ENVIRONMENT: **A. MATT RIDLEY: FOSSIL FUELS WILL SAVE THE WORLD (REALLY)**

There are problems with oil, gas and coal, but their benefits for people—and the planet—are beyond dispute.

From The Wall Street Journal, 14 March 2015, via The GWPF By Matt Ridley

The environmental movement has advanced three arguments in recent years for giving up fossil fuels:

1. that we will soon run out of them…

http://wattsupwiththat.com/2015/03/14/matt-ridley-fossil-fuels-will-save-the-world-really/

This is a great discussion! GHH

**B. VINDICATED: RESEARCHER PUNISHED FOR EXPOSING CLIMATE FRAUD BEATS UCLA**

*School says it’s purely a financial decision – trial ain’t cheap*

Scientific research at universities is supposed to involve inquiry into established theories and hypotheses.

That is, unless they question environmental regulations.

One UCLA science researcher, a 34-year veteran of the school, found himself out of a job in 2011 after examining the data underlying diesel regulations proposed by a California regulator and exposing the shoddy credentials of a lead author of that regulator’s report.

James Enstrom secured victory in a two-and-a-half year legal battle against UCLA last week when the school agreed to settle the case.

The school is paying the “diesel particulate matter” expert $140,000, reinstating his title as “Retired Researcher,” and restoring his access to UCLA resources, “effectively” rescinding his termination, according to the American Center for Law & Justice, which represented Enstrom.

Enstrom had challenged the validity of a California Air Resources Board study on diesel particulate matter and mortality in the state and the regulations that followed. He denounced the research as a faulty reading of data.
UCLA retaliated against Enstrom after he “became an aggressive and lone critic at UCLA of air pollution research,” escalating in 2008 after he testified in California Senate hearings, according to a lawsuit filed by the center in 2012. It accused the school of initiating “a series of actions designed to silence and ultimately terminate Dr. Enstrom.”

Enstrom exposed fraudulent behavior in the studies on which the board relied, including that of the lead author of a 2008 report. Hien Tran “admitted he purchased” a magna cum laude Ph.D. for $1,000 from a “diploma mill associated with a fugitive pedophile,” according to CalWatchdog. It’s “the standard MO” of the regulatory board to use “unverified studies to gin up regulations” in the state, according to Lois Henry, a Bakersfield Californian columnist who covers California politics, in a column last month. After blowing the whistle, Enstrom found his position’s funding cut, as detailed in a 2010 letter from the Foundation for Individual Rights in Education to then-Chancellor Gene Block.

“Every day that the case continues is a deeper violation of academic freedom and freedom of speech and a more thorough chilling of faculty speech at UCLA,” FIRE said. The availability of an appeals and grievance process “does not absolve you or UCLA of the moral and legal responsibility to immediately reverse the decision not to rehire Enstrom.”

An April 2011 letter from the Academic Freedom Committee of the Academic Senate also sided with Enstrom, calling the school’s failure to reappoint him “a violation of academic freedom.” In an email to The College Fix, Enstrom pointed to the importance of the Secret Science Reform Act, currently under consideration in Congress, which would require public disclosure of “materials, data and associated protocols” as well as “computer codes and models,” so that results can be understood and research replicated. Speaking about the settlement, UCLA told The Daily Bruin that it did not target Enstrom for his political beliefs. It said that “Enstrom’s presence as a researcher for decades, despite his minority positions defending diesel emissions and tobacco, demonstrates” that UCLA promotes academic diversity.

A spokesman told The Fix that UCLA settled the case because it would cost “far less than the legal costs of a trial.” Enstrom’s settlement includes “some other incidental campus services, such as eligibility for parking and email, associated with his retiree status.”

http://www.thecollegefix.com/post/21611/

C. BACKYARD BURGER AND WIENER ROASTS TARGETED BY EPA

BY PAUL BEDARD | MARCH 13, 2015 | 11:44 AM

The Environmental Protection Agency has its eyes on pollution from backyard barbecues. The agency announced that it is funding a University of California project to limit emissions resulting in grease drippings with a special tray to catch them and a "catalytic" filtration system.
The $15,000 project has the "potential for global application," said the school. The school said that the technology they will study with the EPA grant is intended to reduce air pollution and cut the health hazards to BBQ "pit masters" from propane-fueled cookers.

Charged with keeping America's air, water and soil clean, the EPA has been increasingly looking at homeowners, especially their use of pollution emitting tools like lawn mowers.

The school is proposing two fixes to reduce emissions from barbecues. First, they want to cut back on grease flare-ups. The idea: "A slotted and corrugated tray is inserted immediately prior to meat flipping, and removed immediately after. This short contact time prevents the tray from over-heating and volatilizing the collected grease. This collected grease will then drip off into a collection tray and can be used at the pit master's discretion."

But, total capture isn't "practical," so a filter and fan are proposed for installation. "The secondary air filtration system is composed of a single pipe duct system which contains a specialized metal filter, a metal fan blade, a drive shaft, and an accompanying power system with either a motorized or manual method. This system can be powered by either an exterior electric motor with a chain-driven drive shaft, directly spinning the fan blade, or a hand-powered crank," said the project write-up.

The grant is part of the EPA's "National Student Design Competition for Sustainability Focusing on People, Prosperity and the Planet (2014)."

The expected results, according to the proposal:

"We expect to limit the overall air pollution PM [particulate matter] emissions from barbecuing and to alleviate some of the acute health hazards that a barbecue pit master can experience from inhalation. The particulate matter present during cooking with and without the grease diverter and PM2.5 filters will be tested and compared to that of current data using a conventional propane barbecue using a fumehood chamber with detectors at CE-CERT. Personal exposure of PM2.5 will also be monitored throughout the experimentation period to determine the degree of acute exposure of particulates to the cook."

Paul Bedard, the Washington Examiner's "Washington Secrets" columnist, can be contacted at pbedard@washingtonexaminer.com.

Don Shaw

D. HOUSE PASSES GOP BILLS TARGETING EPA'S 'SECRET SCIENCE'
PUBLISHED MARCH 18, 2015, ASSOCIATED PRESS

The House has passed two Republican-backed bills that would place new restrictions on the Environmental Protection Agency.

A bill approved Wednesday would require the EPA to disclose scientific data behind proposed regulations, while a measure passed Tuesday would prohibit the agency from appointing registered lobbyists to the EPA's Science Advisory Board.

http://www.foxnews.com/politics/2015/03/18/house-passes-gop-bills-targeting-epa-secret-science/?intcmp=latestnews
E. ON MARCH 9 2015 AT 12372, EPA REQUESTED PUBLIC INPUT REGARDING HOW TO IMPROVE EPA.

The question is well asked, because EPA has many faults. High among these faults is the persistent emphases on Global Warming, now changed to Climate Change because the Globe stopped warming about 1998 and has shown no appreciable temperature change since. This fact has not stopped EPA from encouraging and financially supporting writers who are willing to prepare for publication by the U.S. Government articles describing:

1. Papers describing the drastic consequences of Global Warming, if it happens. These papers never say Global warming was happening, but suggested, if it happened direr catastasis would result. This type of propaganda did not did not result in enough hand ringing. So,---

2. EPA started relying on the IPCC (Intergovernmental Panel on Climate Change) misrepresentations and in particular Climate Models. These models have not been verified for accuracy by IPCC by comparing the program output with accurate independent temperature determinations. Spencer and Christy (2014) have made such comparisons and demonstrate the IPCC grossly over estimates the Earth’s temperature. Yet, EPA touts the results offered by inaccurate IPPC model. Apparently, because these inaccurate model results support the U.S. political posture! Science and honesty be dammed!

3. EPA relies on the use of ground level thermometer, which Anthony Watts (http://www.surfacestations.org/) demonstrates that many of these measurements are in error, because many of the U.S, weather stations are now near or in “urban heat islands” caused by community growth. These measurements consistently produce exaggerated temperatures, which is what the U.S. Government desires to, i.e., the earth’s temperature is rising.

4. Earth’s temperature measurements using satellite microwave determination were developed by Spencer and Christy (http://en.wikipedia.org/wiki/Satellite_temperature_measurements) in 1978. As opposed to the ground Weather Station measurements, these microwave measurements have been verified by simultaneous ballon temperature measurements. Never the less, EPA refuses to recognize the existence and accuracy of Satellite temperature measurements. Again is due to the political desire to support the position of Global Warming.

5. The U.S. Government reported 2014 as the warmest year since Earth started recovering from the Little Ice Age. This misstatement was modified by Government, when Climatologists showed the temperature measurement comparison had only a 38% probability of being correct. Government had to agree the announcement of a new high temperature measurement needed to be modified to include the statement that Government was only 38% sure the statement was correct. Telling the truth is difficult for EPA.

6. The U.S. Government continues to look for ways to convince the U.S. citizens of the cost of Global Warming. The latest gimmick is the “Social Cost of Carbon” (http://www.epa.gov/climatechange/EPAactivities/economics/scc.html), which is supposed to be measure of the cost caused by increasing atmospheric CO2. The EPA sponsored calculations are a assembly of calculations based on zero physical or health science. Anyone with a vivid imagination could have assembled such fanciful paper. The paper is based on arbitrary assumptions having no basis in fact. In reality the report is simply an advertizing paper. Consider in that light, the “Social Cost of Carbon” should be returned to the contractor who prepared it and cost refunded to the citizens. Honesty is not a strong point of EPA.

7. While on the subject of honesty, let’s discuss EPA honest regarding the cost of regulations. EPA promulgated the Spill Prevention, Control and Countermeasure (SPCC) Plan
regulation a number of years ago. The first set of regulations was reasonable, the first update was unreasonable and apparently EPA recognized that fact. So, to make the revision more palatable, EPA instructed the economic contractor to assume all existing SPCC Plans were in compliance with the new, unpublished rules. The contractor’s analysis showed the new, more severe regulations would cost nothing to implement. That projected economic analyses was incorrect, obviously. (Refer to FOIA Response from EPA to G. H. Holliday). It is knowingly dishonest actions like this, that demonstrates EPA is out of control and need to be abandoned.

8. Returning to Global Warming. EPA will not recognize the Earth’s temperature has virtually stopped rising, starting in about 1998. Prior to 1998, the Earth’s temperature has risen measurably, probably recovering from the Little Ice Age. Since EPA refuses to recognize the Satellite Microwave temperature measurements, EPA does not recognize the lack of temperature rise for the last 18 years, Figure 1.

Fig. 1 University of Alabama plot of Seattleite determined Global Lower Atmospheric temperature. Roy Spencer
EPA misrepresents the Global temperature by relying on IPCC model results as portraying Earth’s temperature.

9. EPA and the Clean Air Act do not include atmospheric safe contaminate limits. Thus, EPA sets new regulatory concentration of atmospheric contaminates based on advances in analytical measurement technology. (The more accurate the measurement, the lower regulatory control) The Clean Air Act recognizes a small number of air pollutants, CO, NOX, SO2, etc, but provides no safe lower limit concentrations. EPA has never attempted to ascertain such limits. Thus, every advance in our ability to measure to a lower limit is cause for EPA to reduce the allowable atmospheric regulatory concentration. This is unscientific and expensive. We recognize element like arsenic are necessary in our diet, so we should not require all arsenic to be removed from food. The same probably applies to the air we breathe. A good example is the amount of CO2 in the atmosphere. Without CO2 in the atmosphere, plants or vegetables would not produce growth, or fruit. The world population is expanding every year. Thus more food is required in the future. Reducing arsenic in pecan nuts or CO2 in the atmosphere would reduce food supplies. If
Government allows EPA to continue to exist there will be need to establish minimums below which harm will result from over regulation. In this regard, the current focus of reducing CO2 will reduce food supplies, particularly to the underprivileged, which grow a large share of their food. In order to feed the future generations we need more CO2. Based on the fact that the Earth’s temperature is not a function of CO2 concentration i.e. since 1998 the CO2 concentration has increased but the temperature has remain virtually constant demonstrating the fallacy of the Government position that increased CO2 causes atmospheric temperature to rise. We need to increase CO2 atmospheric concentration to about 1200 ppm to encourage food production. Since humans exhale at about 4000 ppm CO2, the above increase in atmospheric CO2 is not harmful.

10. Citizens and Congress recognizes EPA uses reports held secret, held within the EPA, to justify proposed regulations. ([http://science.house.gov/issue/committee-investigation-epa-secret-science](http://science.house.gov/issue/committee-investigation-epa-secret-science)). This action is contrary to the fundamental action of a free society such as the U.S. Even Congress has difficulty obtaining or stopping so called “Secret Science” reports. An act of Congress prohibiting “Secret Science” received a veto in March 2015 by the President. ([http://thehill.com/policy/energy-environment/234485-white-house-threatens-veto-of-epa-secret-science-bill](http://thehill.com/policy/energy-environment/234485-white-house-threatens-veto-of-epa-secret-science-bill)). This demonstrates how far the Government will go to keep regulatory information secret. Either EPA is ashamed of the research or EPA is claiming existence of research which does not exist. Either option is unacceptable and must be discontinued.

Submitted by:
George Holliday, PhD. P.E., BCEE, ASME Life Fellow

F. ENVIRONMENTAL APPEALS BOARD ISSUES MAJOR TOXIC SUBSTANCES CONTROL ACT (TSCA) 8(E) DECISION
posted on: Tuesday, March 17, 2015

Section 8(e) of TSCA requires the “immediate” reporting of information which “reasonably supports the conclusion” that a chemical “presents a substantial risk of injury to health or the environment.” In this case, an EPA ALJ levied a $2,571,800 penalty against Elementis, alleging that an epidemiological study regarding hexavalent chromium completed in 2002 should have been reported to EPA under TSCA 8(e).

In perhaps the first reported decision that addresses the contours of TSCA 8(e) liability at such length, the EAB rejected Elementis’ statute of limitations and statutory interpretation arguments, but found that the disputed study was not reportable based on EPA guidance providing that information is not reportable when EPA is “adequately informed” of the information. The key points are:

B. COMMENTS
A. THE WEEK THAT WAS: 2015-03-21 (MAR. 21, 2015)
By Ken Haapala, President, Science and Environmental Policy Project (SEPP)

**Certainty:** The above quote from logician Bertrand Russell is part of his extensive writings in praise of science and its capability to calculate probability of error based upon evidence, often coming from repeated trials. Not religious, Russell often differentiated between scientists, religious or not, as a group, and politicians. Over the past few decades the UN Intergovernmental Panel on Climate Change (IPCC) transformed from an organization for science to one controlled by politicians and expressing a cult-like belief—the belief that human emissions of carbon dioxide, and other greenhouse gases, are causing unprecedented and dangerous global warming. In the process, the IPCC has turned probability analysis from objective frequency testing to guesswork. The assertions of certainty about human cause in the Summary for Policymakers (SPM) of the Fifth Assessment Report (AR-5) are but the latest example.

As discussed in the March 14 and March 7 TWTWs, MIT Professor Emeritus of Atmospheric Sciences Richard Lindzen considers the shift in terminology by the Climate Establishment from “global warming” to “climate change” indicates the silliness of the entire issue of human cause of climate change. To him, climate change has been occurring since the earth was formed and now this naturally occurring course is taken as evidence of doom. The March 14 TWTW gave one example of natural climate change, a study of borings of marine sediments off the coast of north China, which date back 1.4 billion years.

The IPCC and organizations that follow it, such as the US Climate Change Research Program (USCCRP) are being forced to make silly claims because they have failed to study and understand the natural causes of climate change—natural causes that are contributing to the current temperature trend of no trend, which contradict prior assessments by the IPCC, particularly the Fourth Assessment Report (AR-4) in 2007. It was in 2007 that the IPCC received the Nobel Peace Prize, which the IPCC proudly posts on its web site. Nature is turning the certainty expressed by the IPCC on its head. See the March 7 and 14 TWTWs at http://www.sepp.org/the-week-that-was.cfmand http://www.ipcc.ch/publications_and_data/ar4/syr/en/spm.html

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**Executive Order:** Expressing great certainty in the pronouncements of the IPCC and the USCCRP, President Obama used his executive powers to order a reduction of federal government greenhouse gas emissions (CO2) by 40 percent below 2008 levels, over the next decade. The US government is the largest consumer of energy in the country. He also set the goal that the government will get 30 per cent of its power from renewable sources over the next 10 years.

According to reports, Obama announced this when saying: “Today, America is going to be once again leading by example,” in brief remarks during a Department of Energy round table with leaders from the federal contractors and suppliers. Also, the “White House said the move would help reach a non-binding commitment Obama signed with China in November 2014 to curb U.S. emissions at least 26 percent below 2005 levels by 2025.”

From the prospective of Washington, the thought of a 40 percent lowering in CO2 emissions and 30% renewable power is almost amusing. Such a directive will include computers, communications, elevators, moving stars, heating, cooling, subways, etc. Other than hydro, which is impractical for Washington, renewable sources are unreliable and use massive land areas. Will this be a return of the Washington of the 1950s when few people worked in the summer? Will it apply to subways that move federal employees? Will it require denuding the
Washington region of its trees? Offshore wind is expensive and has not been demonstrated to be reliable.
Amusement aside, the consequences of this executive order to military complexes such as Norfolk-Newport News is staggering, and may result in a real threat to national defense. See links under Expanding the Orthodoxy.

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**Renewable Power in the UK:** Writing for the Centre for Policy Studies, Robert Darwall outlines the damage that renewable subsidies are creating in the UK. Of course, his analysis is disputed by the Greens, also presented. Darwall’s presentation of the experience of Edison is instructive.
Edison was an inventor, an engineer and an entrepreneur. He successfully established the first electrical grid, in New York City, powered by coal. Edison had the ability to recognize what was needed and invented it, if necessary. Many government leaders saw the benefits of reliable electricity, and demanded it in their cities.
Later, Edison failed because he failed to realize the market advantages of AC power over DC power. Some were hurt by this failure, but the public benefited when one system was replaced by a superior system. Politicians replacing a superior, reliable system with an inferior, unreliable system hurt the public. Only those who take advantage of inferior thinking benefit. See links under Questioning European Green and Subsidies and Mandates Forever.

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**EPA Demands:** A revolt is occurring against EPA demands that States produce a clean power plan. Senior Republican leaders in Congress are stating that the EPA requirement is unconstitutional and illegal. In Congressional testimony, Lawrence Tribe, a constitutional law scholar, who is decidedly very liberal, up to this point, and who mentored President Obama, declared that the EPA energy plan for existing coal-fired power plants is unconstitutional. A number of states are indicating they will ignore EPA demands. According to reports, starting next year, the Federal Emergency Management Agency (FEMA) will approve “disaster preparedness funds only for states whose governors approve hazard mitigation plans that address climate change” (read comply with EPA demands).
When similar show-downs occurred with the parties in the White House and control of Congress switched, many major media sources screamed a constitutional crisis. They are strangely quiet now. Apparently, to them, the authority of the executive branch depends on the political party of that executive. See links under The Political Games Continue, Litigation Issues, and EPA and other Regulators on the March

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**The Third Way:** Probably without intending to do so, President Obama may have provided a third way out of a show-down over EPA demands. He announced that America will lead by example. The states could respond to EPA demands by declaring “let the federal government lead by example. Let Washington demonstrate how quickly and effectively it can implement President Obama’s Executive Order –with minimal costs.

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**In a Nutshell:** Roger Pielke, Jr, falsely accused of being a climate change denier by those engaged in the Witch Hunt, communicated a summary of the movie Merchants of Doubt: “How a 90 year-old man and a few dead friends fool the stupid American public, end of civilization results.” These scientists insisted on the IPCC conforming to the principles of science. No
wonder the Climate Establishment fears them. It may lose the billions of dollars it is receiving from the federal government. The movie Merchants of Doubt is failing at the box office. Writing in Climate Etc. Judith Curry expressed hope this may be the end of such claims. Curry concludes: “The bottom line here is that very sloppy history and social science research ([by authors] Oreskes and Conway) is being used to justify \textit{ad hominem} attacks against scientists that do not support the prevailing consensus. I find this reprehensible.” See links under Seeking a Common Ground, and Communicating Better to the Public – Go Personal.

\textbf{Role of Science:} On her web site, Climate Etc., Judith Curry presents a thoughtful essay on science and society by William Hooke. Hooke is Associate Executive Director of the American Meteorological Society. He discusses the beginnings of the National Science Foundation and how social stresses may be changing its role in American society.

“How have we faced these new stresses? Unfortunately, many scientists have responded by resorting to advocacy. Worse, we’ve too often dumbed down our lobbying until it’s little more than simplistic, orchestrated, self-serving pleas for increased research funding, accompanied at times by the merest smidgen of supporting argument.

“At the same time, as we’ve observed and studied emerging natural resource shortages, \textit{environmental degradation, and vulnerability to hazards}, we’ve allowed ourselves to turn into \textit{scolds}. Worse, we’ve chosen sides politically, largely abandoning any pretense at \textit{nonpartisanship}.”

For years, members of the Science and Environmental Policy Project (SEPP) have questioned the direction of federally-funded climate research with senior administrators of science entities, including the head of the National Science Foundation. The funding focused on human-caused global warming, excluding natural causes. When temperatures stopped rising, the term was politically shifted to climate-change, demonstrating a severe weakness in the government-funded science.

Based on government publications, SEPP calculated that, from FY 1993 to FY 2013, the US government spent over $35 Billion on climate science. Yet, no major programs on understanding the natural causes of climate change (warming or cooling) were reported. This funding has created a biased science – one that ignores nature. (“Climate Fears and Finance”)

The current temperature plateau further demonstrates the biased science, with no increase in atmospheric temperatures for at least a decade (University of Alabama at Huntsville calculations), and up to 18 years with Remote Sensing Systems atmospheric calculations and Hadley-Climatic Research Unit surface calculations. Excuses for the plateau vary, but many include a natural cause, such as shifts in the Pacific Decadal Oscillation (PDO). Shifts in the PDO from cooling to warming back to cooling have been known since the 1990s. Yet government-funded climate science fails to take it into account, demonstrating that government-funded climate science is obsolete.

For these reasons, SEPP suggests that all spending measures on climate science carry an amendment that 25% of the spending will be devoted on understanding the natural influences on climate. These measures could include the US Global Change Science Program, with 13 Federal departments and agencies participating, and with a FY 2014 enacted budget of $2.490 Billion. By funding the natural causes of climate change, government can help create a more robust science, not one focused on a special case.
**GWPF:** Thirteen members of the Academic Advisory Council of the Global Warming Policy Foundation (GWPF) wrote a response to *A Short Guide to Climate Science* by the Royal Society. The response is titled *The Small Print: What the Royal Society Left Out* and contains 20 points. As with all such efforts, there may be minor issues arising in the response, often relating to emphasis. Fred Singer may be preparing a critique; however, a few issues are presented below. Under point 2, the response states: “The warming effect of greenhouse gases is widely recognized. However, the direct effect is known to be relatively small: about 1°C for a doubling of carbon dioxide levels.” The 1°C comes from experiments using dry air. The main issue is what happens in humid air, particularly over the tropics.

Under point 5, the response states: “Similarly, temperatures in the troposphere over the tropics are predicted to rise faster than anywhere else, including at the surface. This too is a matter of basic physics, where the temperature profile follows what is known as the moist adiabatic. Models are, indeed, consistent with this. However, observed warming in the tropical troposphere is very weak compared to warming at the surface, suggesting problems with observations at the surface or in the troposphere or both. Given the small changes that are being studied, neither possibility is implausible.”

The comprehensive atmospheric measurements clearly show that warming over the tropics is not as intensive as suggested by the models or by surface measurements. The surface measurements are sparse and probably not correct. Under point 18 the response states: “Scientists continue to address some of the unknowns regarding the climate system.” A main issue is the role of government funding in distorting the climate science. For example, there is no US funding for the natural causes of climate change. The above points are minor, and we recognize the response is significant effort. See links under Challenging the Orthodoxy.

**Cosmic Rays:** Last week TWTW linked to a paper on cosmic rays by Tsonis, et al., using statistical techniques that were not compelling. Richard Lindzen quickly questioned the involvement of some of the co-authors. The *Washington Post* carried an article with the headline “No, cosmic rays aren’t causing global warming.” The hypothesis is stated backwards. The hypothesis is increased high-energy cosmic rays increase cloudiness, thus cause cooling. The article also stated there was no correlation between cosmic rays and temperatures. Yet, the abstract states: “However, on short interannual timescales, we find a significant, although modest, causal effect between CR and short-term, year-to-year variability in global temperature that is consistent with the presence of nonlinearities internal to the system. Thus, although CR do not contribute measurably to the 20th-century global warming trend, they do appear as a nontraditional forcing in the climate system on short interannual timescales.” In spite of the *Washington Post* article, the jury is still out. The time scales involved may be much longer than considered in the paper. Also, surface temperature measurements are questionable. See links under Communicating Better to the Public –Make things up.

**Adjusting Surface Temperature Records:** In discussing the extreme winter of 2014/15 for the East, Joseph D’Aleo of WeatherBell Analytics repeats why he continues to reference the Number...
of state Record High & Low Temperatures by Decade, as presented by John Christy in US House/Senate Testimony

“I have seen emails suggesting they [NOAA & NASA-GISS] would like to modify this inconvenient data set [record high& low temperatures] but they have no excuse to do it as the Time of Observation adjustment that does much of the adjustment (cooling early decades and warming later) is said to prevent double counting a high two straight days. For all-time records, this doesn’t matter. Homogenization, the other ‘blending’ trick also makes no sense when looking for record cold or warm records.”

Also, the 2014 US tornado year was contrary to White House claims. Please see links under Changing Weather.

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Links: Last week several TWTW readers commented that they had difficulty with the links in the email they received. The email service modifies the links when TWTW is sent out. We have taken steps to simplify the procedure in an effort to reduce any such modification. In any case, if the links in the e-mail do not work, the links in the pdf on the SEPP web site should work
http://www.sepp.org/the-week-that-was.cfm

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Number of the Week: 8.2%. Writing in Watts Up With That, earth scientist David Middleton demolishes the claim that 97% of climate scientists agree with human-caused global warming, used by the President and many others. According to Middleton, only 8.2% of the papers considered by Cook J. et al. (2013) explicitly endorsed human-caused global warming. For 66.73% there is no explicit or implicit position. Several authors have publicly objected to Cook et al. classifying their papers as implicit endorsement.

Writing in Environmental Research Letters, John Cook and Kevin Cowtan have produced a weak explanation. But, the damage has been done, and it is on-going. Such papers have discredited scientists and science in general. See links under Challenging the Orthodoxy and Communicating Better to the Public –Exaggerate, or be Vague?


B. BAD NEWS FOR TRENBERTH’S MISSING HEAT – NEW STUDY FINDS THE DEEP OCEANS COOLED FROM 1992 TO 2011 AND…

…that some of the warming nearer to the surface came from the deep ocean.

Guest Post by Bob Tisdale

The paper is Liang et al. (2015) Vertical Redistribution of Oceanic Heat Content. The abstract reads (my boldface): Estimated values of recent oceanic heat uptake are of order of a few tenths of a W/m2, and…


C. SEA ICE 101 – BEWARE THE IDEAS OF MARCH! (WAS THE ARCTIC MAXIMUM “EARLY” ON MARCH 8-9?)

Guest essay by Robert A. Cook, PE Last week, in my previous article, several critics noted an apparent decline in their Arctic Sea Ice Extents when it dipped back down from a high point over
the March 7-8-9 period. Was this an “early” Arctic Sea Ice Extent maximum? Was today’s Arctic Sea Ice in a…
http://wattsupwiththat.com/2015/03/14/sea-ice-101-beware-the-ideas-of-march-was-the-arctic-maximum-early-on-march-8-9-2/

D. CHARTING THE OUTCOME OF THE OBAMA – CHINA CLIMATE DEAL BY 2030
Ed Hoskins submits this essay In November 2014, to much fanfare; President Obama concluded an agreement with China on Climate. This was as a precursor to the major Paris climate conference in December 2015, where it is anticipated that a definitive and binding Climate agreement should be reached. These notes follow through that 2014 agreement…

E. WORLD RECORD 1 DAY SNOW IN SOUTHERN ITALY
https://www.youtube.com/watch?v=IDclbzNVZGI
Don Shaw

F. GLOBAL TEMPERATURE UPDATE, FEBRUARY 2015
GLOBAL SURFACE (LAND+OCEAN) AND LOWER TROPOSPHERE TEMPERATURE ANOMALY & MODEL-DATA DIFFERENCE UPDATE
Guest Post by Bob Tisdale
This post provides an update of the data for the three primary suppliers of global land+ocean surface temperature data—GISS through February 2015 and HADCRUT4 and NCDC through January 2015—and of the two suppliers of satellite-based lower troposphere temperature data (RSS and UAH) through February 2015. INITIAL NOTES: For discussions of…
This is an outstanding discussion.- GHH

G. THE INSIDERS: GLOBAL WARMING MIGHT BE REAL, BUT THE DEMOCRATS’ SOLUTIONS ARE NOT
By Ed Rogers March 6
BP recently published its annual Energy Outlook report, which, as the company describes it, outlines a “view of the likely path of global energy markets to 2035…[and] highlights the challenge of delivering energy supplies which are sustainable, secure and affordable.” The bottom line in the report is that taking into account the trajectory of global demand for energy, predicted population growth and our current energy mix, by 2035 we won’t be anywhere near where the global warming alarmists tell us we must be with regard to CO2 emissions.
http://judithcurry.com/2015/03/13/week-in-review-48/#more-18037
H. REPUBLICANS CRITICIZE CLIMATE CHANGE COST ACCOUNTING
By Timothy Cama - 03/09/15 05:09 PM EDT
Senate Republicans are criticizing the Obama administration for using what they see as an opaque, secretive process to calculate the costs associated with climate change. Led by Environment and Public Works Committee Chairman Jim Inhofe (R-Okla.), 11 senators wrote to the White House Office of Information and Regulatory Affairs (OIRA) Monday to investigate the administration’s social cost of carbon. The administration uses social cost of carbon to calculate the societal benefits of regulations that reduce greenhouse gas emissions that are believed to cause climate change. The Obama administration currently pegs the cost of carbon emissions — and the benefit of reducing them — at $37 per ton.
http://judithcurry.com/2015/03/13/week-in-review-48/#more-18037

I. WINTER’S THE NORMAL, THE NEW NORMAL
Winter is finally loosening its icy grip across the Northeastern U.S. and much of the globe. Of course, as they always do, cold spells may still pop up here and there into early spring. Retailers report the extended cold and snow this winter have hit sales hard. A Bloomberg survey of 86 economists had forecast a modest 0.3 percent increase in retail sales for February – almost a full percentage point too high. While online retailers saw a 2.2 percent increase in sales in February, overall retail sales saw a 0.6 percent decline – the third straight monthly decline in retail sales this winter. Despite lower gasoline prices and a stronger dollar, shoppers seemed to be staying out of the weather and shopping from home. Nine of the 13 major retail categories saw declines, with auto sales falling by 2.5 percent – the largest decline since the polar vortex-driven snowfall of January 2015. The United Kingdom is expecting a fresh bout of winter as a cold front blows in from Scandinavia and Russia. Temperatures are expected to drop to near freezing and additional snowfall is expected in parts of the UK. Much of the country is expected to see temperatures as much as 3.8°C lower than average for March. A new cold front is expected to hit Northern China as well, dropping temperatures 6°C on average for the coming week. Combined with high winds and arid conditions, dusty weather is expected, getting an early start on the spring dust storms that contribute to seasonal breathing difficulties in Northern China.

J. BAD NEWS FOR TRENBERTH’S MISSING HEAT – NEW STUDY FINDS THE DEEP OCEANS COOLED FROM 1992 TO 2011 AND...
Bob Tisdale / 5 hours ago
…that some of the warming nearer to the surface came from the deep ocean.
Guest Post by Bob Tisdale
The paper is Liang et al. (2015) Vertical Redistribution of Oceanic Heat Content. The abstract reads (my boldface):
Estimated values of recent oceanic heat uptake are of order of a few tenths of a W/m², and are a very small residual of air-sea exchanges with annual average regional magnitudes of hundreds of W/m². Using a dynamically consistent state estimate, the redistribution of heat within the ocean is calculated over a 20-year period. The 20-year mean vertical heat flux shows strong variations in both the lateral and vertical directions, consistent with the ocean being a dynamically active and spatially complex heat exchanger. Between mixing and advection, the two processes determining the vertical heat transport in the deep ocean, advection plays a more important role in setting the spatial patterns of vertical heat exchange and its temporal variations. The global integral of vertical heat flux shows an upward heat transport in the deep ocean, suggesting a cooling trend in the deep ocean. These results support an inference that the near-surface thermal properties of the ocean are a consequence, at least in part, of internal redistributions of heat, some of which must reflect water that has undergone long trajectories since last exposure to the atmosphere. The small residual heat exchange with the atmosphere today is unlikely to represent the interaction with an ocean that was in thermal equilibrium at the start of global warming. An analogy is drawn with carbon-14 “reservoir ages” which range over hundreds to a thousand years.

A preprint edition of the paper is here. The paper is full of memorable quotes, including (my boldface):

An upward heat transport in the deep ocean may appear to be in conflict with the widespread idea that a large portion of the extra heat added to the Earth system in the past decades should be transported into the deep ocean (e.g. Fig. 1 in Stocker et al. 2013). That inference is based on the assumption that the ocean was in equilibrium with the atmosphere before any extra heat entered. When interpreting measurements of the ocean heat content, it is often assumed that the disturbances arise only from the recent past. However, as emphasized by Wunsch and Heimbach (2014) and the present analysis, the long integration times in the ocean circulation imply an observed response involving the time history of the circulation over hundreds of years, at least.

And contrary to climate models:

Furthermore the ocean, far from being a passive reservoir filled and emptied by the atmosphere, is a dynamically active, turbulent element of a coupled system.

And keeping in mind that Balmaseda et al., (2013) was one of the papers that claimed to have found part, but not all, of Trenberth’s “missing heat”:

Global average cooling in the deep ocean conflicts with some previous ocean heat content estimates (e.g. Balmaseda et al. 2013), but is consistent with the long thermal memory of the ocean, and with other recent studies (e.g. Durack et al. 2014; Llovel et al. 2014).

For more on Balmaseda et al. (2013) and Trenberth’s “missing heat”, see:

- Trenberth Still Searching for Missing Heat
- More On Trenberth’s Missing Heat
- Even More About Trenberth’s Missing Heat – An Eye Opening Comment by Roger Pielke Sr.

[My thanks to Judith Curry, who included a link to Liang et al. (2015) in her recent Week In Review dated March 13, 2015.]

The global warming advocates have been struggling to explain the embarrassing fact that numerous temperature records have not shown any warming for up to 18 years. Numerous weak explanations have been offered while Trenberth is known to have claimed that the heat is now hiding deep in the ocean for which there does not seem to be sufficient data to support the claim. I am skeptical since I wonder why this has suddenly happened in the last 18 years while not previously observed or predicted. This paper reportedly dispels his claim; although I am not confident that anyone sufficiently understands the complex interaction between the oceans and land mass to make any scientific claims. Certainly all computer models are questionable.

Don Shaw

K. CLIMATE MODELS VERSUS ACTUAL TEMPERATURE DATA

I know I have sent similar versions of this plot before, but it reminds us of two important facts (based on actual temperature measurement) which have been ignored by many in the government and the MSM:

1. The global temperatures have not risen for over a decade while CO^2 levels have risen and
2. The Computer models (CMIP5) often referenced by the AGW folks have failed miserably to predict temperatures

Does it look like the Science is settled?

Note this is from Dr Roy Spencer, a recognized and awarded scientist who has pioneered collection of temperature data from Satellites along with many other scientific accomplishments. Don Shaw

Any dictator would admire the uniformity and obedience of the U.S. media.
WASHINGTON — Oil, gas and coal development on America’s public lands could undermine the Obama administration’s ambitious plans for combating climate change, including new curbs on greenhouse gas emissions from power plants, according to a report to be issued Thursday.

The analysis by the Center for American Progress and the Wilderness Society, shared exclusively with the Chronicle ahead of its release, pinpoints rising methane emissions from oil and gas wells on public lands and waters as a significant share of the heat-trapping gases tied to all energy development nationwide.

“The Department of the Interior has long been in the business of approving well after well, mine after mine, without assessing the impacts of its energy policies on U.S. carbon pollution levels,” said Matt Lee-Ashley, director of the public lands project at the Center for American Progress, a liberal group.

Fossil fuels extracted from federal lands and waters are estimated to have accounted for 24 percent of all energy-related greenhouse gas emissions in the United States in 2012 — some 1,340 million metric tons of carbon dioxide equivalent — according to the report, which relies heavily on government data analyzed by Stratus Consulting.

The activity represents “a blind spot in U.S. efforts to address climate change,” the authors write. “The U.S. Department of the Interior, which has jurisdiction over the nation’s public lands, has no comprehensive plan to measure, monitor and reduce the total volume of greenhouse gas emissions that result from the leasing and development of federal energy resources.”

Concerns by Jewell

There are signs that may be changing. Interior Secretary Sally Jewell declared Tuesday that climate concerns will factor heavily into the decisions she makes over the next two years as the United States’ top manager of federal real estate — 1.7 billion offshore acres and one-fifth of the country’s landmass.

“At Interior, we are already adjusting our land management strategies for the impacts of climate change, but we also need to do more to address the causes of climate change,” Jewell said in a speech outlining the approach.

The Interior Department’s Bureau of Land Management already is drafting rules that aim to curb venting and flaring gas from wells on public lands, a practice most common at oil wells where natural gas is treated as a less valuable byproduct of more crude production.

In the absence of those mandates, the Wilderness Society and Center for American Progress report says, methane pollution from venting and flaring on federal onshore leases has risen more than 51 percent between 2008 and 2013.

And the analysis finds industry-reported emissions from offshore leases also jumped dramatically between 2009 and 2011 — likely because new Interior Department monitoring and reporting requirements were phased in at the same time. Even after those monitoring mandates were in place, methane emissions from venting and flaring at offshore oil and gas operations rose an estimated 19 percent between 2012 and 2013.

Short-lived but potent
Methane, the primary ingredient of natural gas, is a short-lived but potent greenhouse gas believed to be 34 times more powerful than carbon dioxide at warming the atmosphere over a 100-year period.

Oil industry representatives have argued that new regulations aren’t needed for methane because the industry is already tackling the problem. “Another layer of burdensome requirements could actually slow down industry progress to reduce methane emissions,” American Petroleum Institute president Jack Gerard said in January.

But some environmentalists have argued that regulations are needed to encourage incremental industry changes that would not otherwise pay off.

In their report, the Wilderness Society and Center for American Progress argue that the Bureau of Land Management’s coming rule is “a critical piece of the larger climate change puzzle,” which should be combined with work to curb “runaway” methane leaked during processing and distributing oil and gas.

The groups urge the Obama administration to force companies to install meters at wells on public lands to accurately record the amount of gas that is vented and flared — and install the best-available technology to reduce the practice. They also want to see the Interior Department raise the royalty rates charged for fossil fuels extracted on public lands to account for “the full costs of carbon pollution.”

Jewell pledged Wednesday she would advance a plan to “modernize” the Interior Department’s approach to coal mining on public lands. Coal harvested on public lands was responsible for more than half of all estimated emissions tied to fossil fuel development on federal lands and waters in 2012, according to the Center for American Progress analysis. Much of that activity is concentrated in the Powder River Basin of Montana and Wyoming. Houston Chronicle

EDITOR’S NOTE: Note in reading this Newspaper article, not once does the writer tell the reader, Greenhouse gases cause Global Warming!

M. ATLAS SHRUGGED, NET NEUTRALITY, AND GOVERNMENT CONTROLLED SCIENCE
March 19th, 2015

The Ministry of Truth: Where all climate science will be controlled for the public good. There’s an amazing article by Robert Tracinski at TheFederalist.com which draws powerful parallels between Ayn Rand’s Atlas Shrugged and what we are seeing today with increasing government regulation.

It uses the latest Net Neutrality push and government attempts to shut down private funding of climate science as just the latest examples of a trend which is destroying competition… and ultimately prosperity. Crony capitalist elements of big business trying to seek competitive advantage by encouraging the government regulation end up finding themselves beholden to their government masters as a result.

I know this is all nothing new…I was just a little taken aback to realize that those of us who are skeptical of assertions there’s a “climate crisis” in need of government intervention and control are now players in the game, as a few in Congress try to intimidate us.

Al Gore has just announced the need to punish climate-change deniers…as if anyone denies that climate changes. Sheesh. Even we admit that humans have some influence on climate. But (1) the human portion is highly uncertain, and (2) we can’t do anything significant about it anyway without killing millions of people in the process.
Meanwhile, the mainstream media dutifully allows such perverted reframing of the terms of the debate to go unchallenged. Here’s John Christy’s response to that intimidation, published yesterday. The Federalist article is well worth the read, especially for those familiar with *Atlas Shrugged*. Roy Spencer

**N. CLAIM: COMPUTER MODEL SAYS THAWING PERMAFROST WILL RUN A LOPSIDED CARBON GAME IN THE ARCTIC**

From DOE/Lawrence Berkeley National Laboratory Computer sims: In climatic tug of war, carbon released from thawing permafrost wins handily. There’s a carbon showdown brewing in the Arctic as Earth’s climate changes. On one side, thawing permafrost could release enormous amounts of long-frozen carbon into the atmosphere. On the opposing side, as high-latitude regions warm, plants…


**EDITOR’S NOTE:** This article fails to state the increase in global temperature has been little more than zero for the past 18 years with CO2 atmospheric concentration consistently increasing. Adding more CO2 should have little effect.

**O. STATES SHOULD DEFY UNLAWFUL EPA CARBON DIOXIDE RULES**

Guest opinion by Steve Goreham

Originally published in Communities Digital News. Last June, the Environmental Protection Agency (EPA) proposed its Clean Power Plan as a nationwide regulation to reduce carbon dioxide (CO2) emissions from electrical power plants. Comments to the EPA have now been submitted, and it’s not a surprise that a majority of state…

http://wattsupwiththat.com/2015/03/19/states-should-defy-unlawful-epa-carbon-dioxide-rules/

**P. ANATOMY OF A COLLAPSING CLIMATE PARADIGM**

Guest post by David Middleton

Paradigm:
A framework containing the basic assumptions, ways of thinking, and methodology that are commonly accepted by members of a scientific community. Paradigm Shift: These examples point to the third and most fundamental aspect of the incommensurability of competing paradigms. In a sense that I am unable to explicate further,…

http://wattsupwiththat.com/2015/03/18/anatomy-of-a-collapsing-climate-paradigm/

**Q. ‘CLIMATE TO SEVERE WEATHER LINKAGE’ FALLS FLAT – NO US TORNADOES REPORTED IN MARCH**

For The First Time since 1969, No US Tornadoes Reported In March

The US tornado count for March 2015? Zero. That’s right, so far this month there have been no tornadoes reported in the U.S. — this is only the second time this has happened since 1950, according to Weather Channel meteorologist Greg Forbes.“We…
R. ON THE SOCIAL CONTRACT BETWEEN SCIENCE AND SOCIETY
Posted on March 18, 2015 | 213 comments
by Judith Curry
Our geosciences community too often gives the impression that we care primarily about more funding for our research. Such overt self-interest poses risks to our community and to society. – Bill Hooke
http://judithcurry.com/2015/03/18/on-the-social-contract-between-science-and-society/#more-18102

S. ANOTHER SHIP OF FOOLS? MORE CRAZINESS ABOUT ANTARCTIC ICE
Guest Blogger / 42 mins ago March 20, 2015
Guest essay by Eric Worrall In the real world, Antarctic ice is growing at a ferocious rate, hitting a new record extent every other year. But on planet Green, Antarctic ice is melting at a dangerous rate. According to MensJournal; “Global Warming Opens Up Antarctic Waterways – On February 13, a yachting crew from Poland…”
http://wattsupwiththat.com/2015/03/20/another-ship-of-fools-more-craziness-about-antarctic-ice/

T. AN ATTEMPT TO LINK PAST ICE AGES TO CO2, RATHER THAN ORBITAL CYCLES
International study raises questions about cause of global ice ages From Dartmouth College HANOVER, N.H. – A new international study casts doubt on the leading theory of what causes ice ages around the world — changes in the way the Earth orbits the sun. The researchers found that glacier movement in the Southern Hemisphere is…
http://wattsupwiththat.com/2015/03/20/an-attempt-to-link-past-ice-ages-to-co2-rather-than-orbital-cycles/

U. NEW STUDY: CLIMATE ALARMISM TAKES ONE HELLUVA BEATING
Climate Sensitivity Takes Another Tumble (via the GWPF)
Since [the publication of the IPCC’s] AR5, various papers concerning aerosol forcing have been published, without really narrowing down the uncertainty range. Aerosol forcing is extremely complex, and estimating it is very difficult. In this context, what is IMO a compelling new paper by Bjorn Stevens…
http://wattsupwiththat.com/2015/03/20/new-study-climate-alarmism-takes-one-helluva-beating/
V. THE GEOGRAPHY OF USCRN AVERAGE AIR TEMPERATURE TRENDS DURING THE 2004-2014 DECADE OVER THE CONTIGUOUS UNITED STATES

Guest essay by Samuel I Outcalt

The USCRN monthly average air temperature records were searched for continuous records covering the 2004 to 2014 decade over the contiguous United States. The average values were selected as these averages represented the average of several sensors. The records represent mid-month averages so a simple interpolation algorithm was used...


W. FEBRUARY 2015 GLOBAL SURFACE (LAND+OCEAN) AND LOWER TROPOSPHERE TEMPERATURE ANOMALY & MODEL-DATA DIFFERENCE UPDATE

Posted on March 15, 2015 by Bob Tisdale

This post provides an update of the data for the three primary suppliers of global land+ocean surface temperature data—GISS through February 2015 and HADCRUT4 and NCDC through January 2015—and of the two suppliers of satellite-based lower troposphere temperature data (RSS and UAH) through February 2015


X. FILM REVIEW: "MERchants OF DOUBT" IS A BLOOD-BOILING LOOK AT THE AMERICAN SPIN CYCLE

By Justin Chang, Denver Post

Posted: 03/20/2015 12:01:00 AM MDT

Although it's hardly the first issue-driven documentary bent on exposing the corrupt practices and outright lies perpetuated by multinational businesses, "Merchants of Doubt" distinguishes itself in part by taking that brand of dishonesty as its very subject. An intelligent, solidly argued and almost too-polished takedown of America's spin factory — that network of professional fabricators, obfuscators and pseudo-scientists who have lately attempted to muddle the scientific debate around global warming — this is a movie so intrigued by its designated villains that it almost conveys a perverse form of admiration, and the fascination proves contagious.

Providing an accessible, somewhat facile framing device, professional magician Jamy Ian Swiss describes how all sleight-of-hand (including the card trick he performs and demystifies onscreen) is predicated on the audience's willingness to be deceived. By contrast, he and Kenner argue, the misdirection practiced by tobacco lobbyists and climate-change deniers represents a fraud perpetrated on the American public — one that has dramatically slowed the cause of progress on important issues by sowing confusion, even when no confusion actually exists in the scientific community. As we are continually reminded, the goal is never to win the debate (impossible), but rather to create and sustain the very illusion of a debate, so as to frustrate and delay public action as long as possible.
In the case of Big Tobacco, that meant manufacturing doubt about the dangers of cigarettes well into the ’80s and ’90s, even though scientific studies as early as the ’50s had demonstrated conclusive links between smoking and lung cancer, heart disease and numerous other illnesses. The film has fun mocking some of the more ludicrous rhetorical strategies employed in that cause, whether it's a Phillip Morris executive claiming that "applesauce can be harmful" if you consume too much of it, or the idea that limiting tobacco products would set a dangerous precedent in curbing American freedoms. And yet, these fallacious arguments have proved largely successful, insofar as they effectively held back regulation for half a century.

As pointed out here by Kenner and interviewee Naomi Oreskes (who, along with Erik M. Conway, co-authored the 2010 book that inspired the film), one way to effectively remove public fear around a particular issue is to create fear elsewhere — something the tobacco industry managed by aligning itself with the flame-retardant industry, as if unprotected furniture, not cigarettes, were to blame for house fires. Chicago Tribune reporters Patricia Callahan and Sam Roe describe how they got surgeon David Heimbach to admit that his sob stories about treating burned babies had been fabricated.

Heimbach was speaking on behalf of a group that, under the name of Citizens for Fire Safety, is in fact a front for flame-retardant manufacturers, and Kenner is particularly fascinated by the phenomenon of self-described "grassroots" organizations that are actually shilling for specific corporate and political interests (the Koch Brothers-funded Americans for Prosperity, the Exxon Mobile-financed Heartland Institute, etc.). Aided and abetted by exposure from uncritical news media, these groups have played an especially strong role in the global-warming debate, which becomes the film's primary focus as it points out largely conservative-backed attempts to suggest that "we don't really know" if the proliferation of man-made greenhouse gases has contributed to climate change, when in fact scientists are in unanimous agreement that yes, actually, we really do.

One of the film's key insights is that scientists, despite being authoritative experts in their fields of study, are not typically the most effective communicators of their research. That's why they can often be blindsided in public debates by the more charismatic likes of professional climate-change misinformer Marc Morano — one of the film's more candid subjects, happily chattering away about his lack of scientists credentials and his delight in spearheading mass email attacks on those experts who contradict him. By extreme contrast, the film finds a heroic and sympathetic figure in former Congressman Bob Inglis, a South Carolina Republican who changed his tune when he saw irrefutable evidence of climate change, drawing the ire of fellow conservatives and libertarians (and, the film suggests, losing his next election as a result). Audiences already convinced of the dangers of cigarettes and climate change will likely find themselves nodding in exasperated agreement throughout much of Kenner's film. Still, despite its preaching-to-the-choir tendencies, "Merchants of Doubt" presents itself as a highly entertaining, even satirical item, overflowing with eye-popping graphics and smart talking heads — all the better to appeal to those viewers unwilling to read scientific articles, keep up with the news or consider viewpoints that run counter to their beliefs. There's perhaps a necessary element of hypocrisy in this approach, given the film's point that too many Americans, by and large, prefer showmanship over science. Nevertheless, Kenner and his collaborators have made their case with both intelligence and irrefutable style.
Sent: Thursday, March 19, 2015 3:44 AM
To: ASME_TD04232ND@emp-cpmx2.dcs.leidos.com
Robin W. Taylor, P.E.

Regards
George