Evaluating The Integrity Of Official Climate Records

Tony Heller DDP July 9, 2016

Who Am I?

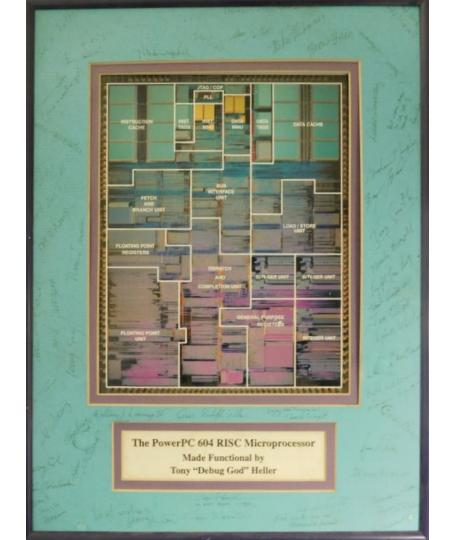
- BS Geology ASU
- Masters Electrical Engineering Rice University
- 20 Years of Microprocessor Design At Intel, Motorola, ST Micro
- Intel i7 Design Team
- Software Development Of Climate And Weather Models For NCAR
- Research Scientist At Los Alamos And Sandia Labs
- Geothermal Energy Research At Los 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

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

Methodology

- All Data From Official Sources (NOAA, NASA, IPCC, NCAR)
- 10 Years Of Research Combing Archives
- Historical Records Reported From Newspapers
- Wrote Software To Analyze The NOAA GHCN (Global Historical Climatology Network) Daily And Monthly Temperature Data



Becoming More Common And More Intense In The United States

Most People Believe That Hot Weather Is

Is This Belief Valid?

80 Years Ago This Week, The US Was Experiencing The Worst Heat Wave In History

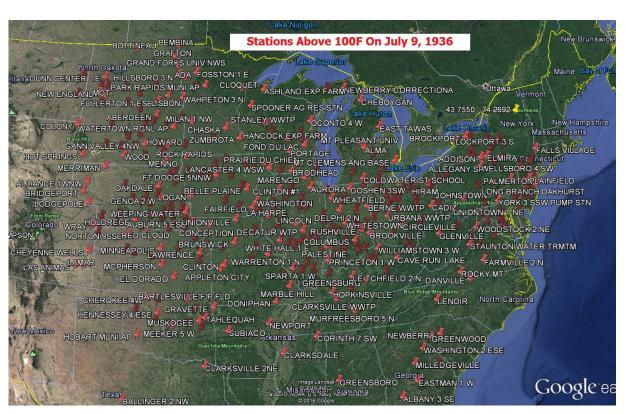
THE BEND BULLETIN JULY 25, 1936 Heat Wave Toll Over 12,000 in 86 Cities in Week

Washington, July 25 (LP)—The first official figures on the death toll of last week's heat wave indicated today that literally thousands of lives were lost in the temperatures of 100 degrees and higher throughout a large part of the nation.

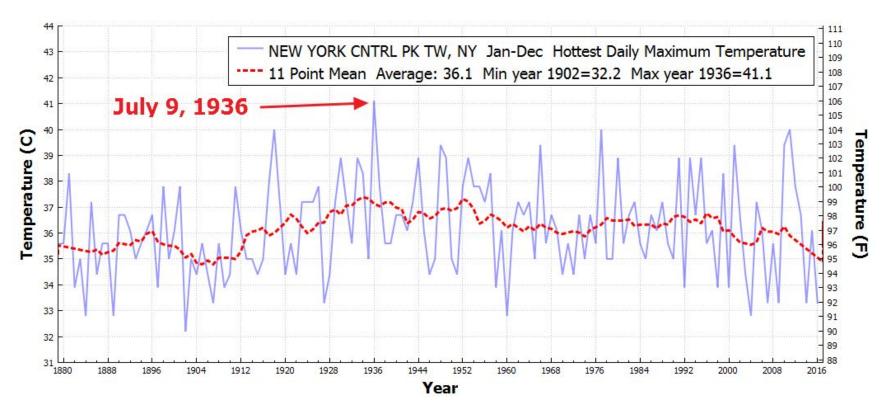
The census bureau released mortality statistics today for the week ending July 18 showing 3332 more deaths in 86 cities than in the worst heat week of 1934.

For the week ended July 18, the bureau reported 12,183 deaths this year compared with 8,851 deaths in the same 36 cities for the week ended July 28 in 1934. The present drought was blumed for a 65 per cent rise in deaths as compared with the corresponding 1935 week, when 7439 deaths were reported during that week of normal temperatures.

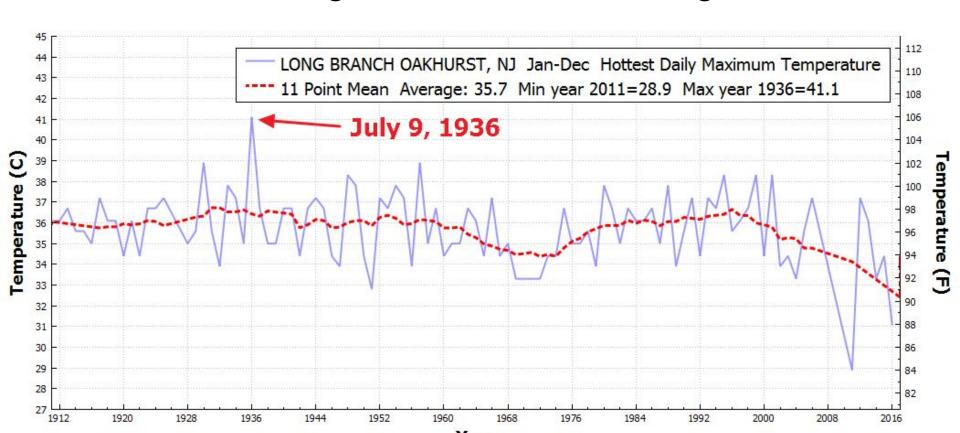
July 9, 1936 Was One Of The Hottest Days In US History



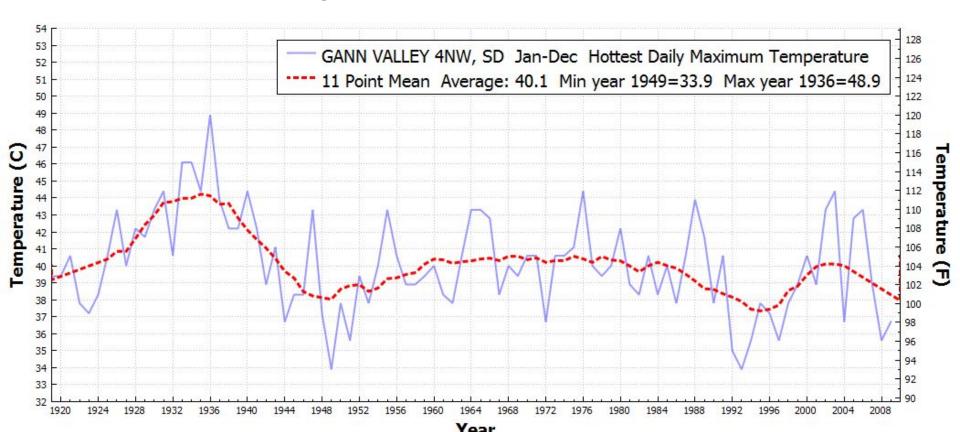
July 9, 1936 Was The Hottest Day On Record In New York City - 106 Degrees



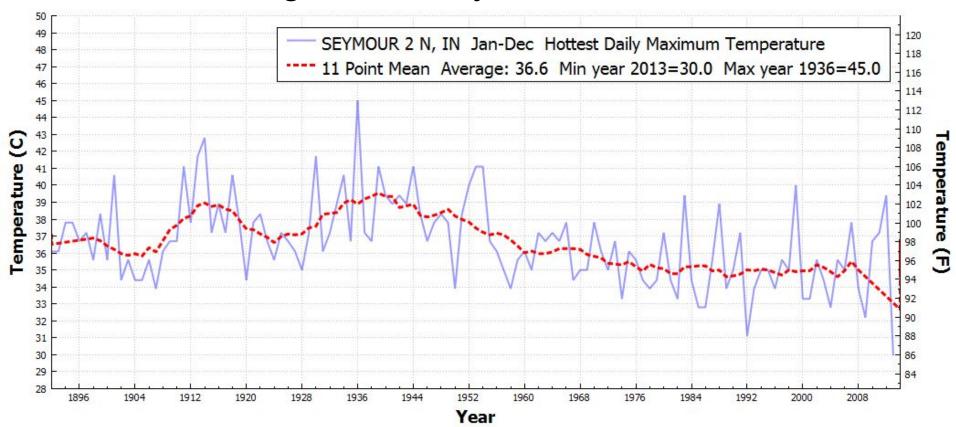
July 9, 1936 Was The Hottest Day On Record In Long Branch, NJ - 106 Degrees



This Week In 1936, Temperatures Reached 120 Degrees In South Dakota

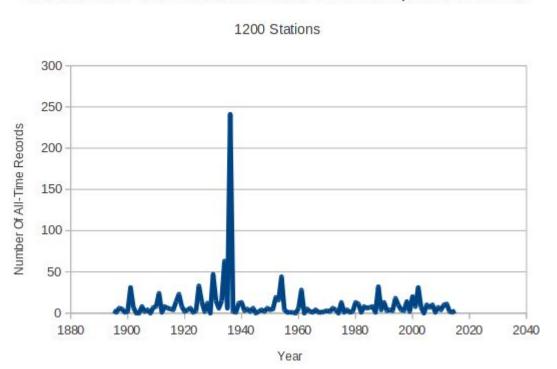


This Week In 1936, Temperatures Reached 113 Degrees In Seymour, Indiana

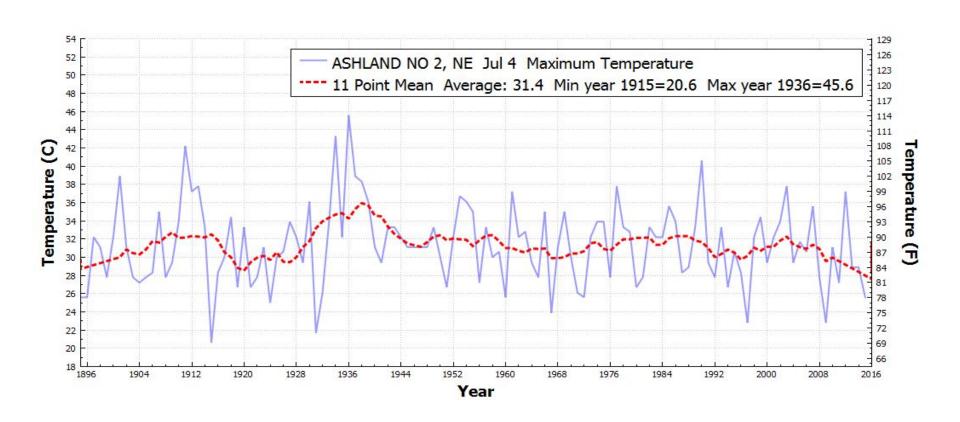


More Than 20% Of US All-Time Temperature Records Were Set In 1936

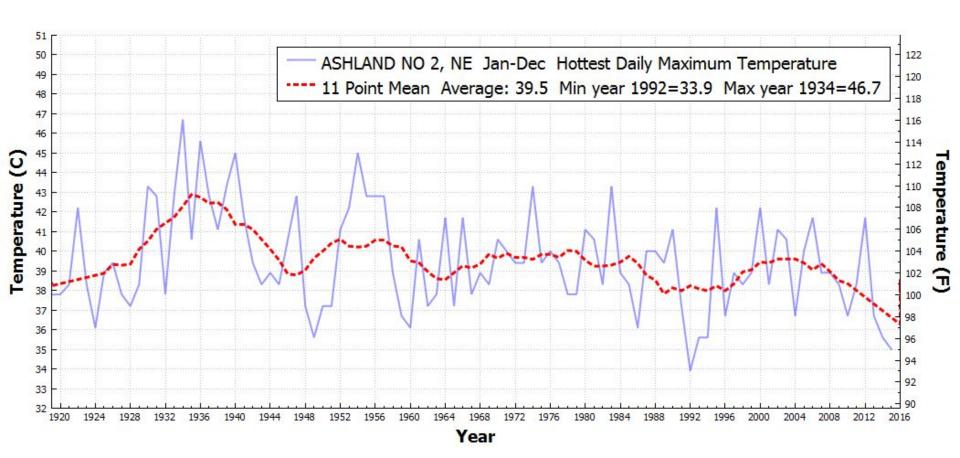
Number Of All-Time Maximum USHCN Station Temperature Records



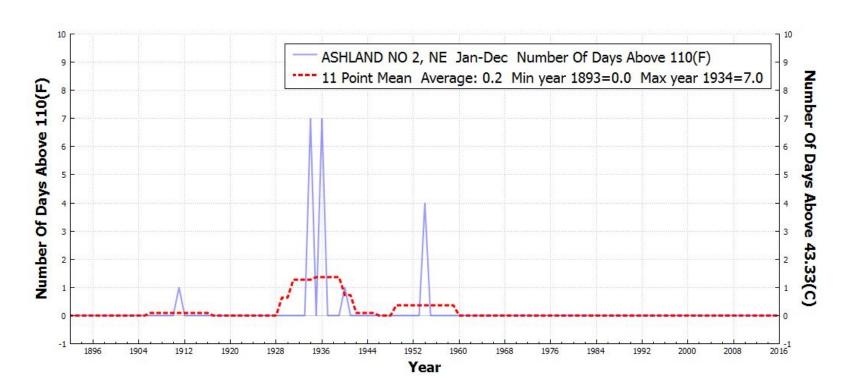
Omaha Summers Used To Be Hotter



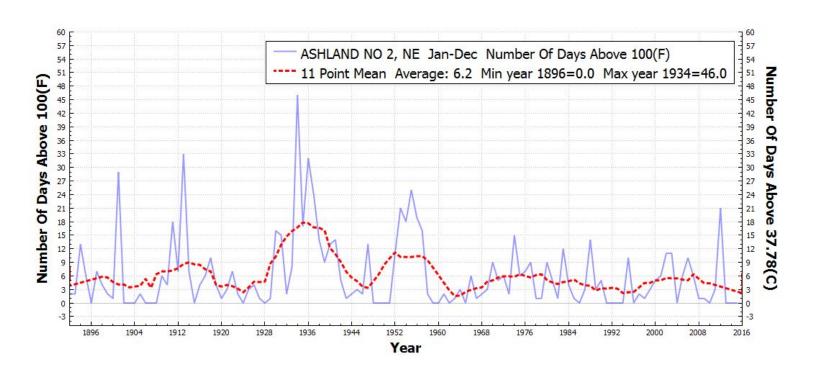
Omaha's Hottest Days Used To Be Much Hotter



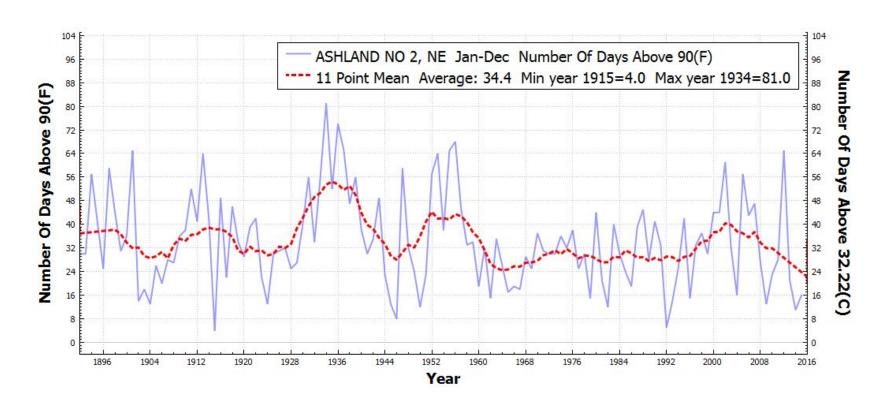
Omaha Used To Have Days Over 110 F



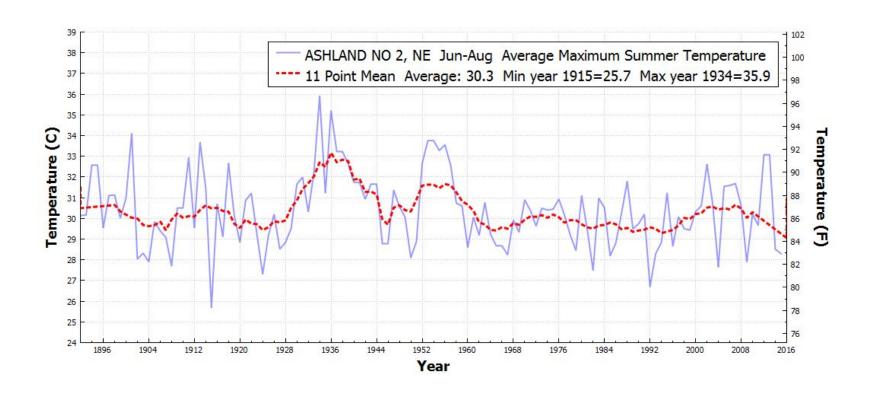
Omaha Used To Have More Days Over 100F



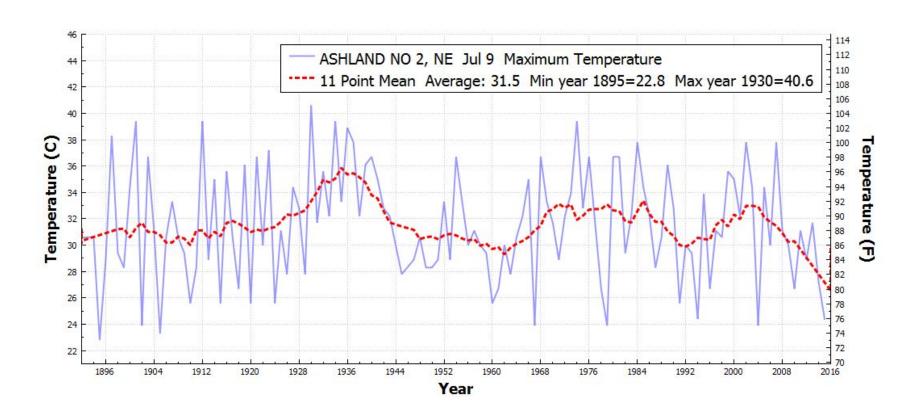
Omaha Used To Have More Days Over 90F



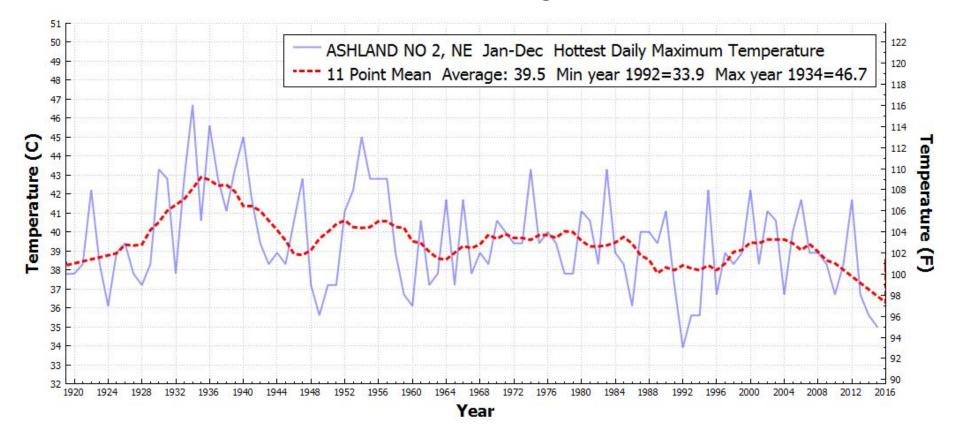
Omaha Used To Have Hotter Summer Afternoons



Hottest July 9 In Omaha Was 105 Degrees In 1930

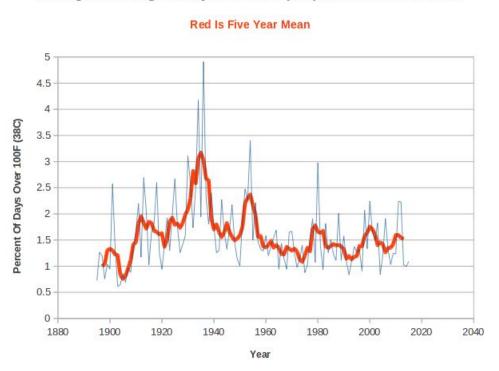


Hottest Temperatures In Omaha Have Declined About 10 Degrees



The US Used To Have Many More Hot Days

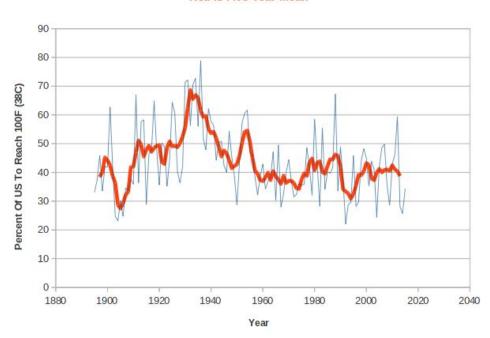
Average Percentage Of Days Over 100F (38C) At All USHCN Stations



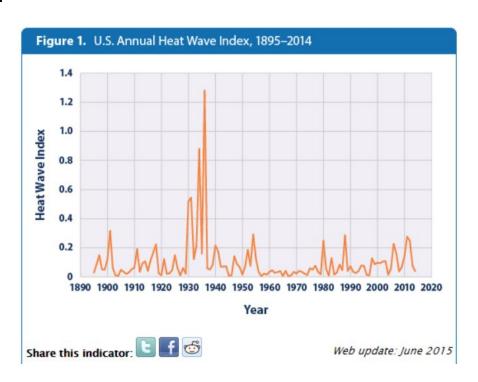
Areal Coverage Of US Heat Waves Used To Be Much Larger

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

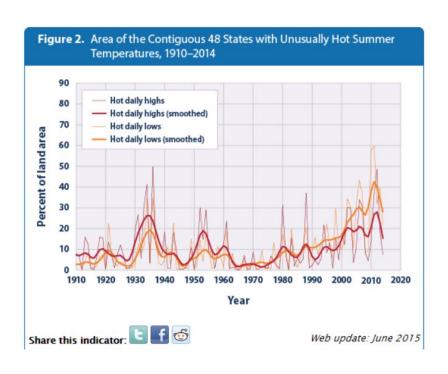
Red Is Five Year Mean



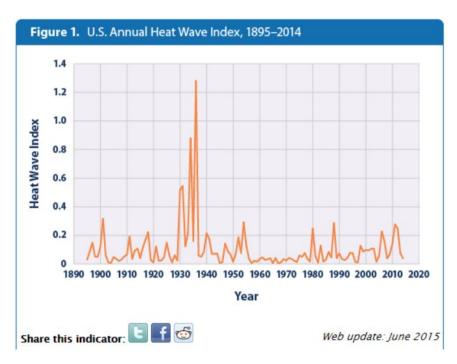
The EPA Website Has A Graph Showing The Unprecedented Heat Of The 1930s

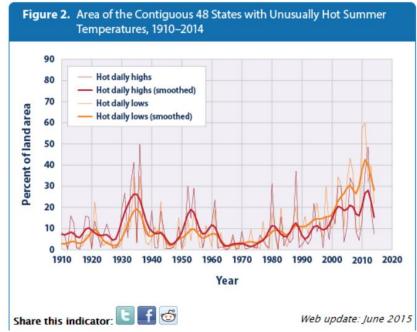


The Trouble Begins : The Next EPA Graph Contradicts The First One

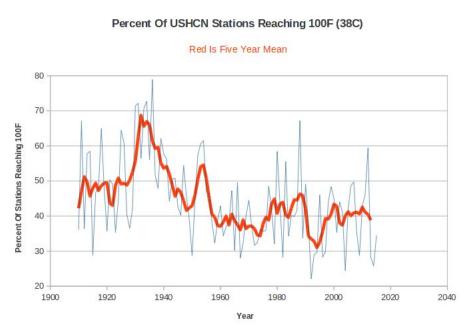


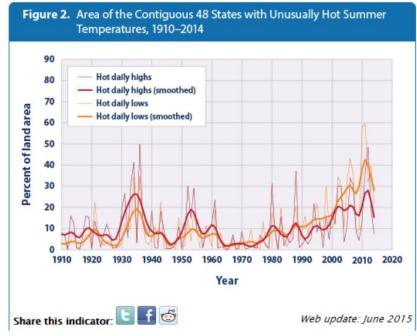
What Is Going On Here? Figure 2 Doesn't Match Figure 1



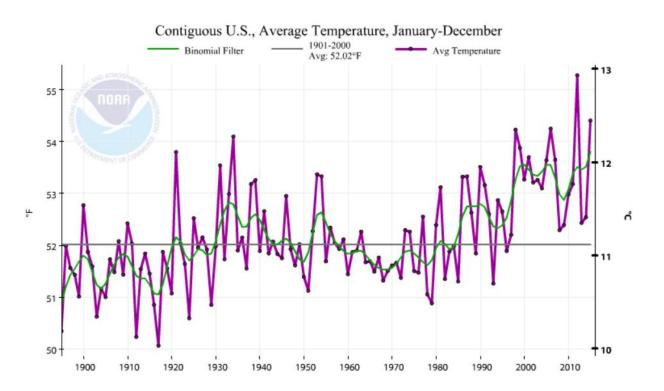


What Is Going On Here? Figure 2 Doesn't Match NOAA Temperature Data

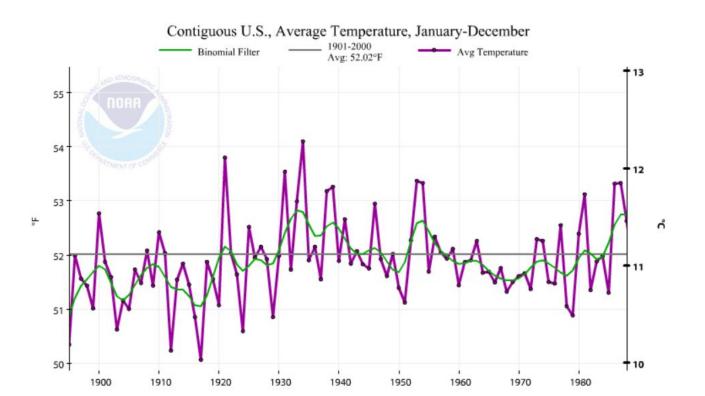




NOAA Graphs Currently Show 2.5 Degrees (F) US Warming Since 1895



NOAA Graphs Show Almost Two Degrees (F) US Warming From 1895-1987



In 1989, NOAA Said There Was No Warming From 1895 To 1987



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, NASA's James Hansen Predicted The US Would Warm 4-6 Degrees From 1958 To 2020

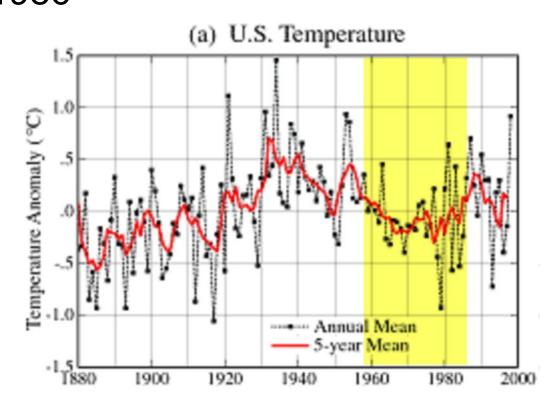
The Milwaukee Journal - Jun 11, 1986 Brows

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's Own Data Didn't Support His Claim Of 1-2 Degrees Warming From 1958-1986

The Milwaukee Journal - Jun 11, 1986 Brows

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.



James Hansen Also Predicted The Arctic Would Be Ice-Free By Now

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."

Al Gore Predicted The Arctic Would Be Ice-Free By Now

Dec 14, 2009

Gore: Polar ice cap may disappear by summer 2014



Satellites Show That The Arctic Is Full Of Ice



Al 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

NASA's James Hansen Predicted That Much Of Lower Manhattan Would Underwater By 2008

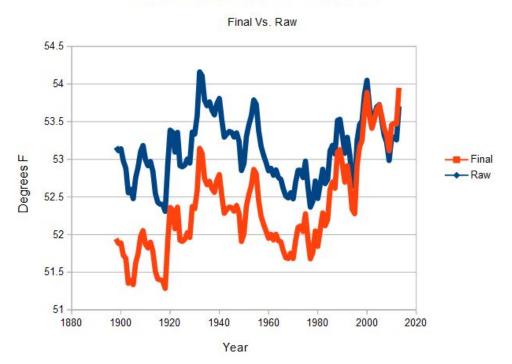


Extreme weather means more terrifying hurricanes and tornadoes and fires than we usually see. But what can we expect such conditions to do to our daily life?

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."

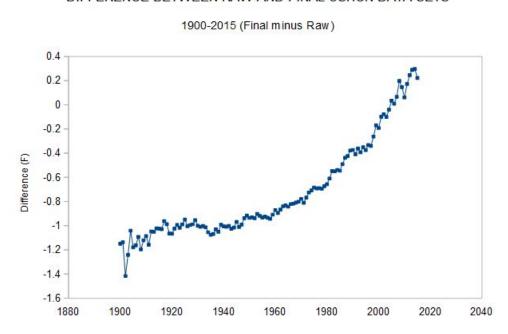
NOAA Is Now Altering The Data Blue Shows Measured Red Shows Reported

USHCN Average Temperature At All Stations



Data Is Being Altered About 1.5 F Almost The Entire Trend Is Due To Adjustments

DIFFERENCE BETWEEN RAW AND FINAL USHCN DATA SETS



Most Of The Recent Alterations Are Due To Station Data Loss And Fabrication

Percent Of Fabricated USHCN Temperatures

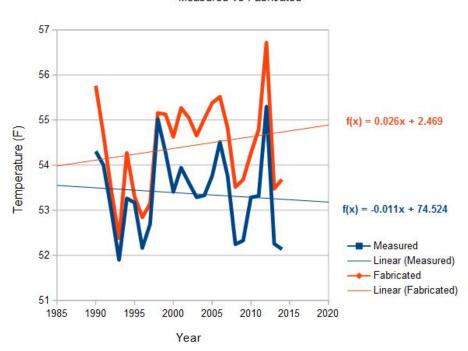
Marked With An 'E'

Year

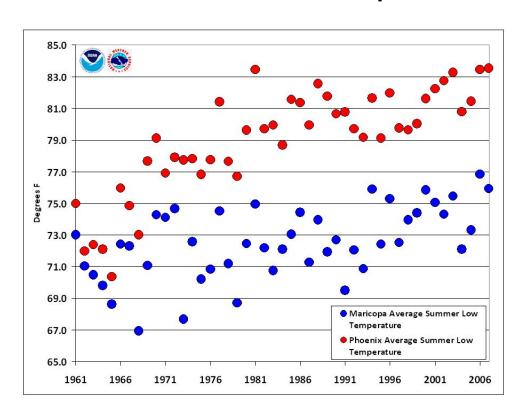
Measured Data Shows Cooling Since 1990 Fabricated Data Shows Warming

USHCN Temperature Since 1990

Measured Vs Fabricated

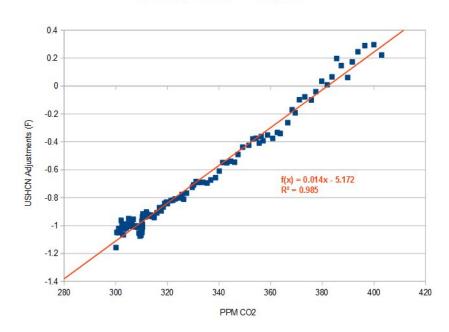


Missing Rural Stations Are Being Homogenized With Warmer Urban Temperatures



NOAA Data Adjustments Correlate Almost Perfectly With Atmospheric CO2 The Ultimate Example Of Confirmation Bias

USHCN Adjustments Vs. Atmospheric CO2



145 Years Of Imaginary Climate Change

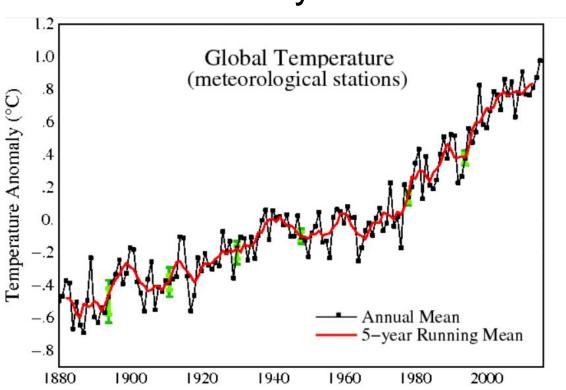
every season is sure to be "extraordinary," almost every month one of the driest or wettest, or windiest, coldest or hottest, ever known. Much observation, which ought to correct a tendency to exaggerate, seems in some minds to have rather a tendency to increase it

JANUARY 10, 1871 IMAGINARY CHANGES OF CLIMATE.

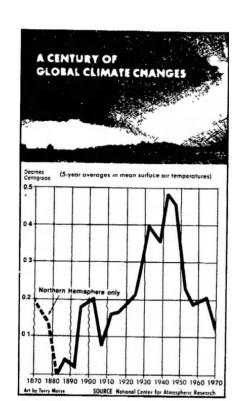
(Pall Mall Gazette.)

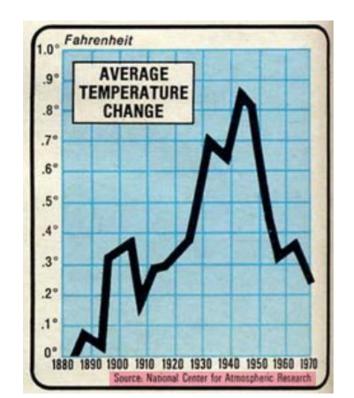
THREE consecutive years of drought, while they have stimulated the inventive resources of practical agriculturists, have had the natural effect of calling forth a plentiful crop of speculation from weather prophets, and projectors, and half-instructed meteorologists, and all the philosophic tribe of 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

What About Global Temperatures? Current NASA Graphs Show A Steady Increase Since 1880

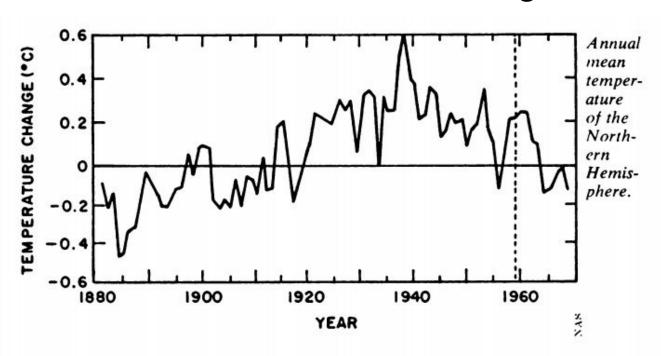


In 1974, NCAR Showed No Temperature Increase From 1870 To 1970





1975 National Academy Of Sciences Graph Showed No 1900-1970 Warming

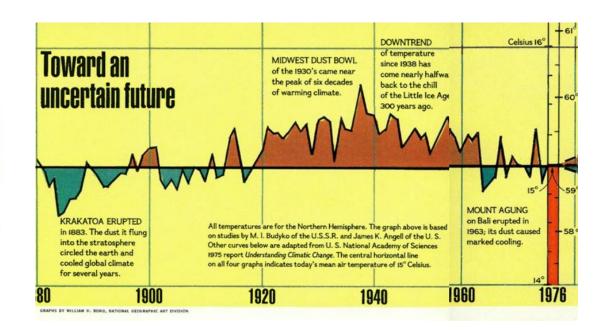


March 1, 1975

1976 National Geographic Graph Showed No 1880-1975 Warming

During the last 20 to 30 years, world temperature has fallen, irregularly at first but more sharply over the last decade.

U. S. NATIONAL SCIENCE BOARD, 1974



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.

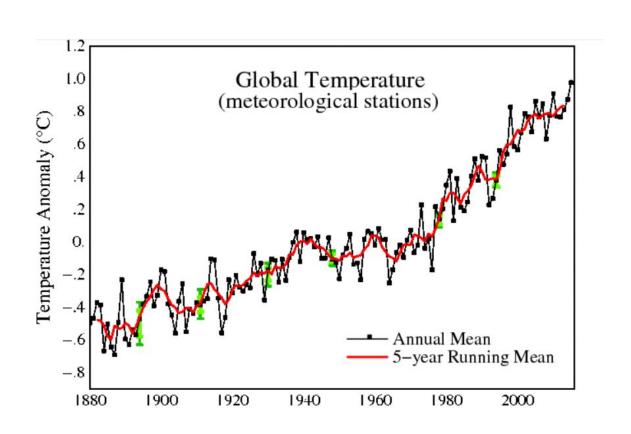
Lawrence Journal-World - Mar 11, 1979

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.

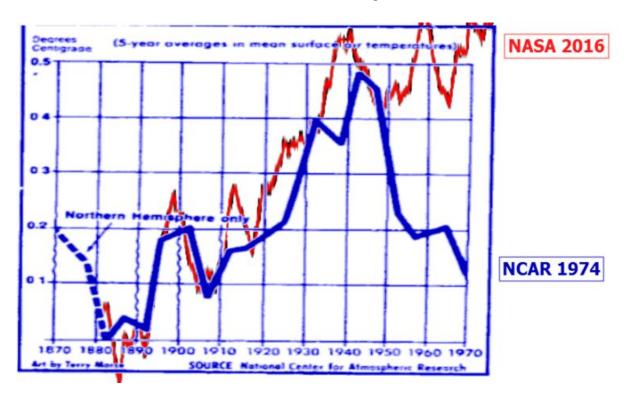
Dr. J. Murray Mitchell, of the National Oceanic and Atmospheric Administration says the world has been cooling off in the long run.

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

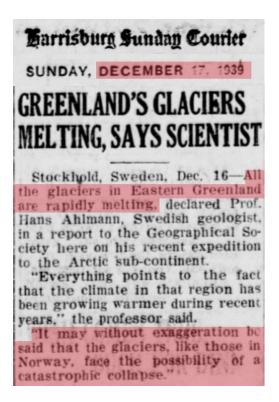
NASA No Longer Shows This 1940-1970 Cooling



Overlay Of The Current NASA Graph On The 1974 NCAR Graph



In 1939, Scientists Reported Rapid Greenland Melting And Glaciers Nearing "Catastrophic Collapse"



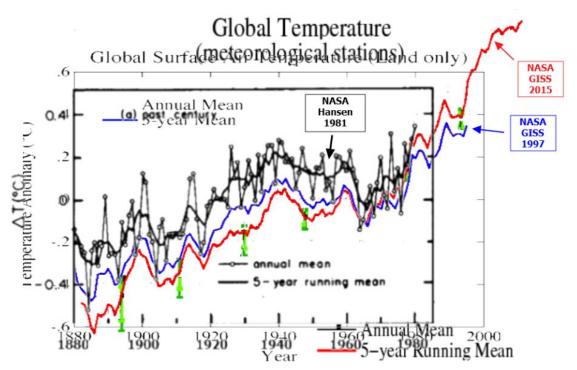
In 1958, Scientists Said The Arctic Was Melting Rapidly, And Might Be Ice-Free Within A Generation

Some scientists estimate that the polar ice pack is 40 per cent thinner and 12 per cent less in area than it was a half-century ago, and that even within the lifetime of our children the Arctic Ocean may open, enabling ships to sail over the North Pole, as the

The New York Times

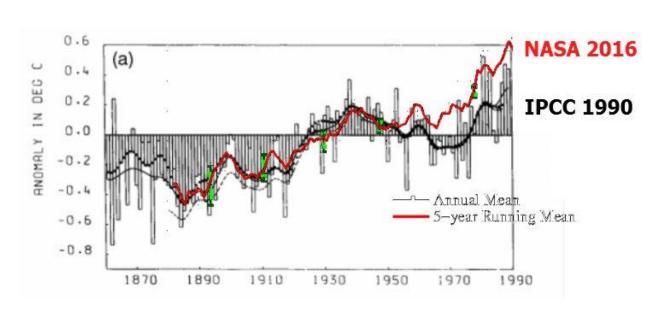
Published: October 19, 1958 Copyright © The New York Times

NASA Has Repeatedly Altered Their Own Data, Making Pre-1980 Temperatures Cooler Doubling 1880-1980 Warming By Altering Data

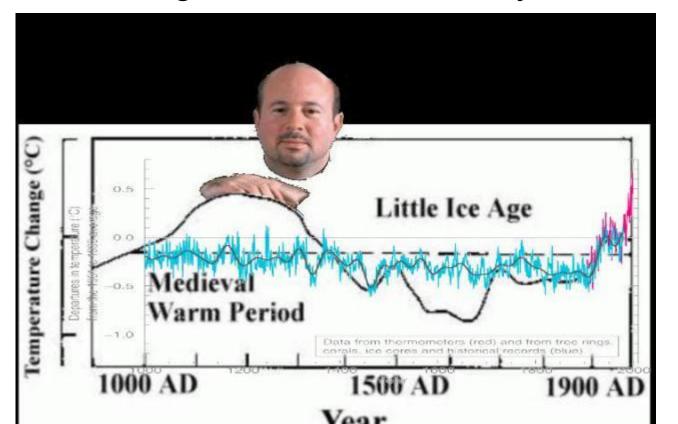


Since The 1990 IPCC Report, NASA Has Greatly Increased Recent Temperatures

Global Temperature (meteorological stations)



The Emergence Of The Hockey Stick



The Emergence Of The Hockey Stick 1990 IPCC Report Showed Long-Term Cooling

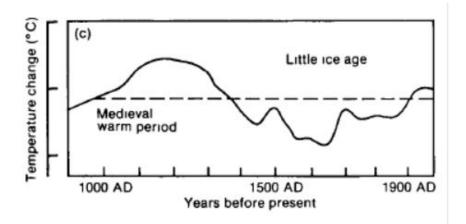
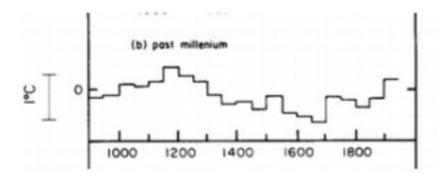


Figure 7.1: Schematic diagrams of global temperature variations since the Pleistocene on three time scales (a) the last million years (b) the last ten thousand years and (c) the last thousand years. The dotted line nominally represents conditions near the beginning of the twentieth century.

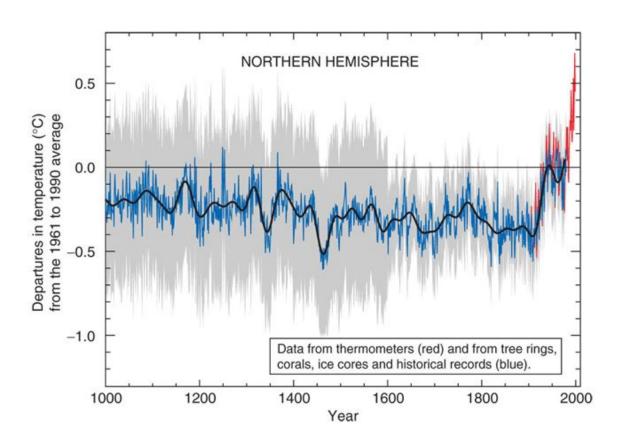
NASA Also Showed Long-Term Cooling

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

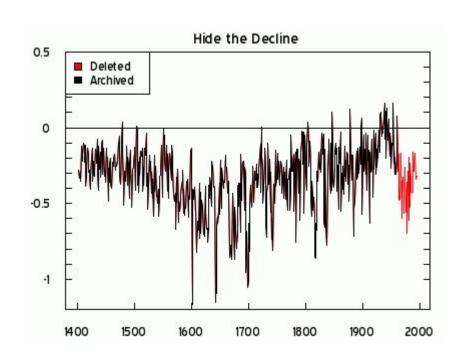


(b) is based on temperatures in central England, the tree limit in the White Mountains of California, and oxygen isotope measurements in the Greenland ice (W. Dansgaard of the Geophysical Isotope Laboratory, University of Copenhagen, pers. comm.), with the temperature scale set by the variations in the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

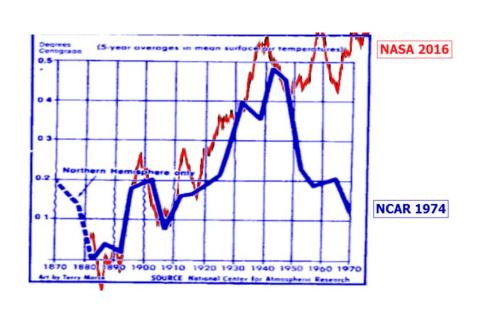
The IPCC Erased The Cooling In Their 2001 Report

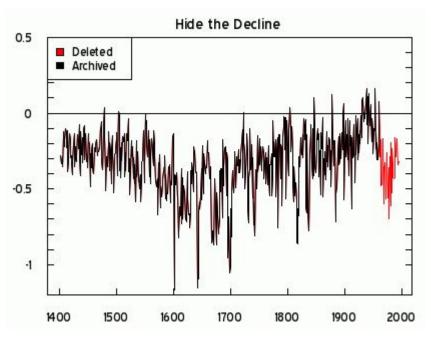


Climategate: Michael Mann "Hid The Decline" In Tree-Ring Data



Both NASA And Michael Mann "Hid The Decline"





Climategate E-Mails Show That Experts Wanted To Get Rid Of The 1940's 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".

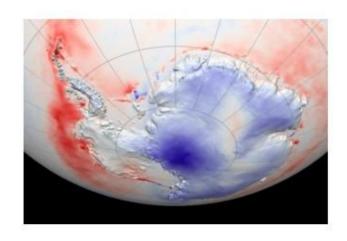
NASA's Top Climatologist Reported "Significant" Antarctic Cooling In 2004

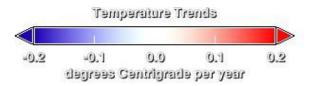
Shindell and Schmidt 2004

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.

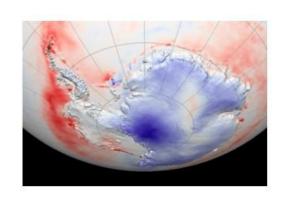
While most of the Earth warmed rapidly during recent decades, surface temperatures decreased significantly over most of Antarctica. This cooling is consistent with circulation changes associated with a shift in the Southern Annular Mode (SAM). It has been suggested that both Antarctic ozone depletion and increasing greenhouses 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.

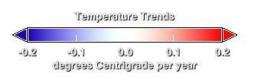
This Cooling Was Shown In NASA's 2005 Map

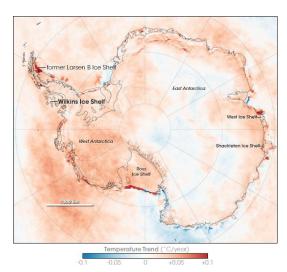




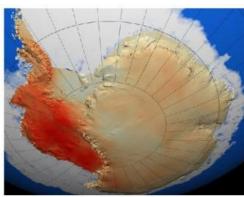
Between 2005 And 2007, NASA Changed Antarctica From Cooling To Warming











In 2004, Britain's Chief Scientist Predicted We Would All Have To Move To Antarctica

Why Antarctica will soon be the *only* place to live - literally

By Geoffrey Lean, Environment Editor

Sunday, 2 May 2004

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EMAIL.

TEXT SIZE

Antarctica is likely to be the world's only habitable continent by the end of this century if global warming remains unchecked, the Government's chief scientist, Professor Sir David King, said last week.

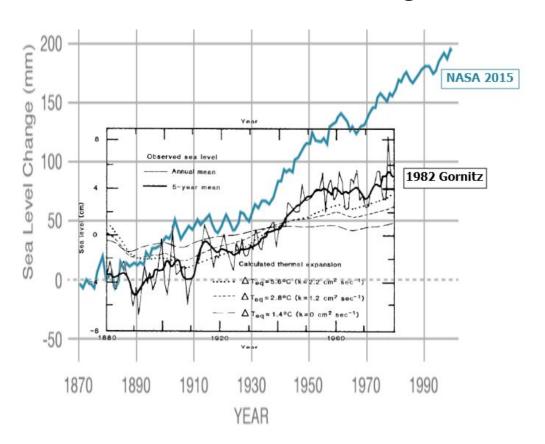
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In 2004, Scientists Predicted That Refugees Would Be Fleeing To Antarctica

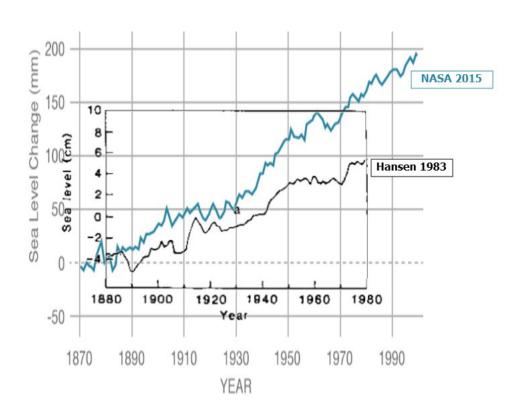
The Telegraph



NASA Has Done The Same Thing With Sea Level



NASA Has Done The Same Thing With Sea Level



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

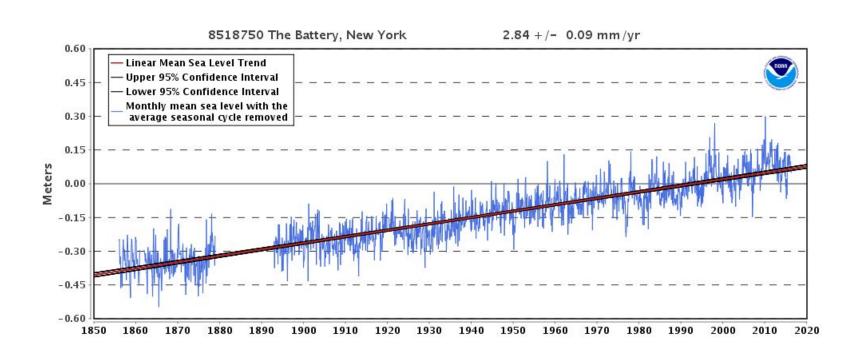
Num- ber of sta- tions	Linear trend (cm/100 years)	95 percent confidence limit (cm/100 years)
1	8	3
4	16	5
30	15	2
1	20	16
2	-3	3
2	16	11
0		
7	7	2
7 5	4	2 2 2 3
14	4 5	2
10	10	3
2	22	4
0		
6	6	4
86	10	1

The 1990 IPCC Report Said There Was No Acceleration In Sea Level Rise

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.

Tide Gauges Like This One At Manhattan Show No Acceleration In Sea Level Rise



Conclusion:

Climate Data Is Being 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

Dedicated To Dr. Bill Gray A True Scientist

