Geologists, the Public, and Public Policy: What are our ethical responsibilities?

W.C. Rusty Riese, PhD

Oil Spills, Ethics, and Society: How they intersect and where the responsibilities reside

W.C. Rusty Riese
AAPG Distinguished Ethics Lecturer
2011 - 2013

Climate Change: Facts and Fictions

W.C. Rusty Riese, PhD

Geologists, the Public, and Public Policy: What are our ethical responsibilities?

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What will we discuss today?

- What is geology?
- What are our responsibilities as professional geologists?
- What is happening in the world of K thru 12 education?
- What is happening in the world of post-secondary education?
- What is happening in government?
- What are the issues which attend debates on the safety of fracking?
- What are the issues surrounding the debate on climate change?

What is geology and what are our responsibilities?

- Our science is the study…

  "…of the planet Earth – the materials of which it is made, the processes that act on those materials, the products formed, and the history of the planet and its life forms since its origin. Geology considers the physical forces that act on the Earth, the chemistry of its constituent materials, and the biology of its past inhabitants.. *The knowledge thus obtained is placed in the service of man…"* (emphasis added).

- Taking this one step further, this analysis of what we should or should not concern ourselves with, we can consider stratigraphy…

  > "The science of rock strata …and their interpretation in terms of *environment* or mode of origin and geologic history."

- I suggest that the logical extension of "environment" is climate. So who better to provide the information of what our earth's climate has been through time than geologists?

What is happening in the world of K thru 12 education?

- ESEA

  The Elementary and Secondary Education Act (ESEA) was part of President Lyndon B. Johnson's Great Society program. Passed in 1965, it created a clear role for the federal government in K-12 policy.

  The law has been reauthorized and changed more than half a dozen times since that initial legislation. And, for the most part, each new iteration has sought to expand the federal role in education.

- No Child Left Behind

  The No Child Left Behind Act (NCLB), which passed Congress in 2001 and was signed into law by President George W. Bush on Jan. 8, 2002, is the name for the most recent update to the Elementary and Secondary Education Act of 1965. The NCLB law—which grew out of concern that the American education system was no longer internationally competitive—significantly increased the federal role in holding schools responsible for the academic progress of all students.

- Common Core

  The Common Core State Standards Initiative is an educational initiative in the United States that details what K–12 students should know in English language arts and mathematics at the end of each grade.

- Next Generation Science Standards

  The **Next Generation Science Standards** is a multi-state effort to create new education **standards** that are "rich in content and practice, arranged in a coherent manner across disciplines and grades to provide all students an internationally benchmarked **science** education."

"The standards lack any teaching of the physics of heat, or the relationship between radiant heat and energy. There is no appreciation of the role the sun plays in affecting climate, or of the relative impact of human contributions. In practice, therefore, the national standards are simply propaganda fitting the party line of the global climate change alarmists."

Wanless, 2016

The West Virginia BOE recently took a lot of heat for suggesting changes to the NGSS they had unwisely adopted early in 2015. NGSS assumes human-caused global warming as a persistent feature of Earth's climate, but the BOE voted in December for a more nuanced approach. Rather than assuming anthropogenic global warming, as NGSS insist upon, they want to encourage debate.

The Next Generation Science Standards (NGSS) approved by the Kentucky Board of Education (BOE), and likely to be adopted in many other states, revolutionizes the classroom landscape for millions of students. Like Common Core it recommends that educators identify global warming as a core concept and stress the relationship between global warming and human activity.

In March 2016 a bill was introduced in the House to withdraw Kentucky from both NGSS and the Common Core Standards. The concern is that Common Core and NGSS effectively remove state and local control of educational standards and surrender them to a private third party, deeply vested in federal visions of what good citizens should learn and think.

Oregon has also adopted the new Next Generation Science Standards, as have most states.

Next Gen Standards say the students will know how to do this:
"Use a model to describe how variations in the flow of energy into and out of Earth's systems result in changes in climate. Clarification Statement: Examples of the causes of climate change differ by timescale, over 1-10 years: large volcanic eruption, ocean circulation; 10-100s of years: changes in human activity, ocean circulation, solar output;..."

That all climate change is due to human activity is implicitly denied, as it should be.

In an outrageous fit of activism the Portland School Board has banned the teaching of climate science.

Here is the actual order from the School Board to the Portland Public Schools (PPS):
"PPS will abandon the use of any adopted text material that is found to express doubt about the severity of the climate crisis or its root in human activities."

What must now be taught is that there is a severe climate crisis caused by humans. The problem is that this is not what the Oregon Science Education Standards specify that students should learn.

Several states have recently introduced bills that could interfere with the teaching of scientifically founded theories on climate change in public school science curricula.

A bill in South Dakota would require each school board to adopt a code of ethics that prevents public school elementary and secondary school teachers from advocating "for any issue that is part of a political party platform at the national, state, or local level." The Arizona legislature introduced a nearly identical bill.

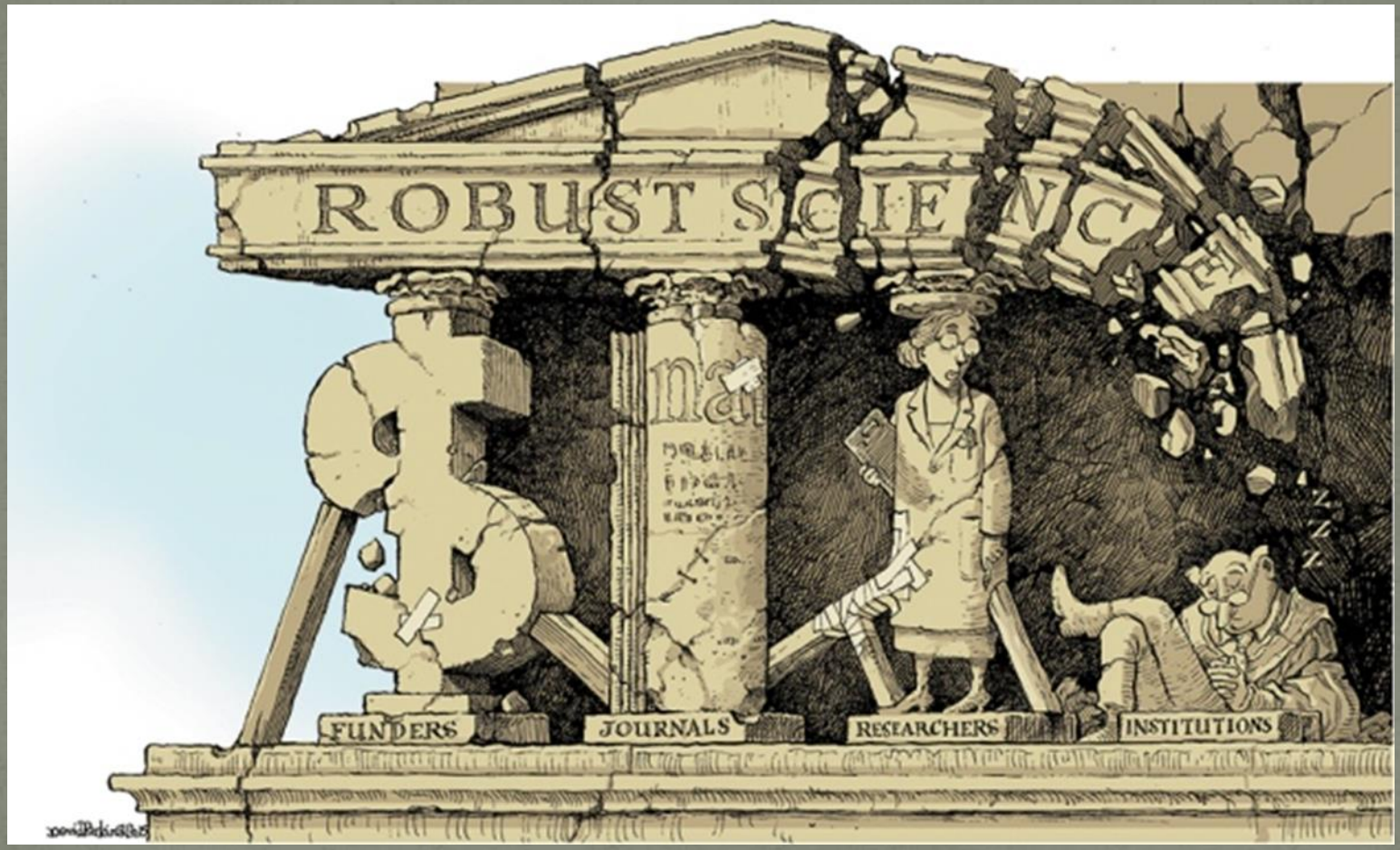
Virginia legislators proposed a bill with similar language, arguing that some teachers are abusing taxpayer dollars to "speak to captive audiences of students in an attempt to indoctrinate or influence students to adopt specific political and ideological positions on issues of social and political controversy ... under the guise of 'teaching for social justice' and other sectarian doctrines."

In Maine, a comparable bill states that "the rules must require a teacher to provide students with materials supporting both sides of a controversial issue being addressed and to present both sides in a fair-minded, nonpartisan manner."

Science education groups are concerned that these bills, if enacted, would limit instruction on anthropogenic climate change, which is a key tenet of state and federal Democratic Party platforms. In the case of Maine, the bill could require teachers to discuss climate change as a disputed theory and present disproven theories for the global rise in temperatures as valid.

Pacific Standard, February 19, 2019

What is happening in post-secondary education?



Two professors at the University of Northern Colorado were investigated after students complained that they were forced to hear opposing viewpoints.

Never mind that neither professor wasn't even expressing his own opinion — the students just wanted the discussion shut down. And the school obliged.

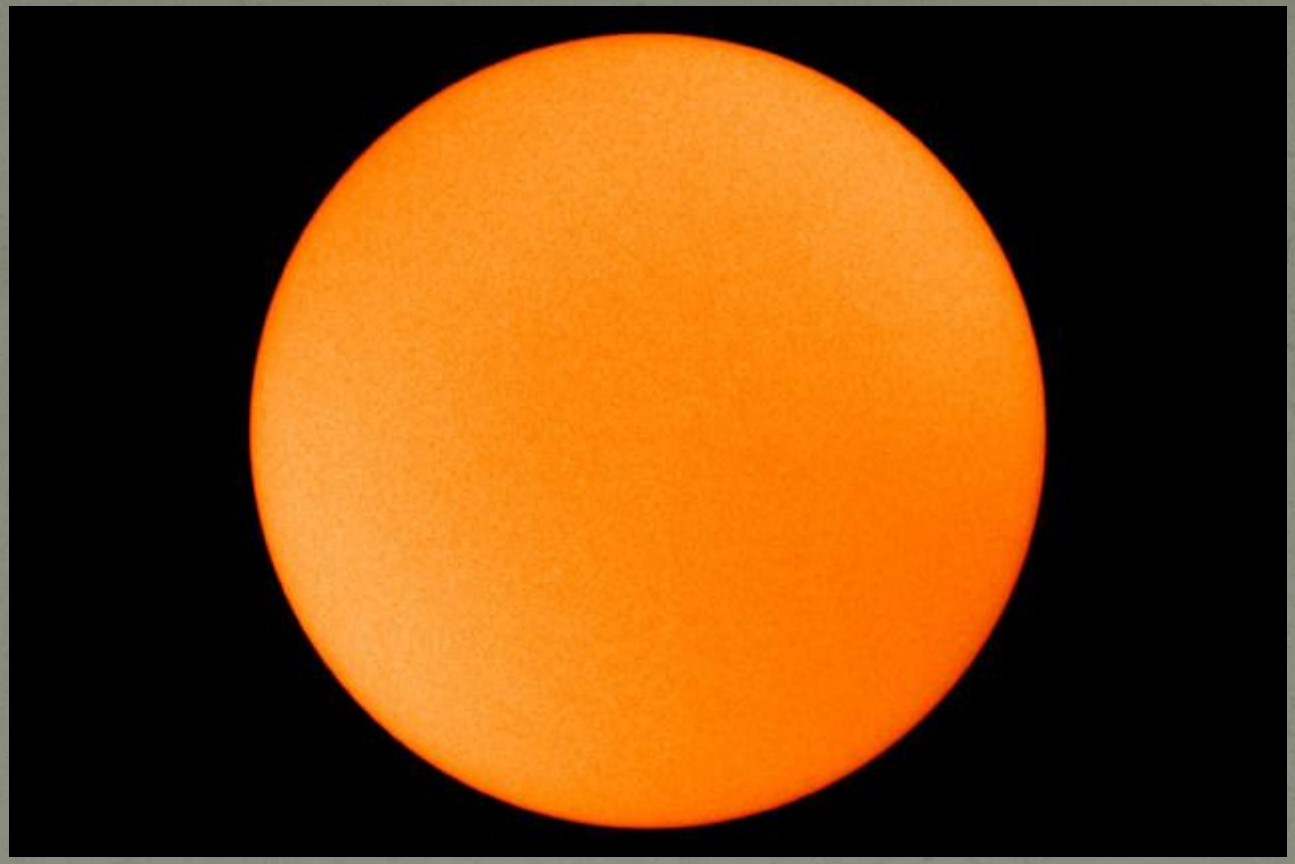
Three professors co-teaching an online course called "Medical Humanities in the Digital Age" at the University of Colorado-Colorado Springs recently told their students via email that man-made climate change is not open for debate, and those who think otherwise have no place in their course:

"The point of departure for this course is based on the scientific premise that human induced climate change is valid and occurring. We will not, at any time, debate the science of climate change, nor will the 'other side' of the climate change debate be taught or discussed in this course," states the email.

Kate Hardiman, Univ of Notre Dame, 8/31/2016
in *The College Fix*

Valentina Zharkova, a professor at Northumbria University at Newcastle in the United Kingdom, said the Royal Astronomical Society received requests to withdraw a press release on her team's latest research pointing to a significant drop in solar activity by mid-century.

"Some of them [scientists] were welcoming and discussing. But some of them were quite, I would say, pushy, ..."They were trying to actually silence us. Some of them contacted the Royal Astronomical Society demanding behind our back that they withdraw our press release." -- *Valerie Richardson , The Washington Times, 10 August 2016*



You may not have noticed but our sun has gone as blank as a cue ball. As in, it's lost its spots. According to scientists, this unsettling phenomenon is a sign we are heading for a mini ice age.

Data from NASA's TIMED satellite show that the thermosphere (the uppermost layer of air around our planet) is cooling and shrinking, literally decreasing the radius of the atmosphere.

To help track the latest developments, Martin Mlynczak of NASA's Langley Research Center and his colleagues recently introduced the "Thermosphere Climate Index."
The Thermosphere Climate Index (TCI) tells how much heat nitric oxide (NO) molecules are dumping into space. During Solar Maximum, TCI is high (meaning "Hot"); during Solar Minimum, it is low (meaning "Cold").

"Right now, it is very low indeed … 10 times smaller than we see during more active phases of the solar cycle," says Mlynczak

“If current trends continue, it could soon set a Space Age record for cold,” says Mlynczak. “We’re not there quite yet, but it could happen in a matter of months.” *September 27, 2018*

The Climategate emails leaked in 2009 revealed intimidation against academics and journal editors who voiced doubts about the forthcoming Armageddon.

"Kevin and I will keep them out somehow – even if we have to redefine what the peer review literature is."

"…If you think that Saiers is in the greenhouse skeptics camp, then, if we can find some documentary evidence of this, we could go through official AGU channels and get him ousted."

"…don't pass it along."
"…hide the decline."
"…can't account for the lack of warming."
"Leave it to you to delete as appropriate."
"I will be hiding behind them."
"…delete any emails you may have had."

Dr. Judith Curry, National Press Club, September 2014:

“If I were a non-tenured scientist, I would fear for my job! But I am a senior scientist with retirement in sight, so I can afford to do what I want, say what I think.”

Geologists at the University of Cincinnati just wrapped up a three-year investigation of hydraulic fracturing and its impact on local water supplies.

The result? There's no evidence that fracking contaminates drinking water. Researchers hoped to keep these findings secret.

Why would a public research university boasting a top-100 geology program deliberately hide its work? Because, as lead researcher Amy Townsend-Small explained, "our funders, the groups that had given us funding in the past, were a little disappointed in our results. They feel that fracking is scary and so they were hoping our data could point to a reason to ban it."

A review of the available research bears out these claims. Consider the Ground Water Protection Council's recent study on gas exploration in Ohio, from 1983 until 2007, and in Texas, from 1993 until 2008.

According to that report, neither officials in Texas nor those in Ohio "identified a single groundwater contamination incident…at any of these horizontal shale gas wells" during those periods.

Since 1947 over one million wells have been hydraulically fractured.

Only one case of demonstrated induced seismicity from hydraulic fracturing for shale gas has been documented worldwide (Blackpool, England – 2011).

New NASA Study Undercuts EPA, Finds Fracking Not to Blame for Increased Methane Emissions

Posted by: Katie Brown, PhD
Washington DC
March 11, 2016

Just one day after the U.S. Environmental Protection Agency announced it will regulate methane emissions from existing sources of oil and natural gas in order to "combat climate change," scientists at the National Aeronautics and Space Administration (NASA) have released a new study finding that oil and natural gas producers are not to blame for a global increase in methane emissions. In fact, according to the researchers, the increased emissions are instead coming from wetlands and agriculture.

Over-reliance on models, misapplication of statistical methods, and lack of repeatability are the hallmarks of the new pseudoscience that is replacing the traditional practice of science, real science.

Science, September 1, 2015

Modeling is not true science; modeling is just playing with hypotheses, so there is actually very little climate science being done. Moreover, *given that the models all assume AGW*, it is no wonder that many climate scientists endorse AGW. It is built into their work.

Johann Wolfgang von Goethe

I could never have known so well how paltry men are, and how little they care for really high aims, if I had not tested them by my scientific researches. Thus I saw that most men only care for science so far as they get a living by it, and that they worship even error when it affords them a subsistence.

AZ QUOTES

What's happening in government?

California SB 1161: Makes Questioning "Climate Change" a Sue-able (Criminal?) Offense.

Section 2(b) of the bill declares it the California legislature's policy to promote "redress for unfair competition practices committed by entities that have deceived, confused, or misled the public on the risks of climate change or financially supported activities that have deceived, confused, or misled the public on those risks"

Promoted as making it easier to sue fossil fuel companies over their involvements in public debate, the bill would lift the four-year statute of limitations of the state's already extremely liberal Unfair Competition Law, otherwise known as s. 17200— and retrospectively, so as to revive decades' worth of time-lapsed claims "with respect to scientific evidence regarding the existence, extent, or current or future impacts of anthropogenic-induced climate change."

The top law enforcement officers in 16 states have formed a coalition to investigate and prosecute companies that don't agree with them on climate change. In other words, those not practicing orthodoxy will be punished.

"We cannot continue to allow the fossil fuel industry or any industry to treat our atmosphere like an open sewer or mislead the public about the impact they have on the health of our people and the health of our planet," Gore said in a news conference held in Manhattan.

Standing next to Gore was New York Attorney General Eric Schneiderman, who promised that the group of state attorneys general will hunt down the global warming heretics and punish them.

Investor's Business Daily

Editorials

Attorneys General Create Axis For Global Warming Shakedown

A coalition of state attorneys general wants to leave businesses that don't agree with its global warming views as cracked and dry as a drought-weary lake bed. *(AP) 3/31/2016*

REVIEW & OUTLOOK

The Climate Police Escalate

Sometimes we wonder if we're still living in the land of the free. Witness the subpoena from Claude Walker, attorney general of the U.S. Virgin Islands, demanding that the Competitive Enterprise Institute cough up a decade of emails and policy work, as well as a list of private donors.

A subpoena hits a think tank that resists progressive orthodoxy.

Mr. Walker is frustrated that the free-market think tank won't join the modern church of climatology, so he has joined the rapidly expanding club of Democratic politicians and prosecutors harassing dissenters.

New York Attorney General Eric Schneiderman started the assault last autumn with a subpoena barrage on Exxon Mobil. His demand for documents followed reports by Inside Climate News and the Los Angeles Times that claimed Exxon scientists had known for years that greenhouse gases cause global warming but hid the truth from the public and shareholders.

Those reports selectively quoted from Exxon documents, which in any case were publicly available and often peer-reviewed in academic journals. Some Exxon scientists changed their views over the years, and several years ago the company even endorsed a carbon tax.

Mr. Schneiderman nonetheless says he is investigating Exxon for "defrauding the public, defrauding consumers, defrauding shareholders." He also tipped a broader assault by claiming that the oil and gas company was funneling climate misinformation through "organizations they fund, like the American Enterprise Institute," the "American Legislative Exchange Council" and the "American Petroleum Institute." He wants to use the Exxon case to shut down all "climate change deniers."

Mr. Schneiderman didn't single out CEI, and CEI doesn't disclose its donors. But in January CEI senior attorney Hans Bader blasted Mr. Schneiderman for violating Exxon's First Amendment rights. "Government officials cannot pressure a private party to take adverse action against a speaker," he wrote. Mr. Scheiderman responded by inviting more than a dozen state AGs to join him in "collectively, collaboratively and aggressively" investigating fossil-fuel companies and their donations. He rolled out Al Gore for the press conference.

Mr. Walker belongs to this climate prosecution club and so he unleashed his subpoena attack on CEI, as well as on DCI Group, a Washington-based PR firm that represents free-market and fossil fuel groups. His demand for a decade's worth of papers on climate research is a form of harassment. The process is itself punishment, intended to raise the cost of speaking freely on climate policy lest it invite legal bills and other political headaches.

Mr. Walker is also over the line in demanding the names of nonprofit CEI's donors, who can remain secret under federal law. Anyone on the list will become a new target for the Schneiderman climate posse.

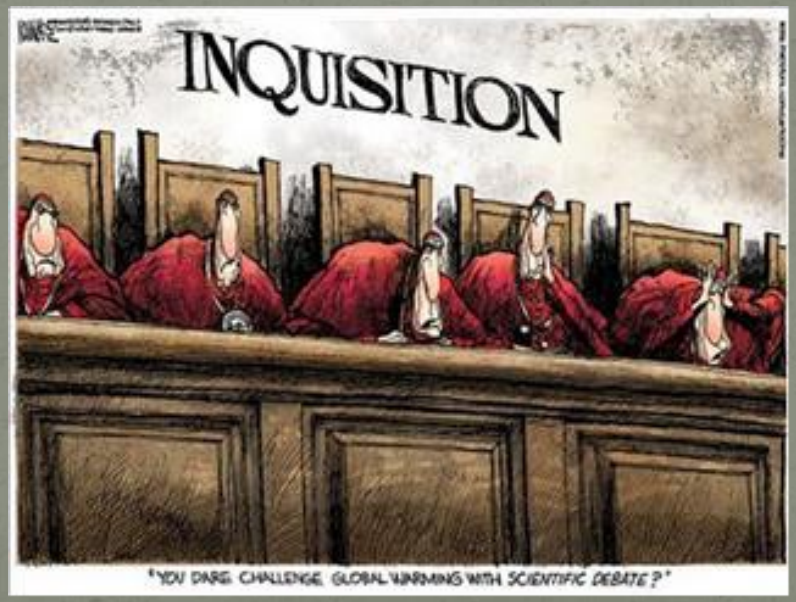
CEI has filed to quash the subpoena, and the nonprofit has hired attorneys Andrew Grossman and David Rivkin, who recently founded the Free Speech in Science Project to defend First Amendment rights against government abuses. The project is much needed.

Rhode Island Senator Sheldon Whitehouse has asked the Justice Department to use the RICO statutes to bring civil cases against climate dissenters. Attorney General Loretta Lynch recently referred to the FBI a request from two Democrat Congressmen seeking a criminal probe of Exxon. Democrats on Capitol Hill have sent letters pressuring companies to disavow the Chamber of Commerce for its climate heresy.

This is a dangerous turn for free speech, and progressives ought to be the first to say so lest they become targets for their own political heresies. Rather than play defense, the targets of the climate police need to fight back with lawsuits of their own.

In news that should shock and anger Americans, U.S. Attorney General Loretta Lynch told the Senate Judiciary Committee on Wednesday that not only has she discussed internally the possibility of pursuing civil actions against so-called "climate change deniers," but she has "referred it to the FBI to consider whether or not it meets the criteria for which we could take action." -- *Hans von Spakovsky, The Daily Signal, 10 March 2016*

Last summer, taking his lead from the Inquisition, Democratic senator Sheldon Whitehouse proposed that anti-racketeering laws be used to shut down the "climate denial network" and the work of scientists who have "consistently published papers downplaying the role of carbon emissions in climate change."



Interior Secretary Sally Jewel, 2014:

“I hope there are no climate change deniers in the Department of Interior.”

None of this should be a surprise:

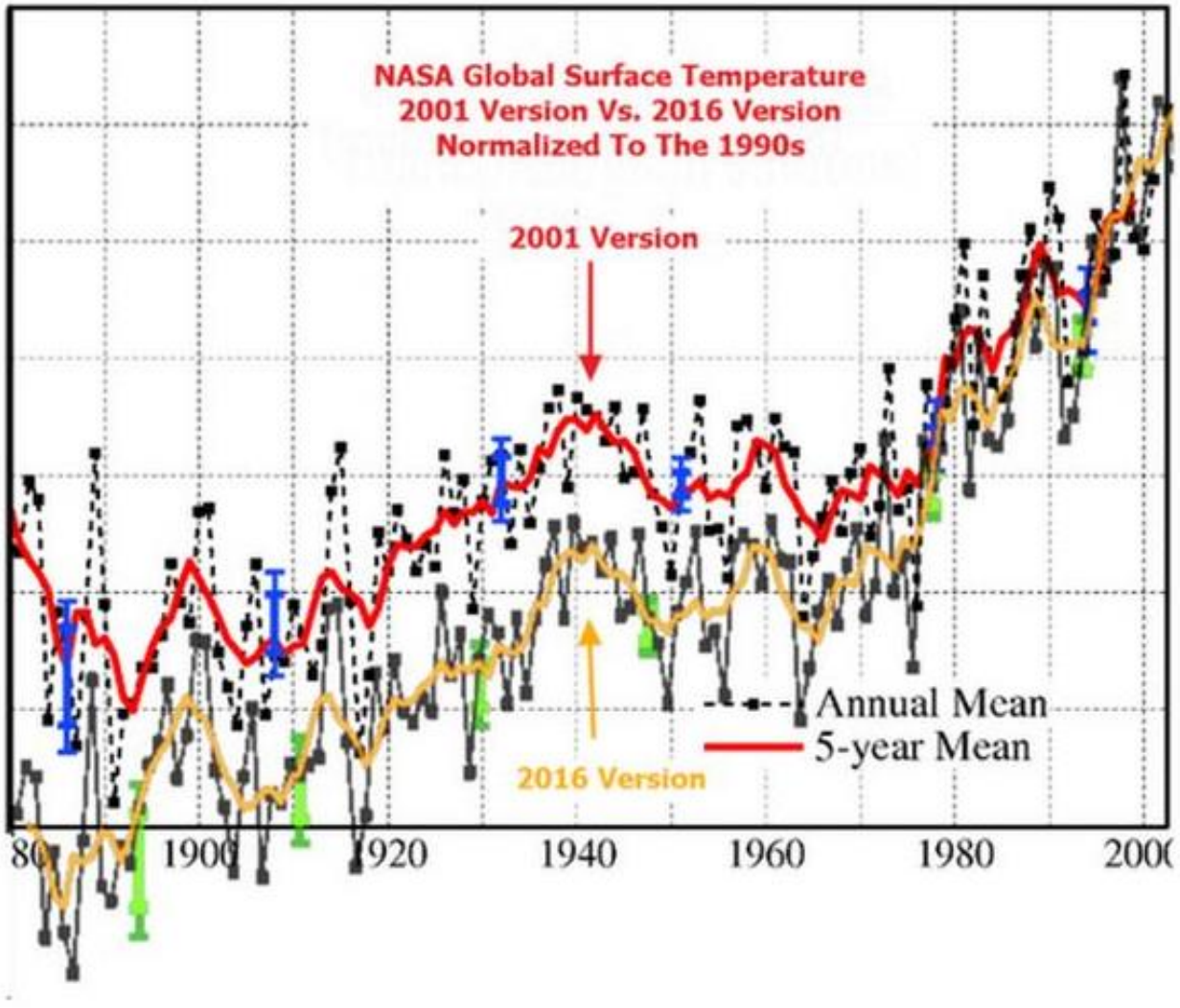
In 2007 and 2008, candidate Obama declared his intention to destroy fossil fuel energy in America and around the world, calling for "emissions targets" that would make it illegal to use more than 20 percent of today's levels. (Epstein, 2014, *The Moral Case for Fossil Fuels).*

"At the dawn of the twenty-first century, the country that faced down the tyranny of fascism and communism is now called to challenge the tyranny of oil… For the sake of our security, our economy, our jobs and our planet, the age of oil must end in our time."

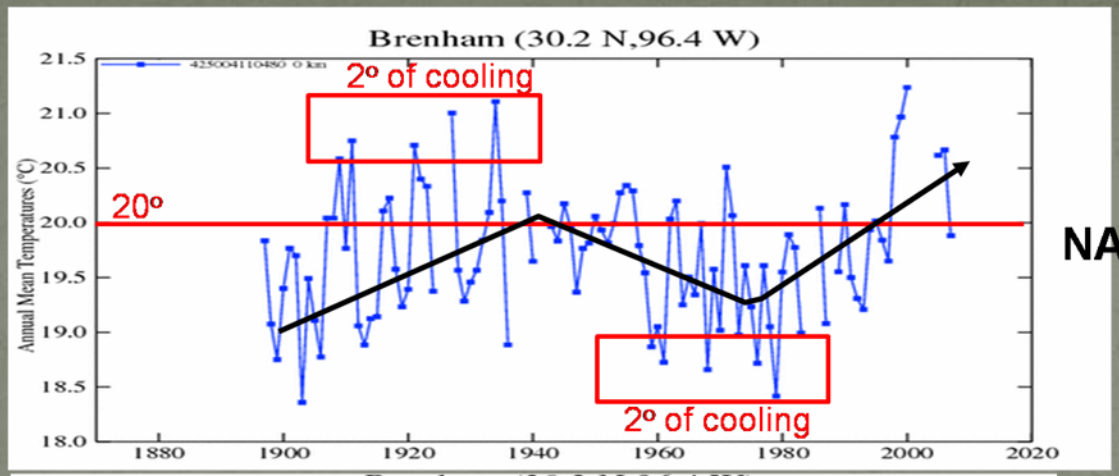
Barack Obama, "Remarks to the Detroit Economic Club," May 7, 2007, speech, Detroit, MI, The American Presidency Project

In November (2015), massive manipulation and falsification of the surface temperature record by NASA and NOAA were exposed in a detailed analysis by German scientist Friedrich-Karl Ewert titled "NASA GISS Temperature Records Altered - Why?"

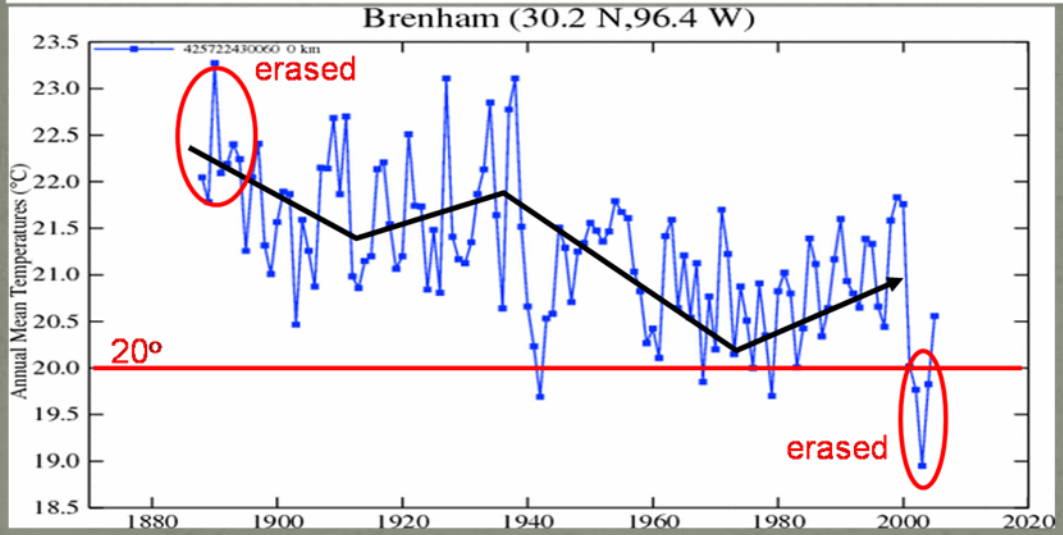
In January (2016) some 300 scientists signed a letter to Congressman Smith supporting his investigation into NOAA.



NASA global surface temperature, 2001 vs. 2016; source Real Science



NASA GISS
2012



NASA GISS
2008

Figure 4: Temperature station data for Brenham Texas. The upper graph was downloaded from the NASA GISS data base in late 2012. The lower graph was downloaded from the same site in mid 2008. Two degrees of cooling have been added to the 2012 curve for several years between 1900 and 1940 and again for several years between 1955 and 1985. As a result, the Brenham Station now shows an overall warming trend, whereas in 2008 the data showed a generally cooling trend.

Senator Inhofe has also called for investigation of the scientific improprieties revealed in the CRU emails:

"The notion that these scientists tried to declare the science settled for personal reasons is disgraceful. …They were purposefully misrepresenting the facts. They tried to make America believe, and it worked, for a time. …We've had warming, then cooling, then warming, then cooling again. I'm delighted that people are discovering that the science has been cooked for a long period of time.

"There are tremendous economic ramifications to what these guys are trying to do…The IPCC for years has been costing the government so much money, and now, wasted time in trying to pass faulty legislation based on bad data."

Robert Costa, "Inhofe: CRU Scandal Bigger than ACORN Flap," National Review online, November 24, 2009

UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA
SAN FRANCISCO DIVISION

THE PEOPLE OF THE STATE OF CALIFORNIA,
Plaintiff,
v.
B.P. P.L.C., *et al.*,
Defendants.
Case No. C 17-06011 WHA
Case No. C 17-06012 WHA
Hearing Date: March 21, 2018 at 8:00 a.m.

ADMINISTRATIVE MOTION OF WILLIAM HAPPER, STEVEN E. KOONIN, AND RICHARD S. LINDZEN FOR LEAVE TO SUBMIT PRESENTATION IN RESPONSE TO THE COURT'S TUTORIAL QUESTIONS
The Honorable William H. Alsup

"Our overview of climate science is framed through four statements:

1. The climate is always changing; changes like those of the past half-century are common in the geologic record, driven by powerful natural phenomena
2. Human influences on the climate are a small (1%) perturbation to natural energy flows
3. It is not possible to tell how much of the modest recent warming can be ascribed to human influences
4. There have been no detrimental changes observed in the most salient climate variables and today's projections of future changes are highly Uncertain

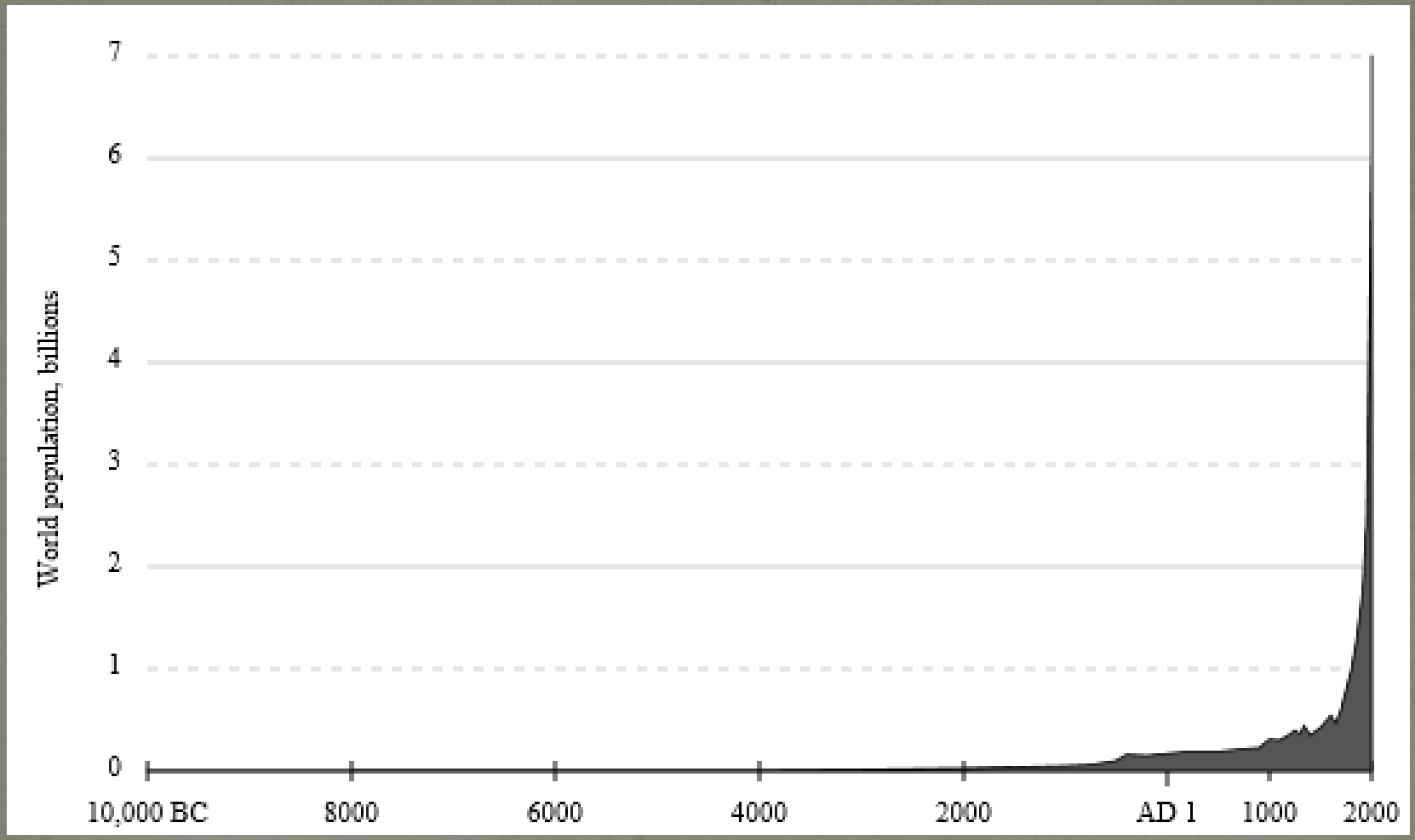
We offer supporting evidence for each of these statements drawn almost exclusively from the Climate
Science Special Report (CSSR) issued by the US government in November, 2017 or from the Fifth
Assessment Report (AR5) issued in 2013-14 by the UN's Intergovernmental Panel on Climate Change or
from the refereed primary literature."

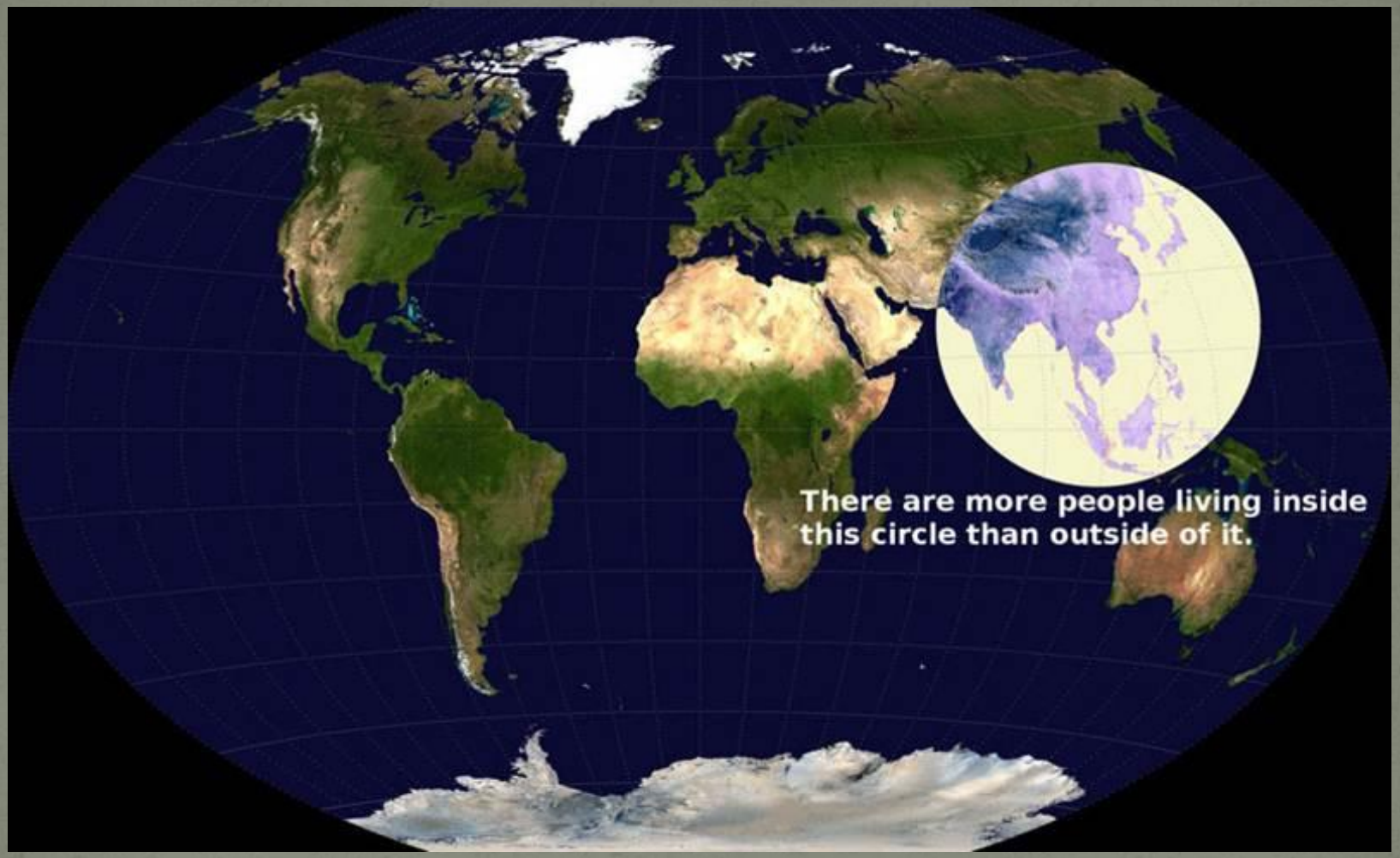
IN THE SENATE OF THE UNITED STATES
APRIL 24, 2018
Mr. MARKEY (for himself, Ms. WARREN, Ms. HARRIS, Mrs. SHAHEEN, Mrs.
FEINSTEIN, Mrs. MURRAY, Mr. VAN HOLLEN, and Mr. SANDERS) introduced
the following bill; which was read twice and referred to the Committee
on Commerce, Science, and Transportation

A BILL To authorize the National Oceanic and Atmospheric Administration to establish a Climate Change Education Program, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, 2 SECTION 1. SHORT TITLE. 3 This Act may be cited as the "Climate Change Education Act". 5 SEC. 2. FINDINGS. 6 Congress makes the following findings: 7 (1) The evidence for human-induced climate change is overwhelming and undeniable.

So, what's driving these passions and behaviors?


World population, billions
7
6
5
4
3
2
1
0
10,000 BC
8000
6000
4000
2000
AD 1
1000
2000


There are more people living inside
this circle than outside of it.

But the bottom line is the political science, not the climate science, as Obama White House Science Advisor John Holdren has previously revealed. He has stated, "A massive campaign must be launched to…*de-develop* the United States…bringing our economic system (especially patterns of consumption) into line with the realities of ecology and the global resource situation….We must design a stable, low consumption economy in which there is a much more equitable distribution of wealth."

Peter Ferrara in Forbes, May 18, 2014

The alarmists keep telling us their concern about global warming is all about man's stewardship of the environment

But we know that's not true

At a news conference last week (2015) in Brussels, Christiana Figueres, executive secretary of U.N.'s Framework Convention on Climate Change, admitted that the goal of environmental activists is not to save the world from ecological calamity but to destroy capitalism.

"This is the first time in the history of mankind that we are setting ourselves the task of intentionally, within a defined period of time, to change the economic development model that has been reigning for at least 150 years, since the Industrial Revolution. ...This is probably the most difficult task we have ever given ourselves, which is to intentionally transform the economic development model for the first time in human history."

--Investor's Business Daily, 10 February 2015

Maurice Strong, Chairman, First international meeting on global warming, Rio de Janeiro, 1992:

“Isn’t the only hope for the planet that the industrialized civilizations collapse? Isn’t it our responsibility to bring that about?”

“Our concept of ballot-box democracy may need to be modified to produce a strong central government capable of making difficult decisions.”

Strobe Talbert, Deputy Secretary of State under Clinton:

"Nationhood as we know it will be obsolete – all states will recognize a single global authority… National Sovereignty wasn't such a good idea."

Vice President Biden and Defense Secretary Hagel, 2014

"We are moving towards a new world order."

Ottmar Odenhofer, UN-IPCC lead author, 4th IPCC Report, in an interview Nov. 18, 2010:

"We redistribute de facto the world's wealth by climate policy. One has to free oneself from the illusion that international climate policy is environmental policy."

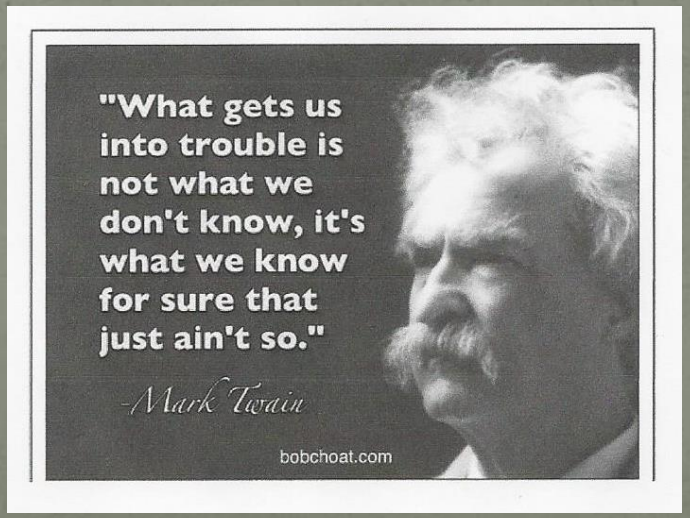
Richard Benedict, then Deputy Assistant of State, head of the policy divisions of the US State Department:

> "A global warming treaty must be implemented even if there is no scientific evidence to back the (enhanced) greenhouse effect."

S. Fred Singer and Dennis T. Avery, *Unstoppable Global Warming,* 2007, p.210.

Dana Rohrabacher, U.S. Representative, California:

“Global warming is a fraud being used as a tool to create a Global Government.”



Jacques Cousteau explicitly proclaims the need to depopulate the earth :

“The damage people cause to the planet is a function of demographics - it is equal to the degree of development. [The single country] America burdens the earth much more than twenty Bangladeshes…. This is a terrible thing to say. In order to stabilize world population, we must eliminate 350,000 people per day. It is a horrible thing to say, but it's just as bad not to say it.”

November 1991 *UNESCO Courier*

- “Human happiness, and certainly human fecundity, are not as important as a wild and healthy planet. …(Some claim) that people are part of nature but it isn’t true. …we became a cancer. We have become a plague upon ourselves and upon the Earth. It is cosmically unlikely that the developed world will choose to end its orgy of fossil-energy consumption, and the Third World its suicidal consumption of landscape. Until such time as *Homo sapiens* should decide to rejoin nature, some of us can only hope for the right virus to come along.”

  David M. Graber, research biologist, National Park Service in the Los Angeles Times, Oct. 22, 1989

But there are other ways to achieve those ends – a “pristine” planet and smaller population.

Simply eliminate the world’s access to inexpensive energy –
declare war on fossil fuels
and eliminate them.

Problem solved, capitalism destroyed in the developed world, and
“wealth” transferred to the Third World
where fossil fuel use is not curtailed.

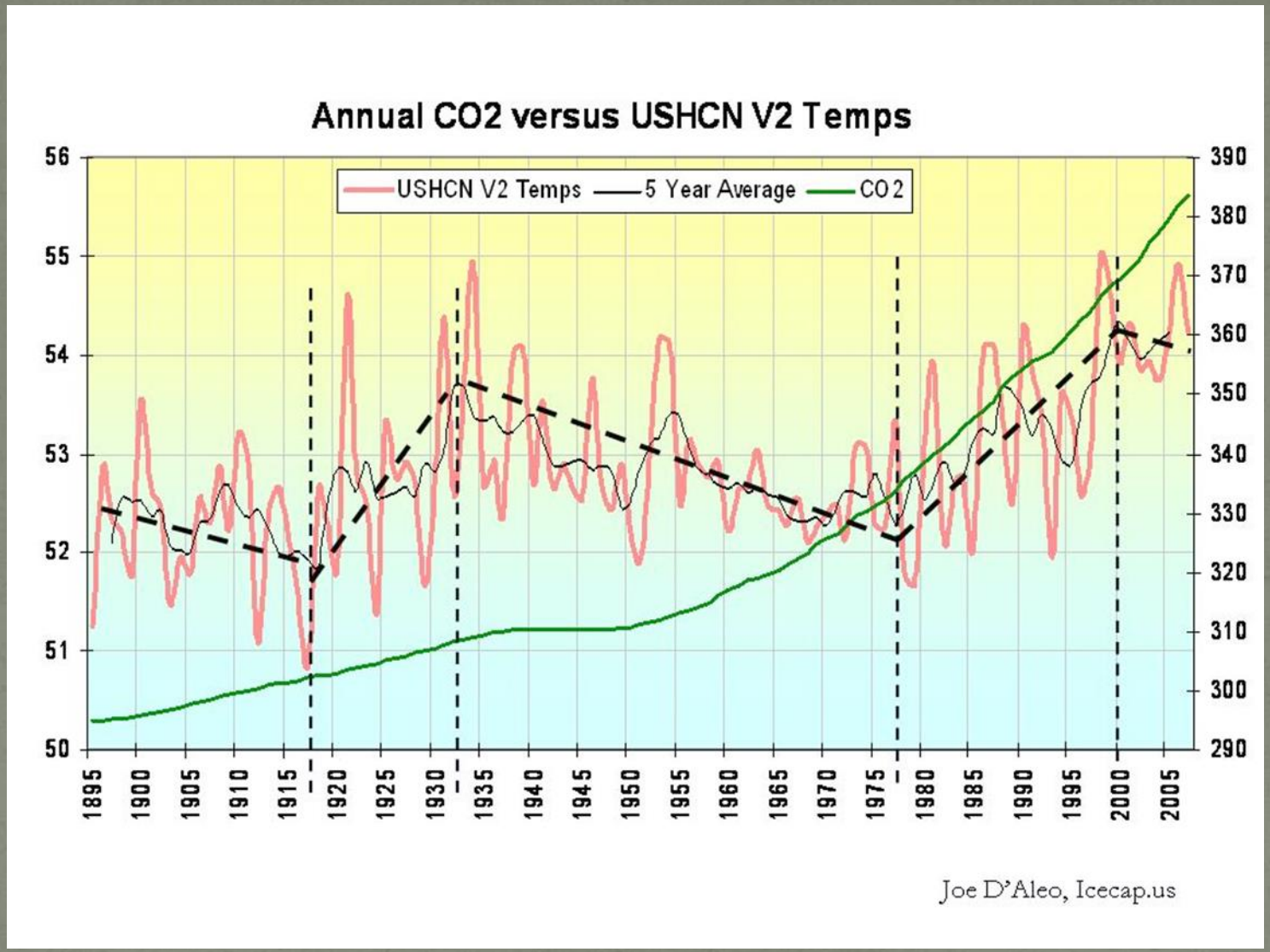
So, enter the EPA and its activities:

- Control CO_2 “pollution” via the Clean Air Act –>
- Control commercial aircraft emissions
- Cause 244 coal plants to close
- Push all major coal producers to backrupcy
- Declare that all residential energy will be renewable by 2030 (requiring 500 million solar panels at a cost of $1 trillion)

Dr. Patrick Moore in *"Confessions of a Greenpeace Dropout"*:

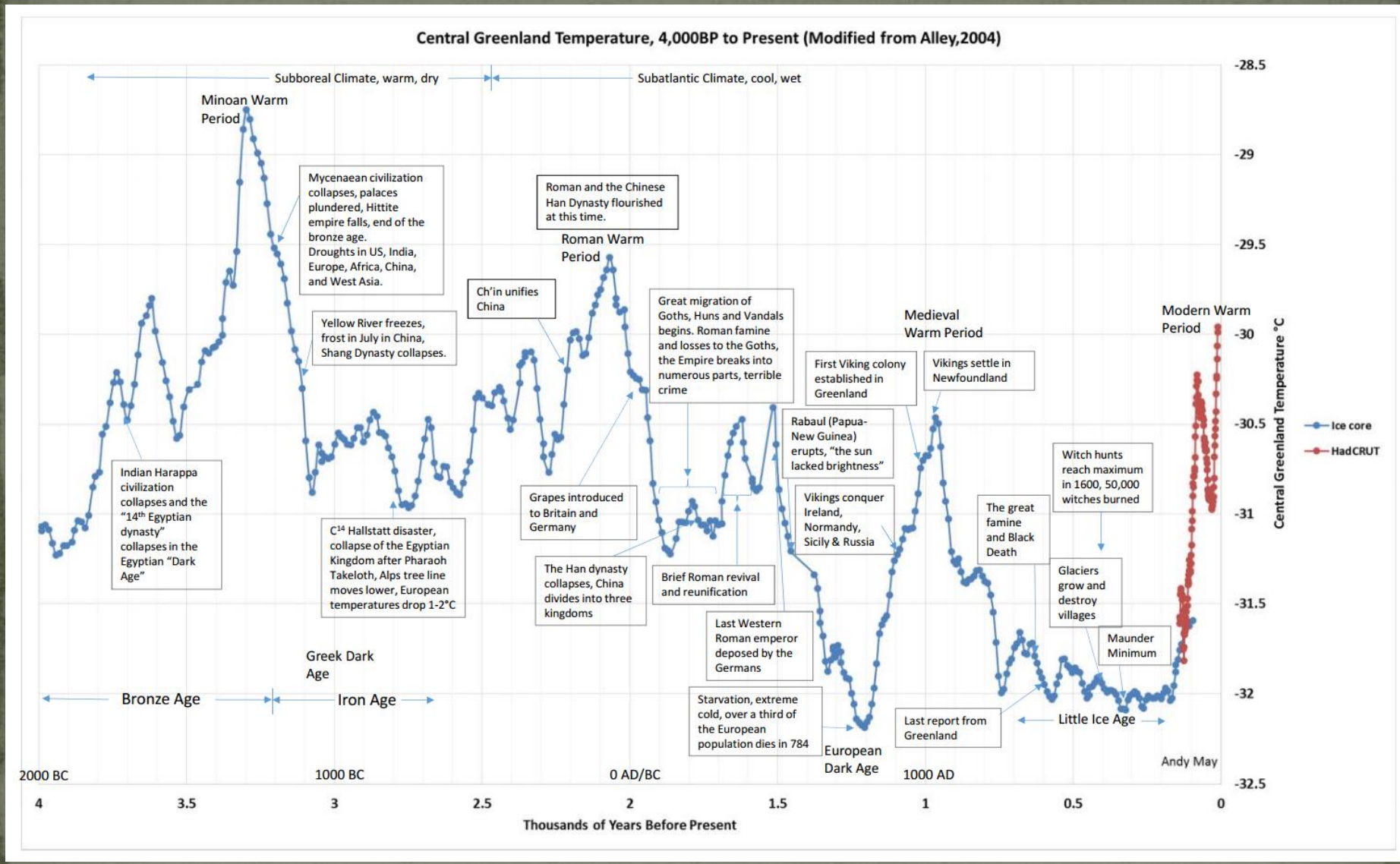
"There is no definitive scientific proof, through real-world observations, that CO_2 is responsible for warming of the globe."

"It doesn't matter how beautiful your theory is, it doesn't matter how smart you are. If it doesn't agree with experiment, it's wrong." Richard Feynman


Annual CO2 versus USHCN V2 Temps
USHCN V2 Temps
5 Year Average
CO2
56
55
54
53
52
51
50
390
380
370
360
350
340
330
320
310
300
290
1895
1900
1905
1910
1915
1920
1925
1930
1935
1940
1945
1950
1955
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
Joe D'Aleo, Icecap.us

"...cooling has always resulted in major social upheavals, whereas warming has sometimes led to a blossoming of culture. If we can learn anything from the history of culture, it is that, even if humans were 'children of the Ice Age', civilization was a product of climatic warming."

Behringer, 2010, *A Cultural History of Climate*


Central Greenland Temperature, 4,000BP to Present (Modified from Alley,2004)
Subboreal Climate, warm, dry
Subatlantic Climate, cool, wet
Minoan Warm Period
Mycenaean civilization collapses, palaces plundered, Hittite empire falls, end of the bronze age. Droughts in US, India, Europe, Africa, China, and West Asia.
Yellow River freezes, frost in July in China, Shang Dynasty collapses.
Indian Harappa civilization collapses and the "14th Egyptian dynasty" collapses in the Egyptian "Dark Age"
C14 Hallstatt disaster, collapse of the Egyptian Kingdom after Pharaoh Takeloth, Alps tree line moves lower, European temperatures drop 1-2°C
Greek Dark Age
Bronze Age
Iron Age
Roman and the Chinese Han Dynasty flourished at this time.
Roman Warm Period
Ch'in unifies China
Great migration of Goths, Huns and Vandals begins. Roman famine and losses to the Goths, the Empire breaks into numerous parts, terrible crime
Grapes introduced to Britain and Germany
The Han dynasty collapses, China divides into three kingdoms
Brief Roman revival and reunification
Last Western Roman emperor deposed by the Germans
Starvation, extreme cold, over a third of the European population dies in 784
European Dark Age
Medieval Warm Period
First Viking colony established in Greenland
Vikings settle in Newfoundland
Rabaul (Papua-New Guinea) erupts, "the sun lacked brightness"
Vikings conquer Ireland, Normandy, Sicily & Russia
Last report from Greenland
The great famine and Black Death
Witch hunts reach maximum in 1600, 50,000 witches burned
Glaciers grow and destroy villages
Maunder Minimum
Little Ice Age
Modern Warm Period
Andy May
2000 BC
1000 BC
0 AD/BC
1000 AD
4
3.5
3
2.5
2
1.5
1
0.5
0
Thousands of Years Before Present
-28.5
-29
-29.5
-30
-30.5
-31
-31.5
-32
-32.5
Central Greenland Temperature °C
Ice core
HadCRUT

"The future is hard to foresee. Serious scientists should refrain from slipping into the role of Nostradamus. Computer simulations cannot be better than the premises that guided the input of data: they show what is expected to happen, not the actual future. The history of the sciences is also a history of false theories and wrong predictions."

Behringer, 2010, *A Cultural History of Climate*

The New York Times

THURSDAY, JANUARY 5, 1978

By WALTER SULLIVAN

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.

The report, prepared by German, Japanese and American specialists, appears in the Dec. 15 issue of Nature, the British journal. The findings indicate that from 1950 to 1975 the cooling, per decade, of most climate indexes in the Northern Hemisphere was from 0.1 to 0.2 degrees Celsius, roughly 0.2 to 0.4 degrees Fahrenheit.

Data from the Southern Hemisphere, particularly south of latitude 30 south, are so meager that reliable conclusions are not possible, the report says. The

The Cooling World

There are ominous signs that the earth's weather patterns have begun to change dramatically and that these changes may portend a drastic decline in food production—with serious political implications for just about every nation on earth. The drop in food output could begin quite soon, perhaps only ten years from now. The regions destined to feel its impact are the great wheat-producing lands of Canada and the U.S.S.R. in the north, along with a number of marginally self-sufficient tropical areas—parts of India, Pakistan, Bangladesh, Indochina and Indonesia—where the growing season is dependent upon the rains brought by the monsoon.

The evidence in support of these predictions has now begun to accumulate so massively that meteorologists are hard-pressed to keep up with it. In England, farmers have seen their growing season decline by about two weeks since 1950, with a resultant over-all loss in grain production estimated at up to 100,000 tons annually. During the same time, the average temperature around the equator has risen by a fraction of a degree—a fraction that in some areas can mean drought and desolation. Last April, in the most devastating outbreak of tornadoes ever recorded, 148 twisters killed more than 300 people and caused half a billion dollars' worth of damage in thirteen U.S. states.

Trend: To scientists, these seemingly disparate incidents represent the advance signs of fundamental changes in the world's weather. The central fact is that after three quarters of a century of extraordinarily mild conditions, the earth's climate seems to be cooling down. Meteorologists disagree about the cause and extent of the cooling trend, as well as over its specific impact on local weather conditions. But they are almost unanimous in the view that the trend will reduce agricultural productivity for the rest of the century. If the climatic change is as profound as some of the pessimists fear, the resulting famines could be catastrophic. "A major climatic change would force economic and social adjustments on a worldwide scale," warns a recent report by the National Academy of Sciences, "because the global patterns of food production and population that have evolved are implicitly dependent on the climate of the present century."

A survey completed last year by Dr. Murray Mitchell of the National Oceanic and Atmospheric Administration reveals a drop of half a degree in average ground temperatures in the Northern Hemisphere between 1945 and 1968. According to George Kukla of Columbia University, satellite photos indicated a sudden, large increase in Northern Hemisphere snow cover in the winter of 1971-72. And

Newsweek, April 28, 1975

Des Moines Sunday Register

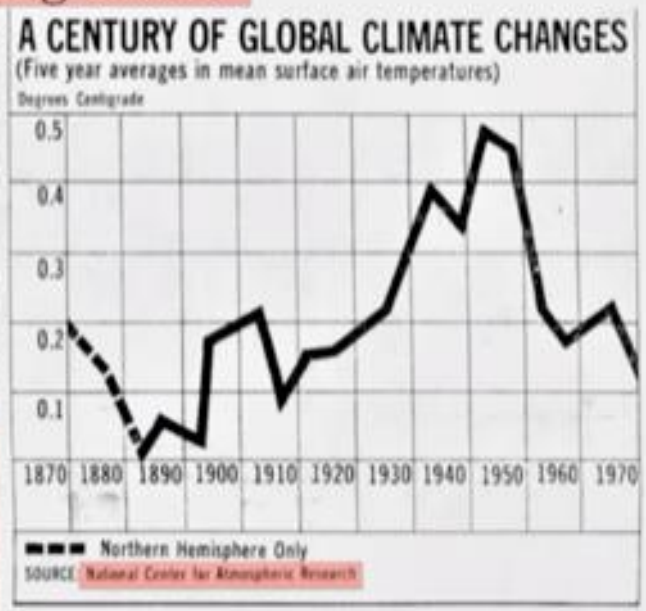
July 21, 1974

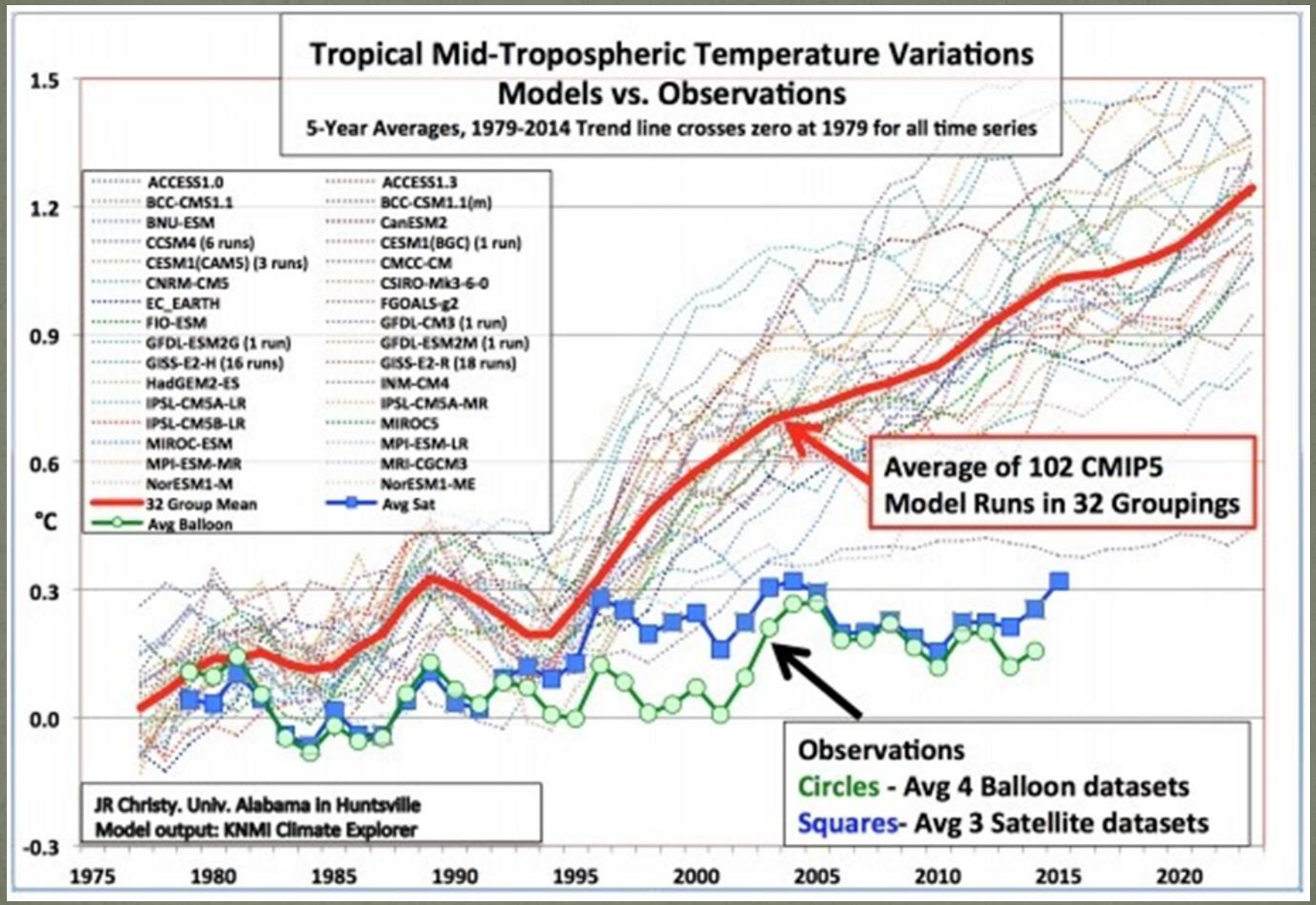
World is getting cooler

Droughts, floods, blizzards, tornadoes, typhoons and hurricanes have plagued much of the nation and the world in recent years. Most people considered these weather conditions to be abnormal and temporary, but instead, climatologists now believe that the first half of the Twentieth Century was blessed with unusually mild weather and that the global climate has begun returning to a harsher — but more normal — state.

For the long run, there is mounting evidence of a worldwide cooling trend. The average temperature of the world as a whole has dropped by one-third to one-half a degree Centigrade in the last 30 years. "The decline of prevailing temperatures since about 1945 appears to be the longest-continued downward trend since temperature records began," says Professor Hubert H. Lamb of the University of East Anglia in Britain.

Global cooling may be a cause of the devastating African drought, now in its sixth year. Some scientists believe that expansion of the cold polar air caps pushed the monsoon rain belt south-ward, causing many of the life-giving rains to fall on already fertile lands or into the sea. Dry weather conditions also prevail in parts of India, China, Korea, Siberia and other countries on both sides of the equator, raising the specter of even more serious drought and famine. Drought has hit the United States regularly about every 20 years, and is due again in the mid-1970s.




Tropical Mid-Tropospheric Temperature Variations
Models vs. Observations
5-Year Averages, 1979-2014 Trend line crosses zero at 1979 for all time series
ACCESS1.0
ACCESS1.3
BCC-CMS1.1
BCC-CSM1.1(m)
BNU-ESM
CanESM2
CCSM4 (6 runs)
CESM1(BGC) (1 run)
CESM1(CAM5) (3 runs)
CMCC-CM
CNRM-CM5
CSIRO-Mk3-6-0
EC_EARTH
FGOALS-g2
FIO-ESM
GFDL-CM3 (1 run)
GFDL-ESM2G (1 run)
GFDL-ESM2M (1 run)
GISS-E2-H (16 runs)
GISS-E2-R (18 runs)
HadGEM2-ES
INM-CM4
IPSL-CM5A-LR
IPSL-CM5A-MR
IPSL-CM5B-LR
MIROC5
MIROC-ESM
MPI-ESM-LR
MPI-ESM-MR
MRI-CGCM3
NorESM1-M
NorESM1-ME
32 Group Mean
Avg Sat
Avg Balloon
Average of 102 CMIP5
Model Runs in 32 Groupings
Observations
Circles - Avg 4 Balloon datasets
Squares- Avg 3 Satellite datasets
JR Christy. Univ. Alabama in Huntsville
Model output: KNMI Climate Explorer
°C
1.5
1.2
0.9
0.6
0.3
0.0
-0.3
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020

"In climate research and modeling, we should recognize that we are dealing with a coupled non-linear chaotic system, and therefore that long-term prediction of future climate states is not possible."

IPCC Climate Change 2000,
Chapter 8, "Model Evaluation",
p.774

"Anyone who claims to know what climate changes will occur in a year, a decade, or even longer ahead is either a fraud or a fool."

Larry Bell, *Climate of Corruption,*
2011, p.215.

Summary

- Inappropriate standards
  - Inadequate
  - Unevenly applied
  - Prejudicial
- Science
  - Ignores data
  - Presents modeling as “hard science”
- Suppression of alternatives
- Self-censorship
- Misrepresentation of data
  - Alteration of data

"Corrupt science that supports these travesties has many complicit agents. It is perpetrated by sponsors who fail to provide competent oversight; by ideologically, politically, and financially driven authorities who twist and exploit conclusions; and by lockstep, headline-hungry media organizations that emphasize sensationalism over substance. *And we can't forget those among us who, through complacency and denial in the face of obvious deception, willingly forfeit demands for accountability. When we abrogate that responsibility, perhaps we become culpable too.*"

Larry Bell, *Climate of Corruption*, 2011, p.236.


I WANT YOU

Climate change is the biggest scam in the history of the world – a $1.5 trillion-a-year conspiracy against the taxpayer, every cent, penny and centime of which ends in the pockets of the wrong kind of people, none of which goes towards a cause remotely worth funding, all of it a complete and utter waste.

Extra slides

Selected references

- "The Great Global Warming Blunder" by Roy W. Spencer, 2010
- "Climate of Corruption" by Larry Bell, 2011
- "A Disgrace to the Profession, Vol. 1" by Mark Steyn, 2015
- "The Moral Case for Fossil Fuels" by Alex Epstein, 2014

- "Unstoppable Global Warming – Every 1,500 Years" by S. Fred Singer and Dennis T. Avery, 2007
- "Fire, Ice, and Paradise" by H. Leighton Steward, 2009
- "Climate Change Facts" Alan Moran ed., 2015
- "Times of Feast, Times of Famine" by Emmanuel Le Roy Ladurie,1971

Video references

- "The Great Global Warming Swindle"

https://video.search.yahoo.com/search/video;_ylt=AwrBT_t4JddXHQ0A9qFXNyoA;_ylu=X30DMTEyMm43aWFsBGNvbG8DYmYxBHBvcwMxBHZ0aWQDQjE5MTBfMQRzZWMDc2M-?p=The+Great+Global+Warming&fr=mcafee

- Professor Ian Plimmer

https://www.youtube.com/watch?v=iEPW_P7GVB8

- Patrick Moore

https://www.prageru.com/courses/environmental-science/what-they-havent-told-you-about-climate-change#.Vc4sj_lViko

- Stefan Molyneux

https://www.youtube.com/watch?v=yTTaXqVEGkU

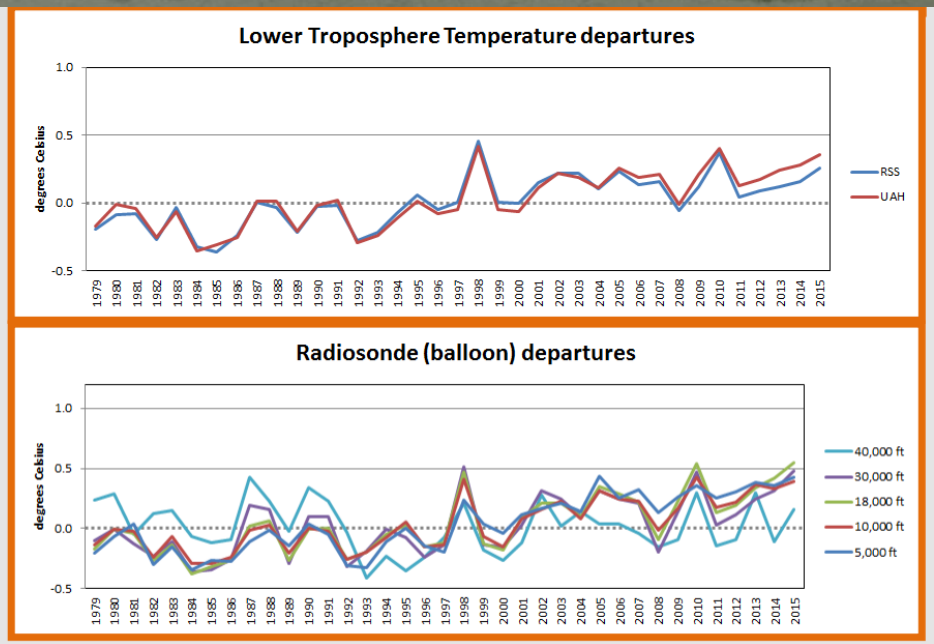
In 2013 *The Los Angeles Times* said it would "no longer publish letters from climate change deniers", in which category it included sceptics.

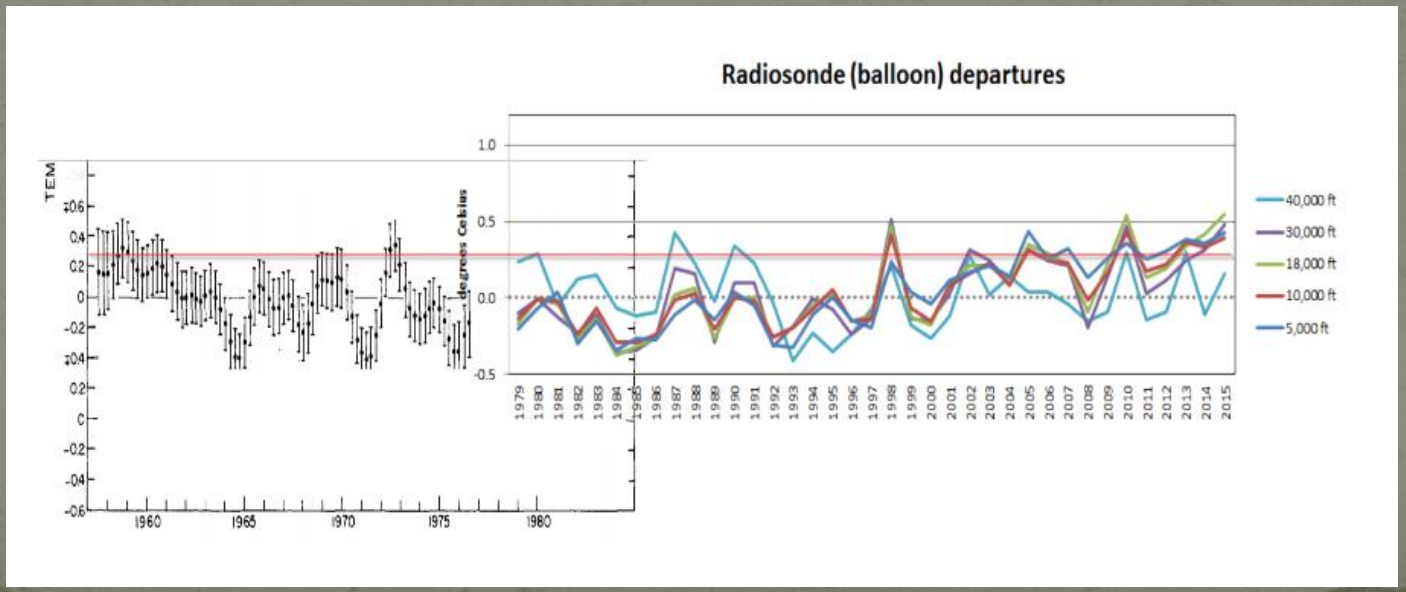
In 2014 the BBC upheld a complaint against itself for allowing Lord Lawson to discuss climate change at all, commenting bizarrely that his views "are not supported by the evidence from computer modelling".

The editor of this newspaper received a private letter last week from Lord Krebs and 12 other members of the House of Lords expressing unhappiness with two articles by its environment correspondent. Conceding that *The Times's* reporting of the Paris climate conference had been balanced and comprehensive, it denounced the two articles about studies by mainstream academics in the scientific literature, which provided less than alarming assessments of climate change.

- NESDIS STAR: 5th warmest

- Lower Troposphere (37 yr record)
  - UAH: 3rd warmest
  - RSS: 3rd warmest
- Radiosonde data (58 yr record)
  - ~5,000 ft (850mb): 2nd warmest
  - ~10,000 ft (700mb): 3rd warmest
  - ~18,000 ft (500mb): warmest
  - ~30,000 ft (300mb): 2nd warmest
  - ~40,000 ft (200mb): 14th warmest





Dr. Patrick J. Michaels and Dr. Richard S. Lindzen, writing in June (2015) at the blog "Watts Up With That", commented on the National Oceanic & Atmospheric Administration's (NOAA) use of unreliable water temperature records to create a spurious new record to support alarmist claims: "As has been acknowledged by numerous scientists, the engine intake data are clearly contaminated by heat conduction from the structure, and as such, never intended for scientific use."

Wash. Times Review 25 Jan 16

Stop censoring climate debate

President Obama told Americans in his recent (and last) State of the Union address: "Democracy grinds to a halt without a willingness to compromise, or when even basic facts are contested, or when we listen only to those who agree with us. Our public life withers when only the most extreme voices get all the attention." Yet the president will not compromise with or even listen to the many highly qualified scientists who contest his position on climate change.

Instead he heeds the most extreme voices in the debate, people such as ex-NASA scientist James Hansen and others who exaggerate the climate scare to ridiculous levels that even left-wing scientists disdain.

In his last year, Mr. Obama must do the following:

1. Stop referring to those who question the causes of climate change as people 'on the fringe' of science who should be shunned. As shown by the reports of the Nongovernmental International Panel on Climate Change (NIPCC), there are literally thousands of peer-reviewed papers in the world's leading science journals that shed doubt on or outright refute the Obama administration's position on climate change.

2. Stop his dangerous 'war on coal' to supposedly stop climate change. Coal is America's cheapest and most abundant power source and its use must be expanded, not reduced, if soaring electricity prices and massive unemployment is to be avoided.

3. Start telling the truth about the Paris Agreement on climate change and other nonsensical attempts to stop global warming. Developing countries emit the most carbon dioxide, yet the United Nations has given them an opt-out clause. So even if the United Nations' science were correct, America's sacrifice would be for nothing.

If Obama is serious about promoting "a more elevated debate in Washington," as he said he was in his last State of the Union address, he must start to practice what he preaches.

TOM HARRIS
Executive director
International Climate Science Coalition (ICSC)
Ottawa, Ontario