

The Week That Was: 2016-10-22 (October 22, 2016)
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The Science and Environmental Policy Project

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Quote of the Week. *“I learned very early the difference between knowing the name of something and knowing something.”* — Richard Feynman

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Number of the Week: 88 seconds

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THIS WEEK:

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

Limits of Influence of CO₂ – Laboratory Evidence: In a 2015 interview regarding the position of Pope Frances on climate change, physicist Tom Sheahen stated why he believes that human emissions of Carbon Dioxide (CO₂) are not a major contributor to global warming/climate change.

“My career includes time at the National Bureau of Standards (now the National Institute for Standards and Technology) where I actually measured infrared absorption by CO₂. I may have been the last person ever to do so because the results are exactly what had been found about a century ago. In 100 meters, the most important band of CO₂ absorbs completely; we call that ‘saturation.’ In the atmosphere, absorption by CO₂ was over 90 percent saturated in pre-industrial times and the increase in atmospheric CO₂ from 300 to 400 parts per million adds only about 1 percent to 2 percent absorption. [Concentrations are now about 400 parts per million.] All that does is shift the altitude slightly from which water vapor (which is by far the dominant greenhouse gas) radiates infrared energy away into space. The empirical evidence today (worldwide satellite measurements) clearly shows that despite increasing CO₂, earth’s average temperature is not increasing rapidly.” [Boldface added].

“As for computer models, I have done a fair amount of computer modeling and I know that there are always parameters that you don’t know precisely, so you guess at them and hope they don’t mess up the calculation seriously. But every computer model has such deficient assumptions hidden within it, and you don’t know for sure that they won’t matter. Richard Feynman phrased it perfectly a half-century ago: ‘No matter how smart you are or how good your theory is, if it doesn’t agree with observation, it’s wrong!’ A computer model that is unable to ‘predict’ the past is surely not to be trusted to predict the future.”

As an example of the research, a link to a 1955 journal article discussing the influence of CO₂ on temperatures is provided under Challenging the Orthodoxy. Please note that Tom Sheahen is now the Vice President of SEPP.

Why the assessment “Report of an Ad Hoc Study Group on Carbon Dioxide and Climate July 23-27, 1979”, the Charney Report, failed to discuss the laboratory results from one of the nation’s premier research laboratories is unknown. Instead, the Charney Report relied on modeling efforts to state:

“When it is assumed that the CO2 content of the atmosphere is doubled and statistical thermal equilibrium is achieved, the more realistic of the modeling efforts predict a global surface warming of between 2°C and 3.5° with greater increases at high latitudes. “

After calling for faster computers, the report states:

“It is significant, however, that none of the model calculations predicts negligible warming.

The primary effect of an increase of CO2 is to cause more absorption of thermal radiation from the earth’s surface and thus to increase air temperature in the troposphere. A strong positive feedback mechanism is the accompanying increase of moisture, [water vapor], which is an even more powerful absorber of terrestrial radiation. We have examined with care all known negative feedback mechanisms, such as increase in low or middle cloud amount, and have concluded that the oversimplifications and inaccuracies in the models are not likely to have vitiated the principal conclusion that there will be appreciable warming. The known negative feedback mechanisms can reduce the warming, but they do not appear to be so strong as the positive moisture feedback. We estimate the most probable global warming for a doubling of CO2 to be near 3°C with a probable error of ±1.5°C.”

With over 35 years of observations the “strong positive feedback mechanism” – the so-called “hot spot” – cannot be found and the increase of air temperature in the troposphere is negligible. What little increase found may be attributed to changing ocean patterns called the El Niño Southern Oscillation (ENSO) – first observed in the 1700s. See links under Challenging the Orthodoxy and Defending the Orthodoxy.

Influence of CO2 – Field Evidence: As stated in the NIPCC Reports, (2008 pp. 5 – 8), the strong positive feedback mechanism called for in the Charney Report and later identified as the human fingerprint of global warming in the 1996 Second Assessment Report (SAR or AR-2) of the UN Intergovernmental Panel on Climate Change (IPCC) cannot be found. It has not been found since, despite use of statistical methods that approach absurdity.

In his February 2016 Testimony, John Christy presented comprehensive tropospheric data since 1979, where the “hot-spot” should occur, showing no hot-spot. Also, Christy submitted the results of 102 IPCC CMIP-5 Climate Model runs for the Global Bulk Atmospheric Temperature. (Surface to 50,000 feet (15,240 meters). (CMIP-5 is the latest version global climate models used by the UN Intergovernmental Panel on Climate Change (IPCC))

Christy tested the results of these model runs against temperature observations by four different datasets of weather balloon measurements with one type of instruments and by satellites with another type of instruments as calculated by 3 different entities. Christy shows a 0.98 correlation between the types of observational datasets, which is very high for such types of measurements. Not only is there significant disparity between the average of model runs and observations; but also, since 1995 the disparity is increasing significantly.

Christy found that global climate models overestimate atmospheric warming by 2.5 times over the globe and by 3 times over the tropics

Recently, Wallace, Christy, and D’Aleo presented a peer-reviewed paper, using weather balloon data going back to 1959, showing that with a climate shift (Pacific Decadal Oscillation, (PDO) in

1977, all the warming in the atmosphere can be explained by the El Niño Southern Oscillation (ENSO) index.

Very simply, the warming from carbon dioxide assumed in the Charney Report, based on information from modelers, cannot be found in the laboratory and cannot be found in the field. It is past time for the National Academies of Sciences and the National Research Council to re-visit the Charney Report, and all subsequent research based on its finding. This revisit should include the wealth of empirical atmospheric data that has been compiled by satellites and weather balloons since 1979, that was not available when the Charney Report was written.

A similar revisit is timely for all scientific organizations that accept the findings of the Charney Report, or its adherents.

As stated by Hal Doiron who modeled the Apollo lunar lander:

“In my NASA experience, we were not allowed to use un-validated models for critical design or operational decisions involving human safety. The available data show that we do not have a rapidly developing climate problem requiring swift, corrective action.”

See links under Challenging the Orthodoxy – NIPCC and Challenging the Orthodoxy.

Rear-Guard Action? As stated above, John Christy found that global climate models overestimate atmospheric warming by 2.5 times over the globe and by 3 times over the tropics. The discoverer of the yet to-be-found distinct human fingerprint, Benjamin Santer, joined others, to write a paper comparing climate models with their data – a lesser-known, a not-vetted, satellite dataset, while ignoring radiosonde data from weather balloons. They found the model warming bias was only 1.7 times too high! On his web site, Roy Spencer discusses these findings.

The co-authors of the Santer report include Susan Solomon, lead author of IPCC AR-4 (2007), researchers with Remote Sensing Systems (RSS) who have heavily, largely unsuccessfully, criticized the work of Christy and Spencer in the past (their main criticism, orbital decay, quickly adopted), and researchers with the Department of Atmospheric Sciences at the University of Washington, who criticize tropospheric data because there is a cooling, unexplained, of the stratosphere, which is above the troposphere.

In his February 2016 report, Christy focused on data from the troposphere – surface to 50,000 feet (15,240 meters). What is happening in the stratosphere is moot to the issue. See links under Challenging the Orthodoxy.

Greening World: Author, now member of the House of Lords, Matt Ridley gave a lecture to the Royal Society which well summarized the benefits of carbon dioxide enrichment of the atmosphere as compared with the unsubstantiated global warming from carbon dioxide.

On his web site, Roy Spencer presented the latest harvests of corn, soybeans, and wheat in the US. If carbon dioxide caused global warming is destroying agriculture, the US corn belt has yet to realize it. The corn stretches roughly from Ohio west to eastern Nebraska; and from north Texas to Minnesota. See links under Social Benefits of Carbon

Carbon Tax: The Cato Institute published an economic analysis of the frequently proposed tax on carbon dioxide (carbon tax). Some politicians are anxious to tax a gas essential for life on the planet, as we generally recognize it. It will be a tax justified by a politically created fear that has not been empirically demonstrated. See links under Cap-and-Trade and Carbon Taxes.

La Nina Cooling? The US National Oceanic and Atmospheric Administration (NOAA) has brought back the possibility of the current ENSO event ending with a La Niña, a general cooling. Such an event can have major impacts on weather world-wide. Often, an ENSO event ends with a La Niña. Why NOAA dismissed that possibility in 2016-17 remains a mystery.

What will happen to temperatures after the current ENSO remains to be seen. See links under Changing Weather.

Administration's "Clean Power Plan" – Constitutional Issues: The constitutional arguments involving the Administration's Power Plan have been transcribed and published. Favorable court decisions are vital to the administration's hopes of avoiding Congressional review of its plan and its support of the Paris Agreement. The next TWTW will discuss these arguments along with Executive Agreements, which the administration hopes will justify its avoidance of legislative review.

The Black System: On October 19, the Australian Energy Market Operator (AEMO) updated its report on what is now called the Black System – when all the electricity from the grid in the state of South Australia went out on September 28. In land mass, South Australia is about 20 percent larger than the three states generally known as the West Coast of the US and more than twice as large as what the Census Bureau defines as North-East US – from the Maryland-Pennsylvania border to Maine.

South Australia has the largest penetration of wind power in the country. It was shut down of power from some of these wind farms on the approach of a line of thunderstorms that began the entire power loss. In some areas, it took two weeks for power to be restored. The event demonstrates the vulnerability to weather events of the system based on major use of wind power, in South Australia averaging 40%. Coal-fired and nuclear power plants have massive built-in inertia, and are far more robust. See links under Questioning Green – Australia.

Additions and Corrections: Posted on the ICECAP web site were comments by Jim Wallace, a co-author of the above referenced ENSO study. These comments were apparently directed to TWTW. There are some minor disagreements about statistical approaches, as expected by researchers trained in different techniques.

The major difference is a view of what the Federal Courts will do, particularly the Court of Appeals for the DC Circuit and the Supreme Court. Based on observations and discussions with attorneys appearing before the Court, TWTW believes the DC Circuit has taken a very biased view in favor of government agencies on issues labeled science. Some agencies, such as the EPA, are taking advantage of this bias. The net result will be highly biased law and a general erosion of government agency standards in matters of science.

On the issue of whether-or-not the courts will overturn the actions of the agencies, Wallace and TWTW may disagree. But, on the key issue, must the agencies be challenged when their science is biased, there is no disagreement. See link under Challenging the Orthodoxy.

Number of the Week: 88 seconds. The above mentioned AEMO report states, in South Australia took 88 seconds from the first wind farm to trip until the entire system went black. Questioning Green – Australia.

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NEWS YOU CAN USE:

Commentary: Is the Sun Rising?

Current Solar Cycle Fades, Continues To Be Weakest in 200 Years ...Likely Foretelling Global Cooling

The Sun in September 2016

By Frank Bosse and Prof. Fritz Vahrenholt, (Translated and edited by P Gosselin), No Tricks Zone, Oct 18, 2016

<http://notrickszone.com/2016/10/18/current-solar-cycle-fades-continues-to-be-weakest-in-200-years-likely-foretelling-global-cooling/>

Solar Cycle Mystery Solved ?

Guest essay by David Archibald, WUWT, Oct 13, 2016

<https://wattsupwiththat.com/2016/10/13/solar-cycle-mystery-solved/>

Suppressing Scientific Inquiry – The Witch Hunt – Push-Back

Federal Court Delivers Stunning Blow to Mass. AG and #ExxonKnew Campaign

By Katie Brown. (h/t to Matt Dempsey), WUWT, Oct 13, 2016

<https://wattsupwiththat.com/2016/10/13/federal-court-delivers-stunning-blow-to-mass-ag-and-exxonknew-campaign/>

Link to original article: Federal judge in Texas gives Exxon right to see Mass. attorney general's records

By Steven Mufston, Washington Post, Oct 13, 2017

https://www.washingtonpost.com/business/economy/federal-judge-in-texas-gives-exxon-right-to-see-mass-attorney-generals-records/2016/10/13/6e01aafc-916f-11e6-9c85-ac42097b8cc0_story.html?postshare=3211476390488946&tid=ss_tw-bottom

Exxon Chooses War in New York's Probe of Climate Change Research

Faced with an investigation carrying potentially ruinous consequences, the energy company stops cooperating.

By Paul Barrett, Bloomberg, Oct 18, 2016

<http://www.bloomberg.com/news/articles/2016-10-18/exxon-decides-to-fight-new-york-s-climate-change-probe>

Challenging the Orthodoxy -- NIPCC

Nature, Not Human Activity, Rules the Climate

S. Fred Singer, Editor, NIPCC, 2008

http://www.sepp.org/publications/nipcc_final.pdf

Why Scientists Disagree About Global Warming

The NIPCC Report on the Scientific Consensus

By Craig D. Idso, Robert M. Carter, and S. Fred Singer, NIPCC, Nov 23, 2015

<http://climatechangereconsidered.org/>

Download with no charge

<https://www.heartland.org/policy-documents/why-scientists-disagree-about-global-warming>

Climate Change Reconsidered II: Physical Science

Idso, Carter, and Singer, Lead Authors/Editors, 2013

<https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf>

Summary: <http://www.nipccreport.org/reports/ccr2a/pdf/Summary-for-Policymakers.pdf>

Climate Change Reconsidered II: Biological Impacts

Idso, Idso, Carter, and Singer, Lead Authors/Editors, 2014

<http://www.nipccreport.org/reports/ccr2b/pdf/Full-Report.pdf>

Summary: <https://www.heartland.org/media-library/pdfs/CCR-IIb/Summary-for-Policymakers.pdf>

Challenging the Orthodoxy

Scientists say Pope Francis is misguided on ‘climate change’ as environmental ‘sin’

By Jan Bentz, Life Site News, Oct 12, 2016

<https://www.lifesitenews.com/news/scientists-say-pope-francis-is-misguided-on-climate-change-as-environmental>

LifeSiteNews spoke with Tomas Sheahan and Hal Doiron, independent scientists involved in climate change research.

Infrared Absorption and Emission Spectra of Carbon Monoxide in the Region from 4 to 6 Microns

By Karle Plyer, Lamdin Blaine, and Eugene Tidwell, Journal of Research of the National Bureau of Standards, Vol. 55. No. 4, October 1955

http://nvlpubs.nist.gov/nistpubs/jres/55/jresv55n4p183_A1b.pdf

[SEPP Comment: Technical – includes CO₂.]

Prepared Testimony to House Committee on Science, Space & Technology

By John Christy, UAH, Feb 2, 2016

<https://science.house.gov/sites/republicans.science.house.gov/files/documents/HHRG-114-SY-WState-JChristy-20160202.pdf>

New Santer et al. Paper on Satellites vs. Models: Even Cherry Picking Ends with Model Failure

By Roy Spencer, His Blog, Oct 18, 2016 [H/t WUWT]

<http://www.drroyspencer.com/2016/10/new-santer-et-al-paper-on-satellites-vs-models-even-cherry-picking-ends-with-model-failure/>

Link to Paper: Comparing tropospheric warming in climate models and satellite data

By Sander and Solomon, et al. Journal of Climate AMS, Sep 30, 2016

<http://journals.ametsoc.org/doi/abs/10.1175/JCLI-D-16-0333.1>

[SEPP Comment: Stratospheric cooling effects trends below 50,000 feet??]

What Do 16 Years of CERES Data Tell Us About Global Climate Sensitivity?

By Roy Spencer, His Blog, Oct 21, 2016

<http://www.drroyspencer.com/2016/10/what-do-16-years-of-ceres-data-tell-us-about-global-climate-sensitivity/>

On the Existence of a ‘Tropical Hot Spot’ and the Validity of EPA’s CO₂ Endangerment Finding

By James Wallace, John Christy, and Joseph D'Aleo Aug 2016 [Shortened version]
<https://thsresearch.files.wordpress.com/2016/09/www-ths-rr-091716.pdf>

Responding to a challenge on the Tropical Hot Spot Analysis

By Jim Wallace, ICECAP, Oct 10, 2016

http://icecap.us/index.php/go/political-climate/responding_to_a_challenge_on_the_tropical_hot_spot_analysis1/

Defending the Orthodoxy

Carbon Dioxide and Climate: A Scientific Assessment

Ad Hoc Study Group on Carbon Dioxide and Climate

By Jule G. Charney, et al, Climate Research Board, July 23-27, 1979

<https://www.nap.edu/read/12181/chapter/1#vii>

Climate Action Now

Summary for Policymakers: 2016

By Staff Writers, UN Climate Change Secretariat, 2016

http://climateaction2020.unfccc.int/media/1281/unfccc_spm_2016.pdf

A Plan to Defend against the War on Science

The challenge of creating a public able to parse evidence-free “facts” rests with the press, educators and other thought leaders

By Shawn Otto, Scientific American, Oct 9, 2016

<https://www.scientificamerican.com/article/a-plan-to-defend-against-the-war-on-science/>

“The authoritarian nature of science denial is part and parcel of the rise of a new authoritarian nationalism that is in reaction to the globalization brought about by our postwar scientific success, and is antithetical to science and the scientific process of investigation.”

[SEPP Comment: To this author, challenging forecasts produced by political organizations such as the IPCC is authoritarian, “science denial?” Is the demand for physical evidence rather than projections from un-validated models authoritarian?]

How the Attack on Science Is Becoming a Global Contagion

Assaults on the science behind climate change research and conservation policies are spreading from the U.S. to Europe and beyond. If this wave of “post-fact” thinking triumphs, the world will face a future dominated by pure ideology.

By Christian Schwägerl, Environment 360, Oct 3, 2016

http://e360.yale.edu/feature/how_the_attack_on_science_is_becoming_global_contagion/3039/

Questioning the Orthodoxy

IPCC, Government, and Insurance Enables Dangerous Behavior

Guest opinion: Dr. Tim Ball, WUWT, Oct 8, 2016

<https://wattsupwiththat.com/2016/10/08/ipcc-government-and-insurance-enables-dangerous-behavior/>

Alarmist Science doesn't add up.

By Anthony Cox, Australian Climate Sceptics, Oct 15, 2016

<http://theclimatescepticsparty.blogspot.com.au/2016/10/alarmist-science-doesnt-add-up.html>

Cognitive Dissonance will return as the pause resumes - but will it be too late?

By Joseph D'Aleo, ICECAP, Oct 15, 2016

[http://icecap.us/index.php/go/political-climate/cognitive dissonance will return as the pause resumes but will it be too la/](http://icecap.us/index.php/go/political-climate/cognitive%20dissonance%20will%20return%20as%20the%20pause%20resumes%20but%20will%20it%20be%20too%20la/)

After Paris!

Paris Agreement enters into force

By Staff Writers, WNN, Oct 6, 2016

<http://www.world-nuclear-news.org/EE-Paris-Agreement-enters-into-force-0610167.html>

India to Overtake U.S. as World's Biggest Coal Miner After China

By Rajesh Kumar Singh, Bloomberg, Oct 7, 2016

<http://www.bloomberg.com/news/articles/2016-10-07/india-to-overtake-u-s-as-world-s-biggest-coal-miner-after-china>

The Administration's Plan

A Historic Day in Our Fight Against Climate Change

By Administrator Gina McCarthy, EPA Blog, Oct 15, 2016

<https://blog.epa.gov/blog/2016/10/hfcs/>

[SEPP Comment: The trivial becoming vital to the administration.]

The Administration's Plan – Litigation

Transcript of Oral Arguments,

State of West Virginia, et al. v. EPA

US Court of Appeals for the DC Circuit

<http://www.globalwarming.org/wp-content/uploads/2016/10/Official-Transcript-of-15-1363-En-Banc-Oral-Argument-092716.pdf>

Judge: EPA must analyze jobs lost in coal industry

By Staff Writers, AP, Oct 18, 2016

<http://www.seattletimes.com/business/judge-rules-epa-must-evaluate-its-impact-on-coal-industry/>

“The U.S. Environmental Protection Agency must begin evaluating how many power plants and coal mining jobs are lost because of air pollution regulations, an analysis it hasn't done in decades, a federal judge in West Virginia on Monday ordered.”

Global Warming Concerns 'Not a Blank Check' for Clean Power Plan

By Marlow Lewis, CEI, Oct 17, 2017

<https://cei.org/blog/global-warming-concerns-not-blank-check-clean-power-plan>

The Administration's Plan – Push-Back

Clean Power Plan Puts States' Rights on Trial

By Larry Bell, Newsmax, Oct 10, 2016

<http://www.newsmax.com/LarryBell/cpp-epa-WVa-/2016/10/10/id/752520/>

EPA Targets Freedom

By Donn Dears, Power For USA, Oct 14, 2016

<https://dddusmma.wordpress.com/2016/10/14/epa-targets-freedom/>

Social Benefits of Carbon

Global greening versus global warming

The 2016 Global Warming Policy Foundation Lecture
The text of a lecture given at the Royal Society on 17 October 2016:
By Matt Ridley, Rational Optimist, Oct 19, 2016
<http://www.rationaloptimist.com/blog/global-greening-versus-global-warming/>

Global Warming be Damned: Record Corn, Soybeans, Wheat
By Roy Spencer, His Blog, Oct 14, 2016
<http://www.drroyspencer.com/2016/10/global-warming-be-damned-record-corn-soybeans-wheat/>

Problems in the Orthodoxy

Potsdam Climate Institute Scientists/Government Under Fire For Politicizing Climate Science

Chief Editor of 'Science' criticizes activism by climate scientists: PIK needs to define red line for employees

By Prof. Fritz Vahrenholt and Dr. Sebastian Luning (Translated/edited by P Gosselin)
<http://notrickszone.com/2016/10/15/potsdam-climate-institute-scientistsgovernment-under-fire-for-politicizing-climate-science/>

Seeking a Common Ground

Scientific Integrity is Constant Challenge: A Classic Historical Example

Guest opinion: Tim Ball, WUWT, Oct 15, 2016
<https://wattsupwiththat.com/2016/10/15/scientific-integrity-is-constant-challenge-a-classic-historical-example/>

Matt Ridley's 'Lukewarmist' Manifesto

By Kennedy Maize, Power Mag, Oct 20, 2016
<http://www.powermag.com/blog/matt-ridleys-lukewarmist-manifesto/>

You Ought to Have a Look: Misleading Storylines and False Beliefs Lead to Poor Policy

By Patrick J. Michaels and Paul C. "Chip" Knappenberger, CATO, Oct 14, 2016
<http://www.cato.org/blog/you-ought-have-look-misleading-storylines-false-beliefs-lead-poor-policy>

Science, Policy, and Evidence

You Ought to Have a Look: Big Science, Carbon Taxes, and the Clean Power Plan's Day in Court

By Patrick J. Michaels and Paul C. "Chip" Knappenberger, CATO, Oct 10, 2016
<http://www.cato.org/blog/you-ought-have-look-big-science-carbon-taxes-clean-power-plans-day-court>

Review of Recent Scientific Articles by CO2 Science

Atmospheric CO2 Enrichment Helps Plants to Deal with Drought

Oliveira, V.F., Silva, E.A. and Carvalho, M.A.M. 2016. Elevated CO2 atmosphere minimizes the effect of drought on the Cerrado species *Chrysolea obovata*. *Frontiers in Plant Science* 7: 10.3389/fpls.2016.00810. Oct 17, 2016
<http://www.co2science.org/articles/V19/oct/all.php>

Modelling Both Water and Ice Clouds: How Goes the Worthy Effort?

Kay, J.E., Bourdages, L., Miller, N.B., Morrison, A., Yettelia, V., Chepfer, H. and Eaton, B. 2016. Evaluating and improving cloud phase in the Community Atmosphere Model version 5 using spaceborne lidar observations. *Journal of Geophysical Research: Atmospheres* **121**: 4162-4176. Oct 13, 2016

<http://www.co2science.org/articles/V19/oct/a9.php>

“...their research indicates there are still model shortcomings that need to be resolved.”

Fifty-five Years of Trends of High-Impact Weather Events in China

Shi, J., Wen, K. and Cui, L. 2016. Patterns and trends of high-impact weather in China during 1959-2014. *Natural Hazards and Earth System Sciences* **16**: 855-869. Oct 12, 2016

<http://www.co2science.org/articles/V19/oct/a8.php>

[SEPP Comment: *Less severe weather?*]

Plant Root Loss to Herbivores Reduced by Aerial CO2 Enrichment

McKenzie, S.W., Johnson, S.N., Jones, T.H., Ostle, N.J., Hails, R.S. and Vanbergen, A.J. 2016. Root Herbivores Drive Changes to Plant Primary Chemistry, but Root Loss is Mitigated under Elevated Atmospheric CO2. *Frontiers in Plant Science* **7**: 10.3389/fpls. Oct 10, 2016

<http://www.co2science.org/articles/V19/oct/a6.php>

“...they say that root herbivory reduced belowground crop biomass under ambient CO2 but *not* under *elevated* CO2 (see Figure 1 below), which suggests, in their words, that ‘crops could tolerate attack in a CO2 enriched environment,’ but that they could *not* do so under the current ambient CO2 concentration.”

Models v. Observations

Study: Wind patterns in lowest layers of supercell storms key to predicting tornadoes

By Anthony Watts, WUWT, Oct 14, 2016

<https://wattsupwiththat.com/2016/10/14/study-wind-patterns-in-lowest-layers-of-supercell-storms-key-to-predicting-tornadoes/>

Link to paper: “Simulated supercells in nontornadic and tornadic VORTEX2 environments”

By Brice Coffey and Matt Parker, AMS, Oct 12, 2016

<http://journals.ametsoc.org/doi/10.1175/MWR-D-16-0226.1>

Model Issues

Generating regional scenarios of climate change

By Judith Curry, Climate Etc. Oct 9, 2016

<https://judithcurry.com/2016/10/09/generating-regional-scenarios-of-climate-change/>

[SEPP Comment: *Expanding the breadth of unreliable predictions?*]

Measurement Issues -- Surface

The Divergence between Surface and Lower Troposphere Global Temperature Datasets and its Implications

Guest Post by Bob Tisdale, WUWT, Oct 14, 2016

<https://wattsupwiththat.com/2016/10/14/the-divergence-between-surface-and-lower-troposphere-global-temperature-datasets-and-its-implications/>

No Slowdown In Temperature Hiatus Research

By David Whitehouse, GWPF, Oct 14, 2016

<http://www.thegwpf.com/no-slowdown-in-temperature-hiatus-research/>

“For some the proof of this viewpoint [of no hiatus] is easy. To prove it one has to draw a straight line through all of the available data and say that anything else is cherry-picking the data...”

The value of very long instrumental data series

By Alan Longhurst, Climate Etc. Oct 10, 2016

<https://judithcurry.com/2016/10/10/the-value-of-very-long-instrumental-data-series/>

Measurement Issues -- Atmosphere

Remote Sensing Systems apparently slips in a ‘stealth’ adjustment to warm global temperature data

By Anthony Watts, WUTW, Oct 10, 2016

<https://wattsupwiththat.com/2016/10/10/remote-sensing-systems-apparently-slips-in-a-stealth-adjustment-to-warm-global-temperature-data/>

Changing Weather

NOAA Has Resurrected the 2014/15 El Niño with Its Recent Changes to the Oceanic NINO Index

Guest Post by Bob Tisdale, WUWT, Oct 12, 2016

<https://wattsupwiththat.com/2016/10/12/noaa-has-resurrected-the-201415-el-nino-with-its-recent-changes-to-the-oceanic-nino-index/>

Stronger-than-expected La Niña may be brewing: Braun

By Karen Braun, Reuters, Oct 20, 2016

<http://www.reuters.com/article/us-weather-lanina-braun-idUSKCN12J0YB>

Claim: ‘Megadrought risks in Southwest soar as atmosphere warms’ based on model, ignores records

By Anthony Watts, WUWT, Oct 11, 2016

<https://wattsupwiththat.com/2016/10/11/claim-megadrought-risks-in-southwest-soar-as-atmosphere-warms-based-on-model-ignores-records/>

Soil moisture, snowpack data could help predict 'flash droughts'

By Staff Writers, Boulder CO (SPX), Oct 19, 2016

http://www.terraily.com/reports/Soil_moisture_snowpack_data_could_help_predict_flash_droughts_999.html

Link to paper: Potential Predictability Sources of the 2012 US Drought in Observations and a Regional Model Ensemble

By PaiMazumder and Done, Journal of Geophysical Research, Atmospheres, Sep 21, 2016

<http://onlinelibrary.wiley.com/doi/10.1002/2016JD025322/abstract;jsessionid=31E778B6ADF124B677FAD063474A26FC.f02t02>

Changing Climate

Extraterrestrial impact preceded ancient global warming event

By Staff Writers, Columbia University, Phs.Org, Oct 13, 2016

<http://phys.org/news/2016-10-jersey-shore-comet-climate-crisis.html>

Link to paper: Impact ejecta at the Paleocene-Eocene boundary

By Morgan F. Schaller, et al. Science, Oct 14, 2016

<http://science.sciencemag.org/content/354/6309/225>

[SEPP Comment: Unwelcome news for those claiming CO2 did it.]

Changing Seas

New Zealand plankton blooms proof of global warming's oceanic effects

"It is clear that change is underway," said researcher Lionel Carter.

By Brooks Hays, UPI, Oct 17, 2016 [H/t Clyde Spencer]

http://www.upi.com/Science_News/2016/10/17/New-Zealand-plankton-blooms-proof-of-global-warmings-oceanic-effects/9991476711078/

Link to paper: Interglacial/glacial changes in coccolith-rich deposition in the SW Pacific Ocean: An analogue for a warmer world?

By Bella Duncan, et al, Global and Planetary Change, Sep 2016

<http://www.sciencedirect.com/science/article/pii/S0921818115300783>

From the article: "The latest data suggest blooms are moving southward as the ocean warms and seas calm. Coccolith deposits revealed similar patterns from 130,000 years ago, when global ocean temperatures last rose."

[SEPP Comment: Ocean temperatures did not rise with the ending of the last Ice Age about 18,000 years ago?]

Changing Cryosphere – Land / Sea Ice

What is the relationship between Arctic sea ice decline and Eurasian cold winters?

By Judith Curry, Climate Etc. Oct 11, 2016

<https://judithcurry.com/2016/10/11/what-is-the-relationship-between-arctic-sea-ice-decline-and-urasian-cold-winters/>

[SEPP Comment: Perhaps little.]

Communicating Better to the Public – Make things up.

Warming Alarmists Redefine What A Hurricane Is So We'll Have More Of Them

By Kerry Jackson, IBD, Oct 17, 2016 [H/t William Readdy]

<http://www.investors.com/politics/commentary/warming-alarmists-redefine-what-a-hurricane-is-so-well-have-more-of-them/>

Air Force ignored rising-sea warnings at radar site

By Nick Perry, AP, Oct 18, 2016 [H/t Timothy Wise]

<https://www.airforcetimes.com/articles/air-force-ignored-rising-sea-warnings-at-radar-site>

Link to the possible study by USGS: Kwajalein Island, Kwajalein Atoll, Republic of the Marshall Islands

<http://coralreefs.wr.usgs.gov/kwajalein.html>

"Observations show that sea level is rising globally at a rate almost double the Intergovernmental Panel for Climate Change's 2007 report, and up to half an order of magnitude greater in the central and western Pacific Ocean. Recent estimates suggest sea level will exceed 1.0 m, and may reach 2.0 m, above 2000 levels by the end of the 21st century."

Newly created for the climate lexicon: 'flash droughts'

By Anthony Watts, WUWT, Oct 19, 2016

<https://wattsupwiththat.com/2016/10/19/newly-created-for-the-climate-lexicon-flash-droughts/>

American Thoracic Society beclowns itself – abandons data for consensus opinion on 'climate related illness'

By Anthony Watts, WUWT, Oct 10, 2016

<https://wattsupwiththat.com/2016/10/10/american-thoracic-society-beclowns-itself-abandons-data-for-consensus-opinion-on-climate-related-illness/>

Communicating Better to the Public – Use Propaganda

Feds: Because of Climate Change ‘We Will Have to Say Goodbye’ to Lady Liberty

By Penny Starr, CNS News, Oct 7, 2016

<http://cnsnews.com/news/article/penny-starr/feds-because-climate-change-we-will-have-say-goodbye-lady-liberty-virgin>

“One of the most recognizable statues in the world could someday be underwater. Sea-level rise and an increase in storm surges are putting the Statue of Liberty at risk.”

Expanding the Orthodoxy

Benefits Of Latest Climate Deal May Fall Short Of High Hopes

By Alister Doyle, Reuters, Oct 16, 2016

<https://www.yahoo.com/news/benefits-greenhouse-gas-pact-may-fall-short-high-112653794.html>

Global climate pact may bump into Senate roadblock

By Timothy Cama, The Hill, Oct 21, 2016

<http://thehill.com/policy/energy-environment/302103-global-climate-pact-may-bump-into-senate-roadblock>

Questioning European Green

Robust and Fragile Electricity Systems

By Staff Writers, GWPF, Oct 20, 2016

<http://www.thegwpf.com/robust-and-fragile-electricity-systems/>

UK Falls Back On Coal And Gas Plants To Keep The Lights On

By Andrew Ward, Financial Times, Oct 14, 2016

<http://www.thegwpf.com/uk-falls-back-on-fossil-fuel-plants-to-keep-the-lights-on/>

[SEPP Comment: Will the providers of unreliable electricity be required to cover these costs?]

Renewable Energy Cost Explosion: €25,000 Euros For Each German Family Of Four

By Daniel Wetzel, Die Welt, Via GWPF, Oct 11, 2016

<http://www.thegwpf.com/germanys-renewable-energy-cost-explosion-25000-euros-for-each-family-of-four/>

Flagship Daily ‘Die Welt’ Calls Germany’s Ban Of Internal Combustion Engines By 2030 A “Fairy Tale”

By P Gosselin, No Tricks Zone, Oct 12, 2016

<http://notrickszone.com/2016/10/12/flagship-daily-die-welt-calls-germanys-ban-of-internal-combustion-engines-by-2030-a-fairy-tale/>

German Green Energy Levy Rises To Record, Threatens Families And Industry

By Staff Writers, Deutsche Welle, Via GWPF, Oct 15, 2016

<http://www.thegwpf.com/german-green-energy-levy-rises-to-record-threatens-german-families-and-industry/>

Why has the National Trust turned against Lake District hill farmers?

Climate change is now the main priority... with strong suspicions that it wants to start ‘rewilding’ too

By Camila Swift, Spectator, Oct 15, 2016

<http://www.spectator.co.uk/2016/10/why-has-the-national-trust-turned-against-lake-district-hill-farmers/>

Questioning Green Elsewhere

25 Myths That Are Destroying The Environment

What Many Environmentalists Believe And Why They Are Wrong

By Daniel B. Botkin, WUWT, Oct 12, 2016

<https://wattsupwiththat.com/2016/10/12/25-myths-that-are-destroying-the-environment/>

Boondoggle: How Ontario’s pursuit of renewable energy broke the province’s electricity system

By Terence Corcoran, Financial Post Oct 6, 2016

http://business.financialpost.com/fp-comment/boondoggle-how-ontarios-pursuit-of-renewable-energy-broke-the-provinces-electricity-system?_lsa=441c-114c

Summary by Jo Nova, Her Blog Oct 14, 2016

<http://joannenova.com.au/2016/10/ontarios-electricity-carnage-a-train-wreck-electricity-costs-double-to-reduce-carbon-at-250ton/>

Two Examples of the Enormous Real Costs of “Green” Power

By Alan Carlin, Carlin Economics and Science, Oct 13, 2016

<http://www.carlineconomics.com/archives/3056>

Questioning Green -- Australia

Update to preliminary operating incident report into the South Australian state-wide power outage

By Staff Writers, Australian Energy Market Operator, Oct 19, 2016

<https://www.aemo.com.au/Media-Centre/Update-to-report-into-SA-state-wide-power-outage>

Link to full update: Update Report – Black System Event in South Australia on 28 September 2016

By Staff Writers, Australian Energy Market Operator, Oct 19, 2016

<https://www.aemo.com.au/Media-Centre/-/media/9027D5FB69294D408E4089249F38A36D.ashx>

How much wind power can a grid handle?

Could Australia end up with synchronous failure across states?

By Jo Nova, Her Blog, Oct 12, 2016

<http://joannenova.com.au/2016/10/how-much-wind-power-can-a-grid-handle/>

Funding Issues

Paris Climate Deal May Unravel Over \$100 Billion Funding Failure

By Staff Writers, American Interest, Via GWPF, Oct 17, 2016

<http://www.thegwpf.com/paris-climate-deal-may-unravel-over-100-billion-funding-failure/>

[SEPP Comment: GWPF adds a neat graphic.]

Cap-and-Trade and Carbon Taxes

‘The Case Against A U.S. Carbon Tax’ (Murphy, Michaels, Knappenberger)

By Robert Bradley Jr. Master Resource, Oct 20, 2016

<https://www.masterresource.org/carbon-tax/cato-us-carbon-tax/>

Link to report: The Case Against a U.S. Carbon Tax

By Robert P. Murphy, Patrick J. Michaels, and Paul C. Knappenberger, CATO, Oct 17, 2016

<http://object.cato.org/sites/cato.org/files/pubs/pdf/pa801.pdf>

France to drop carbon tax plan: Les Echos

By Geert De Clercq and Emmanuel Jarry, Reuters, Oct 20, 2016

<http://www.reuters.com/article/us-france-carbon-idUSKCN12K2OG>

[SEPP Comment: For now!]

Who Pays the Carbon Tax?

By Donn Dears, Power For USA, Oct 18, 2016

<https://dddusmma.wordpress.com/2016/10/18/who-pays-the-carbon-tax/>

“The Energy Information Administration (EIA) for example, in its determination of levelized cost of electricity (LCOEs), adds a \$15 charge for a carbon tax on electricity from coal-fire power plants. A \$15 carbon tax increases the levelized cost of electricity, from coal-fired power plants, from 6 cents to 9.5 cents per kWh.”

EPA and other Regulators on the March

EPA Chief: ‘I’m Not Talking To Climate Deniers’

By Michael Bastasch, Daily Caller, Oct 19, 2016

<http://dailycaller.com/2016/10/19/epa-chief-im-not-talking-to-climate-deniers/#ixzz4Ndd61FJN>

[SEPP Comment: Re-confirming a closed mind? There is a major difference between humans changing the earth’s surface thereby causing local climate change and human CO2 emissions causing global warming – perhaps a distinction too subtle for the EPA chief to grasp?]

EPA Launches ARC-X – ‘One Stop’ Climate Change Adaptation Website

By Penny Starr, CNS News, Oct 7, 2016 [H/t Timothy Wise]

<http://cnsnews.com/news/article/penny-starr/epa-launches-arc-x-one-stop-climate-change-adaptation-website>

Energy Issues – Non-US

Primary Energy in The European Union and USA Compared

By Euan Mearns, Energy Matters, Oct 17, 2016

<http://euanmearns.com/primary-energy-in-the-european-union-and-usa-compared/>

“The EU has a larger population and smaller land area than the USA resulting in a population density 3.6 times that of the USA. European citizens therefore have less land available to service the energy needs of its citizens. This combined with different approaches to energy policy has led to the EU now importing 55% of its energy needs while the USA imports only 10%. The USA is well on its way to energy independence. This could have foreign policy and defence implications where the UK and USA have divergent priorities to Europe.”

[SEPP Comment: One commentator states: “The future of Europe’s energy supply is the root cause of several ongoing wars around the world. We have USA, Russia and the Gulf States all fighting with one another over Europe’s energy market.”]

How the world’s poorer countries breathe worse air, in charts and maps

By Max Bearak, Washington Post, Oct 3, 2016 [H/t Timothy Wise]

https://www.washingtonpost.com/news/worldviews/wp/2016/10/03/cleanish-air-is-increasingly-a-preserve-for-wealthy-nations/?hpid=hp_no-name_graphic-story-b%3Ahomepage%2Fstory

Energy Issues -- US

Fossil Fuels: Abundant, Chemically Stable, Energy-dense

By Mark Miller, Master Resource, Oct 13, 2016

<https://www.masterresource.org/texas-railroad-commission-trc/oil-gas-freedom-texas-reforming-railroad-commission-texas/>

Washington's Control of Energy

Repercussions of Dakota Access Pipeline Delay

By Jack Rafuse, Real Clear Energy, Oct 17, 2016

http://www.realclearenergy.org/articles/2016/10/17/repercussions_of_dakota_access_delay_110085.html

The U.S. government just made its biggest clean energy purchase ever

By Chris Mooney, Washington Post, Oct 14, 2016 [H/t Timothy Wise]

https://www.washingtonpost.com/news/energy-environment/wp/2016/10/14/the-u-s-government-just-made-its-biggest-clean-energy-purchase-ever-it-was-for-the-navy/?hpid=hp_rhp-more-top-stories_no-name%3Ahomepage%2Fstory&utm_term=.51703c36f096

[SEPP Comment: A solar array in Arizona to deliver power to the desert in California and to San Diego?]

Oil and Natural Gas – the Future or the Past?

Deflating the “Carbon Bubble”

The reality of oil and gas company valuation

By Staff Writers, HIS Energy, No Date [H/t GWPF]

<https://www.ihs.com/info/0115/carbon-bubble.html>

[SEPP Comment: The so-called carbon bubble is more the result of a political movement than any sound investment analysis.]

Oil Seen Stuck in \$50 to \$60 Range as Shale Blunts OPEC Action

By Javier Blas, Grant Smith, Angelina Rascouet, Bloomberg, Oct 18, 2016

<http://www.bloomberg.com/news/articles/2016-10-18/oil-seen-stuck-in-50-to-60-range-as-shale-blunts-opec-action>

[SEPP Comment: Stuck? As in prices are stabilizing? Independent oil producers do not play the high-price game?]

American Frackers Already Taking Advantage of OPEC's Actions

By Staff Writers, The American Interest, Oct 16, 2016

<http://www.the-american-interest.com/2016/10/16/american-frackers-already-taking-advantage-of-opecs-actions/>

America's About to Double the Shale Gas It Sends Overseas

By Naureen Malik, Bloomberg, Oct 12, 2016

<http://www.bloomberg.com/news/articles/2016-10-12/cheniere-cleared-to-export-lng-from-second-sabine-pass-plant>

Return of King Coal?

China's Expanding Overseas Coal Power Industry:

New Strategic Opportunities, Commercial Risks, Climate Challenges and Geopolitical Implications

By Frank Umbach & Ka-ho Yu, European Centre for Energy and Resource Security (EUCERS)
Aug 2016

<http://www.kcl.ac.uk/sspp/departments/warstudies/research/groups/eucers/pubs/strategy-paper-11.pdf>

Summary by staff writers, GWPF, Oct 10, 2016

<http://www.thegwgf.com/new-study-chinas-expanding-overseas-coal-power-industry/>

How Much Coal Is Left? [In the US]

By Staff Writers, EIA, June 17, 2016

http://www.eia.gov/energyexplained/index.cfm?page=coal_reserves

Oil Spills, Gas Leaks, Surplus Water Injection & Consequences

Pennsylvania adopts new fracking regulations

By David DeKok, Reuters, Oct 7, 2016

<http://www.reuters.com/article/us-usa-pennsylvania-fracking-idUSKCN1272B3?feedType=RSS&feedName=environmentNews>

It's Official: Injection of Fracking Wastewater Caused Kansas' Biggest Earthquake

By Lorraine Chow, EcoWatch, Oct 14, 2016

<http://www.ecowatch.com/fracking-wastewater-kansas-earthquake-2045480679.html>

Nuclear Energy and Fears

Could China build the world's smallest nuclear power plant and send it to the South China Sea?

Nuclear plant under development could fit into a shipping container and make a small island economically viable

By Stephen Chen, South China Morning Post, Oct 11, 2016 [H/t Toshio Fujita]

<http://www.scmp.com/news/china/diplomacy-defence/article/2026821/micro-reactor-may-power-south-china-sea-outposts>

First new [US] nuclear plant in 20 years opens

By John Siciliano, Washington Examiner, Oct 19, 2016

<http://www.washingtonexaminer.com/first-new-nuclear-plant-in-20-years-opens/article/2604996>

[SEPP Comment: After a construction pause of about 20 years.]

Russia withdraws from US nuclear cooperation

By Staff Writers, WNN, Oct 7, 2016

<http://www.world-nuclear-news.org/NP-Russia-withdraws-from-US-nuclear-cooperation-07101601.html>

Alternative, Green ("Clean") Solar and Wind

World's Largest Solar Project Would Generate Electricity 24 Hours a Day, Power 1 Million U.S. Homes

By Lorraine Chow, EcoWatch, Oct 12, 2016

<http://www.ecowatch.com/worlds-largest-solar-project-nevada-2041546638.html>

[SEPP Comment: Assuming the major subsidies required and high energy costs are tolerable.]

New Concentrating Solar Power Plant

By Donn Dears, Power For USA, Oct 21, 2016

<https://dddusmma.wordpress.com/2016/10/21/new-concentrating-solar-power-plant/>

[SEPP Comment: See link immediately above on a new, proposed project. Will the salt corrode their dreams?]

WindEurope Unveils Five Pillars Of Research & Innovation For Wind Energy

By Joshua S Hill, Clean Technica, Oct 6, 2016 [H/t Toshio Fujita]

<https://cleantechnica.com/2016/10/06/windeurope-unveils-five-pillars-research-innovation-wind-energy/>

[SEPP Comment: No effort to address wind's greatest deficiency – unreliability.]

Blowing The Competition Away: The Wind Power Boom In The U.S.

By Michael McDonald, Oil Price.com, Oct 18, 2016

<http://oilprice.com/Alternative-Energy/Renewable-Energy/Blowing-The-Competition-Away-The-Wind-Power-Boom-In-The-US.html>

[SEPP Comment: Does not address why a booming industry requires subsidies.]

First US Offshore Wind Plant Costs \$17,600 Per Home Powered

Andrew Follett, Daily Signal, Oct 11, 2016 [H/t Timothy Wise]

<http://dailysignal.com/2016/10/11/first-us-offshore-wind-plant-costs-17600-per-home-powered/>

[SEPP Comment: What percentage of the time?]

The Shift To Renewables: How Far, How Fast?

By Earl J. Ritchie, Forbes, Oct 17, 2016

<http://www.forbes.com/sites/uhenergy/2016/10/17/the-shift-to-renewables-how-far-how-fast/#2229cffe3af0>

[SEPP Comment: Exposing more dreams.]

Alternative, Green (“Clean”) Vehicles

How much more electricity do we need to go to 100% electric vehicles?

By Roger Andrews, Energy Matters, Oct 19, 2016

<http://euanmearns.com/how-much-more-electricity-do-we-need-to-go-to-100-electric-vehicles/#more-15471>

[SEPP Comment: Rough calculations on something on which advocates have no clue!]

Tesla, GM, & Toyota Battle for Customers

By Donn Dears, Power For USA, Oct 11, 2016

<https://dddusmma.wordpress.com/2016/10/11/tesla-gm-toyota-battle-for-customers/>

Alternative, Green (“Clean”) Energy -- Storage

Battery Pack Prices Plunge!!! Down to \$200/kWh

Guest post by David Middleton, WUWT, Oct 19, 2016

<https://wattsupwiththat.com/2016/10/19/battery-pack-prices-plunge-down-to-200kwh/>

[SEPP Comment: As the author states, this is celebrating the insignificant.]

California Dreaming

A more detailed look at the California grid data

By Roger Andrews, Energy Matters, Oct 13, 2016

<http://euanmearns.com/a-more-detailed-look-at-the-california-grid-data/#more-15381>

[SEPP Comment: Updating 2010 data: “The conclusion is basically the same as before – that despite all the legislation that California has passed in an attempt to stimulate the growth of renewables the state has not progressed at all. The percentage of renewables in California’s energy mix is still about the same as it was in 2010 and the percentage of low-carbon generation in the mix has decreased slightly. The California “Duck Curve” also remains a matter of concern.” The duck gets ever fatter.]

Environmental Industry

Why Environmentalism Became Both a Religion and a Con Game

By Chet Richards, American Thinker, Oct 7, 2016 [H/t Timothy Wise]

http://www.americanthinker.com/articles/2016/10/why_environmentalism_became_both_a_religion_and_a_con_game.html

Other Scientific News

Reversing the combustion process to convert CO2 into ethanol

By Colin Jeffrey, New Atlas, Oct 16, 2016

<http://newatlas.com/co2-ethanol-nanoparticle-conversion-ornl/45920/>

Link to press release: Nano-spike catalysts convert carbon dioxide directly into ethanol

By Morgan McCorkle, Oak Ridge Laboratory, Oct 12, 2016

<https://www.ornl.gov/news/nano-spike-catalysts-convert-carbon-dioxide-directly-ethanol>

Other News that May Be of Interest

Out of Ammunition to Combat Recession?

By Michael J. Boskin, Professor of Economics at Stanford University and Senior Fellow at the Hoover Institution, Project Syndicate, Oct 21, 2016

<https://www.project-syndicate.org/commentary/global-economy-needs-fiscal-consolidation-by-michael-boskin-2016-10>

[SEPP Comment: There is no logical reason to assume that reversing a damaging government policy, such as suddenly contracting the money supply, will create prosperity. The unemployment rate stated is rosy. U-6, which includes those desiring full-time work, is 9.7%]

US Air Force's Space Plane Has Been in Orbit for 500 Days, But Why?

By Staff Writers, Moscow (Sputnik), Oct 13, 2016

http://www.spacewar.com/reports/US_Air_Forces_Space_Plane_Has_Been_in_Orbit_for_500_Days_But_Why_999.html

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BELOW THE BOTTOM LINE:

The delusion of cheap, safe shale gas extraction

By Alex Russell and Peter Strachan, Energy Post, Oct 19, 2016

<http://energypost.eu/delusion-cheap-safe-shale-gas-extraction/>

[SEPP Comment: Speculating on the negative. Comparing the 1848 California gold rush with current drilling: “to tear apart its shallow shale beds” – as much as 5 miles under the surface?]

Arctic Sea Ice – 2002

By Staff Writers, Climate Change Predictions.org, Oct 14, 2016

<http://climatechangepredictions.org/uncategorized/7185>

“Hermann Flohn of the University of Bonn, West Germany, said studies of the Arctic Sea ice cover have shown that prolonging the summer melt season by as little as two weeks annually

would free the Arctic of ice in about 20 years. [“Scientists predict World’s Climate Will Warm Up”, The Leader-Post-9 Jan 1982](#)

[SEPP Comment: Also, noteworthy at the 1992 AAAS meeting are the exaggerations and failed prophecies of James Hansen, then director of NASA-GISS. The report states: “If there were slow growth in the use of hydrocarbon fuels, the world in the middle of the next century would be a warm as it was 125,000 years ago, when lions, elephants and other tropical animals roamed a balmy southern England.”]

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ARTICLES:

1. Appliance Makers Try to Keep Their Cool as Rules Change on Refrigerants

Global deal to phase out HFCs is likely be a boon for makers of less-polluting alternatives already on market

By Andrew Tangel and Ted Mann, WSJ, Oct 16, 2016

<http://www.wsj.com/articles/cooling-appliance-makers-brace-for-post-hfc-era-1476648726>

SUMMARY: The reporters state:

“A global pact to limit planet-warming emissions is likely to force manufacturers of air conditioners and refrigerators to consider passing the additional cost of alternative coolants to consumers.

Global envoys agreed on Saturday to phase out hydrofluorocarbons from cooling appliances beginning in 2019. Meeting in Rwanda, major emitters including the U.S., China and India agreed to aim for an 80% reduction in their use by 2045.

Alternative coolants exist to power window-unit air conditioners, commercial chillers and household refrigerators, but many are unapproved for use in the U.S. Some are flammable. Manufacturers will have to convince regulators the new compounds are safe before retooling production.

Many companies anticipated that so-called HFCs would eventually be banned. They have collectively spent billions of dollars researching alternatives.”

[SEPP Comment: One can only guess what comes next. Could we just go back to CFCs, now that we know that the ozone hole is not a problem?]

2. Big Oil to Start Spending Again After Two-Year Slump

Major oil companies are beginning to invest in projects as oil prices show signs of recovery

By Sarah Kent and Kevin Baxter, WSJ, Oct 18, 2016

<http://www.wsj.com/articles/big-oil-to-start-spending-again-after-two-year-slump-1476793216>

SUMMARY: Based on an “Oil and Money” conference including BP Chief Executive Bob Dudley, the authors state:

“For the past two years, the industry has been racked by oil prices that collapsed to less than \$50 a barrel from 2014 highs of \$114 a barrel, and then never recovered to those previous highs. Now, with the Organization of the Petroleum Exporting Countries promising a modest output cut and prices generally on the rise, executives and industry leaders say they have a sense of guarded hope as oil prices hover around \$50 to \$52 a barrel.

Mr. Dudley predicted an oil price of between \$50 and \$60 a barrel in 2017, compared with prices that have ranged between \$28 a barrel and \$53 this year. Ali Moshiri, president of African and Latin America Exploration and Production at Chevron Corp., said U.S. shale producers would invest again if prices rise to \$60 a barrel.

“The phenomenon of shale oil is real and when prices rise to \$60 a barrel you will see the level of active rigs rise. This is inevitable,” Mr. Moshiri said during a panel discussion.

A rising oil price would allow the energy industry to make needed investments, restore some of the tens of thousands of jobs cut in the past two years and stem some of the economic pain rippling through oil-dependent economies from Venezuela to Saudi Arabia.

OPEC, the 14-nation cartel that controls over a third of the world’s crude production, restored some optimism to the embattled oil industry when it agreed last month to cut production by about 1% to 2%. The cuts would, in theory, help draw down a vast oversupply of oil that has flooded world markets and sent prices skittering to decade-lows this year.”

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