

On The Integrity Of The NASA/NOAA Temperature Record  
Thousands Of Scientists And Policymakers Depend On Its Accuracy

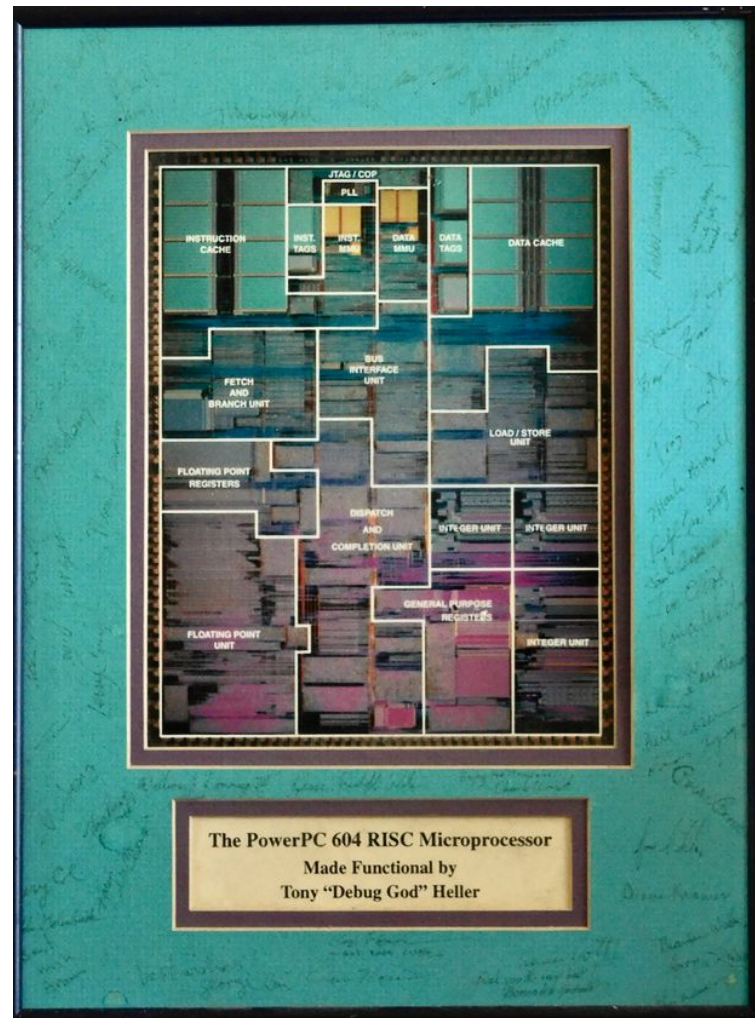
Tony Heller - February 7, 2017

# Who Am I?

- Almost 40 years of mission critical product development and research
- BS Geology - ASU
- Masters Electrical Engineering - Rice University
- 20 Years of Microprocessor Design At Intel, Motorola, ST Micro
- Intel i7 Design Team
- Software Development Of Climate And Weather Models For NCAR
- Research Scientist At Los Alamos And Sandia Labs
- Geothermal Energy Research At Los Alamos
- Safety Analysis Report For DOE's Nuclear Waste Disposal Site
- Imaging Systems For Defense Department And Commercial Drones
- Engineering Google's Virtual Reality System
- Engineering Remote Surgical Equipment

An award I was given by IBM/Motorola/Apple

The PowerPC 604 RISC Microprocessor  
Made Functional by  
Tony “Debug God” Heller



# Who Am I?

- Lifelong Environmentalist
- Testified At My First Congressional Hearing In Support Of Wilderness In 1972
- Volunteer Wilderness Ranger For The USFS
- Full Time Cyclist - I Hate Driving And Tweet About Cycling Almost Every Day
- Promote Mass Transit - If I Can't Ride, I Take A Bus Or Train
- No Ties To Any Energy Company
- No Funding Other Than Small Donations On My Blog
  
- Global Warming True Believer From 1980 To 2003

*“In questions of science, the authority of a thousand is not worth the humble reasoning of a single individual”*

- Galileo Galilei

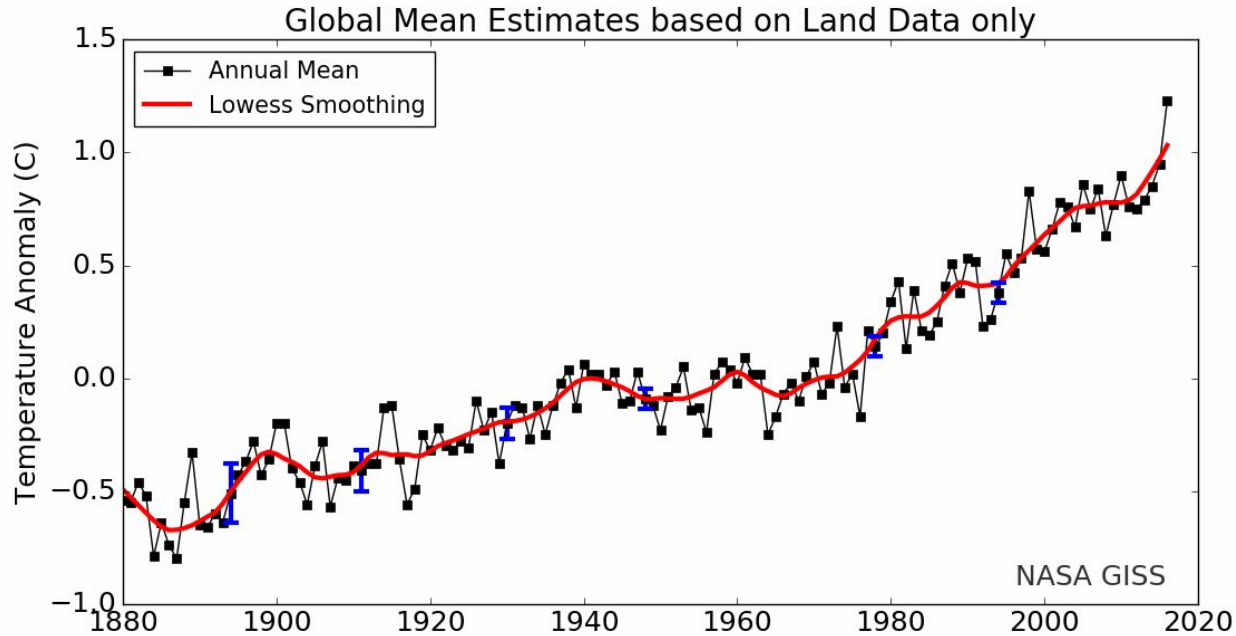
*‘You should, in science, believe logic and arguments, carefully drawn, and not authorities.’*

- Dr. Richard Feynman

*"Historically, the claim of consensus has been the first refuge of scoundrels; it is a way to avoid debate"*

- Michael Crichton

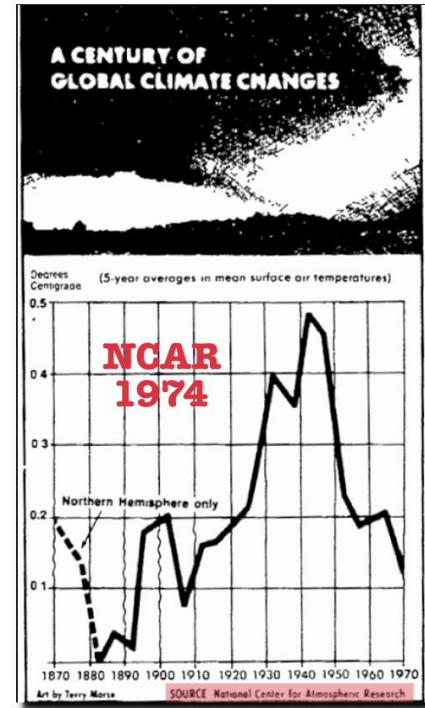
# NASA's Current Temperature Graph



# Temperature Graphs Used To Look Very Different

The National Center for Atmospheric Research (NCAR) is the US Government's National Climate Laboratory

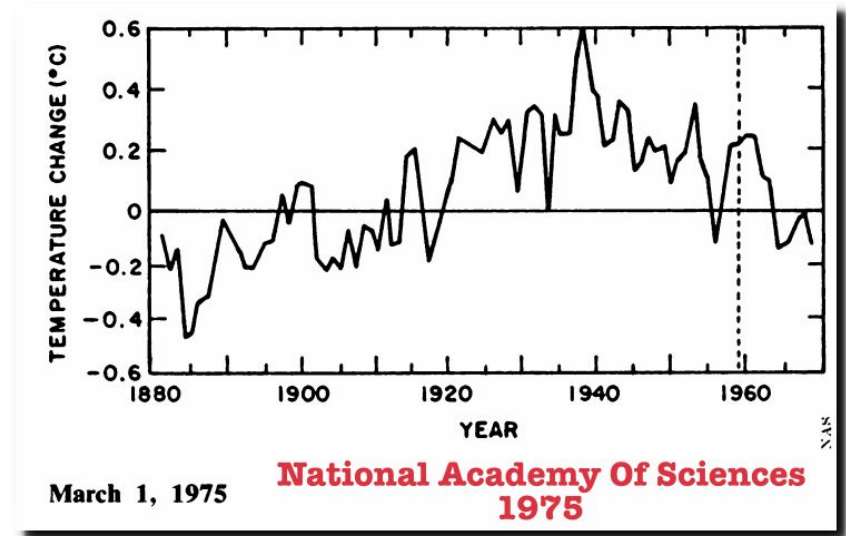
In 1974, NCAR showed no net warming from 1870 to 1970, and 0.4C cooling from 1940 to 1970



# Temperature Graphs Used To Look Very Different

In 1975, The National Academy Of Sciences showed the same thing for the Northern Hemisphere.

No net warming from 1880 to 1970, and 0.4C cooling from 1940 to 1970

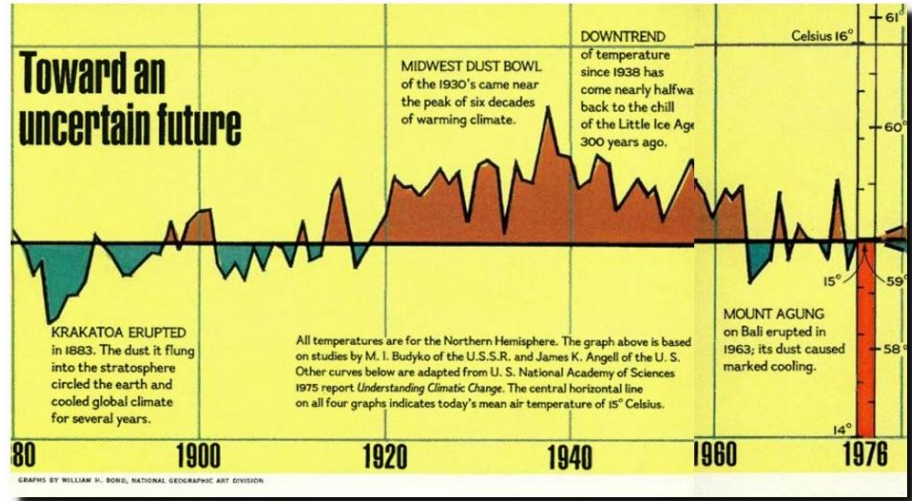




# Temperature Graphs Used To Look Very Different

In 1976, National Geographic showed the same thing for global temperatures.

No net warming from 1880 to 1970, and 0.4C cooling from 1940 to 1970



# Glaciers Rapidly Melted In The First Half Of The 20th Century

By 1932, the Ross Ice Shelf in Antarctica had retreated 30 miles.

European glaciers were shrinking.



# Glaciers Rapidly Melted In The First Half Of The 20th Century

By 1952, the glaciers of Norway and Alaska had lost half of their mass.

Scientists said rapid melting threatened to “swamp seaports”

**Newcastle Morning Herald**  
MONDAY, FEBRUARY 18, 1952.

NEW YORK, Feb. 17. A.A.P.—Dr. William S. Carlson, an Arctic expert, said last night that Polar icecaps were melting at an astonishing and unexplained rate and threatening to swamp seaports by raising ocean levels.

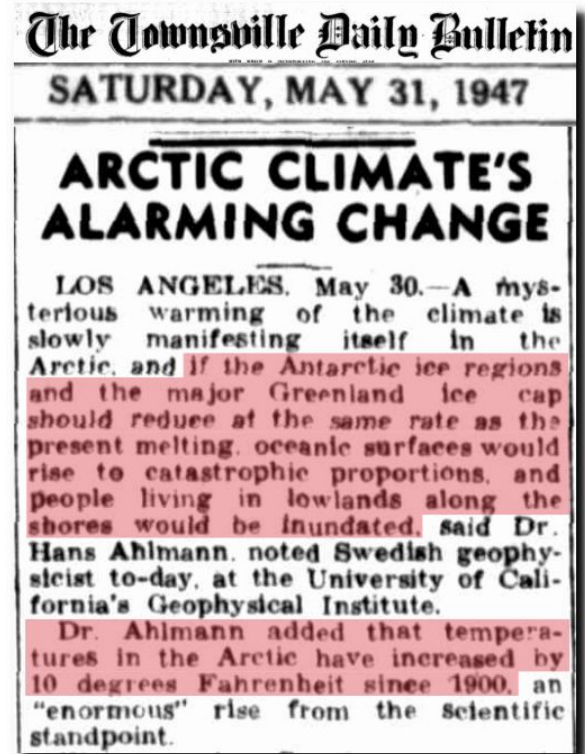
“The glaciers of Norway and Alaska,” he said, “are only half the size they were 50 years ago. The temperature around Spitzbergen has so modified that the sailing time has lengthened from three to eight months of the year.”

Dr. Carlson spent several years in Greenland as a geologist and meteorologist.

# Glaciers Rapidly Melted In The First Half Of The 20th Century

1947 : Ten degrees of Arctic warming.  
Greenland glaciers melting  
catastrophically.

“people living in lowlands along the  
shore would be inundated”



# Did The Post-1940 Global Cooling Actually Occur?

MEDFORD MAIL TRIBUNE,  
SATURDAY, DECEMBER 29, 1923

## ***Glacier Park Melting at a Rapid Rate in Scientist's Opinion***

CINCINNATI, Dec. 29.—(By the Associated Press)—The hot dry seasons of the past few years have caused rapid disintegration of glaciers in Glacier National park, Montana, professor W. G. Waterman of Northwestern university declared in an address today before the Geological section of the American Association for the Advancement of Science.

Sperry Glacier, studied by Professor Waterman, has lost one-quarter, or perhaps one-third of its ice in the past 18 years, he said. If this rapid retreat should continue, the professor added, the glacier would almost disappear in another 25 years

1923 : Glacier National Park melting. Predicted to be ice-free before 1950

1955 : Northwest glaciers growing for the first time in 100 years

**The New York Times**

SUNDAY, OCTOBER 16, 1955

## **Northwest Glaciers Again Advance**

Glaciers in the Pacific Northwest mountain ranges are advancing substantially for the first time in about one hundred years, finds Richard Hubley, project leader of an expedition sent to the Olympic and Cascade Mountains. Mr. Hubley, a graduate student in meteorology at the University of Washington, conducted the project with Ed La Chapelle, snow physicist for the United States Forest Service in Alta, Utah, and Michael W. Hane, a university physics student.

# Did The Post-1940 Global Cooling Actually Occur?

ROCHESTER DEMOCRAT  
DECEMBER 17, 1939

## *Glaciers Melting Over Greenland*

Stockholm, Sweden— (INS) —All the glaciers in Eastern Greenland are rapidly melting, declared Prof. Hans Ahlmann, Swedish geologist, in a report to the Geographical Society here on his recent expedition to the Arctic sub-continent.

"Everything points to the fact that the climate in that region has been growing warmer during recent years," the professor said.

"It may without exaggeration be said that the glaciers—like those in Norway—face the possibility of a catastrophic collapse."

1939 : Norwegian glaciers facing catastrophic collapse

1963 : Norwegian glaciers growing for the first time in 200 years

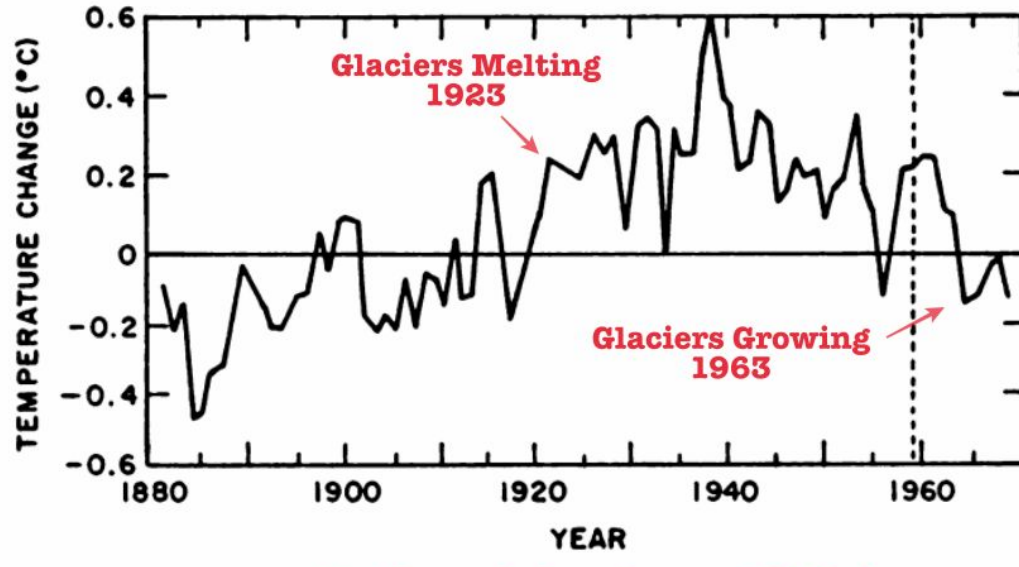
**The Canberra Times**  
CANBERRA: THURSDAY, JULY 18, 1963

## **Glaciers Grow In Norway**

OSLO (A.A.P.-Reuter). — Norway's glaciers are in the process of becoming thicker again after a period of 200 years of gradually melting down, according to glaciologist, Mr. Olav Liestol.

Last year nearly all glaciers increased by more than one metre — approximately four feet.

# The 1975 National Academy Of Sciences Graph Makes Sense



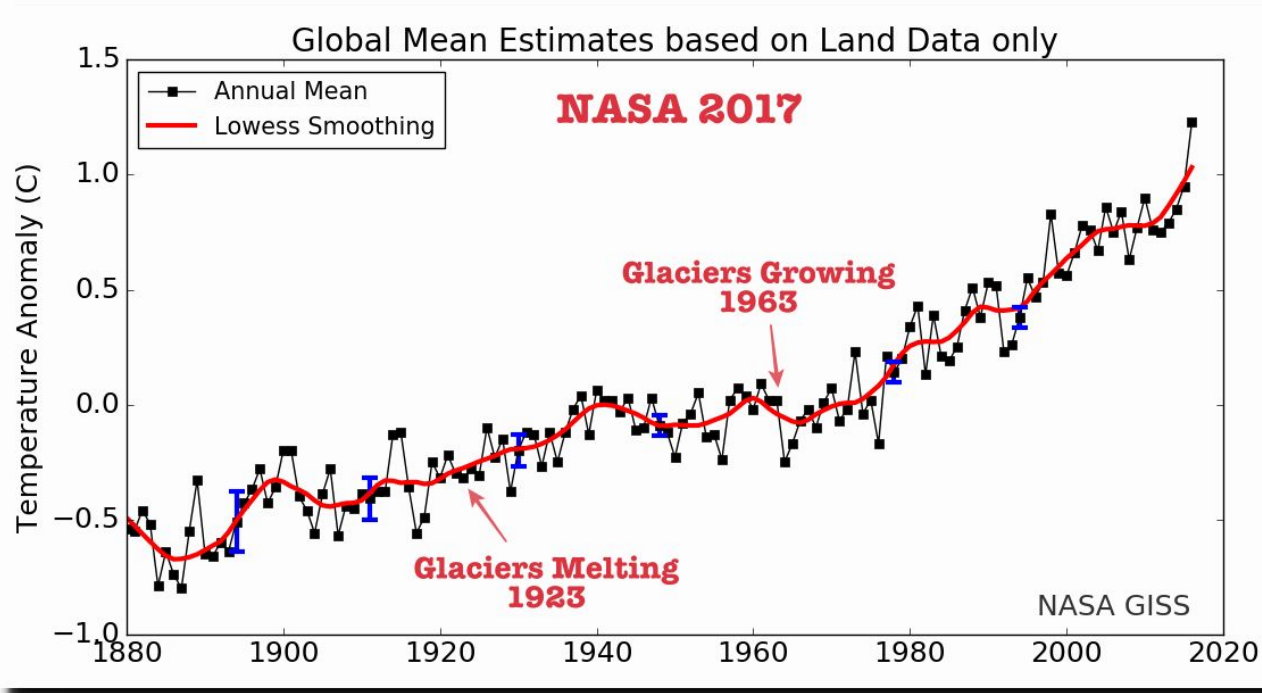
March 1, 1975

**National Academy Of Sciences  
1975**

N.A.S.



# The Current NASA Graph Does Not Makes Sense





# Did The Post-1940 Global Cooling Actually Occur?

In 1961, The New York Times reported unanimous agreement among scientists that Earth is getting colder



# Did The Post-1940 Global Cooling Actually Occur?

In 1970, The US and Russia were worried about a colder Arctic, “ominously” thickening Arctic ice - and a new ice age

## **The New York Times**

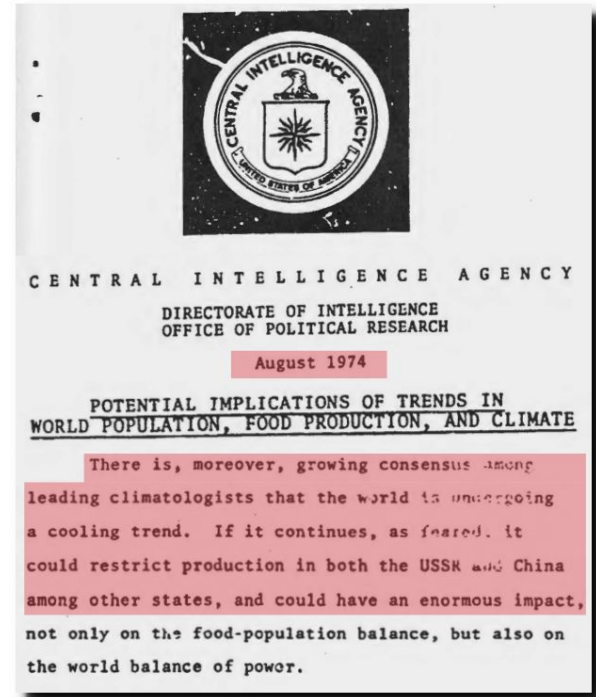
NEW YORK, SATURDAY, JULY 18, 1970

*U.S. and Soviet Press Studies of a Colder Arctic*

The United States and the Soviet Union are mounting large-scale investigations to determine why the Arctic climate is becoming more frigid, why parts of the Arctic sea ice have recently become ominously thicker and whether the extent of that ice cover contributes to the onset of ice ages.

# Did The Post-1940 Global Cooling Actually Occur?

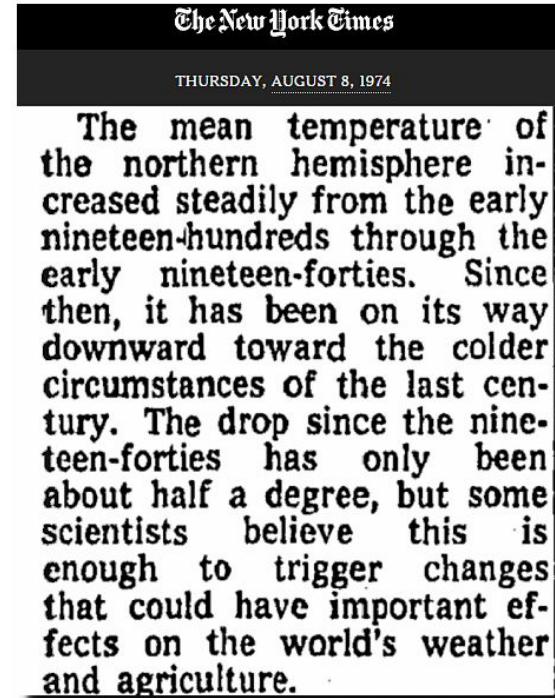
In 1974, the CIA said there was a growing global cooling consensus among climatologists, and it threatened the world's balance of power



# Did The Post-1940 Global Cooling Actually Occur?

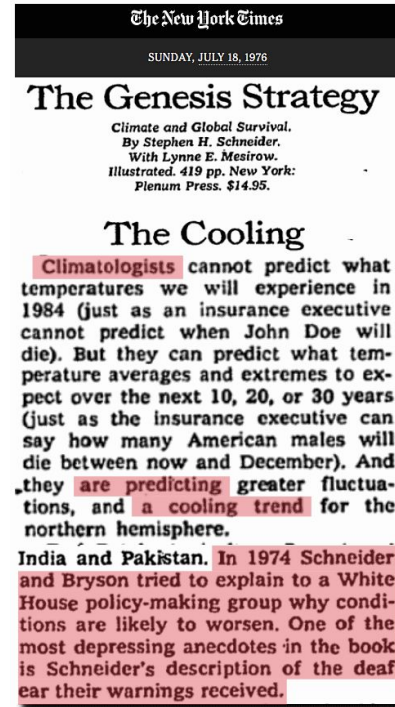
1974 New York Times :

“The mean temperature of the northern hemisphere increased steadily from the early 1900’s through the early 1940’s. Since then, it has been on its way downward towards the colder circumstances of the last century.”



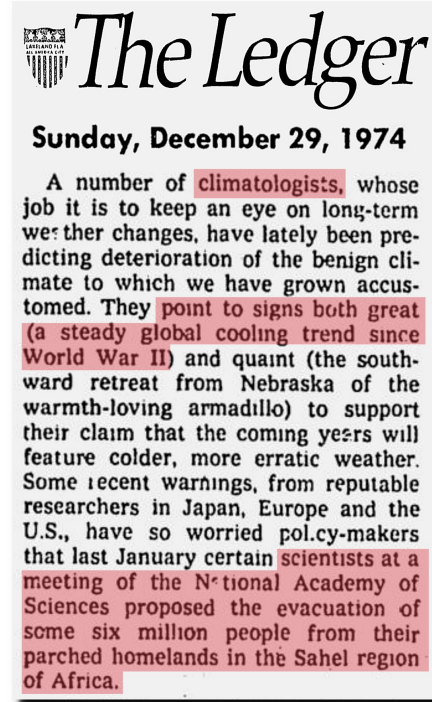
# Did The Post-1940 Global Cooling Actually Occur?

In 1974, NASA's top climatologist Steven Schneider was frustrated that the Nixon White House wouldn't listen to his warnings about global cooling



# Did The Post-1940 Global Cooling Actually Occur?

1974 : National Academy Of Sciences wanted to evacuate parts of Africa to save them from global cooling.



# Did The Post-1940 Global Cooling Actually Occur?

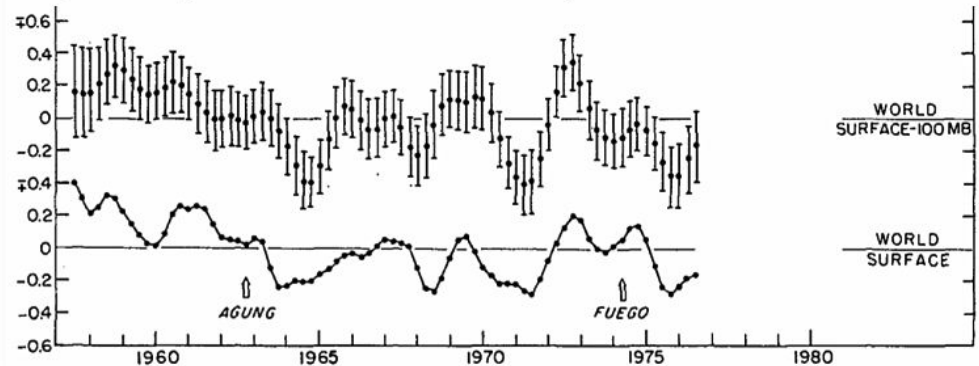
1977: NOAA's top climate expert reported 0.5C global cooling since 1958

## Global Temperature Variation, Surface-100 mb : An Update into 1977

J. K. ANGELL AND J. KORSHOVER

*Air Resources Laboratories, ERL, NOAA, Silver Spring, Md. 20910*

(Manuscript received 27 December 1977, in final form 7 March 1978)



# Did The Post-1940 Global Cooling Actually Occur?

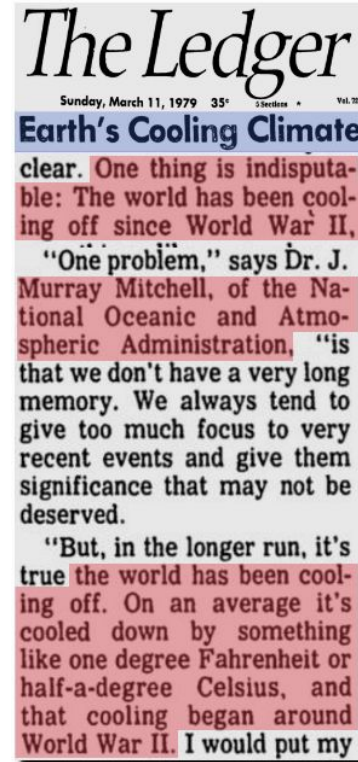
1978 - No end in sight to 30  
years of cooling





# Did The Post-1940 Global Cooling Actually Occur?

In 1979, NOAA said global cooling since World War II was “*indisputable*”



# By The 1960's, Scientists Were Worried About A New Ice Age

**The Washington Post**

[Buy Complete Document](#)

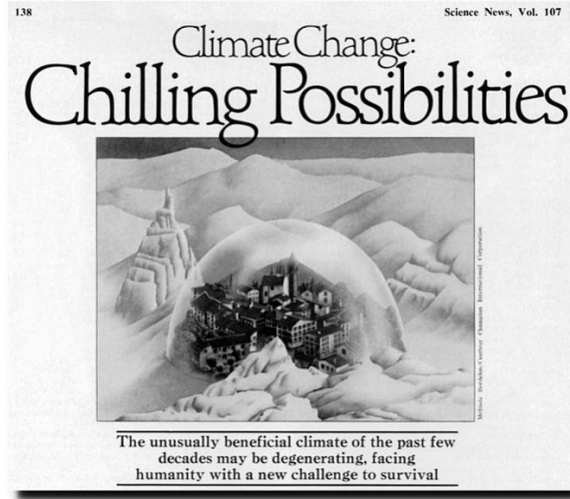
## **U.S. Scientist Sees New Ice Age Coming**

The Washington Post, Times Herald (1959-1973) - Washington, D.C.

Author:	By Victor Cohn     Washington Post Staff Writer
Date:	Jul 9, 1971
Start Page:	A4
Pages:	1
Section:	General

The world could be as little as 50 or 60 years away from a disastrous new ice age, a leading atmospheric scientist predicts. Dr. S. I. Rasool of the National Aeronautics and Space Administration and Columbia University says that:

# By The 1960's, Scientists Were Worried About A New Ice Age



# By The 1960's, Scientists Were Worried About A New Ice Age

2—The Bryan Times, Saturday, March 31, 1973

## Believe new ice age is coming

A group of scientists meeting under auspices of the National Science Foundation have again come up with a warning that the world may be nearing the end of the present inter-glacial period and that the Arctic ice sheet has begun what may prove to be another relentless advance over northern North America and Europe.

The 46 scientists who gathered at Brown University, Providence, R. I., for a symposium on "The End of the Present Interglacial" agreed that there is evidence of an ominous world-wide cooling of temperatures in the past two decades.

## TIME ARCHIVE

1923 to the Present

Science

## Another Ice Age?

Monday, Jun 24, 1974

In Africa, drought continues for the sixth consecutive year, adding terribly to the toll of famine victims. During 1972 record rains in parts of the U.S., Pakistan and Japan caused some of the worst flooding in centuries. In Canada's wheat belt, a particularly chilly and rainy spring has delayed planting and may well bring a disappointingly small harvest. Rainy Britain, on the other hand, has suffered from uncharacteristic dry spells the past few springs. A series of unusually cold winters has gripped the American Far West, while New England and northern Europe have recently experienced the mildest winters within anyone's recollection.

# By The 1960's, Scientists Were Worried About A New Ice Age

THE CANBERRA TIMES, SATURDAY, MAY 31, 1975



## THE ICE AGE COMETH

Some scientists believe a new Ice Age is on the way. Others insist that it has already begun and they have marshalled some chilling facts to support their argument. All in all, the prospects are enough to make your blood run cold as you'll discover in tomorrow's Sun-Herald.

## The Windsor Star

Windsor Monday September 11 1972

### There's a new Ice Age coming!

NORWICH, England (AP) — A new Ice Age is creeping over the Northern Hemisphere, and the rest of this century will grow colder and colder, a British expert on climate says.

Prof. Hubert Lamb, director of climate research at the University of East Anglia, had a few comforting thoughts in an interview Sunday:

"We are on a definite downhill course for the next two centuries," he said. "The last 20 years of this century will be progressively colder. After that the climate may warm up again but only for a short period of decades."

# Historical Temperature Graphs Have Been Altered

In 1989, the head of NOAA's National Climatic Data Center said earth had cooled from 1921 to 1979

Santa Cruz Sentinel — Thursday, Dec. 7, 1989

Analysis of warming since 1881 shows most of the increase in global temperature happened before 1919 — before the more recent sharp rise in the amount of carbon dioxide in the atmosphere, said Thomas Karl, of the National Oceanic and Atmospheric Administration's National Climatic Data Center in Asheville, N.C.

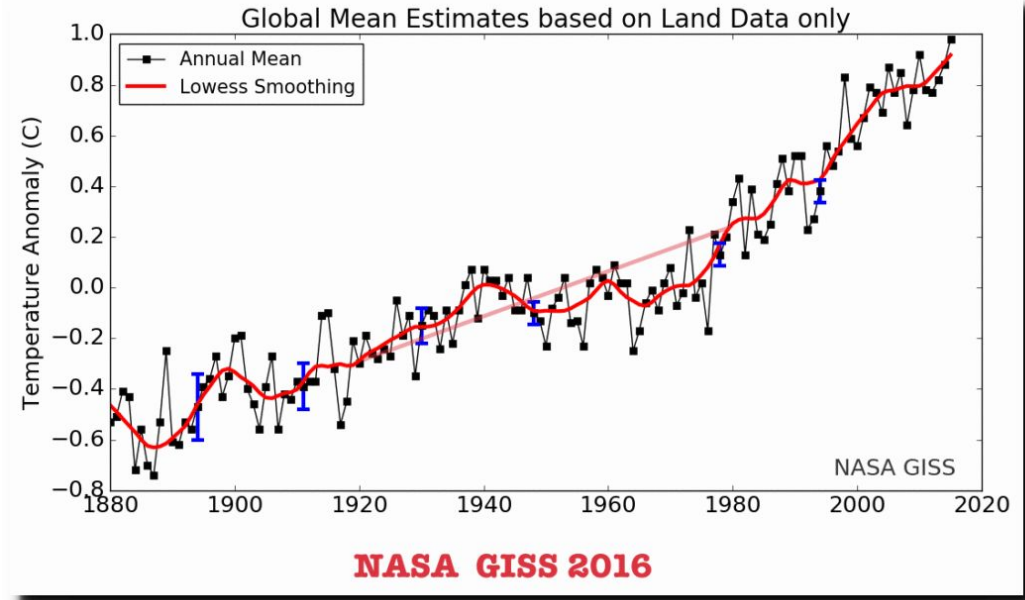
While global climate warmed overall since 1881, it actually cooled from 1921 to 1979, Karl said.



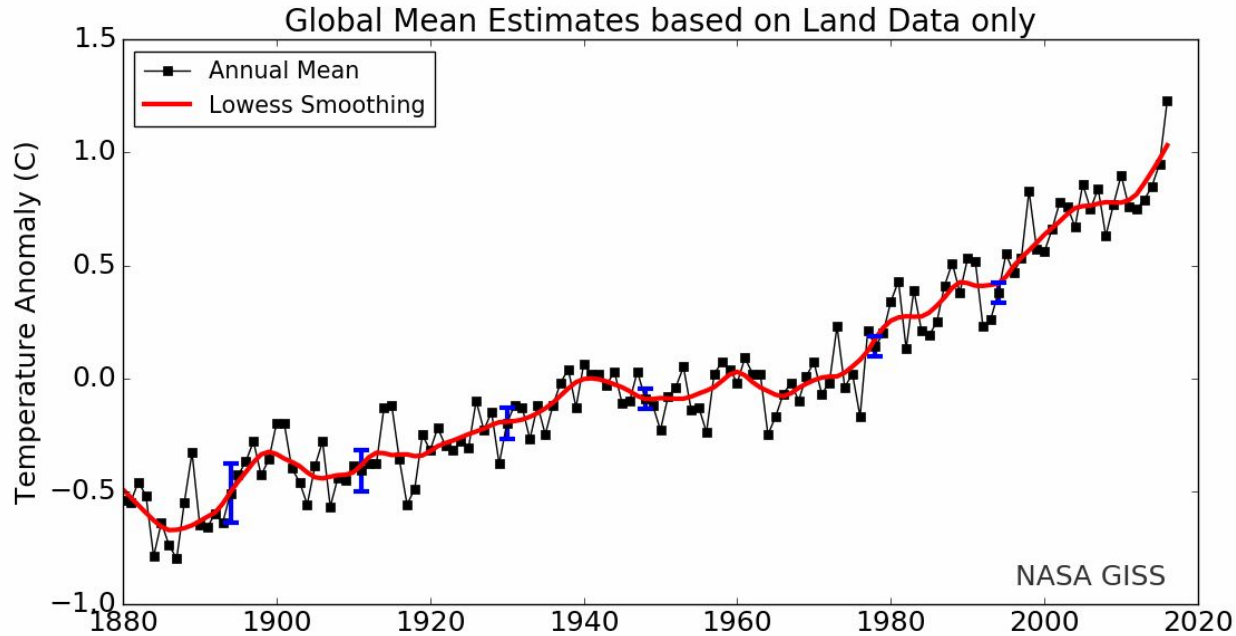
# Historical Temperature Graphs Have Been Altered

NASA now shows 0.6C  
warming from 1921 to 1979

The cooling reported by  
NOAA's top climate expert has  
been reversed

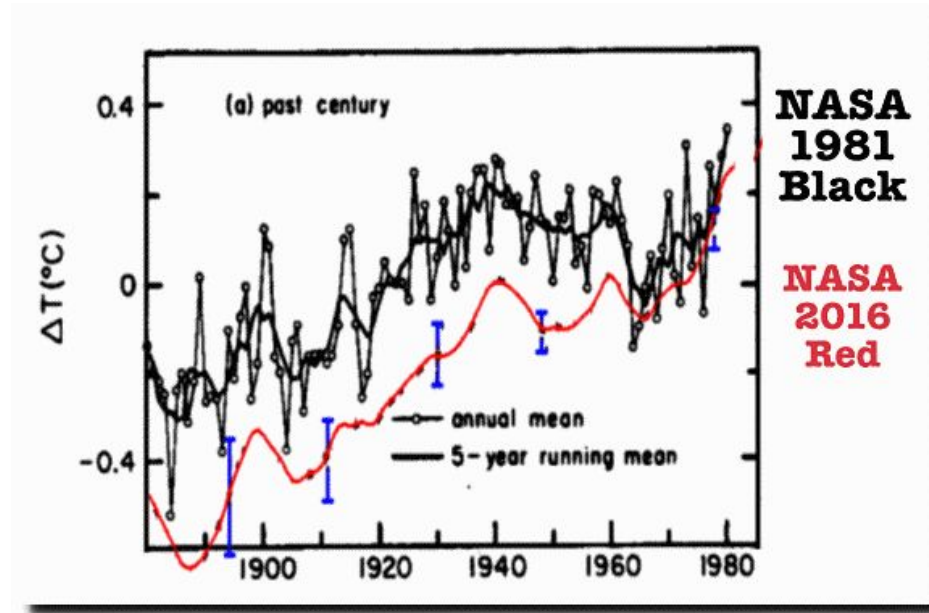


# NASA Temperature Graphs Do Not Match The Historical Record. Why Not?





# NASA Used To Show 1940 To 1970's Cooling But Has Recently Removed It



# Climate Scientists Discussed Ways To Make The 1940's Warmth Disappear

*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](mailto: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".*

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>

<x-flowed>  
Phil,

Here are some speculations on correcting SSTs to partly explain the 1940s warming blip.

If you look at the attached plot you will see that the land also shows the 1940s blip (as I'm sure you know).

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.

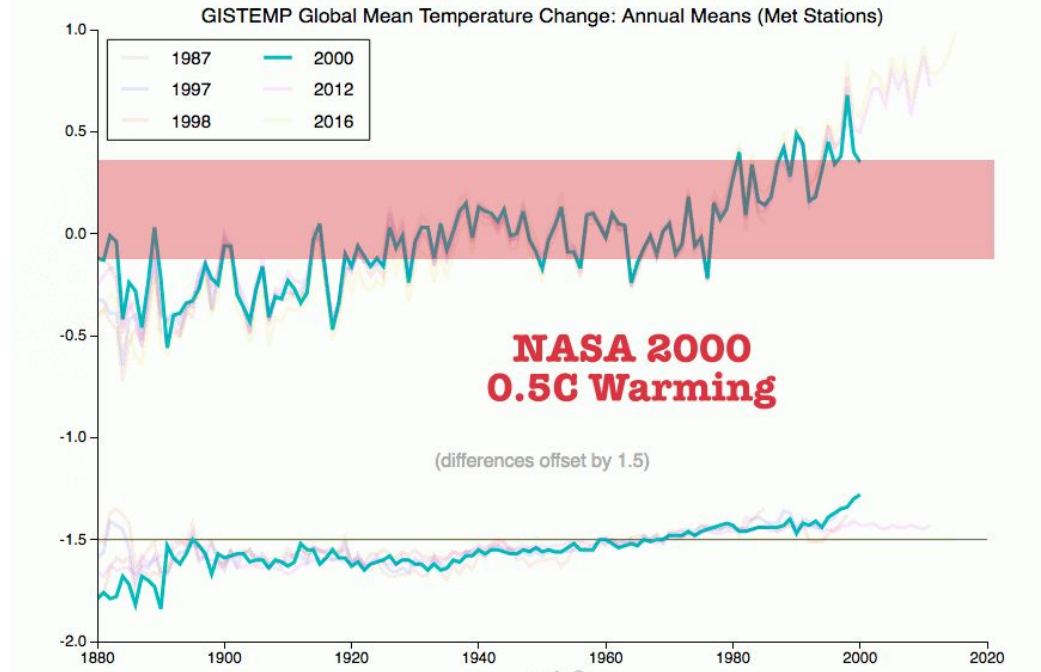
I've chosen 0.15 here deliberately. This still leaves an ocean blip, and i think one needs to have some form of ocean blip to explain the land blip (via either some common forcing, or ocean forcing land, or vice versa, or all of these). When you look at other blips, the land blips are 1.5 to 2 times (roughly) the ocean blips -- higher sensitivity plus thermal inertia effects. My 0.15 adjustment leaves things consistent with this, so you can see where I am coming from.

Removing ENSO does not affect this.

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

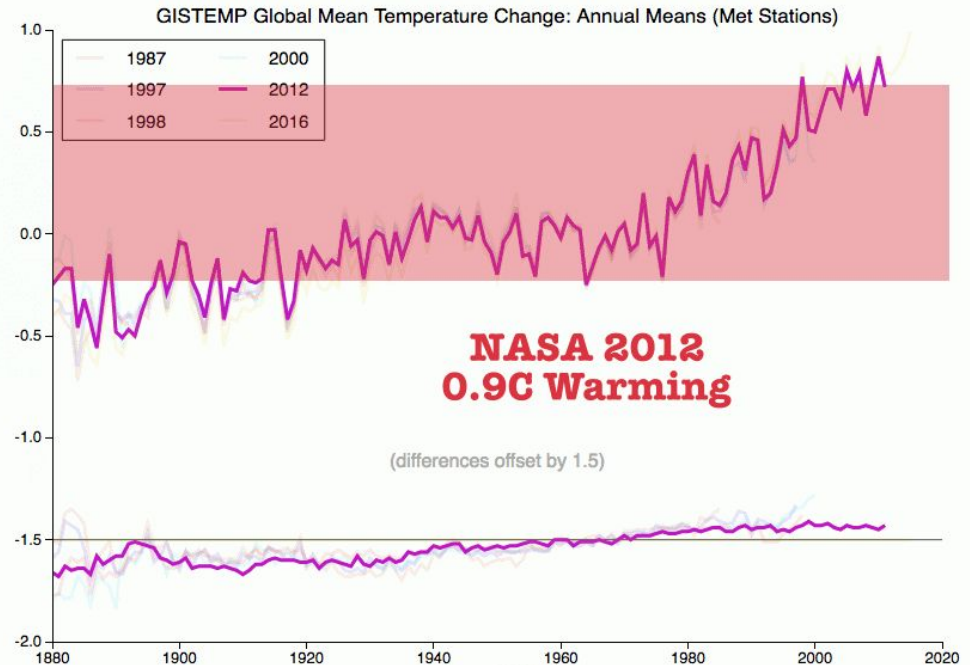
# NASA Temperature Graphs Are Constantly Being Altered

In 2000, NASA reported a total of 0.5C warming



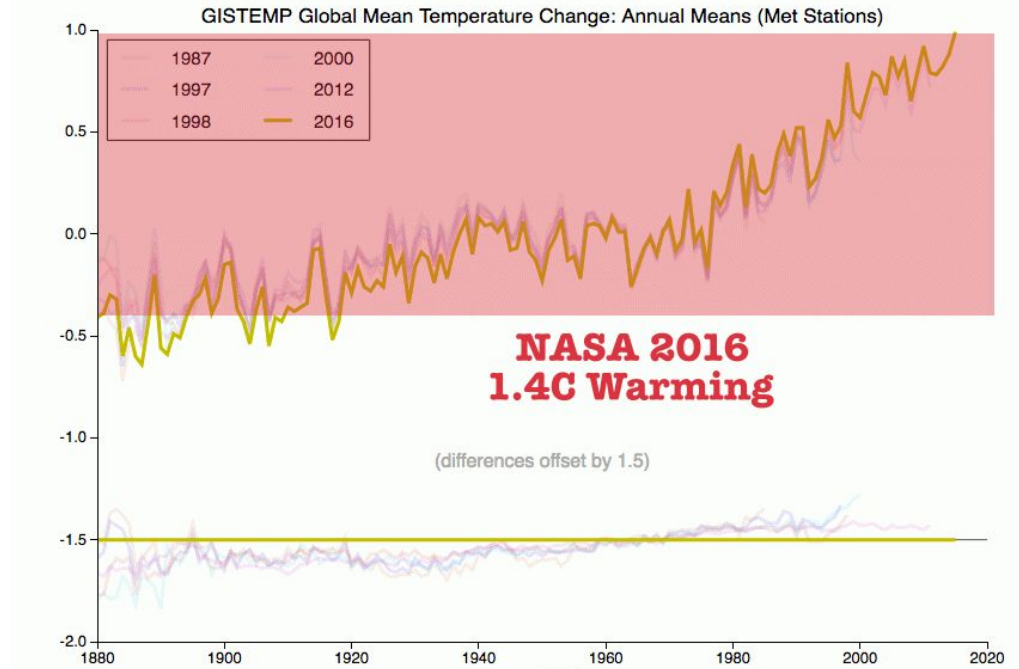
# NASA Temperature Graphs Are Constantly Being Altered

In 2012, NASA reported a total of 0.9C warming



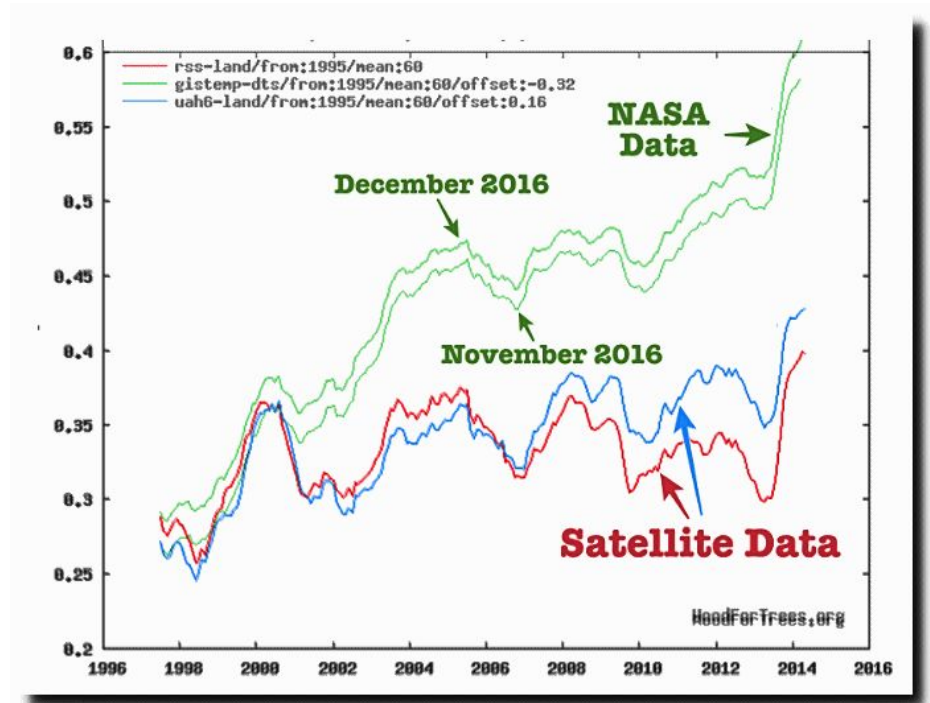
# NASA Temperature Graphs Are Constantly Being Altered

NASA now shows a total of 1.4C warming, up from 0.5C in 2000

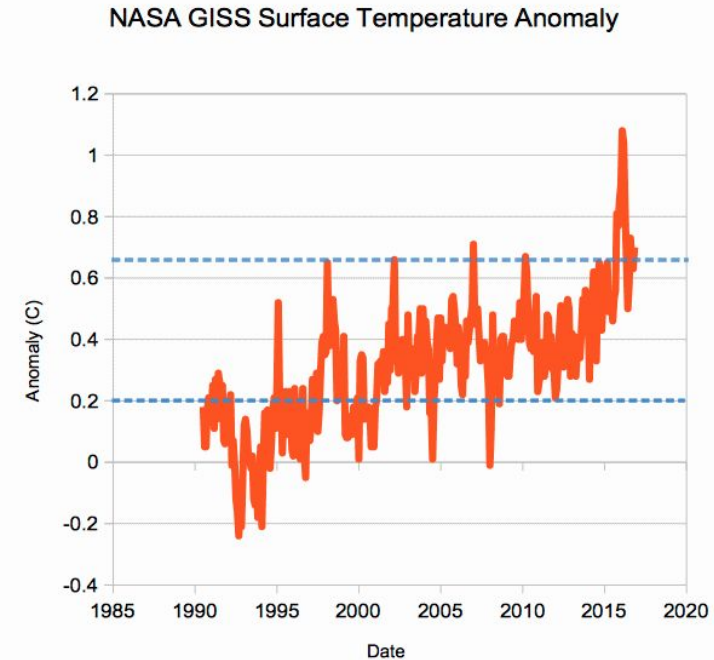
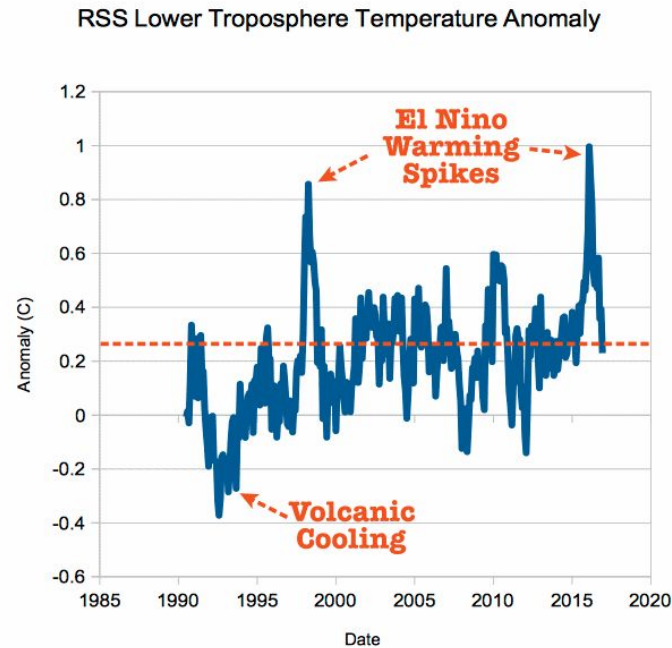


# Are The NASA Changes Justified?

NASA nearly tripled global land surface warming from 2000 to 2016, during a time when satellites showed little or no warming over land.

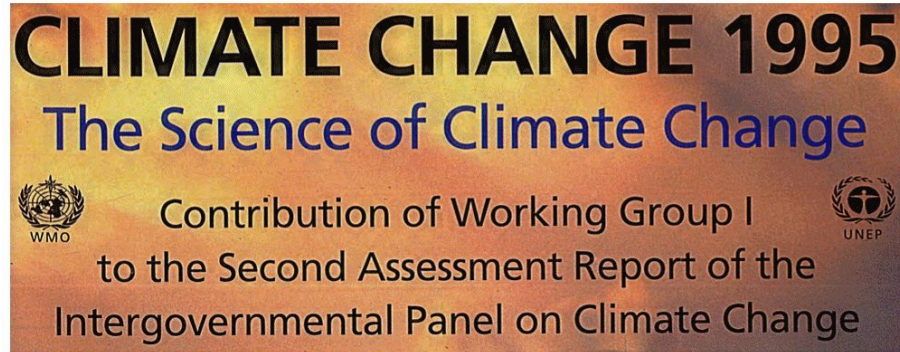


# Satellites Show Very Little Warming Over The Past 25 Years



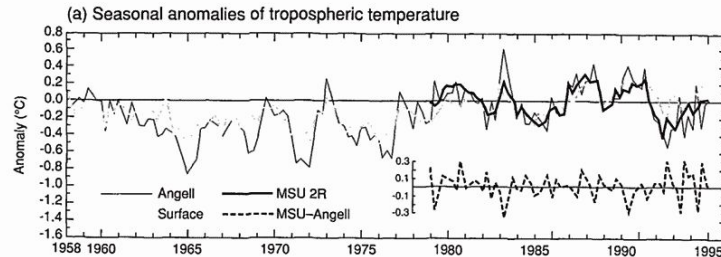


# The 1995 UN IPCC Report Showed No Net Tropospheric Warming From 1958 To 1993



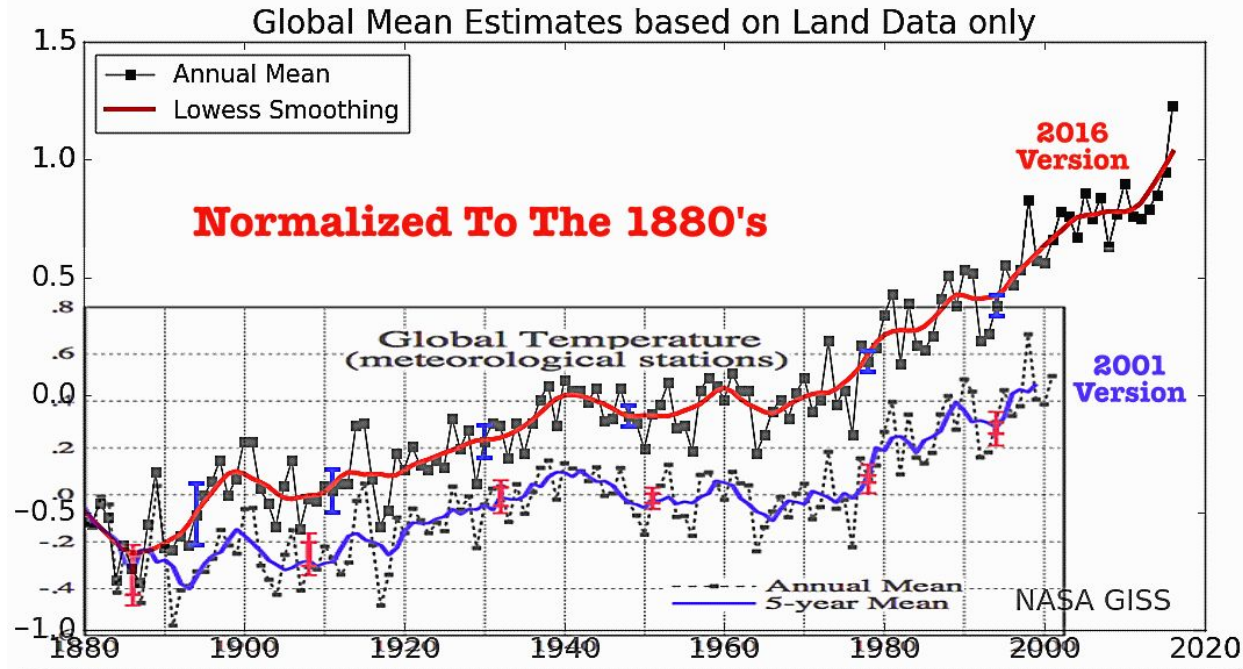
148

*Observed Climate Variability and Change*





# Where Does NASA Temperature Data Come From, And Why Does It Change?



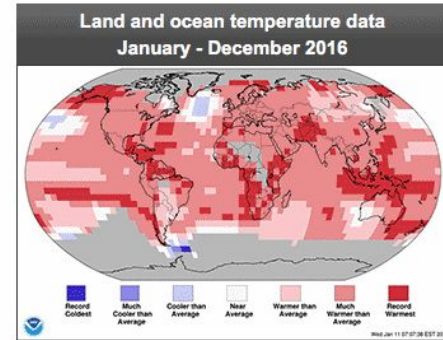
# NASA Data Comes From NOAA

## Claims Of Data Independence Are Incorrect

*Gavin Schmidt, director of the NASA Goddard Institute for Space Studies, said the endangerment finding took years to craft and can withstand a legal assault. Speaking generally about NOAA's data, he noted that it has been replicated by many other scientific institutions.*

Any efforts to poke holes in NOAA's research could have potential downwind repercussions. The agency's scientific findings contributed to U.S. EPA's endangerment finding of 2009, which laid the foundation for widespread carbon regulations by determining that greenhouse gases threaten human health and welfare. If questions are raised about the accuracy of NOAA's science, that might fuel calls by some conservatives to review the government's underlying justification for cutting carbon at power plants, in cars and at other sources.

But Gavin Schmidt, director of the NASA Goddard Institute for Space Studies, said the endangerment finding took years to craft and can withstand a legal assault. Speaking generally about NOAA's data, he noted that it has been replicated by many other scientific institutions.



[+]  
This January-to-December map of temperature anomalies shows that higher-than-average temperatures occurred across the vast majority of the globe during 2016, combining to bring overall record warmth for 2016. Climate change skeptics have called these data into question. Graphic courtesy of the National Oceanic and Atmospheric Administration.

# NASA Data Comes From NOAA

## Claims Of Data Independence Are Incorrect

When confronted by Australian Senator Malcolm Roberts about highly altered NASA temperature graphs, Gavin Schmidt stated unequivocally that the source of the data was the NOAA GHCN dataset.

National Aeronautics and Space Administration  
Goddard Space Flight Center  
Goddard Institute for Space Studies  
2880 Broadway  
New York, NY 10025



Dr. Gavin A. Schmidt, Director

November 18, 2016

Mr. Malcolm Roberts,

Thank you for your letter of the 14th November requesting information about the NASA GISTEMP analysis of global surface temperature history. Much of what you ask for is available directly from our website:

<http://data.giss.nasa.gov/gistemp>

and, in particular, from the FAQ which is available here:

<http://data.giss.nasa.gov/gistemp/faq>

Links there will lead you to the entirety of the raw data we use, all of which is public domain, along with our analysis code, which is also public.

However, you appear to hold a number of misconceptions which I am happy to clarify at this time. Firstly, in the graphs you show the data is quite clearly (and correctly) labelled as originating from GHCN. For your information, GHCN stands for the Global Historical Climatology Network and is a project of the NOAA National Center for Environmental Information (NCEI):

# Ross McKittrick Showed That All Of Major Temperature Data Sets Rely “Almost Exclusively” On NOAA

## **2.4. Conclusion re. dependence on GHCN**

All three major gridded global temperature anomaly products rely exclusively or nearly exclusively on the GHCN archive. Several conclusions follow.

- They are not independent as regards their input data.
- Only if their data processing methods are fundamentally independent can the three series be considered to have any independence at all. Section 4 will show that the data processing methods do not appear to change the end results by much, given the input data.
- Problems with GHCN, such as sampling discontinuities and contamination from urbanization and other forms of land use change, will therefore affect CRU, GISS, and NOAA. Decreasing quality of GHCN data over time implies decreasing quality of CRU, GISS and NOAA data products, and increased reliance on estimated adjustments to rectify climate observations.

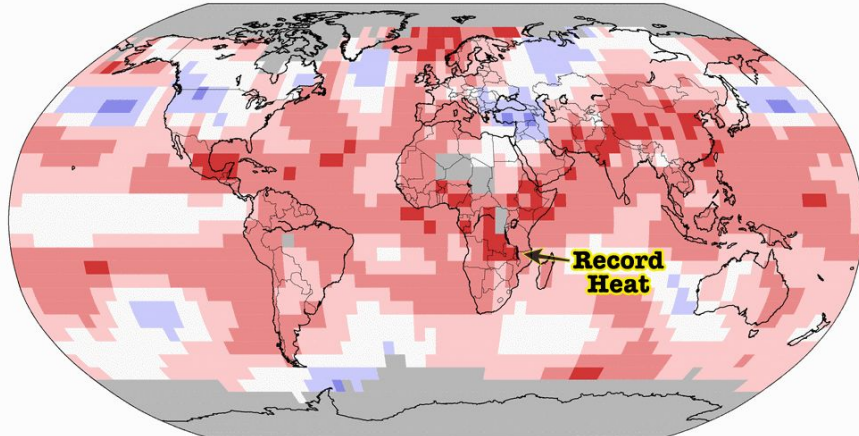


# NOAA Shows Record Heat At Places Where They Have No Thermometers

## Land & Ocean Temperature Percentiles Dec 2016

NOAA's National Centers for Environmental Information

Data Source: GHCN-M version 3.3.0 & ERSST version 4.0.0

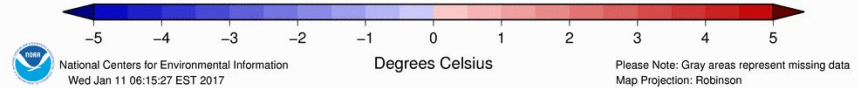
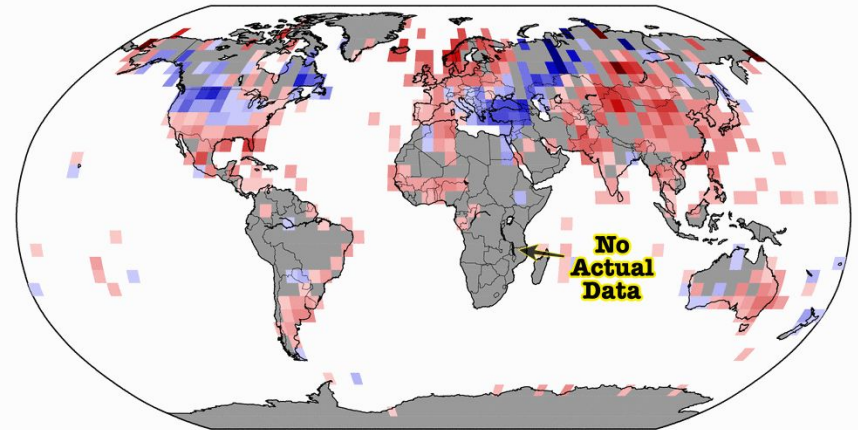


Wed Jan 11 07:07:38 EST 2017

## Land-Only Temperature Departure from Average Dec 2016

(with respect to a 1981–2010 base period)

Data Source: GHCNM v3.3.0

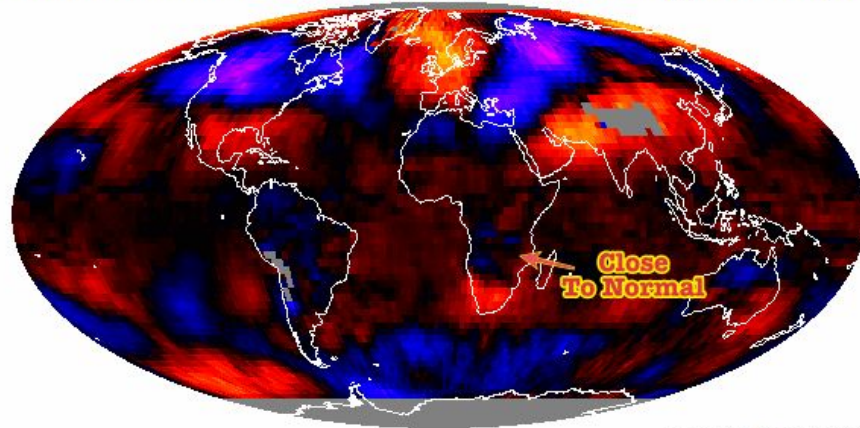


National Centers for Environmental Information  
Wed Jan 11 06:15:27 EST 2017

# NOAA Shows Record Heat At Places Where They Have No Thermometers

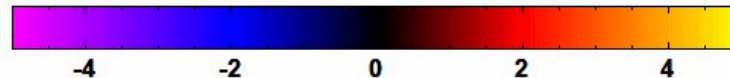
MSU/AMSU Channel TLT Brightness Temperature Anomaly, December, 2016

Satellites show the area of NOAA's "record heat" as being close to normal temperature.

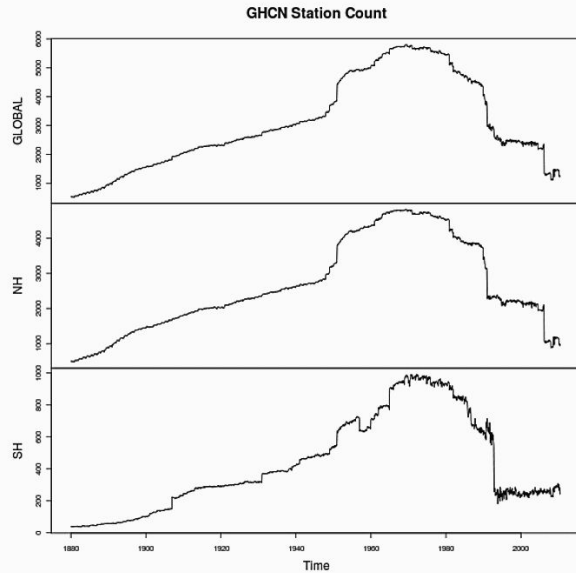


Remote Sensing Systems  
[www.remss.com](http://www.remss.com)

Brightness Temperature Anomaly (K)

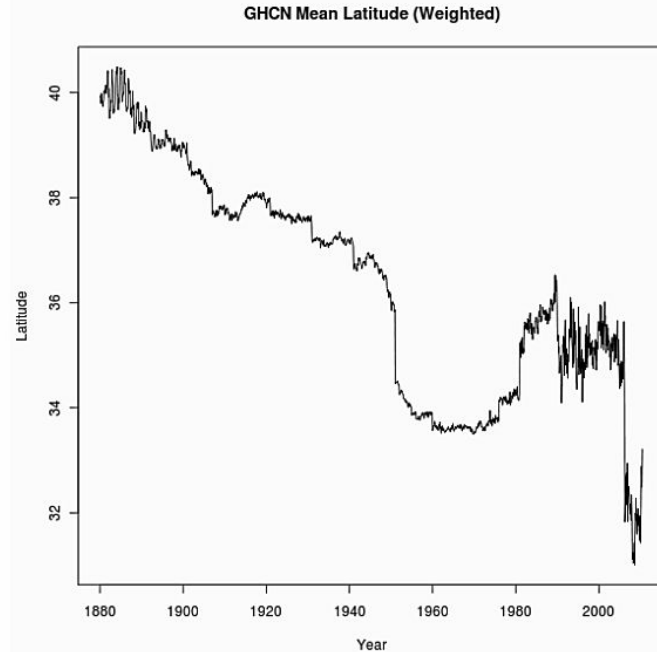


# NOAA Is Losing Thermometers - And They Are Shifting Closer To The Equator

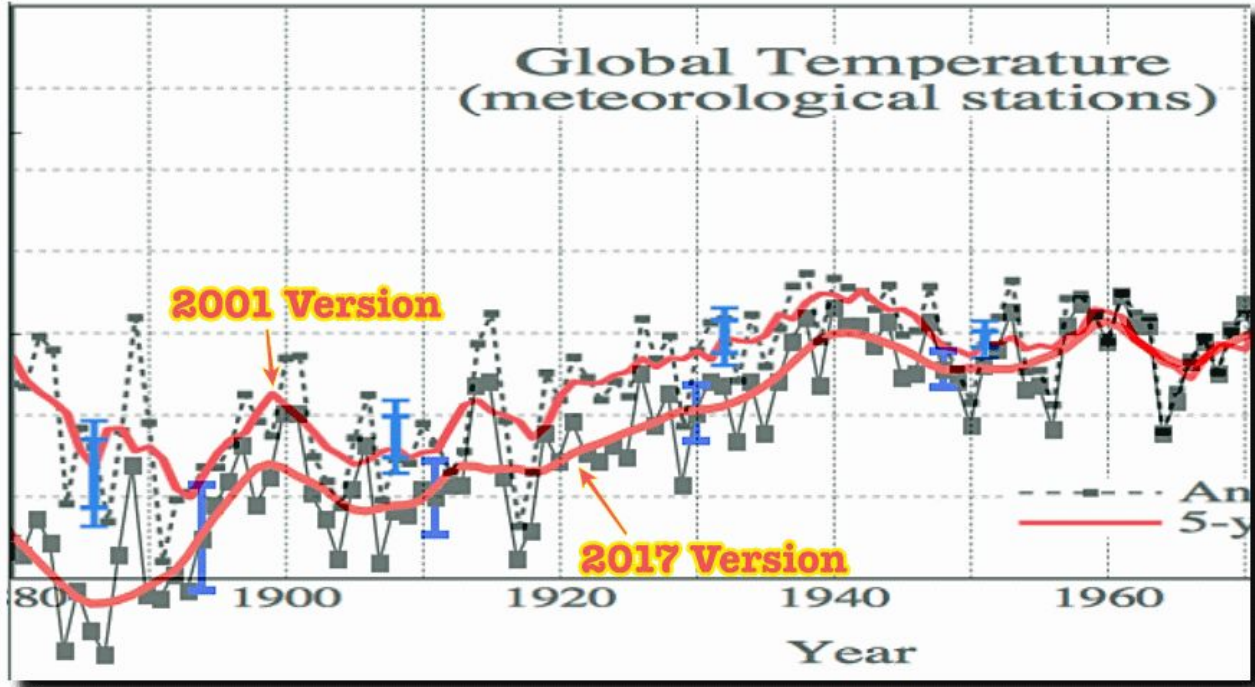


**Figure 1-3:** GHCN Station Count. Top: global; middle: NH; bottom: SH.

Data source: GHCN. See Appendix for calculation details.

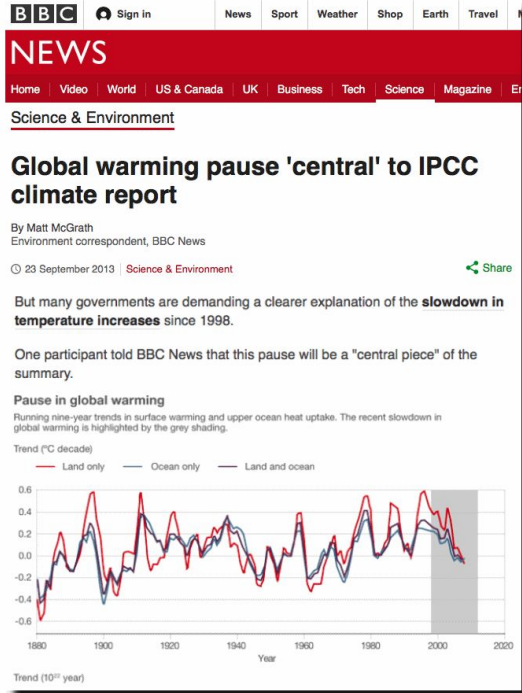


# NASA Is Altering Data Outside Of Their Own Blue Error Bars





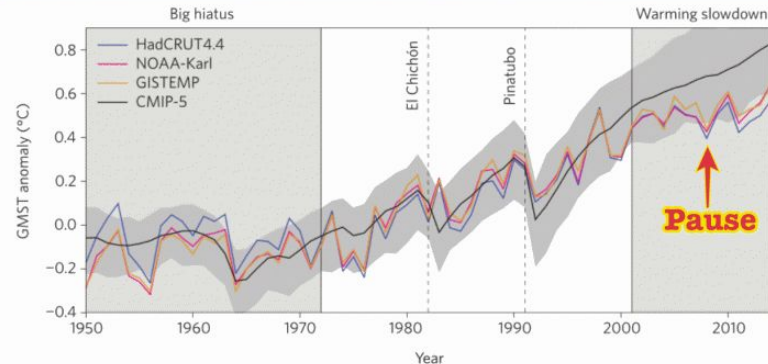
# Until A Few Months Ago, The Post-2000 Global Warming Pause Was Central To Climate Science



## Making sense of the early-2000s warming slowdown

John C. Fyfe, Gerald A. Meehl, Matthew H. England, Michael E. Mann, Benjamin D. Santer, Gregory M. Flato, Ed Hawkins, Nathan P. Gillett, Shang-Ping Xie, Yu Kosaka and Neil C. Swart

It has been claimed that the early-2000s global warming slowdown or hiatus, characterized by a reduced rate of global surface warming, has been overstated, lacks sound scientific basis, or is unsupported by observations. The evidence presented here contradicts these claims.



# NOAA Made The Post-2000 Pause Disappear Right Before The Paris Climate Conference

NOAA challenged the global warming 'pause.' Now ... - Washington Post

<https://www.washingtonpost.com/.../noaa-challenged-the-global-warming-pause-now-ne...>

Jan 4, 2017 - The debate over the so-called global warming 'pause' just got reopened.

Study: Global Warming Hiatus Attributed to Redistribution | National ...

<https://www.ncdc.noaa.gov/news/study-global-warming-hiatus-attributed-redistribution> ▼

Rather than experiencing a "global warming hiatus" from 1998 to 2013, ... Hiatus implies a pause in warming conditions, when in fact, the heat energy ... The authors, led by NOAA/NCEI's Thomas Karl, concluded that the rate of warming in the ...

Forget About Global Warming Pause — It Doesn't Exist - Live Science

[www.livescience.com](http://www.livescience.com) › Planet Earth ▼

Jan 4, 2017 - The climate change hiatus isn't real, and the oceans are warming at ... "Our results mean that essentially NOAA got it right, that they were not ...



**RealClimate**

*Climate science from climate scientists*

## There was no pause

Filed under: Climate Science Instrumental Record Oceans RC Forum — rasmus @ 22 January 2017

I think that the idea of a pause in the global warming has been a red herring ever since it was suggested, and we have commented on this several times here on RC: On how [data gaps](#) in some regions (eg. the Arctic) may explain an [underestimation](#) of the recent warming. We have also explained how natural oscillations may give the impression of a [faux pause](#). Now, when we know the [the global mean temperature for 2016](#), it's even more obvious.

[Easterling and Wehner \(2009\)](#) explained that it is not surprising to see some brief periods with an apparent decrease in a temperature record that increases in jumps and spurts, and [Foster and Rahmsdorf \(2012\)](#) showed in a later paper how temperature data from the most important observations show consistent global warming trends when known short-term influences such as El Niño Southern oscillation (ENSO), volcanic aerosols and solar variability are accounted for.

A recent paper by [Hausfather et al. \(2017\)](#) adds little new to our understanding, although it confirms that there has not been a recent "hiatus" in the global warming. However, if there are doubts about a physical condition, then further scientific research is our best option for establishing the facts. This is exactly what this recent study did.

# On Sunday, One Of NOAA's Top People Blew The Whistle On The "Pause Busting" Paper

*"Data changed to make the sea appear warmer"*

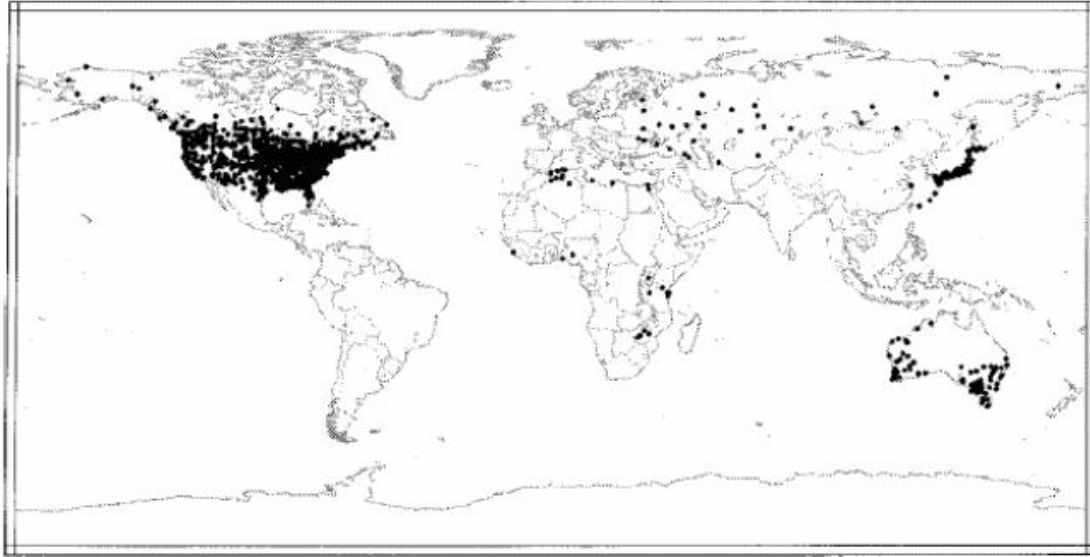
*"They played fast and loose with the figures"*

*"A blatant attempt to intensify paper's impact"*

*- John Bates*

*NOAA Principal Scientist*

# The US Has The Only Viable Long-Term Temperature Record In The World



Bottom panel: locations with a max-min temperature record available in 1900.

Source: Peterson and Vose (1997),  
Figures 3 & 4.

# In 1989, NOAA Reported No Change In US Temperatures Since 1895

In 1989, the head of NOAA's National Climatic Data Center reported no US warming since 1895

**The New York Times** **U.S.**

WORLD	U.S.	N.Y. / REGION	BUSINESS	TECHNOLOGY	SCIENCE	HEALTH	SPORTS	OPINION
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

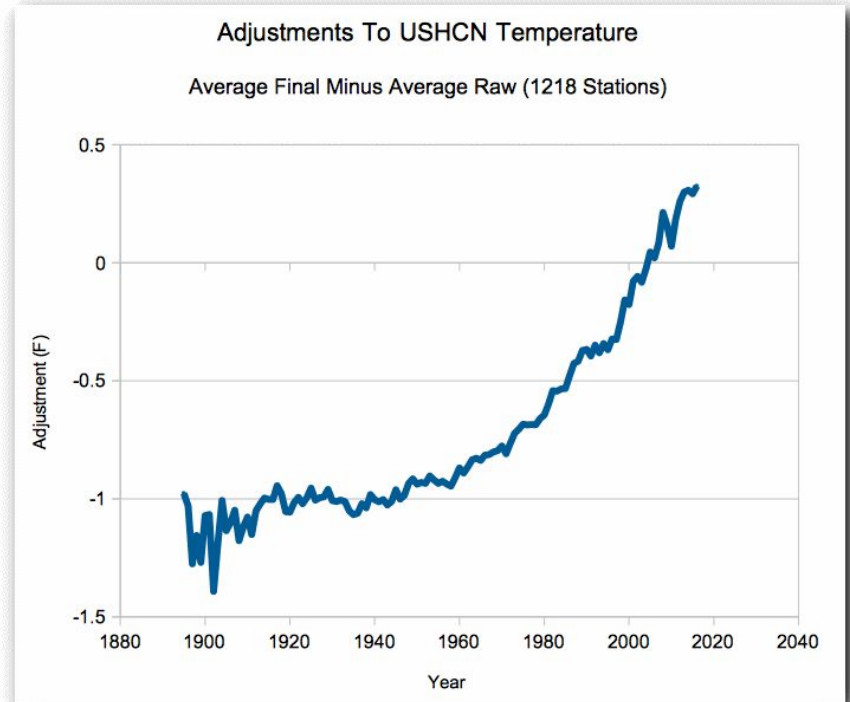
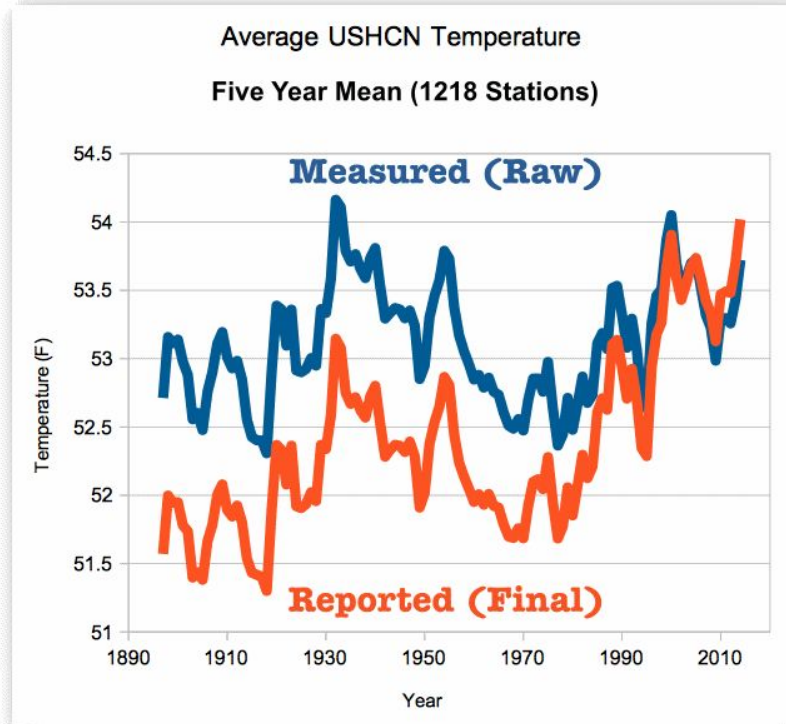
**WASHINGTON, Jan. 25—** After examining climate data extending back nearly 100 years, a team of Government scientists has concluded that there has been no significant change in average temperatures or rainfall in the United States over that entire period.

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.

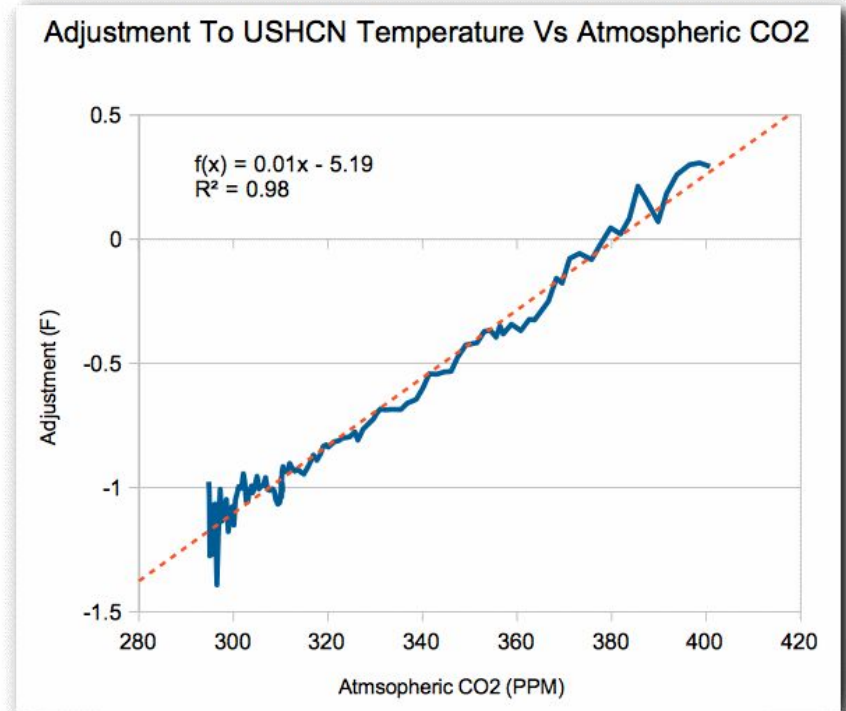
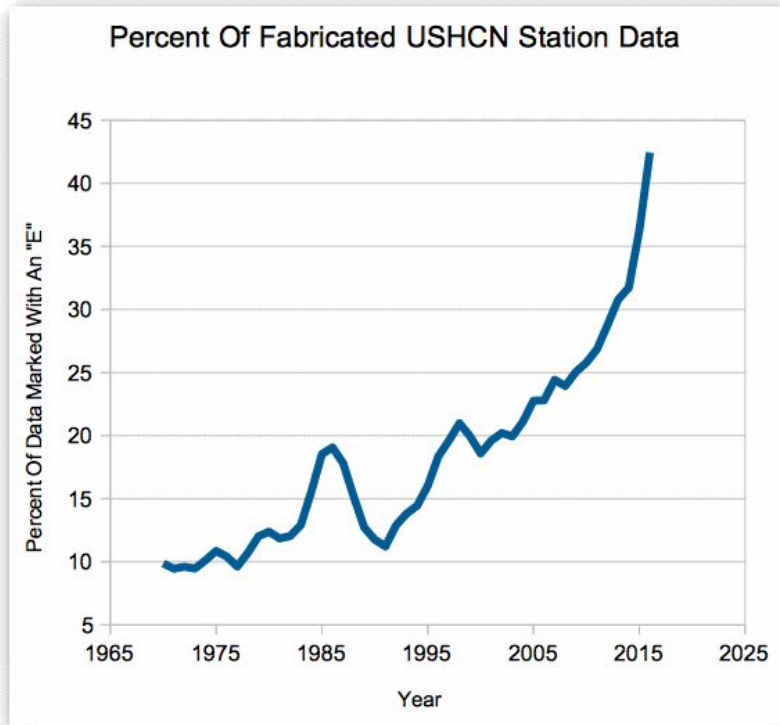
The study, made by scientists for the National Oceanic and Atmospheric Administration was published in the current issue of Geophysical Research Letters. It is based on temperature and precipitation readings taken at weather stations around the country from 1895 to 1987.



# US Temperatures Are Being Massively Altered By NOAA



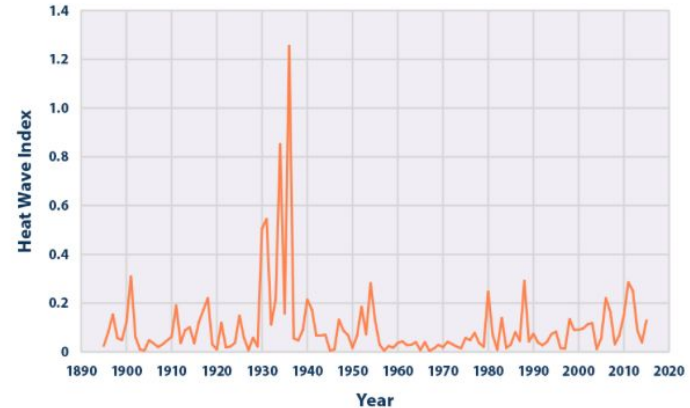
# US Temperatures Are Being Massively Altered By NOAA



# US Summers Are Getting Cooler

The EPA web site shows that the US had massive heatwaves in the 1930's, which have never been matched again

Figure 1. U.S. Annual Heat Wave Index, 1895–2015



This figure shows the annual values of the U.S. Heat Wave Index from 1895 to 2015. These data cover the contiguous 48 states. Interpretation: An index value of 0.2 (for example) could mean that 20 percent of the country experienced one heat wave, 10 percent of the country experienced two heat waves, or some other combination of frequency and area resulted in this value.

Data source: Kunkel, 2016<sup>6</sup>

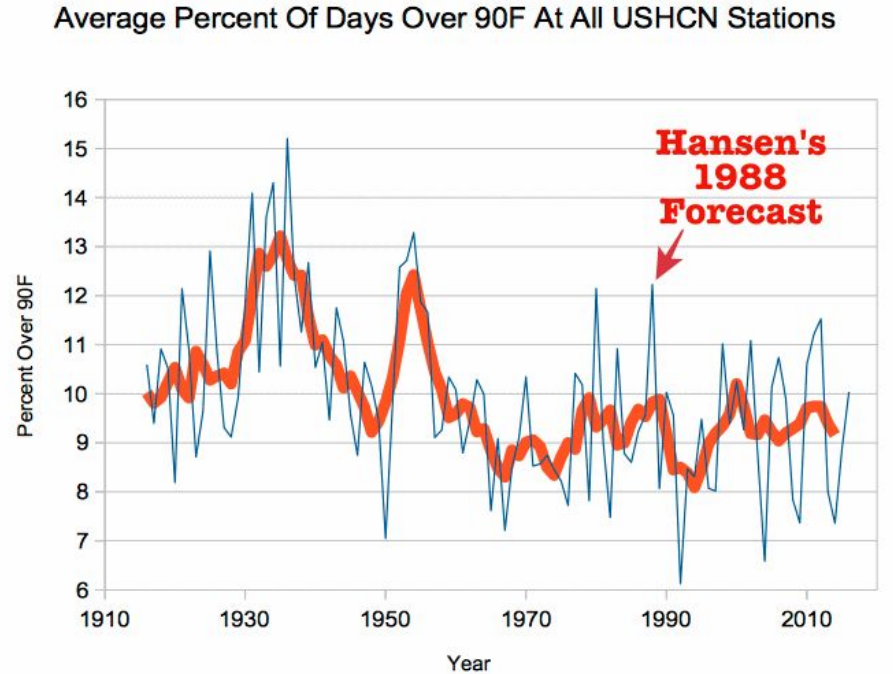
Web update: August 2016



# US Summers Are Getting Cooler

During the hot summer of 1988, NASA's James Hansen predicted to Congress that heatwaves would get much worse.

He was wrong.



# How Accurate Is “Climate Change Science?”



LATEST STORIES

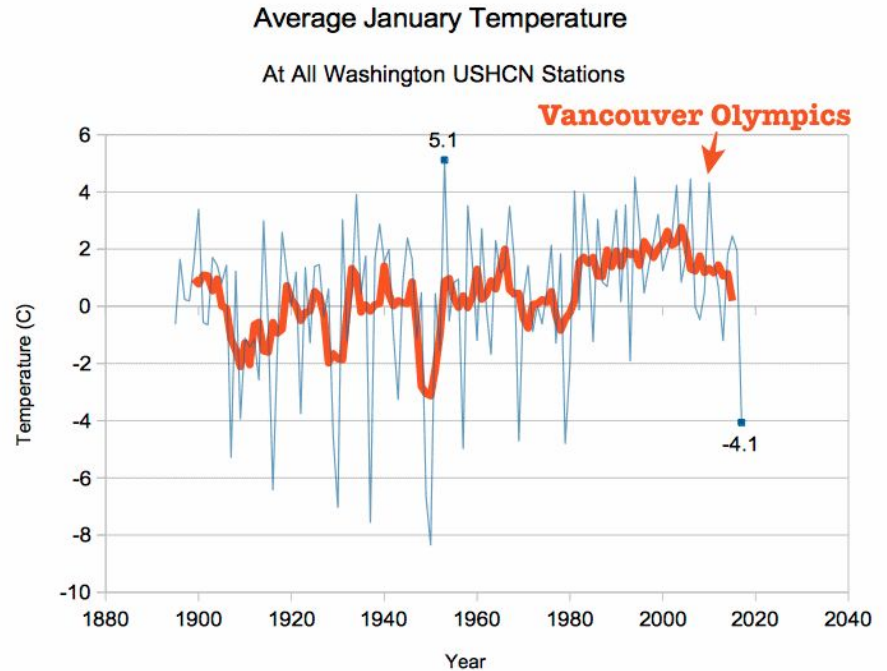
PHOTO OF THE DAY

## Climate Change Threatens the Future of the Winter Olympics

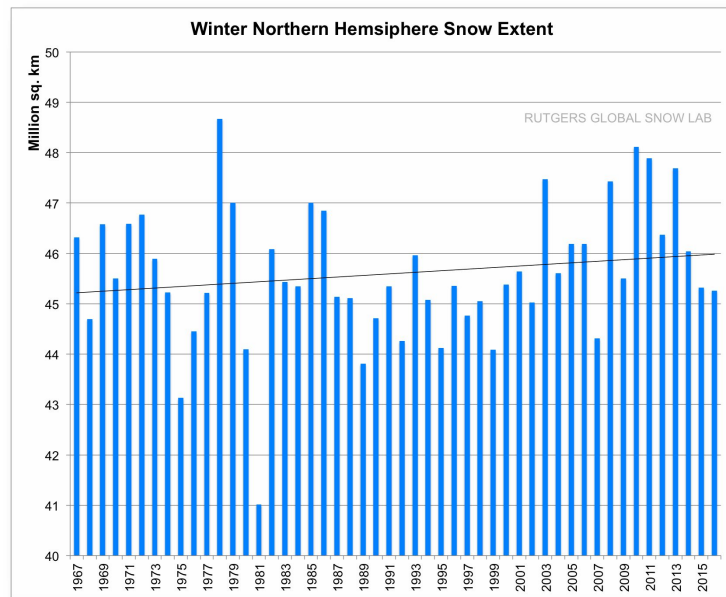
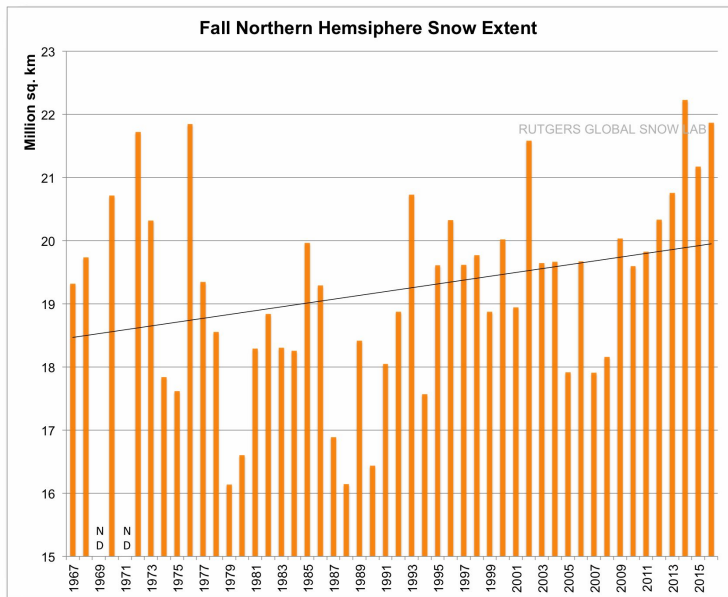
Many of the event's recent venues will soon be too warm for snow.

By **Ben Jervey**, for [National Geographic](#)

PUBLISHED FEBRUARY 22, 2014



# Autumn/Winter Snow Cover Is Increasing Due To Arctic Air Pushing Further South



# 1871 : Imaginary Changes Of Climate

*every season is sure to be "extraordinary," almost every month one of the driest or wettest, or windiest, coldest or hottest, ever known. Much observation, which ought to correct a tendency to exaggerate, seems in some minds to have rather a tendency to increase it.*

## THE BRISBANE COURIER, JANUARY 10, 1871.

### IMAGINARY CHANGES OF CLIMATE.

(Pall Mall Gazette.)

THREE consecutive years of drought, while they have stimulated the inventive resources of practical agriculturists, have had the natural effect of calling forth a plentiful crop of speculation from weather prophets, and projectors, and half-instructed meteorologists, and all the philosophic tribe of Laputa in general, to whom the periodical press now affords such fatal facilities. We have often noticed that in the tabular statements of those compilers of weather records who write to the *Times*, useful and welcome as their communications are, every season is sure to be "extraordinary," almost every month one of the driest or wettest, or windiest, coldest or hottest, ever known. Much observation, which ought to correct a tendency to exaggerate, seems in some minds to have rather a tendency to increase it. And many

# 1907 : Abuse Of Meteorological Data

US Weather Bureau, 1907

The misuse of meteorological data is “a crime against the community.”

It is up to the independent press to repress all (climate) cheats and hoaxes

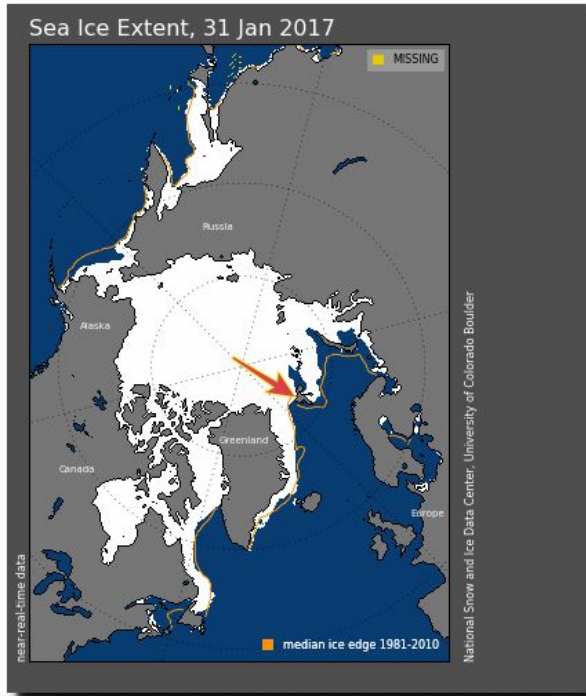
## MONTHLY WEATHER REVIEW.

JANUARY, 1907.

### IS NOT HONESTY THE WISEST POLICY ?

It is wrong to mutilate or suppress the record of an observation of a phenomenon of nature, but it is also wrong to make a bad use of the record. In fact, it is the misuse of meteorological data, not the observing or publishing, that constitutes a crime against the community. Observation and careful research are to be encouraged as useful. Misrepresentations are to be avoided as harmful. The “Independent Press” as the “Voice of the People” should be not only “Vox Populi” but “Vox Dei”, repressing all cheats and hoaxes, defending the truth and the best interests of the whole nation as against the self-interest of a few.—C. A.

# More Ice In The Eastern Arctic Than In 1922?



NOVEMBER, 1922.

MONTHLY WEATHER REVIEW.

## THE CHANGING ARCTIC.

By GEORGE NICOLAS IFFT.

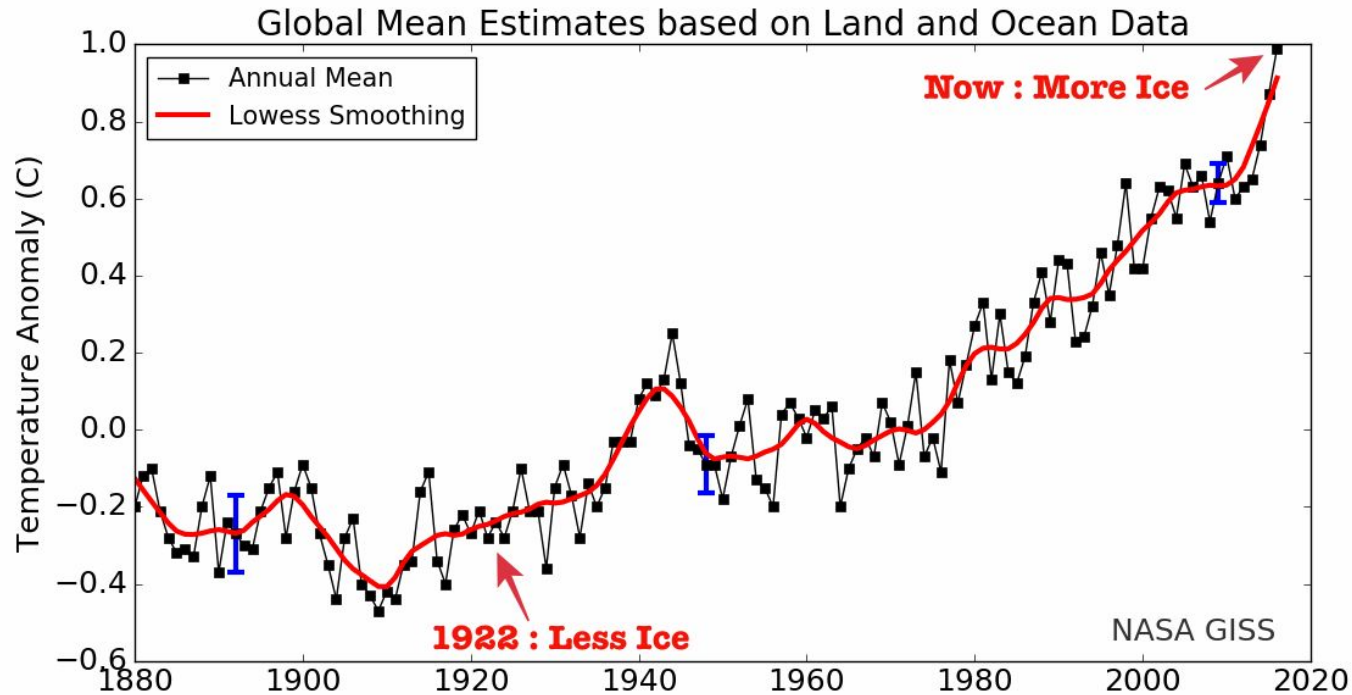
[Under date of October 10, 1922, the American consul at Bergen, Norway, submitted the following report to the State Department, Washington, D. C.]

The Arctic seems to be warming up. Reports from fishermen, seal hunters, and explorers who sail the seas about Spitzbergen and the eastern Arctic, all point to a radical change in climatic conditions, and hitherto unheard-of high temperatures in that part of the earth's surface.

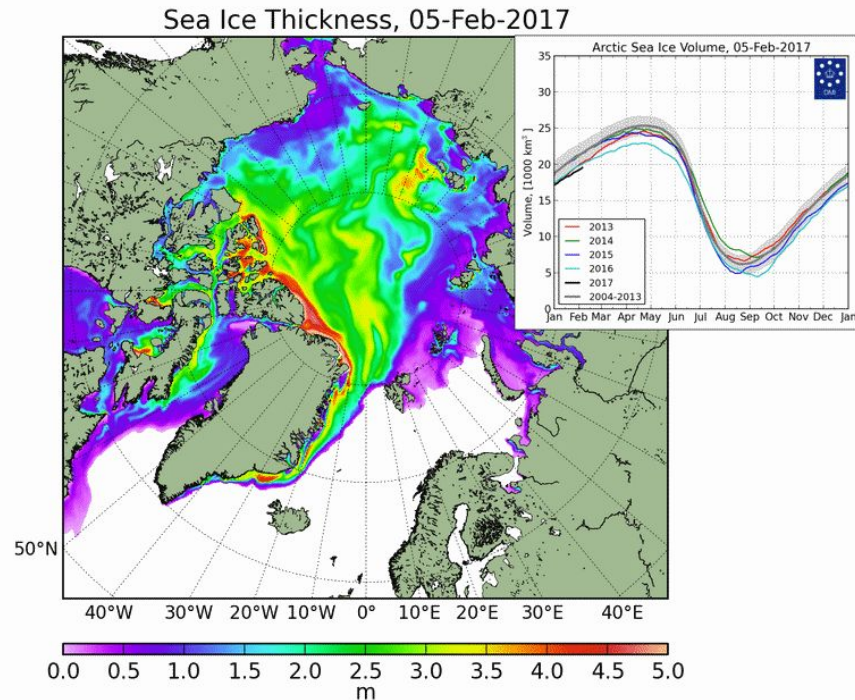
There were few seal in Spitzbergen waters this year, the catch being far under the average. This, however, did not surprise the captain. He pointed out that formerly the waters about Spitzbergen held an even summer temperature of about 3° Celsius; this year recorded temperatures up to 15°, and last winter the ocean did not freeze over even on the north coast of Spitzbergen.



# More Ice In The Eastern Arctic Than In 1922



# Arctic Sea Ice Is Currently 2-3 Meters Thick





In 1940, Arctic Sea Ice Was Only Two Meters Thick.

THE TOWNSVILLE DAILY BULLETIN,  
FRIDAY, FEBRUARY 23, 1940.

## THE NORTH POLE.

### Is it Getting Warmer.

(From a Special Correspondent.  
By Air Mail.)

BUNDABERG, February 22.

Is it getting warmer at the North Pole? From soundings and meteorological tests taken by the Soviet explorers who returned this week to Murmansk, Russia's sole ice-free Arctic port, it was concluded that near Polar temperatures are on an average six degrees higher than those registered by Nansen 40 years ago. Ice measurements were on an average only 6½ feet against from 9½ to 13 feet.

In 1958, Arctic Sea Ice Was Only Two Meters Thick.

## **The New York Times**

**SUNDAY, OCTOBER 19, 1958**

### **The Changing Face of the Arctic**

Although the idea that a solid ice sheet covers the central Arctic has lingered stubbornly in the popular fancy, the northern cap of ice worn by our planet is actually a thin crust—on the whole, only about seven feet thick—over an ocean two miles deep in places.

# Climate Models Are Incorrect

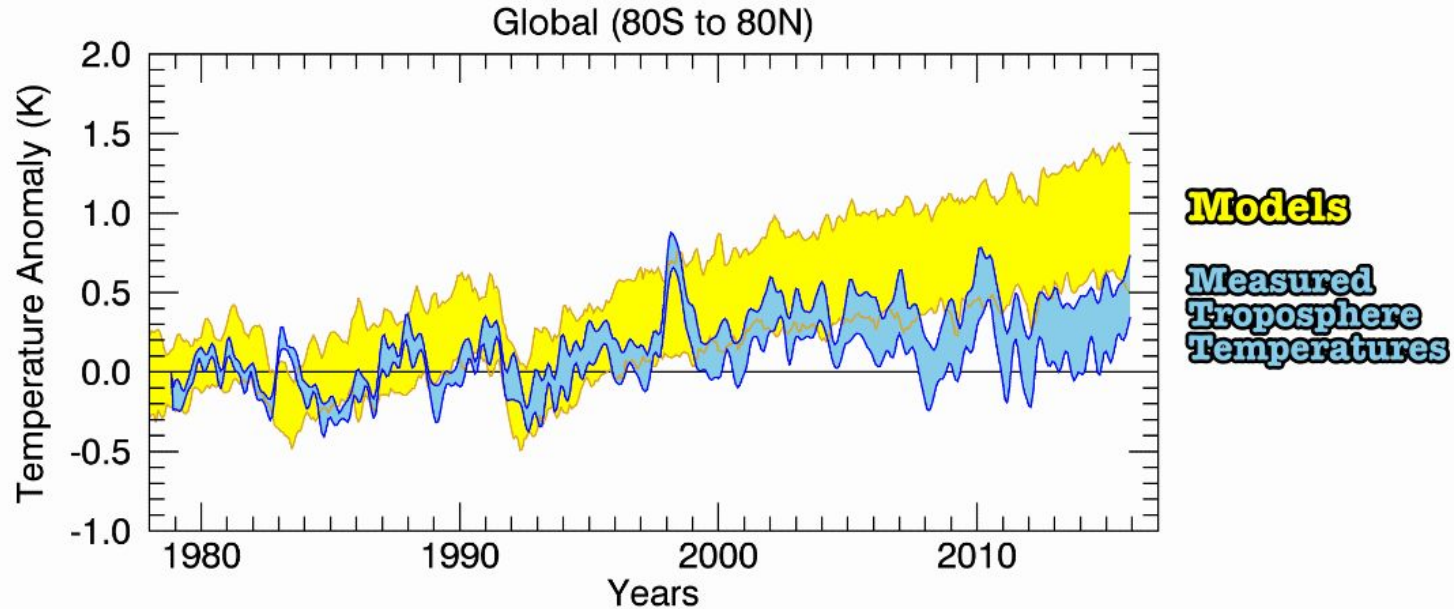


Fig. 1. Global (80S to 80N) Mean TLT Anomaly plotted as a function of time. The blue band is the 5% to 95% envelope for the RSS V3.3 MSU/AMSU Temperature uncertainty ensemble. The yellow band is the 5% to 95% range of output from CMIP-5 climate simulations. The mean value of each time series average from 1979-1984 is set to zero so the changes over time can be more easily seen. *Note that after 1998, the observations are likely to be below the simulated values, indicating that the simulation as a whole are predicting too much warming.*

# Climate Skeptic Harrison Schmitt Is The Only Scientist To Have Walked On The Moon

Harvard PhD In Geology

US Senator From New Mexico

“Schmitt's view on climate change diverges from the frequently reported scientific consensus, as he emphasizes natural over human factors as driving climate”

- Wikipedia



# Many People Who Actually Did Go To The Moon Want NASA To Stop Their Climate Propaganda

The group, which includes seven Apollo astronauts and two former directors of NASA's Johnson Space Center in Houston, are dismayed over the failure of NASA, and specifically the Goddard Institute For Space Studies (GISS), to make an objective assessment of all available scientific data on climate change.

## 49 Former NASA Scientists Send A Letter Disputing Climate Change



Gus Lubin 8+  
Apr. 11, 2012, 7:10 AM 90,577 152



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Some prominent voices at [NASA](#) are fed up with the agency's activist stance toward climate change.

The following letter asking the agency to move away from climate models and to limit its stance to what can be empirically proven, was sent by 49 former NASA scientists and astronauts.

The letter criticizes the Goddard Institute For Space Studies especially, where director Jim Hansen and climatologist Gavin Schmidt have been outspoken advocates for action.



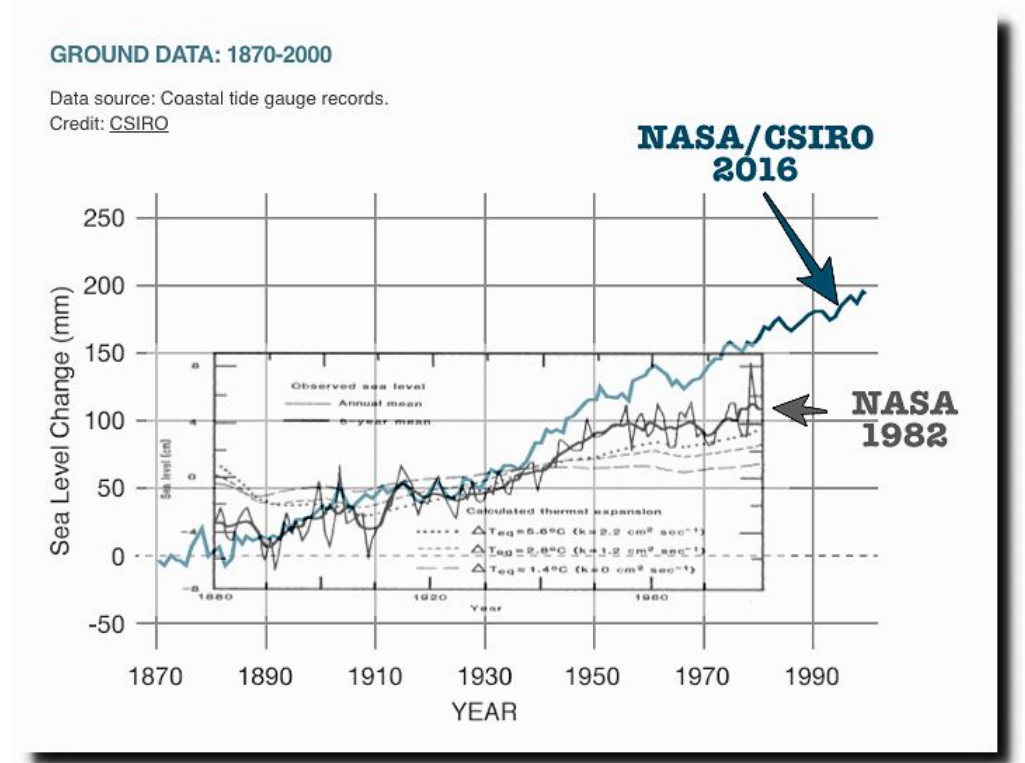
JJSchad on flickr

# Sea Level Data Is Also Being Massively Altered

In 1982, NASA showed sea level rising 1cm from 1955 to 1980

Now NASA shows 5cm sea level rise from 1955 to 1980

Adjustments are invariably made in the preferred direction of climate alarmism



# Sea Level Data Is Also Being Massively Altered

In 1963, the Guardian reported the post 1940 slowdown

NASA now shows this slowdown as an acceleration

THE GUARDIAN Saturday December 28 1963

## *Sea level rising less rapidly*

By JOHN MADDON, our Science Correspondent

Changes of sea level thought to be linked with the deterioration of climate which set in in 1940 have been detected in North America, and are reported in a recent issue of the journal "Science."

Two scientists from the Lamont Geological Observatory in New York have compared sea level records at nine stations on the eastern seaboard of the United States, and have decided that, since 1940, the sea level has been rising less quickly than in the first forty years of the century.

From the records now assembled, it appears that in the first part of this century sea level was rising at a rate of 0.7 feet in 50 years. Records kept since 1940 suggest that the increase of sea level is continuing, but at a smaller rate. This is roughly 0.4 feet in 50 years—60 per cent of the rate observed in the first part of the century.



# Science - Not Superstition

People have been blaming other people for climate change in Australia for over 170 years

*The Maitland Mercury*

WEDNESDAY, MARCH 11, 1846.

That great changes have taken place in the climate of Australia all testimonies satisfactorily prove. It is evident to any observer, at some period, the country has been subjected to the mighty action of heavy rains, and of sweeping, deluging floods. The mountains and hills are cut and furrowed into deep ravines; the parting ridges are at acute angles, and frequently washed bare of vegetable mould; and all so precipitous, that the waters are no sooner showered from the blessed heavens than they run off with rapidity and fury through the gullies into the recipient creeks, scarcely leaving a witness of their visit, either as running brook, clear spring, or stagnant pool, a few days, perhaps a few hours, after. The aborigines say that the climate has undergone this change since white-man came in country. "Old-hands" speak positively of creeks, constantly running streams, in their early days of trial, which have now been dry for several years.




# Who Are The Experts?

In 1997, Stanford University expert Paul Ehrlich said Australia's stance on greenhouse gases was criminal and would cause extreme weather.

In 1970, Ehrlich said the oceans would be dead and America would run out of food and water by 1980

**THE AGE**  
**TUESDAY 2 DECEMBER 1997**  
**Ecologist condemns Australia's 'moronic' greenhouse stance**  
A leading ecologist has condemned Australia's renegade position at the world climate change convention under way in Kyoto.  
**Professor Paul Ehrlich, of Stanford University in California, said yesterday that the Howard Government's hard-line stance against legally binding limits on greenhouse gas emissions was criminal and a gamble with the well-being of future generations.**  
**Professor Ehrlich criticised the Government's seeming reluctance to acknowledge the findings by 2500 experts that the "enhanced greenhouse effect" was real and could trigger extreme weather patterns and disasters.**

**Redlands**  
**Daily Facts**  
**REDLANDS, CALIFORNIA, TUESDAY, OCTOBER 6, 1970**  
**Dr. Ehrlich, outspoken ecologist, to speak**  
"Giving aspirins to cancer victims" is what Dr. Paul R. Ehrlich thinks of current proposals for pollution control. No real action has been taken to save the environment, he maintains. And it does need saving. Ehrlich predicts that:  
The oceans will be as dead as Lake Erie in less than a decade.  
The DDT in our fatty tissues has reached levels high enough to cause brain damage and cirrhosis of the liver.  
America will be subject to water rationing by 1974 and food rationing by 1980.  
University of California Extension, Riverside and World Affairs Council of Inland Southern California will present the outspoken author of "The Population Bomb" and the hero of the ecology movement tomorrow at 8 p.m. He will speak in the gymnasium on the UCR campus.  
  
**DR. PAUL EHRLICH**

# Who Are The Experts?

In 1969, Stanford University expert Paul Ehrlich proposed poisoning Africans to solve environmental problems

In 1990, Ehrlich said we had to get rid of the rich people.

## A STERILITY DRUG IN FOOD IS HINTED

Biologist Stresses Need to  
Curb Population Growth

By **GLADWIN HILL**  
Special to The New York Times

SAN FRANCISCO, Nov. 24  
—A possibility that the Government might have to put sterility drugs in reservoirs and in food shipped to foreign countries to limit human multiplication was envisioned today by a leading crusader on the population problem.

The crusader, Dr. Paul Ehrlich of Stanford University, among a number of commentators who called attention to the "population crisis" as the United States Commission for Unesco opened its 13th national conference here today.

**The New York Times**

Published: November 25, 1969  
Copyright © The New York Times

## The Burlington Free Press

April 6, 1990

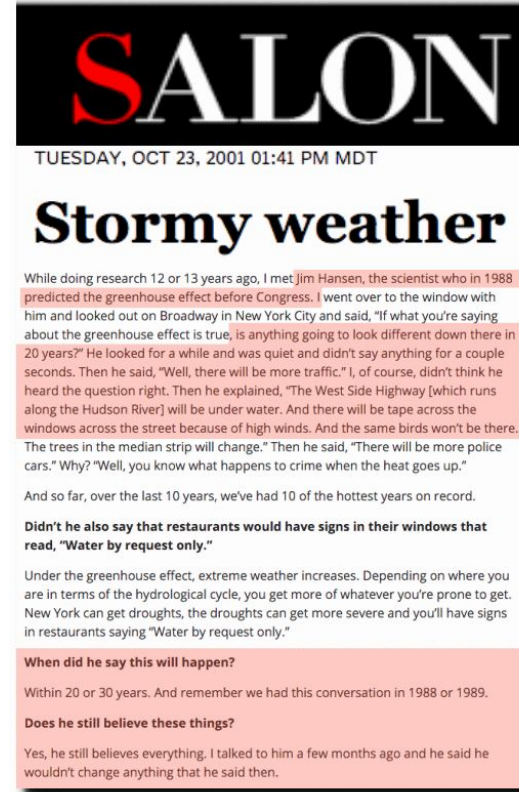
'The most common misperception of the population problem is that it's a problem of poor Indians who don't know how to use condoms. Actually, the problem in the world is that there are too many rich people.'

**Paul Ehrlich**  
*professor of population studies  
Stanford University*

# Who Are The Experts?

In 1988, NASA's top climate expert predicted Lower Manhattan would be under water between 2008 and 2018

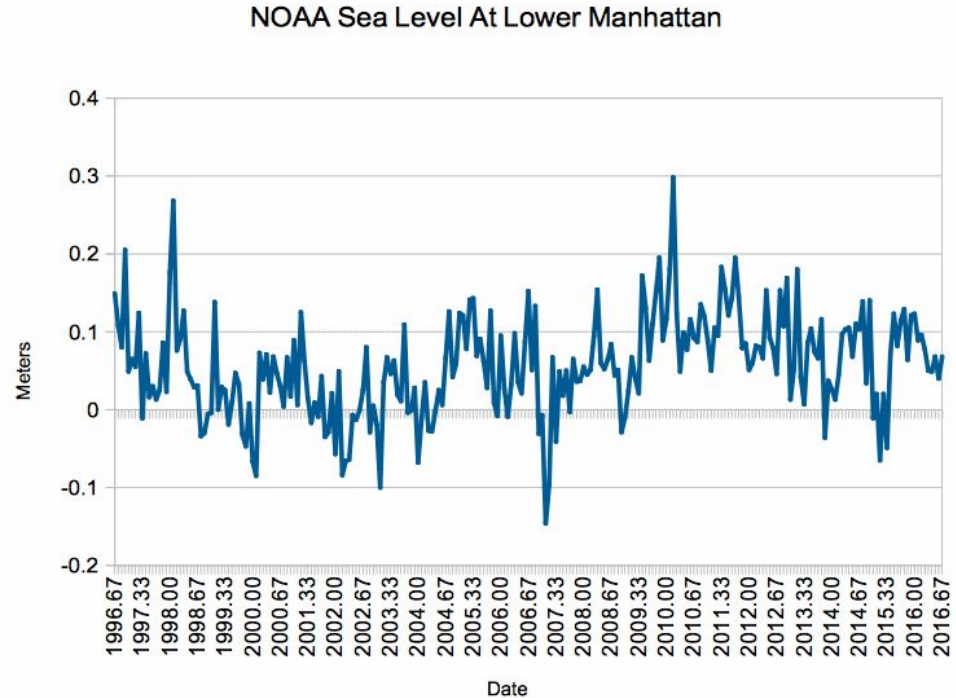
“The West Side Highway will be under water. And there will be tape across the windows across the street because of high winds. And the same birds won't be there.”



# Who Are The Experts?

In 1988, NASA's top climate expert predicted Lower Manhattan would be under water between 2008 and 2018

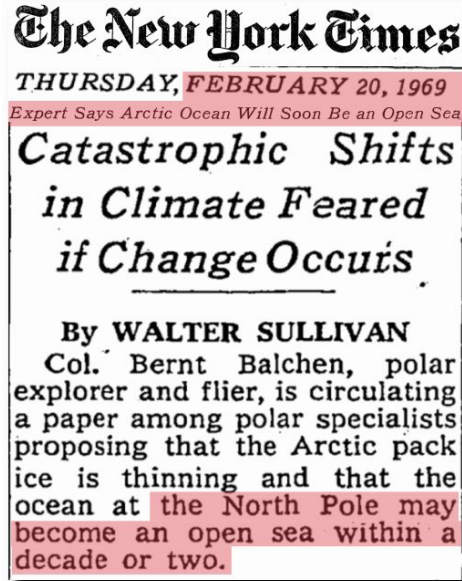
According to NOAA, there has been no net change in Manhattan sea level for 20 years.



# Who Are The Experts?

In 1969, The New York Times predicted an ice-free Arctic and catastrophic shifts in climate.

Three days later The New York Times predicted a new ice age.



## Science

*Worrying About a New Ice Age*

**The New York Times**

Published: February 23, 1969  
Copyright © The New York Times



# Who Are The Experts?

In 1989, the top UN climate expert said we only had until the year 2000 to stop global warming before flooding and crop failures caused an exodus of eco-refugees.

1. **San Jose Mercury News (CA)** - June 30, 1989 - 3F General News

## **GRIM FORECAST**

A senior environmental official at the United Nations, Noel Brown, says entire nations could be wiped off the face of the earth by rising sea levels if global warming is not reversed by the year 2000. Coastal flooding and crop failures would create an exodus of "eco-refugees," threatening political chaos, said Brown, director of the New York office of the U.N. Environment Program. He said governments have a 10-year window of opportunity to solve the greenhouse effect before it goes beyond human...

# Who Are The Experts?

In 2004, the UK government's chief scientist said global warming would force us all to move to Antarctica





# Who Are The Experts?

In 2012, the UK environment secretary predicted permanent drought for the UK



# Who Are The Experts?

In 2009, BOM's head of climate analysis predicted a permanent drought for southeast Australia



# Conclusions

- Climate data is being grossly mishandled
- Climate data has been massively altered
- Improper procedures have been used
- Climate predictions have consistently failed
- Climate models have shown no skill
- Some of the academics promoting global warming are of very questionable character
- There is no legitimate evidence that the US has warmed since the 1930's