

ENVIRONMENTAL ENGINEERING

NEWSLETTER

8 SEPT. 2014

This week's edition includes:

If you need older URLs contact George at ghh@att.net.

Please Note: This newsletter contains articles that offer differing points of view regarding climate change, energy and other environmental issues. Any opinions expressed in this publication are the responses of the editor alone and do not represent the positions of the Environmental Engineering Division or the ASME.

George Holliday

This week's edition includes:

1. ENVIRONMENT A D.C. CIRCUIT SETS DEADLINE FOR PARTIES TO FILE MOTIONS TO GOVERN FUTURE PROCEEDINGS IN GREENHOUSE GAS LITIGATION

On August 25, 2014, the United States Court of Appeals for the District of Columbia Circuit ("D.C. Circuit") issued an order, on its own motion, that the parties in *Coalition for Responsible Regulation v. EPA*, No. 09-1322, file motions to govern future proceedings by September 30, 2014. *Coalition for Responsible Regulation v. EPA* is the D.C. Circuit decision that was affirmed in part and reversed in part by the United States Supreme Court in *Utility Air Regulatory Group (UARG) v. EPA*. See TIP 2014-100.

In *UARG v. EPA*, the Supreme Court found that the Clean Air Act neither compels nor permits the EPA to adopt an interpretation requiring a source to obtain a PSD or Title V permit on the sole basis of its potential GHG emissions. The Court also found however that EPA reasonably interpreted the Clean Air Act to require sources that would need permits based on the emission of conventional pollutants to comply with the Best Available Control Technology for GHGs.

Roger Zygmunt

B. MESSAGE FROM THE CHAIRMAN ASME CALL-FOR-SUBMITTALS: INNOVATIVE WATER TREATMENT AND CONSERVATION TECHNOLOGIES FOR INDUSTRIAL FACILITIES

ASME has recently chartered a Water Efficiency Guidelines (WEG) Committee to develop guidance documents to promote the efficient use of water in power and other industrial facilities. One of the WEG subcommittees under this charter is designated to develop guidelines for best practices, performance assessments and evaluation and reporting criteria for innovative water conservation, reuse and recovery technologies. In that regard, [this ASME Subcommittee on Innovative Water Conservation, Reuse and Recovery Technologies](#) is soliciting industry input

for development of a list of innovative water treatment and conservation technologies. This input will be in the form of a brief (no more than two pages) narrative describing the innovative equipment and/or innovative use of existing equipment (i.e. fully operational) that should be considered by users of the ASME's guidance document. The proposed innovative technology paper may include diagrams, photos, drawings, catalog information, or any and all information required to support the qualification of the innovative technology, system or process for the stated objectives of water conservation, reuse and recovery in industrial and power plants.

The Committee does not intend to publish or evaluate these technology submittals in this guidance document. This Subcommittee currently plans to list the names of qualified contributors in an attachment as acknowledgement of their important contribution to the development of this document. By submitting your brief, each contributor is provided the unique opportunity to ensure their innovative technology is acknowledged in this guidance document and not overlooked for inclusion in subsequent related ASME Standards.

Arnold Feldman

2. TRANSPORTATION A. COAST GUARD RULE AIMED AT REDUCING VESSEL COLLISIONS IMMINENT - EMERGING ISSUES - :COAST GUARD RULE AIMED AT REDUCING VESSEL COLLISIONS IMMINENT

A U.S. Coast Guard Final Rule that will expand applicability of requirements for vessels to be equipped with Automatic Identification System (AIS) technology is anticipated within the next 90 days. AIS technology uses transponders and electronic chart displays to alert pilots to neighboring ships, which helps to mitigate the risk of collision and its resulting safety and environmental effects. Collision risk has increased with growing ship traffic in U.S. inland waterways, including vessels carrying record exports of petroleum and petroleum products.

Current regulations require AIS for certain large vessels and in specified Vessel Traffic Service areas. The new rule would expand AIS applicability to all U.S. navigable waters, as well as expand AIS applicability to commercial vessels 65 feet or more in length and certain other types of commercial vessels. The Coast Guard has estimated the total initial year cost to U.S. vessel owners and operators to comply with the AIS portion of the rulemaking would be \$69 million, which includes capital costs, installation, and training costs. To further facilitate ship tracking, the rule would also expand the applicability of Notice of Arrival and Departure requirements when a vessel is departing for a foreign port or place.

A Notice of Proposed Rulemaking for this regulation was published in 2008 and several public meetings took place in 2009. *See* 73 Fed. Reg. 76295 (Dec. 16, 2008). The Final Rule is currently undergoing review by the White House Office of Information and Regulatory Affairs (OIRA), which is the final review prior to publication and generally takes less than 90 days.

Roger Zygmunt

COMMENTS:

A. THE WEEK THAT WAS: 2014-08-30 (AUG. 30 2014)

By Ken Haapala, Executive Vice President, Science and Environmental Policy Project (SEPP)

A Hint of Desperation? The synthesis report of UN Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report (AR5) has been leaked to friendly media organizations such as Bloomberg and the New York Times. The IPCC schedule has the discussion of the report and approval during a meeting in Copenhagen from October 24 to October 31, 2014. (During the Copenhagen meeting, on October 26, the future work of the IPCC will be discussed.) The schedule has the presentation and distribution of the synthesis report from December 3 to December 14. One question about the timing of the leak quickly arises: is the IPCC trying to influence the US election on November 4?

Based on comments from journalists who are friendly with the IPCC, the synthesis report is more strident than past reports. Seth Borenstein of the Associated Press wrote:

Global warming is here, human-caused and probably already dangerous —and it's increasingly likely that the heating trend could be irreversible, a draft of a new international science report says.

There is little in the report that wasn't in the other more-detailed versions, but the language is more stark and the report attempts to connect the different scientific disciplines studying problems caused by the burning of fossil fuels, such as coal, oil and gas.

"Continued emission of greenhouse gases will cause further warming and long-lasting changes in all components of the climate system, increasing the likelihood of severe, pervasive and irreversible impacts for people and ecosystems," the report says.

According to the publicly available atmospheric temperature data compiled by the University of Alabama in Huntsville (UAH), there has been no warming trend for over a decade. Surface data show no warming for about 17 years.

We now have more than 30 explanations for the failure of the earth to warm. Many explanations have come from members of the Climate Establishment that have benefited from the IPCC and the enormous expenditure of funds from countries such as the United States. Many of these explanations suggest causes of natural climate change that the IPCC failed to consider in its AR5 Summary for Policymakers.

Yet, in addressing the trend of no warming, Andy Revkin wrote: ***"What's firmly established is that the climate is warming, that the buildup of human-generated heat-trapping greenhouse gases is contributing substantially to the warming ..."***

Alarmists are announcing greater certainty in the work, without bothering to ask the central question. How can we know it was CO₂ in the recent past, if it isn't CO₂ now? The only answer seems to be appeal to authority, in this case the IPCC. See links under Defending the Orthodoxy and http://www.ipcc.ch/scripts/_calendar_template.php?wg=8

IPCC Illogic I –Circular Reasoning: When studying algebra many learned that when presented with an equation such as $A+B=10$, it is impossible to determine the value of A without knowing the value of B. Similarly, it is impossible to determine the value of B without knowing the value of A. In the AR5 Summary for Policymakers, the IPCC tries to get around this simple logic problem by using models to solve for the values of A & B simultaneously. [Assume A is human influences on climate and B is natural influences on climate and that the calculated values are 7 and 3, respectively.] This creates another problem. The models have not been verified and validated, how does one know that the calculated values are correct?

At this point the IPCC engages in circular reasoning. If A, equal to 7, is removed from the equation, an absurd result occurs, namely $3 = 10$. However, a similar absurd result occurs

regardless of the values of A and B, as long as the sum of A and B equals 10. The value of A or B must be determined empirically.

Andrew Montford points out another major issue with these presentations. The variations in temperature data have been obfuscated (smoothed) by using decadal averages. As statistician Matt Briggs insists, smoothing time series data can dramatically fool the researcher into being more certain about the final results than warranted by the data. See links under Challenging the Orthodoxy.

IPCC IllogicII: The current trend of no global warming has prompted Richard Betts of the UK Met Office to discount the value of climate models for public policy by claiming they are useful for short-term regional projections but not for long-term global projections. Betts is one of the lead authors of IPCC AR5, working group 2, which “assesses the vulnerability of socio-economic and natural systems to climate change, negative and positive consequences of climate change.” Andrew Montford in Bishop Hill, and Bob Tisdale in WUWT, demolish the argument by Betts. It is the fear of long-term global warming, based on projections from the faulty models, that drives funding of the Climate Establishment. See links Models v. Observations and http://www.ipcc.ch/working_groups/working_groups.shtml

IPCC IllogicIII: An article by Alex Morales in *Bloomberg* on the leaked synthesis report stated: *The pace of temperature increases slowed to about 0.05 of a degree per decade from 1998 through 2012 from 0.12 degrees per decade for the longer period spanning from 1951 to 2012. The IPCC said 111 out of 114 climate models predicted a greater warming trend than was observed from 1998 to 2012. And for the period from 1984 to 1998, most models showed less warming than was finally recorded, they said.*

Over longer periods, the climate models seem to be more accurate. From 1951 to 2012, “simulated surface warming trends are consistent with the observed trend,” the IPCC researchers said. If models cannot make short-term forecasts, there is no logical reason to assume they will be successful at making long-term forecasts. As pointed out by Bob Tisdale, the models show increasing warming trends later in the 21st century than in the early part of the century. (These trends are 0.23 Deg C/Decade 2000 to 2033, 0.27 Deg C/Decade 2034 to 2066, 0.31 Deg C/Decade, 2067 to 2100.) See links under Defending the Orthodoxy and Model Issues.

Is the Trend of No Global Warming Caused by humans? Examination of the University of Alabama in Huntsville (UAH) graph of Monthly Global Lower Troposphere Anomaly from December 1978 through July 2014 can prompt such a question. After discounting the strong El Niño year of 1998, there is little warming until about 2002-2003, when a jump (step) in temperatures occurred. There is no clear trend thereafter, particularly if one discounts the El Niño year of 2010. The late 20th century warming appears in the surface record, which is subject to many human influences other than carbon dioxide.

Fred Singer, and others, have suggested that the surface records exaggerate late 20th century warming, whatever the reason. If so, then the current period of no warming may be an adjustment to this record. See <http://nsstc.uah.edu/climate/2014/july2014/graph072014.png>

Avoiding Congress on Climate: Section 2.2 of the Constitution of the United States contains the following: “He [the President] shall have Power, by and with the Advice and Consent of the Senate, to make Treaties, provided two thirds of the Senators present concur...” There is nothing

stopping President Obama from submitting the Kyoto Protocol to Congress for approval as a Treaty except his realization it would be an embarrassing failure.

According to reports President Obama has given up on extending the Kyoto Protocol or seeking a Treaty. The Administration is trying to devise a binding agreement for the US without the approval of Congress. Many of those who question the quality of the science used by the EPA to declare that greenhouse gas emissions, mainly carbon dioxide, endanger public health and welfare were disappointed that the Federal Courts turned a blind eye to the poor quality of the science. Will the courts turn a blind eye to this apparent effort to ignore Congress and the Constitution? See links under Problems in the Orthodoxy.

EROI: In the August 23 TWTW, unreliable solar and wind power to produce electricity, which cannot be stored on a commercial scale, were identified as luxury goods. They are expensive goods that are not needed in a modern society. This week Andrew Montford is blunter. These renewables cannot sustain civilization. Montford links to a study by John Morgan, posted on the Energy Collective, covering the Energy Return On Invested (EROI) for various types of energy technologies. According to studies, modern civilizations such as Germany and the US require an EROI of about 7. Needless to say, wind and PV solar do not make the grade. Although one can quibble about the numbers, the report is sobering and should be considered when one is faced with promises blowing in the wind. See links under Challenging the Orthodoxy.

Capital Intensive –Green Jobs: The International Energy Agency, proponents of renewable energy, has published a new report of the mid-term future of renewable energy to 2020.

Newspapers covering the publication reported largely what they thought was promising news for renewables. However, the report was not so optimistic, unless governments keep policies of mandating and subsidizing renewables. An interesting paragraph in the press release:

The annual report highlights the potential energy security implications of energy use for heat, which accounts for more than half of world final energy consumption and is dominated by fossil fuels. But the contribution of renewables to meet heating and cooling needs remains underdeveloped, with more limited policy frameworks compared with the electricity and transport sectors. Although modern renewable energy sources are expected to grow by almost 25% to 2020, their share in energy use for heat[ing] rises to only 9%, [of the total] up from 8% in 2013.

The electricity from solar and wind is not there when needed the most.

The report did recognize that, generally, renewables are capital intensive, thus provide few permanent “green jobs.” So much for the green jobs myths promoted by politicians. See links under Energy Issues Non-US

Electricity Efficiency: Bureaucrats at the US Department of Energy and European Union are busily determining the desired energy consumption of ordinary appliances used by households. Unfortunately, less energy consumption for the bureaucrats means less efficiency in the appliance for the user. More human work! Drying clothes outside in the sun consumes less electricity than in a clothes dryer –even if it is winter and below freezing. John Brignell has succinct comments on this effort.

The effort by the Department of Energy was funded, in part, by \$16.8 Billion in the so-called 2009 stimulus bill. And the politicians do not know why the stimulus failed? See links under

Challenging the Orthodoxy, EPA and other Regulators on the March, and Washington's Control of Energy

Missing Emails: US Internal Revenue Service Commissioner John Koskinen told Congress he had “moved heaven and earth” in his effort to recover emails by Lois Lerner detailing her efforts to deny special tax status to organizations that appeared to be political opponents to the Administration. The tax status was customarily granted to political supporters of the Administration. It appears that moving heaven and earth was not necessary. The US government has a comprehensive back-up system.

Recovery of missing emails may give some EPA officials discomfort. Efforts to uncover emails from EPA officials with members of green organizations have been thwarted. Perhaps they may reveal questionable relationships. Only time will tell. See links under Litigation Issues

Streams & Water bodies: The EPA is contemplating expanding its powers under the Clean Water Act. Opponents claim the EPA will be using the Act to seize effective control of vast amounts of private land. EPA denies this, but who would have thought that after Congress failed to pass cap-and-trade, the EPA would embark on controlling carbon dioxide emissions from existing power plants? Given this regulatory overreach of the EPA, there is no reason to believe that the EPA does not have designs on controlling private lands

The Republican Chairman of the House Science Committee released one such map. Among the portions that stand out is that the dry Southwest is virtually covered with intermittent and ephemeral (short-lived) streams. See links under EPA and other Regulators on the March.

Iceberg Ride: Professional adventurer and motivational speaker Alex Bellini has announce that to draw attention to global warming (and himself) he will live on an iceberg off the coast of Greenland. TWTW is not impressed. He no doubt will have appropriate food and equipment, much of it made from petroleum products.

If Mr. Bellini desired to impress, he could try to replicate Captain Tyson's marvelous drift.

Abandoned on a small ice flow with few provisions and limited equipment, starting October 16, 1872 Tyson's party drifted about 1800 miles from Northwest Greenland through the Davis Strait to off the coast of Labrador where they were picked up on April 30, 1873. There were 18 survivors including 5 children. They had no proper lamp, let alone 20th century equipment. They survived on game the Inuit hunters caught—eating flesh and fat, often without cooking. Yet, without fresh fruits or vegetables, let alone modern vitamin pills, the party made it without noticeable scurvy, the most common killer of sailors during the voyages of discovery. That would be a real adventure. See link under Below the Bottom Line.

Number of the Week: 67%: EPA Air Quality Trends, 1980 to 2012, show that combined amount of six pollutants in the air has declined by 67% from 1980 to 2012; 72% from 1970. The pollutants are carbon monoxide, lead, nitrogen dioxide, particulate matter (10) and sulfur dioxide. Several issues become obvious. One, any studies to justify new regulations using data that are older than say, 10 years, are obsolete. And, two, asthma cases have increased as the air has become cleaner. EPA has no justification to claim that new regulations will reduce asthma cases. Yet, EPA administrator Gina McCarthy claimed that *“In just the first year these standards go into effect, we'll avoid up to 100,000 asthma attacks and 2,100 heart attacks —and those numbers go up from there.”* See links under EPA and Other Regulators on the March and

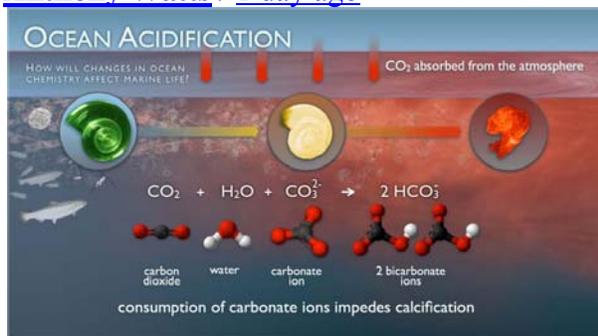
<http://dailycaller.com/2014/08/27/epa-chief-co2-regulations-are-about-justice-for-communities-of-color/#ixzz3C03Uxu24>

<http://www.sepp.org/twtwfiles/2014/TWTW%208-30-14.pdf>

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B. EPA: IGNORE OUR PREVIOUS STATEMENTS ON OCEAN ACIDIFICATION

[Anthony Watts](#) / [1 day ago](#)



Hoisted with their own petard fighting a lawsuit

Story submitted by Eric Worrall

The EPA is fighting a desperate battle to sink a green lawsuit, a lawsuit which is substantially based on the EPA's own climate narrative.

The Lawsuit, launched by the Center for Biological Diversity, seeks to impose enhanced clean water act protection upon the Pacific Coast. The suit argues that protection is necessary because, according to the EPA's own climate narrative, ocean acidification is severely damaging the marine ecosystem.

According to the CBD;

"The CBD points out that the EPA has acknowledged that ocean acidification has killed billions of oyster larvae in the Pacific Northwest but still would not classify the waters as imperilled."

<http://www.law360.com/articles/568751/epa-seeks-to-sink-green-group-s-ocean-acidification-suit>

The EPA's response is that there is insufficient evidence to support an endangerment finding – an apparent contradiction of their own previous climate narrative.

"There were no in situ field studies documenting adverse effects on the health of aquatic life populations in either state," the EPA's motion says. "Nor was there any other information documenting effects on indigenous populations of aquatic life in state waters indicating stressors attributable to ocean acidification. The only information available regarding aquatic life in ambient waters under natural conditions was inconclusive."

If I have understood this ridiculous situation correctly, the EPA is now in a position in which it may have to admit in court that some of its previous official statements about ocean acidification were not supported by available evidence.

Of course, if the EPA loses the case, an even more farcical situation may arise – the EPA's failure may open the floodgate for compensation lawsuits against the US government, from people who claim their livelihoods are being damaged by ocean acidification, due to the EPA's failure to protect the environment from CO₂ "pollution".

<http://wattsupwiththat.com/2014/08/25/epa-ignore-our-previous-statements-on-ocean-acidification/>

The Oceans have a pH above 7, so there is no acid sea water. Technology and Honest are difficult for EPA. GHH

C. FAUX REAL: OBAMA TO UNVEIL GLOBAL WARMING 'TREATY'

Unwilling or unable to work out a deal with either party in the Senate to address his legacy project of an international treaty on global warming, **President Obama** today will unveil a mock version of the pact that would bring new restrictions on U.S. emissions but be enforced globally through peer pressure. [NYT](#): "...Obama's climate negotiators are devising what they call a 'politically binding' deal that would 'name and shame' countries into cutting their emissions. ... [The plan is] a proposal to blend legally binding conditions from an existing 1992 treaty with new voluntary pledges. The mix would create a deal that would update the treaty, and thus, negotiators say, not require a new vote of ratification." Shorter version: The reimagining of an old treaty would allow the administration to further clamp down on U.S. industry but would rely on the promises of other nations for compliance. Because [Russia](#) and [China](#) are totes anxious about "naming and shaming." Totes.

[**Dems use Gore to frack for cash** - [Washington Examiner](#): "The former vice president was the nominal 'sender' of a blast email Tuesday touting President Obama's push to address climate change..."]

The United States has rejected every successor treaty to the 1992 UN global warming "framework," something the second-term Obama administration vowed to reverse, with Secretary of State **John Kerry** [calling](#) global warming "perhaps the world's most fearsome weapon of mass destruction." But Senate Democrats haven't been interested in joining the fight, staging a symbolic "[all-nighter](#)" to seemingly show gratitude to key donors but otherwise have ditched the politically poisonous topic. Unwilling to tangle with his own party on the issue, but desirous of showing some result for disaffected liberal Democrats, the president has decided to go it alone. And that's got to be music to the ears of Republican Senate candidates like Michigan's **Terri Lynn Land**, whose [latest ad campaign](#) is focused on slashing federal gas taxes. Carbon controls may sound good to the folks on Martha's Vineyard, but won't play well in blue states like Michigan, Iowa and Minnesota, let alone the battleground states of Kentucky, West Virginia, Arkansas, Alaska, North Carolina, Colorado and Louisiana.

["Unfortunately, this would be just another of many examples of the Obama administration's tendency to abide by laws that it likes and to disregard laws it doesn't like — and to ignore the elected representatives of the people when they don't agree" —*Senate Minority Leader Mitch McConnell* in a statement Tuesday.]

Why? - It seems unlikely that the legally questionable effort to further regulate U.S. industries would ever be put into effect. Obama would likely be out of office before the legal challenges could be worked out, and none of his potential successors would want to campaign as a proponent of something that, at best, could be called a workaround. There is the aforementioned base appeal and it may help to further stoke Republican outrage over executive actions, which has a multiplier effect on Democratic donations. But this move, especially when

there are obviously more pressing issues on the world stage, looks unlikely to succeed or gain much momentum. The most likely answer is that Obama believes what he says about global warming, which he called a threat to “everything we hold dear -- the laughter of children, a quiet sunset, all the hopes and dreams of posterity.” This is a legacy project, but one that might further ensure that he faces a Republican Senate next year.

<http://www.foxnews.com/politics/2014/08/27/faux-real-obama-to-unveil-global-warming-treaty/>

D. GERMANY'S EXPENSIVE GAMBLE ON RENEWABLE ENERGY

COMPANIES WORRY COST OF PLAN TO TRIM NUCLEAR, FOSSIL FUELS WILL UNDERMINE COMPETITIVENESS

Germany's biggest North Sea wind farm, Bard 1, has 80 turbines and is expected to produce enough energy to power a city the size of Munich. *Agence France-Presse/Getty Images*
WILSTER, Germany—In a sandy marsh on the outskirts of this medieval hamlet, Germany's next autobahn will soon take shape.

The Stromaubahn, as locals call it, won't carry Audis and [BMW's](#) but high-voltage electricity over hundreds of miles of aluminum and steel cables stretching from the North Sea to Germany's industrial corridor in the south.

The project is the linchpin of Germany's Energiewende, or energy revolution, a mammoth, trillion-euro plan to wean the country off nuclear and fossil fuels by midcentury and the top domestic priority of Chancellor [Angela Merkel](#).

But many companies, economists and even Germany's neighbors worry that the enormous cost to replace a currently working system will undermine the country's industrial base and weigh on the entire European economy. [Germany's second-quarter GDP decline of 0.6%](#), reported earlier this month, put a damper on overall euro-zone growth, leaving it flat for the quarter.

Average electricity prices for companies have jumped 60% over the past five years because of costs passed along as part of government subsidies of renewable energy producers. Prices are now more than double those in the U.S.

"German industry is going to gradually lose its competitiveness if this course isn't reversed soon," said Kurt Bock, chief executive of [BASF SE](#),

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E. TECHNICALLY, SCOTT BROWN IS CORRECT

August 26th, 2014

Gawd, I wish the media were as smart as they think they are.

Scott Brown, Republican candidate running to be a senator from New Hampshire, on Saturday participated in a debate during which he was asked if he believed:

“...the theory of man-made climate change has been scientifically proven”.

Now, first of all, nothing is science is “proven”. If you think it is, you don’t understand science. Brown’s answer to the question was “no”. And that is correct. There is no way to prove that our addition of 1 molecule of CO₂ to each 10,000 molecules of atmosphere over the last 100 years has had any measurable influence (there are no fingerprints of human-caused versus natural warming).

All the usual left-leaning news outlets have been having a cow over this supposed reversal of Brown's position. The ThinkProgress site entitled their article, "[Scott Brown Flips to Full-Blown Climate Denier](#)".

The "flip" is because Brown had previously (in 2012) said that climate change was "a combination between man-made and natural" in origin.

And that statement, too, is correct. As a climate researcher, I also believe it is some (unknown) combination. But there is no way to "prove" it.

I haven't been following the race, and so have no opinions on the candidates. I'm just pointing out that Scott Brown's position is entirely defensible, and the media conveniently hears what they want to hear.

If the media can't ask a technical question correctly, they shouldn't ask the question.

Or, don't ask one question, then assume the resulting answer is to a different question.

Roy Spencer

F. HEY U.N. – SHOW US YOUR TIPPING POINTS!

[Anthony Watts / 26 mins ago August 27, 2014](#)

Pathetic handwaving double down from the UN

Eric Worrall writes: A number of MSM outlets are carrying news of a "leaked" UN document, which claims that global warming may be causing irreversible damage.

According to the Bloomberg version of the leak story;

"Global warming already is affecting "all continents and across the oceans," and further pollution from heat-trapping gases will raise the likelihood of "severe, pervasive and irreversible impacts for people and ecosystems,"

Source: <http://www.bloomberg.com/news/2014-08-26/irreversible-damage-seen-from-climate-change-in-un-leak.html>

The problem with this vapid handwaving nonsense is that it is so vague. I mean, in the good old days, alarmists made interesting predictions;

Snowfalls are now just a thing of the past; <http://www.independent.co.uk/environment/snowfalls-are-now-just-a-thing-of-the-past-724017.html>

Al Gore's ice free arctic (in 5 years!);

<http://wattsupwiththat.com/2013/12/16/nature-proves-al-gore-wrong-again/>

Rain will never fill Australian reservoirs again;

<http://wattsupwiththat.com/2014/07/18/hard-times-for-aussie-alarmists-flannery-begs-in-new-video/>

The great thing about bold predictions is they are easily falsified – all you have to do is wait a few years, then point and laugh.

The survivors of that golden age of bold stupidity are far too timid – they issue vague predictions of calamity which won't occur until long after we are all safely dead, and promises that if we wait a few decades we might see something worrying.

I mean, seriously folks, is this the best you can do? Can even the most rabid alarmists get enthused by such a pathetic effort?

The Earth has seen at least 14 Years of increasing CO2 atmospheric cocentration without obserable global warming. GHH

G. HOW MUCH OF ATMOSPHERIC CO2 INCREASE IS NATURAL?

August 27th, 2014

I frequently get asked the question, if natural CO₂ emissions are about 20 times what anthropogenic emissions are, how do we know that all of the atmospheric CO₂ increase is due to human activities?

One answer often given (and the one I often use, too) is that since we emit twice as much as is needed to explain the atmospheric increase, there is no reason to look elsewhere. Just assume the huge natural sources and sinks of CO₂ are in balance, and then humans are responsible for the small changes we see.

Natural Variations in CO₂ are LARGE

But what if (I'm NOT necessarily advocating this) most of the CO₂ humans produce, which is near the land surface, is absorbed by vegetation, and the observed global increase is partly or mostly due to outgassing of the oceans?

Scientists seem to make the assumption that nature is always in balance. But this clearly isn't the case for natural sources and sinks of CO₂ (you can find such plots in the IPCC reports, too):

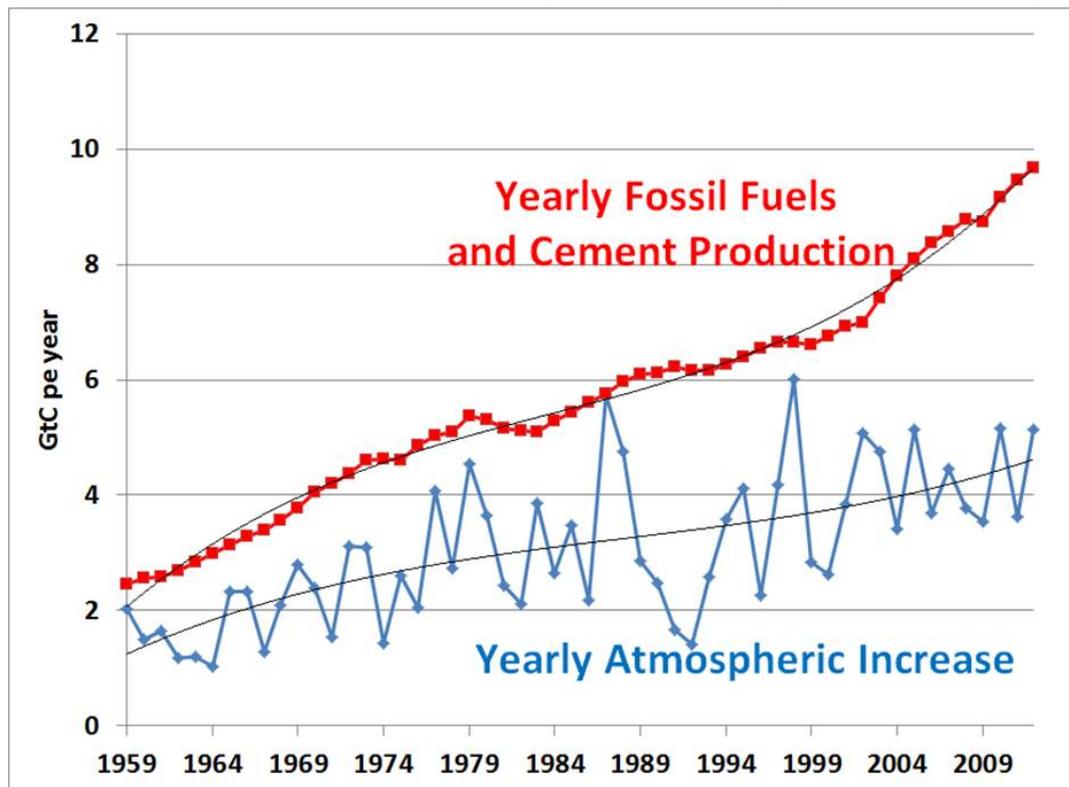


Fig. 1. Yearly anthropogenic CO₂ emissions versus yearly increases in atmospheric CO₂. There are obviously some very large natural yearly imbalances in CO₂ sources and sinks, with the atmospheric yearly increase ranging anywhere from 23% to 100% of anthropogenic emissions. *If the yearly fluctuation are this large, how do we know that nature is in long-term balance for CO₂ sources and sinks?* The answer is, we don't. This is why NASA launched the [OCO-2 satellite](#), to try to get a better handle on the regional sources and sinks of CO₂ around the world.

Furthermore, in contradiction to IPCC predictions, the ability of the Earth to absorb extra CO₂ seems to be increasing with time: the equivalent of 40% of our emissions were being absorbed early in the record, a fraction which has increased to 50% late in the record.

Given these very large year-to-year variations, is it that unreasonable to hypothesize that there might be a long-term natural imbalance between natural sources and sinks of CO₂, which is also contributing to the observed increase?

The trouble carbon budget modelers have with this possibility is that it would require that there are even stronger sinks of anthropogenic CO₂ emissions at work, and the IPCC is already having trouble explaining where all of the “extra” CO₂ is going.

For example, rather than nature normally being in perfect balance and then absorbing ~50% of our CO₂ emissions, nature would have to be absorbing (say) 75% of our emissions but contributing the remainder to the observed atmospheric increase from a natural source elsewhere. We really don't know where these sources and sinks are...all we see is the net result of all of them expressed in the average atmospheric concentration. Like your bank balance representing the net effects of all deposits and withdrawals.

Carbon Isotopes

The arguments from carbon isotopes (C¹³...sorry for the unconventional notation) that fossil fuels are the source of all the atmospheric increase don't hold water as far as I can tell. As I [posted nearly 6 years ago](#), the C¹³ fraction in the long-term trends of atmospheric CO₂ are not inconsistent with a natural source, after I examined the observed C¹³ variations at three time scales: seasonal, interannual, and long-term trends:

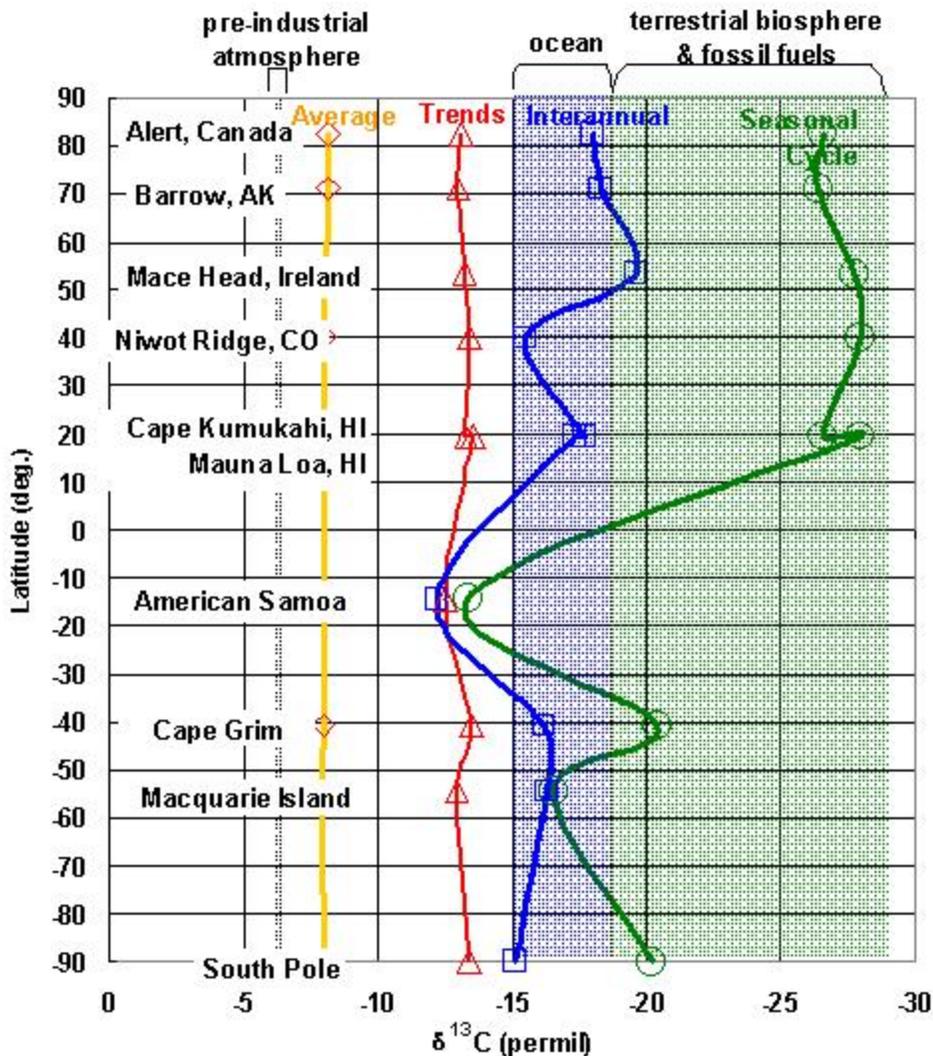


Fig. 2. C13 fraction variations contained in seasonal versus, interannual versus decadal variability, compared to known geophysical sources.

I believe that pointing this out is part of the reason why [Murray Salby got into trouble](#) recently. The scientific community doesn't take kindly to some of us suggesting nature itself might be causing "carbon pollution". Baaad scientist.

If I am misunderstanding something about the C13 arguments, someone please let me know, since I'm not an expert in atmospheric chemistry. Ferdinand Engelbeen kindly [responded](#) to my post from 2009, and if he would like to provide an updated argument I would be glad to post it here.

A Simple Analysis: Could 40% of the CO2 Increase be Natural?

I downloaded from CDIAC the [latest spreadsheet](#) with the yearly global CO2 source and sink estimates, for the period 1959 through 2012. I wanted to address the question: from a statistical point of view, how much of the year-to-year changes in atmospheric CO2 can be explained by different sources and sinks?

The spreadsheet includes yearly estimates of (1) atmospheric increase in CO2, (2) fossil fuel and cement production of CO2, (3) an estimate of the ocean CO2 sink, (4) an estimate of land use

change emissions CO2 source, and I added to these variables (5) global land surface temperature [CRUTem4], and (6) global sea surface temperature [HadSST3].

As a first step, if we do simple correlations between the atmospheric CO2 variations with the other variables we find the highest correlation between temperature and CO2, and a little lower correlation with anthropogenic emissions:

Correlations with Yearly Atmospheric CO2 increases (1959-2012)

T_ocean : 0.70

T_land: 0.71

Fossil Fuels: 0.67

Ocean sink: 0.63

Land Use: -0.36

The fact that temperature has a higher correlation with yearly CO2 changes than does the anthropogenic source shows just how strongly the temperature variability affects atmospheric CO2 content.

But correlating data with substantial trends in the data can be deceiving. Strictly speaking, all linear trends are perfectly correlated with each other, even those which have no causal relationship whatsoever between them.

So, we can *detrend* all of the data, and see what information is contained in the departures from the linear trends. This reduces the correlations substantially, since the variability associated with the trends has been removed:

Correlations with Yearly Atmospheric CO2 variations (1959-2012, detrended)

T_ocean : 0.35

T_land: 0.34

Fossil Fuels: 0.13

Ocean sink: 0.01

Land Use: 0.00

We see that the correlation between atmospheric CO2 and temperature remains the strongest, but the fossil fuel signal is very small, possibly because the detrended variations in anthropogenic emissions are quite small, and so subject to greater errors.

The ocean sink and land use estimates seems to have no correlation with atmospheric variations after detrending, and so were excluded from further analysis.

If we then perform a multiple regression between atmospheric CO2 versus the anthropogenic source and 2 temperature terms (all detrended), and apply the resulting coefficients to the original (not detrended) data, we get the following plot:

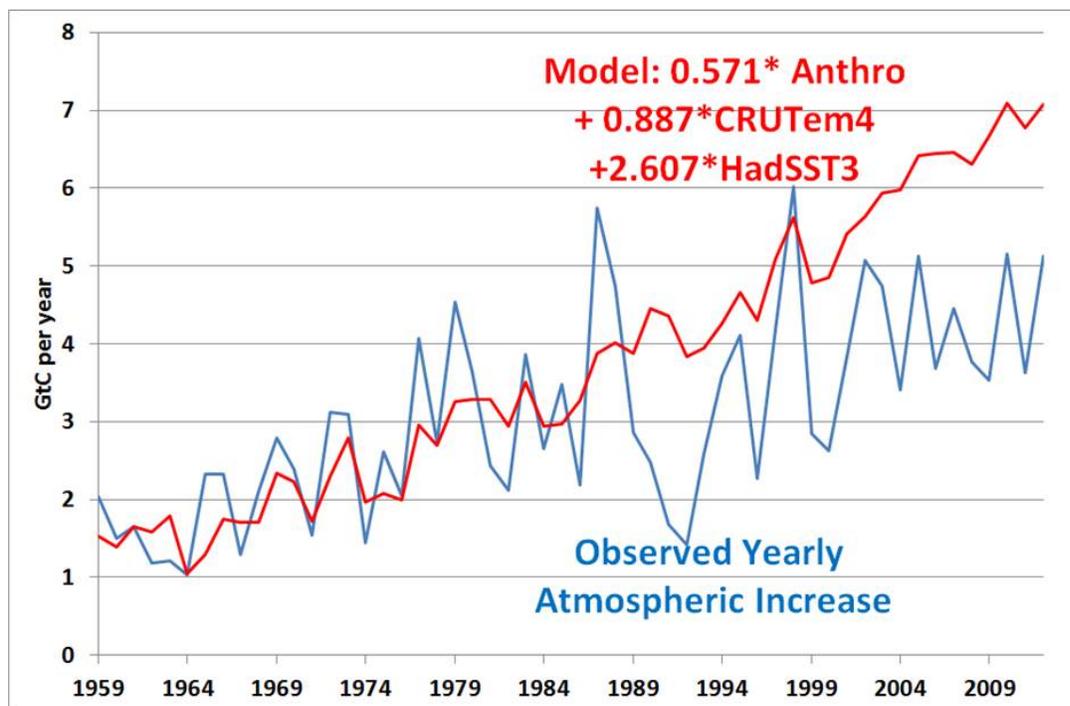


Fig. 3. Yearly changes in atmospheric CO₂ in observations versus a simple statistical model trained with detrended anthropogenic emissions and temperature data.

At face value, what this plot shows is that the observed increase in atmospheric CO₂ can be easily explained (actually, “over-explained”) with a combination of anthropogenic emissions and increasing temperatures, where the quantitative relationships are based upon detrended data. The contributions to the model trend in atmospheric CO₂ is 61% anthropogenic, 22% ocean temperature, and 17% land temperature.

The model overshooting of the trend could be due to some unknown carbon sink which isn’t directly related to surface temperature. Or, it could just be an artifact of the poor assumptions inherent in the simple statistical model (e.g. that the interannual relationship between temperature and CO₂ applies to long-term trends).

Conclusions

By itself I don’t think this “proves” anything. But it does show that since warm years tend to cause greater natural emissions of CO₂ into the atmosphere, we should at least consider the possibility that the long-term warming trend (whatever its cause) is contributing to the increase in atmospheric CO₂.

What caused the warming that caused the CO₂ increase? Well, as I have been saying for years, chaotic circulation-induced changes in cloud cover can cause global warming or cooling. Or pick some other mechanism. Maybe that big ball of fire in the sky.

My point is, the climate system is not static.

We should remember how much we have anthropomorphized recent warming: *Human activities* produce CO₂ in reasonably well known amounts, *humans* do the monitoring of CO₂, then *humans* do the modeling. Since we really don’t understand the natural sources and sinks very well — not to the <1% level needed to document that a “natural balance” exists (since human

emissions are now close to 5% of natural sources and sinks) -- we just *assume* they are “in balance”. There, problem solved.

So, we impose a human explanation on what we observe in nature. A common tendency throughout human history. We are searching for answers at night under the only streetlamp where we can see.

UPDATE: *I didn't address the fact that atmospheric O2 concentrations have fallen commensurate with the rise in atmospheric CO2, which is supposedly “proof” of fossil fuel burning being the 100% cause of atmospheric CO2 increase. But increased oxidation of organic matter has the same effect on O2.*

Update #2: *Just to clarify...even if all of the atmospheric CO2 increase is manmade, I continue to believe it is more beneficial than harmful.*

Roy Spencer

<http://www.drroyspencer.com/>

H. PROBLEMS WITH STATISTICAL TESTS OF PRE-1958 ATMOSPHERIC CO2 CONCENTRATION DATA

[Guest Blogger](#) / [23 hours ago](#)

James McCown writes:

A number of climatologists and economists have run statistical tests of the annual time series of greenhouse gas (GHG) concentrations and global average temperatures in order to determine if there is a relation between the variables. This is done in order to confirm or discredit the anthropogenic global warming (AGW) theory that burning of fossil fuels is raising global temperatures and causing severe weather and rises in the sea level. Many economists have become involved in this research because of the use of statistical tests for unit roots and cointegration, that were developed by economists in order to discern relations between macroeconomic variables. The list of economists who have become involved includes James Stock of Harvard, one of the foremost experts at time series statistics.

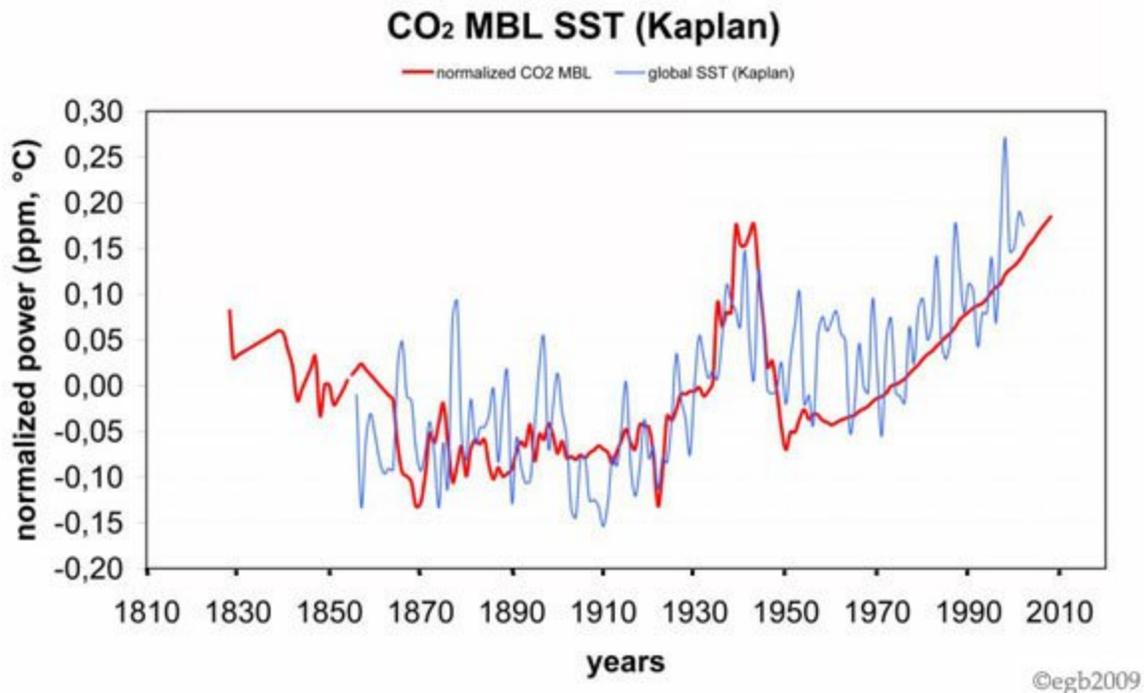
With a couple of notable exceptions, the conclusions of nearly all the studies are similar to the conclusion reached by Liu and Rodriguez (2005), from their abstract:

Using econometric tools for selecting I(1) and I(2) trends, we found the existence of static long-run steady-state and dynamic long-run steady-state relations between temperature and radiative forcing of solar irradiance and a set of three greenhouse gases series.

Many of the readers of WUWT will be familiar with the issues I raise about the pre-1958 CO₂ data. The purpose of this essay is to explain how the data problems invalidate much of the statistical research that has been done on the relation between the atmospheric CO₂ concentrations and global average temperatures. I suspect that many of the economists involved in this line of research do not fully realize the nature of the data they have been dealing with.

The usual sources of atmospheric CO₂ concentration data, beginning with 1958, are flask measurements from the Scripps Institute of Oceanography and the National Oceanic and Atmospheric Administration, from observatories at Mauna Loa, Antarctica, and elsewhere. These have been sampled on a monthly basis, and sometimes more frequently, and thus provide a good level of temporal accuracy for use in comparing annual average CO₂ concentrations with annual global average temperatures.

Unfortunately, there were only sporadic direct measurements of atmospheric CO₂ concentrations prior to 1958. The late Ernst-Georg Beck collected much of the pre-1958 data and published on his website here: <http://www.biomind.de/realCO2/realCO2-1.htm>.



Most researchers who have examined pre-1958 relations between GHGs and temperature have used Antarctic ice core data provided by Etheridge et al (1996) (henceforth Etheridge). Etheridge measured the CO₂ concentration of air trapped in the ice on Antarctica at the Law Dome, using three cores that varied from 200 to 1200 meters deep.

There have been several published papers by various groups of researchers that have used the pre-1958 CO₂ concentrations from Etheridge. Recent statistical studies that utilize Etheridge's data include Liu & Rodriguez (2005), Kaufmann, Kauppi & Stock (2006a), Kaufman, Kauppi, & Stock (2006b), Kaufmann, Kauppi, & Stock (2010), Beenstock, Reingewertz, & Paldor (2012), Kaufmann, Kauppi, Mann, & Stock (2013), and Pretis & Hendry (2013). Every one of these studies treat the Etheridge pre-1958 CO₂ data as though it were annual samples of the atmospheric concentration of CO₂.

Examination of Etheridge's paper reveals the data comprise only 26 air samples taken at various times during the relevant period from 1850 to 1957. Furthermore, Etheridge state clearly in their paper that the air samples from the ice cores have an age spread of at least 10 – 15 years. They have further widened the temporal spread by fitting a "smoothing spline" with a 20 year window, to the data from two of the cores to compute annual estimates of the atmospheric CO₂. These annual estimates, which form the basis for the 1850 – 1957 data on the GISS website, may have been suitable for whatever purpose Etheridge were using them, but are totally inappropriate for the statistical time series tests performed in the research papers mentioned above. The results from the tests of the pre-1958 data are almost certainly spurious.

Details of the Etheridge et al (1996) Ice Core Data

Etheridge drilled three ice cores at the Law Dome in East Antarctica between 1987 and 1993. The cores were labeled DE08 (drilled to 234 meters deep), DE08-2 (243 meters), and DSS (1200

meters). They then sampled the air bubbles that were trapped in the ice at various depths in order to determine how much CO₂ was in the earth's atmosphere at various points in the past. They determined the age of the ice and then the air of the air bubbles trapped in the ice. According to Etheridge:

The air enclosed by the ice has an age spread caused by diffusive mixing and gradual bubble closure...The majority of bubble closure occurs at greater densities and depths than those for sealing. Schwander and Stauffer [1984] found about 80% of bubble closure occurs mainly between firn densities of 795 and 830 kg m⁻³. Porosity measurements at DE08-2 give the range as 790 to 825 kg m⁻³ (J.M. Barnola, unpublished results, 1995), which corresponds to a duration of 8 years for DE08 and DE08-2 and about 21 years for DSS. If there is no air mixing past the sealing depth, the air age spread will originate mainly from diffusion, estimated from the firn diffusion models to be 10-15 years. If there is a small amount of mixing past the sealing depth, then the bubble closure duration would play a greater role in broadening the age spread. It is seen below that a wider air age spread than expected for diffusion alone is required to explain the observed CO₂ differences between the ice cores.

In other words, Etheridge are not sure about the exact timing of the air samples they have retrieved from the bubbles in the ice cores. Gradual bubble closure has caused an air age spread of 8 years for the DE08 and DE08-2 cores, and diffusion has caused a spread of 10 – 15 years. Etheridge's results for the DE08 and DE08-2 cores are shown below (from their Table 4):

Etheridge Table 4: Core DE08

Mean Air Age, Year AD	CO ₂ Mixing Ratio, ppm		Mean Air Age, Year AD	CO ₂ Mixing Ratio, ppm
1840	283		1932	307.8
1850	285.2		1938	310.5
1854	284.9		1939	311
1861	286.6		1944	309.7
1869	287.4		1953	311.9
1877	288.8		1953	311
1882	291.9		1953	312.7
1886	293.7		1962	318.7
1892	294.6		1962	317
1898	294.7		1962	319.4
1905	296.9		1962	317
1905	298.5		1963	318.2

1912	300.7		1965	319.5
1915	301.3		1965	318.8
1924	304.8		1968	323.7
1924	304.1		1969	323.2

Core DE08-2

Mean Air Age, Year AD	CO ₂ Mixing Ratio, ppm		Mean Air Age, Year AD	CO ₂ Mixing Ratio, ppm
1832	284.5		1971	324.1
1934	309.2		1973	328.1
1940	310.5		1975	331.2
1948	309.9		1978	335.2
1970	325.2		1978	332
1970	324.7			

Due to the issues of diffusive mixing and gradual bubble closure, each of these figures give us only an estimate of the average CO₂ concentration over a period that may be 15 years or more. If the distribution of the air age is symmetric about these mean air ages, the estimate of 310.5 ppm from the DE08 core for 1938 could include air from as early as 1930 and as late as 1946.

Etheridge combined the estimates from the DE08 and DE08-2 cores and fit a 20-year smoothing spline to the data, in order to obtain annual estimates of the CO₂ concentrations. These can be seen here: <http://cdiac.ornl.gov/ftp/trends/co2/lawdome.smoothed.yr20>. These annual estimates, which are actually 20 year or more moving averages, were used by Dr. Makiko Sato, who was then affiliated with NASA-GISS, in order to compile an annual time series of CO₂ concentrations for the period from 1850 to 1957. Dr. Sato used direct measurements of CO₂ from Mauna Loa and elsewhere for 1958 to the present. He references the ice core data from Etheridge on that web page, and adds that it is “Adjusted for Global Mean”. Some of the papers reference the data from the website of NASA’s Goddard Institute for Space Science (GISS) here: <http://data.giss.nasa.gov/modelforce/ghgases/Fig1A.ext.txt>.

I emailed Dr. Sato (who is now at Columbia University) to ask if he had used the numbers from Etheridge’s 20-year smoothing spline and what exactly he had done to adjust for a global mean. He replied that he could not recall what he had done, but he is now displaying the same pre-1958 data on Columbia’s website here: http://www.columbia.edu/~mhs119/GHG_Forcing/CO2.1850-2013.txt.

I believe Sato’s data are derived from the numbers obtained from Etheridge’s 20-year smoothing spline. For every year from 1850 to 1957, they are less than 1 ppm apart. Because of the wide temporal inaccuracy of the CO₂ estimates of the air trapped in the ice, exacerbated by the use of the 20-year smoothing spline, we have only rough moving average estimates of the CO₂

concentration in the air for each year, not precise annual estimates. The estimate of 311.3 ppm for 1950 that is shown on the GISS and Columbia websites, for example, could include air from as early as 1922 and as late as 1978. Fitting the smoothing spline to the data may have been perfectly acceptable for Etheridge's purposes, but as we shall see, it is completely inappropriate for use in the time series statistical tests previously mentioned.

Empirical Studies that Utilize Etheridge's Pre-1958 Ice Core Data

As explained in the introduction, there are a number of statistical studies that attempt to discern a relation between GHGs and global average temperatures. These researchers have included climatologists, economists, and often a mixture of the two groups.

Liu and Rodriguez (2005), Beenstock et al (2012) and Pretis & Hendry (2013) use the annual Etheridge spline fit data for the 1850 – 1957 period, from the GISS website, as adjusted by Sato for the global mean.

Kaufmann, Kauppi, & Stock (2006a), (2006b), and (2010), and Kaufmann, Kauppi, Mann, & Stock (2013) also use the pre-1958 Etheridge (1996) data, and their own interpolation method. Their data source for CO₂ is described in the appendix to Stern & Kaufmann (2000):

Prior to 1958, we used data from the Law Dome DE08 and DE08-2 ice cores (Etheridge et al., 1996). We interpolated the missing years using a natural cubic spline and two years of the Mauna Loa data (Keeling and Whorf, 1994) to provide the endpoint.

The research of Liu and Rodriguez (2005), Beenstock et al (2012), Pretis & Hendry (2013), and the four Kaufmann et al papers use a pair of common statistical techniques developed by economists. Their first step is to test the time series of the GHGs, including CO₂, for stationarity. This is also called testing for a *unit root*, and there are a number of tests devised for this purpose. The mathematical expression for a time series with a unit root is, from Kaufmann et al (2006a):

(1)

Where ε is a random error term that represents shocks or innovations to the variable Y. The parameter λ is equal to one if the time series has a unit root. In such a case, any shock to Y will remain in perpetuity, and Y will have a nonstationary distribution. If λ is less than one, the ε shocks will eventually die out and Y will have a stationary distribution that reverts to a given mean, variance, and other moments. The statistical test used by Kaufmann et al (2006a) is the augmented Dickey-Fuller (ADF) test devised by Dickey and Fuller (1979) in which they run the following regression of the annual time series data of CO₂, other GHGs, and temperatures:

(2)

Where Δ is the first difference operator, t is a linear time trend, ε is a random error term, and $\gamma = \lambda - 1$. The ADF test is for the null hypothesis that $\gamma = 0$, therefore $\lambda = 1$ and Y is a nonstationary variable with a unit root, also referred to as I(1).

There are several other tests for unit roots used by the various researchers, including Phillips & Perron (1988), Kwiatkowski, Phillips, Schmidt, & Shin (1992), and Elliott, Rothenberg, & Stock (1996). The one thing they have in common is some form of regression of the time series variable on lagged values of itself as in equation (2).

Conducting a regression such as (2) can only be conducted properly on non-overlapping data. As explained previously, the pre-1958 Etheridge data from the ice cores may include air from 20 or more years before or after the given date. This problem is further complicated by the fact that Etheridge are not certain of the amount of diffusion, nor do we know the distribution of how much air from each year is in each sample. Thus, instead of regressing annual CO₂ concentrations on past values (such as 1935 on 1934, 1934 on 1933, etc), these researchers are

regressing some average of 1915 to 1955 on an average from 1914 to 1954, and then 1914 to 1954 on 1913 to 1953, and so forth. This can only lead to spurious results, because the test mostly consists of regressing the CO₂ data for some period on itself.

The second statistical method used by the researchers is to test for *cointegration* of the GHGs (converted to radiative forcing) and the temperature data. This is done in order to determine if there is an equilibrium relation between the GHGs and temperature. The concept of cointegration was first introduced by Engle & Granger (1987), in order to combat the problem of discerning a relation between nonstationary variables. Traditional ordinary least squares regressions of nonstationary time series variables often lead to spurious results. Cointegration tests were first applied to macroeconomic time series data such as gross domestic product, money supply, and interest rates.

In most of the papers the radiative forcings from the various GHGs are added up and combined with estimates of solar irradiance. Aerosols and sulfur are also considered in some of the papers. Then a test is run of these measures to determine if they are cointegrated with annual temperature data (usually utilizing the annual averages of the GISS temperature series). The cointegration test involves finding a linear vector such that a combination of the nonstationary variables using that vector is itself stationary.

A cointegration test can only be valid if the data series have a high degree of temporal accuracy and are matched up properly. The temperature data likely have good temporal accuracy but the pre-1958 Etheridge CO₂ concentration data, from which part of the radiative forcing data are derived, are 20 year or greater moving averages, of unknown length and distribution. They cannot be properly tested for cointegration with annual temperature data without achieving spurious results. For example, instead of comparing the CO₂ concentration for 1935 with the temperature of 1935, the cointegration test would be comparing some average of CO₂ concentration for 1915 to 1955 with the temperature for 1935.

In defense of Beenstock et al (2012), the primary purpose of their paper was to show that the CO₂ data, which they and the other researchers found to be I(2) (two unit roots), cannot be cointegrated with the I(1) temperature data unless it is polynomially cointegrated. They do not claim to find a relation between the pre-1958 CO₂ data and the temperature series.

The conclusion of Kaufmann, Kauppi, & Stock (2006a), from their abstract:

Regression results provide direct evidence for a statistically meaningful relation between radiative forcing and global surface temperature. A simple model based on these results indicates that greenhouse gases and anthropogenic sulfur emissions are largely responsible for the change in temperature over the last 130 years.

The other papers cited in this essay, except Beenstock et al (2012), come to similar conclusions. Due to the low level of temporal accuracy of the CO₂ data pre-1958, their results for that period cannot be valid. The only proper way to use such data would be if an upper limit to the time spread caused by the length of bubble closure and diffusion of gases through the ice could be determined. For example, if an upper limit of 20 years could be established, then the researchers could then determine an average CO₂ concentration for non-overlapping 20 year periods, and then perform the unit root and cointegration tests. Unfortunately, for the period from 1850 to 1957 that would include only five complete 20 year periods. Such a small sample is not useful. Unless and until a source of pre-1958 CO₂ concentration data is found that has better temporal accuracy, there is no point in conducting cointegration tests with temperature data for that period.

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The posting above raises concerns about the historical CO₂ concentration data. I have always been skeptical about the accuracy of pre 1960 CO₂ concentration claims especially those from core samples, but my statistical analysis skills are challenged to put it mildly. Of particular concern is that data comprise only 26 air samples taken at various times during the relevant period from 1850 to 1957.

Don Shaw

I. GLOBAL WARMING ‘PAUSE’ COULD LAST FOR 30 YEARS

[Anthony Watts](#) /3 days ago

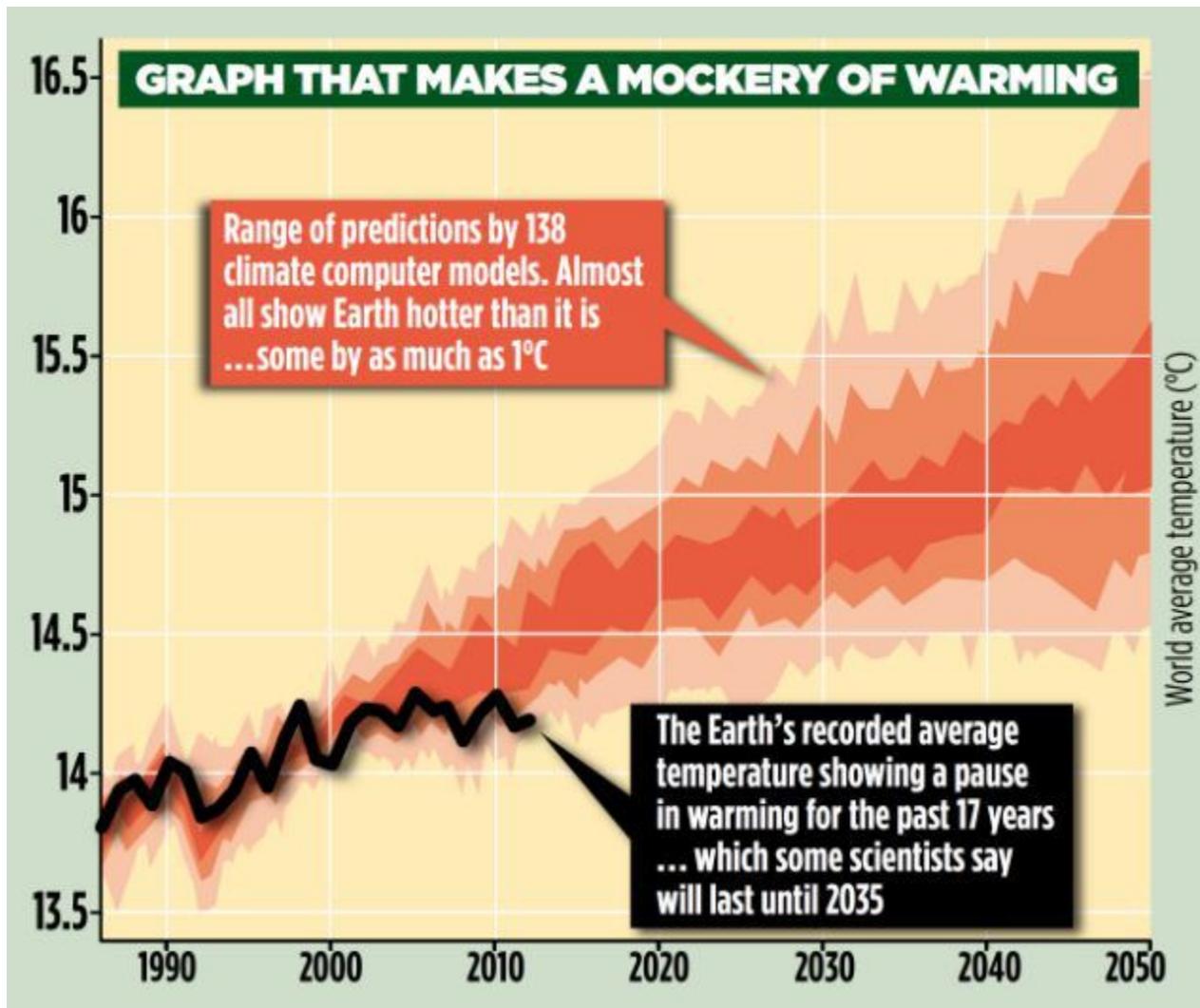
The 39th Theory About The Global Warming ‘Pause’ (And Counting) See the full list [here](#)

In popular science journalism the latest is always the best. With all the explanations for the “pause” in global surface temperatures since 1997 – there are now over 30 of them – it is always the most recently published one that is the “answer.” This time it’s the Atlantic Ocean that’s to blame. A paper published in *Science* says that a 30-year periodicity warms and cools the world by sequestering heat below the ocean’s surface and then releasing it. You don’t have to look very deeply at the science to realise that, despite the headlines, no one has come up with an answer to the “pause.” –David Whitehouse, [The Global Warming Policy Foundation, 26 August 2014](#)

The “pause” in global warming may last another decade before surface temperatures start rising again, according to scientists who say heat is being stored in the depths of the Atlantic and Southern Oceans. A new study, published in the journal *Science*, suggests that a natural cycle of ocean currents has caused the phenomenon by drawing heat from shallow waters down almost a mile into the depths of the Atlantic and Southern Oceans. The cycle naturally produces periods of roughly 30 years in which heat is stored near the surface of the Atlantic Ocean, leading to warmer temperatures, followed by roughly 30 years in which it is stored in the depths, causing cooler surface temperatures, it suggests. –Emily Gosden, [The Daily Telegraph, 21 August 2014](#)

Following rapid warming in the late 20th century, this century has so far seen surprisingly little increase in the average temperature at the Earth’s surface. At first this was a blip, then a trend, then a puzzle for the climate science community. More than a dozen theories have now been proposed for the so-called global warming hiatus, ranging from air pollution to volcanoes to sunspots. “Every week there’s a new explanation of the hiatus,” said corresponding author Ka-Kit Tung, a UW professor of applied mathematics and adjunct faculty member in atmospheric sciences. –Hannah Hickey, [The University of Washington, 21 August 2014](#)

The 17-year pause in global warming is likely to last into the 2030s and the Arctic sea ice has already started to recover, according to new research. A paper in the peer-reviewed journal *Climate Dynamics* – by Professor Judith Curry of the Georgia Institute of Technology and Dr Marcia Wyatt – amounts to a stunning challenge to climate science orthodoxy. Not only does it explain the unexpected pause, it suggests that the scientific majority – whose views are represented by the UN Intergovernmental Panel on Climate Change (IPCC) – have underestimated the role of natural cycles and exaggerated that of greenhouse gases. –David Rose, [Mail on Sunday, 3 November 2013](#)



The American Meteorological Society has released updated polling results of their membership which shows only 52% agree with the so-called “consensus” that global warming is mostly man-made. The poll finds “members of this professional community are not unanimous in their views of climate change, and there has been tension among members of the American Meteorological Society (AMS) who hold different views on the topic.” –[The Hockey Schtick, 24 August 2014](http://wattsupwiththat.com/2014/08/27/global-warming-pause-could-last-for-30-years/)
<http://wattsupwiththat.com/2014/08/27/global-warming-pause-could-last-for-30-years/>
 Don Shaw

The fact that the CO2 concentration has increased without increased atmospheric temperature raise demonstrates no relationship between CO2 atmospheric concentration and globe temperature! GHH

J. TAMPA SOLAR PANELS FAIL TO MEET PROMISES

August 16, 2014

[James M. Taylor](#)

James M. Taylor is managing editor of Environment & Climate News, a national monthly...

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Rooftop solar panels installed at the Hillsborough County Courthouse in Tampa, Florida are producing less than half their promised power, county records reveal. Rather than lowering electricity costs, as promised, the poor-performing solar panels are causing a dramatic increase in electricity costs.

Huge Savings Promised

In 2010, federal and Hillsborough County officials announced the project to place solar panels on the Hillsborough County Courthouse. Government officials said the panels, costing \$1.2 million, would pay for themselves in electricity cost savings. Officials claimed the panels would provide at least 40 percent of the building's electricity needs and save more than \$60,000 per year in electricity costs.

Hillsborough County maintains a website where people can view the real-time solar energy produced by the panels, as well as an ongoing tally of the panels' lifetime electricity production. According to the website, the solar panels are producing less than half their promised electricity and are reducing the courthouse's electricity bill by only \$27,000 per year.

Taxpayers Taken for a Ride

WFTS News in Tampa obtained copies of the courthouse's electricity bills and confirmed the savings are no more than about \$2,000 per month. WFTS also confirmed the panels are reducing electricity bills by only 15 to 18 percent, instead of the promised 40 percent.

At \$27,000 per year, it would take 45 years to recover the solar panels' costs. Accounting for inflation, it would take closer to 50 years to recover the costs. However, solar panels have a typical lifespan of only 15 to 20 years. Also, the effectiveness of the panels decreases throughout the panels' lifespan. As a result, the Hillsborough County Courthouse solar panels are likely to return only about one-third of their inflation-adjusted cost.

County Director No Longer Supports

Hillsborough County Energy Director Randy Klindworth, who initially supported the solar panel project, told WFTS he would no longer support spending taxpayer dollars on such projects.

"I've got to be careful how the county spends taxpayer money. I want to be very wise in how we do that, make sure we get the good return on investment," Klindworth told the reporter.

Very Few 'Green Jobs'

Federal taxpayers paid for most of the \$1.2 million cost as part of the American Recovery and Reinvestment Act, also known as the Obama stimulus. The Obama stimulus was billed as a cost-effective way to produce jobs during a time of rising unemployment. According to Hillsborough

County officials, the \$1.2 courthouse solar panel project produced a total of 12 jobs that lasted only four months.

Politicians Claimed Credit

In 2010, local politicians eagerly lined up for the news cameras to take credit for purportedly saving taxpayers money through the solar panels.

“I’d like to welcome and thank everybody who has come out this morning to help us celebrate Hillsborough County’s government going solar,” said Hillsborough County Commissioner Kevin Beckner at an October 2010 press conference.

“It is so wonderful to see the Recovery Act at work in our community, creating jobs and saving money” said U.S. Rep. Kathy Castor (D-Tampa).

“This is a nice initiative that will allow the county to put a little money back into the pockets of taxpayers at a time that they need it most, and to create jobs,” Castor added.

“Hillsborough County is a great example of how the Energy Efficiency and Conservation Block Grant Program is being utilized across the country,” said U.S. Department of Energy grant project officer Jennifer Holman at the press conference.

“The Energy Efficiency and Conservation Block Grant Program is one of the signature programs of the American Recovery and Reinvestment Act,” said Holman.

Hillsborough County Tax Collector’s Office director of administration and special projects Preston Trigg, Hillsborough County Clerk of the Circuit Court Pat Frank, Hillsborough County State Attorney Mark Ober, and Hillsborough County Commissioner Al Higginbotham also spoke at the press conference to take credit for the predicted electricity cost savings.

None of these politicians and public officials have accepted public responsibility for the failed promises or explained why the program has been such a failure.

If Not Florida, Where?

The failure of the Hillsborough County Courthouse solar panels to return even half their cost bodes poorly for solar panel projects in other cities and states. Florida is the southernmost state in the continental United States, and the Hillsborough County Courthouse used the most advanced solar panels available. Solar projects in other states will not have these advantages.

“It is the most advanced solar product on the market to date for an environment of this application,” said Andrew Tanner, president of EcoSolar, at the press conference.

“It is very light-sensitive and can produce energy at low-light levels, including the moon,” said Tanner.

James M. Taylor (jtaylor@heartland.org) is managing editor for Environment & Climate News. <http://news.heartland.org/newspaper-article/2014/08/16/tampa-solar-panels-fail-meet-promises>

Climate Change requires low height buildings. GHH

K. MICHAEL MANN’S SPECIAL PURPOSE HOCKEY STICK FILTER HAS BEEN EXPOSED

Jean S writes at Climate Audit: As most readers are aware, and stated in my post few hours after (ClimateGate) CG broke out, Mike’s Nature trick was first uncovered by UC here. He was able to replicate (visually perfectly) the smooths of MBH9x thereby showing that the smooths involved padding with the instrumental data. The...

<http://wattsupwiththat.com/2014/08/30/michael-manns-special-purpose-hockey-stick-filter-has-been-exposed/>

L. QUOTE OF THE WEEK – REALITY IS IN THE EYE OF THE BEHOLDER

One of the biggest issues facing climate science today is the divergence of reality (observations) from the model output. The draft image from IPCC AR5 (seen below) clearly illustrates this as does the analysis done by Dr. Roy Spencer. WUWT regular Tom Trevor wrote this short paragraph in comments, and it seemed prescient to me,...

<http://wattsupwiththat.com/2014/08/28/quote-of-the-week-reality-is-in-the-eye-of-the-beholder/>

Regards
George