

ENVIRONMENTAL ENGINEERING NEWSLETTER

2 JUNE 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 readers alone and do not represent the positions of the Environmental Engineering Division or the ASME.

George Holliday

This week's edition includes:

A. ENVIRONMENT A FEDERAL AGENCY EVALUATES OIL, GAS FIELD EXPANSION PROPOSAL

The Bureau of Land Management has started a review of a proposal by Anadarko Petroleum, Chesapeake Energy and other energy companies to expand production at an oil and natural gas field in Converse County, Wyo. The companies plan to drill a maximum of 5,000 new wells for the project over 10 years, and the BLM requested public comments on the expansion.

Completing the process from public meetings to issuing a final decision would take at least three years, said Joe Meyer, acting manager for the High Plains District at the BLM.

<http://www.kansas.com/2014/05/18/3462566/feds-reviewing-plan-for-5000-new.html>

B. FRACKING CHEMICAL DISCLOSURE WOULD FACE CRIMINAL PENALTIES UNDER NEW N.C. BILL

Legislation introduced Thursday in North Carolina would make disclosure of confidential information related to fracking chemicals a Class I felony, subject to criminal penalties.

However, the measure would also allow the state to turn over fracking chemical information to medical providers and fire chiefs during emergencies, provided they sign confidentiality agreements.

<http://www.eenews.net/stories/1059999688>

C. TEXAS GOVERNOR BLASTS OBAMA'S ENERGY POLICIES

Texas Gov. Rick Perry criticized the White House's energy policies in a letter to President Barack Obama after a bipartisan energy bill failed to advance in the Senate. "You are waging a war on coal, kicking the can down the road on the Keystone XL pipeline and creating obstacles to onshore and offshore oil and [natural] gas production," Perry wrote.

<http://www.seattlepi.com/news/texas/article/Perry-sends-Obama-letter-slamming-energy-policies-5488933.php>

D. EPA TARGETS COUPLE'S PRIVATE POND IN WYOMING, THREATENS HUGE FINES

When Andy and Katie Johnson built a pond on their property in 2011 to provide water for their cattle, they never dreamed it would result in threats of \$75,000 a day in fines from the Environmental Protection Agency.

The Johnsons believed they had done everything necessary to get permission for the pond, where the tiny Six Mile Creek runs through their property south of Fort Bridger, Wyo. The Wyoming State Engineer's Office provided the permit and even stated in an April 4, 2013 letter to the Johnsons: "All of the legal requirements of the State Engineer's Office, that were your responsibility, have been satisfied for the Johnson Stock Reservoir."

<http://www.foxnews.com/politics/2014/05/19/feds-target-private-pond/?intcmp=HPBucket>

E. PROPOSED CONSENT DECREE, CLEAN AIR ACT CITIZEN SUIT

**ENVIRONMENTAL PROTECTION AGENCY
NOTICES**

**Proposed Consent Decree, Clean Air Act Citizen Suit
79 FR29188-29189**

SUMMARY: In accordance with section 113(g) of the Clean Air Act, as amended ("CAA"), notice is hereby given of a proposed consent decree to address a lawsuit filed by the Sierra Club ("Plaintiff"), in the United States District Court for the Eastern District of Pennsylvania: Sierra Club v. McCarthy, No. 2:13-cv-06115-JCJ (E.D.Pa.). On October 18, 2013, Plaintiff filed a complaint that EPA failed to perform a non-discretionary duty to grant or deny seven petitions timely submitted by Plaintiff in 2012, requesting that EPA object to CAA title V operating permits issued by the Pennsylvania Department of Environmental Protection for seven coal-fired power plants located in Pennsylvania. Under the terms of the proposed consent decree, EPA would be required to sign its response for two of Plaintiff's petitions by July 31, 2014, or within 30 days of the entry of this Consent Decree, whichever is later, and would be able to defer action on the other five petitions.
<http://www.gpo.gov/fdsys/pkg/FR-2014-05-21/pdf/2014-11786.pdf>

The war on coal continues!

F. TAXPAYERS PAID \$5.6 MILLION FOR CLIMATE CHANGE GAMES 'VOICEMAILS' FROM THE FUTURE WARN OF DOOM AND GLOOM

BY: [Elizabeth Harrington](#)

May 23, 2014 1:00 pm

Taxpayers paid more than \$5 million to create climate change games, including voicemails from the future warning that “neo-luddites” will kill global warming enthusiasts by 2035.

Columbia University’s Climate Center has received [\\$5.7 million](#) from the National Science Foundation for the university’s “PoLAR Climate Change Education Partnership,” to “engage adult learners and inform public understanding and response to climate change.”

<http://freebeacon.com/issues/taxpayers-paid-5-6-million-for-climate-change-games/>

G. JOHN KERRY REACHES NEW HIGHS OF BECLOWNING HIMSELF WITH TEMPERATURE

Posted on [May 23, 2014](#) by [Anthony Watts](#)

I’m pretty sure he’ll blame his blathering on the heat. You have to wonder if privately, many leading climate alarmists are saying quietly “*shut up John you are blowing our argument*“.
(CNSNews.com) – Secretary of State John Kerry told an audience in Mexico on Wednesday that temperatures in Europe and in Vietnam were “unprecedented” and broke “every record that’s ever been seen.” However, although it was hot that day, he was off the mark.

Speaking at an environmentally-friendly technology event in Mexico City, Kerry said he had just caught a CNN weather report in his hotel and “saw the temperatures around the world right now.”

“Thirty-four degrees centigrade [Celsius] in Vietnam today, in May. Twenty-nine, thirty, thirty-two, thirty-three in places all around Europe,” he said. “Unprecedented. Breaks every record that’s ever been seen.”

“What we are seeing around the world is what scientists have predicted,” Kerry continued. “They’re not telling us that we may see global climate change. We are seeing it, and we’re seeing the impacts now.”

Wednesday *was* a hot day in Vietnam, with temperatures rising at their highest to 36 degrees celsius (96.8°F) at Tan Son Nhut international airport in Ho Chi Minh City. But [according to Vietnam’s foreign ministry](#), the highest temperature recorded in May is 39°C (102.2°F) in Ho Chi Minh City, and 42°C (107.6°F) in Hanoi. The Hanoi record was registered [in 1926](#).

The hottest places in Europe in the heat of the day on Wednesday, according to weatheronline.co.uk included parts of Russia, Germany, central Italy and southern Turkey, all in the 29-32°C (84-89°F) range.

The highest temperature ever recorded in European [Russia](#) was 44°C (111.2°F) in 2010; in [Germany](#) was 40.2°C (104.4°F) in 1983 and 2003; in [Italy](#) was 48.5°C (119.3°F) in 1999; and in [Turkey](#) was 48.8°C (119.8°F) in 1993.

Read more here: <http://www.cnsnews.com/news/article/patrick-goodenough/kerry-says-wrongly-some-temperatures-week-broke-every-record-s-ever>

<http://www.wnd.com/2014/05/obama-2008-va-will-become-a-leader-of-health-care-reform/#uS7TbHrmt4cwsMiz.99>

Don Shaw

2. HEALTH A E. COLI EHEC - USA (07): O157, GROUND BEEF, ALERT, RECALL

A ProMED-mail post

<<http://www.promedmail.org>>

ProMED-mail is a program of the
International Society for Infectious Diseases <<http://www.isid.org>>

Date: Mon 19 May 2014

Source: USDA Food Safety & Inspection Service [edited]

<<http://www.fsis.usda.gov/wps/portal/fsis/topics/recalls-and-public-health-alerts/recall-case-archive/archive/2014/recall-030-2014>>

Wolverine Packing Company, a Detroit, Michigan establishment, is recalling about 1.8 million pounds of ground beef products that may be contaminated with *Escherichia coli* O157:H7, the US Department of Agriculture's Food Safety and Inspection Service (FSIS) announced today [19 May 2014]. The ground beef products were produced between 31 Mar and 18 Apr 2014. For a full list of products that were recalled, please see the attached document.

The products subject to recall bear the establishment number "EST.

2574B" and will have a production date code in the format "Packing

Nos: MM DD 14" between "03 31 14" and "04 18 14." These products were shipped to

distributors for restaurant use in Massachusetts, Michigan, Missouri, and Ohio. There was no

distribution of the products to the Department of Defense, the National School Lunch Program, or catalog/internet sales.

Factors that can contribute to the size of the recall include potential contamination of additional products due to a lack of microbiological independence between lot production as well as a deficiency in supportive record-keeping by distributors.

FSIS was notified of *E. coli* O157:H7 illnesses on 12 May 2014.

Working in conjunction with public health partners from the CDC, FSIS determined that there is a link between the ground beef products from Wolverine Packing Company and this illness cluster. Based on epidemiological and traceback investigations, 11 case-patients have been identified in 4 states with illness onset dates ranging from 22 Apr 2014 to 2 May 2014. FSIS continues to work with our state and federal public health partners on this investigation and provide updated information as it becomes available.

FSIS routinely conducts recall effectiveness checks to verify that recalling firms notify their customers of the recall and that steps are taken to make certain that the product is no longer available to consumers. When available, the retail distribution list will be posted on the FSIS website at <<http://www.fsis.usda.gov/recalls>>.

FSIS advises all consumers to safely prepare their raw meat products, including fresh and frozen, and only consume ground beef that has been cooked to a temperature of 160 F [71 C]. The only way to confirm that ground beef is cooked to a temperature high enough to kill harmful bacteria is to use a food thermometer that measures internal temperature.

communicated by:

ProMED-mail

<promed@promedmail.org>

[The source of the hamburger-related cases in Michigan and Ohio appears to be this product, but those in Kansas also reported may not be. Four states are mentioned in the distribution, the others being Missouri and Massachusetts. It is not yet clear whether the outbreak strain has been isolated from the ground beef. As noted in the posting, adequate cooking and appropriate kitchen (restaurant) hygiene can prevent such cases even with contaminated meat. - Mod.LL

A HealthMap/ProMED-mail map can be accessed at <<http://healthmap.org/promed/p/106>>.]

3. SAFETY NOTHING OF INTEREST

4. TRANSPORTATION A. Stopping Keystone Ensures More Railroad Tank-Car Spills**
Pipelines in the U.S. carry 25 times more oil than tank cars do, yet derailments are by far the biggest threat.

By Terry L. Anderson

May 13, 2014 6:43 p.m. ET

The Keystone XL Pipeline got another nail in its coffin Monday, in the form of a Senate energy vote that excluded the pipeline issue. But Keystone was already near death thanks to the Obama's administration's recent decision to ignore the evidence of a definitive government study—and instead keep listening to environmentalists' dubious claims. The upshot will be more political fires in Washington caused by train derailments in the absence of a pipeline to transport oil more safely.

After the derailment in downtown Lynchburg, Va., on April 30, approximately 30,000 gallons of Bakken crude oil burned or spilled into the James River. On May 9, a derailment north of Denver spilled another 6,500 gallons of oil, which was contained in a ditch before reaching the South Platte River. Fortunately, unlike in the 2013 derailment in Quebec where a 1.3 million-gallon spill killed 47 people and incinerated 30 buildings, no one was injured in Lynchburg or Colorado.

These and other tank-car derailments are prompting local, state and federal officials to consider various regulations to reduce the threats of such accidents, including lower train speed limits and safer tank cars. Unfortunately, few policy makers are doing sensible risk assessment.

Clearly, we are going to continue moving crude oil and petroleum products from where they are extracted to where they are needed. When considering whether to approve the Keystone XL, therefore, the question has to be: Which is safer, pipeline or rail tank cars?

President Obama's own State Department answered the comparison question plainly in February. According to the report, pipelines larger than 12 inches in diameter in 2013 spilled more than 910,000 gallons of crude oil and petroleum products—compared with 1.15 million gallons for tank cars, the worst in decades. Comparing total oil spilled makes it appear, at first glance, that pipeline and rail safety records are similar. That's only until you factor in that pipelines carry nearly 25 times more crude oil and petroleum products.

The State Department report estimates that the Keystone XL carrying 830,000 barrels a day would likely result in 0.46 accidents annually, spilling 518 barrels a year. Under the most optimistic rail-transport scenario for a similar amount of oil, 383 annual spills would occur, spilling 1,335 barrels a year.

The report is even harsher on railroads when it comes to human injuries and fatalities. It estimates that tank cars will generate "an estimated 49 additional injuries and six additional fatalities" every year, compared with one additional injury and no fatalities annually for the pipeline.

Consider the safety record of the Trans-Alaska Pipeline System, which includes the huge 48-inch-diameter mainline pipe carrying crude from Prudhoe Bay, 11 pumping stations, several hundred miles of feeder pipelines and the Valdez Marine Terminal. The largest oil spill in the system occurred in 1978 when an unknown person blasted a one-inch hole into a pipeline. It leaked 16,000 barrels and had no disastrous effects.

The debate over the Keystone XL vs. railcar transport can be likened to the safety of offshore vs. onshore oil production. By putting nearly 60% of potentially oil-rich onshore lands off limits, we

have forced exploration and production offshore. Oil production onshore is safer than offshore just as pipelines are safer than tank cars. While the Deep Water Horizon oil spill well gushed nearly five million barrels into the Gulf of Mexico over an 87-day period beginning on April 20, 2010, a blowout in western Pennsylvania in June (while Deep Water Horizon was spilling) was capped in 16 hours and spilled only a few thousand gallons.

Similarly, pipeline spills are more easily controlled and cleaned up than are tank-car derailments. With so many railroads running along waterways and wetlands, 17-mile-long oil slicks, like the one from the Lynchburg derailment, will be more common. In contrast, the State Department reports that the Keystone XL would drill under rivers to avoid "direct disturbance to the river bed, fish, aquatic animals and plants, and river banks." Moreover, between 1992 and 2011, 40% of the liquids spilled from pipelines was recovered.

Putting the debate over the Keystone XL in this context shows the absurdity of killing the pipeline project. But the Obama administration appears determined to accept environmental arguments that the pipeline could leak (even though the likelihood is less than with rail) and that with the extraction and use of oil from Alberta, Canada's oil sands will increase global warming. On the latter point, the State Department report again is clear that net carbon emissions won't be much different with or without the Keystone XL—because the Canadian tar sands will likely be developed regardless of how the oil is transported and because trains emit more carbon dioxide than pipelines.

Whether the president and other politicians or environmentalists like it or not, oil and gas will be moved from remote areas in the north to refineries in the south, east, and west or to overseas terminals. Opponents may take smug satisfaction in raising the cost of energy and discouraging consumption, but their actions are hypocritical when it comes to saving the environment.

WSJ 14 May 2014

B. API, NAM, UNIONS CALL FOR SENATE VOTE ON KEYSTONE XL BILL

The American Petroleum Institute, the National Association of Manufacturers and five labor unions urged senators in a letter sent on Wednesday to vote on a bill to approve the Keystone XL pipeline. "After nearly six years of countless polls and five exhaustive federal reviews stating the pipeline is safe to build and will create thousands of jobs, we have unfortunately seen political rhetoric and gamesmanship take precedence over policy and leadership," they wrote.

<http://fuelfix.com/blog/2014/05/21/unions-raise-pressure-on-senate-to-approve-keystone-xl/>

COMMENTS:

A. THE WEEK THAT WAS: 2014-05-24 (MAY, 24 2014)

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

Approaching a Common Ground? Noted Swedish meteorologist and climate modeler Lennart Bengtsson wrote an essay expressing his views of the deficiencies in the current status of climate research. The web site *Uppsalainitiativet*, which is hardly a site for skeptics, graciously posted the essay in English. Bengtsson notes the inappropriateness of detailed forecasts of future climate in various regions of Sweden (which also applies to the US National Climate Assessment). The weather and climate 80 years hence for a specific location cannot be forecasted. The state of the knowledge is inadequate.

Bengtsson considers that alarmists claim weather events are becoming more extreme is, itself, alarming. He states: *A part from a possible increase in precipitation and a possible intensification of tropical hurricanes that has not yet been detected, there are no indications of extreme weather in the model simulations, and even less so in current observations. What is perhaps most worrying is the increased tendency of pseudo-science in climate research. This is revealed through the bias in publication records towards only reporting results that support one climate hypothesis, while refraining from publishing results that deviate. Even extremely cold weather, as this year's winter in north Eastern USA and Canada, is regarded as a consequence of the greenhouse effect.*

In discussing the current 17 year period with insignificant or no warming over the oceans, Bengtsson writes: *My colleagues and I have been met with scant understanding when trying to point out that observations indicate lower climate sensitivity than model calculations indicate. Such behavior may not even be intentional but rather attributed to an effect that my colleague Hans von Storch calls a social construct.*

Bengtsson hopes his essay explains his motivations for first agreeing to join the Global Warming Policy Foundation (GWPF), then resigning after intense personal attacks prevented him from focusing on his work.

In an interview published in *Quadrant*, Judith Curry, branded a heretic in the *Scientific American*, expresses similar views. Climategate, and weak response by the UN Intergovernmental Panel on Climate Change (IPCC) and other scientists, motivated her to skeptically re-examine her support for the IPCC and its science. Her objections to the current status of the IPCC science include the failure to adequately explain the current 15 –17 year pause in warming, there is no evidence that the missing heat is hiding in the deep oceans, and the weakness of the IPCC claim that humans are the cause of more than 50% of the recent warming. She states: *The IPCC has outlived its original usefulness. ...Scientists do not need to be consensual to be authoritative. Authority rests in the credibility of the arguments, which must include explicit reflection on uncertainties, ambiguities and areas of ignorance and more openness for dissent. The role of scientists should not be to develop political will to act by hiding or simplifying the uncertainties, either explicitly or implicitly, behind a negotiated consensus.* In discussing the support the IPCC has among scientific societies, Curry suggests it is a topic for social psychologists. Perhaps this is similar to what Hans von Storch calls a social construct. Curry suggests the reasons why the issue is not debated are: 1) that establishment scientists do not want to appear to give legitimacy to the skeptics; and 2) the establishment scientists did poorly in the few debates they participated.

Economist Richard Tol expresses his views on what is wrong with the IPCC process. Tol stepped down from the team that produced the Summary for Policymakers of Working Group 2, which addresses impacts, adaptation and vulnerability from global warming/climate change.

Tol writes: *The first rule of climate policy should be: do no harm to economic growth. But the IPCC was asked to focus on the risks of climate change alone, and those who volunteered to be its authors eagerly obliged.* He considers that the Summary for Policymakers embodied the horsemen of the apocalypse: famine, pestilence, war, and death.

Further, Tol states the Summary for Policymakers of Working Group 3, mitigation, had another issue. Government reviewers eliminated every clause that could be used against government policy, thus making policy debate impossible. In Tol's view, there is too much money, prestige, etc. at stake to disband the IPCC. But, it must be significantly reformed.

He writes: *Away with the infrequent, massive set pieces. Away with alarmism –that has been tried for 25 years, with no discernible impact on emissions. Away with activists posing as scientists. Away with the freshman mistakes.*

Just good, sober, solid science. Let the chips fall where they may.

Here we have three scientists who are familiar with the inner workings of the IPCC expressing views similar to those expressed by the lead authors of the Nongovernmental International Panel on Climate Change (NIPCC), and other independent scientists. The IPCC reports overestimate the influence of atmospheric CO₂ on climate, the models are failing, the findings in the Summaries for Policymakers are more political than scientific, and the entire process must be significantly changed or discarded.

Professor Vaclav Klaus, then-President of the Czech Republic, in a Sept 24, 2007 speech at the UN called for an independent review of IPCC science. Many others have also criticized the IPCC, including the prestigious InterAcademy Council, which in 2010, also called for an independent assessment of the scientific evidence, a kind of “second opinion.” NIPCC fulfills that role: Its creation was not supported by governments or any industry, but by private foundations and donations from citizens. See links under Approaching A Common Ground?

NCA: The IPCC reports, with all their deficiencies, provide the foundation of the US National Climate Assessment (NCA). As stated in prior TWTWs (May 10 & 17), the NCA is prepared by US Global Change Research Program (USGCRP), which has an annual budget of about \$2.5 Billion. The USGCRP does not provide independent review of the IPCC work or independent testing of models. Instead, it tends to promote the most alarmist views of the IPCC. The NCA is a slick document (and web site) of limited scientific value and should not be the basis for any governmental policies.

A group of 15 scientists, including SEPP President and Chairman Fred Singer and SEPP Director Tom Sheahan, have published a substantial rebuttal to the NCA. The rebuttal specifically addresses 5 false claims in the NCA that provide the core of NCA’s justifications. The false claims are: 1) Fundamental Understanding of [Greenhouse] GH Gases; 2) Unusual Warming in Recent Decades; 3) The Climate Models; 4) Extreme Weather –Temperatures; and 5) Extreme Weather –Hurricanes, Droughts, and Floods. The rebuttal concludes: *This NCA is so grossly flawed it should play no role in U.S. Energy Policy Analyses and CO₂ regulatory processes. As this rebuttal makes clear, the NCA provides no scientific basis whatsoever for regulating CO₂ emissions.*

One can speculate if Lennart Bengtsson had the NCA in mind when he wrote: *Even more alarming is the tendency of giving people the impression that weather events are becoming more extreme, and that this has actually already occurred.* As stated above, he wrote that apart from an increase in precipitation and hurricanes, which has not been observed, *there are no indications of extreme weather in the model simulations...*

The NCA is being used for fund raising and propaganda purposes by the inaccurately-named Union of Concerned Scientists and by Oxfam. Oxfam claims that climate change will cause drastic increases in food prices and attacks major producers of food products for not doing enough to prevent climate change, as if they could. As discussed in the May 17, 2014 TWTW, a group of retired, senior military officers under the name of the CNA Military Advisory Board claim that climate change justifies more biofuels, which will increase food prices. Will Oxfam fight it out with the Military Advisory Board? The *New York Times* identified the Board as “a

leading government-funded military research organization.” See links under Challenging the Orthodoxy, Agriculture Issues & Fear of Famine and Un-Science or Non-Science?

Military Readiness: In a report published by the Heartland Institute, three retired senior naval officers, who are not members of the CNA Military Advisory Board, assert that the Administration’s climate policy is weakening US military readiness. Adm. Thomas B. Hayward, (former Chief of Naval Operations), Vice Adm. Edward S. Briggs, and Capt. Donald K. Forbes (all USN retired) assert there is no scientific basis for claiming that human-caused global warming/climate change is a threat multiplier, and that the Pentagon’s development of wind, solar, and biofuels “diverts critical resources away from other missions at a time when there is less money available to meet our defense needs, including supporting troops by providing them with the hardware they need.” See links under Challenging the Orthodoxy. Note: Donald Forbes is a member of the SEPP Board.

Words: In his essay, Lennart Bengtsson explained why he was reluctant to write articles for public media. *A large part of my unwillingness to partake in public debate is connected to my friend Sven Öhman, a linguist who wrote about semantics and not least about the difficulties specialists run into when attempting to communicate with the public. Words and concepts have different meanings and are interpreted differently depending on one’s background and knowledge. Sometimes such misunderstanding can be disastrous.*

Coincidentally, SEPP Director Tom Sheahan wrote an essay clearly explaining how certain words have a specialized meaning to a scientist and a different meaning to the public. The use of the word “collapse” in discussing the West Antarctic ice sheet is one such example. Speaking in terms of geological time, would it be correct to say a giant ice sheet thousands of feet thick is about to engulf Manhattan (within years or in several millennia)? See Article # 1 and link under Seeking a Common Ground.

Gas Play: Russia and China announced an agreement whereby Russia will deliver to China 38 billion cubic meters (bcm) of natural gas per year scheduled to be expanded to 60 bcm per year as pipeline capacity expands. The gas will come from fields in eastern Siberia that are yet to be developed. First delivery is expected to be in 2018 over a pipeline that is yet to be built. Given the high cost of transporting liquefied natural gas (LNG), including liquefying and regasifying, a pipeline delivery will be less costly to China than LNG. How this plays with the situation in the Ukraine is not clear. See links under Energy Issues –No US.

Additions and Corrections: The May 17 TWTW had a discussion of the sensitivity of the planet’s climate to a doubling of CO₂. The discussion stated that in AR-5 the IPCC failed to develop a credible subjective probability density function. Several readers asked if the term “subjective” should have been “objective.” An objective probability density function is developed from experimentation and observations, such as flipping a coin. A subjective probability density function is developed by asking a panel of experts to assess probability of X. In the past, the latter method is how the IPCC arrived at its probability statements. In AR-5, it did not even develop a subjective probability function for climate sensitivity –yet the Summary for Policymakers expresses 95% confidence that humans are primarily responsible for global warming/climate change?

Hand-Out: Using publically available material, SEPP has developed a simple five-page handout, “Climate Fears and Finance.” The handout emphasizes the failure of the climate models and the enormous amounts of money the US has spent on global warming/climate change. The handout is available for downloading, without cost, on the SEPP website

http://www.sepp.org/key_issues.cfm?whichyear=2014

Number of the Week: Down 96%. According to a report in the *Los Angeles Times*, the US Energy Information Administration will announce that the estimated recoverable reserves of oil in the extremely large Monterey shale formation in California will be only 4% of the prior estimate.

The oil bearing rock is still there, but it is a matter of extraction and costs. Due to plate tectonics, the rock is folded in multiple places. These folds prevent long-distance horizontal drilling with multi-port fracturing. Using current technology, the oil cannot be profitably extracted. Such a downgrade of recoverable reserves represents the difference between a natural resource as something that exists and a natural resource that can be utilized. The downgrading will be a caution against too much enthusiasm for shale formations that have not been properly explored. See link under Oil and Natural Gas –the Future or the Past?

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H. SHOLLENBERGER CALLS COOK’S AND UNIVERSITY OF QUEENSLAND’S LEGAL BLUFF!

Posted on [May 18, 2014](#) by [Anthony Watts](#)

The 97% Thunderdome is revving up! Brandon Shollenberger has issued a direct challenge to Cook and UQ, and has published the threatening letter about that “secret” data for Cook’s “97% consensus” study that was [published under an “open” Creative Commons License](#). From that “openness” Jo Nova made the hilarious graphic at left for [her essay on the fiasco](#). Send her [chocolate](#)

. <http://wattsupwiththat.com/2014/05/18/shollenberger-calls-cooks-and-university-of-queenslands-bluff/>

University of Queensland doubles down on Shollenberger – with a straw man argument on ‘confidentiality’ for names already listed in the paper!

Posted on [May 20, 2014](#) by [Anthony Watts](#)

Rather than go quietly, they seem to be ramping up:

UQ and climate change research 20 May 2014

The following is a statement from UQ acting Pro-Vice-Chancellor (Research and International) Professor Alastair McEwan.

Recent media coverage ([The Australian, 17 March 2013](#)) has stated that The University of Queensland is trying to block climate research by stopping the release of data used in [a paper](#) published in the journal *Environmental Research Letters*.

This is not the case. All data relating to the “Quantifying the Consensus on Anthropogenic Global Warming in the Scientific Literature” paper that are of any scientific value were published on the website [Skepticalscience.com](#) in 2013.

Only information that might be used to identify the individual research participants was withheld.

This was in accordance with University ethical approval specifying that the identity of participants should remain confidential.

I. CLIMATEGATE AS BELIEF SYSTEM TIPPING POINT

Posted on [May 21, 2014](#) by [Anthony Watts](#)

Doing science by consensus is not science at all, says the climatologist all the alarmists love to hate. Not that the enmity bothers Judith Curry too much — and certainly not as much as the debasement of impartial inquiry by which the warmist establishment keeps all those lovely grants coming.

When climatologist Judith Curry visited Melbourne last week she took the time to chat with Quadrant Online contributor Tony Thomas. The professor and chair of the [School of Earth and Atmospheric Sciences](#) at the Georgia Institute of Technology is something of a stormy petrel in the climate-change community, as she has broken ranks with alarmist colleagues to question the articles and ethics of the warmist faith. This has made her less than popular in certain circles, even inspiring *Scientific American*, house journal of the catastropharians, [to brand her “a heretic” who has “turned on her colleagues.”](#)

Excerpts:

THOMAS: What empirical evidence is there, as distinct from modelling, that ‘missing heat’ has gone into the deep oceans?

CURRY: Basically, none. Observations below 2 km in the ocean are exceedingly rare, and it is only since 2005 that we have substantial coverage below 700 metres.

THOMAS: *Are you supportive of the line that the ‘quiet sun’ presages an era of global cooling in the next few decades?*

CURRY: One of the unfortunate consequences of the focus on anthropogenic forcing of climate is that solar effects on climate have been largely neglected. I think that solar effects, combined with the large scale ocean-circulation regimes, presage continued stagnation in global temperatures for the next two decades.

THOMAS: If the skeptic/orthodox spectrum is a range from 1 (intense skeptic) to 10 (intensely IPCC orthodox), where on the scale would you put yourself

(a) as at 2009

(b) as at 2014,

and why has there been a shift (if any)?

CURRY: In early 2009, I would have rated myself as 7; at this point I would rate myself as a 3. Climategate and the weak response of the IPCC and other scientists triggered a massive re-examination of my support of the IPCC, and made me look at the science much more sceptically.

Much more here: <http://quadrant.org.au/opinion/doomed-planet/2014/05/chatting-climate-heretic/>

Don Shaw

J. CONGRESSMAN OFFERS AMENDMENT TO END SPENDING ANY MONEY ON U.N. CLIMATE PROGRAMS

Posted on [May 21, 2014](#) by [Anthony Watts](#)

Being debated today in Congress is The Howard P. “Buck” McKeon National Defense Authorization Act for Fiscal Year 2015 (H.R. 4435). It is the latest proposed National Defense Authorization Act. According to the House Armed Services Committee, the bill “will be the comprehensive legislation to authorize the budget authority of the Department of Defense and the national security programs of the Department of Energy.” Congressman David McKinley (R W.Va.) is introducing an amendment to cut off funds for a whole bunch of climate programs. See the list and amendment below.

<http://wattsupwiththat.com/2014/05/21/congressman-offers-amendment-to-end-spending-any-money-on-u-n-climate-programs/#more-109895>

K. NEW STUDY FINDS SEA LEVELS RISING ONLY 7 IN. PER CENTURY – WITH NO ACCELERATION

Posted on [May 20, 2014](#) by [Anthony Watts](#)

From [CO2 Science](#): The authors write that “satellite altimetry measurements since 1993 have provided unique information about changes in global and regional mean sea levels,” suggesting a mean rate of rise of 3.2 mm/yr for global sea level over the period 1993-2012 (Boening et al., 2012; Cazenave et al., 2012), which “notably exceeds the estimate of 1.8 mm/yr sea level rise for the 20th century (Bindoff et al., 2007).”

So which rate is closest to the truth?

What was done

In a study designed to answer this question, Jevrejeva et al. (2014) say they “renew the global sea level [GSL] reconstruction by Jevrejeva et al. (2006), using monthly mean sea level data collected by the Permanent Service for Mean Sea Level (PSMSL) covering the observations from 1807 to 2010,” thereby improving the GSL reconstruction by increasing data coverage “by using many more stations, particularly in the polar regions, and recently processed historic data series from isolated island stations,” as well as by extending the end of the reconstruction from 2002 to 2009.

What was learned

Quoting the five researchers, “the new reconstruction suggests a linear trend of 1.9 ± 0.3 mm/yr [7.5 inches per century] during the 20th century” and “ 1.8 ± 0.5 mm/yr [7 inches per century] for the period 1970-2008.”

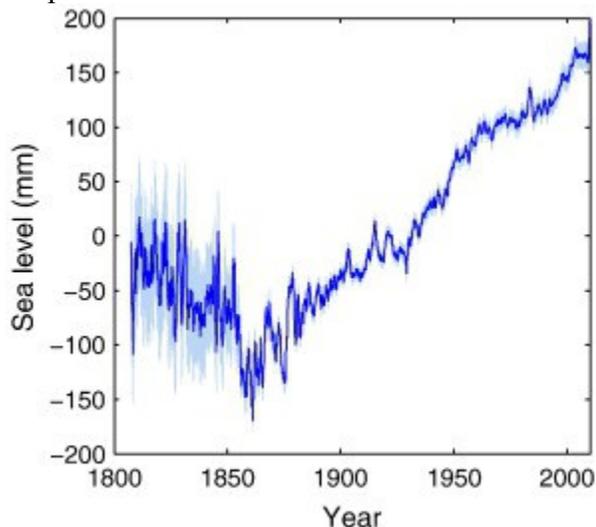


Fig. 3. Global sea level reconstruction since 1807, blue shadow represents 5 and 95% confidence interval

What it means

Although some regions have recently experienced much greater rates of sea level rise, such as the Arctic (3.6 mm/yr) and Antarctic (4.1 mm/yr), with the mid-1980s even exhibiting a rate of 5.3 mm/yr (Holgate, 2007), this newest analysis of the most comprehensive data set available suggests that there has been no dramatic increase – or any increase, for that matter – in the mean rate of global sea level rise due to the historical increase in the atmosphere's CO₂ concentration. [Therefore, there is no evidence of any human influence on sea levels]

The paper:

Trends and acceleration in global and regional sea levels since 1807. Global and Planetary Change 113: 11-22. Jevrejeva, S., Moore, J.C., Grinsted, A., Matthews, A.P. and Spada, G. 2014.

Abstract

We use 1277 tide gauge records since 1807 to provide an improved global sea level reconstruction and analyse the evolution of sea level trend and acceleration. In particular we use new data from the polar regions and remote islands to improve data coverage and extend the reconstruction to 2009. There is a good agreement between the rate of sea level rise ($3.2 \pm 0.4 \text{ mm}\cdot\text{yr}^{-1}$) calculated from satellite altimetry and the rate of $3.1 \pm 0.6 \text{ mm}\cdot\text{yr}^{-1}$ from tide gauge based reconstruction for the overlapping time period (1993–2009). The new reconstruction suggests a linear trend of $1.9 \pm 0.3 \text{ mm}\cdot\text{yr}^{-1}$ during the 20th century, with $1.8 \pm 0.5 \text{ mm}\cdot\text{yr}^{-1}$ since 1970. Regional linear trends for 14 ocean basins since 1970 show the fastest sea level rise for the Antarctica ($4.1 \pm 0.8 \text{ mm}\cdot\text{yr}^{-1}$) and Arctic ($3.6 \pm 0.3 \text{ mm}\cdot\text{yr}^{-1}$). Choice of GIA correction is critical in the trends for the local and regional sea levels, introducing up to $8 \text{ mm}\cdot\text{yr}^{-1}$ uncertainties for individual tide gauge records, up to $2 \text{ mm}\cdot\text{yr}^{-1}$ for regional curves and up to $0.3\text{--}0.6 \text{ mm}\cdot\text{yr}^{-1}$ in global sea level reconstruction. We calculate an acceleration of $0.02 \pm 0.01 \text{ mm}\cdot\text{yr}^{-2}$ in global sea level (1807–2009). In comparison the steric component of sea level shows an acceleration of $0.006 \text{ mm}\cdot\text{yr}^{-2}$ and mass loss of glaciers accelerates at $0.003 \text{ mm}\cdot\text{yr}^{-2}$ over 200 year long time series.

<http://www.sciencedirect.com/science/article/pii/S0921818113002750#f0015>

Global Sea Level Behavior of the Past Two Centuries (20 May 2014)

In the words of Jevrejeva *et al.* (2014), "satellite altimetry measurements since 1993 have provided unique information about changes in global and regional mean sea levels," suggesting a mean rate of rise of 3.2 mm/yr for global sea level over the period 1993-2012 (Boening *et al.*, 2012; Cazenave *et al.*, 2012), which "notably exceeds the estimate of 1.8 mm/yr sea level rise for the 20th century (Bindoff *et al.*, 2007)." So which rate is closest to the truth?

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Although some *regions* have recently experienced much greater rates of sea level rise, such as the Arctic (3.6 mm/yr) and Antarctic (4.1 mm/yr), with the mid-1980s even exhibiting a rate of 5.3 mm/yr (Holgate, 2007), this newest analysis of the most comprehensive data set available suggests that there has been no dramatic increase - or *any* increase, for that matter - in the mean rate of global sea level rise due to the historical increase in the atmosphere's CO₂ concentration.

Reference

Jevrejeva, S., Moore, J.C., Grinsted, A., Matthews, A.P. and Spada, G. 2014. Trends and acceleration in global and regional sea levels since 1807. *Global and Planetary Change* 113: 11-22.

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<http://www.nipccreport.org/articles/2014/may/20may2014a1.html>

<http://www.nipccreport.org/articles/2014/may/20may2014a1.html>

L. FORGET POLAR BEARS AND GLOBAL WARMING, WITNESS THE TERRIBLE TRAGEDY OF STUNTED SHRUB GROWTH

Posted on [May 20, 2014](#) by [Anthony Watts](#)

From the University of Washington and the Department of Pointless NSF Grants, comes this:

Shrub growth decreases as winter temperatures fluctuate up

[Doree Armstrong](#)

Many have assumed that warmer winters as a result of climate change would increase the growth of trees and shrubs because the growing season would be longer. But shrubs achieve less yearly growth when cold winter temperatures are interrupted by temperatures warm enough to trigger growth.

“When winter temperatures fluctuate between being cold and warm enough for growth, plants deplete their resources trying to photosynthesize and end the winter with fewer reserves than they initially had. In the summer they have to play catch up,” said [Melanie Harsch](#), a University

of Washington postdoctoral researcher in biology and applied mathematics. She is lead author of a [paper](#) on the subject recently published in PLOS One.

The roots are especially sensitive to temperature fluctuations, Harsch said. Warming winters result in higher root respiration, which uses up carbon reserves as plants make and release oxygen, leading to less carbon available during the regular growing season.

Harsch and her colleagues studied two species of shrubs on Campbell Island, an uninhabited UNESCO World Heritage site in the southwest Pacific Ocean about 375 miles south of New Zealand's mainland. They studied two large shrubs, *Dracophyllum longifolium* and *Dracophyllum scoparium*, which are evergreen broadleaf species that can grow up to about 15 feet tall and live up to 240 years.

Researchers found that while warmer, drier winters helped seedlings get established, it adversely affected growth of older plants.

“For growth to occur you need sufficient precipitation and temperature and nutrients. Growth should only happen during the summer on Campbell Island when temperatures are above 5 degrees Celsius,” Harsch said. Five degrees C is about 40 F. “On Campbell Island most winters are cool and below this 5 degrees Celsius, so the plants are not active. The plants we studied are evergreen and there is little snow cover, so they are sensitive to changes in temperature.”

In this study, researchers cut out discs, called “cookies,” from just above the shrubs' root collar, and measured the width between each ring to determine growth. They found that plant growth decreased as winter temperatures went up.

“On Campbell Island the snow is ephemeral, so the plants usually are not covered,” Harsch said. “If we're going to see an effect in changing winter conditions, we're going to see it at Campbell Island decades before we see it at, say, Mt. Rainier, where there is a lot of snow and winters are colder.”



Harsch said plants in areas like Campbell Island may eventually adjust to warmer winters, but the transition period will be tough as temperatures bounce above and below what plants need to stay dormant, causing the plants to draw down their resources.

“It may eventually be warm enough in the winters so that plants can photosynthesize and grow year round, like they do in the tropics,” she said. “It's this transition part that plants are not adapted for.”

Harsch plans to do a follow-up study that would measure the microbes and carbon reserves in the soil, and manipulate snow packs to see how it affects establishment and growth.

“How much of this can our tree species withstand?” Harsch said. “Will summer growth eventually compensate for these hard winters, or is this some sort of extra stressor on trees that

will be one more nail in the coffin? If you think of all the different factors of increasing vulnerability in climate change, is this really significant? We just don't know.”

Co-authors are [Matt McGlone](#) and [Janet Wilmshurst](#) at Landcare Research in New Zealand. Harsch started the work while pursuing her doctorate at Lincoln University in New Zealand and finished the analysis at the UW. The work was supported in part by the National Science Foundation.

M. THE 2014/15 EL NIÑO – PART 9 – KEVIN TRENBERTH IS LOOKING FORWARD TO ANOTHER “BIG JUMP”

Posted on [May 20, 2014](#) by [Bob Tisdale](#)

In a recent interview, [Kevin Trenberth](#), Distinguished Senior Scientist, from NCAR said the upcoming 2014/15 El Niño might shift global surface temperatures upwards by 0.2 to 0.3 deg C to further the series of upward steps. Curiously, Trenberth is continuing to suggest that the warming we've experienced since the mid-1970s resulted from naturally occurring, sunlight-fueled El Niño events and that we might get to experience yet another of those El Niño-caused warming steps as a result of the 2014/15 El Niño. So let's take a look at what he's suggesting and what the future MAY POSSIBLY hold in store...if Trenberth's dreams come true.

<http://wattsupwiththat.com/2014/05/20/the-201415-el-nino-part-9-kevin-trenberth-is-looking-forward-to-another-big-jump/#more-109827>

N. CLIMATE CHANGE TO CRUSH OHIO – FILM AT 11

Posted on [May 20, 2014](#) by [Anthony Watts](#)

From the Ohio State University: Climate Change Brings Mostly Bad News for Ohio
Early forecasts suggest big algae bloom in Lake Erie, a very dry 2015

By: [Pam Frost Gorder](#) COLUMBUS, Ohio— Scientists delivered a mostly negative forecast for how climate change will affect Ohioans during the next year or so, and well beyond.

<http://wattsupwiththat.com/2014/05/20/climate-change-to-crush-ohio-film-at-11/#more-109856>

O. ANTARCTICA'S ICE LOSSES ON THE RISE – WITH A SANITY CHECK

Posted on [May 20, 2014](#) by [Anthony Watts](#)

From Geophysical Research Letters and the [University of Leeds](#):

Three years of observations show that the Antarctic ice sheet is now losing 159 billion tonnes of ice each year — twice as much as when it was last surveyed. See below for some sanity check calculations on why 159 billion tonnes really isn't much more than a flyspeck in the scheme of things

<http://wattsupwiththat.com/2014/05/20/antarcticas-ice-losses-on-the-rise-with-a-sanity-check/#more-109808>

P. IS THE CLIMATE COMPUTABLE?

Posted on [May 21, 2014](#) by [Anthony Watts](#)

Our WUWT thread on [Antarctic Sea Ice Losses](#) has spurred quite an interesting discussion. Dr. Robert G. Brown of the Physics Department at Duke University responds to a comment on ice

albedo with a summary of water vapor action, the greenhouse effect, and the chaotic nature of the atmosphere. He ends with his view of why he's not a betting man.
Well worth a read.

<http://wattsupwiththat.com/2014/05/21/is-the-climate-computable/>

Q. I'LL SEE YOUR 97 PERCENT, AND RAISE YOU 3 PERCENT

May 21st, 2014

The meme that 97% of climate scientists believe global warming is, well, apparently whatever you want them to believe, is getting really annoying. John Kerry is [so clueless about this issue](#) it's downright embarrassing. Does he really think we can do something that will measurably affect global temperatures without killing millions of poor people in the process? Really?

Or maybe that's the ultimate goal?

As a published climate scientist myself, I would wager that 97% of climate scientists can't agree on anything.

Except maybe it's warmer now than 100 years ago (so what? I'll agree to that).

Or, that humans are at least *partly* responsible for some of that warming (so what? I'll agree to that, too).

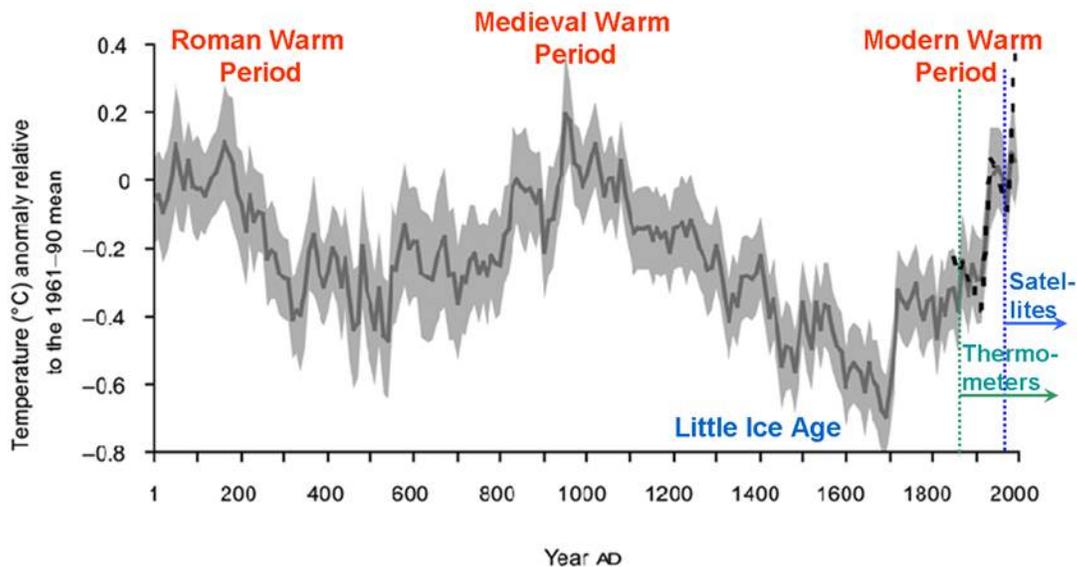
But I think a more significant statistic — one that doesn't rely on opinions, but on facts — is that 100% of climate scientists don't know how much of the warming in the last 50-100 years is natural versus human-caused.

They dance around this issue with weasel words and qualitative language. Because they don't know. They can say "most" warming is human caused...but how do they know that? They don't. You see, we have no idea how much natural climate variations figure into the climate change equation.

For example, this proxy reconstruction of past temperatures suggests climate change is the rule, not the exception:

Nearly Every Century Experiences Global Warming or Cooling

Temperature Reconstruction* for N. Hemisphere, 1 - 2000 AD
Shows Modern Warm Period Not Exceptional



*Ljungqvist, F.C. 2010. A new reconstruction of temperature variability in the extra-tropical Northern Hemisphere during the last two millennia. *Geografiska Annaler: Physical Geography*, Vol. 92 A(3), pp. 339-351, September 2010. DOI: 10.1111/j.1468-0459.2010.00399.x

And this is the stumbling block that will be in everyone's way until we understand and quantify the causes of natural climate change.

A majority of climate scientists (60%, 80%, or even 97%) might "believe" this or that, but until they figure out just how much of climate change is naturally-induced, we will never know how much is due to humans. All that statistic measures is how inbred the climate research community has become.

And since there is no fingerprint of human- versus natural-caused warming, we might never know the answer to this central question. We might have to just sit back and watch where global temperature go from now on.

And if the climate models are ever going to be proved correct, dramatic warming is going to have to get started pretty darn soon.

Roy Spensor

R. THE EPA'S CARBON CAPTURE FLIP-FLOP

One of the agency's own regional offices and a panel of EPA judges have ruled that the policy is. With great fanfare, the Environmental Protection Agency proposed a rule last fall that would require all newly built coal-fired power plants in the U.S. to install an expensive new technology called carbon capture and storage, or CCS. Although the technology has never been installed on a large-scale power plant anywhere in the world, it theoretically will separate the primary greenhouse gas—carbon dioxide—from the plant's exhaust and pump it to underground reservoirs for storage.

The proposal instantly set off controversy. Many technical experts (including Burton Richter, a Nobel Prize-winning physicist at Stanford) believe that CCS isn't ready for prime time. EPA's proposal claims it is adequately demonstrated and can be installed at a reasonable cost. The Clean Air Act requires the agency to establish both of these factors before forcing plants to install a particular technology.

That's when things got weird.

Shortly after the proposal was released in September, EPA administrator Gina McCarthy defended carbon capture and storage in a highly publicized interview on PBS, describing it as a "technology that we believe is available today." Then, on Nov. 25, the EPA regional office in Texas did an about-face when it decided that [Exxon Mobil](#) would not have to install the technology in its planned chemical plant (such plants emit carbon dioxide) in Harris County, because it would be prohibitively expensive.

too expensive.

Env140602

S. LET'S GET 'METAPHYSICAL'

A federal court slaps down an Obama regulator's legal abuse.

President Obama's energy regulators have pushed the law to the hilt and beyond in their campaign against carbon, but maybe the courts are starting to get queasy. The latest is the D.C. Court of Appeals, which on Friday cashiered a rule meant to harm traditional power plants. The Federal Energy Regulatory Commission (FERC) used to be the rare government outfit that preferred to stay out of the news, but under Chairman Jon Wellinghoff the legal and economic offenses in favor of noncarbon power sources piled up. The Senate is now weighing Mr. Wellinghoff's replacement, Norman Bay, and one question is whether he'll continue the regulatory method that produced the rule the D.C. Circuit has now tossed as an abuse of power. FERC governs the electricity grid, and in 2011 Mr. Wellinghoff ordered transmission operators to pay retail energy users to reduce their power consumption at peak periods. This smart-grid program is known as "demand response" and can help run the system more efficiently and reliably. But FERC rigged this well-meaning incentive to harm traditional baseload power, especially coal but also natural gas and nuclear

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Regards,
George