

The Week That Was: 2018-01-06 (January 6, 2018)

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The Science and Environmental Policy Project

Quote of the Week. *“The fact that an opinion has been widely held is no evidence whatever that it is not utterly absurd; indeed, in view of the silliness of the majority of mankind, a widely spread belief is more likely to be foolish than sensible.”*— Bertrand Russell – H/t William Readdy

Number of the Week: 1.5%

THIS WEEK:

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

Frigid Weather: Since Christmas North America, east of the Rockies, has been very cold. In addition, the Atlantic Seaboard experienced an intense Nor'easter that brought rain, ice, and snow from Georgia to New England. Climate change alarmists are attempting to blame the cold on carbon dioxide (CO₂) emissions. How CO₂ may cause a cooling of the earth is not clearly established in physical theory. Government funded entities, such as NOAA, that rely on numerical models, did not predict the cold more than a few days in advance. Yet, a private entity, WeatherBELL Analytics, was warning of a cold year-end as early as October.

WeatherBELL augments numerical models with historical analogs, examples of what happened when certain weather patterns occurred in the past. For 2017, the analysts asked what happened in the winter when a strong El Niño was followed by an intense Atlantic Hurricane season. They found prior analogs showing cold east of the Rockies, with the jet stream reaching further south than normal in the winter. How and why weather patterns in the tropical Pacific influence a possible southward shift in the jet stream is not clearly explained in the appropriate literature, such as on the NOAA web site.

NOAA is now projecting a La Niña, the counter pattern to an El Niño, may be forming. Over the last 5 years the world has enjoyed bumper crops in grains and oilseeds. A La Niña may have adverse effects on these commodities. For over 25 years, the US government has spent over \$40 billion trying to establish that human emissions of CO₂ will cause dire global warming, and has failed. It has produced no hard evidence, but only numerical models that project far into the future, but are not properly tested. The global climate models greatly overestimate warming in the atmosphere, where the greenhouse gas effect occurs. The public would have been better served if the moneys had been spent to better understand the natural variations in climate, such as the El Niño Southern Oscillation (ENSO), rather than attempting to establish that CO₂ dominates climate change.

On *Climate Etc.* Judith Curry has a summary of key sections in Bernie Lewin's new book: "Searching for the Catastrophe Signal: The Origins of The Intergovernmental Panel on Climate Change." The account could be subtitled: "How bureaucracy overwhelms scientific inquiry." See Article # 2 and links under Challenging the Orthodoxy, Changing Weather, and

<https://www.climate.gov/enso>

Scientific Novel? The last report of the US Global Change Research Program (USGCRP) came ups with rates of sea level rise that have been justifiably criticized. Over the past several centuries,

the rate of rise has been 7–8 inches (about 16–20 cm) per century. James Hansen, and others, formerly at the NASA-GISS (Goddard Institute for Space Studies) on Broadway, NYC) came up with an exponential growth in sea level rise near the end of the 21st century.

The USGCRP built on this theme, stating that since 1993 the rate of rise increased from 11–14 cm (4–5 inches) between 1901 to 1990 to about 3 mm/year (12 inches/century) since 1993. The report states that satellite data supports the claim. However, the satellite data has some problems. For example, the December 9 and November 18 TWTWs stated there are calibration issues with the satellite data that have not been resolved. Now, there is another problem. According to the latest data from satellites (NOAA/NESDIS/STAR), sea levels have been stable (not appreciably rising or falling) for over two years. This is an example of errors introduced by making long-term projections from short-term data.

Undaunted, in December, some of the authors of the USGCRP report published a paper the plain language summary of which states

*“Recent ice-sheet modeling papers have introduced new physical mechanisms—specifically the hydrofracturing of ice shelves and the collapse of ice cliffs—that can rapidly increase ice-sheet mass loss from a marine-based ice-sheet, as exists in much of Antarctica. This paper links new Antarctic model results into a sea-level rise projection framework to examine their influence on global and regional sea-level rise projections and their associated uncertainties, the potential impact of projected sea-level rise on areas currently occupied by human populations, and the implications of these projections for the ability to constrain future changes from present observations. Under a high greenhouse gas emission future, these new physical processes increase median projected 21st century GMSL rise from ~80 to ~150 cm. Revised median RSL projections for a high-emissions future would, without protective measures, by 2100 submerge land currently home to more than 153 million people. The use of a physical model indicates that emissions matter more for 21st century sea-level change than previous projections showed. **Moreover, there is little correlation between the contribution of Antarctic to sea-level rise by 2050 and its contribution in 2100 and beyond, so current sea-level observations cannot exclude future extreme outcomes.**” [Boldface added]*

To state the language even more bluntly, “our knowledge of the Antarctic ice sheets is so intricate, that we cannot observe or test the physics underlying the knowledge for over 90 years, and by then it may be too late for tens of millions of people.” The key sales line is that we must demand government policies reducing carbon dioxide emissions. Worse, the once respectable American Meteorological Society (AMS) is broadcasting the phantom fear of dire sea level rise.

Choosing a descriptor for phantom fears is difficult. This paper calls for economically damaging current policy, based upon a fear far in the future, which cannot be tested for decades. A term from fiction may be suitable: a "historical novel" weaves enough historical fact to make an imaginary plot interesting. The term "scientific novel" may be appropriate here.

There is a significant problem with such scientific novels. The authors use Tidewater Virginia as an example of what may happen in the future if carbon dioxide emissions are not reduced. The example is terribly misleading. The Norfolk–Virginia Beach–Newport News MSA (Metropolitan Statistical Area) has a real problem unrelated to carbon dioxide. Groundwater extraction is causing the land to subside significantly, and it will continue to subside until alternative sources for water are developed. One wonders if members of the AMS recognize that its publications are

misleading the public. See links under Defending the Orthodoxy, <https://science2017.globalchange.gov/chapter/12/> and <https://www.star.nesdis.noaa.gov/sod/Isa/SeaLevelRise/>

Svensmark Hypothesis: The Svensmark hypothesis has been criticized because it does not completely explain changing weather and climate. The hypothesis explains how cosmic rays modulated by the sun (solar wind) affect cloud formation in the atmosphere, which can have a significant impact on weather and climate change. It is not intended to be all encompassing, as some global warming advocates have claimed CO2 to be. We have other influences including aerosols from volcanoes, smoke, changing ENSO, changing ocean currents, etc. However, cloud formation from cosmic rays can be an important explanatory variable in understanding our changing climate. See links under Science: Is the Sun Rising? and Commentary: Is the Sun Rising?

Energy Storage: Donn Dears has a brief post summarizing work by physicist Howard Hayden that the most effective and least costly forms of electricity storage work best with baseload power – nuclear, coal or combined cycle natural gas (NGCC).

However, Roger Andrews has a rough analysis showing that in a highly specialized instance, a combination of PV solar and pumped hydro storage may work in northern Chile to supply the country the equivalent of 100% renewable power. The length of the country makes the transmission lines impractical. Such a project would be large, with high capital costs taking advantage of the “existence of natural depressions at elevations of 500m or more adjacent to the coast that can hold very large volumes of sea water and which form ready-made upper reservoirs.” The lower reservoir would be the Pacific Ocean.

The undertaking would be a massive undertaking with very high capital costs, greater than a nuclear plant of comparable capacity. Due to the unique nature of the area, it is unlikely that a similar project could be built elsewhere. See links under Energy Issues – Non-US and Alternative, Green (“Clean”) Solar and Wind

Offshore Drilling: The US probably has more restrictions on offshore drilling for oil and natural gas than any other oil rich country. Over the years, restrictions in Alaska have become so tight that the Trans Alaska Pipeline System (TAPS) has been in danger of being closed because not enough oil was moving through the system. The TAPS 2002 – 2015 daily throughput average was 508,446, even though decades earlier the peak flow had been 2.1 million barrels of oil per day. The recently passed tax bill contained a provision removing unnecessary restrictions on drilling in a small part of Alaska’s North Slope. The greens are furious.

In addition, now the Trump administration is proposing to open nearly all the outer continental shelf for drilling, including Maine, California, Florida, etc., protecting only marine sanctuaries and Alaska’s Bristol Bay. The greens are even more furious. Of course, the drilling risks, competitive alternative sources of oil, and the possibility of future political shut-down add to the complications.

What develops and how offshore drilling will be regulated remains to be seen. See links under Change in US Administrations and <http://www.alyeska-pipe.com/TAPS>

Letter to Students: The December 24 TWTW linked to a response to students in Denmark on their fears of CO₂-caused global warming. Ross McKittrick and Richard Lindzen were also contacted. McKittrick's response is linked and similar to TWTW's. Lindzen's response was more direct: there is nothing that can be done to prevent global warming. He referenced the web site of the CO₂ Coalition and a recent paper of his. See links under Science, Policy, and Evidence.

Number of the Week: 1.5%. Founded in response to the oil crisis in 1973, the International Energy Agency (IEA) estimates the World total primary energy supply (TPES) by fuel in million tonnes of oil equivalent (Mtoe). (A better term is energy consumption, not supply.) In 1973, primary energy supply was 6,101 Mtoe with 0.1% from geothermal, solar, wind, tide/wave/ocean, heat and other. In 2015 primary energy supply was 13,647 Mtoe with 1.5% from geothermal, solar, wind, tide/wave/ocean, heat and other. Even though the consumption of energy has more than doubled, the price of coal, oil and natural gas have not skyrocketed. Further, wind and solar, though increasing, are not taking over energy supply as many seem to believe. See links under Energy Issues – Non-US.

NEWS YOU CAN USE:

Science: Is the Sun Rising?

Henrik Svensmark interview by David Whitehouse

Audio, GWPF, Dec 22, 2017

<https://soundcloud.com/gwpcf/gwpcf-podcast-004-david-whitehouse-henrik-svensmark-1>

Commentary: Is the Sun Rising?

Scientists claim cosmic rays influence cloud cover, climate change

"Finally, we have the last piece of the puzzle explaining how particles from space affect climate on Earth," researcher Henrik Svensmark said.

By Brooks Hays, UPI, Dec 19, 2017 [H/t William Readdy]

https://www.upi.com/Science_News/2017/12/19/Scientists-claim-cosmic-rays-influence-cloud-cover-climate-change/2251513690392/

Could we face a mini ice age in the next 30 years? Scientists make extraordinary prediction based on the sun's natural cycles... and it would even reverse global warming!

By John Naish, Daily Mail, UK, Jan 2, 2018

<http://www.dailymail.co.uk/news/article-5227073/Could-face-mini-ice-age-30-years.html>

[SEPP Comment: A repeat of prior predictions / forecasts.]

Baby It's Cold Outside – evidence of solar cycle affecting Earth's cloud cover

Guest essay by David Archibald, WUWT, Dec 31, 2017

<https://wattsupwiththat.com/2017/12/31/baby-its-cold-outside-evidence-of-solar-cycle-affecting-earths-cloud-cover/>

Link to article: How the sun's influence on the remote planet Uranus changes its brightness in the sky

By Staff Writers, University of Oxford, Dec 22, 2017

<https://phys.org/news/2017-12-sun-remote-planet-uranus-brightness.html#jCp>

Link to paper: Solar-Driven Variation in the Atmosphere of **Uranus** [Boldface added]

By Aplin and Harrison, Geophysical Research Letters, Dec 18, 2017

<http://onlinelibrary.wiley.com/doi/10.1002/2017GL075374/abstract;jsessionid=B91126092F53A7BE8B7EA98889E736EF.f01t01>

Suppressing Scientific Inquiry

“Argentinian geoscientist faces criminal charges” for not committing scientific fraud in glacier survey.

Guest post by David Middleton, WUWT, Jan 5, 2018

<https://wattsupwiththat.com/2018/01/05/argentinian-geoscientist-faces-criminal-charges-for-not-committing-scientific-fraud-in-glacier-survey/>

[SEPP Comment: *How tiny must a clump of ice be, before it is not a glacier?*]

Challenging the Orthodoxy -- NIPCC

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>

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>

Nature, Not Human Activity, Rules the Climate

S. Fred Singer, Editor, NIPCC, 2008

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

Challenging the Orthodoxy

Manufacturing consensus: the early history of the IPCC

By Judith Curry, Climate Etc. Jan 3, 2018

<https://judithcurry.com/2018/01/03/manufacturing-consensus-the-early-history-of-the-ipcc/>

Failed Amstrup polar bear predictions have climate change community in a panic

By Susan Crockford, Polar Bear Science, Jan 4, 2018

<https://polarbearscience.com/2018/01/04/failed-amstrup-polar-bear-predictions-have-climate-change-community-in-a-panic/>

[SEPP Comment: *Alarmist accusing Crockford of alarmism?*]

Media Silence: Flurry Of Recent Papers Show Warming Likely Will Lead To LESS STORM ACTIVITY!

New model simulation results: tropical storms will be more seldom, less intense in the future

By Dr. Sebastian Lüning and Prof. Fritz Vahrenholt, (German text translated/edited by P Gosselin), No Tricks Zone, Dec 26, 2017

<http://notrickszone.com/2017/12/26/media-silence-flurry-of-recent-papers-show-warming-likely-will-lead-to-less-storm-activity/#sthash.imqMC2hE.dpbs>

Putting lipstick on Lewandowsky's pig, er, polar bear

Guest essay by Dr. Richard Tol, WUWT, Dec 26, 2017

<https://wattsupwiththat.com/2017/12/26/putting-lipstick-on-lewandowskys-pig-er-polar-bear/>

Tamper, tamper! How They failed to hide the gulf between predicted and observed warming

By Christopher Monckton of Brenchley, WUWT, Jan 3, 2017

<https://wattsupwiththat.com/2018/01/03/tamper-tamper-how-they-failed-to-hide-the-gulf-between-predicted-and-observed-warming/>

Defending the Orthodoxy

The biggest climate findings in 2017

By Chelsea Harvey, E&E News, Dec 21, 2017

<https://www.eenews.net/climatewire/2017/12/21/stories/1060069603>

Sea level rise paper: Evolving Understanding of Antarctic Ice-Sheet Physics and Ambiguity in Probabilistic Sea-Level Projections

By Robert Koop, et al. Earth's Future, Dec 14, 2017

<http://onlinelibrary.wiley.com/doi/10.1002/2017EF000663/abstract>

Explaining Extreme Events from a Climate Perspective

This BAMS special report presents assessments of how human-caused climate change may have affected the strength and likelihood of individual extreme events.

By Staff Writers, BAMS, 2017

<https://www.ametsoc.org/ams/index.cfm/publications/bulletin-of-the-american-meteorological-society-bams/explaining-extreme-events-from-a-climate-perspective/>

Mark Kelly: This year has been an unequivocal disaster for the future of the planet

By Mark Kelly, CNN, Dec 27, 2017

<http://www.cnn.com/2017/12/26/opinions/earth-from-space-climate-change-opinion-mark-kelly/index.html>

Link to study: Explaining Extreme Events from a Climate Perspective

This BAMS special report presents assessments of how human-caused climate change may have affected the strength and likelihood of individual extreme events.

By Staff Writers, AMS, 2017

<https://www.ametsoc.org/ams/index.cfm/publications/bulletin-of-the-american-meteorological-society-bams/explaining-extreme-events-from-a-climate-perspective/>

The 10 Most Important U.S. Climate Stories in 2017

By Abbey Dufoe, Climate Central, Dec 27, 2017

http://www.climatecentral.org/news/the-10-most-important-us-climate-stories-in-2017-21785?utm_medium=email&utm_campaign=News

The most consequential environmental stories of 2017

By Brady Dennis and Darryl Fears, Washington Post, Jan 1, 2018 [H/t Cooler Heads]

https://www.washingtonpost.com/news/energy-environment/wp/2017/12/27/the-most-consequential-environmental-stories-of-2017/?utm_term=.8bb8d70de556

They wrote a 'bulletproof' endangerment finding. Now what?

By Maxine Joselow and Hannah Northey, E&E News, Dec 22, 2017

<https://www.eenews.net/greenwire/2017/12/22/stories/1060069777>

"The crazy thing is that you know you're doing God's work in this moment,' Kruger said. 'But at the same time, what you're actually doing is just really exhausting and difficult.'"

Questioning the Orthodoxy

Climate Changes Questions

By Staff Writers, Doctors for Disaster Preparedness, Summary

<http://www.ddponline.org/category/cciq/>

485 Scientific Papers Published In 2017 Support A Skeptical Position On Climate Alarm

By Kenneth Richard, No Tricks Zone, Jan 4, 2018

<http://notrickszone.com/2018/01/04/485-scientific-papers-published-in-2017-support-a-skeptical-position-on-climate-alarm/#sthash.1bcw6vQq.dpbs>

"These 485 new papers affirm the position that there are significant limitations and uncertainties inherent in our understanding of climate and climate changes, emphasizing that climate science is not settled."

150 NON-Global Warming Graphs From 2017 Pummel Claims Of Unusual Modern Warmth

By Kenneth Richard, No Tricks Zone, Jan 1, 2018

<http://notrickszone.com/2018/01/01/150-non-global-warming-graphs-from-2017-pummel-claims-of-unusual-modern-warmth/#sthash.J487KV2e.dpbs>

Policy Determinism and Reform of the International Energy Agency

By John Constable, GWPF Energy Editor, Jan 1, 2018

<https://www.thegwpf.com/policy-determinism-and-reform-of-the-international-energy-agency/>

Link to publication: Key world energy statistics

By Staff Writers, IEA, 2017

<http://www.iea.org/publications/freepublications/publication/KeyWorld2017.pdf>

"The International Energy Agency (IEA) is rapidly becoming an uncritical part of the international climate policy engine. This helps no one in the longer run."

[SEPP Comment: According to its web site, the IEA is funded by its 29-member countries. Not all the 35 countries in OECD are members of IEA. It appears IEA is on an empire building program.]

Cheery News for the New Year: Our Increasingly Livable Climate

By Marlo Lewis, CEI, Jan 3, 2017 [H/t Cooler Heads]

<https://cei.org/blog/cheery-news-new-year-our-increasingly-livable-climate>

Change in US Administrations

Trump proposes massive expansion of offshore drilling

By Timothy Cama, The Hill, Jan 4, 2018

<http://thehill.com/policy/energy-environment/367438-trump-proposes-massive-expansion-of-offshore-drilling>

Trump Administration Rescinds Fracking Rules for Government Land

Judge had blocked Obama-era rules, which industry groups said duplicated state regulations

By Staff Writer, AP, Dec 29, 2017

<https://www.wsj.com/articles/trump-administration-rescinds-fracking-rules-for-government-land-1514525232>

Air chief says challenging endangerment finding is possible

By Robin Bravender, E&E News reporter, Jan 4, 2018

<https://www.eenews.net/climatewire/2018/01/04/stories/1060070065>

“Wehrum noted that EPA doesn't have "any current plans" to repeal the endangerment finding, but he said officials are looking for ways to ensure that it's adequately grounded in science.

Unraveling the finding would involve a lengthy regulatory process, and even some opponents of EPA climate rules say it would be a major legal challenge.”

Climate Policy Refugees: Trump Energy Policies Tempting Foreign Companies to Relocate to the USA

Guest essay by Eric Worrall, WUWT, Dec 29, 2017

<https://wattsupwiththat.com/2017/12/29/climate-policy-refugees-trump-energy-policies-tempting-foreign-companies-to-relocate-to-the-usa/>

'Junk science'? Studies behind Obama regulations under fire

By Fred Lucas, Fox News, Dec 26, 2017 [H/t Cooler Heads]

<http://www.foxnews.com/politics/2017/12/26/junk-science-studies-behind-obama-regulations-under-fire.html>

Lord Monckton to Scott Pruitt: Proposed repeal of the “Clean Power Plan”

Posted by Geoff Brown, Australian Climate Sceptics, Jan 6, 2017

<http://theclimatescepticsparty.blogspot.com.au/2018/01/lord-monckton-to-scott-pruitt-proposed.html>

Scott Pruitt’s Reformation

By Kevin Williamson, National Review, Dec 31, 2017

<https://www.nationalreview.com/magazine/2017-12-31-0000/scott-pruitts-epa-reformation-re-shaping-agency>

“Regulating the greenhouse gas as “air pollution” was a cherished and ultimately failed priority for the Obama administration, and, in Pruitt’s view, this took attention away from more ordinary concerns, such as industrial emissions and smog.”

[SEPP Comment: Long article on the difference between Stewardship and Prohibition at the EPA. Environmental policy should not be used for industrial policy.]

Problems in the Orthodoxy

The Paradox of Sea Level Rise

By Cliff Mass, Weather and Climate Blog, Dec 27, 2017

<http://cliffmass.blogspot.com/2017/12/the-paradox-of-sea-level-rise.html>

Seeking a Common Ground

The perils of pessimism

By Martin Livermore, The Scientific Alliance, Jan 5, 2018

<http://scientific-alliance.org/scientific-alliance-newsletter/perils-pessimism>

Cutting edge statistics for climate

By Anthony Watts, WUWT, Dec 21, 2017

<https://wattsupwiththat.com/2017/12/21/cutting-edge-robust-statistics/>

Looking at an actual climate change debate

By David Wojick, C-Fact, Dec 20, 2017

<http://www.cfact.org/2017/12/20/looking-at-an-actual-climate-change-debate/>

Science, Policy, and Evidence

Five questions from students about climate change

By Ross McKittrick, His Blog, Jan 2018

<https://www.rossmckittrick.com/uploads/4/8/0/8/4808045/5questions.pdf>

Straight Talk about Climate Change

By Richard Lindzen, National Association of Scholars, Nov 30, 2017

<https://link.springer.com/article/10.1007/s12129-017-9669-x>

Review of Recent Scientific Articles by CO2 Science

The Combined Impact of Hypoxia and Ocean Acidification on Four Estuarine Fishes

Dixon, R.L., Greco, P.A. and Targett, T.E. 2017. Responses of juvenile Atlantic silverside, striped killifish, mummichog, and striped bass to acute hypoxia and acidification: Aquatic surface respiration and survival. *Journal of Experimental Marine Biology and Ecology* 493: 20-30. Jan 3, 2018

<http://www.co2science.org/articles/V21/jan/a2.php>

“Results of the experiment revealed that there was ‘no evidence of a pH ($p\text{CO}_2$) effect on ASR [(an indicator of stress response)] or survival in any species in response to naturally co-varying DO and pH swings, despite pH as low as 6.8 and high $p\text{CO}_2$ levels of $\geq \sim 12,000 \mu\text{atm}$.’

Consequently, we can confidently conclude that the projected decline in oceanic pH resulting from humanity's combustion of hydrocarbon fuels will pose little, if any, threat to the four marine fishes examined here.”

Elevated CO2 Promotes a Rhizosphere-driven Increase in Nitrogen and Phosphorus Availability

Ochoa-Hueso, R., Hughes, J., Delgado-Baquerizo, M., Drake, J.E., Tjoelker, M.G., Piñeiro, J. and Power, S.A. 2017. Rhizosphere-driven increase in nitrogen and phosphorus availability under elevated atmospheric CO2 in a mature Eucalyptus woodland. *Plant and Soil* 416: 283-295. Jan 2, 2018

<http://www.co2science.org/articles/V21/jan/a1.php>

Three Decades of Aboveground Net Primary Productivity on the Eurasian Steppe

Jiao, C., Yu, G., Ge, J., Chen, X., Zhang, C., He, N., Chen, Z. and Hu, Z. 2017. Analysis of spatial and temporal patterns of aboveground net primary productivity in the Eurasian steppe region from 1982 to 2013. *Ecology and Evolution* 7: 5149-5162

<http://www.co2science.org/articles/V20/dec/a16.php>

Elevated CO2-induced Increases in both Rice and Maize

Pingale, B.N., Singh, S.D. and Yadav, A. 2017. Potential impacts of increasing atmospheric carbon dioxide on yield and plant growth of rice (*Oryza sativa*) and maize (*Zea mays*) crops. *Indian Journal of Agricultural Sciences* 87: 1041-1044. Dec 26, 2017

<http://www.co2science.org/articles/V20/dec/a14.php>

A 341-year Temperature Reconstruction for Southwest China

Bi, Y., Xu, J., Yang, J., Li, Z., Gebrekirstos, A., Liang, E., Zhang, S., Yang, Y., Yang, Y. and Yang, X. 2017. Ring-widths of the above tree-line shrub *Rhododendron* reveal the change of minimum winter temperature over the past 211 years in Southwestern China. *Climate Dynamics* 48: 3919-3933. Dec 23, 2017

<http://www.co2science.org/articles/V20/dec/a13.php>

Model Issues

Agency Alliance Targets Data-Driven Challenge of Climate Predictions

By: Kevin McCaney, MeriTalk, Dec 21, 2017 [H/t William Readdy]

<https://www.meritalk.com/articles/agency-alliance-targets-data-driven-challenge-of-climate-predictions/>

[SEPP Comment: Improvements in weather prediction would be a major step.]

Measurement Issues -- Atmosphere

UAH Global Temperature Update for December, 2017: +0.41 deg. C

2017 Third Warmest in the 39-Year Satellite Record

By Roy Spencer, His Blog, Jan 2, 2017

<http://www.drroyspencer.com/2018/01/uah-global-temperature-update-for-december-2017-0-41-deg-c/>

Links: December 2017 Map and Graph, Global Temperature Report

By Staff Writers, Earth System Science, UAH,

<https://www.nsstc.uah.edu/climate/>

[SEPP Comment: Warmer years were 2016 and 1998.]

Changing Weather

Weather Disasters as Proportion of Global GDP: 1990-2017

By Roger Pielke Jr. The Climate Fix, Jan 4, 2017 [H/t Paul Homewood]

<https://theclimatefix.wordpress.com/2018/01/04/weather-disasters-as-proportion-of-global-gdp-1990-2017/>

Hurricanes cause record losses in 2017 - The year in figures

In terms of overall losses, 2017 was the second-costliest year ever for natural disasters. Losses from weather-related disasters broke all previous records.

By Petra Löw, Munich Re, Jan 4, 2018

<https://www.munichre.com/topics-online/en/2018/01/2017-year-in-figures>

2018 Starts With Record Cold in Parts of US

By Staff Writers, AP, Jan 1, 2018 [H/t GWPF]

<https://www.voanews.com/a/record-cold-in-us/4187226.html>

This extreme cold is just weather but all heat waves are climate change

By Jo Nova, Her Blog, Jan 2, 2018

<http://joannenova.com.au/2018/01/why-this-extreme-cold-is-just-weather-but-all-heat-waves-are-climate-change/>

Even Sharks Are Freezing to Death: Winter Rages and the Nation Reels

By Kara Murphy and Jack Healy, NYT, Via GWPF, Dec 28, 2017

<https://www.nytimes.com/2017/12/28/us/winter-weather-erie-cold.html>

<https://www.thegwpc.com/even-sharks-are-freezing-to-death-winter-rages-and-the-nation-reels/>

2017 Is Ending as a Down Year in Global Tropical Activity

By Paul Dorian, Vencore, Inc. Dec 29, 2017 [H/t GWPF]

<https://www.vencoreweather.com/blog/2017/12/29/1230-pm-2017-is-ending-as-a-down-year-in-global-tropical-activity>

Another positive feature of global warming – less record breaking cold [in China]

By Anthony Watts, WUWT, Dec 26, 2017

<https://wattsupwiththat.com/2017/12/26/another-positive-feature-of-global-warming-less-record-breaking-cold/>

[SEPP Comment: The article states that modern meteorological observations started in 1960.]

Despite What You've Heard, Global Warming Isn't Making Weather More Extreme

Editorial, IBD, Jan 5, 2018

<https://www.investors.com/politics/editorials/despite-what-youve-heard-global-warming-isnt-making-weather-more-extreme/>

Arctic Restoration — Go Beavers!

Guest Essay by Kip Hansen, WUWT, Dec 20, 2017

<https://wattsupwiththat.com/2017/12/20/arctic-restoration-go-beavers/>

Changing Climate

Droughts and ecosystems are determined by the interaction of two climate phenomena

By Staff Writers, Press Release by University of the Basque Country, Dec 29, 2017 [H/t Toshio Fujita]

<https://phys.org/news/2017-12-droughts-ecosystems-interaction-climate-phenomena.html>

Link to paper: Inter-annual and decadal changes in teleconnections drive continental-scale synchronization of tree reproduction

By Davide Ascoli, et al. Nature Communications, Dec 20, 2017

<https://www.nature.com/articles/s41467-017-02348-9>

North Atlantic Oscillation phases, tree growth, and droughts

By Anthony Watts, WUWT, Dec 28, 2017

<https://wattsupwiththat.com/2017/12/28/north-atlantic-oscillation-phases-tree-growth-and-droughts/>

Link to paper: Forest productivity in southwestern Europe is controlled by coupled North Atlantic and Atlantic Multidecadal Oscillations

By Jaime Madrigal-González, et al. Nature Communications, Dec 20, 2017

<https://www.nature.com/articles/s41467-017-02319-0>

[SEPP Comment: Time scales are not clear.]

Changing Seas

New study from Scripps puts a crimp on claims of recent rising ocean temperatures

By Anthony Watts, WUWT, Jan 4, 2018

<https://wattsupwiththat.com/2018/01/04/new-study-from-scripps-puts-a-crimp-on-claims-of-recent-rising-ocean-temperatures/>

Link to paper: Mean global ocean temperatures during the last glacial transition

By Bernhard Bereiter, et al. Nature, Jan 3, 2017

<https://www.nature.com/articles/nature25152>

From abstract: "Here, using noble gases trapped in ice cores, we show that the mean global ocean temperature increased by 2.57 ± 0.24 degrees Celsius over the last glacial transition (20,000 to 10,000 years ago)."

"We also reveal an enigmatic 700-year warming during the early Younger Dryas period (about 12,000 years ago) that surpasses estimates of modern ocean heat uptake."

An Instant Global Ocean Thermometer from Antarctic Ice Cores

Guest post by David Middleton, WUWT, Jan 4, 2018

<https://wattsupwiththat.com/2018/01/04/an-instant-global-ocean-thermometer-from-antarctic-ice-cores/>

"Color me skeptical about the claim that the ratio of argon, krypton, and xenon measured anywhere on the planet or in ice core bubbles yields the average temperature of the world's oceans to within 0.2 °C."

SEA LEVEL: Rise and Fall – Part 3 – Computational Hubris

Guest Essay by Kip Hansen, WUWT, Dec 19, 2017

<https://wattsupwiththat.com/2017/12/19/sea-level-rise-and-fall-part-3-computational-hubris/>

Changing Cryosphere – Land / Sea Ice

Finding: Arctic clouds highly sensitive to air pollution

By Anthony Watts, WUWT, Jan 3, 2017

<https://wattsupwiththat.com/2018/01/03/finding-arctic-clouds-highly-sensitive-to-air-pollution/>

Link to paper: High Sensitivity of Arctic Liquid Clouds to Long-Range Anthropogenic Aerosol Transport

By Coopman, Garrett, Finch, and Riedi, Geophysical Research Letters, Jan 3, 2017

<http://onlinelibrary.wiley.com/doi/10.1002/2017GL075795/abstract>

Algae growth is accelerating melting in Greenland

"As the climate warms, the area that the algae can grow in will expand, so they'll colonize more of the ice sheet," researcher Marek Stibal said.

By Brooks Hays, UPI, Dec 21, 2017

https://www.upi.com/Science_News/2017/12/21/Algae-growth-is-accelerating-melting-in-Greenland/1041513875796/

Link to paper: Algae Drive Enhanced Darkening of Bare Ice on the Greenland Ice Sheet

By Marek Stibal, et al. Geophysical Research Letters, Nov 18, 2017

<http://onlinelibrary.wiley.com/doi/10.1002/2017GL075958/full>

Un-Science or Non-Science?

Antarctic Modeling Pushes Up Sea-Level Rise Projections

By Staff Writers, Climate Central, Dec 13, 2017

<http://www.climatecentral.org/news/antarctic-modeling-pushes-up-sea-level-rise-projections-21776>

Link to a lead author's blog: It May Take Decades to Determine How High Sea Level Will Rise

By Robert Kopp, Climate Impact Lab, Dec 13, 2017

<http://www.impactlab.org/news-insights/kopp-ice-sea-level-rise-projections/>

Link to paper: Evolving Understanding of Antarctic Ice-Sheet Physics and Ambiguity in Probabilistic Sea-Level Projections

By Robert Koop, et al. Earth's Future, Dec 14, 2017

<http://onlinelibrary.wiley.com/doi/10.1002/2017EF000663/abstract>

Curbing climate change

Study finds strong rationale for the human factor

By Staff Writers, Science Daily, from National Institute for Mathematical and Biological Synthesis (NIMBioS), Jan 1, 2018

<https://www.sciencedaily.com/releases/2018/01/180101144749.htm>

Link to paper: Linking models of human behaviour and climate alters projected climate change

By Brian Beckage, Nature Climate Change, Jan 1, 2018

<https://www.nature.com/articles/s41558-017-0031-7>

Lowering Standards

In Climate Science, Predictions Are Hard, Especially About The Future

By Francis Menton, Manhattan Contrarian, Jan 5, 2018

<http://manhattancontrarian.com/blog/2018/1/5/in-climate-science-predictions-are-hard-especially-about-the-future>

[SEPP Comment: NOAA has replaced prudence with advocating climate fears.]

NASA's Rubber Ruler: An Update

By Randall Hoven, American Thinker, Jan 1, 2018

http://www.americanthinker.com/articles/2018/01/nasas_rubber_ruler_an_update.html

Communicating Better to the Public – Make things up.

Is climate change the culprit causing California's wildfires?

By Larry Kummer, Climate Etc. Dec 13, 2017

<https://judithcurry.com/2017/12/13/is-climate-change-the-culprit-causing-californias-wildfires/>

[SEPP Comment: According to the graph on US Forest Area Burned, 1926 to 2017, from 1926 to 1952, fires burned areas greater than burned since 1952.]

Air Pollution Lowers IQs ... Of Reporters Who Write About It

By Josh Bloom, ACSH, Dec 20, 2017

<https://www.acsh.org/news/2017/12/20/air-pollution-lowers-iqs-reporters-who-write-about-it-12305>

Communicating Better to the Public – Go Personal.

Celebrating Sue's 88th Birthday

By Tony Heller, Real Climate, Jan 5, 2018

<https://realclimatescience.com/2018/01/celebrating-sues-88th-birthday/>

The Practice of Personal Attacking Global Warming Skeptics – Rather than Responding to Their Scientific Criticisms

By Bill Gray, **January 5, 2016**

[SEPP Comment: In memory of Bill Gray. The individual who committed these personal attacks on Gray is a Professor and the Managing Director of The Center for Ocean-Land-Atmosphere Studies at George Mason University, received an Exceptional Scientific Achievement Medal from NASA, and is an Honorary Member of the American Meteorological Society.]

Communicating Better to the Public – Use Propaganda

Are these photos REALLY proof that polar bears are being killed by climate change?

Doubts raised over claims after it emerges that no post mortem was carried out

By David Leafe, Daily Mail, UK, Dec 29, 2017

<http://www.dailymail.co.uk/news/article-5221939/Are-polar-bears-killed-climate-change.html>

Questioning European Green

Dark Days For German Solar Power, Country Saw Only 10 Hours Of Sun In All Of December! [Hanover, Germany]

By P Gosselin, No Tricks Zone, Jan 3, 2018

<http://notrickszone.com/2018/01/03/dark-days-for-german-solar-power-country-saw-only-10-hours-of-sun-in-all-of-december/#sthash.sRSZGWdV.xbZYATtG.dpbs>

Questioning Green Elsewhere

The Total Futility Of The Climate Campaign

By Francis Menton, Manhattan Contrarian, Jan 1, 2018

<http://manhattancontrarian.com/blog/2018/1/1/the-total-futility-of-the-climate-campaign>

“So [fellow New Yorker] as your electricity bill, and mine, triple over the next several years as we attempt to replace fossil fuels with production from wind and solar, should we ask ourselves: Is this anything other than an exercise in total futility?”

US Deep Freeze Raises Serious Concerns about Climate Alarmist Policies

By Alan Carlin, Carlin Economics and Science, Jan 4, 2018

<http://www.carlineconomics.com/archives/4115>

Litigation Issues

UK Advertising Regulator Upholds GWPF Complaint

By William Powell, Natural Gas World, Via GWPF, Jan 5, 2018

<https://www.thegwpf.com/uk-advertising-regulator-upholds-gwpf-complaint/>

Subsidies and Mandates Forever

Tax Reform: New Uncertainties for Big Wind (political risks for a political business model)

By Lisa Linowes, Master Resources, Jan 2, 2017

<https://www.masterresource.org/wind-power-tax-law/tax-reform-new-uncertainties-big-wind-political-risks-political-business-model/>

[SEPP Comment: Lower tax rates affect the value of tax subsidies and credits.]

EPA and other Regulators on the March

Trump Administration Nominates Holly Greaves to Most Important EPA Post You've Never Heard of

By William Yeatman, CEI, Jan 3, 2018

<https://cei.org/blog/trump-administration-nominates-holly-greaves-most-important-epa-post-youve-never-heard>

[SEPP Comment: The possibility of shining a light onto the financial murk?]

An opinion on the ‘EPA Gravy Train’ – and why shutting it down is a good thing

By Greg Walcher, WUWT, Dec 22, 2017

<https://wattsupwiththat.com/2017/12/22/an-opinion-on-the-epa-gravy-train-and-why-shutting-it-down-is-a-good-thing/>

EPA's Pruitt: Bring back 'true environmentalism'

By Timothy Cama, The Hill, Dec 27, 2017

<http://thehill.com/policy/energy-environment/366478-epas-pruitt-bring-back-true-environmentalism>

EPA: “Roundup Not Carcinogenic” — MSM Silent

By Kip Hansen, WUWT, Dec 27, 2017

<https://wattsupwiththat.com/2017/12/27/epa-roundup-not-carcinogenic-msm-silent/>

Link to Issue Paper: “Revised Glyphosate Issue Paper: Evaluation of Carcinogenic Potential
By Staff Writers, EPA’s Office of Pesticide Programs, Dec 12, 2017

https://www.epa.gov/sites/production/files/2017-12/documents/revised_glyphosate_issue_paper_evaluation_of_carcinogenic_potential.pdf

Energy Issues – Non-US

Key World Energy Statistics, 2017

By Staff Writers, IEA, 2017

<https://www.iea.org/publications/freepublications/publication/KeyWorld2017.pdf>

Despite ‘green dreams’, EIA report projects fossil and nuclear fuels provide 83% of total world energy in 2040

Guest essay by Larry Hamlin, WUWT, Dec 30, 2017

<https://wattsupwiththat.com/2017/12/30/despite-green-dreams-eia-report-projects-fossil-and-nuclear-fuels-provide-83-of-total-world-energy-in-2040/>

UK frackers are running out of time

Binding carbon commitments and the falling cost of renewables could prove a perfect storm for investors

By Damian Carrington, Guardian, UK, Dec 25, 2017

<https://www.theguardian.com/environment/2017/dec/25/uk-frackers-are-running-out-of-time>

“The UK’s shale gas industry is in a race against time to establish itself before climate change regulations shut it down. As it stands, the frackers are off the pace.”

Storage with Baseload Power

By Donn Dears, Power For USA, Dec 19, 2017

<http://www.powerforusa.com/2017/12/19/storage-with-baseload-power/>

[SEPP Comment: Electricity storage works best if the source is dependable.]

Why China's Freezing

A well-meaning anti-pollution push turned into a debacle.

By Christopher Balding, Bloomberg, Dec 11, 2017 [H/t GWPF]

<https://www.bloomberg.com/view/articles/2017-12-11/why-china-s-freezing>

Here is what’s holding back China’s plans for world domination

Guest post By David Archibald, Jo Nova’s Blog, Jan 6, 2018

<http://joannenova.com.au/2018/01/here-is-whats-holding-back-chinas-plans-for-world-domination/>

[SEPP Comment: China is reaching peak production capacity in coal?]

China's Fuel Fiasco Leaves Citizens in The Cold

By Michael Lelyveld, Radio Free Asia, Dec 26, 2017 [H/t GWPF]

http://www.rfa.org/english/commentaries/energy_watch/chinas-fuel-fiasco-leaves-citizens-in-the-cold-12262017104126.html

“The backtracking on coal-fired power in the capital may bring the consequences of the crisis full circle after the 28 northern cities were ordered to switch fuels in order to reduce the smog in Beijing.”

Oil-Rich Venezuela Is Out Of Gasoline

By Staff Writers, Mining.com., Dec 30, 2017

<https://oilprice.com/Energy/Gas-Prices/Oil-Rich-Venezuela-Is-Out-Of-Gasoline.html>

Renewable energy growing in Canada but solar power lags behind

By Mia Rabson, The Canadian Press, Dec 20, 2017 [H/t Energy Matters]

<http://calgaryherald.com/business/energy/renewable-energy-growing-in-canada-but-solar-power-lags-behind>

“Although the cost to build solar power has plummeted over the last decade, a new report suggests Canadians aren’t rushing use the sun to make electricity.”

[SEPP Comment: With hydro supplying 60% of Canada’s electricity, and at a latitude roughly above 49 degrees North, the article complains that Canada is lagging behind India in solar (between 8 and 37 degrees North)?]

Russia’s Grip On European Gas Markets Is Tightening

By Nick Cunningham, Oil Price.com, Jan 1, 2017

<https://oilprice.com/Geopolitics/International/Russias-Grip-On-European-Gas-Markets-Is-Tightening.html>

Energy Issues – Australia

Australia overdoes carbon reduction by 294mt [million tonnes]: could cool world by 0.0002C extra (maybe)

By Jo Nova, Her Blog, Jan 3, 2018

<http://joannenova.com.au/2018/01/australia-overdoes-carbon-reduction-by-294mt-could-cool-world-by-0-0002c-extra-maybe/>

Renewables rise and Australians are getting poorer — “Bill Shock” and falling living standards

By Jo Nova, Her Bog, Jan 5, 2018

<http://joannenova.com.au/2018/01/renewables-rise-and-australians-are-get-poorer-bill-shock-and-falling-living-standards/>

Tesla big battery outsmarts lumbering coal units after Loy Yang trips

By Giles Parkinson, RE New Economy, Dec 19, 2017 [H/t Energy Matters]

<http://reneweconomy.com.au/tesla-big-battery-outsmarts-lumbering-coal-units-after-loy-yang-trips-70003/>

“Last Thursday, one of the biggest coal units in Australia, Loy Yang A 3, tripped without warning at 1.59am, with the sudden loss of 560MW and causing a slump in frequency on the network.”

[SEPP Comment: batteries may be the best immediate backup for electricity failure. What is the cost and for how long?]

Energy Issues -- US

‘Electrification’: The Road to Higher Energy Prices

By Steve Goreham, Master Resource, Jan 3, 2017

<https://www.masterresource.org/deep-decarbonization/electrification-higher-prices/>

[SEPP Comment: The graphic “Electricity Price Change in Leading Wind States (2008-2016)” should give pause all but the most zealous advocates.]

Cold snap arrives at key moment for coal, nuclear power

By Tim Cama, The Hill, Jan 5, 2018

<http://thehill.com/policy/energy-environment/367516-cold-snap-arrives-at-key-moment-for-coal-nuclear-power>

Coal to the rescue as record cold grips the East

By John Siciliano, Washington Examiner, Dec 29, 2017

<http://www.washingtonexaminer.com/coal-to-the-rescue-as-record-cold-grips-the-east/article/2644591>

[SEPP Comment: Extreme cold periods demonstrate a need to keep power plants with on-site fuel available.]

Washington’s Control of Energy

U.S. oil production booms as new year begins

By Thomas Heath, Washington Post, Dec 31, 2017

https://www.washingtonpost.com/business/capitalbusiness/us-oil-production-booms-as-new-year-begins/2017/12/31/de49b50e-ee50-11e7-b3bf-ab90a706e175_story.html?utm_term=.280402eb7704

“President Jimmy Carter in a televised speech compared the energy crisis of 1977 to ‘the moral equivalent of war.’”

[SEPP Comment: The moral equivalent of war is over. Although Washington did contribute early, the previous administration opposed the path to success.]

Tax bill opens Alaska to oil production worth billions of dollars, strengthening America

By Paul Driessen, Fox News, Dec 21, 2017

<http://www.foxnews.com/opinion/2017/12/21/tax-bill-opens-alaska-to-oil-production-worth-billions-dollars-strengthening-america.html>

Time to reform renewable fuel policies for the public interest

By Aaron Smith and Vincent Smith, The Hill, Dec 25, 2017

<http://thehill.com/opinion/energy-environment/366423-time-to-reform-renewable-fuel-policies-for-the-public-interest>

[SEPP Comment: The 2007 Energy Independence and Security Act is obsolete. Oil and natural gas imports are falling, and cellulosic biofuel is a bust.]

Oil and Natural Gas – the Future or the Past?

Alaska reserve, nearby lands could hold 17.6B barrels — USGS

By Margaret Kriz Hobson, E&E News, Dec 22, 2017

<https://www.eenews.net/greenwire/2017/12/22/stories/1060069807>

Link to assessment: Assessment of Undiscovered Oil and Gas Resources in the Cretaceous Nanushuk and Torok Formations, Alaska North Slope, and Summary of Resource Potential of the National Petroleum Reserve in Alaska, 2017

By David Hoseknecht, et al. USGS, 2017

<https://pubs.er.usgs.gov/publication/fs20173088>

Canada agrees to monitor oil sands impact

A federal report finds consistent and ongoing evidence that oil sands have a low, but negative, impact on the environment.

By Daniel J. Graeber, UPI, Dec 22, 2017 [H/t Toshio Fujita]

<https://www.upi.com/Canada-agrees-to-monitor-oil-sands-impact/9661513939202/>

Return of King Coal?

Poland opens Europe's largest coal-fired power unit

By Staff Writer, Warsaw (AFP) Dec 19, 2017

http://www.energy-daily.com/reports/Poland_opens_Europes_largest_coal-fired_power_unit_999.html

So How Did Coal Really Fare in 2017?

U.S. demand was soft but exports rose significantly, to some unexpected places

By Benjamin Storrow, Scientific American, Dec 22, 2017

<https://www.scientificamerican.com/article/so-how-did-coal-really-fare-in-2017/>

Nuclear Energy and Fears

Fears of another Fukushima as Tepco plans to restart world's biggest nuclear plant

Consent given to turn reactors at the massive Kashiwazaki-kariwa plant back on, but Japanese worry over active fault lines and mismanagement

By Justin McCurry, The Guardian, UK, Dec 27, 2017

<https://www.theguardian.com/world/2017/dec/28/fears-of-another-fukushima-as-tepco-plans-to-restart-worlds-biggest-nuclear-plant>

Two More Japan Nuclear Units Will be Decommissioned

By Darrell Proctor, Power Mag, Dec 24, 2017

<http://www.powermag.com/two-more-japan-nuclear-units-will-be-decommissioned/>

Solving the Back End: Finland's Key to the Final Disposal of Spent Nuclear Fuel

By Irena Chatzis, IAEA Department of Nuclear Energy, Jan 5, 2018

<https://www.iaea.org/newscenter/news/solving-the-back-end-finlands-key-to-the-final-disposal-of-spent-nuclear-fuel>

Alternative, Green ("Clean") Solar and Wind

How Chile's electricity sector can go 100% renewable

By Roger Andrews, Energy Matters, Jan 3, 2018

<http://euanmearns.com/how-chiles-electricity-sector-can-go-100-renewable/#more-20573>

The Valhalla solar/pumped hydro project

By Roger Andrews, Energy Matters, Dec 27, 2017

<http://euanmearns.com/the-valhalla-solar-pumped-hydro-project/>

The Dutch plan to build an artificial island to support the world's largest wind farm

By Akshat Rathi, Quartz, Jan 20, 2018

<https://qz.com/1169226/the-worlds-largest-wind-farm-is-being-planned-by-electric-grid-firm-tennet/>

“The largest offshore wind farm currently is the London Array, which can produce 630 MW of power and covers an area of 122 sq. km (47 sq. miles). TenneT’s proposed plan will create a wind farm capable of producing 30 GW of power over about 6,000 sq. km (2,300 sq. miles).”

[SEPP Comment: London Array has a nameplate capacity of 630 MW and a capacity factor of 45.3 % (2015) at a cost of 2.2 billion euros. The second phase has been cancelled over concerns of protection of birds, red-throated divers.]

Climate conditions affect solar cell performance more than expected

By Staff Writers, Science Daily, Dec 13, 2017 [H/t Toshio Fujita]

<https://www.sciencedaily.com/releases/2017/12/171213143725.htm>

Link to paper: Global Prediction of Photovoltaic Field Performance Differences Using Open-Source Satellite Data

By Ian Marius Peters, et al. Joule, Dec 13, 2017

<http://www.sciencedirect.com/science/article/pii/S2542435117301836>

[SEPP Comment: Efficiency of solar cells varies seasonally by latitude and humidity?]

Christopher Booker: No, Wind Power Is Not the Cheapest Form of Energy

By Christopher Booker, The Sunday Telegraph, UK, Via GWPF, Dec 31, 2017

<https://www.thegwpf.com/christopher-booker-no-wind-power-is-not-the-cheapest-form-of-energy/>

California Dreaming

California’s largest solar plant will help recover crude oil

Solar technology is set to help with the extraction of crude oil following an agreement to build California’s largest solar energy plant.

By Staff Writers, The Engineer, Nov 30, 2017 [H/t GWPF]

<https://www.theengineer.co.uk/solar-heavy-crude-oil/>

“GlassPoint Solar will supply Aera Energy, one of California’s largest oil and gas producers, with an integrated solar plant that will be the first of its kind to use solar steam and solar electricity to power oilfield operations. It is claimed that the finished Belridge Solar project will deliver the largest peak energy output of any solar plant in California.”

“To maintain steam injection 24/7, solar steam is injected during the day, and steam produced by burning natural gas is injected at night.”

California Poised To Hit 50% Renewable Target A Full Decade Ahead Of Schedule

By Steve Hanley, Clean Technica, Dec 21, 2017 [H/t Toshio Fujita]

<https://cleantechnica.com/2017/12/21/california-poised-hit-50-renewable-target-full-decade-ahead-schedule/>

“Is 100% renewable power a possibility? Brown thinks it is, but that it’s not the most important thing to focus on. “I think of 100% as a bit of a red herring. If you want 100%, it should be 100% zero carbon electricity. Climate change is the existential threat and I don’t want to waste time arguing about what’s renewable or not. You have to get the carbon out of the energy system as quickly as possible.”

“Statements like that make it clear that America has chosen the worst possible leader at the worst possible time. **It is an open question how long progressive states like California will deem it in their best interest to support a union in which so many other states are intent on returning to the feudal practices of the Middle Ages.**” [Boldface added]

[SEPP Comment: Unbiased reporting?]

Jerry Brown vetoed enhanced requirements for undergrounding power lines, blames CA wildfires on nebulous “climate change”

While Brown proclaims larges wildfires “the new normal”, here’s some scrutiny on his own incompetence in preventing wildfires

Guest essay by Larry Hamlin, WUWT, Dec 20, 2017

<https://wattsupwiththat.com/2017/12/20/jerry-brown-vetoed-enhanced-requirements-for-undergrounding-power-lines-blames-ca-wildfires-on-nebulous-climate-change/>

Environmental Industry

The Battle for Infographic Reality

By Russell Cook, Gelbspan Files.com, Nov 21, 2017

<http://gelbspanfiles.com/?p=4596>

The Increasingly Bad Science and Economics Used by the Environmental Movement and EPA

By Alan Carlin, Carlin Economics and Science, Dec 29, 2017

<http://www.carlineconomics.com/archives/4103>

Other Scientific News

August eclipse left a wake in ionosphere, researchers reveal

While the phenomenon had long been theorized, the eclipse earlier this year was the first time researchers actually observed the waves.

By Ed Adamczyk, UPI, Dec 27, 2017 [H/t William Readdy]

https://www.upi.com/Science_News/2017/12/27/August-eclipse-left-a-wake-in-ionosphere-researchers-reveal/4351514400116/

Link to paper: Ionospheric Bow Waves and Perturbations Induced by the 21 August 2017 Solar Eclipse

By Shun-Rong Zhang, et al, Geophysical Research Letters, Dec 16, 2017

<http://onlinelibrary.wiley.com/doi/10.1002/2017GL076054/full>

Giant double whirlpools in the ocean and the DIY ones you can make in your pool

By Jo Nova, Her Blog, Dec 30, 2017

<http://joannenova.com.au/2017/12/giant-double-whirlpools-in-the-ocean-and-the-diy-ones-you-can-make-in-your-pool/#more-56684>

Other News that May Be of Interest

Scientists Discover Unexpected [Adverse] Side Effect to Cleaning Up Urban Air

By Staff Writers, Cal Tech, Science News, Dec 19, 2017 [H/t Toshio Fujita]

<http://www.sciencenewsline.com/news/2017121918190010.html>

Terence Corcoran: The population bombers keep on bombing — and 50 years on they keep getting it wrong

Half a century after publication of The Population Bomb, the world is healthier, better fed, less poor, better entertained and generally living fuller lives

By Terence Corcoran, Financial Post, Can, Jan 3, 2017 [H/t GWPF]

<http://business.financialpost.com/opinion/terence-corcoran-population-bombers-keep-on-bombing-and-50-years-on-they-keep-getting-it-wrong>

BELOW THE BOTTOM LINE:

A (Satirical) View Of The Coming Year In Energy

By Michael Lynch, Forbes, Jan 2, 2017

<https://www.forbes.com/sites/michaelylynch/2018/01/02/a-satirical-view-of-the-coming-year-in-energy/#2c33a11a2b4a>

The jig is up!

By Staff Writers, Climate Change Predictions.org, Jan 4, 2018

<http://climatechangepredictions.org/uncategorized/1926>

“Plotted on a map of Britain, the sightings can be seen to stretch from Liverpool to Dover and from Llanelli to Derby. Whatever the explanation, experts agree that the number of suspected flying saucers has hit unusual highs this summer. Malcolm Robinson, who studies the phenomenon, said: ‘Something very bizarre is happening in the skies over the UK.’

“The founder member of Strange Phenomena Investigations, added: “There has been an unusual number of sightings recently. **Some experts believe it could be linked to global warming and craft from outer space are appearing because they are concerned about what man is doing to this planet.**” [Boldface Added]

The Telegraph, 7 Jul 2008

ARTICLES:

1. Climate-Change Policies Can Be Punishing for the Poor

America should learn from Europe’s failure to protect the needy while reducing carbon emissions.

By Bjorn Lomborg, WSJ, Jan 4, 2018

<https://www.wsj.com/articles/climate-change-policies-can-be-punishing-for-the-poor-1515110743>

SUMMARY: The author of the “The Skeptical Environmentalist” and president of the Copenhagen Consensus Center writes:

“Freezing temperatures in the U.S. Northeast have pushed up heating costs, creating serious stress for many Americans. Although the rich world’s energy poor are largely forgotten in discussions about climate policies, they bear an unfair burden for well-meaning proposals. That reality is being laid bare this icy winter as energy and electricity prices surge.

“When we think about energy poverty, we imagine a lack of light in the world’s worst-off nations, where more than one billion people still lack electricity. This is a huge challenge that the world can hope to address as it reduces poverty and expands access to grid electricity, largely powered by fossil fuels.

“But there is a less visible form of energy poverty that affects even the world’s richest country. Economists consider households energy poor if they spend 10% of their income to cover energy costs. A recent report from the International Energy Agency shows that more than 30 million Americans live in households that are energy poor—a number that is significantly increased by climate policies that require Americans to consume expensive green energy from subsidized solar panels and wind turbines.

“Last year, for the first time, the International Energy Agency tried to calculate the global scale of this problem. The IEA estimates that in the world’s rich countries—those that are members of the Organization for Economic Cooperation and Development—200 million people are in energy poverty. That includes 1 in 10 Americans, although the IEA notes that the highest estimates for the U.S. approach 1 in 4.

“People of modest means spend a significantly higher share of their income paying for their energy needs. One careful study of energy usage in North Carolina found that a lower-income family might spend more than 20% of its income on energy. Among people with incomes below 50% of the federal poverty line, energy costs regularly consumed more than a third of their budgets.

“Europe, where renewable subsidies are about three times as high as in the U.S., provides a window into America’s possible energy future. Higher costs from policies like stringent emissions caps and onerous renewable-energy targets make it even harder for the poorest citizens to afford gas and electricity. In Germany, more than 30% of the population spends at least one-tenth of income on energy. Some estimates show that half of Greeks are in energy poverty, according to the IEA.”

After discussing calls for more stringent actions and that the more well off can afford such actions, Lomborg concludes:

“Climate change is a real challenge for every country, but we need to maintain some perspective. The United Nations’ climate-change panel estimates that global warming could cause damage amounting to 2% of global gross domestic product toward the end of the century. That makes it a problem, but not the Armageddon produced by some feverish imaginations.

“The best macroeconomic estimates suggest that meeting the energy commitments reflected in the Paris Agreement on climate change would cost the world about \$1 trillion a year in slower growth and higher energy prices. When environmental campaigners claim that more draconian cuts are needed, they aren’t thinking of the people who will be most affected by sharply increasing energy bills.

“Instead of trying to slow growth, governments should accelerate spending in green-energy research so that alternative energy becomes cheaper and more efficient than fossil fuels. The solution to climate change need not punish the poor.”

2. From Soybeans to Corn, La Niña Could Shake Up Agricultural Markets in 2018

Grains, soybeans and other agricultural commodities are likely in for a wild ride if the La Niña weather pattern takes hold

By David Hodari, WSJ, Dec 31, 2017

https://www.wsj.com/articles/from-soybeans-to-corn-la-nina-could-shake-up-agricultural-markets-in-2018-1514721600?mod=trending_now_3

SUMMARY: The journalist opens with:

“A weather phenomenon that has wreaked havoc on commodity prices in the past could return in 2018.

“Indicators currently suggest a 75% probability of a La Niña in the coming months, according to Stefan Vogel, head of Rabobank’s agricultural commodity markets research team. The weather pattern could inject volatility into markets like grains, soybeans and palm oil next year.

“La Niña is characterized by cooler-than-normal waters in tropical Pacific Ocean regions, which results in more precipitation in Southeast Asia and eastern Australia, said Kyle Tapley, a senior agricultural meteorologist at MDA Weather Services.

“The same conditions also lead to drier weather in southern Brazil, eastern Argentina and the southern U.S., he said. These areas set for dryness also happen to be critical to the global supply chain of grains and oilseeds.

“If La Niña materializes, investors of such markets could be jolted, analysts say.

“Prices for agricultural commodities have been nearly static in 2017 even as markets for other commodities and stocks have boomed. Investors may have been lulled into a false sense of security by the heavy supplies of grains and oilseeds seen in 2017, which tend to damp price volatility, said CME Group’s Erik Norland.

“If the temperature in the relevant part of the Pacific falls by more than one degree Celsius, ‘volatility explodes to 1½ times its normal level,’ Mr. Norland said.

“While the effects of previous La Niñas on futures markets have been inconsistent, investor bets on corn, wheat, and soybean options are near historic lows. Proprietary data from CME Group show that La Niña raises price volatility across those sectors.

“If the market moves in a sharp way and you’re short, holders of those positions are going to take a hit,’ Mr. Norland said.

“The last severe La Niña was in 2012 and caused a record-breaking heat wave and drought across the U.S. Midwest, Mr. Vogel said in a note. It eventually drove prices up to \$18 a bushel for soybeans and \$8 a bushel for corn, according to him. Soybeans’ average price over the past five years has been 38% below that level; corn’s has been 39% below its 2012 high. A return to those levels would constitute an 87% gain for soybeans and a 130% jump for corn.

The journalist then states similar views from other analysts.
