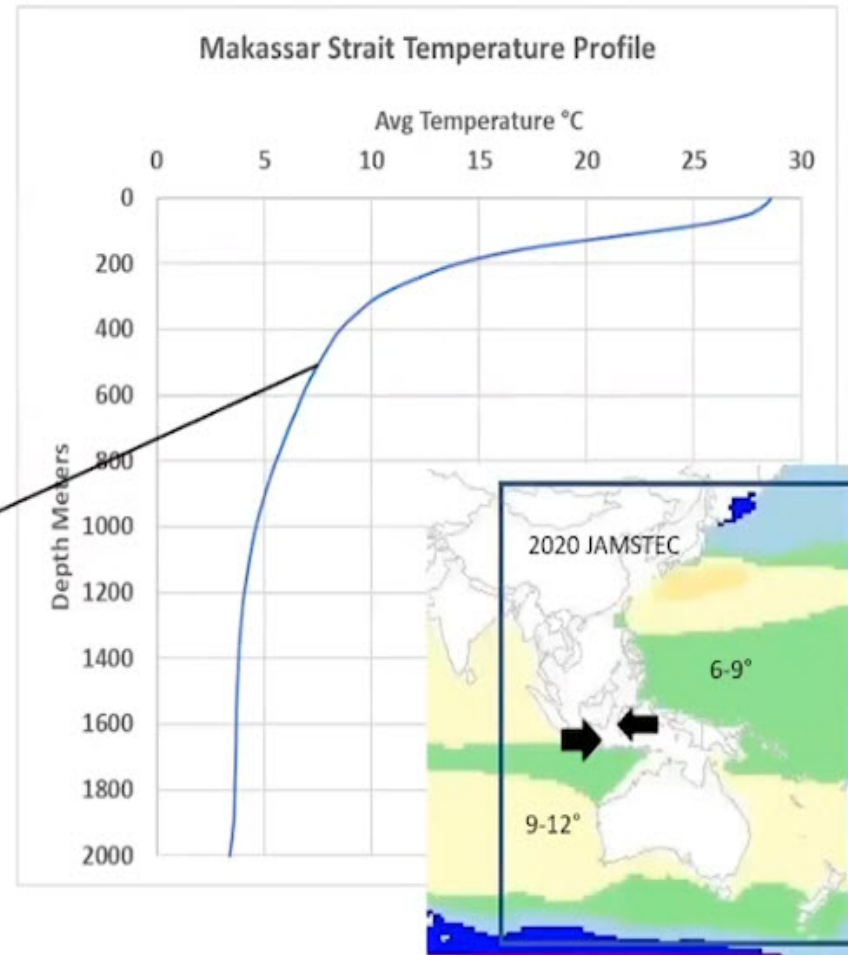
# Makassar Strait



Rosenthal, et al., 2013, *Science*, 10,000 yr. Temperature Reconstruction of 500 m water in the Makassar Strait.



U. Of Hamburg temperature profile, ~ 2004-2016





# The Imaginary Climate Crisis – How Can We Change the Message

## *The Imaginary Climate Crisis – How can we Change the Message?*

Richard S. Lindzen  
Sloan Professor Emeritus of Atmospheric Sciences  
Massachusetts Institute of Technology  
Cambridge, MA 02139 USA



**Richard Lindzen – The imaginary climate crisis**

<https://www.youtube.com/watch?v=GD8SXP02h4c>

Medical analogy: The scientific consensus on climate change is the same as if you were to schedule a full medical examination and discover that it consists only of a temperature check

### **Paris Accords**

Government's response is analogous to a physician informing you that you may have a fatal disease and proposing an expensive and painful treatment that offers no prospect of preventing illness—why would you ever agree?



# Global Mean Surface Temperature Anomaly is misleading

The average American has to cope each year with ranges from 25° C in Miami to -3 degrees in Alaska

We contrast this with the easily manageable 1.2 degree Celsius increase in the global mean temperature anomaly in the past 120 years, which has caused so much alarm.

## **Anthropogenic?**

The narrative asserts that changes in CO<sub>2</sub> were primarily due to man's activities.

There is indeed evidence that this link is likely true for changes over past 200 years. However, over Earth's history, there were radical changes in CO<sub>2</sub> levels, and these changes were largely uncorrelated with changes in temperature.

## **Can we control CO<sub>2</sub>?**

The narrative further assumes that we know precisely how to control the level of CO<sub>2</sub>, and that we know exactly how this will influence the globally averaged temperature anomaly.

## **Disaster?**

Perhaps the most questionable claim is that all of this implies the likelihood of existential disaster unless the assumed control measures are implemented.

According to Lindzen & Spencer (2019), presently estimated changes in the temperature record are most consistent with low sensitivity to increases in CO<sub>2</sub>, and the related warming is likely to be beneficial.

The notion that society is willing to waste trillions of dollars to avoid benefits is sobering.

The fact that the data points might be wrong because of the unreliability of the measurement in each station (urbanization, manual adjustments, changes in measuring tools....) is yet another issue

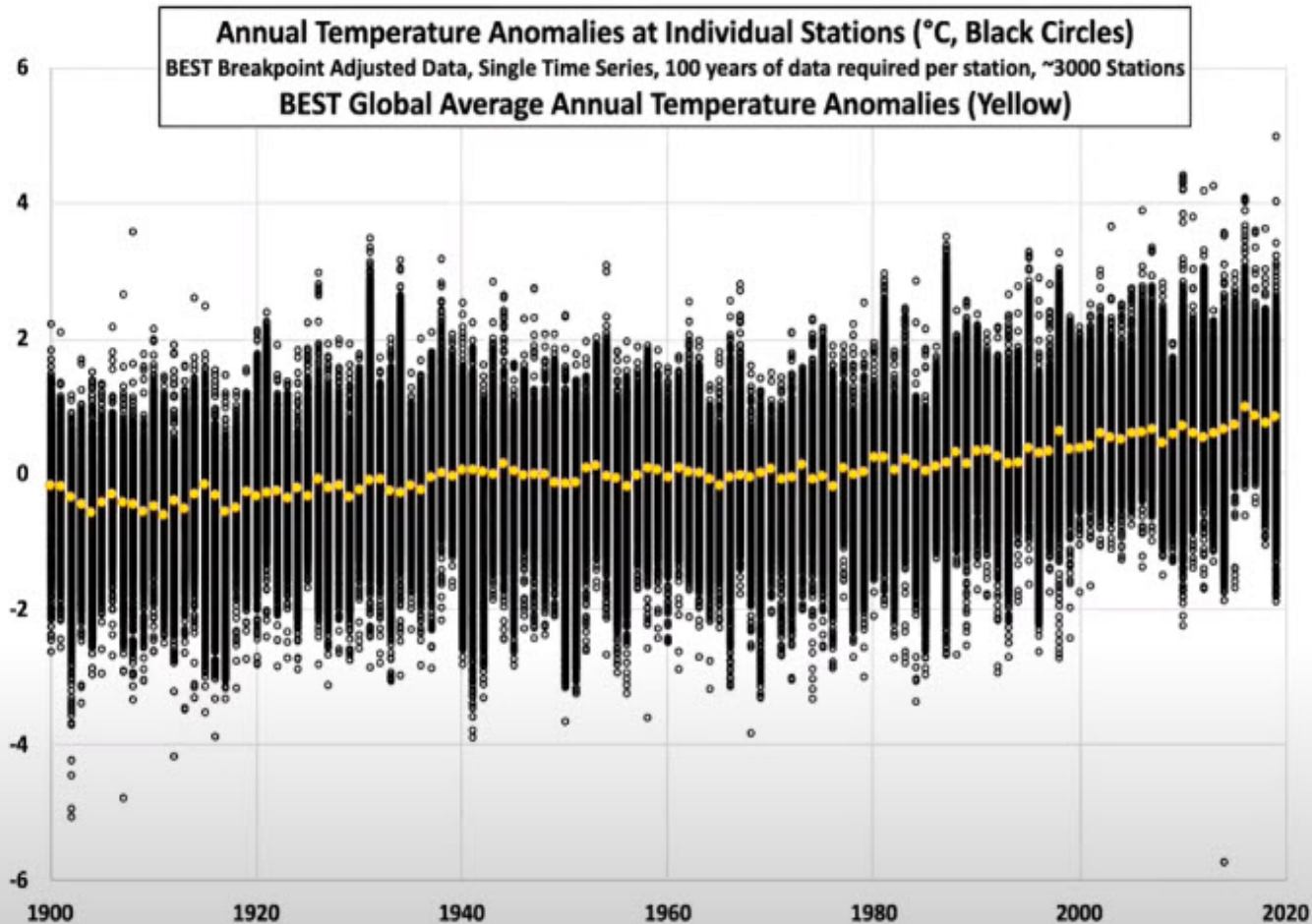
## **Concluding remarks**

We are dealing with global hysteria and the question is how did we get here

There are many benefits to CO<sub>2</sub> and even to modest warming



# Lindzen: Global Temperatures



The record is often treated as a kind of single, direct instrumental measurement.

\*However, it is really the average of widely scattered station data, where the actual data points are almost evenly spread between large positive and negative values.

\*The data omit the huge distribution of temperature variation, when they just show the scaled-up line graph

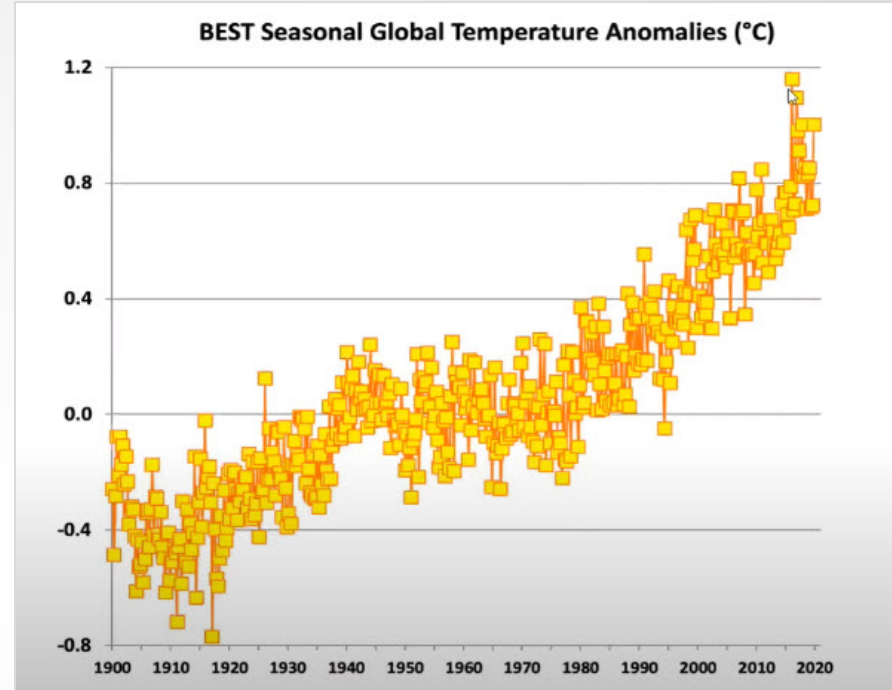
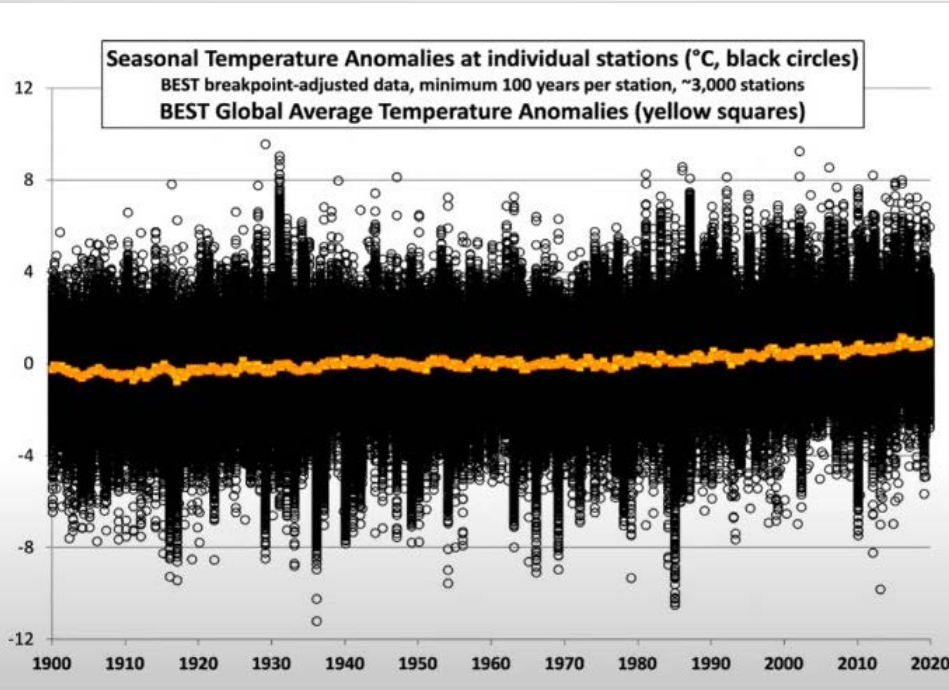
\*The average is the small difference of these positive and negative excursions.

**It's meaningless to speak of a global mean temperature:**

Scientists use the 30-year annual or seasonal mean of each station and then average the deviations (known as annual/seasonal mean anomalies)



# Media shows right rather than left graph



\*Instead of the left graph showing seasonal average increasing by  $\pm 1^\circ$ , they use the right graph, which leaves out the data points & stretches the temperature scale (essentially increasing resolution by a factor of 10)

\*As a result, the tiny change relative to any particular place in the left graph looks huge

\*Fluctuations of  $\pm 0.2^\circ$  probably meaningless. but often reported by media as “record-breaking” events

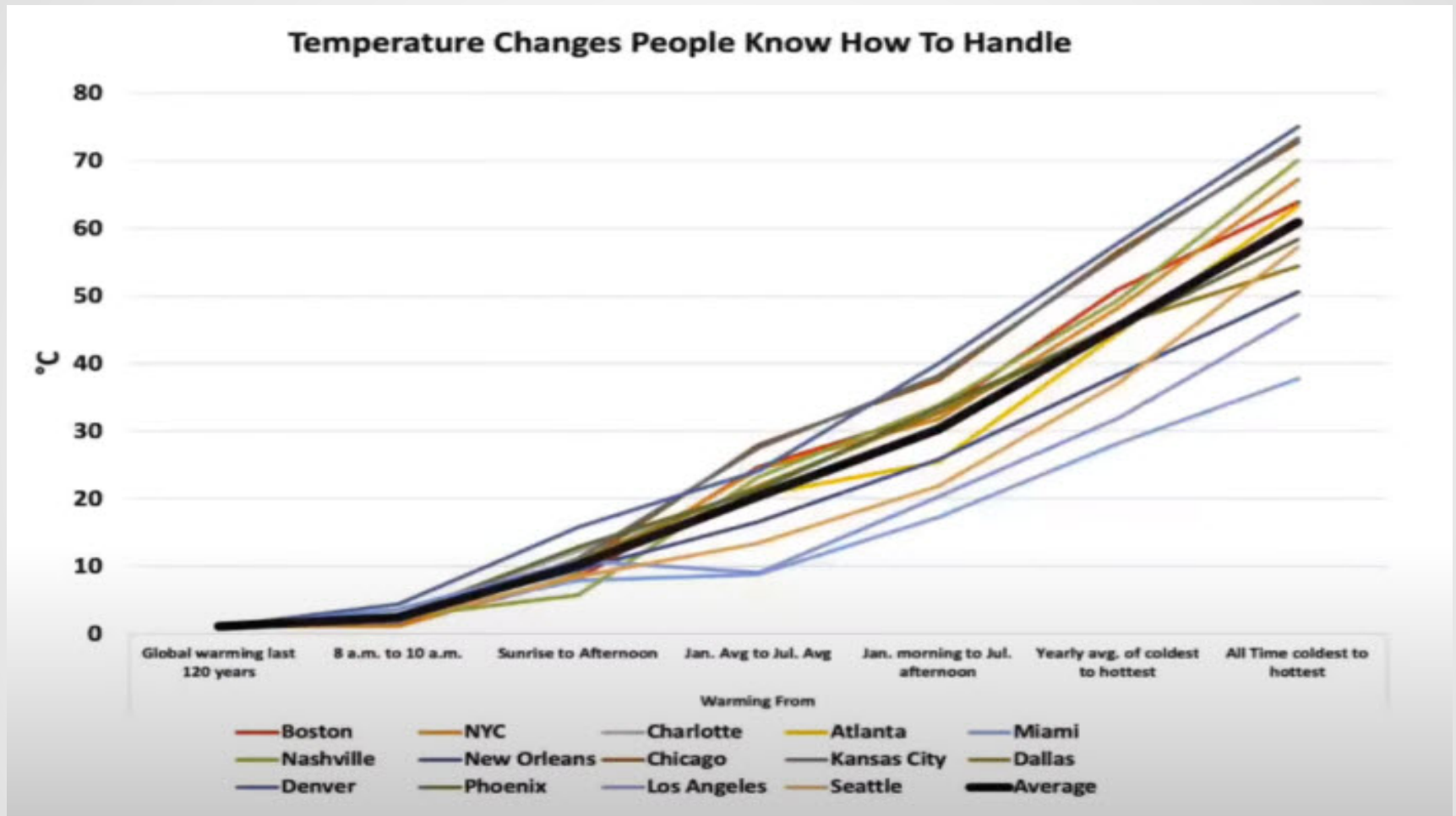
\*Graph shows reduced rate from 1998 until the major 2016 El Niño.

\*Even if one could attribute all the 1978-1998 warming to  $\text{CO}_2$  increases, the slowdown clearly shows that there is something going on that is at least as large as the response to  $\text{CO}_2$

\*This contradicts IPCC attribution studies that assume, based on model results, that other sources of variability since 1950 are negligible.



# Global Temperatures

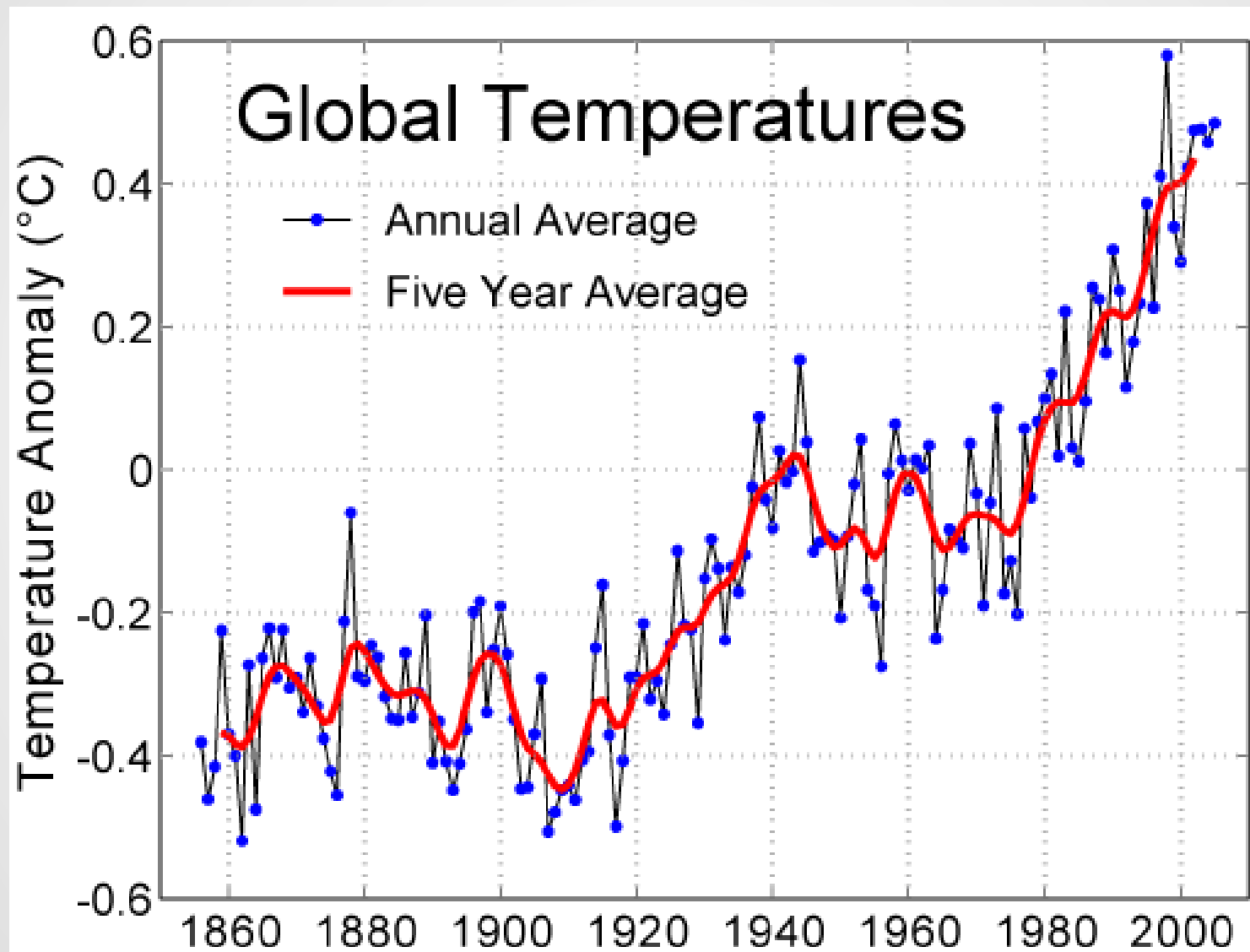


\*Humans normally handle huge changes in daily/seasonal temperature compared with those recorded over last 120 years

\*We are being told that even though the 1°-1.2° that the average represents (black line) were accompanied by the greatest improvement of human welfare in history, another few tenths of a degree mean doom



# Global Temperatures





Steven Koonin: unsettled - 2021

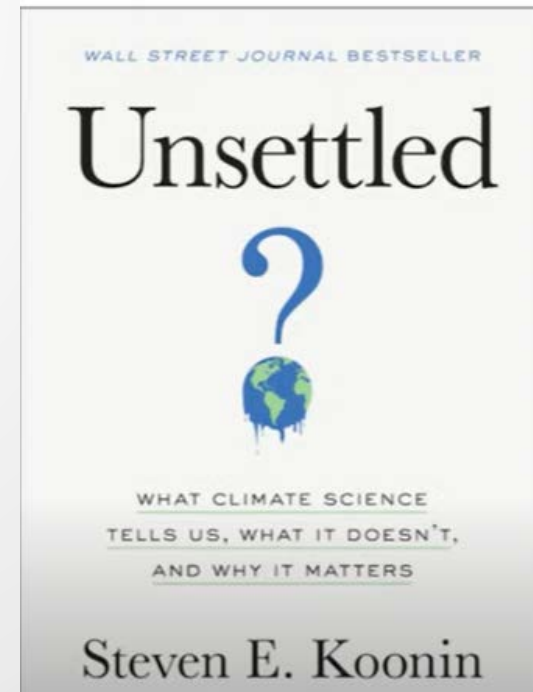
## “How much can we reduce human influences & will that make a difference to the climate?”

I don't disagree with anything in the literature or the reports, all I am doing is making evident to non-experts what is actually in the reports". I am not denying anything, what I am denying is how we talk about the data and the science

<https://www.youtube.com/watch?v=2wo-biSEDpk>

<https://www.youtube.com/watch?v=6Tz1MiX1p5I>

+ book





## “How much can we reduce human influences?”

- \*World is facing drivers of development which are demographics & energy
- \*40% (3b) of world's population lack adequate energy; best & fastest way to resolve this is through **fossil fuels**
- \*Emissions in developing world will thus grow – **even if developed world reduce then**
- \*The best thing developed world can do is help developing countries promote economic development & strengthen institutions so that they can better execute national strategy plans
- \*50 different models disagree with each other & based on **contradictory observations**, which creates a risk when they are used for the basis of societal decisions



# “How fast should we respond to risks that growing GHG poses?”

\*Need to balance between 2 competing factors:

decarbonizing too rapidly, induces **turmoil in the economy** & incurs costs;

decarbonize too slowly = climate risk could become unreasonably large

Conclusion on balance = we should proceed far more slowly than advocated by **Paris Accords**, & optimally let global temperature rise by  $3^{\circ}$  (twice as much as Paris)

\*Develop technologies slowly, then come down more strongly as technology permits

\*If u do that, even a  $3-4^{\circ}$  rise, impact on global economy by 2100 is only **a few %**. So if **economy is growing few % a year, this might lead to behind in economy by 1-2 years by 2100** – so its minimal

\*Energy systems of the world change slowly, because they need to be reliable, one doesn't want to destroy systems before their time. Thus, we need to change energy systems by **slow steady pressure rather than drastic measures**

**Drastic fast changes risks unreliability, over dependence on foreign oil**



# Global Temperatures

- Climate change will vary across globe; some regions becoming drier or hotter, others colder
- Temperature went up in 20<sup>th</sup> C by 1-1.1°C, measuring this is very complicated and probably far from correct. Out of this, experts believe than ½ -2/3 is due to impact of sun activity, not fossil fuels. Therefore if CO2 doubles it should lead to only a hike in temperature of 1.5 DC.
- 2<sup>nd</sup> half of the 20<sup>th</sup> C, the sun had strongest activity seen in last many thousands of years
- Measuring temperature is far from trivia and even the 0.8°C should be considered cautiously, as many effects introduce systematic error which are hard to account for and may mimic and apparent heating. E.g the “urban hat island effect” whereby many ground stations are located in populated areas measure average warming, not because of global warming itself, but because of their proximity to human heat sources, such as A/Cs, or larger amounts of concrete surfaces absorb more solar radiation.
- Measurements of the tropospheric temperature using satellite data over past 30 years reveals less warming then surface stations detect.
- The main question is not the exact size of the 20<sup>th</sup> C warming, but the anthropogenic component and its future effect. Indeed, although there is ample evidence of warming, this evidence does not necessarily imply it is due to anthropogenic GHG. Al Gore shows lots of evidence of occurrence of global warming, but not even 1 indicator that this is due to GHG. This does not mean there is no link, but that we have to be extra careful.
- Temperature increase over 20<sup>th</sup> C is not unique. The increase between 1970-2000 is very similar to the increase between 1910-1940 in terms of rate and absolute size. Other periods, with no human intervention experienced were as warm as in latter half of 20<sup>th</sup> C and perhaps warmer. During Middle Ages was as warm as today. Under the ice on Greenland there are Viking graves and one can find human activity dated to Roman times under glacial ice of Alps.



# CO<sub>2</sub>

- On a scale of tens of millions of years, there were large variations in the amount of CO<sub>2</sub>. These variations arise from a varying deposition rate of limestone on the ocean floor and the emission rate of CO<sub>2</sub> in volcanic activity. 450 million years ago, there was probably 10 times more than today, but it was as cold as it is today. If CO<sub>2</sub> had/has a large effect on global temperature, Earth should have been much hotter then.



# Earth's sensitivity

WALL STREET JOURNAL BESTSELLER

# Unsettled



WHAT CLIMATE SCIENCE  
TELLS US, WHAT IT DOESN'T,  
AND WHY IT MATTERS

Steven E. Koonin



# Steve Koonin

\*



Matt Ridley - Risk of global warming is being exaggerated

<https://www.youtube.com/watch?v=j5M1qtN62yk>



# Why are risks of global warming exaggerated?

1. All environmental predictions of doom always are **always wrong**  
(Sometimes actions were taken to avert, sometimes cos Jury is still out)
2. The models have been **consistently wrong** for more than 30 years
3. Climate sensitivity is now known to be **relatively low**
4. The climate science establishment has a **vested interest** in alarm

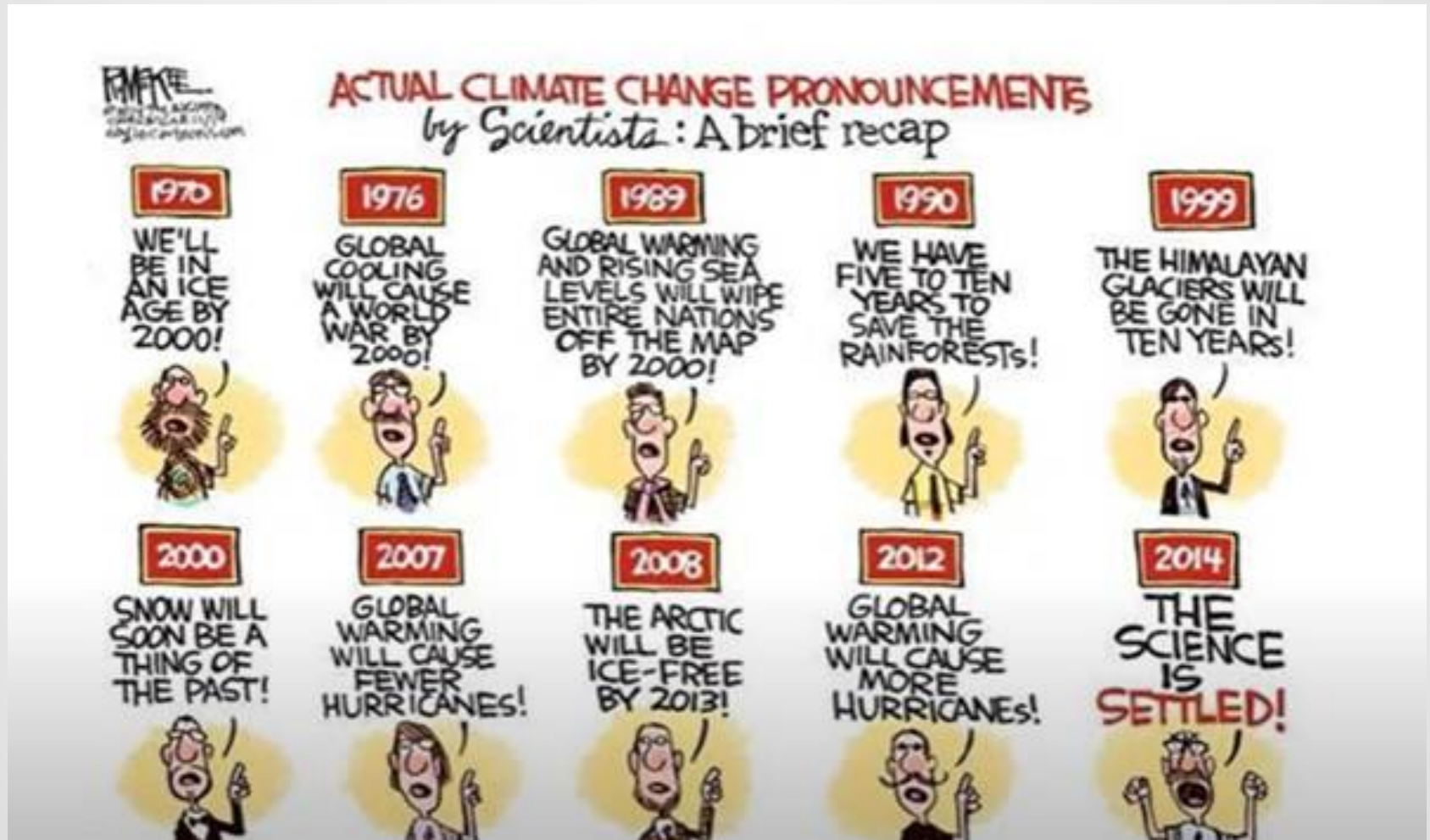
## Failed green scares of the 70s

- the population explosion would be unstoppable;
- global famine would be inevitable;
- crop yields would fall;
- a cancer epidemic caused by pesticides would shorten our lives;
- the desert would advance at two miles a year;
- rainforests would disappear;
- acid rain would destroy forests;
- oil spills would worsen;
- oil and gas would run out;
- and so would copper, zinc, chrome and many other natural resources;
- the Great Lakes would die;
- dozens of bird and mammal species would become extinct each year;
- and a new ice age would begin;



# Why are risks of global warming exaggerated?

All environmental predictions of doom always are **always wrong**...



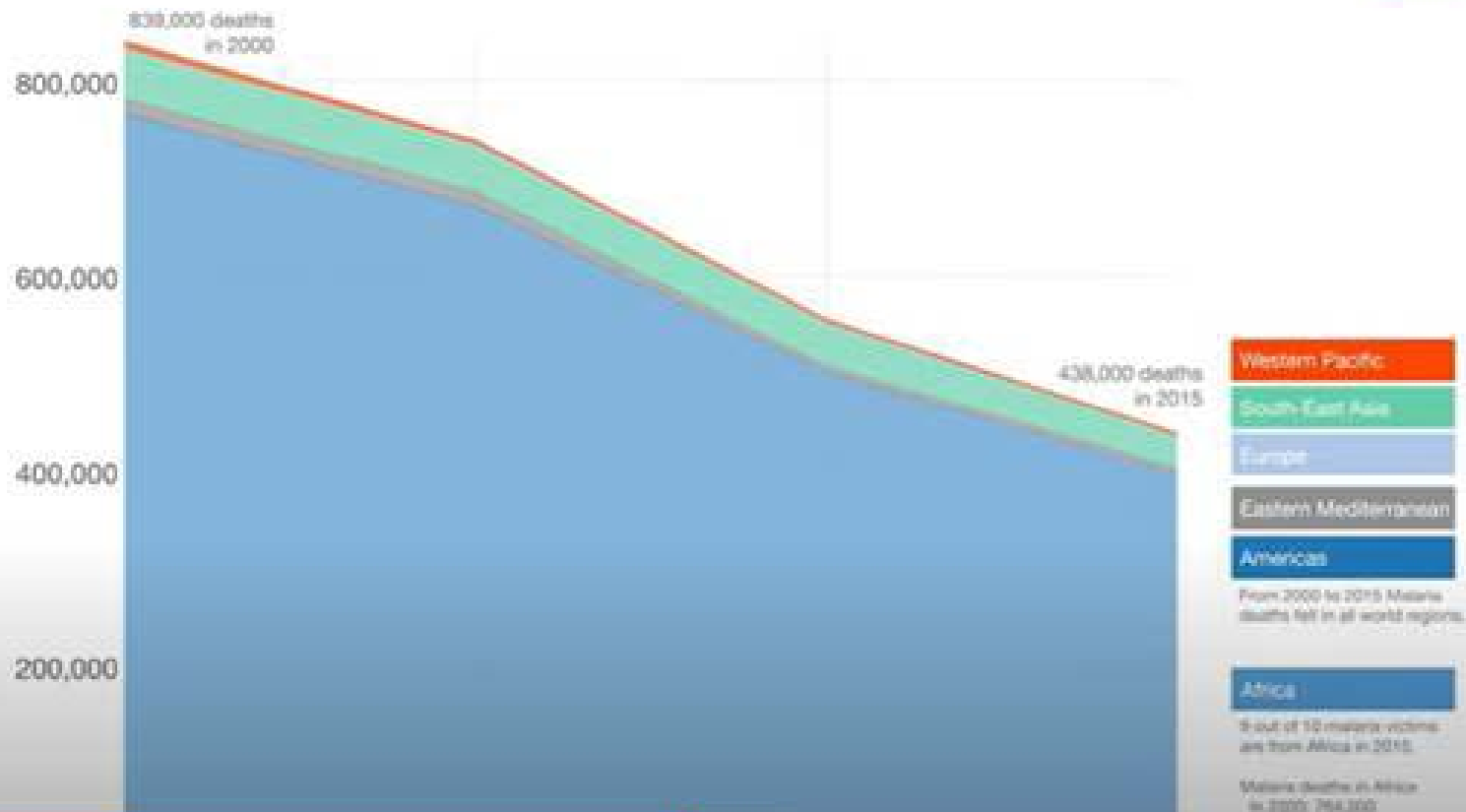


# Why are risks of global warming exaggerated?

According to the IPCC, Malaria was going to get worse because of rising temperature - it didn't...

Global malaria deaths by world region, 2000 to 2015

Our World  
in Data

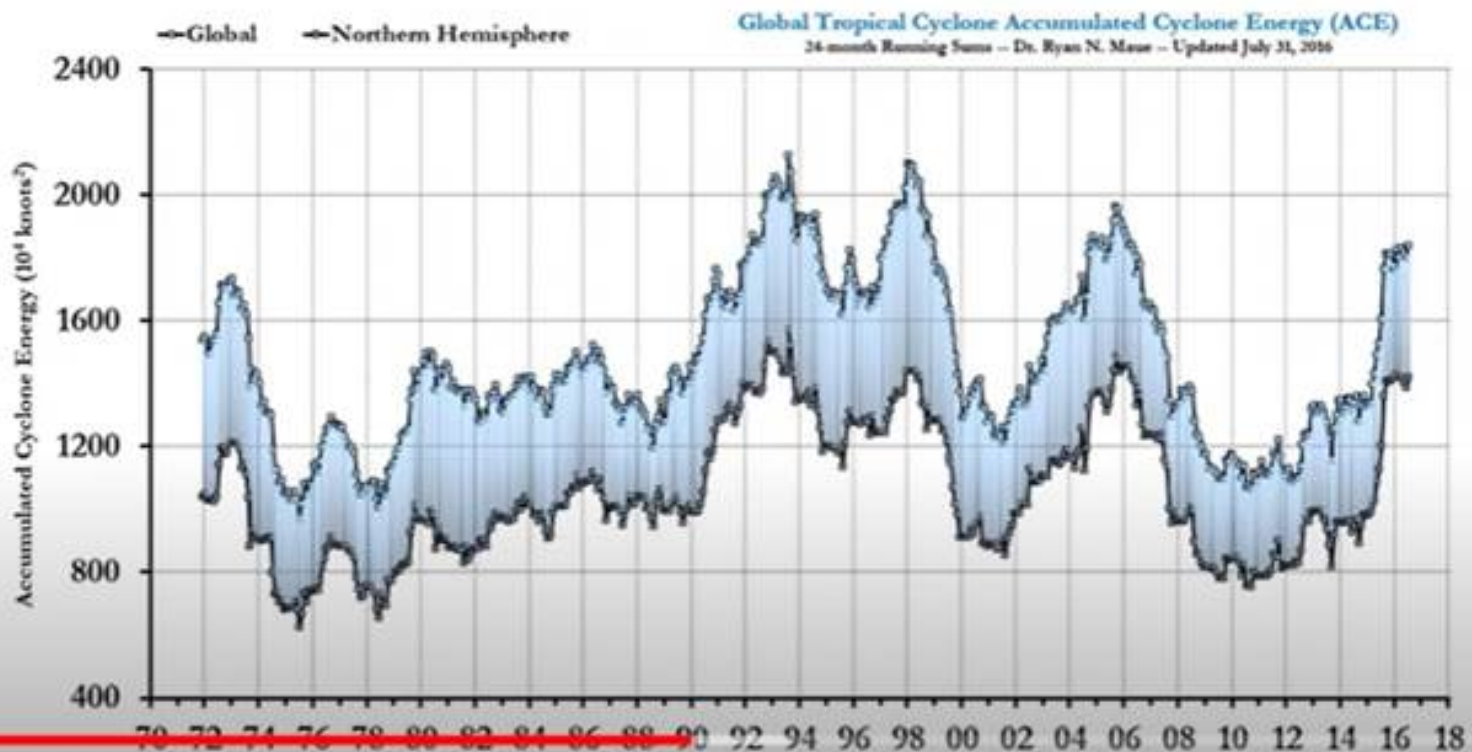




# Why are risks of global warming exaggerated?

Hurricanes & cyclones were going to get worse, they haven't...

## Cyclones – no trend

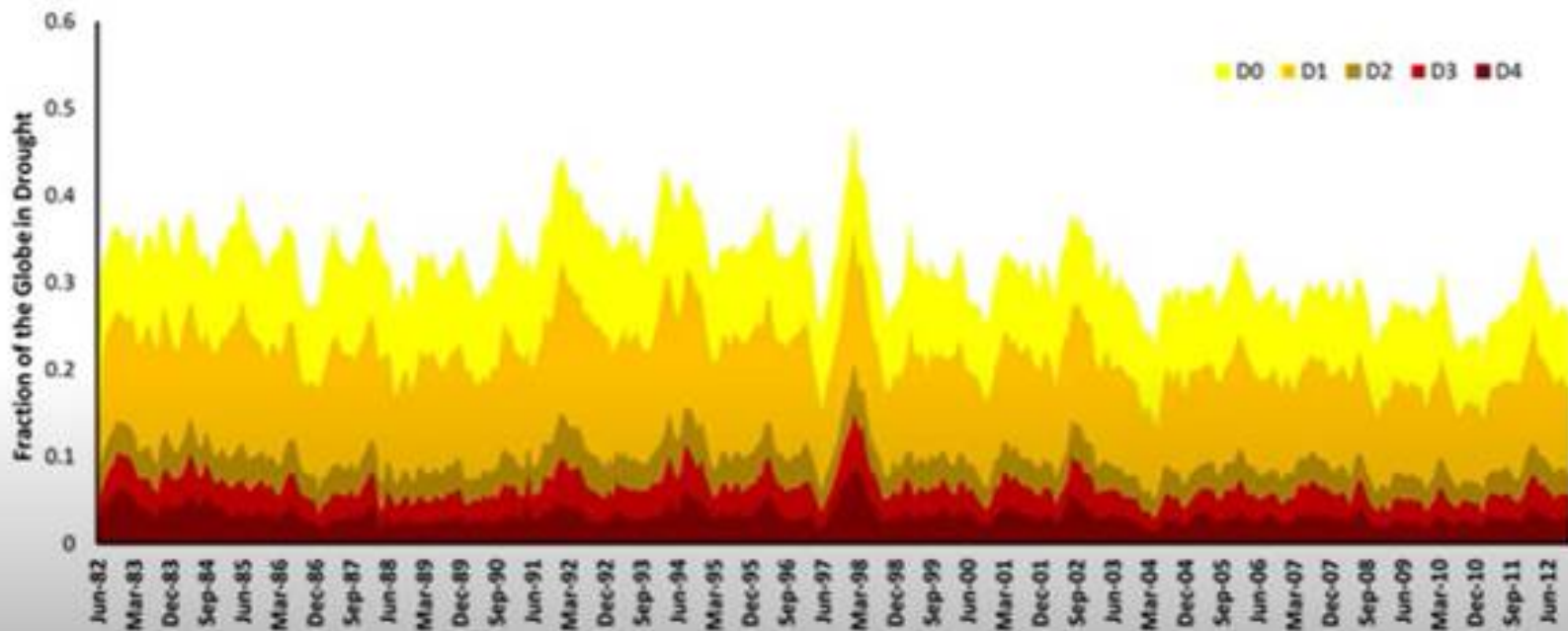




# Why are risks of global warming exaggerated?

Droughts were going to get worse - they haven't

## Percent of the world in drought - down

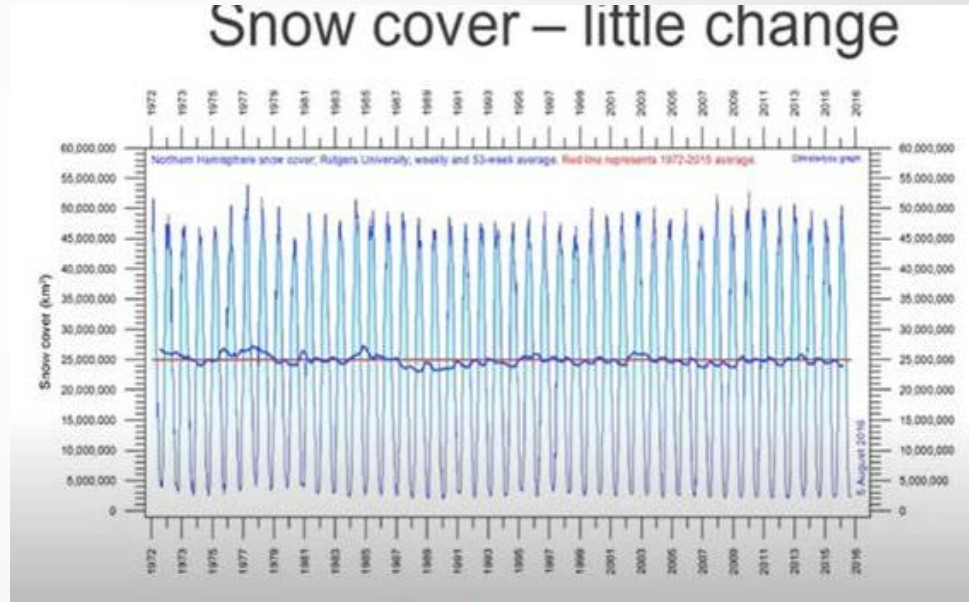
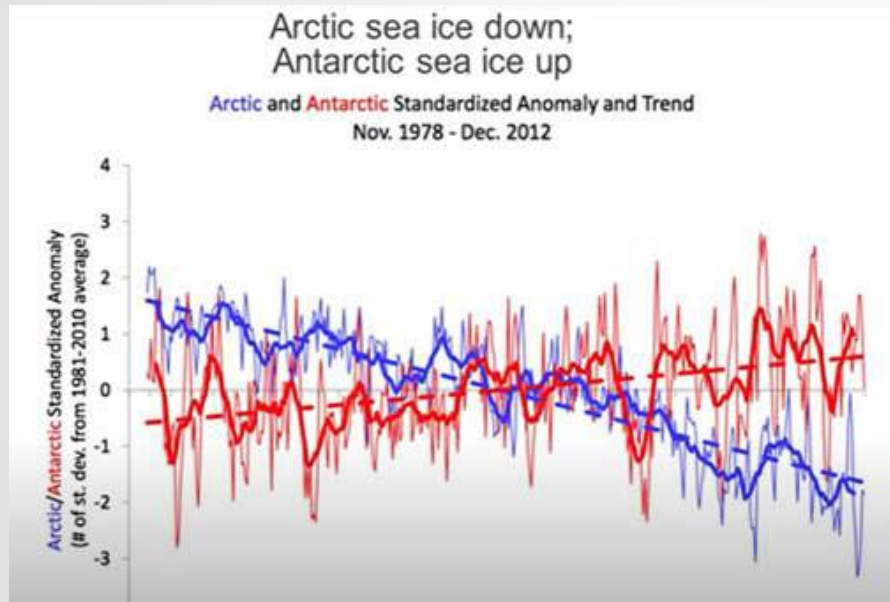




# Why are risks of global warming exaggerated?

## Ice and snow

More than half of glacier retreat occurred before 1950;  
Greenland losing ice at 1% a century, sea level rise has not accelerated



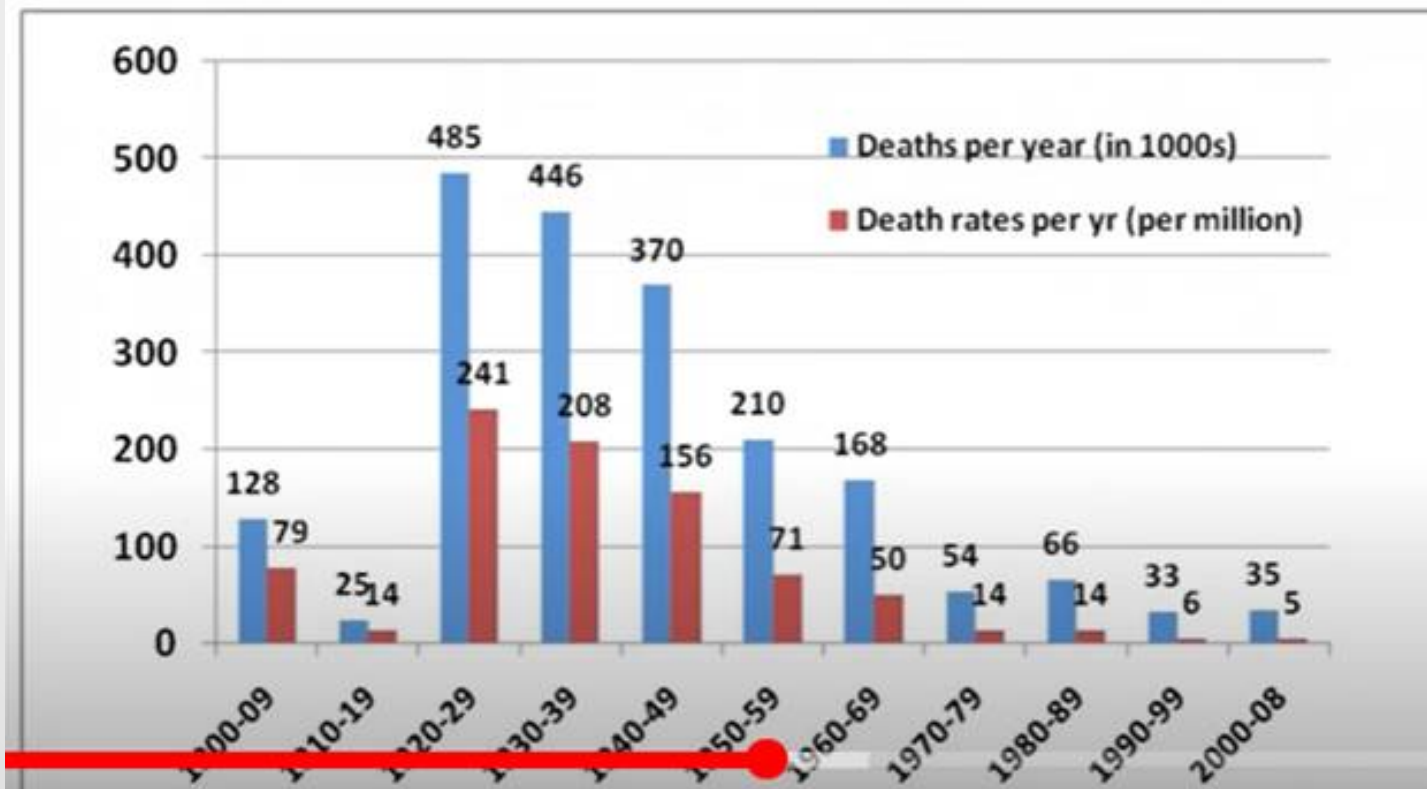


# Why are risks of global warming exaggerated?

We can cope:

Death toll from droughts, floods and storms has been going down  
because technology is getting better

## Declining deaths from weather





# Global greening and lukewarming



## Global Greening

\*14% increase in green vegetation, 50-70% of which is direct result of rising CO<sub>2</sub> (not agricultural progress, increased rainfall), and in addition the CO<sub>2</sub> reduces the water requirements of agriculture

## Lukewarming

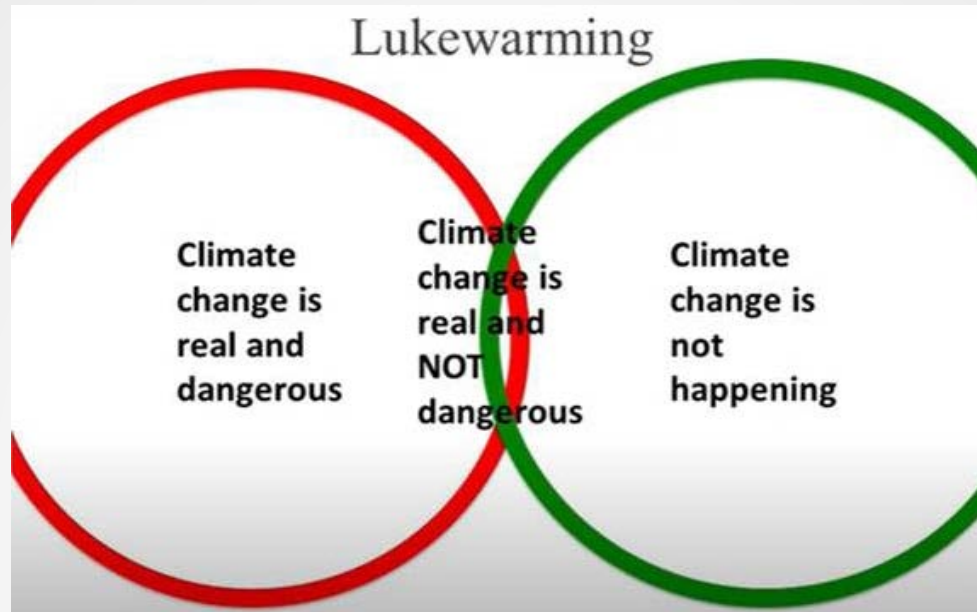
\*Policies taken to mitigate the risks have done more harm than good both economically and environmentally, and are causing suffering

\*World has been divided between those who say climate change is real and dangerous or it is a hoax and not happening.

\*The third option should be: climate change is real BUT not dangerous



# Global greening and lukewarming



\*CO<sub>2</sub> is a greenhouse gas, its concentration in the atmosphere is increasing, the increase is indeed due to the burning of fossil fuels, climate is indeed changing, the atmosphere is indeed warmer today than it was 50 & 100 years ago, CO<sub>2</sub> probably caused some probably even more than half of the warming since 1950 - he is saying it is not dangerous.

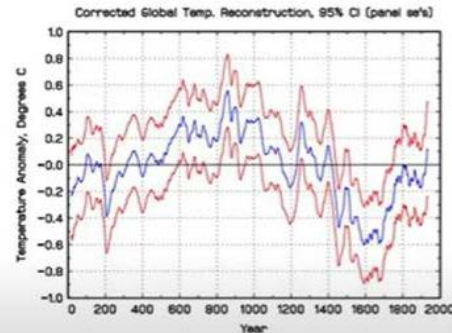
\*Warming twice as fast in northern than southern hemisphere, it is concentrated more in colder areas, colder seasons and at night

\*Satellite readings more accurate than earth taken readings, and S show lower increase but even based on surface taken data according to IPCC global man made warming increased by 0.5 degrees in more than 50 years - so not in any dangerous zone (S readings show half)



# Global greening and lukewarming

## Warmer 1000 years ago



18 non-tree-ring proxies

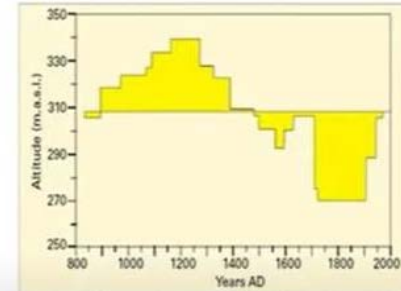


Fig 1. Altitudinal displacement of the upper tree-line in the Polar Ural Mountains during the last 1150 years.

Polar Ural tree-line

## It was hotter 1,000 years ago

However indeed recent warming was caused by increase in CO<sub>2</sub> in the atmosphere

Recent warming has indeed been caused by a composition in the atmosphere, an increase from 0.03% to 0.04% CO<sub>2</sub>

Physics of diminishing returns: namely the next 0.01% - expected soon after mid-century - will have less effect than the last 0.01%

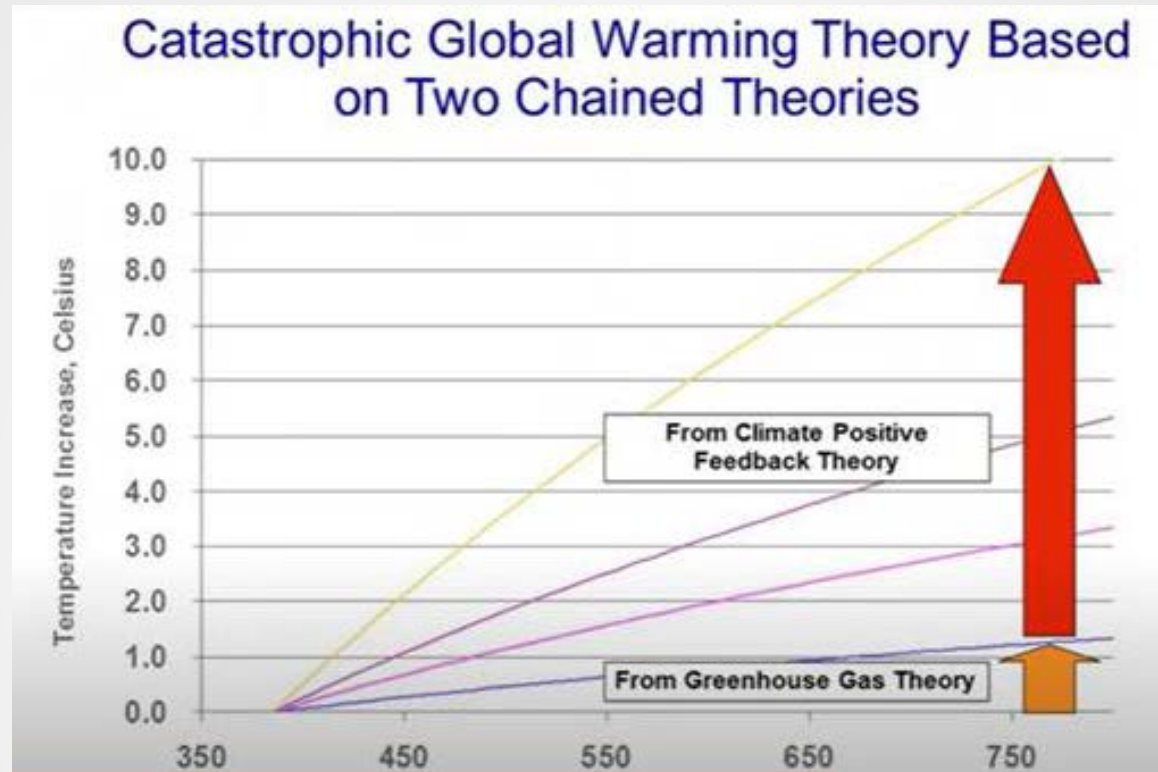
A doubling of CO<sub>2</sub> in the atmosphere cannot on its own produce dangerous warming - sensitivity is about 1.2% heating per doubling CO<sub>2</sub>, which is the consensus spelled out by the IPCC, and which (Ridley agrees)

## So what is the problem?

the theory of dangerous climate change depends on a whole extra step in the argument, namely the supposed 3 fold amplification of carbon dioxide warming potential principally by extra water vapour released into the atmosphere by the warming of the ocean and accumulated at high altitudes.



# Global greening and lukewarming



\*This is where the evidence is much more shaky - Some studies find an increase of water vapor high in the atmosphere and some do not. One complication is that water has a habit of condensing into clouds and these cannot be measured adequately yet. Clouds keep surface warm at night and low clouds cool the earth during the day, by reflecting sunlight back into space.

\*The models generally claim that there is a positive correlation between net cloud radiative effect and temperature, boosting the water vapor amplification, NASA data shows that there is a strong negative correlation, namely that higher temperatures lead to more cloud cooling

\*Thus consensus that climate sensitivity is low, models are assuming too rich a feedback.



# Why are risks of global warming exaggerated?

What is the harm done by our politicians panic in the early 2,000s, is it not better to be safe than sorry?

Here is why it matters: Our current policy carries not only huge economic costs, which hits the poor hardest, but huge environmental costs also





# Why are risks of global warming exaggerated?

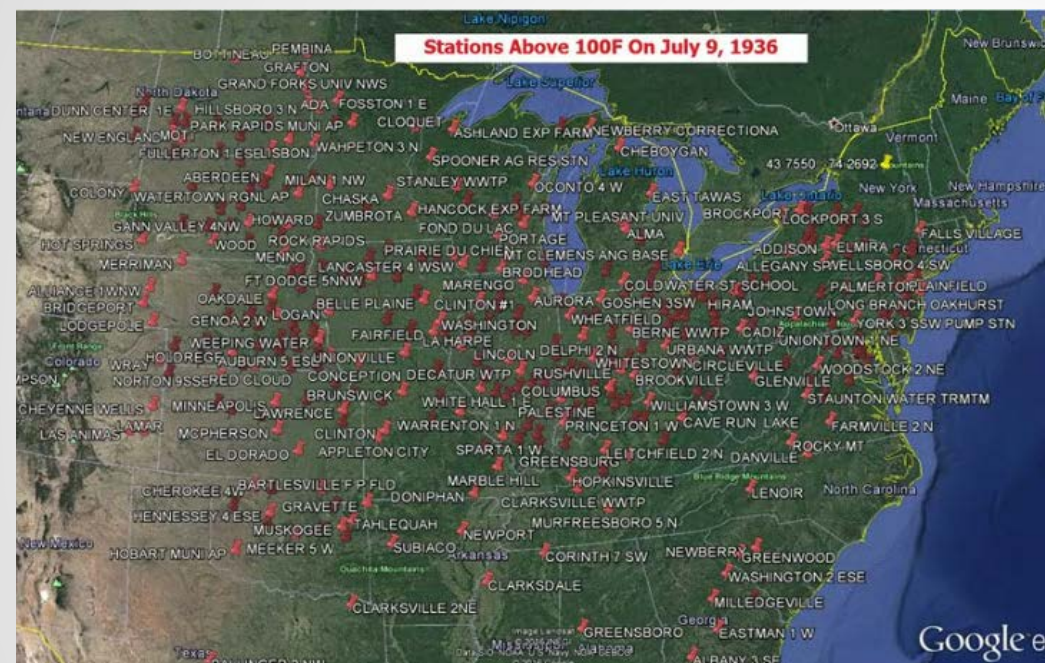
- \*We are encouraging forest destruction, increasing food prices by burning wood, ethanol and biodiesel.
- \*Denying the poor the cheapest forms of electricity.
- \*Mostly, real environmental problems are being neglected at the altar of GHG and scaremongering on global warming. We pay too little attention to the genuine environmental problems in the world: e.g. over-fishing, land-drainage and urban-development causing floods, wind farms that kill the birds.
- \*Huge subsidies spent on renewables
- \*IPCC states itself that the economic costs of climate change are small
- \*MADNESS thing of all: Current Policy is NOT even achieving decarbonization: burning solar energy in cloudy Germany increasing carbon emissions as the energy put into building the solar panels is more than one will ever get out of it. Wind farms prevent the replacement of gas and coal by nuclear

“For most economic sectors, the impact of climate change will be small relative to the impacts of other drivers (*medium evidence, high agreement*). Changes in population, age, income, technology, relative prices, lifestyle, regulation, governance, and many other aspects of socioeconomic development will have an impact on the supply and demand of economic goods and services that is large relative to the impact of climate change.”



# Evaluating The Integrity Of Official Climate Records

July 9 1936 was one of the hottest days in US history



**Tony Heller - Evaluating The Integrity Of Official Climate Records**

<https://www.youtube.com/watch?v=Gh-DNNIUjKU>

Tony Heller of <http://realclimatescience.com/> presents at the 34th Annual Meeting of Doctors for Disaster Preparedness, on July 9, 2016 in Omaha, Nebraska.

“Most people believe that hot weather is becoming more common and more intense in the United States – Is this belief valid?”

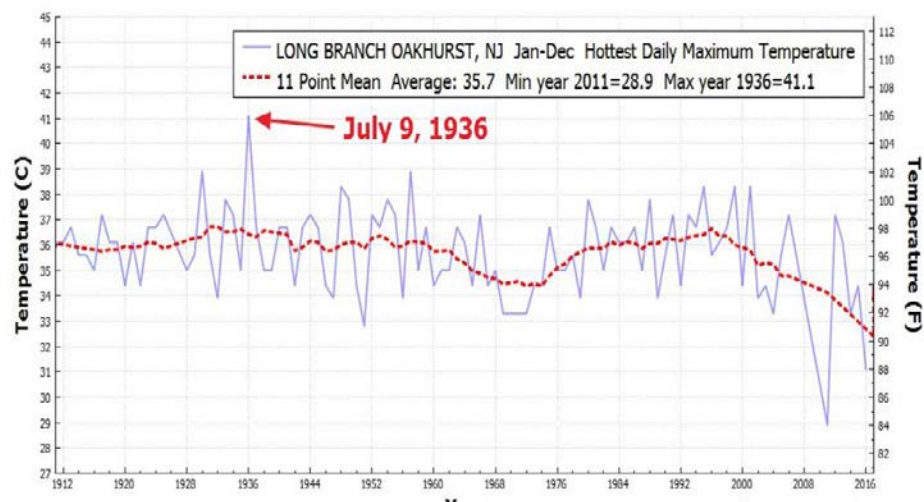
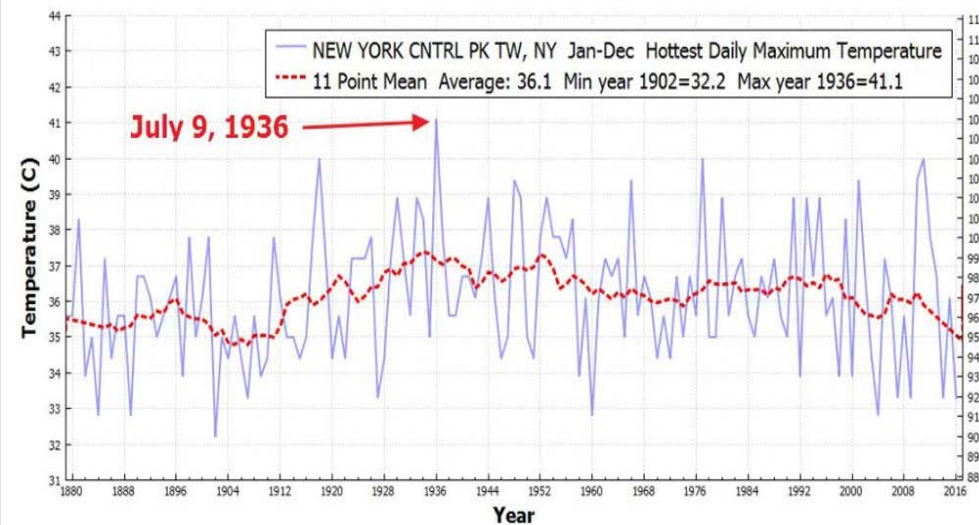
“In July 1936, the US experienced the worst heat wave in history, including 4,000-5,000 deaths that week.”



# Evaluating The Integrity Of Official Climate Records

July 9 1936 was the hottest day on record in New York City & Long Branch, New Jersey – 106°F

“In general, the hottest days in New York have declined since the 1930s”



The same week in 1936, temperatures reached 120°F in South Dakota...& 113°F in Seymour, Indiana

“The hottest temperatures in South Dakota in the 1930s were much hotter. Now they are about 10° cooler...”

“These kind of temperatures are inconceivable today in places where even 100° is rare.””



# Evaluating The Integrity Of Official Climate Records

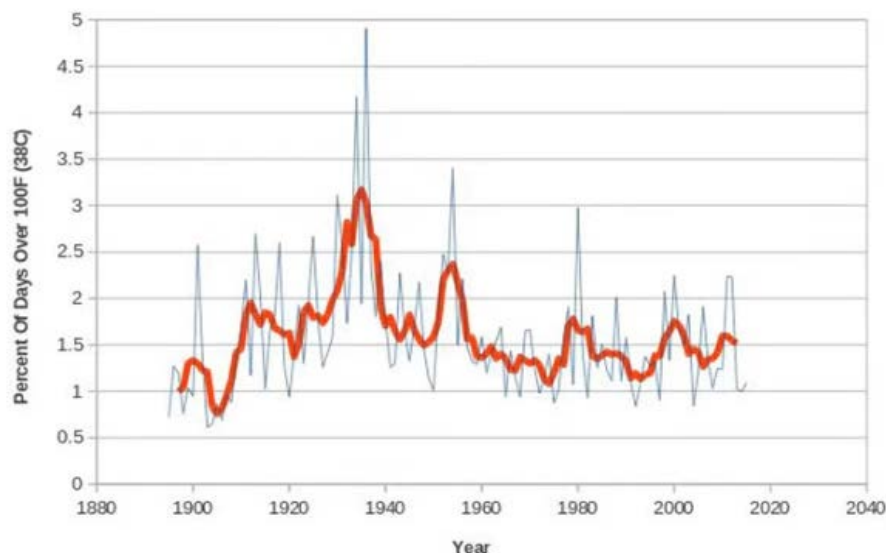
## US used to have many more hot days

“% of days over 100°F spiked hugely in the 1930s, then the 1950s and in 1980.”

“In 1936, across the entire US, almost 5% of days were over 100°F, which is pretty mind-boggling because we haven’t seen anything like that since.”

Average Percentage Of Days Over 100F (38C) At All USHCN Stations

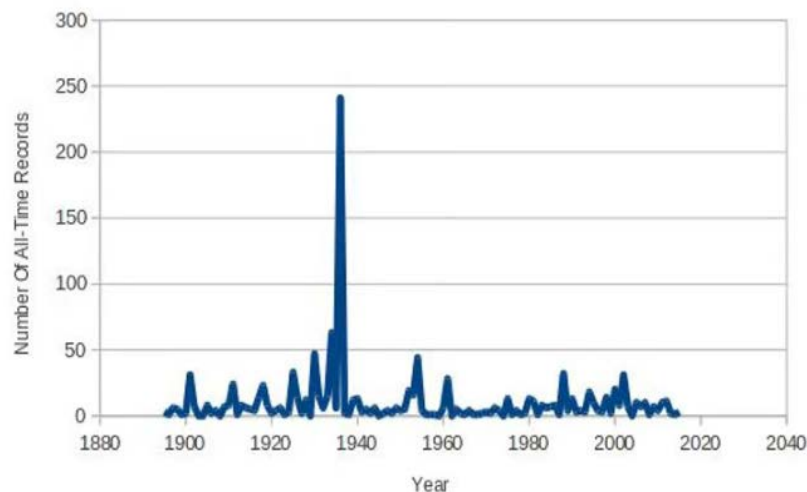
Red Is Five Year Mean



More than 20% of US all-time temperature records were set in 1936

Number Of All-Time Maximum USHCN Station Temperature Records

1200 Stations



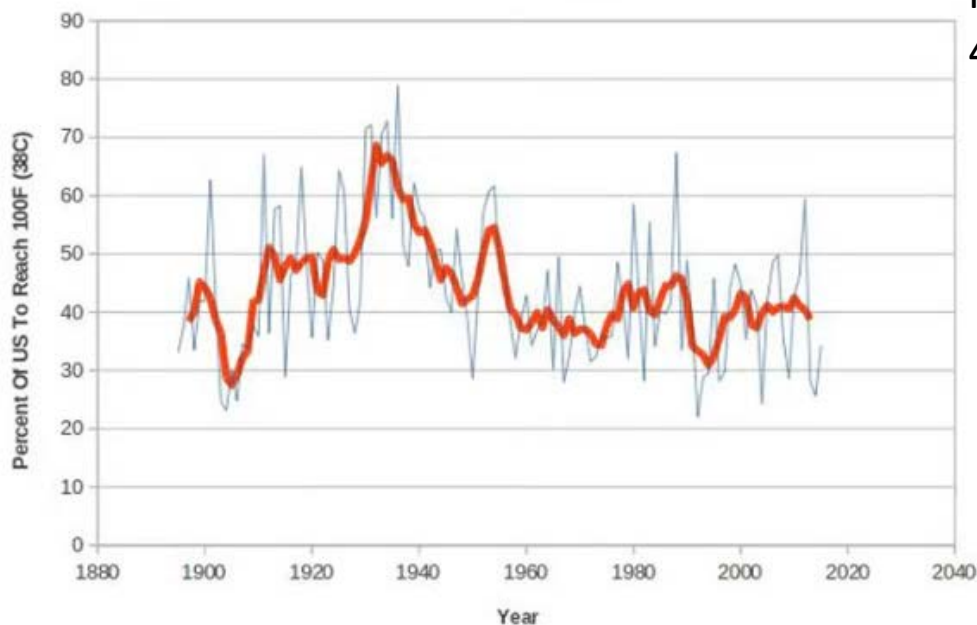


# Evaluating The Integrity Of Official Climate Records

Areal coverage of US heat waves used to be much larger

Percentage Of USHCN Stations To Reach 100F (38C)

Red Is Five Year Mean



“In 1936, almost 80% of the stations in the US reached 100°F. Today it’s typically closer to 40°F.”



# Evaluating The Integrity Of Official Climate Records

EPA graph showing the unprecedented heatwaves in the 1930s (Figure 1) is contradicted by their next graph (Figure 2)...

Figure 1. U.S. Annual Heat Wave Index, 1895–2014

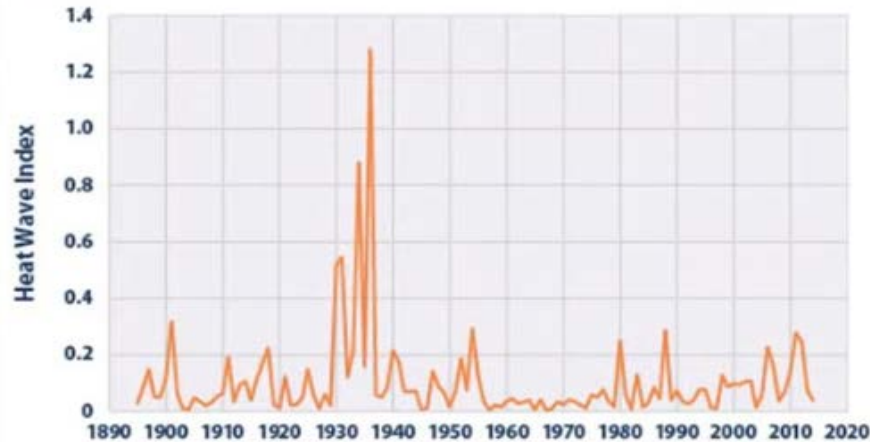
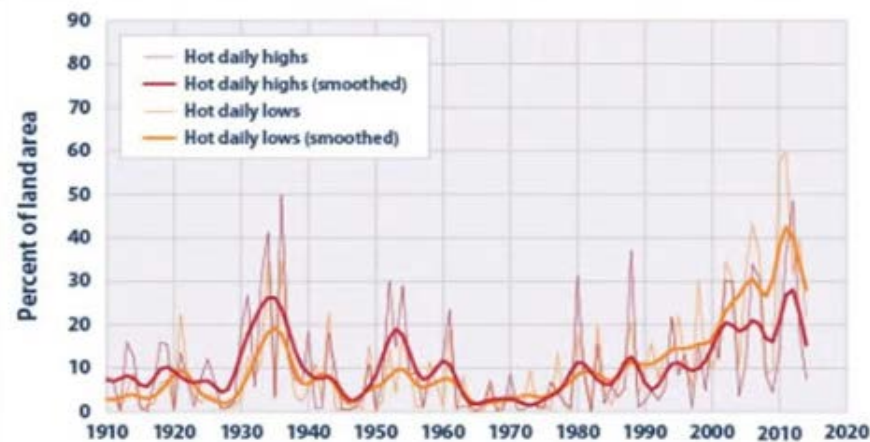


Figure 2. Area of the Contiguous 48 States with Unusually Hot Summer Temperatures, 1910–2014

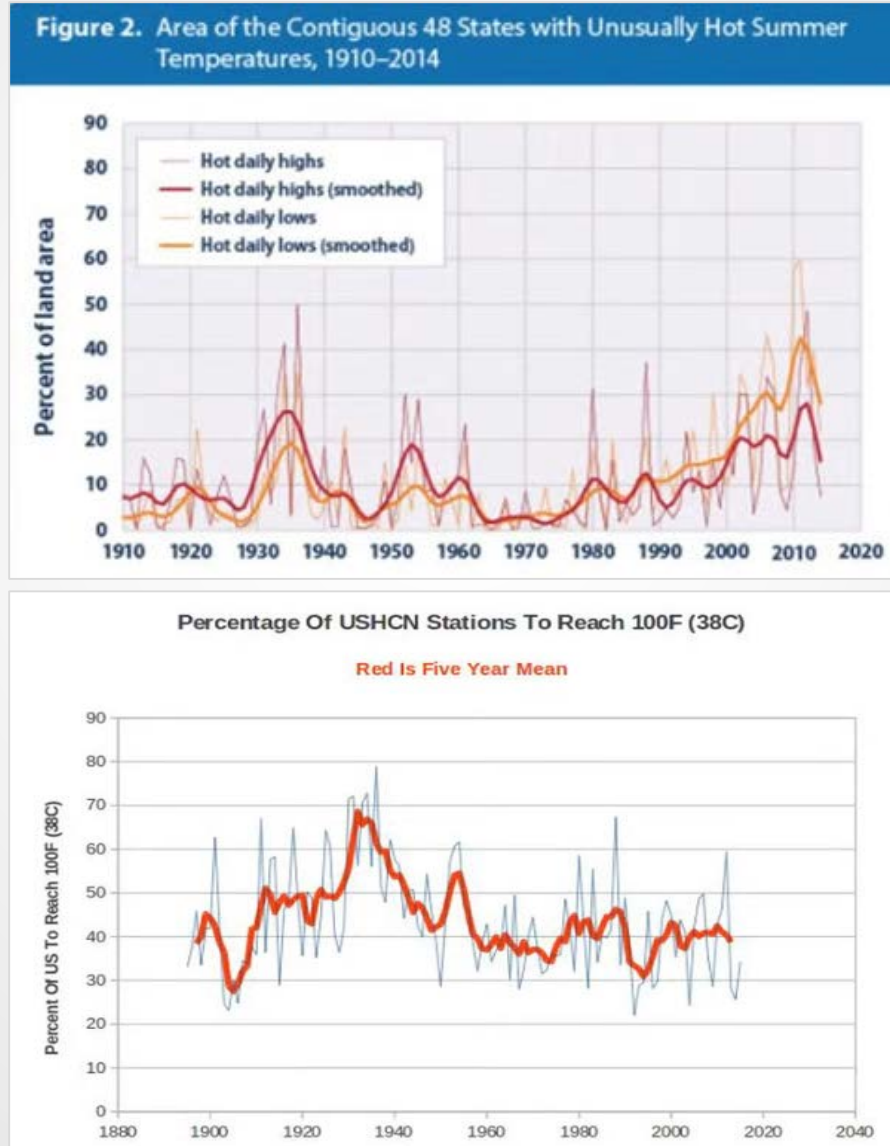


“Something is wrong here: All of a sudden they’re showing that the area of the United States that is affected by heatwaves is increasing and is now larger than in the 1930s, thus contradicting the first figure.”



# Evaluating The Integrity Of Official Climate Records

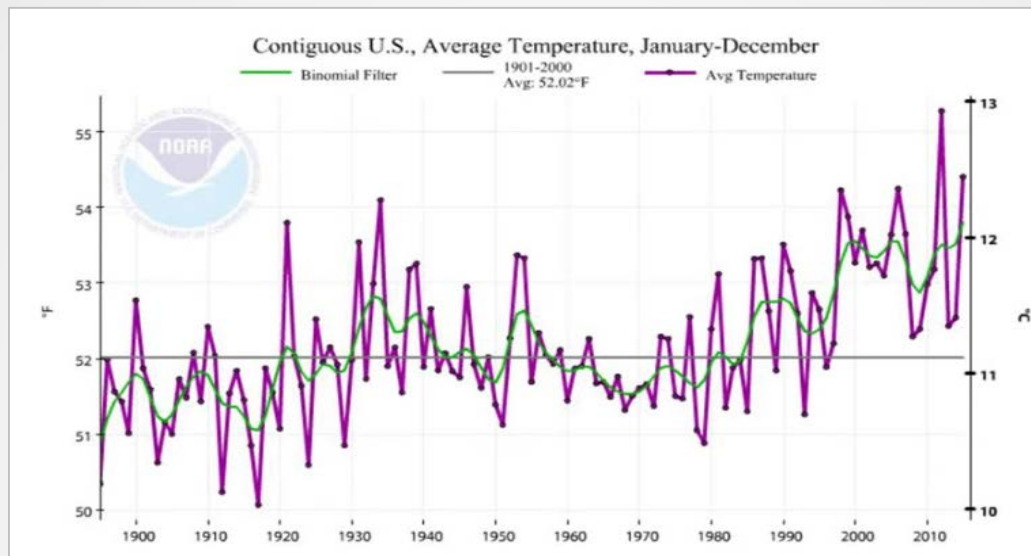
Figure 2 does not much NOAA temperature data



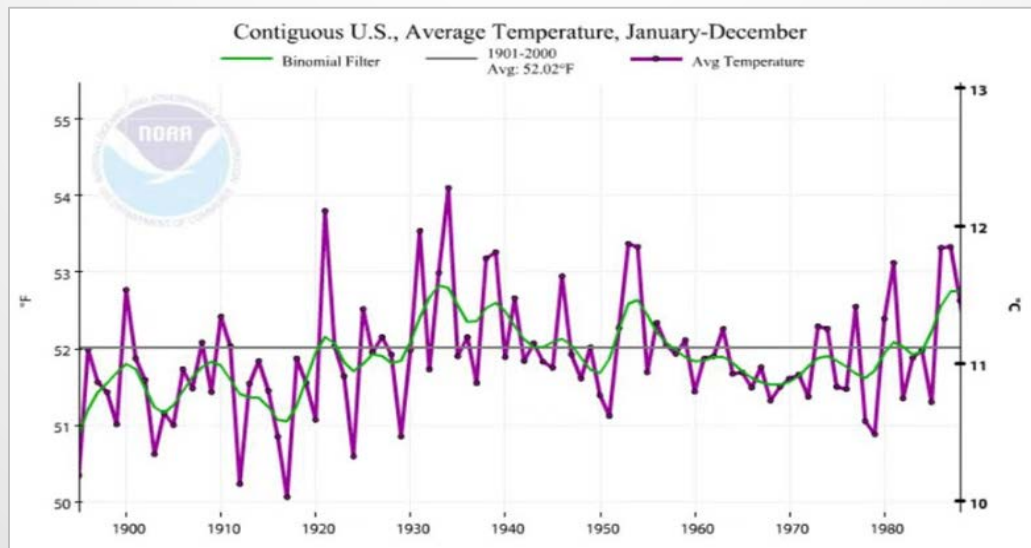


# Evaluating The Integrity Of Official Climate Records

NOAA graph showing 2.5°F warming in US since 1895



NOAA graph showing 2°F warming in US between 1895-1987





# Evaluating The Integrity Of Official Climate Records

In 1989, NOAA said there was no warming between 1895-1987

**The New York Times**

U.S.

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[POLITICS](#) [EDUCATION](#) [TEXAS](#)

## U.S. Data Since 1895 Fail To Show Warming Trend

By PHILIP SHABECOFF, Special to the New York Times  
Published: January 26, 1989

Correction Appended

**WASHINGTON, Jan. 25—** After examining climate data extending back nearly 100 years, a team of Government scientists has concluded that there has been no significant change in average temperatures or rainfall in the United States over that entire period.

While the nation's weather in individual years or even for periods of years has been hotter or cooler and drier or wetter than in other periods, the new study shows that over the last century there has been no trend in one direction or another.

The study, made by scientists for the National Oceanic and Atmospheric Administration was published in the current issue of Geophysical Research Letters. It is based on temperature and precipitation readings taken at weather stations around the country from 1895 to 1987.

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# Evaluating The Integrity Of Official Climate Records

In 1999, NASA's James Hansen also said the US was not warming

Science Briefs

Whither U.S. Climate? By James Hansen

— August 1999

Empirical evidence does not lend much support to the notion that climate is headed precipitately toward more extreme heat and drought.

in the U.S. there has been little temperature change in the past 50 years, the time of rapidly increasing greenhouse gases — in fact, there was a slight cooling throughout much of the country

In 1986, Hansen predicted the US would warm 4°-6° between 1958-2020

[The Milwaukee Journal - Jun 11, 1986](#) [Brow](#)

**Hansen said the average US temperature had risen 1 to 2 degrees since 1958, and was predicted to increase 3 or 4 more degrees by 2020.**

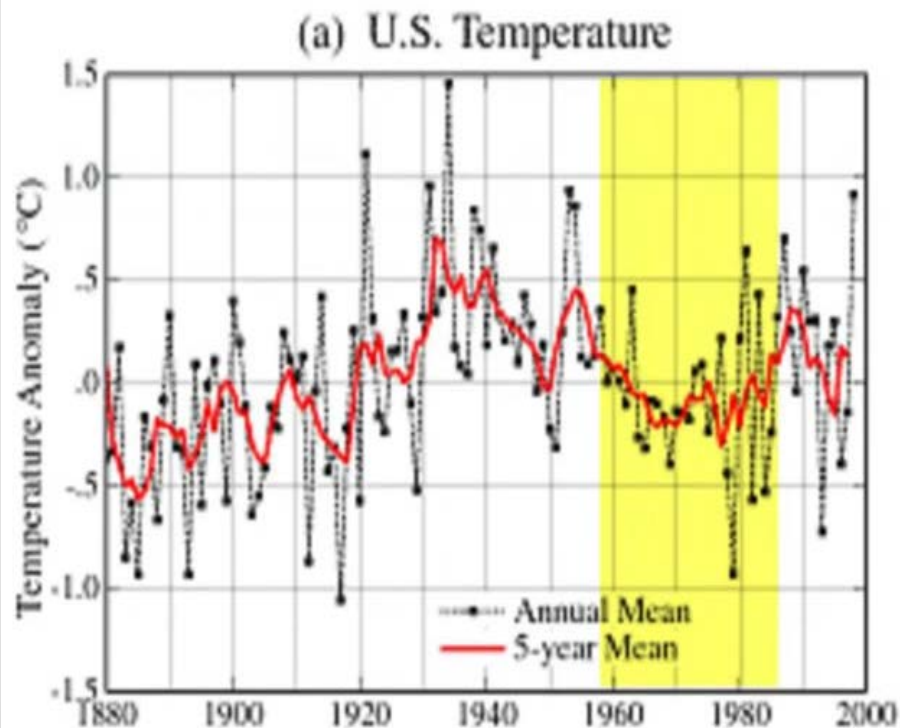


# Evaluating The Integrity Of Official Climate Records

Hansen's own data did not support his claim of 1°-2° warming between 1958-1986

[The Milwaukee Journal - Jun 11, 1986](#) [Brov](#)

Hansen said the average US temperature had risen 1 to 2 degrees since 1958, and was predicted to increase 3 or 4 more degrees by 2020.



Hansen also predicted the Arctic would be ice-free by 2013-2018

[The Argus-Press – Jun 24, 2008](#)

Hansen, echoing work by other scientists, said that in five to 10 years, the Arctic will be free of sea ice in the summer.

Longtime global warming skeptic Sen. James Inhofe, R-Okla., citing a recent poll, said in a statement, "Hansen, (former Vice President) Gore and the media have been trumpeting man-made climate doom since the 1980s. But Americans are not buying it."

But Rep. Ed Markey, D-Mass., committee chairman, said, "Dr. Hansen was right. Twenty years later, we recognize him as a climate prophet."

"In his 1999 graph, Hansen shows essentially no warming between 1958-1986 (highlighted in yellow) – so why did he claim in 1986 that temperatures had risen by 1°-2°?"



# Evaluating The Integrity Of Official Climate Records

Former US Vice President Al Gore predicted the Arctic would be ice-free by 2014

**Gore: Polar ice cap may disappear by summer 2014**

Comment Recommend 404 Tweet 8 +1 0

By Douglas Stanglin, USA TODAY  
Updated 2009-12-14 4:36 PM

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



CAPTION By Amla Kisbenedek, AFP/Getty Images

Gore also said the interior of the Earth is hotter than the Sun

## Al Gore: Earth's Interior 'Extremely Hot, Several Million Degrees'

By Noel Sheppard | November 18, 2009 | 10:27 AM EST



# Evaluating The Integrity Of Official Climate Records

NASA's James Hansen predicted that much of Lower Manhattan would be underwater by 2008

**SALON** NEWS POLITICS ENTERTAINMENT LIFE BUSINESS

TUESDAY, OCT 23, 2001 6:41 PM MDT

## Stormy weather

Floods, droughts, hurricanes and disease outbreaks -- an expert explains why climate changes give us yet another reason to find terror in the skies.

SUZY HANSEN

**Extreme weather means more terrifying hurricanes and tornadoes and fires than we usually see. But what can we expect such conditions to do to our daily life?**

While doing research 12 or 13 years ago, I met Jim Hansen, the scientist who in 1988 predicted the greenhouse effect before Congress. I went over to the window with him and looked out on Broadway in New York City and said, "If what you're saying about the greenhouse effect is true, is anything going to look different down there in 20 years?" He looked for a while and was quiet and didn't say anything for a couple seconds. Then he said, "Well, there will be more traffic." I, of course, didn't think he heard the question right. Then he explained, "The West Side Highway [which runs along the Hudson River] will be under water. And there will be tape across the windows across the street because of high winds. And the same birds won't be there. The trees in the median strip will change." Then he said, "There will be more police cars." Why? "Well, you know what happens to crime when the heat goes up."

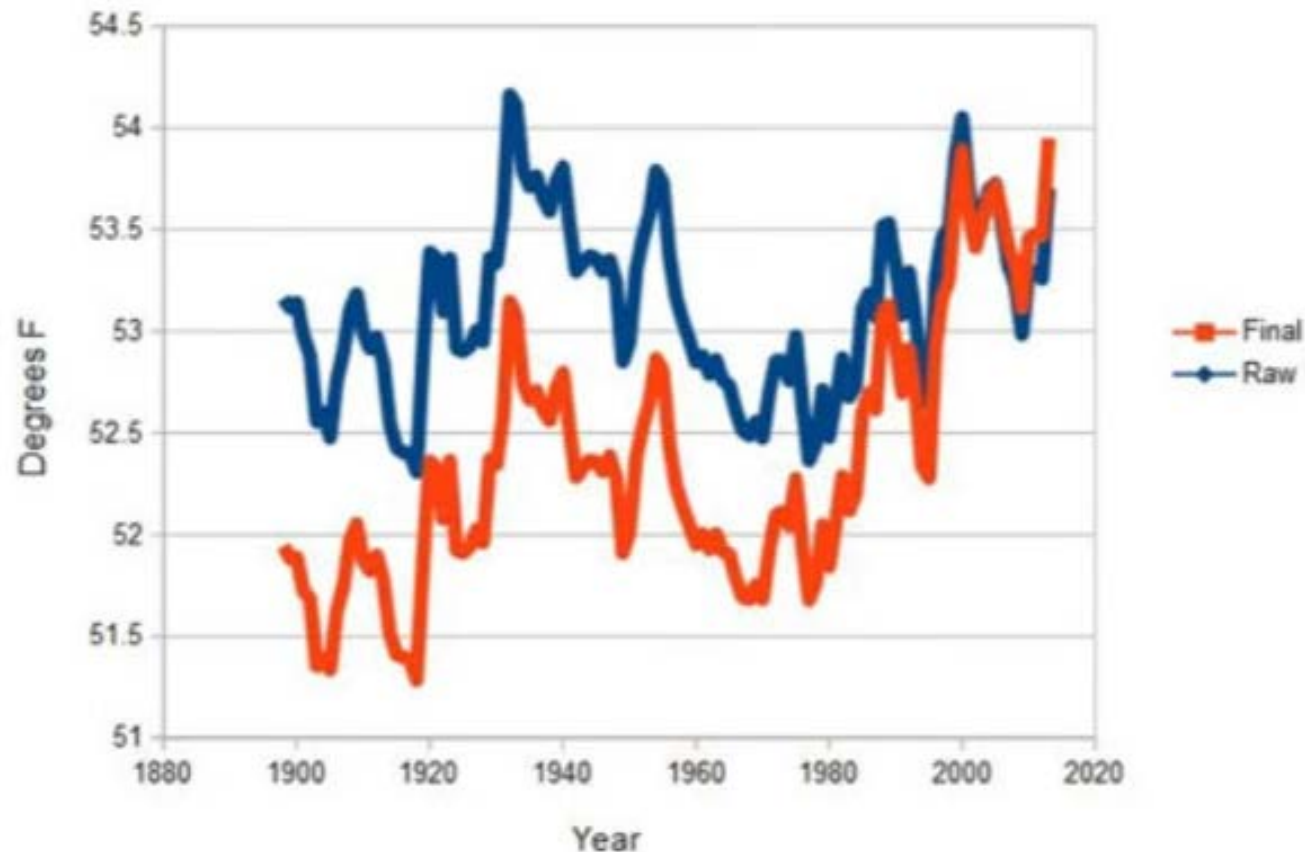


# Evaluating The Integrity Of Official Climate Records

NOAA is now altering the data  
(Blue shows measured; Red shows reported)

USHCN Average Temperature At All Stations

Final Vs. Raw



“The blue line shows the actual USHCN average per year.

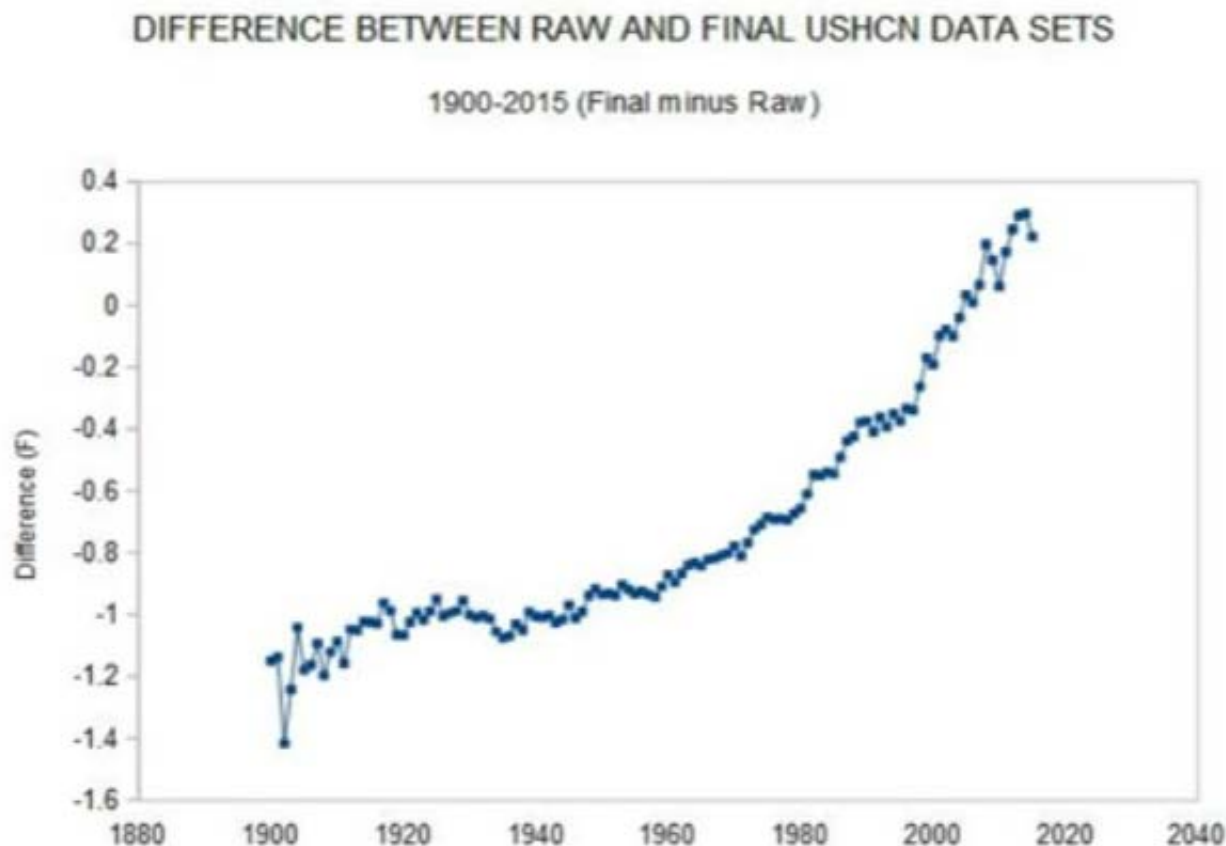
The raw data indicates the warmest decade in the US was the 1930s & that temperatures have since cooled off.”

“But by adjusting the data, they’ve created a temperature trend that doesn’t exist, which is very convenient when you’re trying to promote global warming...”



# Evaluating The Integrity Of Official Climate Records

Data is being altered about  $1.5^{\circ}\text{F}$  –  
*Almost the entire trend is due to adjustments*



“In the older data, they subtracted more than  $1^{\circ}\text{F}$ , in the new data they’re now adding  $0.3^{\circ}\text{F}$ .”

“So the whole warning trend in the US is completely fake.”

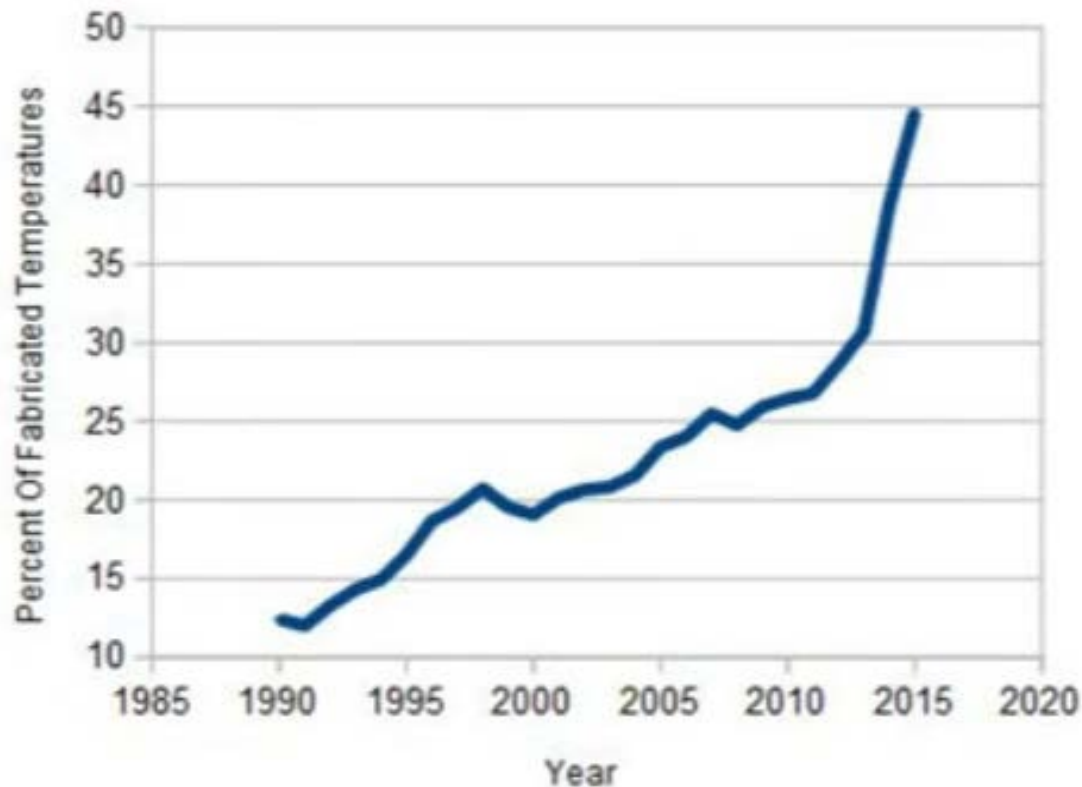


# Evaluating The Integrity Of Official Climate Records

Most of the recent alterations are due to station data loss and fabrication

Percent Of Fabricated USHCN Temperatures

Marked With An 'E'



“They used to get data from about 90% of the stations, now almost half their data is fake. What I mean by fake is that if they don’t have data for a particular month from a particular station, they just make up the data based on models and stations within 50 miles, thus creating a fake temperature.”

“Since 2013, there has been a huge increase in data loss and there isn’t a good explanation why...”

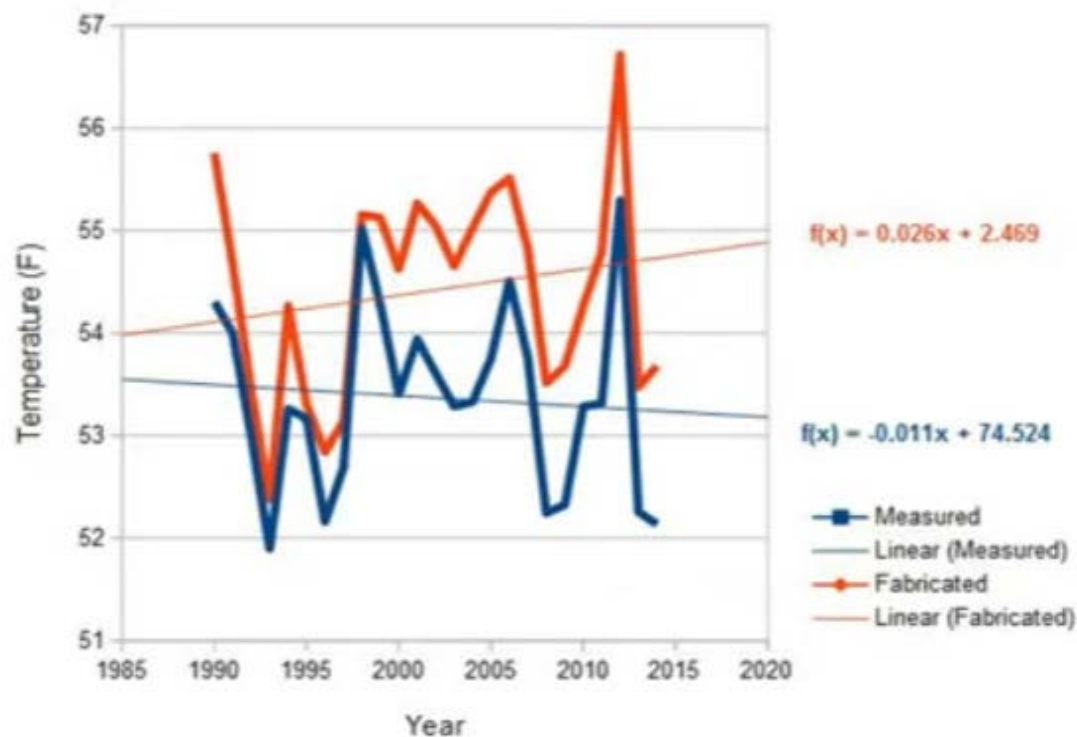


# Evaluating The Integrity Of Official Climate Records

Measured data shows **cooling** since 1990 –  
Fabricated data shows **warming**

USHCN Temperature Since 1990

Measured Vs Fabricated

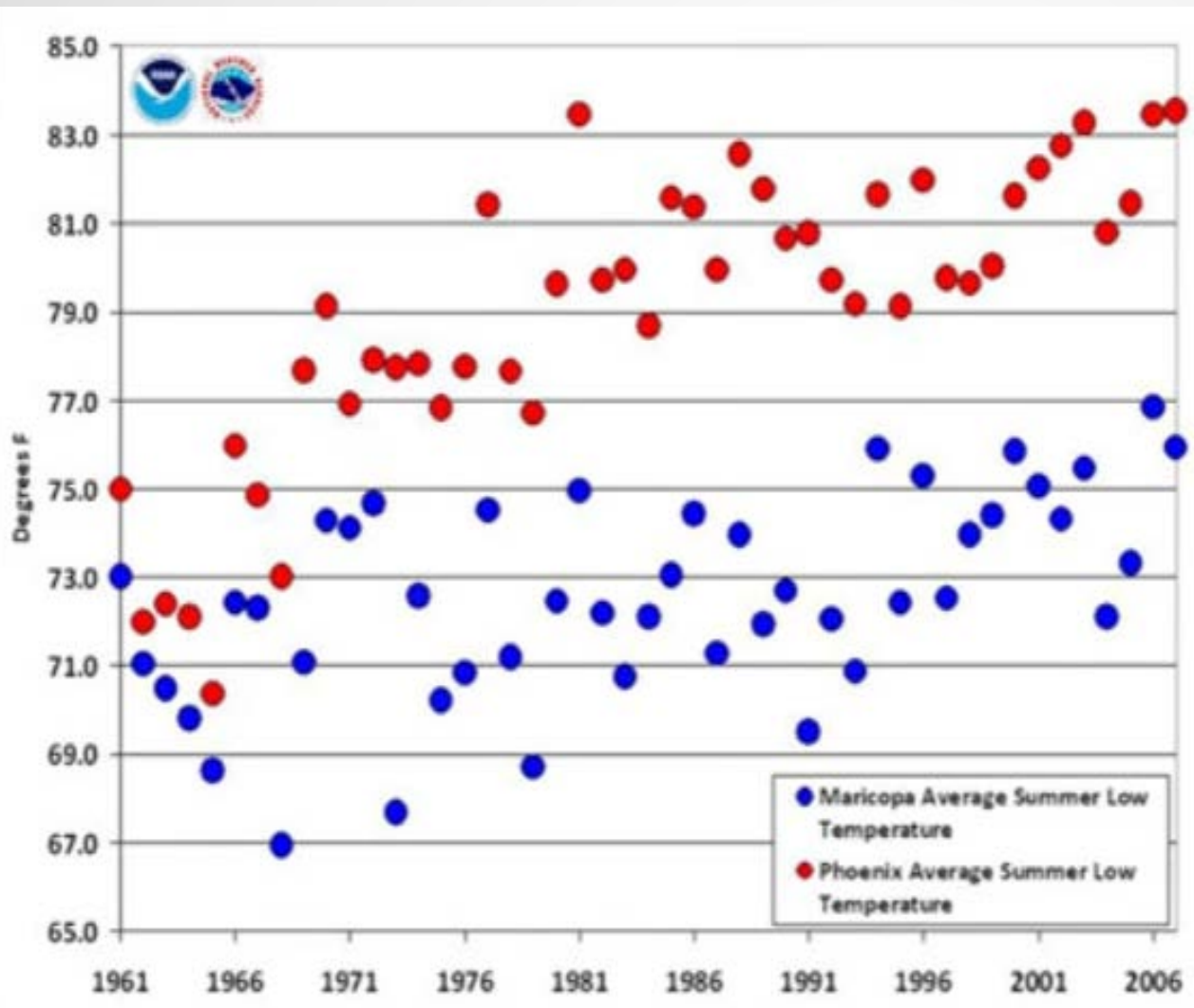


“The entire warming trend since 1990 is due to making up station data that doesn’t actually exist.”



# Evaluating The Integrity Of Official Climate Records

Missing rural stations are being homogenized  
with warmer urban temperatures



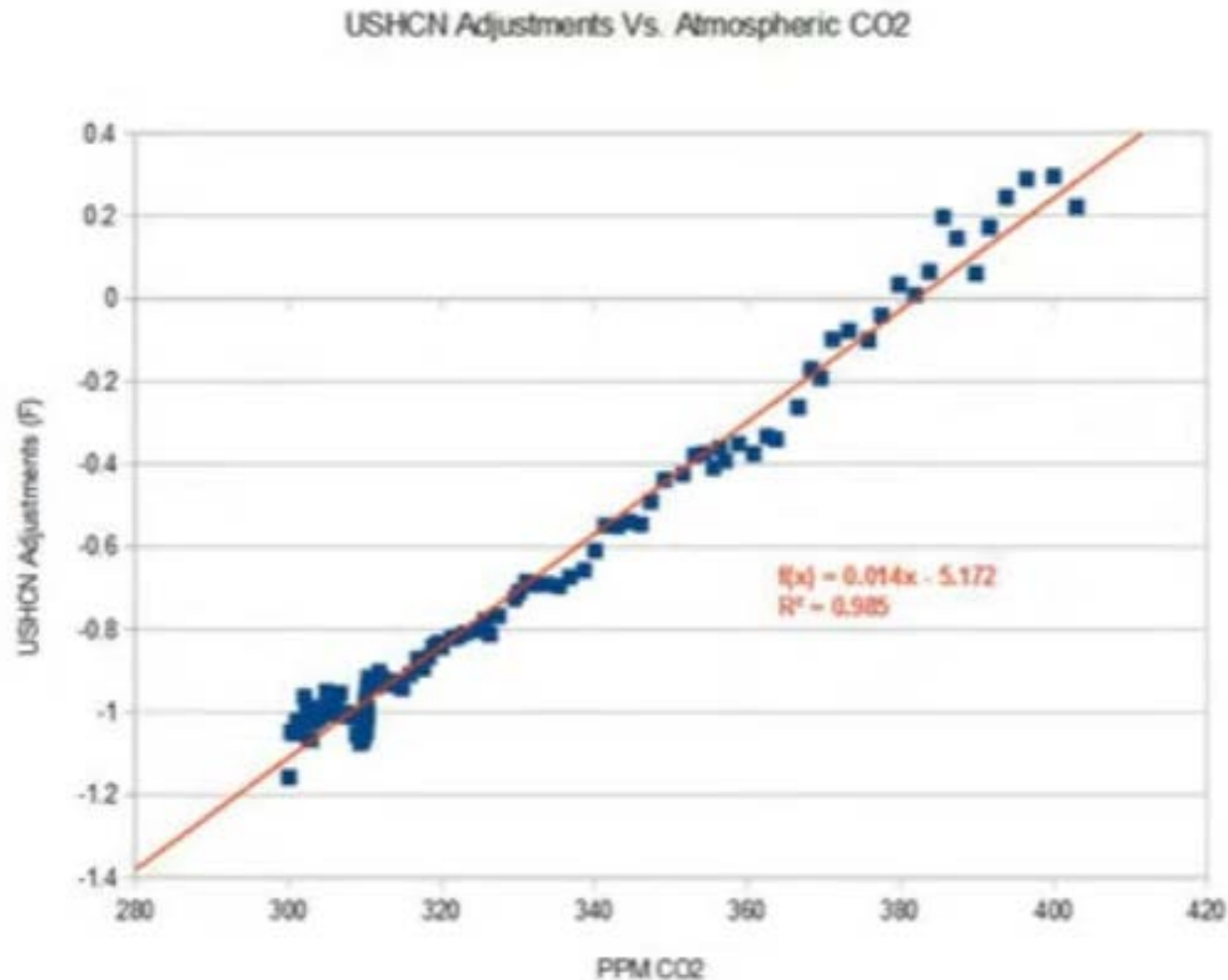
“Graph shows the difference in nighttime temperatures in Phoenix and Maricopa County (outside of Phoenix) and the massive urban heat island effect, where the downtown areas are almost 10° warmer than the outlying rural areas.”

“It appears they lost a lot of urban data and are homogenizing warmer urban data and creating urban stations that don’t exist.”



# Evaluating The Integrity Of Official Climate Records

NOAA data adjustments correlate almost perfectly with atmospheric CO2 –  
*The ultimate example of confirmation bias*



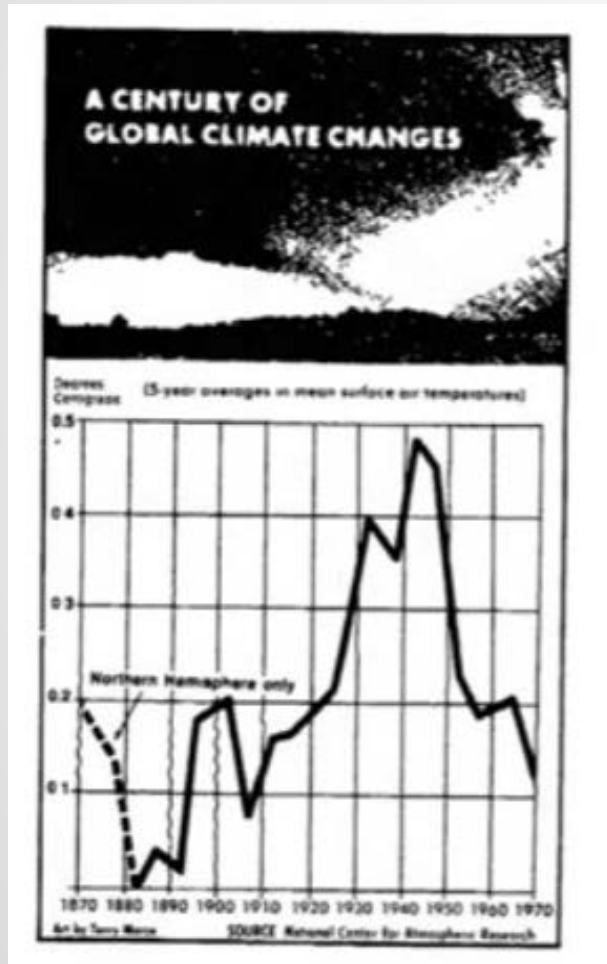
“They’re adjusting data almost exactly in proportion to the increase in atmospheric CO2.”



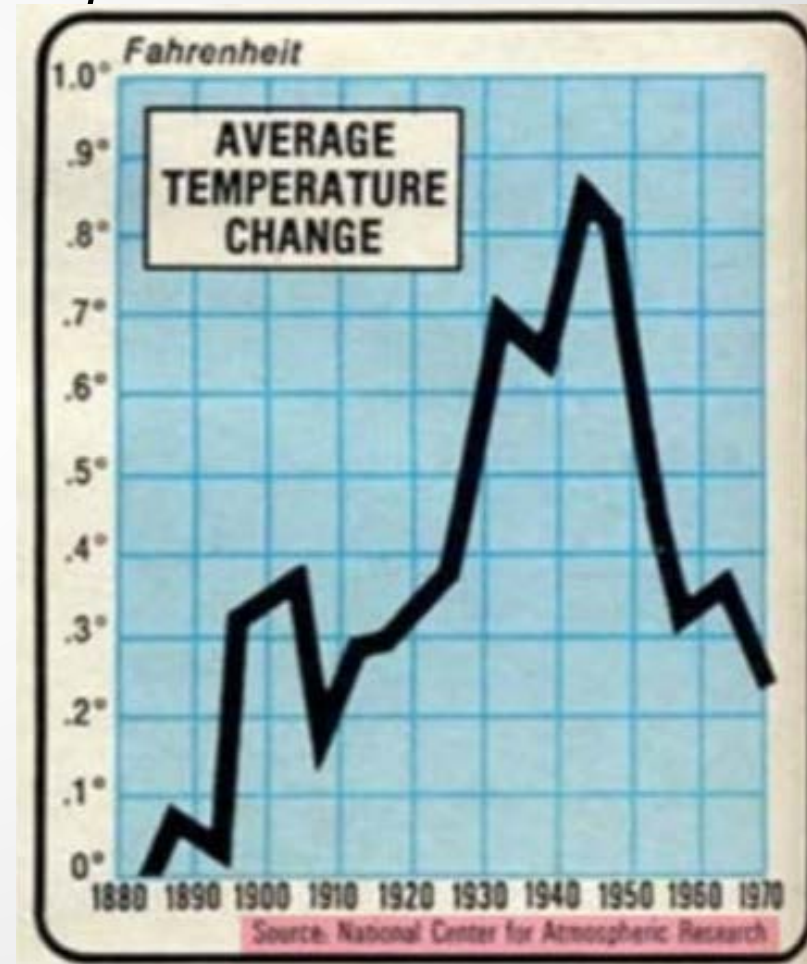
# Evaluating The Integrity Of Official Climate Records

In 1974, NCAR showed no temperature increase  
between 1870-1970

*NCAR: National Center for Atmospheric Research*



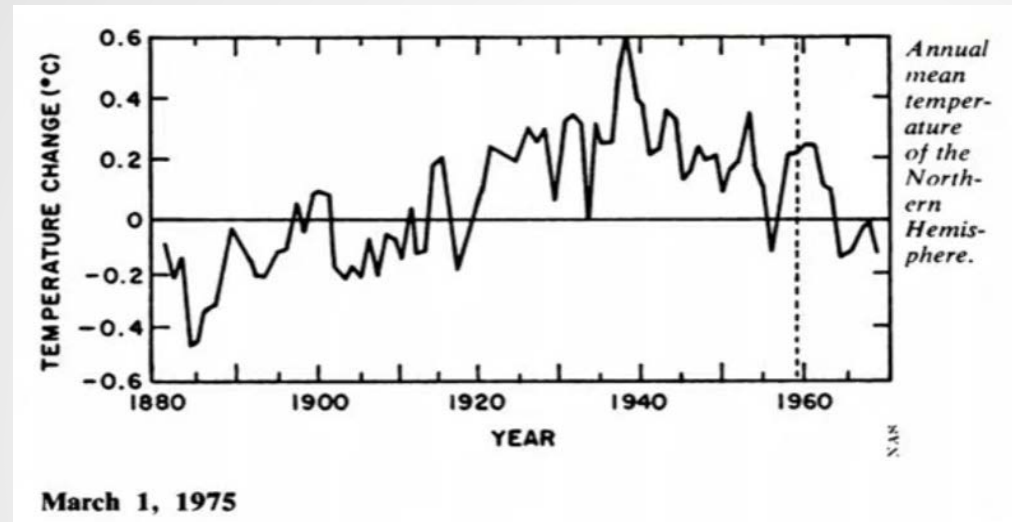
“NCAR data from 1974 shows a big spike around 1940 and then a large cooling until 1970.”





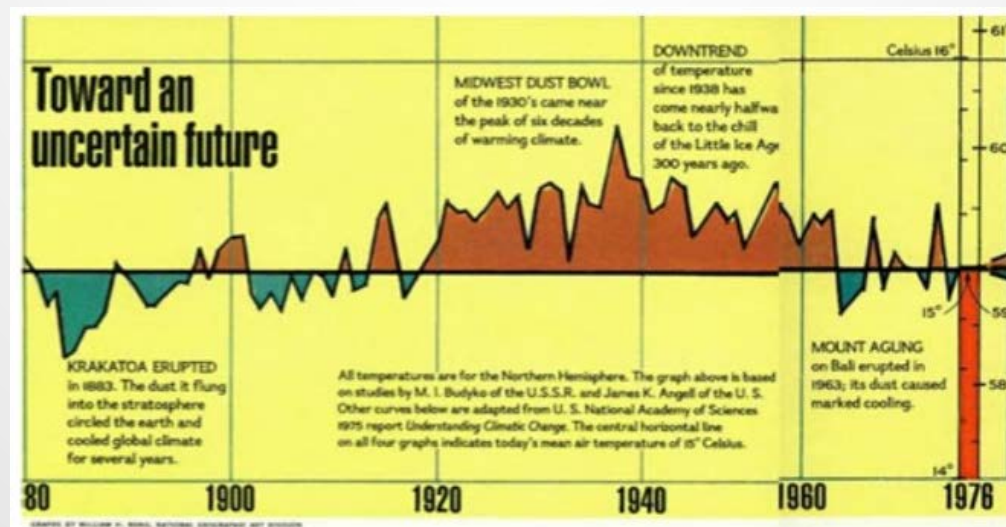
# Evaluating The Integrity Of Official Climate Records

1975 National Academy of Sciences graph showed no 1900-1975 warming:



“The National Academy of Sciences published a similar graph showing no net warming between 1900-1970, a large spike in the late 1930s and a strong cooling trend from 1940 to 1970.”

1976 National Geographic graph showed no 1880-1975 warming:





# Evaluating The Integrity Of Official Climate Records

Everyone recognized the 1940-1970 cooling

**The New York Times**  
Published: January 30, 1961  
Copyright © The New York Times

**SCIENTISTS AGREE  
WORLD IS COLDER**

But Climate Experts Meeting  
Here Fail to Agree on  
Reasons for Change

By **WALTER SULLIVAN**

After a week of discussions on the causes of climate change, an assembly of specialists from several continents seems to have reached unanimous agreement on only one point: it is getting colder.

**The New York Times**  
THURSDAY, JANUARY 5, 1978

**International Team of Specialists Finds No End in Sight to 30-Year Cooling Trend in Northern Hemisphere**

An international team of specialists has concluded from eight indexes of climate that there is no end in sight to the cooling trend of the last 30 years, at least in the Northern Hemisphere.

**Lawrence Journal-World - Mar 11, 1979**

One thing is indisputable: The world has been cooling off since World War II, something like one degree Fahrenheit. But that may be only a temporary swing in the climate.

Dr. J. Murray Mitchell, of the National Oceanic and Atmospheric Administration says the world has been cooling off in the long run.

"On an average it's cooled down by something like one degree Fahrenheit or half-a-degree Celsius, and that cooling began around World War II."

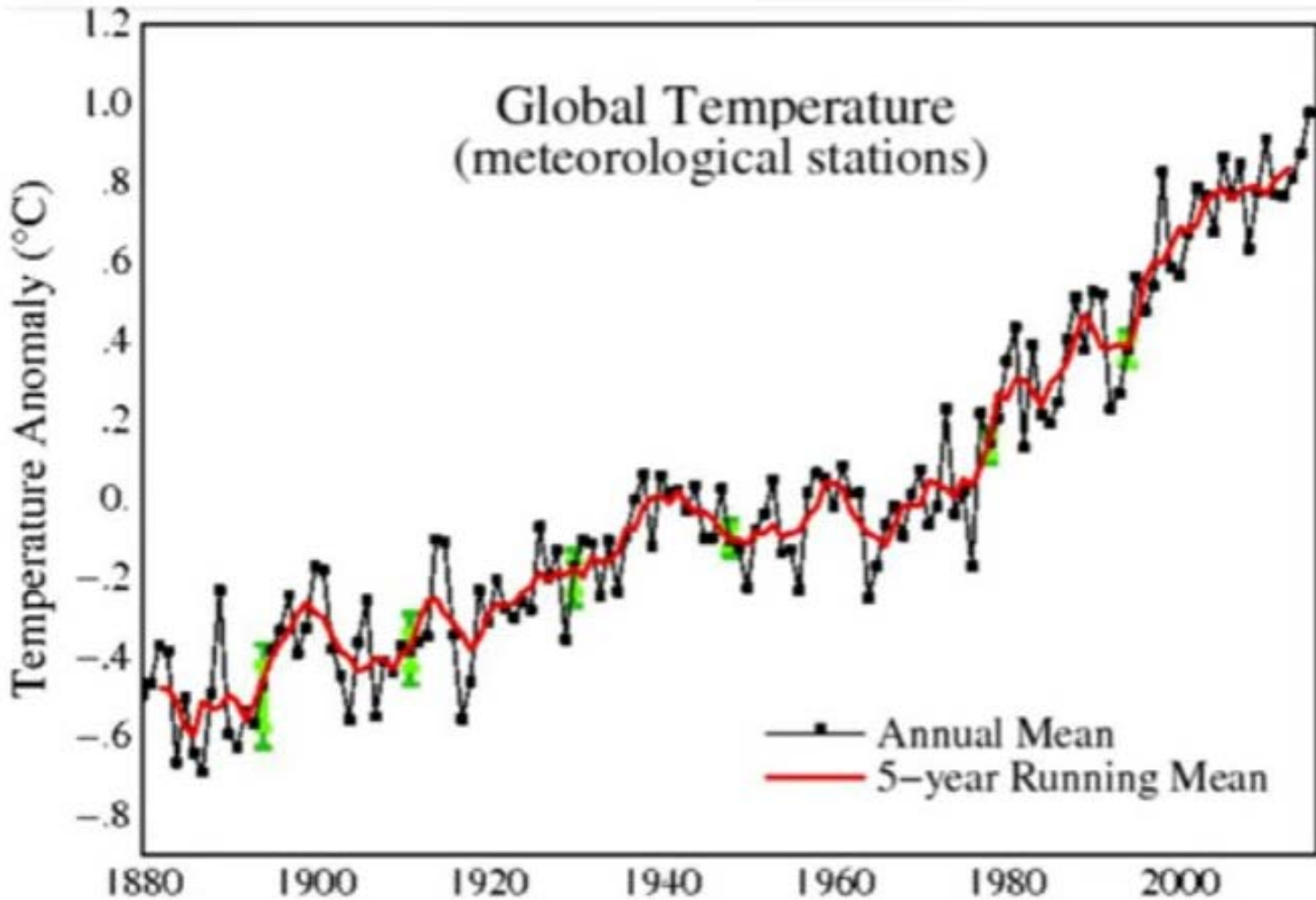
"In 1961, the New York Times reported that there was unanimous consensus among climate change experts that the world is getting colder."

"In 1978 and 1979, the New York Times published similar reports about continued cooling."



# Evaluating The Integrity Of Official Climate Records

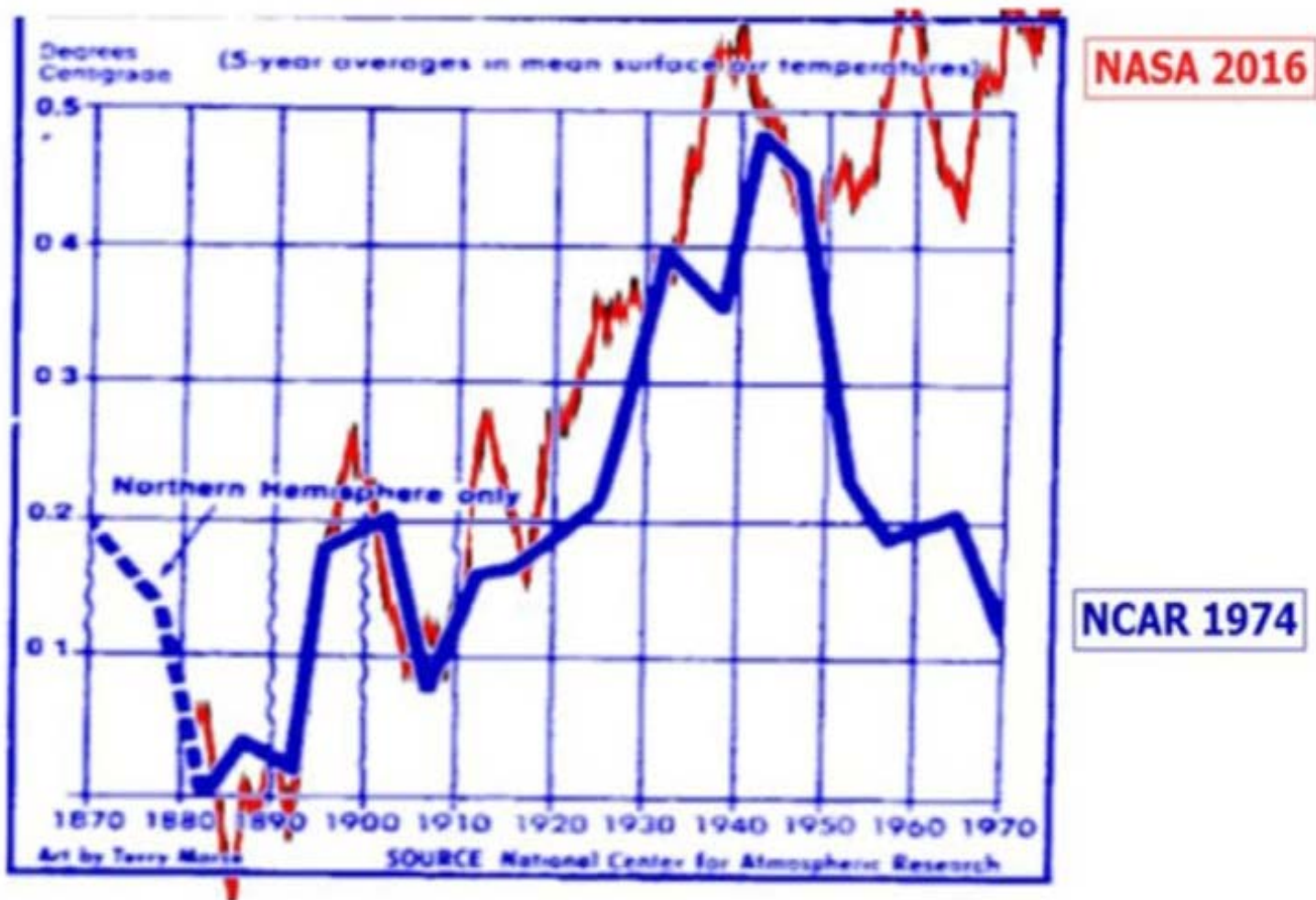
Yet NASA no longer shows this 1940-1970 cooling...  
*Current NASA graphs show a steady increase since 1880*





# Evaluating The Integrity Of Official Climate Records

Overlay of the 2016 NASA graph  
on the 1974 NCAR graph

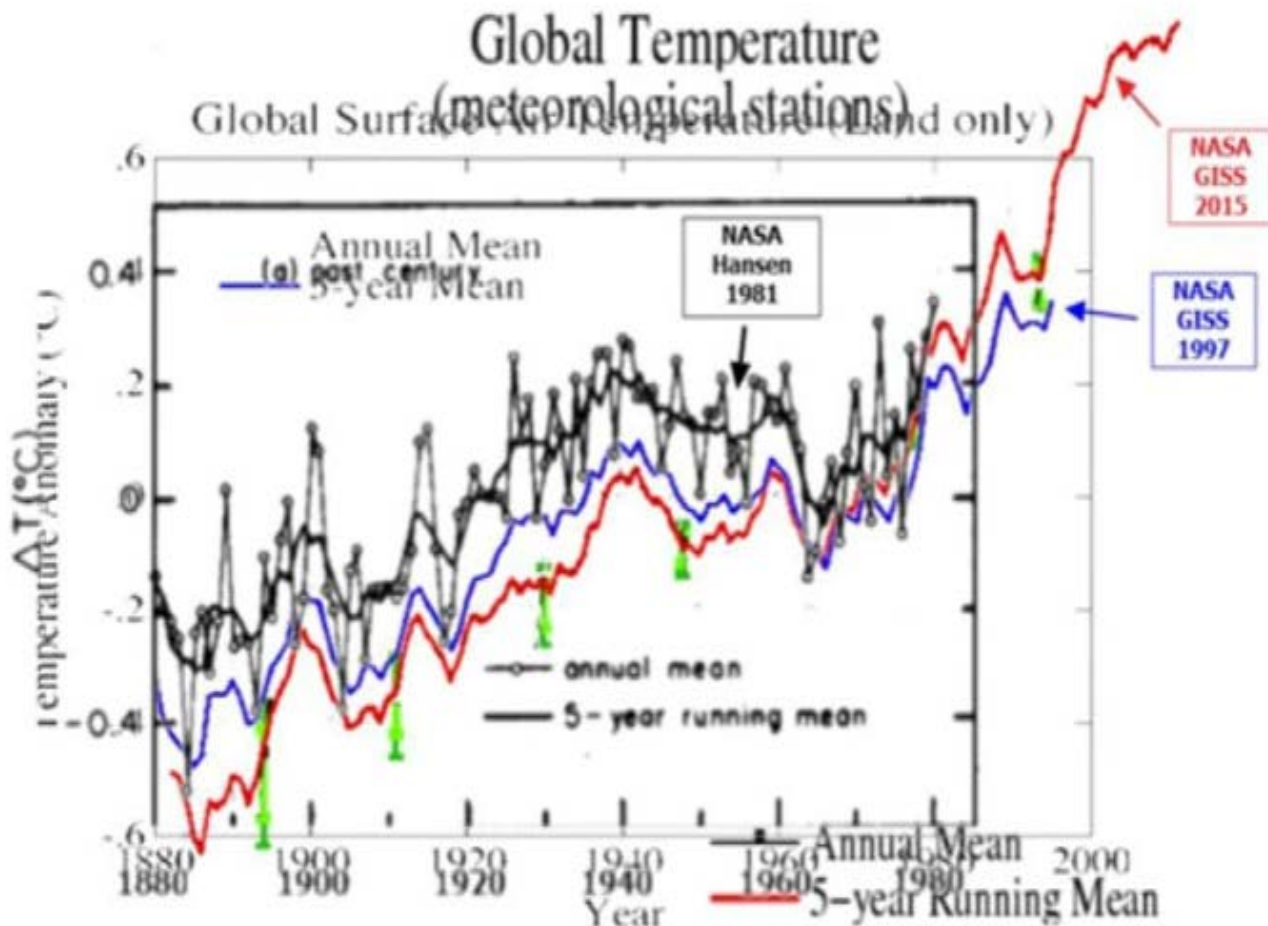


“Overlaying the surface temperature records shows that NASA completely erased the 1940-1970 cooling.”



# Evaluating The Integrity Of Official Climate Records

NASA has repeatedly altered its own data, making pre-1980 temperatures cooler, and doubling 1880-1980 warming



Graph

Black is NASA 1981

Blue is NASA 1997

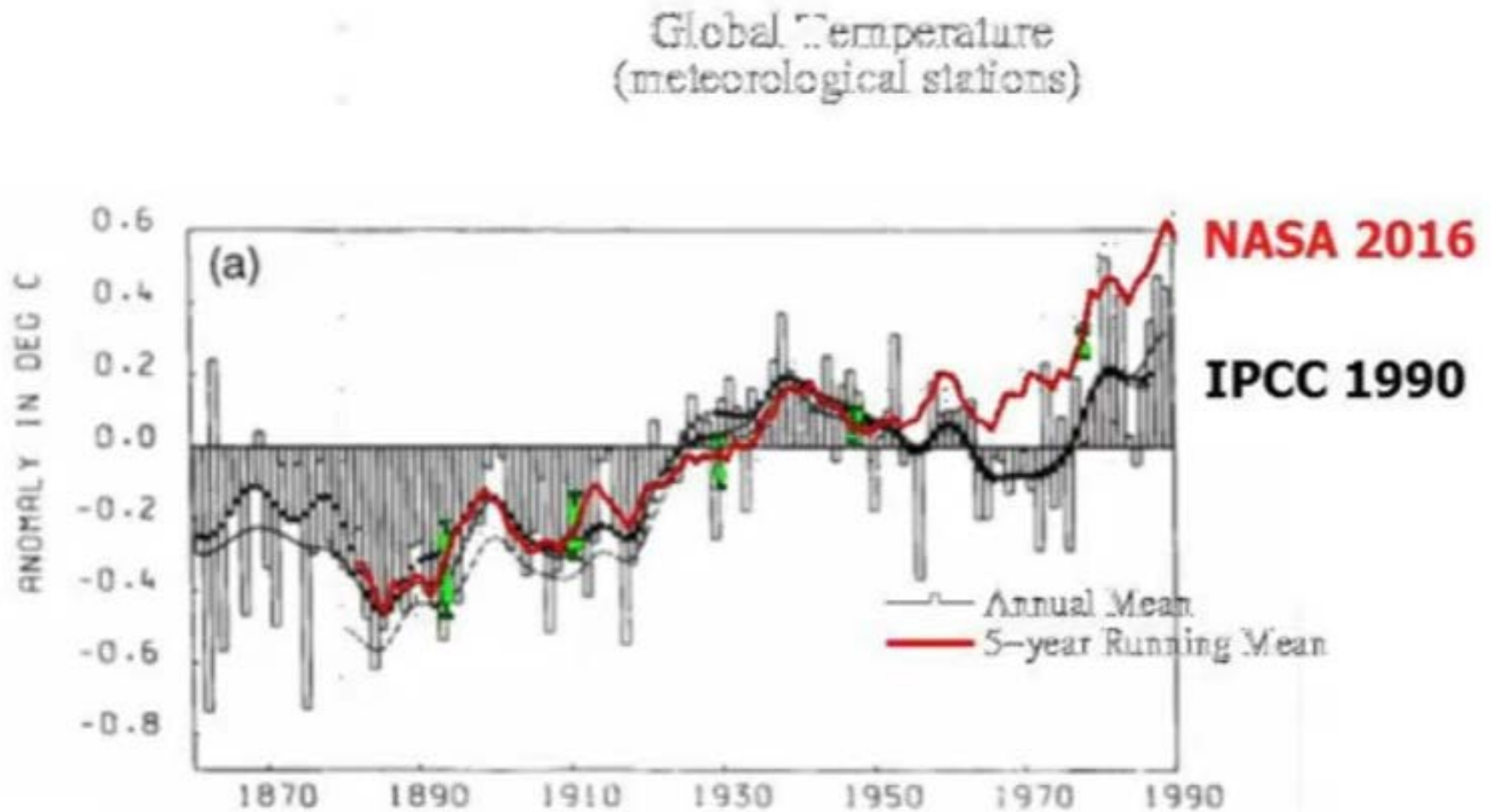
Red is NASA 2015

“They’ve erased the 1940-1970 cooling.”



# Evaluating The Integrity Of Official Climate Records

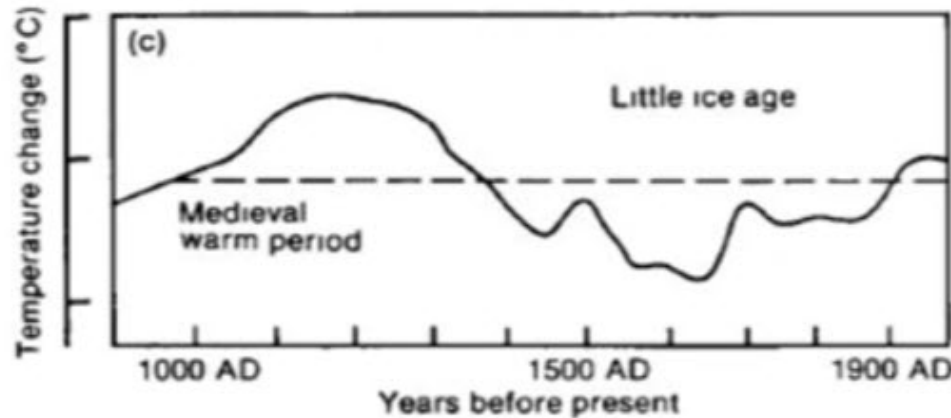
Since the 1990 IPCC report, NASA has greatly increased recent temperatures





# Evaluating The Integrity Of Official Climate Records

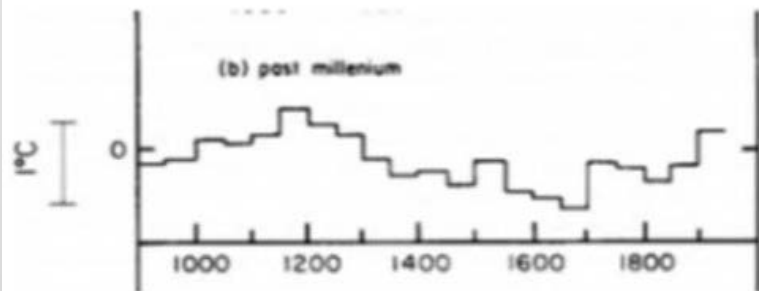
The emergence of the “Hockey Stick” -  
1990 IPCC report showed long-term cooling:



Schematic diagrams of global temperature variations since the Pleistocene era on 3 time scales: (1) the last million years, (2) the last 10,000 years, (3) the last 1,000 years. The dotted line nominally represents conditions near the beginning of the 20<sup>th</sup> C.

NASA also showed long-term cooling:

James E. Hansen, Andrew A. Lacis,  
David H. Rind, and Gary L. Russell



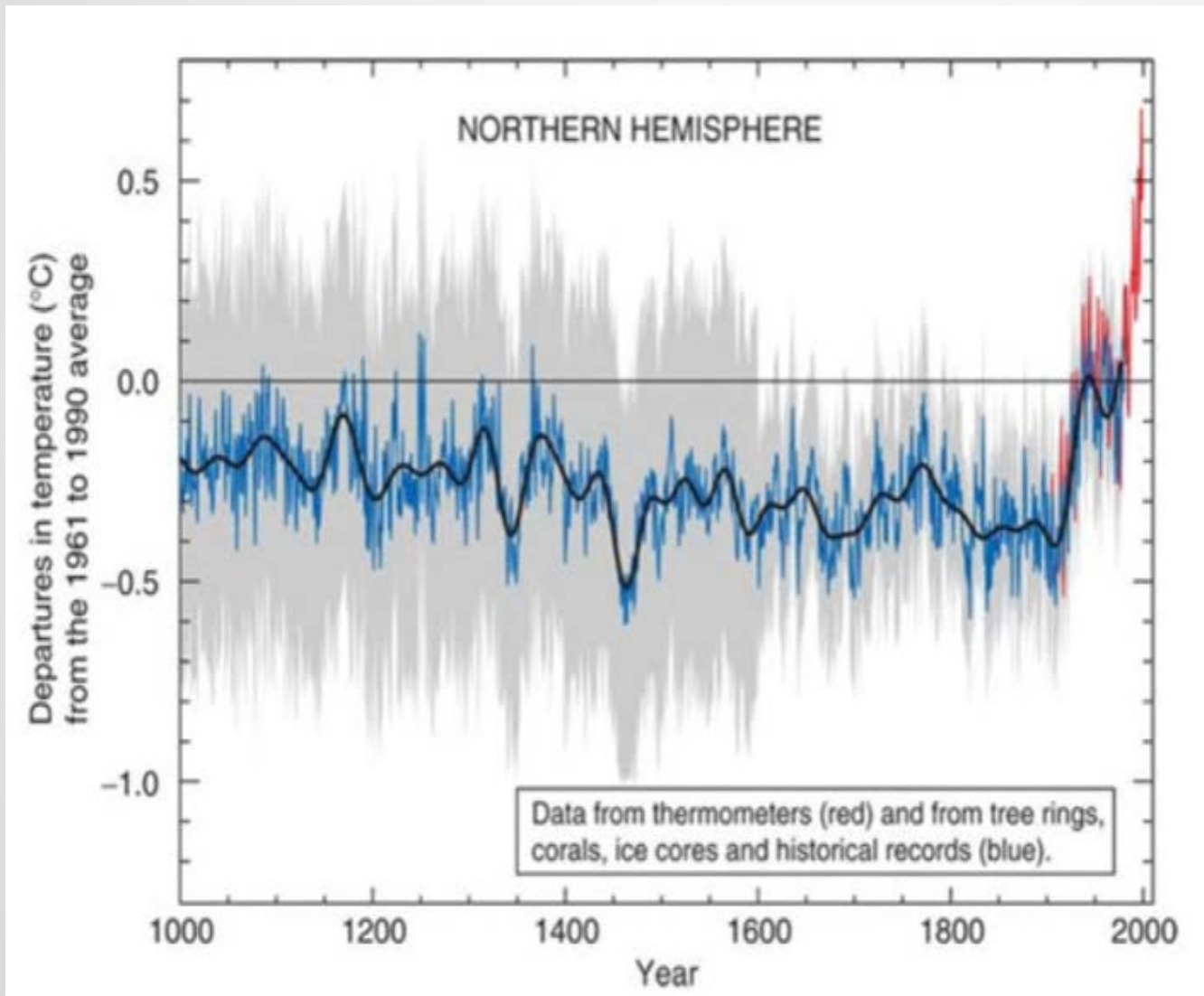
(b) is based on temperatures in central England, the tree limit in the White Mountains of California, and oxygen isotope measurements in the Greenland ice (W. Dansgaard of the Geophysical Isotope Laboratory, University of Copenhagen, pers. comm.), with the temperature scale set by the variations in the last 100 years

“The 1990 IPCC report showed a warm Medieval period, a little bit of warming since the late 19<sup>th</sup> Century and then flattening. Hansen himself made a similar graph in the 1980s...”



# Evaluating The Integrity Of Official Climate Records

The IPCC erased the cooling in their 2001 report

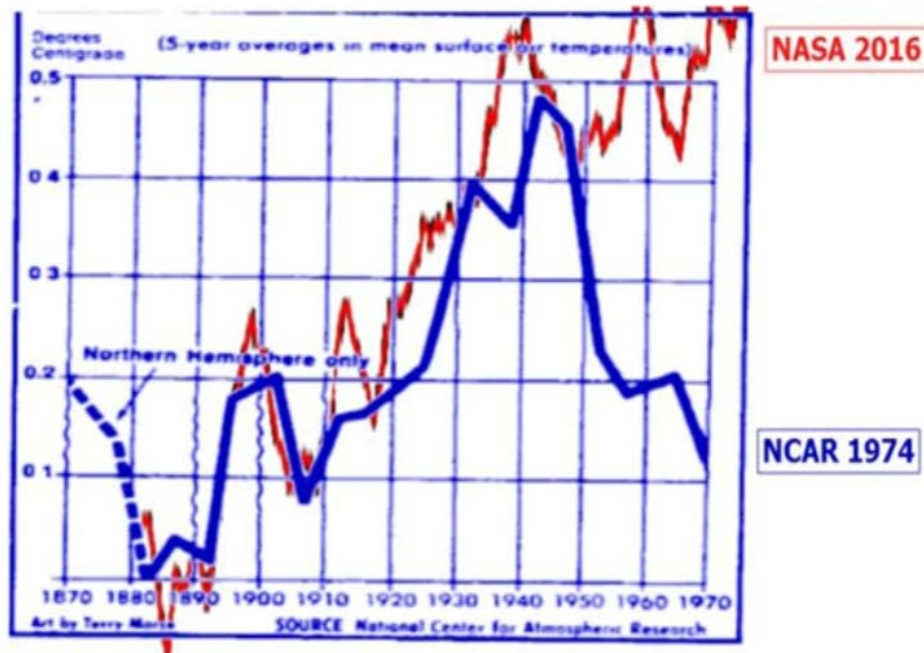
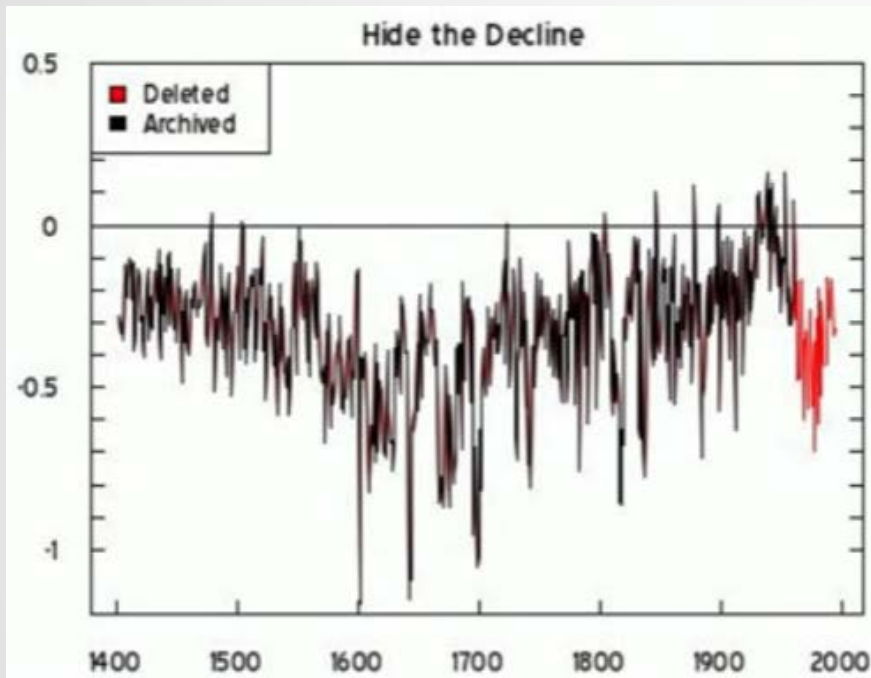


“In the 2011 report, the Medieval Warming Period is gone, the Little Ice Age is gone, and we just have a very strong ‘Hockey Stick’



# Evaluating The Integrity Of Official Climate Records

Climategate:  
Both NASA and Michael Mann “hid the decline”



“Steve McIntire’s graph on the left shows what was erased from Briffa’s tree-ring proxy records (in red). The justification for erasing was that it didn’t match the surface temperature.”

“They already erased the 1940-1970 cooling in the surface temperature record and then used the fake temperature record as an excuse to erase the proxy data.... So they took a bogus temperature record and used it to make a bogus proxy data record... that is the basis of the ‘Hockey Stick’.”



# Evaluating The Integrity Of Official Climate Records

Climategate e-mails show that experts wanted to get rid of the 1940s warmth

*From: Tom Wigley <wigley@ucar.edu>*

*To: Phil Jones <p.jones@uea.ac.uk>*

*Subject: 1940s*

*Date: Sun, 27 Sep 2009 23:25:38 -0600*

*Cc: Ben Santer <santer1@llnl.gov>*

*So, if we could reduce the ocean blip by, say, 0.15 degC, then this would be significant for the global mean — but we'd still have to explain the land blip.*

*It would be good to remove at least part of the 1940s blip, but we are still left with “why the blip”.*



# Evaluating The Integrity Of Official Climate Records

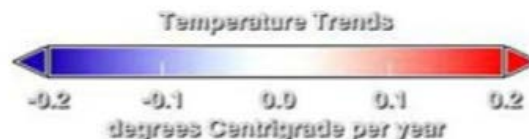
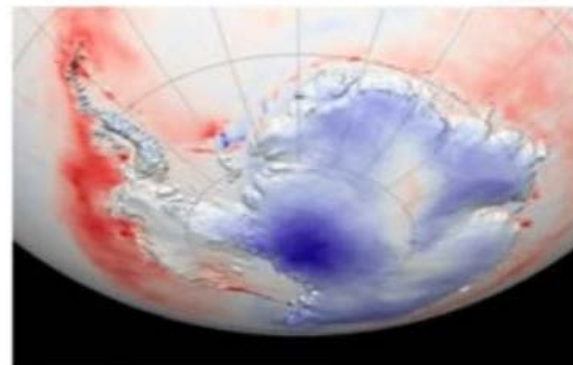
NASA's top climatologist found "significant" Antarctic cooling in 2004:

## Shindell and Schmidt 2004

Shindell, D.T., and G.A. Schmidt 2004. Southern Hemisphere climate response to ozone changes and greenhouse gas increases. *Geophys. Res. Lett.* 31, L18209, doi:10.1029/2004GL020724.

While most of the Earth warmed rapidly during recent decades, surface temperatures decreased significantly over most of Antarctica. This cooling is consistent with circulation changes associated with a shift in the Southern Annular Mode (SAM). It has been suggested that both Antarctic ozone depletion and increasing greenhouse gases have contributed to these trends. We show that a climate model including the stratosphere and both composition changes reproduces the vertical structure and seasonality of observed trends. We find that the two factors have had comparable surface impacts over recent decades, though ozone dominates above the middle troposphere. Projected impacts of the two factors on circulation over the next fifty years oppose one another, resulting in minimal trends. In contrast, their effects on surface climate reinforce one another, causing a departure from the SAM pattern and a turnabout in Antarctic temperatures, which rise more rapidly than elsewhere in the Southern Hemisphere.

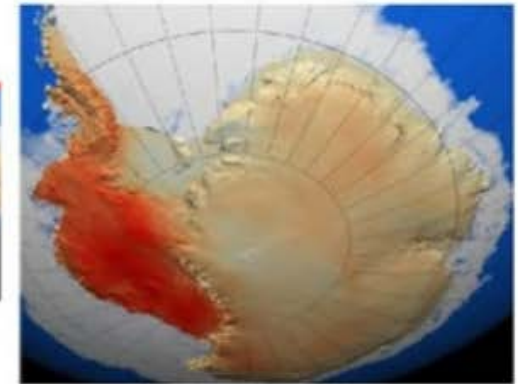
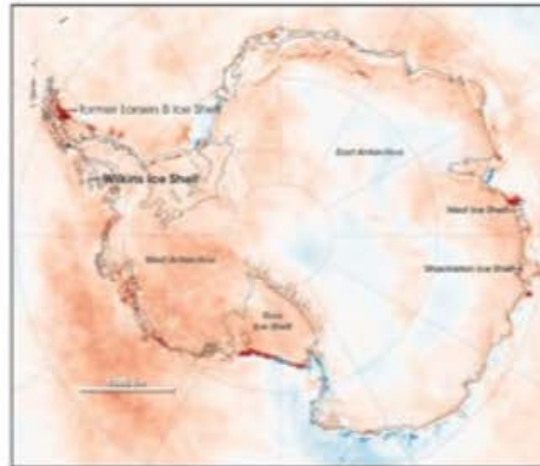
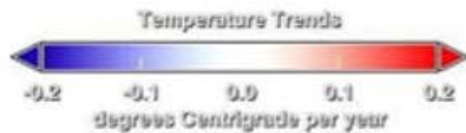
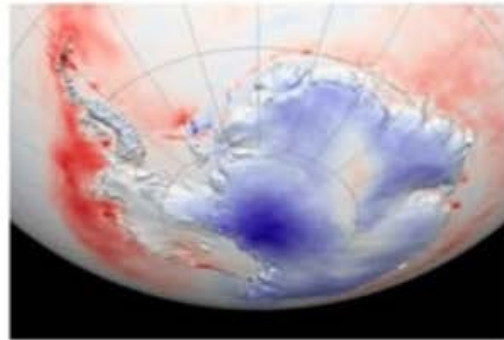
As shown in NASA's 2005 map:





# Evaluating The Integrity Of Official Climate Records

Between 2005 and 2007, NASA changed Antarctica from **cooling** to **warming**

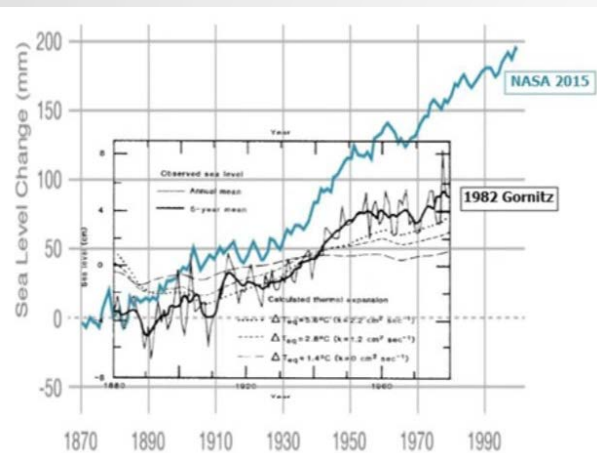




# Evaluating The Integrity Of Official Climate Records

NASA has done the same thing with sea level data

“They doubled the amount of sea level rise between 1880-1980 by altering the data to suit their purposes. Hansen himself did a sea level study in 1983 which shows about half as much sea level rise as NASA shows now, somehow altered from the same set of data.”



NOAA Says: *“the absolute global sea level rise is believed to be 1.7-1.8 millimeters/year.”*

NASA Claims Sea Level Is Rising Twice That Fast, at 3.4 mm/year

In 1982, NASA said 1 mm/year

Corrected sea level trend, 1880 to 1980		
Number of stations	Linear trend (cm/100 years)	95 percent confidence limit (cm/100 years)
1	8	3
4	16	5
30	15	2
1	20	16
2	-3	3
2	16	11
0		
7	7	2
5	4	2
14	5	2
10	10	3
2	22	4
0		
6	6	4
86	10	1

## 9.3.3 Accelerations in Sea Level Rise

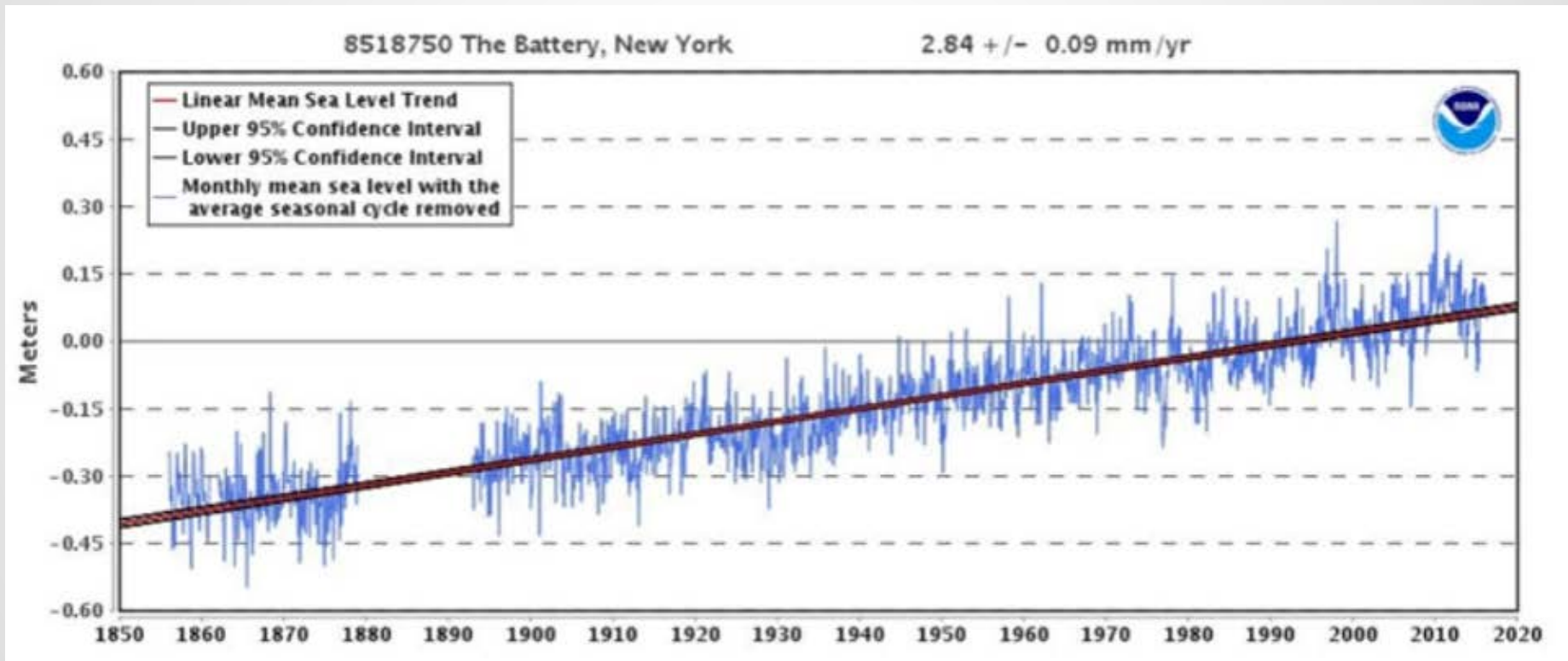
Is there evidence of any “accelerations” (or departures from long-term linear trends) in the rate of sea level rise? From examinations of both composite regional and global curves and individual tide gauge records, there is no convincing evidence of an acceleration in global sea level rise during the twentieth century. For longer periods, however, there is weak evidence for an acceleration over the last 2-3 centuries.

1990 IPCC report said there was no acceleration in sea level rise:



# Evaluating The Integrity Of Official Climate Records

Tide gauges like the one below at Manhattan show no acceleration in sea level rise





# Evaluating The Integrity Of Official Climate Records

**Conclusion:** Climate data is manipulated to increase climate alarm, using techniques that are unsupportable and would not be tolerated in the private sector

[The Milwaukee Sentinel - Jun 11, 1986](#) [Browse this newspaper »](#) [Browse all news](#)

## 'Greenhouse effect' could destroy all life

Washington, D.C. —AP— A dramatic loss of ozone over Antarctica proves the "greenhouse effect" is real and presages a gradual warming of the Earth that threatens floods, drought, human misery in a few decades and — if not checked — eventual extinction of the human species, scientists warned Tuesday.

tion is increasing steadily and rapidly, said Rowland, who in 1974 published pioneering research on chlorofluorocarbons — gases used as refrigerants and aerosol-can propellants.

This led the United States to ban their use in spray cans, but it continues elsewhere



# Carbon and Climate Catastrophe

[https://www.youtube.com/watch?v=IX1z\\_6pvM-Q](https://www.youtube.com/watch?v=IX1z_6pvM-Q)

[https://www.youtube.com/watch?v=IX1z\\_6pvM-Q](https://www.youtube.com/watch?v=IX1z_6pvM-Q);

[https://www.youtube.com/watch?v=U\\_r97c\\_Oc6c](https://www.youtube.com/watch?v=U_r97c_Oc6c)

<https://www.youtube.com/watch?v=sXxktLA5BPo>



## Patrick Moore

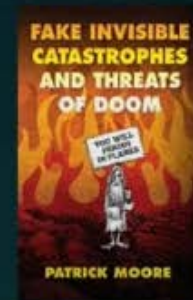
Co-founder and former President  
Greenpeace

Director of the CO2 Coalition

Senior Fellow, The Heartland Institute

author

*Fake Invisible Catastrophes and Threats  
of Doom*



15<sup>TH</sup> ANNUAL  
**Freedom CONFERENCE & FESTIVAL**

Park Hyatt • Beaver Creek, Colorado

August 27-28, 2021



# Carbon and Climate Catastrophe

## FAKE INVISIBLE CATASTROPHES AND THREATS OF DOOM

YOU WILL  
PERISH  
IN FLAMES

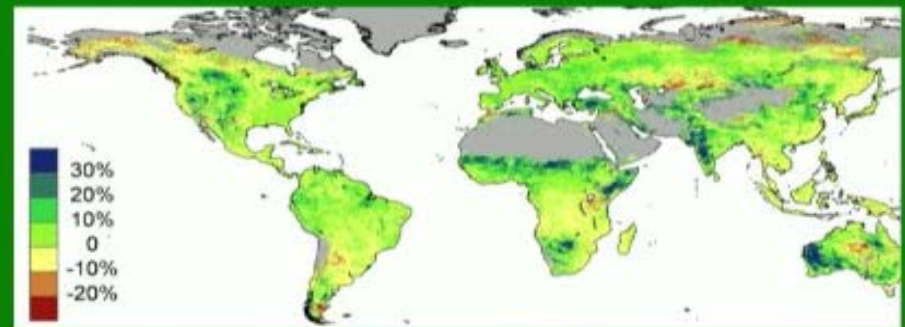


**PATRICK MOORE**

Patrick Moore, PhD  
Ecosense  
CO2 Coalition

Steamboat Institute  
Summit

Steamboat Springs  
March 12, 2022



Greening of the Earth by Human  
CO2 Emissions



# Carbon and Climate Catastrophe

## Why I Left Greenpeace After 15 Years



**Greenpeace lost its humanitarian perspective and drifted into the lie that humans are the enemies of the Earth. Today they are Peddling Junk Science for Donations. It is Greenpeace that is the enemy of nature and civilization**



# Carbon and Climate Catastrophe



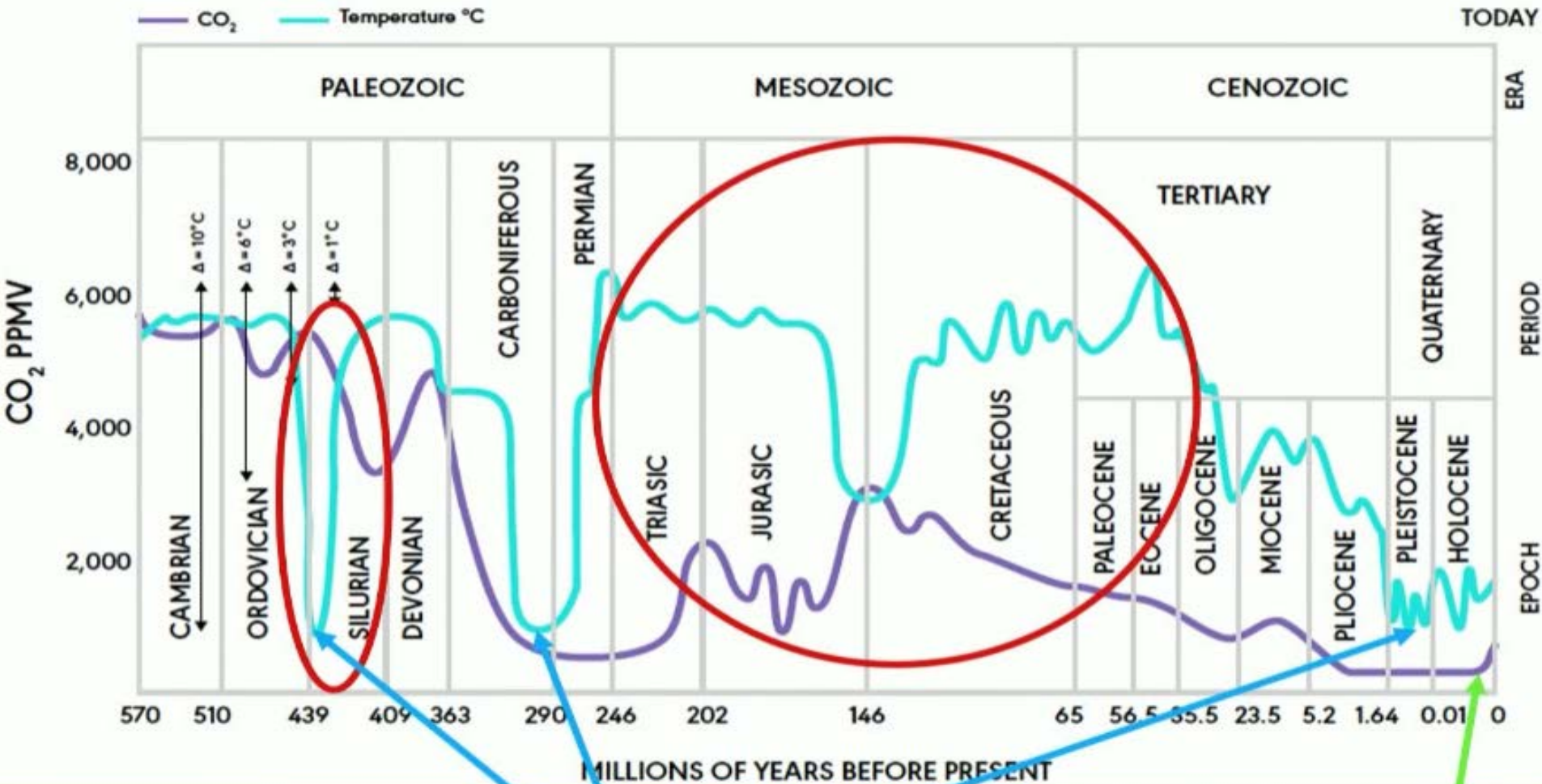
## **The Unified Theory of Scare Stories**

**All the predictions of catastrophe today are based on things that are either invisible; like CO<sub>2</sub>, radiation, and GMOs - or very remote, like polar bears, coral reefs and the Great Pacific Garbage Patch, so it is impossible for the average person to observe and verify the truth for themselves: They are Fake Invisible Catastrophes and Threats of Doom.**



# Carbon and Climate Catastrophe

## Geological Timescale: Concentration of CO<sub>2</sub> and Temperature Fluctuations



Comments on next slide

Ice Ages

CO<sub>2</sub> in 1850



# Carbon and Climate Catastrophe

“Last 0.5 billion years in global temperatures (blue line) & CO<sub>2</sub> (purple), showing a slightly **negative** correlation.

Note the Silurian Ice Age (circled in red), when CO<sub>2</sub> was at 5,000 ppm, more than 10 times what it is today.”

Then the Karoo Ice Age (~100 million years) in the Carboniferous period coincided with a drop in CO<sub>2</sub> but this was when forests formed, which resulted in at least an order of magnitude more carbon in biological systems.

When the forests grew, they sucked a huge amount of carbon out of the atmosphere.

I believe that that CO<sub>2</sub> depletion continued because there was no enzyme [at that time] that could digest lignin... It sounds far-fetched but no one has an explanation...”

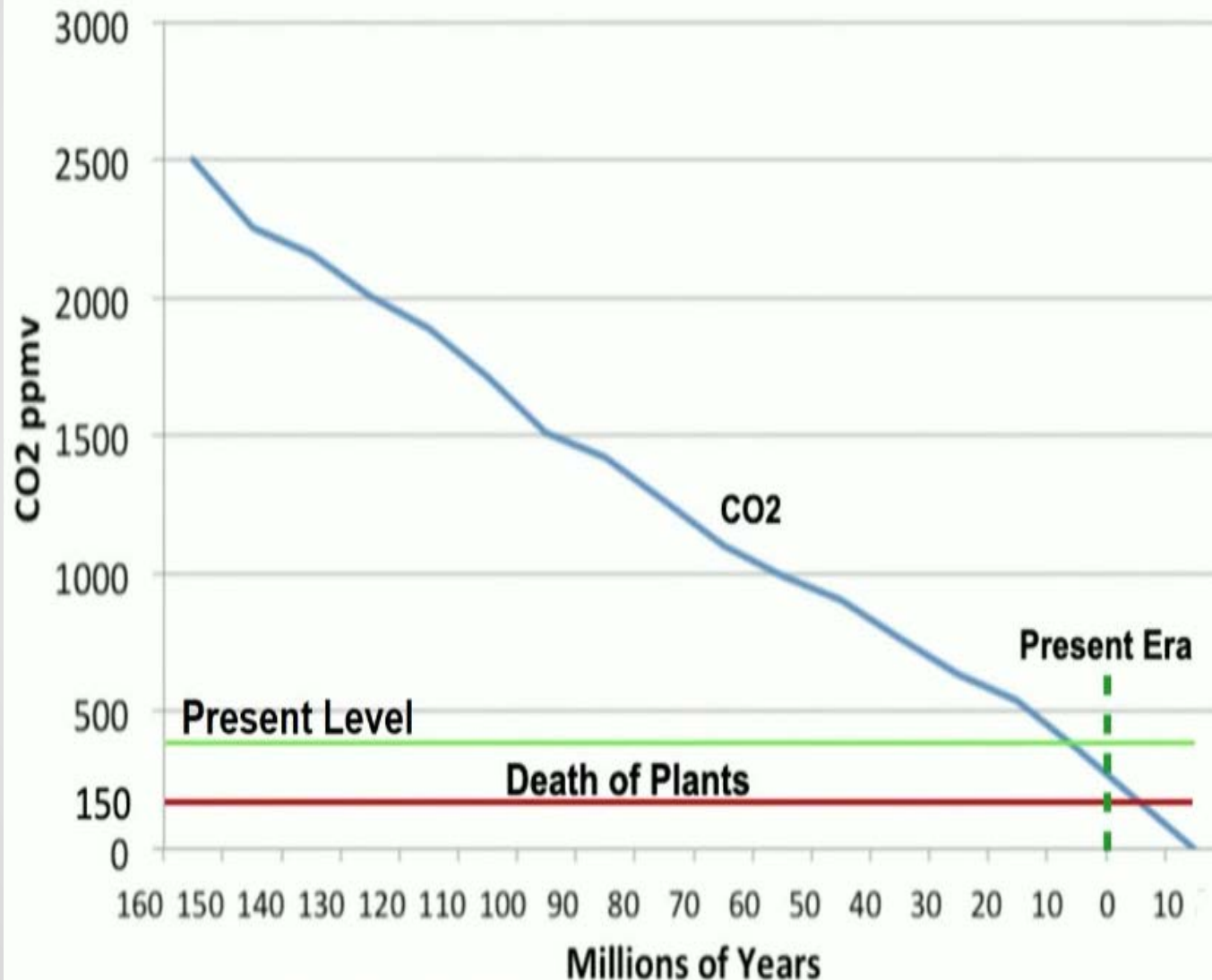
“The large red circle covers 200 million years when CO<sub>2</sub> and temperatures were totally out of sync with each other: when CO<sub>2</sub> goes up, the temperature goes down and vice versa. And CO<sub>2</sub> has now been coming down steadily for 150 million years. There’s a reason for that.

If you look at the very end, that little uptick is all we have done and it ended the downtrend... from 6,000 ppm to 180,000 ppm not that long ago.”



# Carbon and Climate Catastrophe

Projected CO<sub>2</sub> Level in Absence of Human Emissions



“CO<sub>2</sub> levels went down to 180 ppm in the last glacial maximum, with the death of plants occurring at 150.

So we came along just in time to reverse the constant downward trend of CO<sub>2</sub>.

In other words, we have restored a balance, somewhat, to the global carbon cycle...

We are the salvation of life, not its destroyer.”



# Carbon and Climate Catastrophe



**“Why did CO<sub>2</sub> decline for so many years?**

Marine calcifying species, from many different phyla, all of which learned 0.5 billion years ago to make armored plating for their soft bodies out of calcium carbonate, just as knights would put on steel to protect themselves.

The carbonate comes from CO<sub>2</sub>, from the continuous removal of CO<sub>2</sub> from oceans...

100 million billion tons of carbon, all of which came from CO<sub>2</sub>, are locked into carbonaceous rocks (limestone, marble and chalk)...

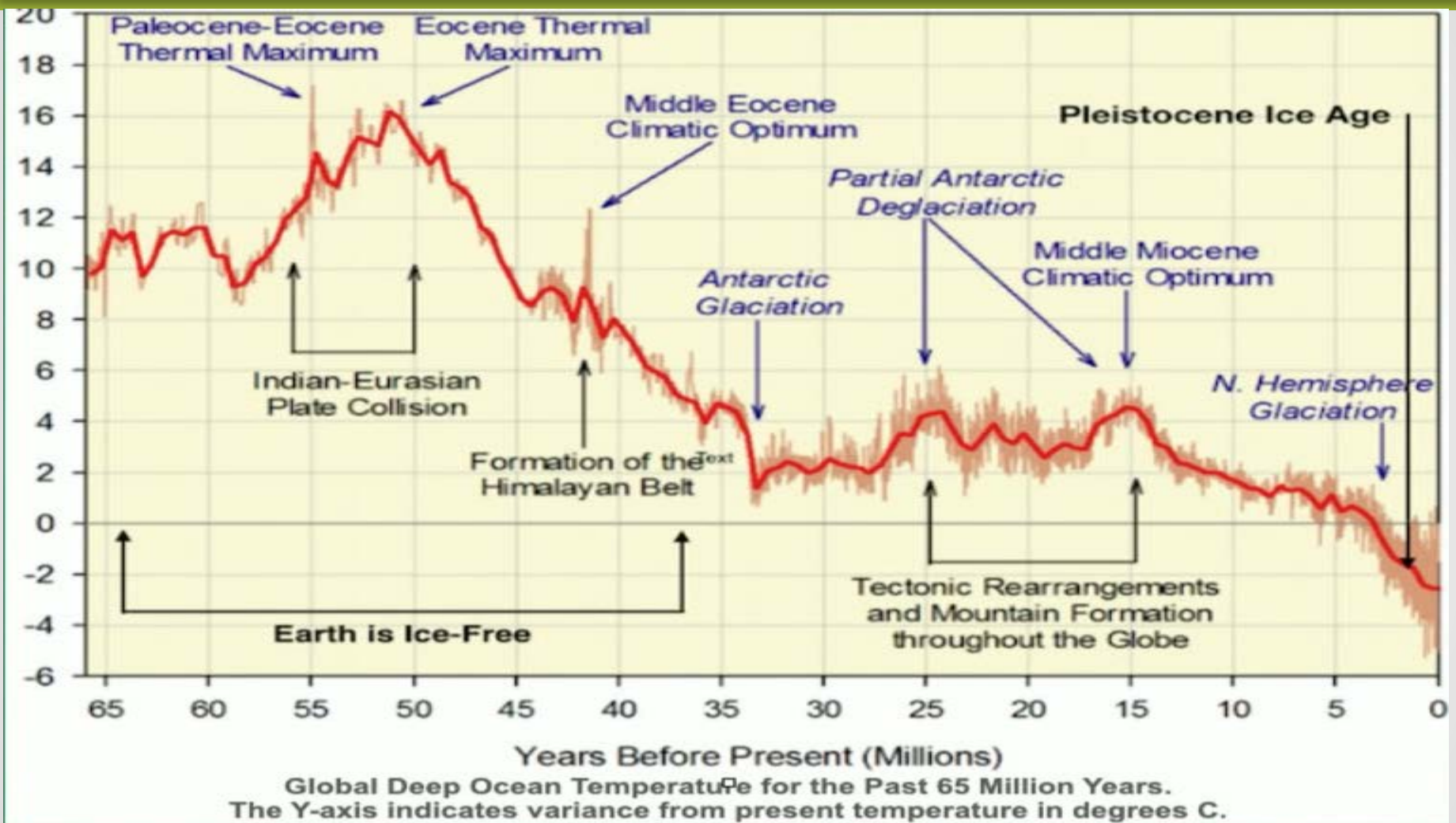
The White Hills of Dover are a skeleton of the microscopic coccolithophores on the left.

Coral reefs are responsible for nearly 50% of the sedimentation/sequestration. They say they are going to bury CO<sub>2</sub> from the coal plants underground, these guys have been burying it for longer than us and it's stupid to do so anyway because doubling or tripling CO<sub>2</sub> would be good for life.”

**100,000,000 Billion Tons of Carbon as CO<sub>2</sub> has been Absorbed from the Air and Oceans by Marine Calcifying Species and turned into Limestone. When we Make Cement we are simply returning CO<sub>2</sub> to where it Came From.**



# Carbon and Climate Catastrophe

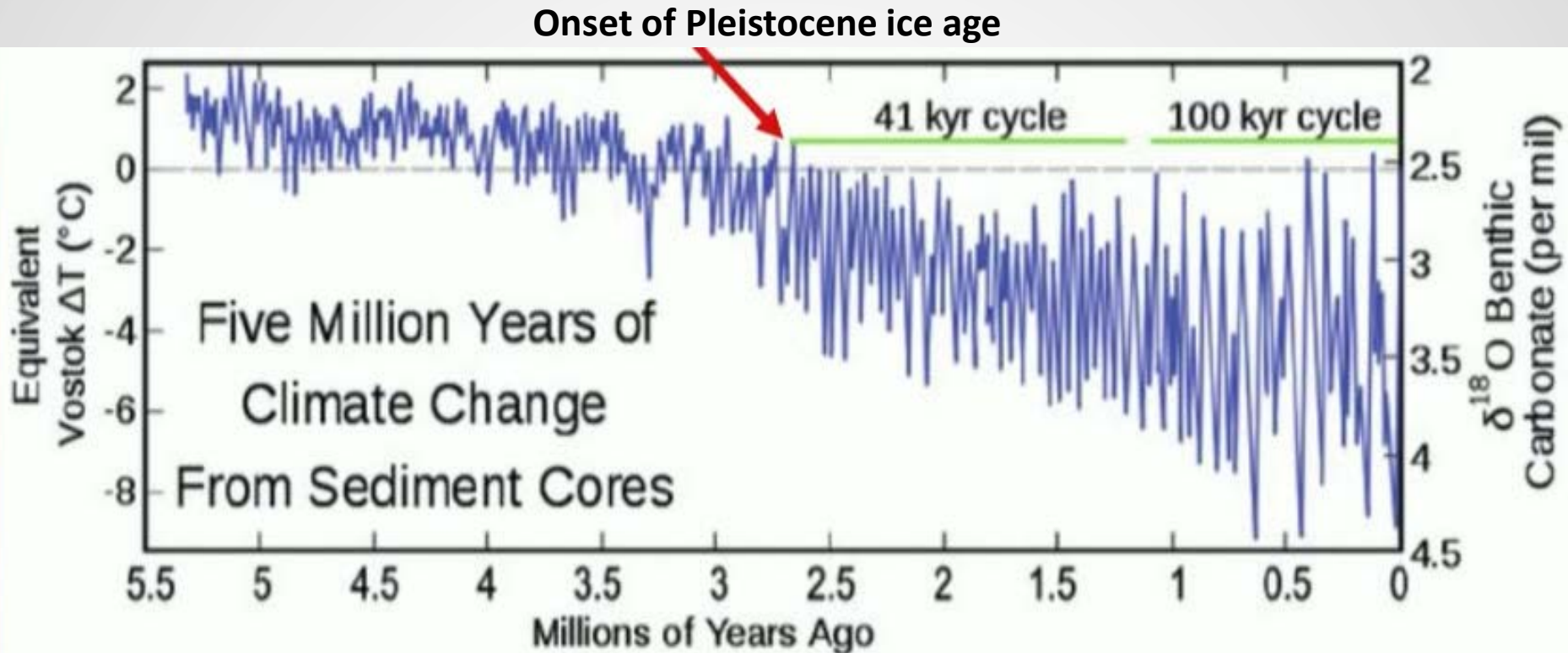


Graph shows last 65 million years since dinosaur extinction. We are at the tail-end (marked as pleistocene Ice Age) of a 50 million year cooling period, that is the truth.

Nobody talks about anything before 1850, they don't want to talk about 1 or 10 or 50 million years ago because it doesn't fit their narrative."



# Carbon and Climate Catastrophe



“This is the last 5.5 million years as the climate descended into the Pleistocene Ice Age, which is arbitrarily designated at 2.6 million years ago. Note how many cycles there have been in the Pleistocene...

People are fooled into thinking that the end of the most recent glaciation - glacial advance – was the end of the Ice Age.. The Ice Age has had more than 40 of those, beginning with 41,000-year cycles and now 100,000-year cycles. The switch is called the Pleistocene Conundrum.

Nobody knows why it's changed from the tilt-of-the-Earth Milankovitch cycles (which are caused by the gravitational effect of Jupiter) to the 100,000-year orbit-of-the-Earth eccentricity cycles.

Note that the coldest periods are occurring recently. The Pleistocene may well be getting colder.

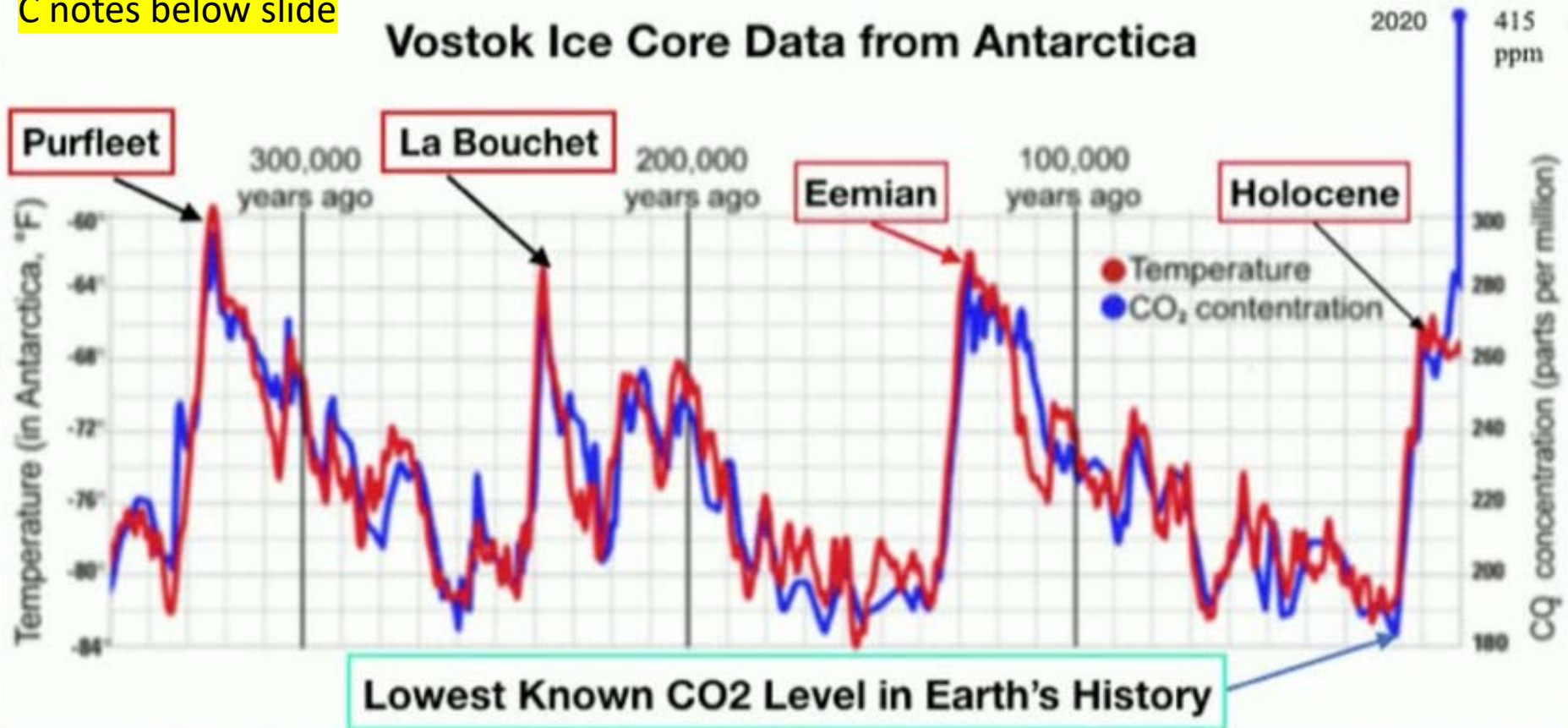
The Karoo lasted 100 million years, our ice age has lasted 2.5 million years.”



# Carbon and Climate Catastrophe

C notes below slide

## Vostok Ice Core Data from Antarctica

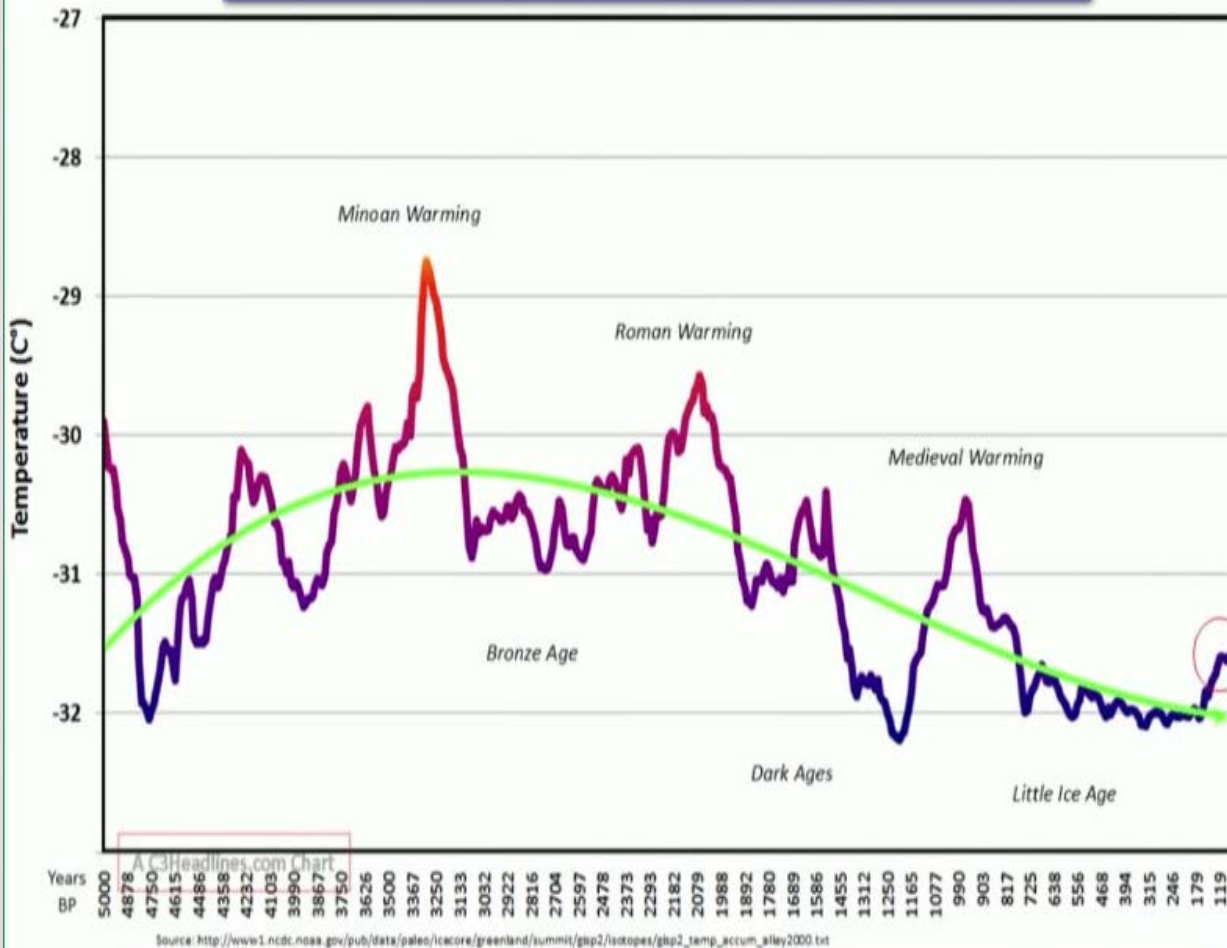


There is no Indication that Global Temperature will Shoot up in Response to the Large Increase in CO<sub>2</sub> from Human Emissions. Note the Three Previous Glacial Maximums were Warmer than this One



# Carbon and Climate Catastrophe

5,000 Years of Temperature Change  
Greenland Ice Core: Cooling Trend Since Minoan Period Warming



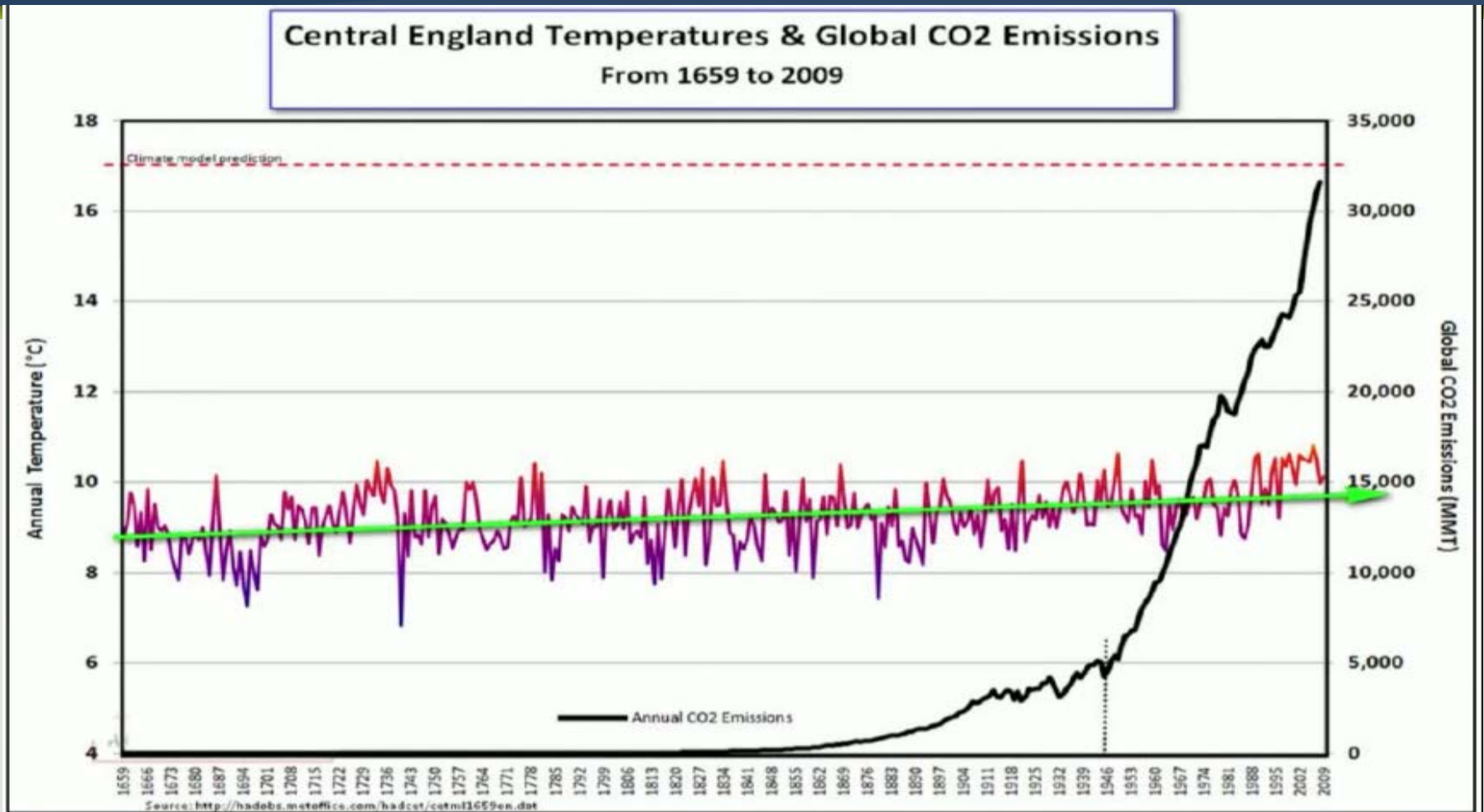
From the Greenland ice cores, researchers have reconstructed past temperatures back some 50,000 years. Above is a temperature history slice representing 5,000 years before the present (BP). The green curve is a 3rd degree polynomial trend, which reveals an overall cooling trend since the height of the Minoan Warming. The right end point (red circle) is approximately 100 years before present. Needless to say, current temperatures and our perceived climate change is nothing out the ordinary when compared to the past 5,000 years.

“Last 5,000 years of the Holocene inter-glacial period we are in now...

Temperature has been going up since 1700, when the Little Ice Age reached its lowest temperature, but there are 1,000-year cycles between the Minoan, Roman and Medieval warming periods with cooling periods after each one. We are now in an upward trend but there is no evidence it is actually caused by our CO<sub>2</sub> emissions.”



# Carbon and Climate Catastrophe



Red line is longest recorded temperature with a thermometer from central England; black line is our annual CO2 emissions. There is no way that the temperature is responding to the CO2 emissions in an exponential fashion. The upward temperature trend is longer and more than anything that has ever happened since – and we were not even emitting CO2 into the atmosphere at that time. It clearly shows that the temperature curve is not correlated strongly or in any way with the CO2 curve.”



# Carbon and Climate Catastrophe



**Claim: Polar Bears Will Become Extinct Due to Climate Change**

**Polar Bears would not Exist if it weren't for Climate Change**

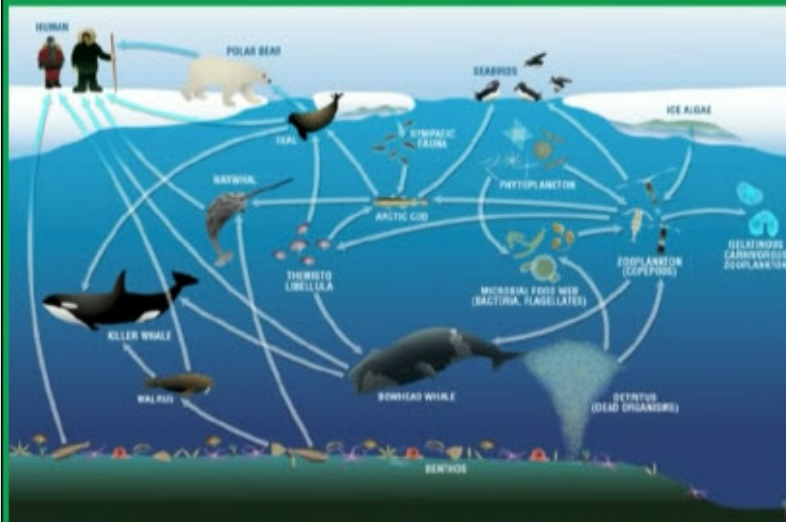
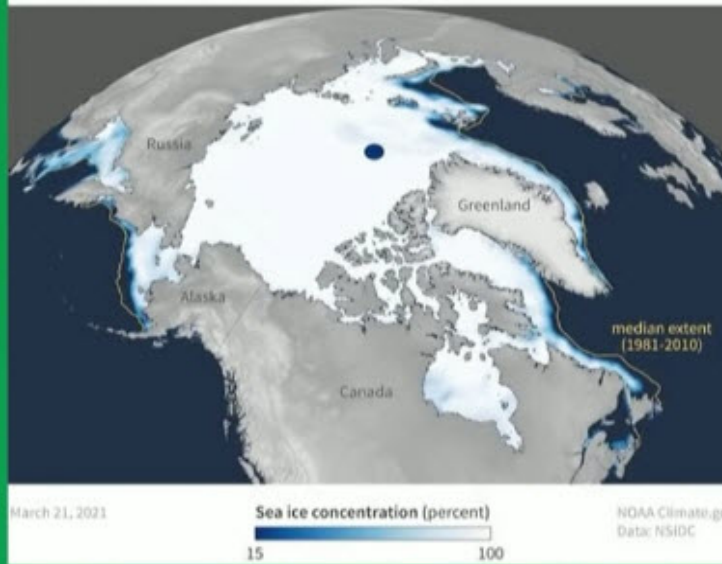
Climate change is the reason polar bears exist. As the Earth cooled for the last 50 million years, 3 million yrs ago the Arctic started to freeze over in the winters. Prior to that there was no ice in the Arctic for 250 million years. The polar bears evolved from the Eurasian brown bear, which came across the land bridge during a glacial maximum (possibly the most recent one, in which humans came across, or a previous one)."



# Carbon and Climate Catastrophe

Notes  
below  
slide

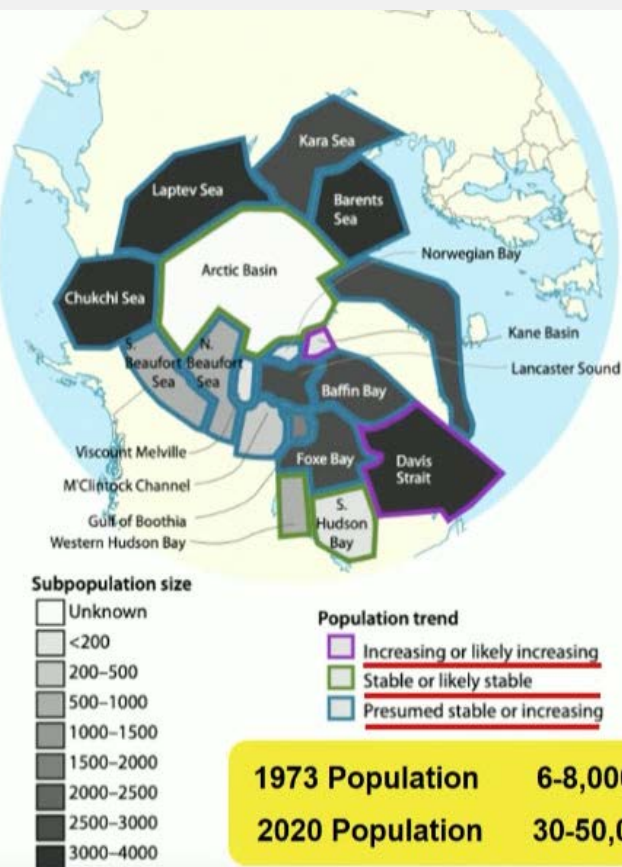
2020-2021 WINTER MAXIMUM





# Carbon and Climate Catastrophe

## Polar bear population



CTV  
NEWS

Bob Weber, The Canadian Press

Published Monday, November 12, 2018 4:11AM EST

## 'So many bears:' Draft plan says Nunavut polar bear numbers unsafe

There are too many polar bears in parts of Nunavut and climate change hasn't yet affected any of them, says a draft management plan from the territorial government that contradicts much of conventional scientific thinking.

HUFFPOST

NEWS 11/12/2018 08:50 EST | Updated 3 hours ago

## Nunavut Draft Plan Says There Are Actually Too Many Polar Bears In Territory

Scientists say only one population of bears is growing; Inuit say there are nine. Environment Canada says four populations are shrinking; Inuit say none are.

“Activists claim polar bears will go extinct by 2100 when in fact their number is growing.”



# Carbon and Climate Catastrophe

Energy and Environment  
**'And then we wept': Scientists say 93 percent of the Great Barrier Reef now bleached**  
By Chris Mooney  
April 20, 2016  
**The Washington Post**  
*Democracy Dies in Darkness*

**HUFFPOST**

ENVIRONMENT 04/21/2016 06:04 pm ET

**93 Percent Of The Great Barrier Reef Is Practically Dead**

Climate change is destroying Earth's largest coral ecosystem.

By Chris D'Angelo

**CNN** World • Africa • Americas • Asia • Australia • Europe • Middle East • UK  
two°  
Study: Over 90% of Great Barrier Reef suffering from coral bleaching  
By Euan McKirdy, CNN  
Updated 8:47 AM ET, Wed April 20, 2016

**NATIONAL GEOGRAPHIC** BY LULU MORRIS 11 APRIL 2017

**THE GREAT BARRIER REEF IS NOW TERMINAL**

We've lost two-thirds of our beloved reef to bleaching.

Support The Guardian Subscribe Search jobs Sign in Search ~

**The Guardian** International edition

News Opinion Sport Culture Lifestyle More ~

Environment ► Climate change Wildlife Energy Pollution

**Great Barrier Reef in crisis** Coral

**Great Barrier Reef at 'terminal stage': scientists despair at latest coral bleaching data**

Advertisement  
Ad closed by Google

**Forbes** 73,615 views | Apr 16, 2017, 09:03am

**The Great Barrier Reef Is In Its Final 'Terminal Stage'**

Trevor Nace Contributor Science

Then in 2018:

SCIENTIFIC AMERICAN THE SCIENCES

**Coral Reefs Show Remarkable Ability to Recover from Near Death**

**Great Barrier Reef Showing 'Signs of Recovery'**

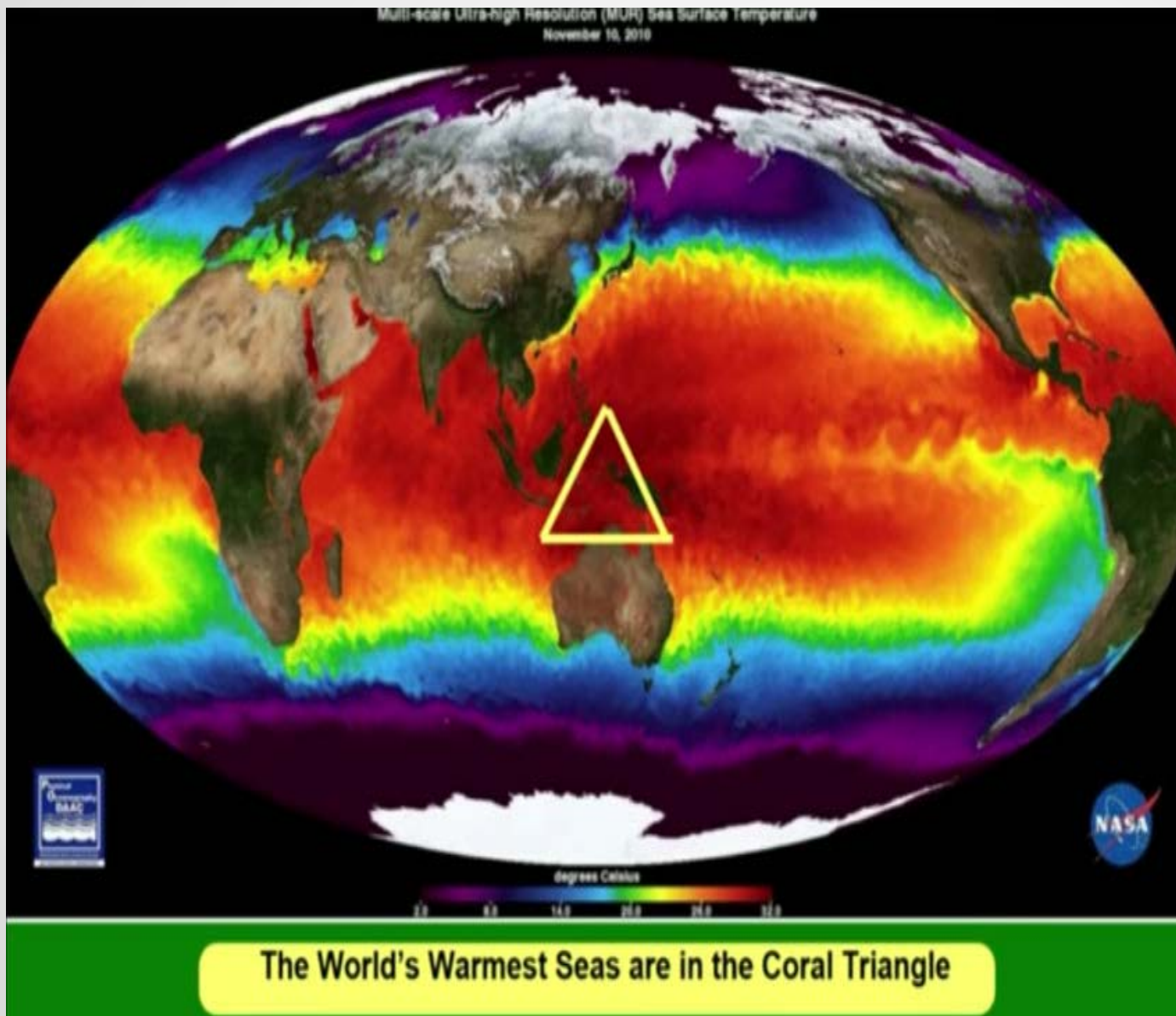
By Colin Bertram  
September 6, 2018, **Bloomberg**

After a mass coral bleaching in 2016, the world's largest living structure is showing signs of a comeback.





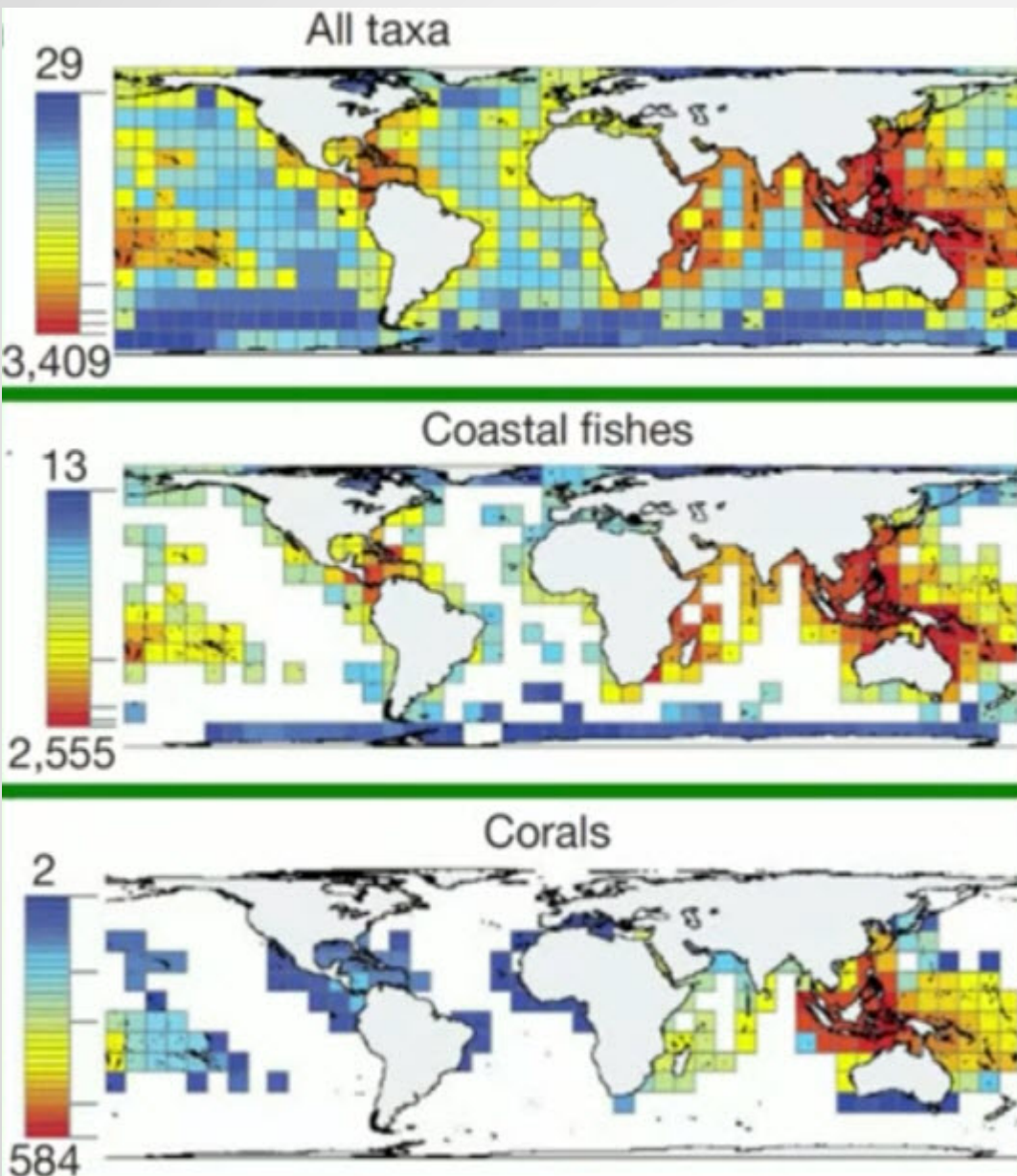
# Carbon and Climate Catastrophe



The triangle shows Indonesia shallow waters at the Equator, which are protected from cold water in the north & south, and have the highest biodiversity of corals in the world with over 6,000 species... It is a sanctuary for the shrinking of coral reefs in the 50 million year cooling period from the Eocene thermal maximum. The Caribbean 50 million years ago had twice as many species of corals as it does today but it's cooled and is the second warmest ocean in the world, protected from cold water by North and South America. So how can one say that warming the sea kills the corals when they have actually demonstrated very clearly that it likes the warmest oceans in the world.



# Carbon and Climate Catastrophe

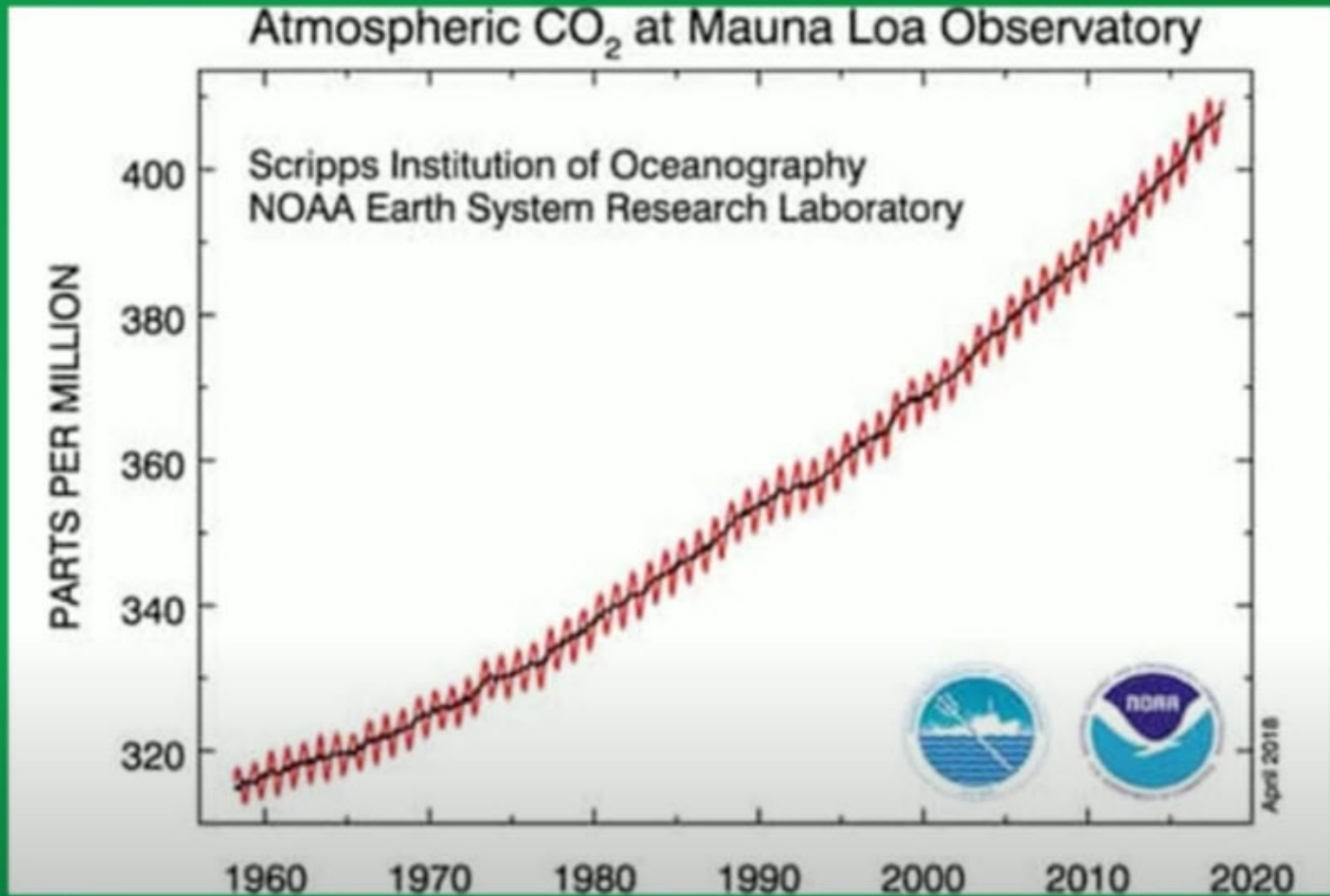


“Top graph shows all marine taxa in the world. Note that Indonesia has by far the highest biodiversity with 3,409 species, as well as the highest biodiversity of fish.

Corals shrunk into that area while the rest of the world’s oceans cooled.



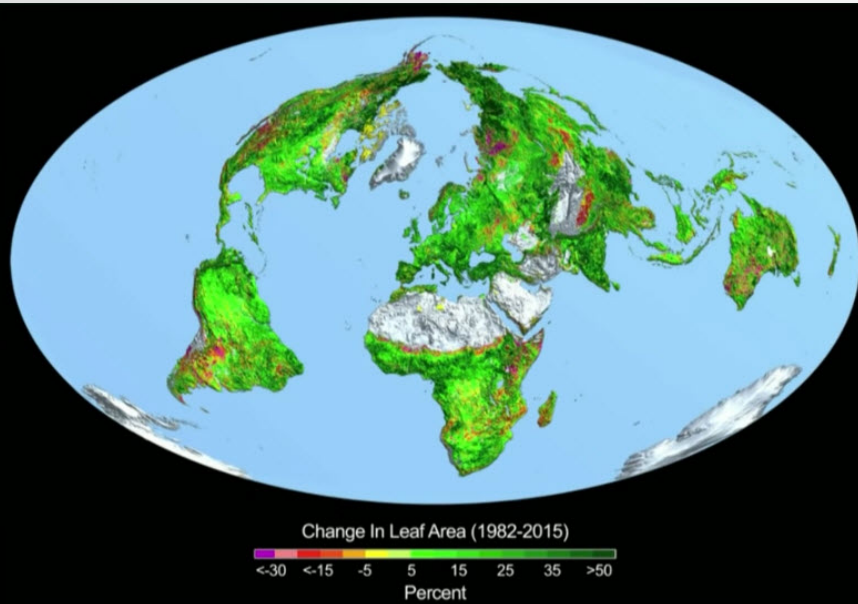
# Carbon and Climate Catastrophe



Graph of atmospheric CO<sub>2</sub> concentration at the summit of Mauna Loa  
Most of this increase can be attributed to human emissions from fossil fuels (95%) and cement

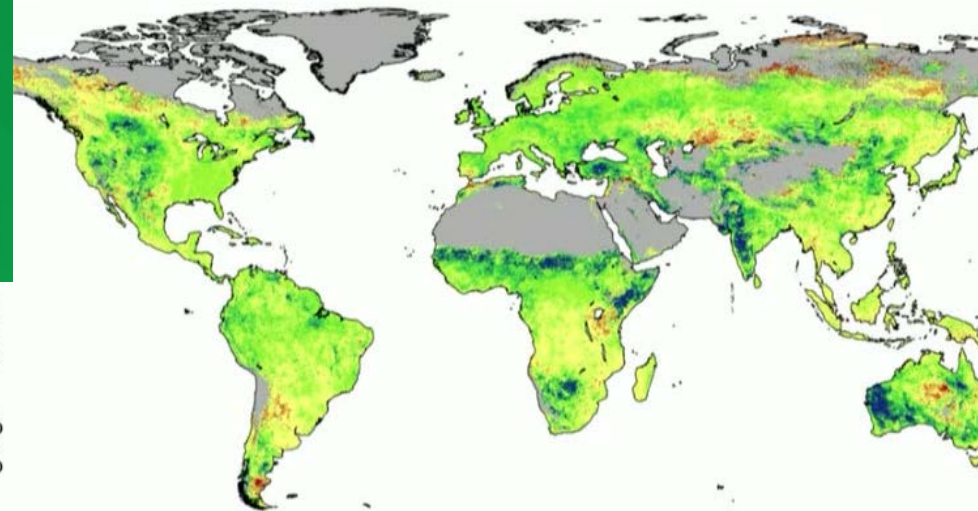
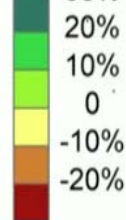


# Carbon and Climate Catastrophe



Using a NASA satellite An international team of 32 authors from 24 institutions in eight countries, published in 2015, clearly shows the positive effect of more CO<sub>2</sub> in the global atmosphere.

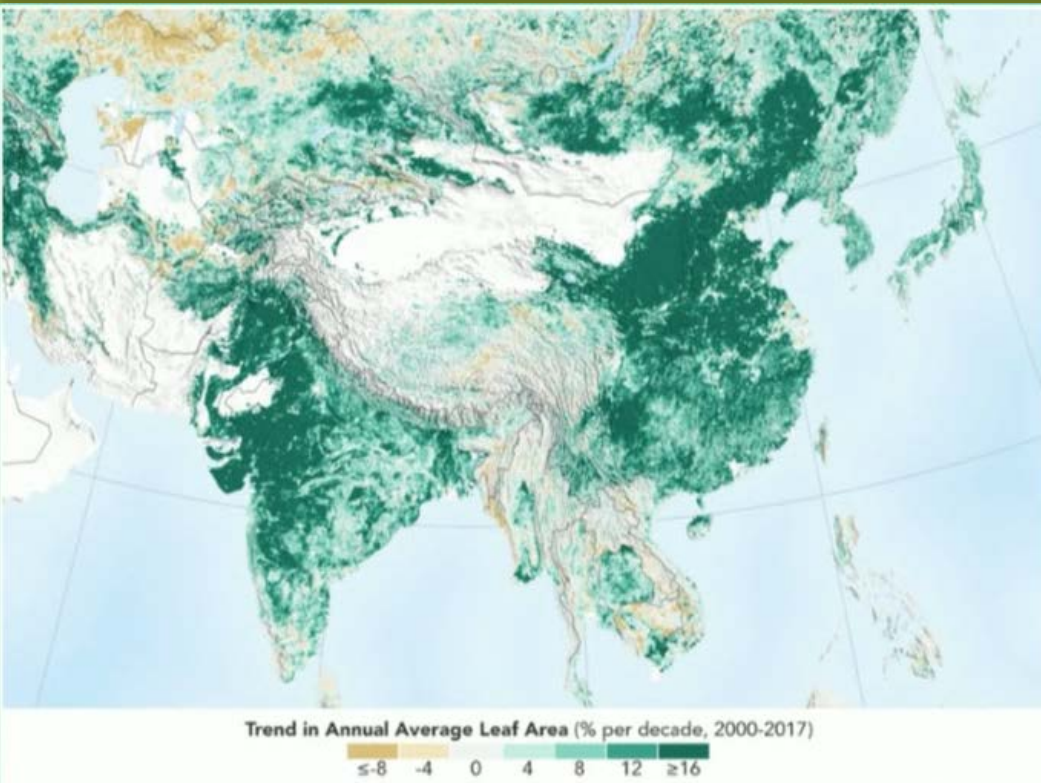
The map from 2014 shows that more greening occurs in the drier areas than in the wet areas, resulting in larger increase in growth. That's because increased CO<sub>2</sub> not only gives the plants more food to grow faster, it also makes them more efficient with water because they don't have to have so many holes under their leaves (called lenticels) to absorb the CO<sub>2</sub> and therefore lose less water... this allows them to grow in areas that they never grew in before and flourish in dry areas."



The Commonwealth Science and Industry Research Organization (CSIRO) in Australia published this map of increased global greening from 1882 to 2013 due to human CO<sub>2</sub> emissions. This has been ignored or downplayed by the climate alarmists despite being a proven fact, unlike the claim the CO<sub>2</sub> is the "control knob of climate change" and is causing a "climate emergency"



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“China and India have contributed to the greening of the Earth more than any other country and have planted more new forests than all other countries combined. Their crop production is larger than anywhere else in the world because they have more people to feed than anywhere else...”

Therefore, they are the two greenest nations on Earth today.”

“Greenhouse growers purposely add more CO<sub>2</sub> in order to increase plant growth and productivity.”



A CO<sub>2</sub> Generator Turns Natural Gas into CO<sub>2</sub> and Greatly Increases Plant Growth and Productivity



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**Fossil Fuels are 100% Organic, Produced with Solar Energy from H<sub>2</sub>O and CO<sub>2</sub>, and when Burned Produce the Primary Foods for Life, H<sub>2</sub>O and CO<sub>2</sub>.  
Largest Storage Battery of Solar Energy on Earth**



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Moore:

“The silent part of this whole conspiracy is that **politicians are funding the scientists**. All of the climate science is coming from politicians, not from private corporations that are actually trying to do something better than people might want. But what the politicians want is a scare story: You're driving down the highway in your SUV and are afraid of killing your grandchildren, that makes you feel guilty so you open your wallet and send Greenpeace a big check...”

“There is **no hard evidence that CO2 has any role in the warming period that we have been in since 1700**. There may be some influence but it isn't very important because it's not on an exponential curve”

“We have started on a trajectory now where we have saved life from a certain demise due to a lack of CO2 with the continuation of the 150 million year downturn. Just as the shellfish didn't mean to suck the CO2 out of life, but were making armor for themselves, we didn't mean to save the earth from death of life, we did it for energy purposes. Both of those were inadvertent side effects of what life did.”



\*One has to be precise when making claims, so the question is what exactly did I write? CO<sub>2</sub> does cause warming, but it is a relatively small one (about 1 to 1.5°C per CO<sub>2</sub> doubling).

\*On the other hand, there is no time scale over which there is a fingerprint that CO<sub>2</sub> caused the variations. However, there are time scale over which CO<sub>2</sub> had some effect, but this we know indirectly.

The simple fact is, there is no single piece of evidence that proves that a given amount of CO<sub>2</sub> increase should cause a large increase in temperature. As a matter of fact, there is evidence to the contrary! For example, over geological time scales, there were huge variations in the atmospheric CO<sub>2</sub> levels (by as much as a factor of 10) and they show no correlation whatsoever with the temperature<sup>1</sup>. 450 million years ago there was 10 times as much CO<sub>2</sub> in the atmosphere but more extensive glaciations.

[https://www.bundestag.de/resource/blob/580504/2b96f368c0a785e5e4a09bb1d9797449/19-16-143\\_Conversation\\_COP24\\_Prof\\_Nir\\_Shaviv-data.pdf](https://www.bundestag.de/resource/blob/580504/2b96f368c0a785e5e4a09bb1d9797449/19-16-143_Conversation_COP24_Prof_Nir_Shaviv-data.pdf)



# Israel

- The hottest temperature measured between 1950 - March 2022 was reported by the Eilat weather station
- In September 2020 the record temperature of 48.9 °C was reported here.
- The hottest summer from July to September, based on all 8 weather stations in Israel below 930 meters altitude, was recorded in 1963 with an average temperature of 29.8 °C.
- This average temperature will normally be measured every 4 to 6 hours, thus also including the nights. Normally, this value is 27.6 degrees Celsius.
- The 1998–2012 hiatus shows a rise of **0.05 [–0.05 to +0.15] °C per decade**, compared with a longer term rise of 0.12 [0.08 to 0.14] °C per decade over the period from 1951 to 2012