

# The Week That Was: 2011-05-21 (May 21, 2011)

## Brought to You by SEPP ([www.SEPP.org](http://www.SEPP.org))

### The Science and Environmental Policy Project

#####

PLEASE NOTE: The complete TWTW, including the articles, can be downloaded in an easily printable form at the SEPP web site: [www.sepp.org](http://www.sepp.org).

#####

DON'T FORGET: Heartland Institute is sponsoring the Sixth International Conference on Climate Change (ICCC-6) to take place in Washington, DC from breakfast Thursday, June 30, to noon Friday, July 1, at the Marriott Wardman Park Hotel. This event will be more modest than in the past, yet as informative and, perhaps, even more challenging to the orthodoxy. The principal speakers include S. Fred Singer, Craig Idso, and Bob Carter – all major contributors to the NIPCC reports. Of course, SEPP is a co-sponsor. <http://www.heartland.org/events/iccc2011>

#####

#### Quote of the Week:

*Quote of the Week: "People underestimate the power of models. Observational evidence is not very useful," adding, "Our approach is not entirely empirical."* John Mitchell, principal research scientist at the UK Met Office

#####

#### Number of the Week: 10 Times Sharper

#####

#### THIS WEEK:

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

As stated in earlier TWTWs, SEPP joined the Competitive Enterprise Institute and the Freedom Works Foundation in petitioning the US Federal Court for the District of Columbia to set aside EPA's Endangerment Rule – that greenhouse gases (especially carbon dioxide) endanger human health and welfare. The Court grouped our petition with many others and required a filing of a joint petition, which was submitted this Friday. SEPP reviewed the scientific basis, or lack thereof, supporting EPA's ruling, which EPA claimed to be based on science.

The process gave an opportunity to reflect on the extent to which many Western organizations, termed scientific, have drifted from the standards of Western science – modern empirical science.

The quote of the week came from an article referenced in last week's TWTW reporting a debate at Cambridge. The senior scientist of the UK Met Office implies that numerical models can add to scientific knowledge above empirical observations. The argument dates back to Greek and medieval science, that embraced concepts such as the earth centered solar system of Aristotle, the Ptolemy scientists, and their models.

Contrary to popular belief, initially, the intense criticism of Galileo came from his colleagues, Aristotelian scientists at the University Padua, and elsewhere. The criticism by the leadership of the Catholic Church came later. Galileo advocated that scientific knowledge comes through observation, not authority or convenient models. He outraged his colleagues by empirically testing the assumptions of Aristotelian science and found them wanting. He advocated that mathematics, because it is precise, is the proper language of science, not Latin, and he wrote in the vulgar script of Italian.

Newton synthesized the findings of Galileo, Kepler, and others into his theories of planetary motion, which required significant mathematical calculations. The precision of the mathematics in describing the movements of the planets was daunting. Incorrectly interpreting this mathematical precision as imparting scientific knowledge, many subsequent scientists claimed that scientific knowledge could be acquired by

mathematics alone, such as geometry. Of course, subsequent observations, variations in observed planetary motions (leading to relativity theory) and erratic behavior of particles (leading to quantum mechanics), demonstrated that mathematics and numerical models are tools for understanding, and not sources of knowledge. Results must be confirmed by observations.

Unfortunately, many 21<sup>st</sup> century scientists, such as John Mitchell, appear to embrace beliefs held in the late 19<sup>th</sup> century that mathematical procedures can create knowledge. Such scientists appear ready to accept the results of their models over empirical observations, a concept rejected in the 20<sup>th</sup> century.

This recent, numerical-model based science contradicts the principles of modern empirical science – that empirical observations are the final determinants of validity of scientific theory and models. For example, the strength of the standard model in physics comes not from its mathematical complexity, but from repeated and exhaustive testing of its assumptions and high precision between the results of the model and observations (experiments).

On preparing its final comments for the current round of litigation against EPA, SEPP concluded the supporting science for the EPA Endangerment Rule, including the reports from the Intergovernmental Panel on Climate Change, US Climate Change Science Project, and the National Research Council, are based on complex numerical models that have never been validated and fail to meet the standards recognized by modern empirical science. Critical assumptions fail empirical testing. There is little consistency between model results and observations. In short, EPA relies on 19<sup>th</sup> century science, or worse, on medieval science.

\*\*\*\*\*

A new report by the US National Research Council, “America’s Climate Choices,” reaffirms the above observation. The report calls for urgent action to stop carbon dioxide emissions and states that uncertainty about climate science and the sensitivity of the planet to increasing greenhouse gases is not a reason for inaction, but “a compelling reason for action.”

The scientific section “Advances the Science of Climate Change” was published in 2010. It repeats the, now, usual litany of disasters that will result if carbon dioxide emissions are not controlled. The report is based on the findings of the IPCC and its models. The following quote from the “Report in Brief” is illustrative:

“While much remains to be learned, the core phenomenon, scientific questions, and hypotheses have been examined thoroughly and have stood firm in face of serious scientific debate and careful evaluation of alternative explanation.”

Much of the above quote can be contested, most importantly, the report ignores that the most critical assumption fails hypothesis testing. Based on the generally accepted greenhouse theory, a doubling of atmospheric carbon dioxide will result in a warming of about 1.2 deg C. The critical assumption in the models used is that this warming will be greatly amplified by an increase in atmospheric water vapor. The models, accepted by the report, project a strong secondary warming centered over the tropics at an altitude about 10 km. This assumption (hypothesis) was empirically tested [Douglass et al. 2007] and failed. Some defenders of the IPCC have tried to cover up this failure with highly dubious statistics. [See NIPCC, 2008].

The above quoted statement in the report is wrong. Further, the disasters claimed in the report are based on projections from these unverified computer models that contain assumptions that fail empirical testing. Thus, the report itself is not based on modern empirical science. Please see Article # 3 and referenced articles under “Defenders of the Orthodoxy.

\*\*\*\*\*

**Solar – Cosmic Ray Interplay and the Earth’s Climate:** A number of readers have been waiting for the results of the CLOUD experiment underway at CERN – the European Organization for Nuclear Research. The CLOUD experiment is to test the Svensmark, et al. hypothesis that cosmic rays, modulated by solar activity, influence cloud formation, therefore temperature. The more high energy cosmic rays hitting the upper atmosphere, the more low level clouds, which reflect sunlight, the cooler the planet. The greater the solar activity, solar wind and solar magnetism, the fewer the cosmic rays hitting the upper atmosphere, the less the cloud formation, the warmer the planet.

The Danish Space Research Institute conducted an experiment, SKY, to test this hypothesis. The results were encouraging for the new hypothesis. However, there remained several criticisms, including the use of gamma radiation which is different than cosmic radiation.

A new experiment, conducted by Aarhus University and the Danish Space Institute, used a particle accelerator to re-test the hypothesis. The particle accelerator produces high energy electronic particles more similar to cosmic rays than gamma rays. The hypothesis was not rejected – there appears to be a relationship between cosmic rays, solar activity, and cloud formation. Since cloud formation cannot influence solar activity and cosmic rays, the relationship can go only one way.

Roy Spencer, who has advocated that clouds influence climate, but the changes in cloud cover come from different sources such as the Pacific Decadal Oscillation, has been skeptical of the idea of cosmic rays influencing terrestrial clouds. However, he was impressed by the second experiment and made very preliminary calculations, based on cosmic rays reports from Moscow and the CERES earth radiative budget data. These calculations indicate that the total solar influence on temperatures may be several times stronger than solar irradiance, the only natural influence recognized in the IPCC reports.

If these experiments are supported by the CLOUD experiment, it does not mean that increases in atmospheric carbon dioxide do not increase temperatures. But it does mean that the IPCC, and others, underestimated natural influences temperatures. Given the methodology used, the IPCC, and others, mistakenly overestimated human influences on 20<sup>th</sup> century warming, as highlighted in the 2008 NIPCC report, “Nature, Not Human Activity, Rules the Climate.”

According to the IPCC, the methodology used first estimates natural influences on temperatures and then calculates human influences on temperatures. A change in the natural influences requires a recalculation of human influences, the models, and a re-examination of the projections from these models. Such an effort is not a pleasant consideration given the tens of billions of US dollars politicians and governments have spent in advocating the human influence based upon the projections from models that have never been validated. The entrenched interests will bitterly fight scientific research contradicting their assumptions. Please see articles referenced under “Is the Sun Rising?”

\*\*\*\*\*

As expressed by Meteorologist Joe D’Aleo, (referenced in March 5 TWTW), this spring looked foreboding for Southeast US and the Ohio and Mississippi Valleys. Unlike the Great Flood of 1927, the beginning of which was concentrated in mid-Mississippi Valley, the massive waters of the current flood began in the Ohio River Valley, further upstream. Flood records were broken along the Ohio River and after the confluence of the Ohio and the Mississippi rivers. As these flood waters move down the Mississippi River, they are challenging the river levees (dikes, embankments) built to constrain floods, but cannot stop them the largest ones.

After the great flood of 1927, which caused severe hardship for much of the South, the US Corps of Engineers built a levee system to control frequent flooding, recognizing that spillways were needed during massive floods. The system has great advantages and several disadvantages. Among the advantages are: one, it prevents the frequent flooding of the Mississippi River valley that was a great

hardship for those who lived in the flood plains; two, it enhances commerce of the river by alleviating (but not totally preventing) build up of silt; three, it protects the cities of New Orleans and Baton Rouge, and, four, it prevents the Mississippi from jumping its banks and finding a new route to the Gulf of Mexico, leaving New Orleans and Baton Rouge as cities on what would become backwater bayous.

The major disadvantages of the plan are: one, sometimes spillways must be opened flooding some to prevent the possible flooding of the cities; and, two, the Mississippi delta is sinking and needs frequent replenishment of silt from flood waters. As a result much of the lower delta is experiencing salt water intrusion, which is often blamed on oil company activities.

There is no clear solution. However, the solution being glibly proposed by some, let nature take its course, is antithetical to civilization. Please see articles referenced under “Extreme Weather.”

\*\*\*\*\*

A Note of Irony: Wind power, and other interment sources of electricity, requires reliable power that will deliver when wind power fails. All too frequently, regulatory systems are politically designed so that efficient electricity producers must subsidize the inefficiencies of interment producers.

In the Northwest US, the Bonneville Power Administration (BPA) handles the distribution of power from the nation’s largest hydroelectric system (the Columbia River Basin), a number of coal and natural gas plants, and a nuclear plant. It also handles distribution from wind farms with a nameplate capacity of 3500 MW. The variation of the electricity output of the wind farms has been largely adjusted by varying the electricity output from natural gas and hydroelectric. The latter procedure may require diverting waters that could be used for to produce hydroelectric power to spillways.

This spring, BPA faced a dilemma. The heavy snow pack resulted in water flows so extensive that the water going over the spillways failed to meet environmental standards for dissolved gases needed for salmon and steelhead trout, favorite game fish and an environmental cause. Thus, BPA had to reduce the diversion of water to the spillways and run more water through its electricity generating turbines.

To protect the integrity of the electricity grid, and to ensure reasonably priced electricity to its consumers, BPA announced cut backs on accepting all other forms of electricity generation – thermal first, and wind last. Of course, the politically privileged wind power companies screamed – what will happen to their tax credits and other subsidies.

The irony is that an industry favored by the environmental industry is complaining of actions to protect a fish favored by the environmental industry. Please see article referenced under “Alternative, Green, (“Clean”) Energy.”

\*\*\*\*\*

Number of the Week: 10 times sharper. The Giant Magellan Telescope (GMT) is being design to produce images 10 times shaper than the Hubble Space Telescope, which it is intended to replace in 2018. Unlike the Hubble, the GMT is earth bound. It will be built in Las Campanas, Chile, a high elevation portion of the intensely dry Atacama Desert, in northern Chile. A major benefactor is George Mitchell who developed the technique of successfully extracting natural gas from dense shale by the use of sand, principally, to keep the pours in the rock open after hydraulic fracturing. Please see referenced article under “Other Science News,” and <http://www.gmto.org/>

#####

## **ARTICLES:**

For the numbered articles below please see: [www.sepp.org](http://www.sepp.org).

### **1. Regulation Cannot Control Malignant Melanoma**

By S. Fred Singer, American Thinker, May 14, 2011  
[http://www.americanthinker.com/2011/05/regulation\\_cannot\\_control\\_mali.html](http://www.americanthinker.com/2011/05/regulation_cannot_control_mali.html)

## 2. The Truth About Greenhouse Gases

The dubious science of the climate crusaders.

By William Happer, First Things, June/July 2011 [H/t Roger Cohen]  
<http://www.firstthings.com/article/2011/05/the-truth-about-greenhouse-gases>

## 3. Sound, Fury and the Policy Of Climate Change

By Patrick Michaels, Forbes, May 19, 2011

<http://blogs.forbes.com/patrickmichaels/2011/05/19/sound-fury-and-the-policy-of-climate-change/>

## 4. Drill, Maybe, Drill

Editorial, IBD, May 16, 2011

<http://www.investors.com/NewsAndAnalysis/Article.aspx?id=572387&p=1>

#####

### NEWS YOU CAN USE:

#### *Science: Is the Sun Rising?*

#### **Scientists at Aarhus University (AU) and the National Space Institute (DTU Space) Show that particles from Space Create Cloud Cover**

Press Release, Aarhus University, May 16, 2011 [H/t WUWT]

<http://science.au.dk/en/news-and-events/news-article/artikel/forskere-fra-au-og-dtu-viser-at-partikler-fra-ruummet-skaber-skydaekke/>

#### **Time to question the received wisdom on climate change?**

Newsletter, The Scientific Alliance, May 19, 2011

<http://www.scientific-alliance.org/scientific-alliance-newsletter/time-question-received-wisdom-climate-change>

[SEPP Comment: Excellent overview.]

#### **Indirect Solar Forcing of Climate by Galactic Cosmic Rays: An Observational Estimate**

By Roy Spencer, His Blog, May 19, 2011

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

#### *Climategate Continued*

#### **Swedish Show Trial**

By Donna Laframboise, No Consensus, May 19, 2011 [H/t Bud Bromley]

<http://nofrackingconsensus.com/2011/05/19/swedish-show-trial/>

#### *Challenging the Orthodoxy*

#### **US: Carbon and carbon dioxide: Clearing up the confusion**

By Paul Driessen, Hacer, May 20, 2011

<http://www.hacer.org/usa/?p=851>

#### **IPCC Wrong Again: Species Loss Far Less Severe Than Feared**

By David Whitehouse, The Observatory, May 18, 2011 [H/t WUWT]

<http://www.thegwpf.org/the-observatory/3035-ipcc-debunked-species-loss-far-less-severe-than-feared.html>

### ***Defenders of the Orthodoxy***

#### **America's Climate Choices**

National Research Council, 2011

<http://dels.nas.edu/Report/Americas-Climate-Choices/12781>

#### **Advancing the Science of Climate Change**

National Research Council, 2010

<http://dels.nas.edu/resources/static-assets/materials-based-on-reports/reports-in-brief/Science-Report-Brief-final.pdf>

#### **Action Needed to manage Climate Change Risks; U.S. Response Should be Durable, but Flexible**

Press Release, National Academies, May 12, 2011

<http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12781>

#### **Climate change denial becomes harder to justify**

Editorial, Washington Post, May 15, 2011

[http://www.washingtonpost.com/opinions/climate-change-denial-becomes-harder-to-justify/2011/05/13/AF44QQ4G\\_story.html](http://www.washingtonpost.com/opinions/climate-change-denial-becomes-harder-to-justify/2011/05/13/AF44QQ4G_story.html)

#### **Warming Arctic opens way to competition for resources**

By Joby Warrick and Juliet Eilperin, Washington Post, May 15, 2011 [H/t Conrad Potemra]

[http://www.washingtonpost.com/national/environment/warming-arctic-opens-way-to-competition-for-resources/2011/05/15/AF2W2Q4G\\_story.html](http://www.washingtonpost.com/national/environment/warming-arctic-opens-way-to-competition-for-resources/2011/05/15/AF2W2Q4G_story.html)

#### **Seaports need a plan for weathering climate change**

By Donna Hesterman, SPX, May 18, 2011

[http://www.terraily.com/reports/Seaports\\_need\\_a\\_plan\\_for\\_weathering\\_climate\\_change\\_999.html](http://www.terraily.com/reports/Seaports_need_a_plan_for_weathering_climate_change_999.html)

#### **Climate study gets pulled after charges of plagiarism**

By Dan Vergano, USA Today, May 15, 2011

[http://www.usatoday.com/weather/climate/globalwarming/2011-05-15-climate-study-plagiarism-Wegman\\_n.htm](http://www.usatoday.com/weather/climate/globalwarming/2011-05-15-climate-study-plagiarism-Wegman_n.htm)

*[SEPP Comment: Defenders of the Orthodoxy will demand ever greater standards of performance from their critics as their position erodes.]*

#### **Major reform for climate body**

Intergovernmental panel aims to become more responsive

By Quirin Schiermeier, Nature, May 16, 2011 [H/t WUWT]

[http://www.nature.com/news/2011/110516/full/473261a.html?WT.ec\\_id=NATURE-20110519](http://www.nature.com/news/2011/110516/full/473261a.html?WT.ec_id=NATURE-20110519)

*[SEPP Comment: Will its science remain settled?]*

### ***Questioning the Orthodoxy***

#### **Species loss far less severe than feared: study**

By Staff Writers, AFP, May 18, 2011

[http://www.terraily.com/reports/Species\\_loss\\_far\\_less\\_severe\\_than\\_feared\\_study\\_999.html](http://www.terraily.com/reports/Species_loss_far_less_severe_than_feared_study_999.html)

### ***A Changing World***

**As Clinton works against global warming in Greenland, some there don't mind it**

By Joby Warrick, Washington Post, May 12, 2011

[http://www.washingtonpost.com/world/as-clinton-works-against-global-warming-in-greenland-some-there-dont-mind-it/2011/05/12/AF5d4O1G\\_story.html](http://www.washingtonpost.com/world/as-clinton-works-against-global-warming-in-greenland-some-there-dont-mind-it/2011/05/12/AF5d4O1G_story.html)

### ***Communicating Better to the Public – Exaggerate?***

#### **Greenhouse ocean study offers warning for the future**

By Staff Writers, SPX, May 20, 2011

[http://www.terradaily.com/reports/Greenhouse\\_ocean\\_study\\_offers\\_warning\\_for\\_future\\_999.html](http://www.terradaily.com/reports/Greenhouse_ocean_study_offers_warning_for_future_999.html)

[SEPP Comment: "If you consider that the amount of carbon dioxide in our atmosphere has doubled over the past 50 years,..." From about 315 ppm in 1960 to 390 ppm in 2010 is a doubling? (Mauna Loa record – NOAA)

### ***Extreme Weather***

#### **How Mississippi River floods could save Louisiana's sinking coasts**

Before the current levee system was built, Mississippi River floods helped replenish Louisiana coastal wetlands with silt. Now that silt goes into the gulf and the coastline is disappearing. But scientists have a plan, and the great flood of 2011 could help them bring it about.

By Bill Sasser, Christian Science Monitor, May 18, 2011 [H/t Weather Bell]

<http://www.csmonitor.com/Science/2011/0518/How-Mississippi-River-floods-could-save-Louisiana-s-sinking-coasts>

### ***The Political Games Continue***

#### **In the 2012 campaign, environmentalists don't matter**

Editorial, LA Times, May 20, 2011

<http://www.latimes.com/news/science/environment/la-ed-environment-20110520,0,4392229.story?track=rss&dlvrit=142902>

### ***Cap-and-Trade and Carbon Taxes***

#### **Conservatives kill carbon tax**

By Jessica Murphy, QMI, May 19, 2011 [H/t WUWT]

<http://www.sunnewsnetwork.ca/sunnews/canada/archives/2011/05/20110519-133514.html>

### ***Subsidies and Mandates Forever***

#### **Energy Subsidies: Our Gifts Than Keep On Taking**

By Larry Bell, Forbes, May 17, 2011 [H/t Cooler Heads Digest]

<http://blogs.forbes.com/larrybell/2011/05/17/energy-subsidies-our-gifts-that-keep-on-taking/#comments>

#### **Berlin doubles subsidies for electric cars**

By Staff Writers, AFP, May 16, 2011

[http://www.spacemart.com/reports/Berlin\\_doubles\\_subsidies\\_for\\_electric\\_cars\\_999.html](http://www.spacemart.com/reports/Berlin_doubles_subsidies_for_electric_cars_999.html)

[SEPP Comment: If it doesn't work the first time, just double down. After all, government is "the house.']

#### **Britain eyes 50-percent carbon emissions cut target**

By Staff Writers, AFP, May 17, 2011

[http://www.energy-daily.com/reports/Britain\\_eyes\\_50-percent\\_carbon\\_emissions\\_cut\\_target\\_999.html](http://www.energy-daily.com/reports/Britain_eyes_50-percent_carbon_emissions_cut_target_999.html)

#### **T. Boone Pickens: "I'm Sure Not Doing This For The Money"**

By Marlo Lewis, Global Warming.org, May 18, 2011

<http://www.globalwarming.org/2011/05/18/t-boone-pickens-im-sure-not-doing-this-for-the-money/>

## **The Dangers of CFLs Even Greater Than Previously Known**

By Edmund Contoski, American Thinker, May 19, 2011

[http://www.americanthinker.com/2011/05/the\\_dangers\\_of\\_cfls\\_even\\_great.html](http://www.americanthinker.com/2011/05/the_dangers_of_cfls_even_great.html)

## **Europe may ban plastic bags**

By Staff Writers, AFP, May 18, 2011

[http://www.terradaily.com/reports/Europe\\_may\\_ban\\_plastic\\_bags\\_999.html](http://www.terradaily.com/reports/Europe_may_ban_plastic_bags_999.html)

## **Government delays pulling plug on old-fashioned light bulbs**

Tories propose pushing deadline to 2014 over lack of alternatives to incandescent

By Elizabeth Thompson, Ottawa Citizen, May 19, 2011

<http://www.ottawacitizen.com/news/decision-canada/Government+delays+pulling+plug+fashioned+light+bulbs/4806638/story.html#ixzz1Mpjo25v6>

[SEPP Comment: Apparently sufficient quantities of new bulbs and disposal are now major issues.]

## ***EPA and other Regulators on the March***

### **Democrats face an Environmental Protection Agency dilemma**

By Ron Arnold, Washington Examiner, May 19, 2011

<http://washingtonexaminer.com/opinion/columnists/2011/05/ron-arnold-democrats-face-environmental-protection-agency-dilemma>

[SEPP Comment: Another EPA assumed extension of authority – it has the authority to regulate haze.]

## **EPA Postpones Effective Date for Boiler Standards, Releases Coal Ash Action**

By Staff Writers, Power News, May 18, 2011

[http://www.powermag.com/POWERnews/3726.html?hq\\_e=el&hq\\_m=2203035&hq\\_l=4&hq\\_v=5e66050d0](http://www.powermag.com/POWERnews/3726.html?hq_e=el&hq_m=2203035&hq_l=4&hq_v=5e66050d0)

## ***Energy Issues***

### **Energy and Country Instability Project Report**

By Energy and Security Group and Advanced Engineering Associates International, for USAID, No date given

[http://www.aeaiinc.com/reports/Energy\\_and\\_Country\\_Instability.pdf](http://www.aeaiinc.com/reports/Energy_and_Country_Instability.pdf)

[SEPP Comment: The direct effects of energy consumption per capita for nations receiving assistance from the US Agency for International Development include 1) higher energy consumptions leads to more stability, 2) higher energy consumption leads to increased life expectanc, and economic growth. No surprise here.]

## **U.S. energy policy should be ‘all of the above’**

By A. Barton Hinkle, Richmond Times-Dispatch, May 13, 2011

<http://www2.timesdispatch.com/news/oped/2011/may/13/TDOPIN02-hinkle-us-energy-policy-should-be-all-of--ar-1035534/>

## ***Nuclear Fears & Responses***

### **Japan disaster not similar to Chernobyl: officials**

By Staff Writers, AFP, May 17, 2011

[http://www.terradaily.com/reports/Japan\\_disaster\\_not\\_similar\\_to\\_Chernobyl\\_officials\\_999.html](http://www.terradaily.com/reports/Japan_disaster_not_similar_to_Chernobyl_officials_999.html)

## **Utility: Fukushima Cores More Damaged Than Thought**

By Dennis Normile, Science Insider, May 17, 2011 [H/t Toshio Fujita]

<http://news.sciencemag.org/scienceinsider/2011/05/utility-fukushima-cores-more.html?ref=hp>

## **NRC Finds All [US] Reactors Safe, Scales Back Monitoring at Fukushima**

By Staff Writers, Power News, May 18, 2011

[http://www.powermag.com/POWERnews/NRC-Finds-All-Reactors-Safe-Scales-Back-Monitoring-at-Fukushima\\_3730.html](http://www.powermag.com/POWERnews/NRC-Finds-All-Reactors-Safe-Scales-Back-Monitoring-at-Fukushima_3730.html)

## **U.S. Panel Suggests Moving Used Nuclear Fuel to Interim Sites**

By Eli Kintisch, Science Insider, May 15, 2011 [H/t Toshio Fujita]

<http://news.sciencemag.org/scienceinsider/2011/05/us-panel-suggests-moving-used-nu.html>

[SEPP Comment: *Why not re-cycle?*]

## **BRC Subcommittee Draft Recommendations Call for Permanent Nuclear Waste Disposal Facility**

By Staff Writers, Power News, May 18, 2011

[http://www.powermag.com/POWERnews/3727.html?hq\\_e=el&hq\\_m=2203035&hq\\_l=5&hq\\_v=5e66050d0](http://www.powermag.com/POWERnews/3727.html?hq_e=el&hq_m=2203035&hq_l=5&hq_v=5e66050d0)

## ***Oil and Natural Gas – the Future or the Past?***

### **Newly Installed Alaska North Slope Well Will Test Hydrate Production Tech**

By Staff Writers, SPX, May 19, 2011

[http://www.energy-daily.com/reports/Newly\\_Installed\\_Alaska\\_North\\_Slope\\_Well\\_Will\\_Test\\_Hydrate\\_Production\\_Tech\\_999.html](http://www.energy-daily.com/reports/Newly_Installed_Alaska_North_Slope_Well_Will_Test_Hydrate_Production_Tech_999.html)

[SEPP Comment: *Hydrates contain enormous quantities of natural gas.*]

## **Phony fears on fracking**

By Michael Benjamin, NY Post, May 19, 2011

[http://www.nypost.com/p/news/opinion/opedcolumnists/phony\\_fears\\_on\\_fracking\\_YsmmNvcdVx0eWcA7CNit8J](http://www.nypost.com/p/news/opinion/opedcolumnists/phony_fears_on_fracking_YsmmNvcdVx0eWcA7CNit8J)

## **A Better Way to Frack?**

A new technique for natural gas extraction eliminates fears about contaminated water and stops opponents in their tracks,

By Ronald bailey, Reason, May 17, 2011

<http://reason.com/archives/2011/05/17/a-better-way-to-frack>

## ***BP Oil Spill and Administration Control of Drilling***

### **Don't Let Alaska Oil Pipeline Shut Down**

Editorial, IBD, May 17, 2011

<http://www.investors.com/NewsAndAnalysis/Article.aspx?id=572510&p=1>

## ***Alternative, Green (“Clean”) Energy***

### **BPA Limits Power Output from Non-Hydro Sources Amid Surging Runoff Volume**

By Staff Writers, Power News, May 18, 2011

[http://www.powermag.com/POWERnews/BPA-Limits-Power-Output-from-Non-Hydro-Sources-Amid-Surging-Runoff-Volume\\_3729.html](http://www.powermag.com/POWERnews/BPA-Limits-Power-Output-from-Non-Hydro-Sources-Amid-Surging-Runoff-Volume_3729.html)

## **Green energy failure**

By Ross McKittrick, Financial Post, May 17, 2011 [H/t ICECAP]

<http://www.financialpost.com/news/Green+energy+failure/4794461/story.html>

### **The Myth of Green Energy Security**

By Bjorn Lomborg, Project Syndicate, May 17, 2011 [H/t Cooler Heads Digest]

<http://www.project-syndicate.org/commentary/lomborg72/English>

### **Wind Power Promises and Predictions Gone Awry**

By Jack Sullivan, Empire, Apr 26, 2011

<http://www.empirepage.com/2011/4/26/promises-and-predictions-gone-awry>

### **The wrong sites for solar**

In the name of solar energy, the Obama administration is about to open up millions of acres of desert to development. Such a move is unnecessary

By Erica Rosenberg and Janine Blaeloch, LA Times, May 18, 2011

<http://www.latimes.com/news/opinion/commentary/la-oe-rosenberg-solar-20110518,0,1010788.story>

### **Review of Recent Scientific Articles by NIPCC**

*For a full list of articles see [www.NIPCCreport.org](http://www.NIPCCreport.org)*

### **Two Millennia of Temperature and Precipitation Changes in Arid Central Asia**

Reference: Yang, B., Wang, J., Brauning, A., Dong, Z. and Esper, J. 2009. Late Holocene climatic and environmental changes in arid central Asia. *Quaternary International* 194: 68-78.

<http://www.nipccreport.org/articles/2011/may/17may2011a4.html>

### **Western North Pacific Tropical Cyclones**

Reference: Lu, Q-z., Hu, B-h., Wang, J. and Zhang, Y. 2008. Impact of large-scale circulation on the interdecadal variations of the western North Pacific tropical cyclone. *Journal of Tropical Meteorology* 14: 1006-8775(2008) 01-0081-04.

<http://www.nipccreport.org/articles/2011/may/17may2011a6.html>

### **Modeling the Pattern of Tropical Ocean Warming**

Reference: Shin, S.-I. and Sardeshmukh, P.D. 2011. Critical influence of the pattern of Tropical Ocean warming on remote climate trends. *Climate Dynamics* 36: 1577-1591.

<http://www.nipccreport.org/articles/2011/may/18may2011a1.html>

### **Earth's Temperature: Deconstructing the Past to Predict the Future**

Reference: Qian, W.-H. and Lu, B. 2010. Periodic oscillations in millennial global-mean temperature and their causes. *Chinese Science Bulletin* 55: 4052-4057

<http://www.nipccreport.org/articles/2011/may/18may2011a4.html>

### **Health and Warming**

#### **The health impacts of cold homes and fuel poverty**

By Keith Dear and Anthony McMichael, BMJ, May 11, 2011 [H/t WUWT]

<http://www.bmj.com/content/342/bmj.d2807.full>

### **Evidence suggests global warming is good for our health**

By Jo Nova, joannenova.com, May 21, 2011

<http://joannenova.com.au/2011/05/evidence-suggests-global-warming-is-good-for-our-health/#more-14888>

### **Other Scientific News**

#### **Free-Floating Planets May be More Common Than Stars**

By Staff Writers, JPL, May 19, 2011

[http://www.spacedaily.com/reports/Free Floating Planets May be More Common Than Stars 999.html](http://www.spacedaily.com/reports/Free_Floating_Planets_May_be_More_Common_Than_Stars_999.html)

**Mitchell Foundation Commits \$25 Million to Giant Magellan Telescope**

By Staff Writers, SPX, May 19, 2011

[http://www.spacedaily.com/reports/Mitchell Foundation Commits 25 Million to Giant Magellan Telescope 999.html](http://www.spacedaily.com/reports/Mitchell_Foundation_Commits_25_Million_to_Giant_Magellan_Telescope_999.html)

[SEPP Comment: The heir apparent to Hubble. A gift from the man who developed the method to successfully extract natural gas from dense shale.]

**Melting icebergs fertilize ocean**

Release of extra iron boosts carbon dioxide uptake by plankton

By Janet Raloff, Science News, May 16, 2011, [H/t Catherine French]

[http://www.sciencenews.org/view/generic/id/74307/title/Melting icebergs fertilize ocean](http://www.sciencenews.org/view/generic/id/74307/title/Melting_icebergs_fertilize_ocean)

**Other News**

**Ban mobile phones and wireless networks in schools say European leaders**

By Richard Gray, Telegraph, UK, May 14, 2011 [H/t Malcolm Ross]

<http://www.telegraph.co.uk/science/science-news/8514380/Ban-mobile-phones-and-wireless-networks-in-schools-say-European-leaders.html>

[SEPP Comment: Probably another effort to control human behavior by declaring a health risk. Why not ban all electrometric radiation, including light. After all, we are no longer in the Age of Enlightenment.]

**No Decline in Polar Bear Population**

By Terence Jeffrey, CNS News, May 18, 2011 [H/t WUWT]

<http://www.cnsnews.com/news/article/international-conservation-group-global>

#####

**BELOW THE BOTTOM LINE:**

**Floods, Droughts Are ‘New Normal’ Of Extreme U.S. Weather Fueled by Climate Change, Scientists Say**

By Deborah Zabarenk, Reuters, May 19, 2011

[http://www.huffingtonpost.com/2011/05/19/floods-droughts-extreme-weather-us\\_n\\_864046.html](http://www.huffingtonpost.com/2011/05/19/floods-droughts-extreme-weather-us_n_864046.html)

[SEPP Comment: The great Mississippi flood of 1927 and the great mid-west dust bowl of the 1930s were normal?]

**Noted climatologist Bill Maher on Alabama tornadoes: ‘This is global warming’**

By Jeff Poor, Daily Caller, May 16, 2011 [H/t Timothy Wise]

<http://dailycaller.com/2011/05/14/noted-climatologist-bill-maher-on-alabama-tornados-this-is-global-warming/>

**Climate change and the flood this time**

Midwest flooding is a taste of climate change in its early stages. We’ve got to fight back, and fast

By Bill McKibben, LA Times, May 10, 2011

<http://www.latimes.com/news/opinion/commentary/la-oe-0508-mckibben-levee-20110510,0,4588539.story>

#####

**ARTICLES:**

**1. Regulation Cannot Control Malignant Melanoma**

By S. Fred Singer, American Thinker, May 14, 2011  
[http://www.americanthinker.com/2011/05/regulation\\_cannot\\_control\\_mali.html](http://www.americanthinker.com/2011/05/regulation_cannot_control_mali.html)

As we move into the summer season, not only do temperatures increase, so do exposure to the Sun, sunburns, and concern about the ozone layer and skin cancer. But there are also some important policy issues to think about.

Malignant melanoma is the most-feared type of skin cancer and has been discussed widely in the (non-medical) scientific literature dealing with the stratospheric ozone layer. It turns out, however, that melanoma may have nothing to do with the alleged depletion of the ozone layer or with the Antarctic Ozone Hole (AOH). Melanoma shows distinct differences from the more common and less dangerous forms of skin cancer, Basal-cell and Squamous-cell carcinomas. As a consequence, EPA regulations can do little to stem the growing incidence of this malignant skin cancer -- even though EPA regularly (mis)uses "lives saved from melanoma" in the benefit-cost data it presents to Congress.

First, there is no doubt that CFCs ("Freons") can deplete the stratospheric ozone layer. However, they are most effective at altitudes above 40 km, where there is little ozone; so that they have little influence on the total column amount of ozone and therefore on the amounts of cancer-causing solar ultra-violet radiation. At the 20 to 25 km level, where most of the stratospheric ozone is located, there are also other chemical species that deplete ozone, derived from water vapor (WV) and from nitrogen oxides [see Ravishankara et al in Science 2005].

Such depletions had been under discussion since about 1970, in connection with planning for a Supersonic Transport (SST) aircraft. Long before there was any mention of Freons, the National Academy was publishing depletion estimates that ranged all the way up to 70 percent! It came as a great shock, therefore, when published calculations showed that cattle raising and rice growing agriculture already generate large amounts of atmospheric methane that eventually lead to as much stratospheric WV as a fleet of 500 SSTs.

In fact, to become important for ozone destruction, the chlorine atoms released from CFCs require the presence of particles (for so-called heterogeneous reactions) and therefore are most effective following volcanic eruptions -- or as is the case in the Antarctic Ozone Hole (AOH), when stratospheric temperatures become cold enough to form ice particles, called polar stratospheric clouds.

Chlorine is a natural constituent of the stratosphere, injected by volcanoes and likely also by the dissociation of salt particles convected upward from the ocean. Up until 1988, a year after the Montreal Protocol was ratified, the published data still showed no increasing trend of stratospheric chlorine compounds. This would indicate that the human contribution from CFCs was negligible. However, the data changed after 1988 and so did even skeptical scientific opinion about the contribution from CFCs.

We know from many lines of evidence that Basal-cell and Squamous-cell cancers are produced by UV-B, the region of the sun's ultraviolet spectrum between 280 and 320 nanometers. This is also the region in which ozone absorbs strongly. As a result, the incidence of those cancers increases greatly in going from the pole to the equator -- not only because of changes in the ozone layer but because of the change in the solar zenith angle. As it becomes steeper, it traverses less stratospheric ozone, and therefore the UV-B intensity at the surface should be greatest around local noon at low latitudes.

It is interesting to note that there have been no observations in the last 40 years that would demonstrate an actually increasing trend in UV-B at the surface. This may be due to various atmospheric interferences or even the presence of ozone pollution in most areas. It has been hypothesized that if all of the smog over Los Angeles were to disappear, skin cancer rates there would approach those seen in El Paso, TX.

At US latitudes, the average UV-B is calculated to increase by 5% to 10% for every 60 miles (100 km) move to the south -- and so does the observed skin cancer rate. Note, however, that these skin cancers affect primarily Caucasians and other fair-skinned individuals and that the incidence may be increased by the fact that people dress more lightly in warmer climates.

Melanoma is a very different beast. First, laboratory studies by Dr. Richard Setlow at Brookhaven National Laboratory have shown that UV-A is much more important than UV-B in initiating melanoma. UV-A covers the region from 320 to 400 nanometers of the solar spectrum, where ozone does not absorb.

Medically, it has been observed, that melanoma can occur on many parts of the body that are not exposed to solar radiation at all. It does not show the strong preference for Caucasians of other forms of skin cancer. It seems that there is an association between melanoma and childhood exposure to solar UV causing sunburn; but this association is not certain.

The upshot: Melanoma has little to do with ozone or Freons. The Montreal Protocol will do nothing to stop the rise in melanoma cases. EPA's benefit-cost calculations, used to support the regulation of important chemicals, like methyl bromide (MeBr), are essentially fraudulent if they include avoidance of melanoma cases.

And some personal advice: Exposure to the sun without proper protection is unwise, particularly when the sun is near the zenith. Sun creams can help but they should also screen against UV-A and not just UV-B. Remember Noel Coward's cabaret song "Mad dogs and Englishmen go out in the midday sun."  
\*\*\*\*\*

## **2. The Truth About Greenhouse Gases**

The dubious science of the climate crusaders.

By William Happer, First Things, June/July 2011 [H/t Roger Cohen]

<http://www.firstthings.com/article/2011/05/the-truth-about-greenhouse-gases>

The object of the Author in the following pages has been to collect the most remarkable instances of those moral epidemics which have been excited, sometimes by one cause and sometimes by another, and to show how easily the masses have been led astray, and how imitative and gregarious men are, even in their infatuations and crimes," wrote Charles Mackay in the preface to the first edition of his *Extraordinary Popular Delusions and the Madness of Crowds*. I want to discuss a contemporary moral epidemic: the notion that increasing atmospheric concentrations of greenhouse gases, notably carbon dioxide, will have disastrous consequences for mankind and for the planet. The "climate crusade" is one characterized by true believers, opportunists, cynics, money-hungry governments, manipulators of various types—even children's crusades—all based on contested science and dubious claims.

I am a strong supporter of a clean environment. We need to be vigilant to keep our land, air, and waters free of real pollution, particulates, heavy metals, and pathogens, but carbon dioxide (CO<sub>2</sub>) is not one of these pollutants. Carbon is the stuff of life. Our bodies are made of carbon. A normal human exhales around 1 kg of CO<sub>2</sub> (the simplest chemically stable molecule of carbon in the earth's atmosphere) per day. Before the industrial period, the concentration of CO<sub>2</sub> in the atmosphere was 270 ppm. At the present time, the concentration is about 390 ppm, 0.039 percent of all atmospheric molecules and less than 1 percent of that in our breath. About fifty million years ago, a brief moment in the long history of life on earth, geological evidence indicates, CO<sub>2</sub> levels were several thousand ppm, much higher than now. And life flourished abundantly.

Now the Environmental Protection Agency wants to regulate atmospheric CO<sub>2</sub> as a "pollutant." According to my *Webster's New Collegiate Dictionary*, to pollute is "to make or render unclean, to defile,

to desecrate, to profane.” By breathing are we rendering the air unclean, defiling or desecrating it? Efforts are underway to remedy the old-fashioned, restrictive definition of pollution. The current Wikipedia entry on air pollution, for example, now asserts that pollution includes: “carbon dioxide (CO<sub>2</sub>)—a colorless, odorless, non-toxic greenhouse gas associated with ocean acidification, emitted from sources such as combustion, cement production, and respiration.”

As far as green plants are concerned, CO<sub>2</sub> is not a pollutant, but part of their daily bread—like water, sunlight, nitrogen, and other essential elements. Most green plants evolved at CO<sub>2</sub> levels of several thousand ppm, many times higher than now. Plants grow better and have better flowers and fruit at higher levels. Commercial greenhouse operators recognize this when they artificially increase the concentrations inside their greenhouses to over 1000 ppm.

Wallis Simpson, the woman for whom King Edward VIII renounced the British throne, supposedly said, “A woman can’t be too rich or too thin.” But in reality, you can get too much or too little of a good thing. Whether we should be glad or worried about increasing levels of CO<sub>2</sub> depends on quantitative numbers, not just qualitative considerations.

How close is the current atmosphere to the upper or lower limit for CO<sub>2</sub>? Did we have just the right concentration at the preindustrial level of 270 ppm? Reading breathless media reports about CO<sub>2</sub> “pollution” and about minimizing our carbon footprints, one might think that the earth cannot have too little CO<sub>2</sub>, as Simpson thought one couldn’t be too thin—a view which was also overstated, as we have seen from the sad effects of anorexia in so many young women. Various geo-engineering schemes are being discussed for scrubbing CO<sub>2</sub> from the air and cleansing the atmosphere of the “pollutant.” There is no lower limit for human beings, but there is for human life. We would be perfectly healthy in a world with little or no atmospheric CO<sub>2</sub>—except that we would have nothing to eat and a few other minor inconveniences, because most plants stop growing if the levels drop much below 150 ppm. If we want to continue to be fed and clothed by the products of green plants, we can have too little CO<sub>2</sub>.

The minimum acceptable value for plants is not that much below the 270 ppm preindustrial value. It is possible that this is not enough, that we are better off with our current level, and would be better off with more still. There is evidence that California orange groves are about 30 percent more productive today than they were 150 years ago because of the increase of atmospheric CO<sub>2</sub>.

Although human beings and many other animals would do well with no CO<sub>2</sub> at all in the air, there is an upper limit that we can tolerate. Inhaling air with a concentration of a few percent, similar to the concentration of the air we exhale, hinders the diffusional exchange of CO<sub>2</sub> between the blood and gas in the lung. Both the United States Navy (for submariners) and NASA (for astronauts) have performed extensive studies of human tolerance to CO<sub>2</sub>. As a result of these studies, the Navy recommends an upper limit of about 8000 ppm for cruises of ninety days, and NASA recommends an upper limit of 5000 ppm for missions of one thousand days, both assuming a total pressure of one atmosphere. Higher levels are acceptable for missions of only a few days.

We conclude that atmospheric CO<sub>2</sub> levels should be above 150 ppm to avoid harming green plants and below about 5000 ppm to avoid harming people. That is a very wide range, and our atmosphere is much closer to the lower end than to the upper end. The current rate of burning fossil fuels adds about 2 ppm per year to the atmosphere, so that getting from the current level to 1000 ppm would take about 300 years—and 1000 ppm is still less than what most plants would prefer, and much less than either the NASA or the Navy limit for human beings.

Yet there are strident calls for immediately stopping further increases in CO<sub>2</sub> levels and reducing the current level. As we have discussed, animals would not even notice a doubling of CO<sub>2</sub> and plants would

love it. The supposed reason for limiting it is to stop global warming—or, since the predicted warming has failed to be nearly as large as computer models forecast, to stop climate change. Climate change itself has been embarrassingly uneventful, so another rationale for reducing CO<sub>2</sub> is now promoted: to stop the hypothetical increase of extreme climate events like hurricanes or tornados. But this does not necessarily follow. The frequency of extreme events has either not changed or has decreased in the 150 years that CO<sub>2</sub> levels have increased from 270 to 390 ppm.

Let me turn to some of the problems the non-pollutant CO<sub>2</sub> is supposed to cause. More CO<sub>2</sub> is supposed to cause flooded cities, parched agriculture, tropical diseases in Alaska, etc., and even an epidemic of kidney stones. It does indeed cause some warming of our planet, and we should thank Providence for that, because without the greenhouse warming of CO<sub>2</sub> and its more potent partners, water vapor and clouds, the earth would be too cold to sustain its current abundance of life.

Other things being equal, more CO<sub>2</sub> will cause more warming. The question is how much warming, and whether the increased CO<sub>2</sub> and the warming it causes will be good or bad for the planet.

The argument starts something like this. CO<sub>2</sub> levels have increased from about 280 ppm to 390 ppm over the past 150 years or so, and the earth has warmed by about 0.8 degree Celsius during that time. Therefore the warming is due to CO<sub>2</sub>. But correlation is not causation. Roosters crow every morning at sunrise, but that does not mean the rooster caused the sun to rise. The sun will still rise on Monday if you decide to have the rooster for Sunday dinner.

There have been many warmings and coolings in the past when the CO<sub>2</sub> levels did not change. A well-known example is the medieval warming, about the year 1000, when the Vikings settled Greenland (when it *was* green) and wine was exported from England. This warm period was followed by the “little ice age” when the Thames would frequently freeze over during the winter. There is no evidence for significant increase of CO<sub>2</sub> in the medieval warm period, nor for a significant decrease at the time of the subsequent little ice age. Documented famines with millions of deaths occurred during the little ice age because the cold weather killed the crops. Since the end of the little ice age, the earth has been warming in fits and starts, and humanity’s quality of life has improved accordingly.

A rare case of good correlation between CO<sub>2</sub> levels and temperature is provided by ice-core records of the cycles of glacial and interglacial periods of the last million years or so. But these records show that changes in temperature preceded changes in CO<sub>2</sub> levels, so that the levels were an effect of temperature changes. This was probably due to outgassing of CO<sub>2</sub> from the warming oceans and the reverse effect when they cooled.

The most recent continental ice sheets began to melt some twenty thousand years ago. During the “Younger Dryas” some 12,000 years ago, the earth very dramatically cooled and warmed by as much as 10 degrees Celsius in fifty years.

The earth’s climate has always been changing. Our present global warming is not at all unusual by the standards of geological history, and it is probably benefiting the biosphere. Indeed, there is very little correlation between the estimates of CO<sub>2</sub> and of the earth’s temperature over the past 550 million years (the “Phanerozoic” period). The message is clear that several factors must influence the earth’s temperature, and that while CO<sub>2</sub> is one of these factors, it is seldom the dominant one. The other factors are not well understood. Plausible candidates are spontaneous variations of the complicated fluid flow patterns in the oceans and atmosphere of the earth—perhaps influenced by continental drift, volcanoes, variations of the earth’s orbital parameters (ellipticity, spin-axis orientation, etc.), asteroid and comet impacts, variations in the sun’s output (not only the visible radiation but the amount of ultraviolet light,

and the solar wind with its magnetic field), variations in cosmic rays leading to variations in cloud cover, and other causes.

The existence of the little ice age and the medieval warm period were an embarrassment to the global-warming establishment, because they showed that the current warming is almost indistinguishable from previous warmings and coolings that had nothing to do with burning fossil fuel. The organization charged with producing scientific support for the climate change crusade, the Intergovernmental Panel on Climate Change (IPCC), finally found a solution. They rewrote the climate history of the past 1000 years with the celebrated “hockey stick” temperature record.

The first IPCC report, issued in 1990, showed both the medieval warm period and the little ice age very clearly. In the IPCC’s 2001 report was a graph that purported to show the earth’s mean temperature since the year 1000. A yet more extreme version of the hockey stick graph made the cover of the Fiftieth Anniversary Report of the United Nation’s World Meteorological Organization. To the surprise of everyone who knew about the strong evidence for the little ice age and the medieval climate optimum, the graph showed a nearly constant temperature from the year 1000 until about 150 years ago, when the temperature began to rise abruptly like the blade of a hockey stick. The inference was that this was due to the anthropogenic “pollutant” CO<sub>2</sub>.

This *damnatio memoriae* of inconvenient facts was simply expunged from the 2001 IPCC report, much as Trotsky and Yezhov were removed from Stalin’s photographs by dark-room specialists in the later years of the dictator’s reign. There was no explanation of why both the medieval warm period and the little ice age, very clearly shown in the 1990 report, had simply disappeared eleven years later.

The IPCC and its worshipful supporters did their best to promote the hockey-stick temperature curve. But as John Adams remarked, “Facts are stubborn things, and whatever may be our wishes, our inclinations, or the dictates of our passion, they cannot alter the state of facts and evidence.” The hockey-stick curve caught the attention of two Canadians, Steve McIntyre, a mining consultant, and an academic statistician, Ross McKittrick. As they began to look more carefully at the original data—much of it from tree rings—and at the analysis that led to the hockey stick, they became more and more puzzled. By hard, remarkably detailed, and persistent work over many years, consistently frustrated in their efforts to obtain original data and data-analysis methods, they showed that the hockey stick was not supported by observational data. An excellent, recent history of this episode is A. W. Montford’s *The Hockey Stick Illusion*.

About the time of the Copenhagen Climate Conference in the fall of 2009, another nasty thing happened to the global-warming establishment. A Russian server released large numbers of e-mails and other files from computers of the Climate Research Unit (CRU) of the University of East Anglia. Among the files released were e-mails between members of the power structure of the climate crusade, “the team.” These files were, or should have been, very embarrassing to their senders and recipients. A senior scientist from CRU wrote, for example: “PS, I’m getting hassled by a couple of people to release the CRU station temperature data. Don’t any of you three tell anybody that the UK has a freedom of information act.”

A traditional way to maintain integrity in science is through peer review, the anonymous examination of a scientific paper by qualified, competing scientists before publication. In a responsible peer review, the authors may be required to make substantial revisions to correct any flaws in the science or methodology before their paper is published. But peer review has largely failed in climate science. Global warming alarmists have something like Gaddafi’s initial air superiority over rag-tag opponents in Libya.

Consider this comment from one of the most respected IPCC leaders, as revealed in the CRU e-mails: “I can’t see either of these papers being in the next IPCC report. Kevin and I will keep them out somehow—even if we have to define what the peer-review literature is.” And consider the CRU e-mail comment on a

journal that committed the mortal sin of publishing one of the heretical papers: “I think we have to stop considering *Climate Research* as a legitimate peer-reviewed journal. Perhaps we should encourage our colleagues in the climate research community to no longer submit to, or cite papers in, this journal.” Peer review in climate science means that the “team” recommends publication of each other’s work, and tries to keep any off-message paper from being accepted for publication.

James Madison reminds us in *The Federalist Papers* that “no man is allowed to be a judge in his own cause, because his interest would certainly bias his judgment, and, not improbably, corrupt his integrity. With equal, nay with greater reason, a body of men are unfit to be both judges and parties at the same time.” Madison goes on to observe that the smaller the community, the more likely that parties and judges will be one and the same.

Let me summarize how the key issues appear to me, a working scientist with a better background than most in the physics of climate. CO<sub>2</sub> really is a greenhouse gas and other things being equal, adding the gas to the atmosphere by burning coal, oil, and natural gas will modestly increase the surface temperature of the earth. Other things being equal, doubling the CO<sub>2</sub> concentration, from our current 390 ppm to 780 ppm will directly cause about 1 degree Celsius in warming. At the current rate of CO<sub>2</sub> increase in the atmosphere—about 2 ppm per year—it would take about 195 years to achieve this doubling. The combination of a slightly warmer earth and more CO<sub>2</sub> will greatly increase the production of food, wood, fiber, and other products by green plants, so the increase will be good for the planet, and will easily outweigh any negative effects. Supposed calamities like the accelerated rise of sea level, ocean acidification, more extreme climate, tropical diseases near the poles, and so on are greatly exaggerated.

“Mitigation” and control efforts that have been proposed will enrich a favored few with good political ties—at the expense of the great majority of mankind, including especially the poor and the citizens of developing nations. These efforts will make almost no change in earth’s temperature. Spain’s recent experiment with green energy destroyed several pre-existing jobs for every green job it created, and it nearly brought the country to bankruptcy.

The frightening warnings that alarmists offer about the effects of doubling CO<sub>2</sub> are based on computer models that assume that the direct warming effect of CO<sub>2</sub> is multiplied by a large “feedback factor” from CO<sub>2</sub>-induced changes in water vapor and clouds, which supposedly contribute much more to the greenhouse warming of the earth than CO<sub>2</sub>. But there is observational evidence that the feedback factor is small and may even be negative. The models are not in good agreement with observations—even if they appear to fit the temperature rise over the last 150 years very well.

Indeed, the computer programs that produce climate change models have been “tuned” to get the desired answer. The values of various parameters like clouds and the concentrations of anthropogenic aerosols are adjusted to get the best fit to observations. And—perhaps partly because of that—they have been unsuccessful in predicting future climate, even over periods as short as fifteen years. In fact, the real values of most parameters, and the physics of how they affect the earth’s climate, are in most cases only roughly known, too roughly to supply accurate enough data for computer predictions. In my judgment, and in that of many other scientists familiar with the issues, the main problem with models has been their treatment of clouds, changes of which probably have a much bigger effect on the temperature of the earth than changing levels of CO<sub>2</sub>.

What, besides the bias toward a particular result, is wrong with the science? Scientific progress proceeds by the interplay of theory and observation. Theory explains observations and makes predictions about what will be observed in the future. Observations anchor our understanding and weed out the theories that don’t work. This has been the scientific method for more than three hundred years. Recently, the advent of the computer has made possible another branch of inquiry: computer simulation models. Properly used,

computer models can enhance and speed up scientific progress. But they are not meant to replace theory and observation and to serve as an authority of their own. We know they fail in economics. All of the proposed controls that would have such a significant impact on the world's economic future are based on computer models that are so complex and chaotic that many runs are needed before we can get an "average" answer. Yet the models have failed the simple scientific test of prediction. We don't even have a theory for how accurate the models should be.

There are many honest, hardworking climate scientists who are trying to understand the effects of CO<sub>2</sub> on climate, but their work has fallen under suspicion because of the hockey-stick scandal and many other exaggerations about the dangers of increasing CO<sub>2</sub>. What has transformed climate science from a normal intellectual discipline to a matter of so much controversy?

A major problem has been the co-opting of climate science by politics, ambition, greed, and what seems to be a hereditary human need for a righteous cause. What better cause than saving the planet? Especially if one can get ample, secure funding at the same time? Huge amounts of money are available from governments and wealthy foundations for climate institutes and for climate-related research.

Funding for climate studies is second only to funding for biological sciences. Large academic empires, prizes, elections to honorary societies, fellowships, and other perquisites go to those researchers whose results may help "save the planet." Every day we read about some real or contrived environmental or ecological effect "proven" to arise from global warming. The total of such claimed effects now runs in the hundreds, all the alleged result of an unexceptional century-long warming of less than 1 degree Celsius. Government subsidies, loan guarantees, and captive customers go to green companies. Carbon-tax revenues flow to governments. As the great Russian poet Pushkin said in his novella *Dubrovsky*, "If there happens to be a trough, there will be pigs." Any doubt about apocalyptic climate scenarios could remove many troughs.

What about those who doubt the scientific basis of these claims, or who simply don't like what is being done to the scientific method they were taught to apply and uphold? Publications of contrary research results in mainstream journals are rare. The occasional heretical article is the result of an inevitable, protracted battle with those who support the dogma and who have their hands on the scales of peer review. As mentioned above, we know from the Climategate emails that the team conspired to prevent contrary publications from seeing the light of day and even discussed getting rid of an editor who seemed to be inclined to admit such contentious material.

Skeptics' motives are publicly impugned; denigrating names are used routinely in media reports and the blogosphere; and we now see attempts to use the same tactics that Big Brother applied to the skeptical hero, Winston Smith, in Orwell's *1984*. In 2009 a conference of "ecopsychologists" was held at the University of West England to discuss the obvious psychological problems resident in those who do not adhere to the global warming dogma. The premise of these psychologists was that scientists and members of the general population who express objective doubt about the propagated view of global warming are suffering from a kind of mental illness. We know from the Soviet experience that a society can find it easy to consider dissidents to be mentally deranged and act accordingly.

The management of most scientific societies has enthusiastically signed on to the global warming bandwagon. This is not surprising, since governments, as well as many states and foundations, generously fund those who reinforce their desired outcomes under the cover of saving the planet. Certain private industries are also involved: those positioned to profit from enacted controls as well as financial institutions heavily invested in "green technologies" whose rationale disappears the moment global warming is widely understood to be a non-problem. There are known connections and movements of people involved in government policy, scientific societies, and private industry, all with the common

thread of influencing the outcome of a set of programs and investments underpinned by the supposed threat of global warming.

My own trade union, the American Physical Society (APS), is a good example, but hardly the worst. An APS Council statement issued on November 18, 2007 states: “The evidence is incontrovertible: Global warming is occurring. If no mitigating actions are taken, significant disruptions in the Earth’s physical and ecological systems, social systems, security, and human health are likely to occur. We must reduce emissions of greenhouse gases beginning now.” This is pretty strong language for physicists, for whom skepticism about evidence was once considered a virtue, and nothing was incontrovertible.

In the fall of 2009 a petition, organized by Fellow of the American Physical Society, Roger Cohen, and containing the signatures of hundreds of distinguished APS members was presented to the APS management with a request that at least the truly embarrassing word “incontrovertible” be taken out of the statement. The APS management’s response was to threaten the petitioners, while grudgingly appointing a committee to consider the request. It was exactly what James Madison warned against. The committee included members whose careers depended on global warming alarmism, and the predictable result was that not one word was changed. Bad as the actions of the APS were, they were far better than those of most other scientific societies, which refused to even reconsider extreme statements on climate.

The situation is even more lamentable for the general public, which is fed a constant stream of propaganda by specialists in environmental issues from the mainstream media and well-funded alarmist blogs. Not unlike functionaries of Orwell’s Ministry of Truth in *1984*, with its motto “Ignorance is Strength,” many members of the environmental news media dutifully and uncritically promote the party line of the climate crusade.

However, the situation is slowly getting better. Skeptics are more numerous and better organized than before. In a few cases, leading former adherents have publicly and courageously spoken out against the dogma and its core of establishment promoters. The IPCC itself has come under severe criticism by the international scientific establishment for its series of bizarre errors and organizational failings. Under pressure from a dissident group of Fellows, the Royal Society moved to meaningfully moderate its former radically alarmist position on global warming. And perhaps most important of all, public skepticism has increased significantly, and with it has come a major drop in support of the climate crusade’s attempt to seize control of the “pollutant,” CO<sub>2</sub>.

I began with a quotation from the preface of the first edition of Mackay’s *Extraordinary Popular Delusions and the Madness of Crowds*, and it is worth recalling now a quotation from the preface of the second edition: “Men, it has been well said, think in herds; it will be seen that they go mad in herds, while they only recover their senses slowly, one by one.”

In our efforts to conserve the created world, we should not concentrate our efforts on CO<sub>2</sub>. We should instead focus on issues like damage to local landscapes and waterways by strip mining, inadequate cleanup, hazards to miners, and the release of real pollutants and poisons like mercury, other heavy metals, and organic carcinogens. Much of the potential harm from coal mining can be eliminated, for example, by requirements that land be restored to a condition that is at least as good as, and preferably better than, when the mining began.

Life is about making decisions, and decisions are about trade-offs. We can choose to promote investment in technology that addresses real problems and scientific research that will let us cope with real problems more efficiently. Or we can be caught up in a crusade that seeks to suppress energy use, economic growth, and the benefits that come from the creation of national wealth.

*William Happer is the Cyrus Fogg Brackett Professor of Physics at Princeton University.*

\*\*\*\*\*

### **3. Sound, Fury and the Policy Of Climate Change**

By Patrick Michaels, Forbes, May 19, 2011

<http://blogs.forbes.com/patrickmichaels/2011/05/19/sound-fury-and-the-policy-of-climate-change/>

Last week, in fulfillment of a 2008 Act of Congress, our National Academies of Science published “America’s Climate Choices” [ACC], another in a numbing succession of groupthink reports predicting the end of the world unless the U.S. dramatically reduces its emissions of carbon dioxide. Pronto.

Documents like this aren’t really intended to change anyone’s mind. Rather, they are designed to be used by unelected regulators as scientific cover for what our legislature refuses to do, which is to enact expensive and intrusive restrictions on emissions of carbon dioxide. The penultimate iteration of this was something called the “Synthesis Report” of the U.S. Global Change Research Program, a 2009 screed that the Environmental Protection Agency used as a scientific cover for new rules on fuel economy and regulation of power plants.

ACC is by far the most blatantly political of these documents. Several authors are environmental activists, and the National Academies’ President, Ralph Cicerone, has been on a mission to demonize carbon dioxide for decades.

He is very influential and capable. He was instrumental in getting chlorofluorocarbon (CFC) refrigerant production banned because they accelerated the destruction of stratospheric ozone over and near Antarctica in early spring. This was an easy thing to do, as chemical giant DuPont was eager to replace its patent-expired CFC Freon, once it patented a substitute hydrochlorofluorocarbon.

Carbon dioxide, thought to be a significant cause of the warming of surface temperature since the mid-1970s, is currently the respiration of the world’s economic civilization. Getting rid of it isn’t as simple as banning CFCs and switching to another refrigerant.

Some big-time scientists are alarmed at the Academies’ activism. MIT atmospheric physicist (and member of the National Academies) Richard Lindzen says that Cicerone, as president of the Academies, feels that “regardless of the evidence the answer is predetermined. If the government wants carbon control, that is the answer that the Academies will provide. Nothing could better epitomize the notion of science in the service of politics – something that, unfortunately, has characterized so-called climate science.”

The strident rhetoric in ACC could further divide the electorate and the government on climate change. Pollsters tell us — I think rightly — that the best way to characterize the majority of public sentiment is that people indeed believe that global warming is real (correct), that humans have something to do with it (correct), and that scientists are exaggerating its effects (thank you for listening).

A corollary has also been noted: the more shrill the rhetoric, the more people turn off. They are just tired of being hectored by scientists proclaiming certain apocalypses that never pan out: Examples include acid rain and the death of the forest, asteroids, the population bomb, and a catastrophic extinction of species that has eluded detection.

While again calling down hell and brimstone, this time if we don’t immediately reduce our carbon dioxide emissions, ACC never gets to the most inconvenient truth: We are the rapidly shrinking into irrelevance on this issue.

Here's a fact that is curiously absent. If, by 2050, the U.S. reduces its per-capita emission of carbon dioxide to what it was at the end of the Civil War, and the rest of the developed world does similarly, prospective global warming would drop by a grand total of 7%, 100 years from now. This assumes that the "sensitivity" of surface temperature to a doubling of atmospheric CO-2 is 5.4 degrees, a commonly used value that may be way too high (see below).

This is a vital piece of information for any policymaker or regulator. Why is it not in the report?

To its credit, ACC does note two "main sources of uncertainty in projecting climate change impacts." (There are actually plenty more, but these two are quite important.)

The first is the uncertainty related to future emissions because of changes in technology, policy, and "other factors that are impossible to fully predict."

Example: In 1982 the Academy (it only has recently become the Academies) produced "Energy in Transition, 1985-2010," a document that, like ACC, received headline recognition and was cited as gospel by the policy community that it intended to influence. It predicted a general decline in domestic production of natural gas through 2010, with the ultimate possibility of its phase-out as a significant fuel. Since then, we discovered huge reservoirs that can be coaxed from common shale formations worldwide. The amount of shale gas now being burned is responsible (along with our economic miasma) for the record reduction in U.S. carbon dioxide emissions in 2009.

The second uncertainty is over the true value of the climate "sensitivity" to carbon dioxide. There are now multiple and independent strands of evidence — from the oceans, from clouds, and from thermometers — that our climate models assume a sensitivity that is about twice as large as it is in reality. Nonetheless, if evidence continues to accrue, there will be major resistance to accepting this for obvious scientific and behavioral reasons. "We goofed" doesn't go down easy when trying to re-engineer the world's energy economy.

Make no mistake, though. The new National Academies report is significant. It is the sound and the fury, signifying policy.

\*\*\*\*\*

#### **4. Drill, Maybe, Drill**

Editorial, IBD, May 16, 2011

<http://www.investors.com/NewsAndAnalysis/Article.aspx?id=572387&p=1>

**Energy:** Extending existing oil leases as the president has proposed accomplishes nothing if the White House's environmental handcuffs won't let them be used. Lucy wants to hold the football for Charlie Brown again.

When President Obama said during his Saturday radio address that "we should increase safe and responsible oil production here at home," the operative words were "safe and responsible." We will drill if it's safe for polar bears, caribou and West Texas lizards, and if it doesn't contribute to the "climate change" myth.

Similar words were used to justify the seven-year moratorium on offshore drilling off both coasts, in the eastern Gulf of Mexico and in the seas off Alaska following last year's Deepwater Horizon explosion in the Gulf, even though no other wells were found to be unsafe.

The Associated Press reported with a straight face that "Obama is directing his administration to ramp up U.S. oil production." In fact, what he proposed is extending existing leases in the Gulf of Mexico and off Alaska and holding more frequent lease sales in a federal petroleum reserve in Alaska.

Using those leases is quite another matter.

Shell Oil, after investing five years and \$4 billion, had to abandon attempts to drill off Alaska after Obama's Environmental Protection Agency withheld the necessary air permits. An EPA board ruled that Shell had not taken into account the greenhouse gas emissions of an icebreaking vessel needed to plow through the Chukchi Sea to clear the way for the drilling ships.

Significant areas off Alaska have been designated critical polar bear habitat, hampering drilling in the Chukchi and Beaufort Seas. They are thought to contain 25 billion barrels of oil and 100 trillion cubic feet of natural gas — America's second largest hydrocarbon reserves after the Gulf of Mexico.

The U.S. Fish and Wildlife Service has announced that the dunes sagebrush lizard, a 3-inch-long reptile native to the American Southwest, "faces immediate and significant threats due to oil and gas activities and herbicide treatments" and begun the process to have it listed under the Endangered Species Act. That could severely limit, if not shut down, West Texas oil production.

Extending existing leases is not enough in this environment. The snail's-pace permitting process in the Gulf and elsewhere remains a de facto moratorium. If the president were truly serious about ramping up production, wouldn't he sign the bill the House passed on Thursday, the Reversing President Obama's Offshore Moratorium Act?

That bill that would require lease sales within five years for drilling in areas that were subject to Obama's seven-year moratorium on offshore drilling. The legislation sets a production goal of 3 million barrels of oil and 10 billion cubic feet of natural gas a day and estimates that 1.2 million jobs will be created around the country.

The only area where lease sales might be accelerated, according to the president, is the National Petroleum Reserve in Alaska, which was created by President Harding in 1923.

Why is this location acceptable, but not the Arctic National Wildlife Refuge? Both are home to caribou. Oil companies would prefer to drill in ANWR, that's why.

The Democrats are fond of saying we have just 2% of the world's oil yet consume 25% of it, a false claim repeated by Senate Majority Whip Dick Durbin on Fox News Sunday. Leaving aside the fact that we produce 24% of the world's goods and services, the 2% supply figure includes reserves only where we are already drilling.

It does not include the 10 billion barrels locked up in ANWR or the 86 billion barrels locked up in the Outer Continental Shelf or the 800 billion barrels of oil held hostage in shale in Utah, Wyoming and Colorado.

Obama says we can't drill our way out of our energy predicament soon.

Yes, we can.

#####