ENVIRONMENTAL ENGINEERING NEWSLETTER

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Please be aware any Newsletter URL ending in **020701.pdf** is available for downloading only during the six days following the date of the edition. If you need previous Newsletter entries 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:

1) ENVIRONMENT – A. TOPIC PAPER #27, CARBON CAPTURE & STORAGE (CCS)

On August 1, 2012, The National Petroleum Council (NPC) in approving its report, *Advancing Technology for America's Transportation Future*, also approved the making available of certain materials used in the study process, including detailed, specific subject matter papers prepared or used by the study's Task Groups and/or Subgroups. These Topic Papers were working documents that were part of the analyses that led to development of the summary results presented in the report's Executive Summary and Chapters.
http://www.eandp-environment.net/Transportation/Transportation020610.pdf
Arnie Feldman

B. SHELL, FEDS REACH SETTLEMENT ON REFINERY POLLUTION ALLEGATIONS

Shell Oil has reached a settlement with the Department of Justice and the Environmental Protection Agency over allegations that its Deer Park refinery in Houston violated the Clean Air Act. The company will spend at least $115 million on pollution-control equipment as well as pay a $2.6 million civil penalty for the violations
http://www.sfgate.com/news/texas/article/Shell-to-spend-115-million-on-pollution-control-4657533.php

C. ASME is planning to develop an annual large scale Energy Conference. Its first one is being planned for March 17–19, 2014 in San Diego and will focus on fracking.

Arnold Feldman

D. Registration is open for free Wind Turbine webinar:

https://www.asme.org/events/asme-energy-forum/wind-turbines-reach-the-sky

2) HEALTH – A. COLD WEATHER VS. WARM WEATHER: WHICH KILLS MORE PEOPLE? (2 JUL 2013)

Reference

Vasconcelos, J., Freire, E., Almendra, R., Silva, G.L. and Santana, P. 2013. The impact of winter cold weather on acute myocardial infarctions in Portugal. *Environmental Pollution*: 10.1016/j.envpol.2013.01.037.

According to Vasconcelos *et al*. (2013), "the human body responds to cold weather by reducing the blood flow to the peripheral parts of the body," and "this process leads to an increase of blood viscosity and concentration which may cause greater clotting and, therefore, a higher incidence of thrombosis," citing the studies of Keatinge *et al*. (1984), Schneider *et al*. (2008) and Wilson *et al*. (2010). Moreover, they add that "the influence of cold on health can be felt not only during *extreme* cold spells but, more importantly, during *longer exposure periods* such as winter [italics added]," as has been found to be the case by Davie *et al*. (2007) and Donaldson and Keatinge (2002).

In exploring this subject for themselves, Vasconcelos *et al*. studied the effect of a daily human-biometeorological index known as the Physiologically Equivalent Temperature or PET, which is based on the input parameters of air temperature, humidity, mean radiant temperature and wind speed, as employed by Burkart *et al*. (2011), Grigorieva and Matzarakis (2011) and Cohen *et al*. (2012), focusing their attention on Lisbon and Oporto Counties in Portugal over the period 2003-2007.

In discussing their findings, the five Portuguese researchers report there was "a linear relationship between daily mean PET, during winter, and the risk of myocardial infarction, after adjustment for confounding factors," thus confirming that "the thermal environment, during winter, is inversely associated with acute myocardial infarction morbidity in Portugal," where they observed "an increase of 2.2% of daily hospitalizations per degree fall of PET, during winter, for all ages."

In Portugal, as in many other countries where, in the words of Vasconcelos *et al*., low winter temperatures "are generally under-rated compared to high temperatures during summer periods," cold weather is demonstrated to be "an important environmental hazard" that is *much* more deadly than the heat of summer.

Additional References

Burkart, K., Khan, M., Kramer, A., Breitner, S., Schneider, A. and Endlicher, W. 2011. Seasonal variations of all-cause and cause-specific mortality by age, gender, and socioeconomic condition in urban and rural areas of Bangladesh. *International Journal for Equity in Health* **10**: 10.1186/1475-9276-10-32.

Cohen, P., Potchter, O. and Matzarakis, A. 2012. Daily and seasonal climatic conditions of green urban open spaces in the Mediterranean climate and their impact on human comfort. *Building and Environment* **51**: 285-295.

Davie, G.S., Baer, M.G., Hales, S. and Carlin, J.B. 2007. Trends and determinants of excess winter mortality in New Zealand: 1980 to 2000. *BMC Public Health* **7**: 263.
Donaldson, G.C. and Keatinge, W.R. 2002. Excess winter mortality: influenza or cold stress: Observational study. *British Medical Journal* **324**: 89-90.
Grigorieva, E. and Matzarakis, A. 2011. Physiologically equivalent temperature as a factor for tourism in extreme climate regions in the Russian far east: preliminary results. *European Journal of Tourism, Hospitality and Recreation* **2**: 127-142.
Keatinge, W.R., Coleshaw, S.R.K., Cotter, F., Mattock, M., Murphy, M. and Chelliah, R. 1984. Increases in platelet and red cell counts, blood viscosity, and arterial pressure during mild surface cooling: factors in mortality from coronary and cerebral thrombosis in winter. *British Medical Journal* **289**: 1404-1408.
Schneider, A., Panagiotakos, D., Picciotto, S., Katsouyanni, K., Lowel, H., Jacquemin, B., Lanki, T., Stafoggia, M., Bellander, T., Koenig, W., Peters, A. and AIRGENE Study Group. 2008. Air temperature and inflammatory responses in myocardial infarction survivors. *Epidemiology* **19**: 391-400.
Wilson, T.E., Gao, Z., Hess, K.L. and Monahan, K.D. 2010. Effect of aging on cardiac function during cold stress in humans. *American Journal of Physiology - Regulatory, Integrative and Comparative Physiology* **298**: R1627-R1633.

B. AVIAN INFLUENZA, HUMAN (98): CANADA ex CHINA, H7

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: 28 Jun 2013
Source: Metronews, The Canadian Press [edited]
<http://metronews.ca/news/edmonton/721800/prior-case-of-h7-flu-diagnosed-in-canada/>

The Public Health Agency of Canada says an American man who ended up in an Edmonton hospital tested positive for previous infection with an H7 influenza virus. Canada's acting chief public health officer says the man is not currently ill with flu and therefore is not contagious. Dr. Gregory Taylor says, though, that the event is a reminder that viruses like the new H7N9 bird flu are only a plane ride away. The blood test used to diagnose the previous infection cannot determine the neuraminadase, or N, component of the virus with which the man was infected. But the infectious diseases specialist who treated him in Edmonton was on the lookout for H7N9 flu, which has infected 132 [now 133] people in China this spring [2013], killing at least 39 of them.

The man had travelled in southern China in late May [2013], though apparently not in a part of the country where human infections with H7N9 flu were recorded. "Could he have been infected with H7N9? Maybe.
We don't know for sure," Taylor says. But he notes Canada has been on heightened surveillance for the new virus, and this case suggests the system is working. The unidentified man, described as elderly, has been travelling extensively in recent weeks. Taylor says he did not know where the man was from in the United States. He travelled to China and from there to Singapore and India. The man became severely ill in India and apparently spent time in an intensive care unit in

a hospital there. Taylor says he doesn't know in what city that occurred or what illness led to his hospitalization. After his release from hospital, the man travelled to the United Arab Emirates, where he boarded a flight bound for San Francisco. While that flight was in the air, the man became ill and lost consciousness. The plane was diverted to Edmonton.

Taylor says the man may have suffered a diabetic coma in flight. When he landed, quarantine officers assessed the case and determined that the man's symptoms did not indicate active influenza, Taylor says.
Once the man was in hospital, he developed what appeared to be aspiration pneumonia, pneumonia caused by drawing in fluids to the lungs. An infectious diseases specialist at the hospital where he is being treated knew the man's travel history and ordered a battery of tests. The tests were negative for active viral infection. But the blood tests turned up evidence of a past infection with H7 flu.

"The reassuring thing is that the viral tests are all negative,"
Taylor says. "Our understanding is he is improving and hopes to go home soon." Taylor says the Public Health Agency has been liaising with the U.S. Centers for Disease Control on the case, and the U.S. agency believes it is safe for the man to return to the United States.
He says the Canadian authorities are also notifying counterparts in countries where the man had travelled.

3) SAFETY – A. HIGH VOLTAGE OFFSHORE POWER SYSTEMS, JULY 29 TO AUG. 1, HOUSTON

This four-day course is designed to instruct electrical personnel in the safe working techniques for offshore and industrial high voltage applications. Topics to be covered are IEC & NEC standards for HV switching, electrical isolations and flash protection boundaries. Training will be conducted on the startup and troubleshooting of offshore power systems -- including fundamental system principles and dynamics, bus loading management, distribution to lower voltage electrical networks, HV electrical cabling and stress relief concepts and other associated electrical applications.
http://www.api.org/events-and-training/api-u-training/api-u-calendar/2013-events/07-29-13-hv-ocs

4) TRANSPORTATION. A STUDY LINKS MANUFACTURING FLAWS TO ARK. PIPELINE SPILL

The rupture in ExxonMobil's Pegasus Pipeline, which spilled about 150,000 gallons of crude oil in Mayflower, Ark., was caused by manufacturing flaws in the pipe, according to a study by Hurst Metallurgical Research Laboratory. "Additional contributing factors include atypical pipe properties, such as extremely low impact toughness and elongation properties across the ... seam," the company said. Exxon continues to perform tests to determine all of the factors in the pipeline's failure, the company added
http://www.rigzone.com/news/oil_gas/a/127728/ExxonMobil_Manufacturing_Defects_on_Pegasus_Pipeline_Caused_Oil_Spill

COMMENTS:

A. THE WEEK THAT WAS: 2013-07-13 (July 13, 2013)

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

NIPCC in China: Fred Singer, founder of the Nongovernmental International Panel on Climate Change (NIPCC), presents his views of the importance of the Chinese Academy of Sciences translating the two longest NIPCC reports into Chinese. The Academy has demonstrated a willingness to promote open discussion of scientific findings and opinions that are contrary to those presented in the assessment reports by the UN Intergovernmental Panel on Climate Change (IPCC), which NIPCC considers to be a highly bias, one sided reports with conclusions that cannot be supported by the physical science. Promoting open discussion of the scientific basis of the conflicting reports is sorely lacking in many once venerable Western scientific institutions and universities. Please see Article # 1.

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A Slight Shift in *Nature*? *Nature* magazine has an article discussing that some climate modelers are running their models multiple times and find that the average (mean) of the results show the projected future temperatures are below the results from single runs. Fred Singer has pointed out that multiple runs for chaotic models are necessary before the results converge on a model mean. The results do not imply that the mean of the multiple runs of the model are related to nature. The models have not been shown to successfully capture natural climate change. As long as modelers limit the data to recent climate history, they will not.

Although the article does not discuss it, at least it demonstrates that the certainty expressed by the IPCC and its followers in the findings of the Fourth Assessment Report (AR4) is misplaced. Now if only *Nature* will retract the article on the thoroughly discredited hockey-stick. Please see links under Climategate Continued and Model Issues.

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DOE: As some members of the climate establishment are realizing that something is wrong with the finding in the IPCC AR4, the US Department of Energy published a report titled U.S. Energy Sector Vulnerabilities to Climate Change and Extreme Weather. The goal of building greater resilience in the US energy sector is laudable, but it is overshadowed by the extremist statements in the report. The report repeats the litany of dire events in the future as reported previously by NOAA, World Meteorological Organization (WMO), EPA, and the US Global Climate Research Program (USGCRP). As discussed in prior TWTWs, these reports contain some excellent science, but the conclusions are not substantiated by the science, which often contradicts the dire claims made.

Among the highly questionable findings are increases in temperatures for the period 2021 to 2050. They are projected to increase between 2.5ºF to 2.9ºF (1.4ºC to 1.9ºC). Intense storms and flooding (as well as droughts) are projected to increase – by 67% in the northeast and the mid-Atlantic seaboard by the end of the century. Category 4 & 5 hurricanes are projected to increase by over 75% -- by the period in 2081 to 2100. The National Weather Service cannot forecast hurricanes a decade in advance, but now DOE is asserting forecasts seven decades in advance. Sea levels are projected rise by 1 to 4 feet (0.3 to 1.2 meters) by the end of the century. The statement is couched in with the phrase “is plausible.” It is also plausible that by the end of the century a massive meteor will hit the Atlantic and wipe out the entire US Eastern Seaboard.

An appendix presents the likelihood of the outcomes from IPCC AR4, with very likely presented as 90 to 100% probability. Even for this alarmist report the probability estimates are an egregious misrepresentation, because the probabilities are not scientific derived but are opinion.

There is no discussion in the current pause in global warming and the failure to validate the climate models.
With this report, the DOE demonstrates it is one more Federal government agency that has abandoned empirical, physical science for climate alarmism. Please see links under Lowering Standards.
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Murry Salby: Professor Murry Salby, a climate skeptic who questions the claim that human carbon dioxide emissions are causing unprecedented and dangerous global warming (carbon based AGW) presents an extremely disturbing account of his experiences with Macquarie University in Australia, after he was recruited from the US. The response from the University has been weak, at best. Please see links under Suppressing Scientific Inquiry.
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Science Daily: The popular blog, Science Daily, has hit a new low. It quoted sections of an *ad hominem* (to the man) attack on climate skeptics and failed to state the "expert" quoted was a director of Greenpeace, which was clearly stated in the original piece. Please see link under Communicating Better to the Public – Go Personal.
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NOAA: Some members of Congress have introduced legislation to shift funding to the US National Oceanographic and Atmospheric Administration (NOAA) from climate research to research in weather prediction. A number of meteorologists state that the weather models NOAA uses are inferior to European models, and several needed weather satellites may go dark before new satellites are launched. On her blog, Judith Curry carries an excellent discussion on the proposed shift. Please see link under Funding Fights.
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Polar Science: Based on 50 to 100 year projections from un-validated models, six months ago NOAA declared the ringed seal are a threatened species under the Endangered Species Act. This is similar to the prior listing of the polar bear as threatened. The projections are scientifically unsupported and it now appears that the physical science does not support NOAA's reasoning that the melting of Arctic ice in the summer presents a hostile environment threatening the bears and their principle food source, the seals. Recent reports state that the summer melt promotes the entire food chain in the Arctic Ocean providing more food for the seals during their heavy feeding season. More seals bearing pups in the spring, provides more food for the bears during their heavy feeding season. Please see links under Models v. Observations.
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Social Benefits of Carbon: We are receiving more reports that enhanced atmospheric carbon dioxide is promoting greening of deserts, tree growth using less water, and flowering in the Tropics. The report on flowering in the Tropics suggests the cause is a slight increase in warming of the Tropics. But as reported by Roy Spencer and John Christy, the atmospheric warming over the Tropics is not statistically significant, and, based on experiments; it is more plausible to attribute the increased flowering to enhanced atmospheric carbon dioxide. Please see links under Social Benefits of Carbon.
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Hiding in the Deep: We have more reports that climate scientists, such as Kevin Trenberth of the National Center for Atmospheric Research, are claiming that atmospheric and surface warming are hiding in the deep ocean. Given the enormous capacity of the oceans to absorb heat,

and the lack of warming of the atmosphere and the surface, why should anyone care about warming? Please see link under Communicating Better to the Public – Exaggerate, or be Vague?
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News? On her web site, Jo Nova brought up an analysis of news stories on the morning and evening US TV news programs by the major networks, ABC, CBS, & NBC, that mentioned climate change or global warming. The analysis covered the period from Jan 1, 2013 to June 15, 2013. All the stories failed to mention a lull or a pause in global warming. So much for news in television news. Please see the direct link under Communicating Better to the Public – Exaggerate, or be Vague?
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Amplifications and Corrections: TWTW reader Christopher Essex, professor of Applied Mathematics at the University of Western Ontario, further discusses the folly of attempting to find scientific meaning in an ensemble of un-validated climate models.
"Ensemble averaging does not cleanse models of their fundamental, enormously challenging deficiencies no matter how many realisations are included. As more and more model realisations are rolled into some ad hoc averaging process, there is no mathematical reason whatsoever why the result should converge to the right answer, let alone converge at all in the limit. Why ever would anyone but the most desperate of minds dare to hope otherwise?"
TWTW always appreciates amplifications and corrections.
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Number of the Week: 10 times earlier, now 4 times. Prior reports stated that NOAA had estimated sea level rise by the end of the 21st century to be 20 cm to 10 times that amount, 200 cm – over 6 feet. As discussed above, according to the new DOE report, it is now estimating a rise of 1 foot to 4 times that amount, 4 feet. With this type of precision passing as scientifically meaning, NOAA should be out of the climate business altogether.
http://www.sepp.org/twtwfiles/2013/TWTW%207-13-13%20B.pdf

B. RESISTING THE GREEN DRAGON, A CONSERVATIVE'S VIEW OF THE "WAR ON COAL"

The "War on Coal" is an Assault on the Productive Strength of America, Our Economy, Jobs and World Political Power, Military Strength and America's Capacity to Do "GOOD" for ALL of the People of the World, both Rich and Poor
A presentation made in North Carolina 11 July 2013, by Dick Storm.
http://www.eandp-environment.net/Environment/Env020701.pdf

C. GLOBAL WARMING FOLLY

Charles Krauthammer nails this government folly

http://www.washingtonpost.com/opinions/charles-krauthammer-obamas-global-warming-folly/2013/07/04/a51c4ed0-e3fc-11e2-a11e-c2ea876a8f30_story.html

The economy stagnates. Syria burns . Scandals lap at his feet. China and Russia mock him , even as a "29-year-old hacker" revealed his nation's spy secrets to the world. How does President Obama respond? With a grandiloquent speech on climate change .
Climate change? It lies at the very bottom of a list of Americans' concerns (last of 21 — Pew poll). Which means that Obama's declaration of unilateral American war on global warming,

whatever the cost — and it will be heavy — is either highly visionary or hopelessly solipsistic. You decide:

Global temperatures have been flat for 16 years — a curious time to unveil a grand, hugely costly, socially disruptive anti-warming program.

Now, this inconvenient finding is not dispositive. It doesn't mean there is no global warming. But it is something that the very complex global warming models that Obama naively claims represent settled science have trouble explaining. It therefore highlights the president's presumption in dismissing skeptics as flat-earth know-nothings.

On the contrary. It's flat-earthers like Obama who refuse to acknowledge the problematic nature of contradictory data. It's flat-earthers like Obama who cite a recent Alaskan heat wave — a freak event in one place at one time — as presumptive evidence of planetary climate change. It's flat-earthers like Obama who cite perennial phenomena such as droughts as cosmic retribution for environmental sinfulness.

For the sake of argument, nonetheless, let's concede that global warming is precisely what Obama thinks it is. Then answer this: What in God's name is his massive new regulatory and spending program — which begins with a war on coal and ends with billions in more subsidies for new Solyndras — going to do about it?

The United States has already radically cut carbon dioxide emissions — more than any country on earth since 2006, according to the International Energy Agency. Emissions today are back down to 1992 levels.

And yet, at the same time, global emissions have gone up. That's because — surprise! — we don't control the energy use of the other 96?percent of humankind.

At the heart of Obama's program are EPA regulations that will make it impossible to open any new coal plant and will systematically shut down existing plants. "Politically, the White House is hesitant to say they're having a war on coal," explained one of Obama's climate advisers. "On the other hand, a war on coal is exactly what's needed."

Net effect: tens of thousands of jobs killed, entire states impoverished. This at a time of chronically and crushingly high unemployment, slow growth, jittery markets and deep economic uncertainty.

But that's not the worst of it. This massive self-sacrifice might be worthwhile if it did actually stop global warming and save the planet. What makes the whole idea nuts is that it won't. This massive self-inflicted economic wound will have no effect on climate change.

The have-nots are rapidly industrializing. As we speak, China and India together are opening one new coal plant *every week*. We can kill U.S. coal and devastate coal country all we want, but the industrializing Third World will more than make up for it. The net effect of the Obama plan will simply be dismantling the U.S. coal industry for shipping abroad.

To think we will get these countries to cooperate is sheer fantasy. We've been negotiating climate treaties for 20 years and gotten exactly nowhere. China, India and the other rising and modernizing countries point out that the West had a 150-year industrial head start that made it rich. They are still poor. And now, just as they are beginning to get rich, we're telling them to stop dead in their tracks?

Fat chance. Obama imagines he's going to cajole China into a greenhouse-gas emissions reduction that will slow its economy, increase energy costs, derail industrialization and risk enormous social unrest. This from a president who couldn't even get China to turn over one Edward Snowden to U.S. custody.

I'm not against a global pact to reduce CO2. Indeed, I favor it. But in the absence of one — and there is no chance of getting one in the foreseeable future — there is no point in America committing economic suicide to no effect on climate change, the reversing of which, after all, is the alleged point of the exercise.
For a president to propose this with such aggressive certainty is incomprehensible. It is the starkest of examples of belief that is impervious to evidence. And the word for that is faith, not science.
Source: Washington Post
Don Shaw

D. NEW YORK CITY MAYOR BLOOMBERG ANNOUNCES $20 BILLION CLIMATE CHANGE PLAN

Bonner R. Cohen, National Center for Public Policy Research
Bloomberg's 430-page plan, Special Initiative for Rebuilding and Resiliency, includes approximately 250 recommendations ranging from new floodwalls and storm barriers to upgrades in the city's power and telecommunications infrastructure
http://news.heartland.org/newspaper-article/2013/07/10/nyc-mayor-bloomberg-announces-20-billion-climate-change-plan

E. CO_2 INCREASES CAUSING A GREENING OF THE EARTH, SATELLITES SHOW

Rising atmospheric carbon dioxide levels are bolstering plant life throughout the world, environmental scientists report in a newly published peer-reviewed study.
http://news.heartland.org/climate-change-weekly

F. NIPCC UPDATE

New research summarized in *NIPCC Update*, a weekly email edited by Heartland Senior Fellow Craig Idso, Ph.D. and produced by Heartland and the Nongovernmental International Panel on Climate Change (NIPCC)...
http://news.heartland.org/nipcc-update

G. CLIMATE MODELS: STILL STRUGGLING TO "GET IT RIGHT" (3 JUL 2013)

Reference
Landrum, L., Otto-Bliesner, B.L., Wahl, E.R., Conley, A., Lawrence, P.J., Rosenbloom, N. and Teng, H. 2013. Last millennium climate and its variability in CCSM4. *Journal of Climate* **26**: 1085-1111.

Landrum *et al*. (2013) write that "consistent with our understanding of the records of past forcings," climate scientists associated with phase 3 of the Paleoclimate Modeling Intercomparison Project (PMIP3) and phase 5 of the Coupled Model Intercomparison project (CMIP5) proposed that "modeling groups perform the 'Last Millennium' simulation (LM; 850-

1850 Common Era) with the same models and at the same resolutions as simulations being done to simulate the twentieth century and into the future," in order to allow for "an evaluation of the capability of models to capture observed variability on multidecadal and longer time scales."

In response to this proposal, Landrum *et al*. conducted just such a study of the Community Climate System Model, version 4 (CCSM4)," comparing its LM simulations to data-based reconstructions of LM temperature, the hydrologic cycle, and modes of climate variability." In describing their findings the seven scientists say that "the CCSM4 LM simulation reproduces many large-scale climate patterns suggested by historical and proxy-data records." *However*, they also report that (1) "the LM simulation does not reproduce La Niña-like cooling in the eastern Pacific Ocean during the Medieval Climate Anomaly [MCA] relative to the Little Ice Age [LIA], as has been suggested by proxy reconstructions," that (2) in response to large volcanic eruptions, the CCSM4 simulates cooling "two to three times larger than the Northern Hemisphere summer anomalies estimated from tree-ring or multiproxy reconstructions," that (3) "patterns of simulated precipitation change for the Asian monsoon to large volcanic eruptions have nearly opposite anomalies from those reconstructed from tree-ring chronologies," and that (4) "we do not find a persistent positive NAO [North Atlantic Oscillation] or a prolonged period of negative PDO [Pacific Decadal Oscillation] during the MCA," such as is "suggested by the proxy reconstructions" of MacDonald and Case (2005) and Trouet *et al*. (2009).

Noting that some of the detected model deficiencies were also found to be operative in "LM simulations with an earlier version of CCSM," Landrum *et al*. provide further evidence that the new models are not performing much better than the old ones.

Additional References

MacDonald, G.M. and Case, R.A. 2005. Variations in the Pacific decadal oscillation over the past millennium. *Geophysical Research Letters* **32**: 10.1029/2005GL022478.

Trouet, V., Esper, J., Graham, N.E., Baker, A., Scourse, J.D. and Frank, D.C. 2009. Persistent positive North Atlantic oscillation mode dominated the medieval climate anomaly. *Science* **324**: 10.1126/science.1166349.

H. GRASSLAND RESPONSES TO CLIMATE CHANGE INDUCED DROUGHT (3 JUL 2013)

In the words of the authors of this study, “our findings suggest that diverse grasslands throughout the globe have the potential to be resilient to drought in the face of climate change through the local expansion of drought-tolerant species,” which is good news for the future of grasslands worldwide

http://www.nipccreport.org/articles/2013/jul/3jul2013a3.html

I. FUEL ON THE HIGHWAY IN BRITISH PRE-COLUMBIA

Posted on July 12, 2013 by Willis Eschenbach

Guest Post by Willis Eschenbach

Supporters of the British Columbia (Canada) carbon-based energy tax that I discussed in my last post have made claims that the data shows this tax was a success … so being a suspicious-type fellow, I thought I’d take a look at the data myself. I didn’t figure the tax was having much

effect, but I was prepared to find anything. Reality's funny that way, I like not knowing which bush hides the rabbit … anyhow, here's a typical claim:
http://wattsupwiththat.com/2013/07/12/fuel-on-the-highway-in-british-pre-columbia/#more-89728

J. IMPACT OF CONTINENTAL MASS CHANGE ON RATE-OF-RISE OF SEA LEVEL (9 JUL 2013)

New findings indicate the rate of sea level rise over the past two decades in on the order of 1.7 ± 0.8 mm/year, which is far less than that projected by climate alarmists...
http://www.nipccreport.org/articles/2013/jul/9jul2013a1.html

K. THE WAR ON CARBON (AND JOBS) IN THE MOTOR CITY

In insolvent Detroit, Democratic leaders open another front on the thriving oil sands industry.

By HENRY PAYNE

Detroit

Standing next to his Ford F-150 pickup truck, John Frye surveys the buzz of activity at his industrial site on the Detroit River as a steady stream of trucks unloads petroleum coke—a coal-like, carbon energy source—for export. He and his brother Nolan are the proud owners of Detroit Bulk Storage, which also stores bulk commodities like salt and gravel.

The Fryes' operation has brought commerce to a moribund Detroit waterfront choked with weeds and abandoned warehouses. The activity is a direct result of Marathon Oil's MRO +0.60% huge refinery expansion here processing the gusher of oil from Canada's Alberta oil reserves—bringing needed tax revenue and hundreds of jobs to an inner city on the verge of Chapter 9 bankruptcy.

Yet the experience of Detroit Bulk Storage also offers a window into the antibusiness environment that has helped drive Detroit to fiscal insolvency. In a microcosm of the Democratic Party's wider war on carbon that is hampering America's economic recovery, the brothers' 20-employee company has become a prime target for harassment from politicians. By going after the city's burgeoning industry in pet coke—a byproduct of oil-sands refining—"green" politicians like Detroit's U.S. Rep. Gary Peters hope to further discourage Canadian oil exports from ever making it to the Keystone Pipeline or other American refineries.

Associated Press

A Marathon Petroleum truck unloads a large pile of pet coke along the banks of the Detroit River.

Most people watching their city teeter on the brink of collapse would welcome the fact that Detroit is at the crossroads of an energy revolution in North America. To meet American's voracious thirst for petroleum products, Millions of barrels of Canadian-mined oil sands are shipped across 2,000 miles of pipeline to Marathon's giant refinery off I-75 in southwest Detroit. The Alberta-sourced reserves have made Canada America's No. 1 source of imported oil, reducing U.S. oil dependence on volatile regions like the Mideast and Venezuela. The result is a boon to American refineries and to Detroit, a shrinking city that desperately needs new investment.

Ohio-based Marathon last year completed a five-year, $2.2 billion expansion of its Detroit facility, bringing 5,000 contractor jobs and 155 permanent refinery and subcontractor jobs—many of them $30-an-hour, union-represented positions.

Pet coke is being tested by local utility DTE Energy for use in its coal-fired plants. In a neat twist, the material is also being exported back to a Canadian power plant in Nova Scotia (as well as to other countries) via barges loaded at the Detroit waterfront.

With 16.3% unemployment in the city (though some officials believe the real number may be double that), a lifeless, industrially zoned waterfront, and an underwater city budget, one might think that signs of economic revival would be celebrated. Think again.

Democrats in Michigan, national environmental groups and some members of Canada's parliament have seized on the fact that Koch Carbon—a company owned by the conservative, politically active Koch brothers—buys the pet coke from Marathon. These politicians and activists have launched an international media campaign claiming there's a Koch plot to bury Detroit in hazardous waste.

Yet it is little Detroit Bulk Storage that has received the brunt of the harassment. The Detroit City Council, Michigan state Rep. Rashida Tlaib, and U.S. Reps. Gary Peters and John Conyers have all condemned the piles of pet coke stored on Detroit's waterfront, while national and local media have crafted lurid stories about its alleged threat. "A Black Mound of Canadian Oil Waste Is Rising Over Detroit," warned a New York Times headline. Congress must act to protect "families and natural resources like the Great Lakes from the threat of contamination," Rep. Peters demagogued from the House floor in May.

In fact, Detroit Bulk Storage has handled the material to the letter of state and federal regulation. To minimize dust, the pet coke is treated with an epoxy at the Marathon site before being transported in covered trucks to Detroit Bulk Storage. There, a water truck routinely wets down the material before it is loaded on barges.

Pet coke is a common ingredient in electricity and steel production. The Environmental Protection Agency classifies it as a nontoxic material that poses no threat under American clean air and water laws, says Brad Wurfel, a spokesman for Michigan's Department of Environmental Quality, whose staff has visited the Detroit operation and approved its operations.

That's not good enough for Rep. Peters and his green allies, who are hyping a Detroit coke crisis in order to discourage oil sands imports from Canada. At a May press conference, Rep. Peters announced that he is working on new legislation to "study the health and environmental risks from pet coke."

"One of my main concerns with the Keystone pipeline is that we will be seeing piles of pet-coke in a lot of other places in the U.S., because it is a main byproduct of refining Canadian oil," the U.K.'s Guardian newspaper quoted Rep. Peters as saying in June. "What we are seeing in Detroit now will be dwarfed by more oil coming through here with Keystone."

Being green means being oblivious to the 20,000 jobs that Keystone's builder,TransCanada, TRP.T -0.08% estimates the pipeline would create—or the $230 million in tax revenue that Marathon estimates oil sands will have brought to the congressman's destitute city by 2030.

The war on carbon already has dampened America's recovery, costing the livelihoods of thousands of coal miners across Appalachia, for example. Democratic politicians are nostalgic for the glory days of American—and Detroit-based—manufacturing, just as long as it doesn't include manufacturing's lifeblood of chemicals, coal, oil, and so on.

State Rep. Tlaib says she wants her city's waterfront to be a beautiful public recreational space, even as she harasses businesses that would provide the city the tax base it needs to develop parks. This is the political leadership that has brought Detroit's economy to its knees. This is the disease that is spreading to Washington.

Mr. Payne is a columnist, editorial writer and cartoonist for the Detroit News.

A version of this article appeared July 12, 2013, on page A11 in the U.S. edition of The Wall Street Journal, with the headline: The War on Carbon (and Jobs) in the Motor City.

L. BIOENERGY EFFORTS EMPOWER GERMAN VILLAGES

By NINA ADAM

JÜHNDE, Germany—Nine years ago, the residents of this small German village got together to build a bioenergy plant fueled with plants and manure. Today, the plant supplies all of Jühnde's heat and allows the village to sell surplus electricity to Germany's national grid.

Jühnde's experience shows how the energy sector in Europe's largest economy, long dominated by large utilities, is being challenged by an unlikely competitor: a swarm of households and small-scale investors who are producing and selling renewable energy.

Germany is committed to switching off its nuclear reactors by 2022, along with slashing greenhouse-gas emissions. Meeting both goals requires one of the most ambitious expansions of renewable energy in the world. Last year, the country generated 22% of its electricity from renewable sources, up from 8% 10 years earlier. That is also roughly twice as much as the U.S., the U.K. or Japan, which analysts say have less-ambitious goals.

Germany's aim under its "Energiewende," which translates roughly as "energy revolution," is to generate at least 35% of its electricity from renewable sources by 2020, and at least 80% by midcentury, while cutting its total energy consumption in half by 2050.

Supporters of the strategy say it will make Germany a pioneer in an energy transformation that will serve as a blueprint for the rest of the world. Critics say the approach is imposing high costs on households and industries that already pay significantly more for electricity than their counterparts in other advanced economies do.

Residents of Jühnde, a rural village of 750 people, say their investment has paid off. In 2004, about three quarters of Jühnde's households formed a cooperative and invested in a bioenergy plant and infrastructure, with help from government grants and low-interest loans from German development bank KfW. The facility, known as a combined heat and power plant, or CHP, turns local biomass supplied by the village's farmers—such as manure, plants and wood—into energy.

Manfred Menke, a retired highway-patrol officer, invested €2,500 ($3,266) in the power plant, and another €2,000 to upgrade his house's heating system. Within three years, "I had my money back," he estimates, because of the savings on his heating bill. The average household in Jühnde currently saves around €600 a year on energy thanks to the plant, said the project's spokesman, Eckhard Fangmeier.

Jühnde's success and government initiatives to promote green energy helped inspire similar projects around the country. Today, there are 92 such self-sufficient "bioenergy villages" in Germany, and another 350 rural areas or small towns have begun or are studying similar investments.

Small-scale energy producers are dominating the growth of Germany's renewable-energy sector. Households with solar panels on their roofs, or who tap local farms for biofuels, account for 35% of the country's renewable-electricity supply, while farmers and green-energy companies provide

another 25%, according to Bremen-based research firm trend:research. Germany's four traditionally dominant energy companies—E.On EOAN.XE -0.25%SE, EnBW AG, EBK.XE -4.95%RWE AG RWE.XE -0.49%and Vattenfall—account for only 5% of Germany's 73 gigawatts of renewable energy capacity, but are investing heavily in renewables, especially wind power.

"Germany has turned the traditional one-way street—from energy producers to consumers—upside down" as households become energy suppliers as well as users, said Christoph Burger, an energy specialist at the European School of Management and Technology in Berlin.

Klaus Mielenhausen, who runs a shoe shop in a small town near Jühnde, said he plans to cut his energy costs by installing a combined small heat-and-power unit fueled by biodiesel in the cellar of his house, which would make him independent of the large energy suppliers.

Germany's energy revolution grew out of a decision in 2000 by the center-left government of then-Chancellor Gerhard Schröder to phase out nuclear power and subsidize the rapid expansion of renewable energy.

The nuclear-exit plan was thrown out in 2010 by Chancellor Angela Merkel's conservative-led coalition, which wanted to keep nuclear reactors operating for longer. But in early 2011, after Japan's nuclear disaster at Fukushima, she bowed to popular pressure and said Germany would shut its last reactors in 2022.

But the energy shift also carries a high price tag: Households and smaller businesses are encumbered with a surcharge on energy bills that funds subsidies for renewables, while energy-intensive companies are exempt in the hopes they won't take production elsewhere.

As a consequence, electricity prices in Germany are roughly three times higher than in the U.S., and among the highest in the European Union. An average German household pays about €26.80 for 100 kilowatt hours of electricity, well above the EU average of €19.70, according to EU statistics arm Eurostat.

Rising household bills have become a political issue ahead of September elections. German industry is worried that high electricity prices could undermine its international competitiveness.

"Germany has set itself an enormous task," said David Buchan, senior research fellow at the Oxford Institute for Energy Studies. It Is important for Europe that its biggest economy finds a way to keep its energy supply affordable, he said.

Villagers in Jühnde, meanwhile, have launched a new project: They want to use their plant's surplus electricity to fuel electric cars, in addition to selling to the national grid. The German government wants to get one million electric cars on the road by 2020.

"Electro-mobility is the last piece in the puzzle" to reach energy self-sufficiency, said Mr. Fangmeier.

Write to Nina Adam at nina.adam@wsj.com

A version of this article appeared July 15, 2013, on page A9 in the U.S. edition of The Wall Street Journal, with the headline: Bioenergy Revs Up in Germany.

M. SHORT METEOROLOGICAL MEMORIES

Posted on July 15, 2013 by Anthony Watts

Guest essay by Alan Caruba

I am giving thanks this week, despite the heat wave, that I have not read, nor heard, a single claim that it is proof that global warming has arrived and we are all doomed.
By the time the global warming hoax was in its final days, we were being told that mid-winter blizzards were signs of it. Now the charlatans have switched their message, calling it "climate change" and this is so bogus that it defies description
http://wattsupwiththat.com/2013/07/15/short-meteorological-memories/#more-89842

N. FREE MARKET' CARBON TRADING SOLUTION TO CLIMATE CHANGE?

Posted on July 15, 2013 by Anthony Watts

From the University of Edinburgh

Free market is best way to combat climate change, study suggests
The best way to reduce carbon emissions and combat climate change is through the use of market forces, according to a new study.
Researchers who monitored the effectiveness of the European Climate Exchange (ECX) – the world's biggest carbon trading platform – found it to be as efficient as Europe's two biggest exchanges, the London Stock Exchange and the Euronext Paris.
Using free market platforms like the ECX to combat climate change could provide the basis for the introduction of a mandatory emissions cap and trade scheme worldwide.
http://wattsupwiththat.com/2013/07/15/free-market-carbon-trading-solution-to-climate-change/#more-89839

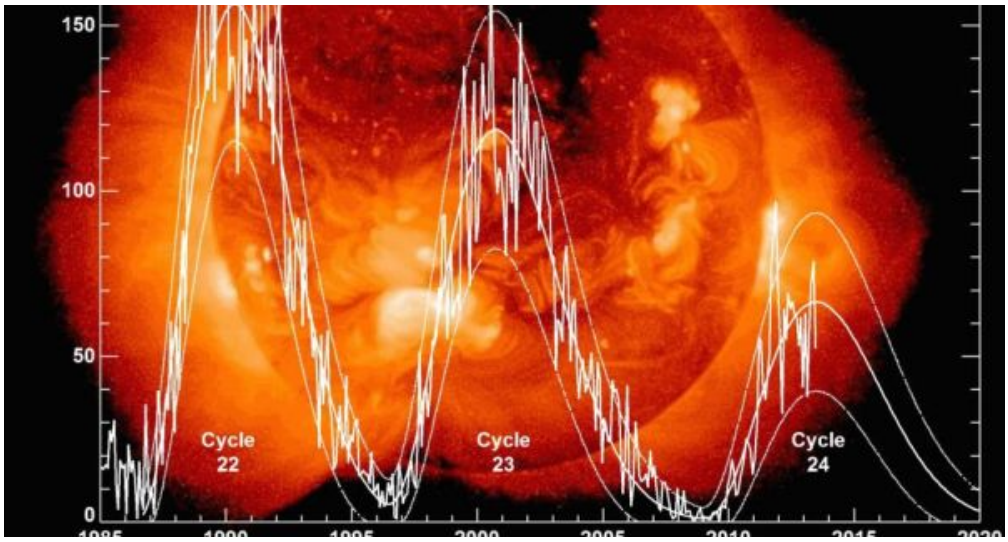
O. NEWSBYTES: SUN'S BIZARRE ACTIVITY MAY TRIGGER ANOTHER LITTLE ICE AGE (OR NOT)

Posted on July 15, 2013 by Anthony Watts

From the GWPF and Dr. Benny Peiser

"Weakest Solar Cycle In Almost 200 Years"

The sun is acting bizarrely and scientists have no idea why. Solar activity is in gradual decline, a change from the norm which in the past triggered a 300-year-long mini ice age. We are supposed to be at a peak of activity, at solar maximum. The current situation, however, is outside the norm and the number of sunspots seems in steady decline. The sun was undergoing "bizarre behaviour" said Dr Craig DeForest of the society. "It is the smallest solar maximum we have seen in 100 years," said Dr David Hathaway of Nasa. –Dick Ahlstrom, The Irish Times, 12 July 2013



http://wattsupwiththat.com/2013/07/15/newsbytes-suns-bizarre-activity-may-trigger-another-little-ice-age-or-not/#more-89827

P. CLIMATE CHANGE SHOWDOWN COMING TO THE SENATE THURSDAY

Posted on July 16, 2013 by Anthony Watts

The Senate Environment and Public Works Committee on Thursday will hold the first big congressional climate change hearing since President Obama unveiled his global warming plan in late June.

Below is the witness list for the hearing titled "Climate Change: It's Happening Now."

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Below is the witness list for the hearing titled "Climate Change: It's Happening Now."

Dr. Heidi Cullen, chief climatologist, Climate Central
Mr. Frank Nutter, president, Reinsurance Association of America
Mr. KC Golden, policy director, Climate Solutions
Dr. Diana Furchtgott-Roth, senior fellow, Manhattan Institute for Policy Research
Dr. Robert P. Murphy, senior economist, Institute for Energy Research
Dr. Jennifer Francis, research professor, Institute of Marine and Coastal Sciences, Rutgers University
Dr. Scott C. Doney, director, Ocean and Climate Change Institute, Woods Hole Oceanographic Institution
Dr. Margaret Leinen, executive director, Harbor Branch Oceanographic Institute, Florida Atlantic University
Dr. Roger Pielke, Jr., professor, Center for Science and Technology Policy Research, University of Colorado
Dr. Roy Spencer, Principal Research Scientist, University of Alabama, Huntsville
http://thehill.com/blogs/e2-wire/e2-wire/310973-climate-change-showdown-takes-shape#ixzz2ZDgntKA6

Q. STATES FILE LAWSUIT AGAINST EPA OVER 'SUE AND SETTLE' STRATEGY

The Republican attorneys general for a dozen states are suing the Environmental Protection Agency for documents pertaining to the agency's legal approach with green groups.
The lawsuit filed Tuesday in a federal court in Oklahoma seeks documents from environmental groups such as Greenpeace and the Sierra Club in lawsuits that preceded new regulations. The attorneys general say such material could reveal whether the EPA is using a legal tactic known as "sue and settle."
"Sue and settle" occurs when an organization files a lawsuit against an agency for missing a deadline for issuing a rule, or hasn't properly administered a regulation. Agencies can choose to defend themselves, or settle with the petitioner.
http://thehill.com/blogs/e2-wire/e2-wire/311425-states-file-lawsuit-against-epa-over-sue-and-settle-strategy

R. EPA SEEKS INPUT FOR POTENTIAL RULE REVISIONS ON EXISTING USES OF PCBS

WASHINGTON -- The U.S. Environmental Protection Agency (EPA) is seeking nominations from individuals who represent small businesses, small governments, and small not-for-profit organizations to provide input to a federal panel that will explore changes to existing uses of polychlorinated biphenyls (PCBs). This panel will focus on the agency's development of a proposed rule to revise or end the existing authorized uses of PCBs as appropriate if the conditions under which they were authorized more than 30 years ago have changed. This rulemaking may address existing liquid-filled PCB use authorizations, PCBs in fluorescent light ballasts, PCBs in natural gas pipelines, and regulatory language clarifications.

The Regulatory Flexibility Act requires agencies to establish a Small Business Advocacy Review (SBAR) Panel for rules that may have a significant economic impact on a substantial number of small entities. The SBAR panel will include federal representatives from the Small Business Administration (SBA), the Office of Management and Budget (OMB), and EPA.

Small Entity Representatives (SERs) will be selected by the SBAR Panel to provide comments on behalf of their company, community or organization and advise the panel about the potential impacts of the proposed rule on small entities. EPA is seeking self-nominations directly from the small entities that may be subject to the rule requirements. Other representatives, such as trade associations that exclusively or at least *primarily* represent potentially regulated small entities, may also serve as SERs.

SERs provide advice and recommendations to the panel. The SERs participate in consultations with the SBAR Panel via telephone, webinar, or in person in one or two meetings and are given an opportunity to submit written comments to the panel.

Self-nominations may be submitted through the link below and must be received by July 29, 2013.

Nominate yourself as a Small Entity Representatives: http://www.epa.gov/rfa/pcb.html

More about the Small Business Advocacy Review process: http://www.epa.gov/sbrefa/faq.htm

More about the regulation of PCBs:
http://www.epa.gov/epawaste/hazard/tsd/pcbs/pubs/laws.htm
Roger Zygmunt

S. CENTRAL PARK IN USHCNV2.5 (OCTOBER 2012) MAGICALLY BECOMES COOLER IN JULY IN THE DUST BOWL YEARS

Posted on July 15, 2013 by Guest Blogger

By Joseph D'Aleo, CCM

Remember this story long ago on New York's Central Park multiple very different data sets to which Steve McIntyre responded here. McIntyre wrote then:

…has the temperature of New York City increased in the past 50 years? Figure 1 below is excerpted from their note, about which they observed.

Note the adjustment was a significant one (a cooling exceeding 6 degrees from the mid 1950s to the mid 1990s.) Then inexplicably the adjustment diminished to less than 2 degrees …The result is what was a flat trend for the past 50 years became one with an accelerated warming in the past 20 years. It is not clear what changes in the metropolitan area occurred in the last 20 years to warrant a major adjustment to the adjustment. The park has remained the same and there has not been a population decline but a spurt in the city's population in the 1990s.
http://wattsupwiththat.com/2013/07/15/central-park-in-ushcnv2-5-october-2012-magically-becomes-cooler-in-july-in-the-dust-bowl-years/

Regards
George