The Week That Was: 2019-04-06 (April 6, 2019) Brought to You by SEPP (www.SEPP.org) The Science and Environmental Policy Project

Quote of the Week: "It has been a source of great pain to me to have met with so many among [my] opponents who had not the liberality to distinguish between political and social opposition; who transferred at once to the person, the hatred they bore to his political opinions." —Thomas Jefferson (1808)

Number of the Week: Risen by 44.6429% or by 0.0125%?

THIS WEEK:

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

Surface v. Atmosphere: Why the Difference? On his blog, Roy Spencer performs a statistical analysis to answer questions regarding the poor relationship (correlation) between atmospheric temperature trends and surface temperature trends in Australia. The Australian Government's Bureau of Meteorology (BOM) posts a trend from 1910 to 2018, showing a significant temperature rise. The trend has been strongly questioned by Australian scientists, especially Jennifer Marohasy. Many of Marohasy's comments have been carried by Jo Nova, on her blog.

It appears that BOM surface temperatures suffer from the same disease that US surface temperatures suffer in the hands of NASA-GISS and NOAA. Hot periods of the past have suddenly chilled, making the warming trends appear strong than before. As Marohasy states:

"Also, for some years I have been pointing-out that there is no consistency in the methods used by the Australian Bureau of Meteorology to measure surface temperatures, and that the routine remodeling of temperature series by the ACORN-SAT unit within the Bureau is not scientific." [ACORN-SAT is the name for the database.]

As brought up in the March 2 TWTW, The Australian newspaper had an article by Graham Lloyd stating:

"The Darwin record has been the subject of international concern by sceptics because it plays a significant role in the global climate picture.

"The Weekend Australian revealed last Saturday that the bureau had rewritten Australia's temperature records for the second—time in six years, increasing the rate of warming since 1910 from 1C to 1.23C. The bureau has defended its homogenisation processes, which it said were needed to account for non-climate influences and changes in equipment.

"Scientist Jennifer Marohasy said Darwin's temperature record was important because the city was the only location in central northern Australia where temperatures had been measured since 1895 from within an instrument shelter. The Darwin record includes temperatures taken at Darwin post office from 1882 until 1941 and from Darwin airport from 1942 to the present.

"Adjustments were made by the bureau to account for the site move and other factors, including shading from trees, that occurred after 1937. The bureau record was shortened to 1910."

Spencer avoided the questionable "game playing" by BOM by examining only the record from the beginning of the satellite era: 1979 to present. Spencer uses the lower tropospheric temperatures, which cover the region of the atmosphere from the surface to where friction with the Earth's surface influences air flow and is also called the planetary boundary layer. Definitions vary by scientific organization, but this layer is up to 2 km (1.2 mi; 6,600 ft) deep depending on the landform and time of day.

(Recall that water vapor freezes out in the tropopause, altitude changing from 18 to 8 km (11 to 5 mi) from the equator to the polar regions. The altitude at the polar regions is an average, depending on season.)

What makes the article particularly interesting to TWTW are the adjustments Spencer makes to bring the BOM surface temperatures more in-line with UAH atmospheric temperatures — especially seasonal precipitation adjustments. Actually, he does the reverse. The base correlation is about 0.70 (resulting in a standard deviation calculated to be 0.57 deg. C) which is not particularly surprisingly low because the tropospheric temperatures over Australia can be affected by distant weather events, such as precipitation systems hundreds to thousands of miles away.

To achieve a higher correlation of 0.80 (with a standard deviation calculated to be 0.48 deg. C), Spencer adjusted the atmospheric data for rainfall by season. In warm months, atmospheric temperatures plus rainfall better explain surface temperatures, in cool months atmospheric temperatures minus rainfall better explained surface temperatures for reasons unclear. Even after these adjustments surface temperature trends showed slightly greater warming than satellite trends for reasons unclear. Spencer concludes that:

"Users of the UAH data should expect monthly differences between the UAH and BOM data of 0.6 deg. C or so on a rather routine basis (after correcting for their different 30-year baselines used for anomalies: BOM uses 1961-1990 and UAH uses 1981-2010)."

UK Warming: The Royal Meteorological Society has published a paper estimating the extent to which the surface warming is from urbanization – land use change, better known as the urban heat island effect (or intensity, UHI). The paper states:

"For an urban fraction of 1.0, the daily minimum 2-m (2 meter) temperature was estimated to increase by 1.90 ± 0.88 K while the daily maximum temperature was not significantly affected by urbanization."

What is also interesting is that the strongest relationship between UHI and daily minimum temperatures occurs in the winter months. The relationship is insignificant for February through October. The paper discusses that previous studies using global scale temperature series show that

UHI has negligible effect. Yet, other specific studies show a major effect. The inconsistency between local effects and global modeling is disturbing.

The findings are similar to what Anthony Watts found when comparing surface temperature trends using high quality continental US data taken by compliant stations with non-compliant stations and NOAA data after adjustments. He found that NOAA adjustments increase the small warming trend found at high quality stations. Even on the surface, maximum temperatures are not rising as claimed by alarmists. See links under Measurement Issues – Surface.

Climate Predictions Difficult? On her web site, Judith Curry bring up a translated interview with Bjorn Stevens of the Hamburg Max Planck Institute for Meteorology. He brings up many of the problems with the Climate Establishment, such as:

- "Global warming forecasts are still surprisingly inaccurate,
- "Climate sensitivity" [is largely unknown]
- "Back in the 1970s, it was determined using primitive computer models. The researchers came to the conclusion that their value is likely somewhere between 1.5 and 4.5 degrees.
- "This result has not changed until today, about 40 years later. And that's exactly the problem.

The failure to advance knowledge over 40 years is despite enormous increases in computational power of computers and tens of billions spent on "climate science."

"The difficulties he and his fellow researchers face can be summed up in one word: clouds. The mountains of water vapor slowly moving across the sky are the bane of all climate researchers.

"First of all, it is the enormous diversity of its manifestations that makes clouds so unpredictable. Each of these types of clouds has a different effect on the climate. And above all: they have a strong effect.

"Simulating natural processes in the computer is always particularly sensitive when small causes produce great effects. For no other factor in the climatic events, this is as true as for the clouds. If the fractional coverage of low-level clouds fell by only four percentage points, it would suddenly be two degrees warmer worldwide. The overall temperature effect, which was considered just acceptable in the Paris Agreement, is thus caused by four percentage points of clouds – no wonder that binding predictions are not easy to make.

"In addition, the formation of clouds depends heavily on the local conditions. But even the most modern climate models, which indeed map the entire planet, are still blind to such small-scale processes."

To overcome such difficulties:

"You have to make do with more or less plausible rules of thumb.

"'Parametrization' is the name of the procedure, but the researchers know that, in reality, this is the name of a chronic disease that has affected all of their climate models. Often, different parameterizations deliver drastically divergent results. Arctic temperatures, for example, are

sometimes more than ten degrees apart in the various models. This makes any forecast of ice cover seem like mere reading of tea leaves."

Stevens hopes that detailed studies with fine-mesh computer models of a certain type of cloud, the cumulonimbus, often found in thunderheads, may lead to better understanding of clouds. But,

"It is possible that the calculations of the fine-mesh computer models allowed [us] to predict such climate surprises early. 'But it is also conceivable that there are basically unpredictable climatic phenomena,' says Stevens. 'Then we can still simulate so exactly and still not come to any reliable predictions.'

"That's the worst of all possibilities. Because then mankind continues to steer into the unknown."

To this, TWTW adds:

- A climate sensitivity of somewhere between 1.5 and 4.5 degrees was assumed, not supported by hard evidence, and it cannot be assumed to be correct.
- The latest technologies for observing what is occurring in the atmosphere must be used, including atmosphere temperature trends. They are ignored by the Climate Establishment.
- Understanding the greenhouse effect requires understanding Atomic, Molecular, and Optical Physics (AMO) a field ignored by the Climate Establishment as demonstrated by Science Mag. criticizing the criticism of Will Happer, an expert in AMO, because he is not a "climate scientist."

See links under Challenging the Orthodoxy.

The Greenhouse Effect – Absorption Capability: Over the past few weeks TWTW has discussed that, by volume, the concentration of water vapor in the atmosphere near the surface in the tropics is about 100 times greater than the concentration of carbon dioxide (CO2). The UN Intergovernmental Panel on Climate Change (IPCC) and the US Global Change Research Program (USGCRP) ignore this basic fact when making dire predictions of future global warming from greenhouse gases. When discussing the greenhouse effects of CO2, they use the concept of idealized dry air, which is found only in the laboratory. Yet, water vapor reduces the influence of other greenhouse gases, particularly carbon dioxide and methane, which will be demonstrated in the near future.

The absorption capability of greenhouse gases in the atmosphere is very different from the absorption capability claimed by the IPCC – Figure TS.7 of the Technical Summary of the Fifth Assessment Report (AR5, 2013) gives the "Components of Radiative Forcing." This was demonstrated in a paper by Allison and Sheahen discussed in the October 20 & 27 TWTWs. The authors presented a table (Table 2) based on unpublished data using calculations from the hiresolution transmission molecular absorption database (HITRAN), at Harvard.

"HITRAN is a compilation of spectroscopic parameters that a variety of computer codes use to predict and simulate the transmission and emission of light in the atmosphere."

The table produced by Allison and Sheahen showed the heat (photon) absorptive capability of individual greenhouse gas molecules relative to CO2 with a concentration change from zero to one part per billion, at the tropopause (11 km over the tropics). The value for CO2 is assigned to be 1; the value for CH4 (methane) is 0.22; the value for N2O (nitrous oxide) is 0.66; and for H2O is 0.14. At the tropopause, the absorption capability of methane is slightly greater than 4 times the absorption capability of CO2 – not the 200 plus times claimed by the IPCC.

The concentration of methane (CH4) is about 1800 parts per billion or 1.8 parts per million (ppm), the concentration of CO2 is about 400 ppm. Yet according to the IPCC graph, the total forcing factor (RF) for CH4 is about .97 while the forcing factor for CO2 is 1.68, less than twice the total factor for methane.

Further, the influence of water vapor is not considering a radiative forcing factor. Yet, the above calculations indicate that the first molecule has an influence of 0.14 of that of CO2, or CO2 has an influence 7 times greater than H20. But in the lower troposphere, where most of the greenhouse effect occurs, water vapor is 100 times more concentrated than CO2. These calculations indicate the influence is 14 times greater than CO2. [Note that the calculations are not precise, but they give an idea of the scope of the IPCC problem.]

Obviously, the IPCC and the USGCRP do not bother to calculate what is actually occurring in the atmosphere. There is no logical reason to assume their models will produce realistic results. See links under Challenging the Orthodoxy, Defending the Orthodoxy and https://www.cfa.harvard.edu/hitran/.

On to Columbia: The Obama Administration formed a federal advisory committee, "to explore how to make the National Climate Assessment (NCA) more usable for communities who want to take action." President Trump dismissed the committee, but "with support from the Earth Institute at Columbia University, New York State and the American Meteorological Society, the committee reconvened as the Independent Advisory Committee on Applied Climate Assessment."

The National Climate Assessment, under the USGCRP, ignores the natural variation in climate change and claimed that major export crops of the Midwest had to be shifted farther north, to Canada. Apparently, the authors did not realize that the major competitor for the two biggest crops, maize and soybeans, is central Brazil, in the tropics.

NASAs Goddard Institute of Space Studies (NASA-GISS), which ignores atmospheric data from space and specializes on sparse surface data influenced by many other factors, is closely tied with Columbia's Earth Institute as is the Sabin Center for Climate Change Law. See links under Defending the Orthodoxy and Article # 2.

Cold Comfort: The recent cold waves, called polar vortexes, brought unusually cold spells in the upper plain states of the US and Canada. In February, below-zero readings were common in Billings, Montana, some as low as minus 25 °F.

According to the Department of Natural Resources Canada, wind power can produce down to minus 30 °C (minus 22 °F), if the wind is blowing.

"With the installation of 'cold weather packages' which provide heating to turbine components such as the gearbox, yaw and pitch motors and battery, some turbines can operate in temperatures down to -30C."

That would be little comfort for those depending on wind power, if the low temperatures were accompanied by still air, which is often the case. See links under Alternative, Green ("Clean") Solar and Wind.

Paris Agreement – Executive Agreement? The Obama Administration made the Paris Agreement an executive agreement, not a treaty. A treaty would require concurrence of two-thirds of the Senate. A federal judge just ruled that an executive order cannot be changed by the new executive. See Article # 1.

SEPP'S APRIL FOOLS AWARD THE JACKSON

SEPP is conducting its annual vote for the recipient of the coveted trophy, The Jackson, a lump of coal. Readers are asked to nominate and vote for who they think is most deserving, following these criteria:

- The nominee has advanced, or proposes to advance, significant expansion of governmental power, regulation, or control over the public or significant sections of the general economy.
- The nominee does so by declaring such measures are necessary to protect public health, welfare, or the environment.
- The nominee declares that physical science supports such measures.
- The physical science supporting the measures is flimsy at best, and possibly non-existent.

The seven past recipients, Lisa Jackson, Barrack Obama, John Kerry, Ernest Moniz, John Holdren, Gena McCarthy and Jerry Brown are not eligible. Generally, the committee that makes the selection prefers a candidate with a national or international presence. The voting will close on June 30. Please send your nominee and a brief reason why the person is qualified for the honor to Ken@SEPP.org. Thank you.

Number of the Week: Risen by 44.6429% or by 0.0125%? At the end of an April Fools post on what the UK government should do in response to school children going on strike, Euan Mearns calculates the increase in carbon dioxide since the beginning of the industrial revolution two ways: 1) as a percentage of carbon dioxide; and 2) as a percentage of atmospheric gases. See link under Communicating Better to the Public – Use Propaganda on Children

NEWS YOU CAN USE:

Commentary: Is the Sun Rising?

Researchers find that The Sun's magnetic field is ten times stronger than previously believed

By Professor Michail Mathioudakis, Queen's University, Belfast, Mar 29, 2019 [H/t GWPF] https://www.qub.ac.uk/News/Allnews/ResearchersfindthatTheSunsmagneticfieldistentimesstrong erthanpreviouslybelieved-1.html

Censorship

The Looming Danger for Dissident Professors

By Samuel Abrams, Minding the Campus, Apr 3, 2019

https://www.mindingthecampus.org/2019/04/03/the-looming-danger-for-dissident-professors/

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://climatechangereconsidered.org/climate-change-reconsidered-ii-biological-impacts/

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

Climate Change Reconsidered II: Fossil Fuels

By Multiple Authors, Bezdek, Idso, Legates, and Singer eds., Nongovernmental International

Panel on Climate Change, Draft Summary for Policymakers, NIPCC, 2019

http://climatechangereconsidered.org/wp-content/uploads/2019/01/Climate-Change-

Reconsidered-II-Fossil-Fuels-FULL-Volume-with-covers.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

New Report: Global Warming Is Not Accelerating

By Staff Writers, ICECAP, Apr 3, 2019

http://icecap.us/index.php/go/icing-the-hype/new report global warming is not accelerating1/

The State of the Climate, 2018

By Ole Humlum, GWPF, 2019

Newsletter&utm campaign=459a96d613-EMAIL

Why climate predictions are so difficult

By Judith Curry, Climate Etc. Mar 30, 2019

https://judithcurry.com/2019/03/30/why-climate-predictions-are-so-difficult/

Greenhouse Gases – A More Realistic View

By Jock Allison and Thomas Sheahen, The Journal, The Official Publication of The New Zealand Institute of Primary Industry Management Incorporated, September 2018, pp 3-10.

https://www.nzipim.co.nz/Folder?Action=View%20File&Folder_id=120&File=The%20Journal%20September%202018.pdf

Climate's Uncertainty Principle

By Garth Paltridge, Quadrant Online, Apr 5, 2019

https://quadrant.org.au/magazine/2019/04/climates-uncertainty-principle/

More Evidence for Rapid Coral Adaptation

By Jim Steele, WUWT, Apr 2, 2019

https://wattsupwiththat.com/2019/04/02/more-evidence-for-rapid-coral-adaptation/

Link to paper: A global analysis of coral bleaching over the past two decades

By S. Sully, et al, Nature, Communications, March 20, 2019

https://www.openchannels.org/sites/default/files/literature/a_global_analysis_of_coral_bleaching_over the past two decades.pdf

Time to Straighten out Damage from the Big Lie of Global Warming Starting With Voltaire's Admonition

"If you wish to converse with me, define your terms." - Voltaire

By Tim Ball, WUWT, Mar 30, 2019

https://wattsupwiththat.com/2019/03/30/time-to-straighten-out-damage-from-the-big-lie-of-global-warming-starting-with-voltaires-admonition/

Defending the Orthodoxy

IPCC – AR5, The Physical Science Basis, Technical Summary

By Ulrich Cubasch, et al, IPCC, 2013, Figure TS.7

https://www.ipcc.ch/report/ar5/wg1/technical-summary/

Climate panel disbanded by Trump, now regrouped, releases its report

Framework for translating science into local action

By Staff Writers, Earth Institute at Columbia Univ. EurekAlert Apr 4, 2019 [WUWT]

https://www.eurekalert.org/pub_releases/2019-04/eiac-cpd040119.php

Link to Journal: Weather, Climate, and Society

By various writers, AMS, April 2019

https://journals.ametsoc.org/toc/wcas/current

Commissar Figueres Orders Us To Save The Climate

By Paul Homewood, Not a Lot of People Know That, Apr 5, 2019

 $\underline{https://notalotofpeopleknowthat.wordpress.com/2019/04/05/commissar-figueres-orders-us-to-save-the-climate/}$

For First Time, IEA Quantifies Coal's Dominant Role in Global Temperature Increase

By Sonal Patel, Power Mag, Apr 4, 2019

https://www.powermag.com/for-first-time-iea-quantifies-coals-dominant-role-in-global-temperature-

increase/?mkt_tok=eyJpIjoiTkRBek5EZzJNek15TXpCbSIsInQiOiIrNmtndXBXdXpNYXBBcUh Kb0FKc3loR1h4N1ZuaUpXemNIMG9DZUZHN3JDaUttbVdiRUtKeVNQRUhWYVQ0TUYyT XFJUjVaZzRrWmlDT2k0Mm1tMitBOEhqb1dKSWJ3M2hPNnJXZ3A2NmdXOVZSVmxPNUty aXc4ZEN0V2E4RHNvbvJ9

Link to Global Energy & CO2 Status Report 2018

By Staff Writers, IEA, Mar 26, 2019

https://webstore.iea.org/global-energy-co2-status-report-2018

Coal combustion was responsible for more than 0.3 degrees C of the 1-degree C surge in global average annual surface temperatures above pre-industrial levels—and that makes coal the single largest source of the global temperature increase, the International Energy Agency (IEA) says in a new report.

[SEPP Comment: Precisely quantifying the unknown?]

Study: Most carbon dioxide in atmosphere in 3 million years

By Morgan Gstalter, The Hill, Apr 5, 2019

https://thehill.com/regulation/energy-environment/437528-study-more-carbon-dioxide-in-atmosphere-than-ever-before-in-3

Link to report: More CO2 than ever before in 3 million years, shows unprecedented computer simulation

By Staff Writers, PIK, EurekAlert, Apr 3, 2019

https://www.eurekalert.org/pub_releases/2019-04/pifc-mct040319.php

Link to paper: Mid-Pleistocene transition in glacial cycles explained by declining CO2 and regolith removal

By Wileit, Ganopolski, Calov, and Brovkin, Science Advances, Apr 3, 2019 http://advances.sciencemag.org/content/5/4/eaav7337

[SEPP Comment: Does not explain why at the end of ice ages temperatures rise when CO2 levels remain low. Strongly question the statement: that global temperature never exceeded the preindustrial value by more than 2°C during the Quaternary."]

Questioning the Orthodoxy

The Biggest Lie Ever Told – Man-made Global Warming

By Dr. Timothy Ball & Tom Harris, America Out Loud, Mar 29, 2019

https://americaoutloud.com/the-biggest-lie-ever-told-man-made-global-warming/

[SEPP Comment: Contrary to the assertions of the authors, TWTW considers that the physical evidence indicates CO2 has a warming influence. However, at present concentrations in the atmosphere, the warming influence is quite modest, and any increase will have a diminishing incremental impact.]

Climate News - April 2019

By Alan Moran, The Australian Climate Sceptics Blog, Apr 2, 2019

http://theclimatescepticsparty.blogspot.com/2019/04/climate-news-april-2019.html

"Whimsy: Last year, scientists blamed global warming for decreasing snowfall in the Himalayas. This year, record-breaking snowfall has been blamed on, wait for it, global warming."

Another New Study Supports Early 21st Century Warming Hiatus Was Real

By P Gosselin, No Tricks Zone, Apr 2, 2019

 $\frac{https://notrickszone.com/2019/04/02/another-new-study-supports-early-21st-century-warming-hiatus-was-real/\\$

After Paris!

Australia will no longer contribute to major UN climate change fund

By Rebecca Beitsch, The Hill, Apr 2, 2019

 $\frac{https://thehill.com/policy/energy-environment/436986-australia-will-no-longer-contribute-to-major-un-climate-change-fund$

Change in US Administrations

House Has No Jurisdiction over Paris Agreement

By Marlo Lewis, Jr. CEI, Apr 5, 2019 [H/t Cooler Heads]

https://cei.org/blog/house-has-no-jurisdiction-over-paris-agreement

"Finally, if, as the Obama administration claimed, the Paris Agreement is a sole executive agreement, such as the U.S. bilateral pact with Sweden to develop pollution control methods for military installations, then, by definition, the president need not obtain either chamber's consent to enter into or withdraw from it."

Social Benefits of Carbon Dioxide

When Government Lies to You

Carbon dioxide is not pollution. Our planet would be a wasteland without it. By Donna Laframboise, Big Picture News, Apr 3, 2019 https://nofrakkingconsensus.com/2019/04/03/when-government-lies-to-you/

Review of Recent Scientific Articles by CO2 Science

Climate Change Impacts on the Growth and Yield of Coffee

DaMatta, F.M., Rahn, E., Läderach, P., Ghini, R. and Ramalho, J.C. 2019. Why could the coffee crop endure climate change and global warming to a greater extent than previously estimated? *Climatic Change* 152: 167-178. Apr 5, 2019 http://www.co2science.org/articles/V22/apr/a4.php

The Impact of Warming, CO2 and Iron Availability on a Southern Ocean Phytoplankton Assemblage

Spackeen, J.L., Sipler, R.E., Bertrand, E.M., Xu, K., McQuaid, J.B., Walworth, N.G., Hutchins, D.A., Allen, A.E. and Bronk, D.A. 2018. Impact of temperature, CO2, and iron on nutrient uptake by a late-season microbial community from the Ross Sea, Antarctica. *Aquatic Microbial Ecology* 82: 145-159. Apr 4, 2019

http://www.co2science.org/articles/V22/apr/a3.php

"In discussing their findings, Spackeen *et al.* report that elevated CO2 'did not have a significant impact on the [phytoplankton] community, either individually or in combination with other factors,' which lack of response they attributed to adaptation by the microorganisms to the naturally-fluctuating high and low CO2 environment that is characteristic of the Ross Sea."

Four Decades of Glacial Stability in the Shaksgam Valley of the Chinese Karakoram Mountains

Alifu, H., Hirabayashi, Y., Johnson, B.A., Vuillaume, J.-F., Kondoh, A. and Urai, M. 2018. Inventory of glaciers in the Shaksgam Valley of the Chinese Karakoram Mountains, 1970-2014. *Remote Sensing* 10: 1166; doi:10.3390/rs10081166. Apr 3, 2019 http://www.co2science.org/articles/V22/apr/a2.php

"As shown in Figure 1, across the entire period (1970-2014), the total glacier area remained unchanged, although there were individual differences (increases or decreases) in some (mostly smaller) glaciers. Trends in glacier terminus position, in contrast, revealed an advance in 32% of all glaciers, a retreat in 46% and a relatively stable terminus position across the period of study in 22% of the glaciers. However, the authors note that 'compared to the advancing glaciers, retreating glaciers tended to be smaller glaciers,' which helps to explain why the total glacier area remained unchanged across the four-plus decades."

The Effect of Mild Warming on Winter Wheat

Hou, R., Xu, X. and Ouyang, Z. 2018. Effect of experimental warming on nitrogen uptake by winter wheat under conventional tillage versus no-till systems. *Soil & Tillage Research* 180: 116-125. Apr 1, 2019

http://www.co2science.org/articles/V22/apr/a1.php

"Collectively, the above findings indicate significant benefits of future warming on winter wheat, including increased N uptake, content and concentration, which increases helped to improve both the quantity and quality of the wheat crop. And that is a future worth experiencing!"

Models v. Observations

Natural climate processes overshadow recent human-induced Walker circulation trends

By Staff Writers, EurekAlert, Apr 1, 2019 [H/t WUWT]

https://www.eurekalert.org/pub releases/2019-04/ifbs-ncp040119.php

Link to paper: Reconciling opposing Walker circulation trends in observations and model projections

By Eui-Seok Chung, et al., Nature Climate Change, 2019 https://www.nature.com/articles/s41558-019-0446-4

Model Issues

What's the worst case? Climate sensitivity

By Judith Curry, Climate Etc. Apr 1, 2019

https://judithcurry.com/2019/04/01/whats-the-worst-case-climate-sensitivity/#more-24844

Measurement Issues -- Surface

Australia Surface Temperatures Compared to UAH Satellite Data Over the Last 40 Years By Roy Spencer, His Blog, Apr 3, 2019

 $\underline{http://www.drroyspencer.com/2019/04/australia-surface-temperatures-compared-to-uah-satellite-\underline{data-over-the-last-40-years/?fbclid=IwAR0oFaaim-}$

pDMKPevZYiyS8Ll8nbouGFxKEqQCzhJ4QEAikwFoi_-tuWNCk

Temperatures

By Jennifer Marohasy, Her Blog, Accessed Apr 4, 2019 https://jennifermarohasy.com/temperatures/

New paper: Urbanization has increased minimum temperatures 1.7K in the UK

By Anthony Watts, WUWT, Mar 31, 2019

https://wattsupwiththat.com/2019/03/31/new-paper-urbanization-has-increased-minimum-temperatures-1-7k-in-the-uk/

Link to paper: How much has urbanisation affected United Kingdom temperatures?

By Goddard and Tett, Royal Meteorological Society, Mar 28, 2019

https://rmets.onlinelibrary.wiley.com/doi/full/10.1002/asl.896

"For an urban fraction of 1.0, the daily minimum 2-m temperature was estimated to increase by 1.90 ± 0.88 K while the daily maximum temperature was not significantly affected by urbanisation

Link to second paper: Press Release – Watts at #AGU15 The quality of temperature station siting matters for temperature trends

By Anthony Watts, AGU Fall Meeting, 2015, Dec 17, 2015

 $\frac{https://wattsupwiththat.com/2015/12/17/press-release-agu15-the-quality-of-temperature-station-siting-matters-for-temperature-trends/$

"Using NOAA's U.S. Historical Climatology Network, which comprises 1218 weather stations in the CONUS, the researchers were able to identify a 410 station subset of 'unperturbed' stations that have not been moved, had equipment changes, or changes in time of observations, and thus require no 'adjustments' to their temperature record to account for these problems."

New Paper Finds Oceans Are Source Of "Natural Variability", Drive "Temperature Extreme Indices"

By P Gosselin, No Tricks Zone, Apr 5, 2019

https://notrickszone.com/2019/04/05/new-paper-find-oceans-are-source-of-natural-variability-drive-temperature-extreme-indices/

Link to paper: Understanding the role of sea surface temperature-forcing for variability in global temperature and precipitation extremes

By Andrea J. Dittu, et al., Weather and Climate Extremes, Sep 2018

https://www.sciencedirect.com/science/article/pii/S2212094717301093?dgcid=raven_sd_recommender_email

Fabricating A Warming: NASA Now Altering 'Unadjusted' Data To Create New, Warmer 'Unadjusted' Data

By Kirye and Pierre Gosselin, No Tricks Zone, Mar 31, 2019

https://notrickszone.com/2019/03/31/fabricating-a-warming-nasa-now-altering-unadjusted-data-to-create-new-warmer-unadjusted-data/

CBC Claims Canada Warming Twice As Fast As Globe, Yet Data Tell A Different Story: No Warming In 25 Years!

By Kirye (Tokyo), No Tricks Zone, Apr 3, 2019

 $\frac{https://notrickszone.com/2019/04/03/cbc-claims-canada-warming-twice-as-fast-as-globe-yet-data-tell-a-different-story-no-warming-in-25-years/$

"Over the past 25 years, since scientists began to warn that the planet was warming in earnest, there has not been any warming when one looks at the untampered data provided by the Japan meteorology Agency (JMA) that were measured by 9 different stations across Canada. These 9 stations have the data dating back to around 1983 or 1986, so I used their datasets."

Darwin Temperatures; What is going on?

By Bob Irvine, WUWT, Apr 2, 2019

https://wattsupwiththat.com/2019/04/02/darwin-temperatures-what-is-going-on/

[SEPP Comment: See Spencer's comment on Australian surface temperatures in link below.]

Measurement Issues -- Atmosphere

UAH Global Temperature Update for March, 2019: +0.34 deg. C.

By Roy Spencer, His Blog, Apr 1, 2019

http://www.drroyspencer.com/2019/04/uah-global-temperature-update-for-march-2019-0-34-deg-c/

Link to: March 2019: Maps and Graphs

By Staff Writers, Earth System Science Center, The University of Alabama in Huntsville,

https://www.nsstc.uah.edu/climate/2019/march2019/201903 map.png

https://www.nsstc.uah.edu/climate/2019/march2019/tlt 201903 bar.png

Changing Weather

2019 ENSO forecast

By Judith Curry and Jim Johnstone, Climate Etc. Apr 4, 2019 https://judithcurry.com/2019/04/04/2019-enso-forecast/#more-24851

2019 Hurricane season forecast: below average

By Anthony Watts, WUWT, Apr 4, 2019

https://wattsupwiththat.com/2019/04/04/2019-hurricane-season-forecast-below-average/

The Genius of Crowd Weather Forecasting

By Cliff Mass, Weather and Climate Blog, Apr 2, 2019

https://cliffmass.blogspot.com/2019/04/the-genius-of-crowd-weather-forecasting.html

Changing Climate

The Little Ice Age – Back to the Future

By Jim Steele, WUWT, Apr 4, 2019

https://wattsupwiththat.com/2019/04/04/the-little-ice-age-back-to-the-future/

Scientists Document No Clear Warming Role For CO2 During The Last Deglaciation – Or The Last 10,000 Years

By Kenneth Richard, No Tricks Zone, Apr 4, 2019

https://notrickszone.com/2019/04/04/scientists-find-no-causal-link-between-co2-and-nh-warming-during-last-deglaciation/

[SEPP Comment: The period at the end of the Younger Dryas, is not satisfactorily explained.]

Changing Seas

In ancient oceans that resembled our own, oxygen loss triggered mass extinction

By Staff Writers, Tallahassee FL (SPX), Apr 03, 2019

http://www.terradaily.com/reports/In_ancient_oceans_that_resembled_our_own_oxygen_loss_trig_gered_mass_extinction_999.html

Link to paper: Geochemical evidence for expansion of marine euxinia during an early Silurian (Llandovery–Wenlock boundary) mass extinction

By Seith Young, et al. Earth and Planetary Science Letters, May 2019

https://www.sciencedirect.com/science/article/pii/S0012821X19301207?via%3Dihub

[SEPP Comment: Speculating on what may have happened in less than 8% of the oceans 430 million years ago. The shapes of the oceans have changed dramatically over the eons.]

N. Atlantic Starts Cold in 2019

By Ron Clutz, Science Matters, Apr 4, 2019

https://rclutz.wordpress.com/2019/04/04/n-atlantic-starts-cold-in-2019/

Changing Cryosphere – Land / Sea Ice

Antarctic: 'No role' for climate in Halley iceberg splitting

By Paul Homewood, Not a Lot of People Know That, Apr 5, 2019

https://notalotofpeopleknowthat.wordpress.com/2019/04/05/antarctic-no-role-for-climate-in-halley-iceberg-splitting/

Changing Earth

66 million-year-old deathbed linked to dinosaur-killing meteor

By Robert Sanders, Berkeley News, Mar 29, 2019 [H/t WUWT]

https://news.berkeley.edu/2019/03/29/66-million-year-old-deathbed-linked-to-dinosaur-killing-meteor/

Link to paper: A seismically induced onshore surge deposit at the KPg boundary, North Dakota By Robert DePalma, et al. PNAS, Apr 1, 2019

https://www.pnas.org/content/early/2019/03/27/1817407116

What Caused Madagascar's Megafauna Extinction?

Guest post by David Middleton, WUWT, Apr 2, 2019

https://wattsupwiththat.com/2019/04/02/what-caused-madagascars-megafauna-extinction-about-1000-years-ago/

Agriculture Issues & Fear of Famine

India: Droughts Declining & Famine Eliminated Despite Global Warming

By Vimal Mishra et al., Geophysical Research Letters, January 2019, Via GWPF, Apr 4, 2019 https://www.thegwpf.com/india-droughts-declining-famine-eliminated-despite-global-warming/ Link to paper: Drought and Famine in India, 1870–2016

By Vimal Mishra et al., Geophysical Research Letters, January 2019

https://www.researchgate.net/publication/330593945 Drought and Famine in India 1870-2016

Communicating Better to the Public – Exaggerate, or be Vague?

How to terrify liberals

By Larry Kummer, WUWT, Apr 3, 2019

https://wattsupwiththat.com/2019/04/03/how-to-terrify-liberals/

Communicating Better to the Public – Do a Poll?

New poll: 54% of Australians are still skeptics of man-made climate catastrophe

By Jo Nova, Her Blog, Apr 3, 2019

http://joannenova.com.au/2019/04/new-poll-54-of-australians-are-still-skeptics-of-man-made-climate-catastrophe/

Poll shows Australians are more skeptical of extreme drought, flood and fire voodoo

By Jo Nova, Her Blog, Apr 5, 2019

 $\underline{http://joannenova.com.au/2019/04/poll-shows-australians-are-more-skeptical-of-extreme-drought-flood-and-fire-voodoo/}$

Communicating Better to the Public – Use Propaganda on Children

UK Government to Announce New Energy Policies

By Euan Mearns, Energy Matters, Apr 1, 2019

http://euanmearns.com/uk-government-to-announce-new-energy-policies/#more-23081

Expanding the Orthodoxy

"It's abundantly clear that climate change is already having an impact on human rights. And that this impact will only intensify in coming years."

Kumi Naidoo, Secretary General of Amnesty International, No date

https://www.amnesty.org/en/what-we-do/climate-change/

Questioning European Green

The Flaws in Dutch Climate Policy [Gas Transitions]

By Karel Beckman, Natural Gas World, Mar 20, 2019 [H/t Dennis Ambler]

https://www.naturalgasworld.com/gas-transitions-the-flaws-in-dutch-climate-policy-68769?

"The cost of climate policies: anyone's guess."

"... the Dutch General Accounting Office ('Algemene Rekenkamer'), again an official government institution, calculated in April 2015 that the costs of renewable energy subsidies alone could amount to some €80bn by 2030."

EU Climate Targets to Cost Carmakers €7.4 Billion UBS Warns

By Staff Writers, Financial Times, Via GWPF, Apr 4, 2019

https://www.thegwpf.com/eu-climate-targets-to-cost-carmakers-e7-4-billion-ubs-warns/

To Exit Coal and Nuclear, Europe Turns to Russian Natural Gas

By Staff Writers, IER, Apr 5, 2019

https://www.instituteforenergyresearch.org/international-issues/to-exit-coal-and-nuclear-europe-turns-to-russian-natural-gas/

Questioning Green Elsewhere

Senate Rude Awakening for Green New Deal Dreamers

By Larry Bell, Newsmax, Apr 1, 2019

https://www.newsmax.com/larrybell/gnd-haris-manchin-sanders/2019/04/01/id/909596/

Responding to the Green New Deal: Don't Stop Short

By Robert Bradley, Jr. IER, Mar 4, 2019

 $\underline{https://www.instituteforenergyresearch.org/the-grid/responding-to-the-green-new-deal-dont-stop-short/}$

Business/Robbery etc

By Michael Baume, Spectator, Australia, Mar 30, 2019

https://www.spectator.com.au/2019/03/business-robbery-etc-26/

Bjørn Lomborg: No, renewables are not taking over the world

By Anthony Watts, WUWT, Mar 30, 2019

 $\underline{https://wattsupwiththat.com/2019/03/30/bjorn-lomborg-no-renewables-are-not-taking-over-the-world/}$

Funding Issues

Rockefeller to end city-based climate change program and lay off staff

By Miranda Green, The Hill, Apr 1, 2019

 $\underline{https://thehill.com/policy/energy-environment/436797-rockefeller-to-end-resilient-cities-push-and-layoff-staff}$

The Political Games Continue

Committee emerges as active front in climate push

George Cahlink and Kellie Lunney, E&E News reporters, Apr 2, 2019 https://www.eenews.net/eedaily/2019/04/02/stories/1060139343

Litigation Issues

AGs Dodge Transparency Laws While Seeking the 'Truth' on Climate Issues

By Spencer Walrath, Energy in Depth, Mar 27, 2019

https://eidclimate.org/ags-dodge-transparency-laws-while-seeking-the-truth-on-climate-issues/

Third court upholds EPA policy barring grantees from its advisory panels

By Sean Reilly, E&E News, Via Science, Mar 27, 2019 [H/t Cooler Heads]

 $\underline{https://www.sciencemag.org/news/2019/03/third-court-upholds-epa-policy-barring-grantees-its-advisory-panels}$

"A federal judge today dismissed a third lawsuit challenging a far-reaching EPA restriction on advisory committee membership, likely dealing a fatal blow to opponents' hopes of overturning the policy anytime soon."

Subsidies and Mandates Forever

Why Republicans Need to Attack Subsidies for Wind and Solar and the Rich Elite Supporting Them

By Alan Carlin, Carlin Economics and Science, Mar 31, 2019 http://www.carlineconomics.com/archives/4929

EPA and other Regulators on the March

EPA'S Chemical risk Assessments Rely on Flawed Science, Study Finds

By Linnea Lueken, The Heartland Institute, Mar 26, 2019

 $\underline{\text{https://www.heartland.org/news-opinion/news/epas-chemical-risk-assessments-rely-on-flawed-science-study-finds}$

Link to Study: EPA's Flawed IRIS Program Is Far from Gold Standard

EPA's Integrated Risk Information System Produces Counterproductive Results

By Angela Logomasini, CEI, Feb 12, 2019

https://www.heartland.org/ template-

assets/documents/publications/CEI%20Logomasini%20Integrated%20Risk%20System.pdf

Energy Issues – Non-US

Increasing Electricity System Fragility in the UK

By John Constable, GWPF, Apr 3, 2019

https://www.thegwpf.com/increasing-electricity-system-fragility-in-the-uk/

South Africa's president can't keep the lights on, just as elections approach

By Norimitsu Onishi, NYT, Via Boston Globe, Apr 6, 2019

https://www.bostonglobe.com/news/world/2019/04/06/regular-rolling-blackouts-plague-south-africa/aHW27qH6EpZBGQwCHjYTeI/story.html?et_rid=1882855922&s_campaign=todaysheadlines:newsletter

Energy Issues – Australia

Renewables stress: The daily battle just to keep the lights on in Australia

By Jo Nova, Her Blog, Apr 4, 2019

 $\underline{http://joannenova.com.au/2019/04/renewables-stress-the-daily-battle-just-to-keep-the-lights-on-in-australia/}$

Energy Issues -- US

Critical Reserve Margins

By Donn Dears, Power For USA, Apr 5, 2019

https://ddears.com/2019/04/05/critical-reserve-margins/

NC regulators order Duke Energy to change coal ash storage

By Rebecca Beitsch, The Hill, Apr 1, 2019

https://thehill.com/policy/energy-environment/436775-nc-regulators-order-duke-energy-to-change-coal-ash-storage

Oil and Natural Gas – the Future or the Past?

The Permian Basin Is Now the Highest Producing Oil Field in the World

By Elizabeth Caldwell, Energy In Depth, Apr 2, 2019 [H/t Cooler Heads]

 $\underline{\text{https://www.energyindepth.org/the-permian-basin-is-now-the-highest-producing-oilfield-in-the-world/}$

Amid the furor of the Green New Deal, don't overlook the shale revolution

By Kathleen Hartnett White, Texas Public Policy Foundation, Mar 29, 2019 [H/t Cooler Heads] https://www.texaspolicy.com/amid-the-furor-of-the-green-new-deal-dont-overlook-the-shale-revolution/

Alternative, Green ("Clean") Solar and Wind

Wind Energy in Cold Climates

By Staff Writers, Natural Resources Canada, Dec 21, 2017

https://www.nrcan.gc.ca/energy/renewable-electricity/wind/7321

Wind Power Warning

By Donn Dears, Power For USA, Apr 2, 2019

https://ddears.com/2019/04/02/wind-power-warning/

Drax Protestors Want More Wind Power To "Keep The Lights On"!

By Paul Homewood, Not a Lot of People Know That, Apr 5, 2019

 $\underline{https://notalotofpeopleknowthat.wordpress.com/2019/04/05/drax-protestors-want-more-wind-power-to-keep-the-lights-on/}$

EU Seeks €1.7M Fine over Irish Wind Farm that Killed 50,000 Fish

By Staff Writers, GWPF and The Times, Apr 2, 2019

https://www.thegwpf.com/wind-farm-killed-50000-fish/

Alternative, Green ("Clean") Energy -- Other

What Are Supercritical CO2 Power Cycles?

By Sonal Patel, Power Mag, Apr 1, 2019

https://www.powermag.com/what-are-supercritical-co2-power-

cycles/?mkt_tok=eyJpIjoiTkRBek5EZzJNek15TXpCbSIsInQiOiIrNmtndXBXdXpNYXBBcUhKb0FKc3loR1h4N1ZuaUpXemNIMG9DZUZHN3JDaUttbVdiRUtKeVNQRUhWYVQ0TUYyTXFJUjVaZzRrWmlDT2k0Mm1tMitBOEhqb1dKSWJ3M2hPNnJXZ3A2NmdXOVZSVmxPNUtyaXc4ZEN0V2E4RHNybyJ9

[SEPP Comment: Great strides were made with the miniaturization of electronic circuits. If they work, supercritical CO2 power cycles may lead to far smaller power turbines.]

Inside NET Power: Gas Power Goes Supercritical

By Sonal Patel, Power Mag, Apr 1, 2019

https://www.powermag.com/inside-net-power-gas-power-goes-supercritical/?mypower

[SEPP Comment: Discussion of difficulties in funding a prototype of the Allam Cycle power plant generator.]

Alternative, Green ("Clean") Energy -- Storage

Grid Scale Battery Nonsense 2019

By Rud Istvan, WUWT, Apr 5, 2019

https://wattsupwiththat.com/2019/04/05/grid-scale-battery-nonsense-2019/

Alternative, Green ("Clean") Vehicles

Electric cars are perfect for socialists: Labor plan boosts Big-Gov, but worse for CO2, pollution, coal use, and grid

By Jo Nova, Her Blog, Apr 1, 2019

 $\underline{\text{http://joannenova.com.au/2019/04/labor-cars-plan-means-higher-emissions-more-pollution-more-coal-use-threatens-grid/\#more-63370}$

Emissions up as car buyers switch from diesel to gasoline

Switching fuels is endangering efforts to reach EU emissions targets.

By Kalina Oroschakoff, Politico, Apr 4, 2019 [H/t GWPF]

https://www.politico.eu/article/co2-emissions-up-as-car-buyers-switch-from-diesel-to-gasoline-air-pollution-emissions-diesel-transport-fossil-fuels/

Carbon Schemes

Climate change: 'Magic bullet' carbon solution takes big step

By Matt McGrath, BBC, Apr 3, 2019

https://www.bbc.com/news/science-environment-47638586

Bipartisan senators want 'highest possible' funding for carbon capture technology

By Miranda Green, The Hill, Apr 5, 2019

https://thehill.com/policy/energy-environment/437618-bipartisan-group-of-senators-request-highest-possible-funding-for

California Dreaming

California Climate Has Always Been Wild And Unstable – Even With Low Atmospheric CO2 – New Study Shows!

By P Gosselin, No Tricks Zone, Mar 30, 2019

https://notrickszone.com/2019/03/30/california-climate-has-always-been-wild-and-unstable-even-with-low-atmospheric-co2-new-study-shows/

Link to paper: Biomarkers reveal abrupt switches in hydroclimate during the last glacial in southern California

By Sarah Feakins, et al., Earth and Planetary Science Letters, June 1, 2019

https://www.sciencedirect.com/science/article/pii/S0012821X19301724?dgcid=raven_sd_search_email

California's 'Superbloom' of Wildflowers Looks Spectacular from Space!

By Elizabeth Howell, Space.com, Apr 2, 2019 [H/t WUWT]

https://www.space.com/satellite-spies-wildflower-superbloom-

<u>california.html?utm_source=notification&fbclid=IwAR392ILeDk_ICPtPPPCPtS4HHSJuZuoEgUHoQby2XXOJD3ZVZRP12YjhFHo</u>

Environmental Industry

Biologists: Killing hungry sea lions saving imperiled fish

By Staff Writers, Greenwire, Apr 5, 2019

https://www.eenews.net/greenwire/2019/04/05/stories/1060144817

Other Scientific News

Long Overdue Action on EMP

By John Hinderaker, Power Line, Mar 29, 2019

https://www.powerlineblog.com/archives/2019/03/long-overdue-action-on-emp.php

A fascinating phase transition: From one liquid state to another

By Staff Writers, Tokyo, Japan (SPX), Mar 27, 2019

http://www.spacedaily.com/reports/A_fascinating_phase_transition_From_one_liquid_state_to_an other 999.html

Paper not found under stated link

Building blocks of DNA and RNA could have appeared together before life began on Earth

By Staff Writers, La Jolla CA (SPX), Apr 03, 2019

http://www.spacedaily.com/reports/Building_blocks_of_DNA_and_RNA_could_have_appeared_t_ogether_before_life_began_on_Earth_999.html

Link to paper: Prebiotic phosphorylation of 2-thiouridine provides either nucleotides or DNA building blocks via photoreduction

By Jianfeng Xu, et al, Nature, Chemistry, 2019

https://www.nature.com/articles/s41557-019-0225-x

The Cell: Most Energy Efficient Thing On Earth?

By Alex Berezow, ACSH, April 1, 2019

https://www.acsh.org/news/2019/04/01/cell-most-energy-efficient-thing-earth-13923

Other News that May Be of Interest

Does General Electric Know What It Is Doing?

By Norman Rogers, American Thinker, Apr 2, 2019

https://www.americanthinker.com/articles/2019/04/does_general_electric_know_what_it_is_doing.html

"It is not encouraging that General Electric cannot get well-known facts straight. This suggests that the people who write their 10-K reports don't know what they are doing and don't know what they don't know, so they don't bother to have experts within GE review their claims."

Exodus: 10% of Venezuela has left the country

By Jo Nova, Her Blog, Apr 5, 2019

http://joannenova.com.au/2019/04/exodus-10-of-venezuela-has-left-the-country/

Philadelphia's Tax On Sugary Beverages Hits A Snag

By Chuck Dinerstein, ACSH, Apr 1, 2019

https://www.acsh.org/news/2019/04/01/philadelphias-tax-sugary-beverages-hits-snag-13922

BELOW THE BOTTOM LINE:

AOC Compares Climate Change To 9/11

By Paul Homewood, Not a Lot of People Know That, Apr 1, 2019

https://notalotofpeopleknowthat.wordpress.com/2019/04/01/aoc-compares-climate-change-to-9-11/#more-38705

'Cow toilets' in Netherlands aim to cut e-moo-ssions

By Staff Writers, The Straits Times, Mar 31, 2019

https://www.straitstimes.com/world/europe/cow-toilets-in-netherlands-aim-to-cut-e-moo-ssions

Hot under the collar

By Staff Writers, Climate Change Predictions.org, Apr 5, 2019 http://climatechangepredictions.org/uncategorized/5717

"A new research has shown that as the earth's average temperature rises, so does human 'heat' in the form of violent tendencies, which links global warming with increased violence in human beings.

"While the global warming science has recently come under fire, the main premise behind the Iowa State researchers' research paper is irrefutable. 'It is very well researched and what I call the 'heat hypothesis',' a spokesman said.

"dna India, 20/3/10"

A hell of a climate

By Staff Writers, Climate Change Predictions.org, Apr 4, 2019 http://climatechangepredictions.org/uncategorized/5745

"Billions will die, says Lovelock, who tells us that he is not normally a gloomy type. Human civilisation will be reduced to a 'broken rabble ruled by brutal warlords', and the plague-ridden remainder of the species will flee the cracked and broken earth to the Arctic, the last temperate spot, where a few breeding couples will survive.

"It is going to be a 'hell of a climate', he says, with Europe 8C warmer than it is today; and the real killer, says Lovelock, is that there is not a damn thing we can do about it. We are already pumping out so much carbon dioxide, with no prospect of abatement from the growing economies of China and India, that our fate is sealed.

"The Telegraph (UK), 2 Feb 2006"

ARTICLES:

1. Entrenching the Obama Presidency

A federal judge rules that Trump can't revoke Obama's oil drilling ban. Editorial, WSJ, Apr 5, 2019

https://www.wsj.com/articles/entrenching-the-obama-presidency-11554506803

SUMMARY: The editorial states:

"No branch of government can bind its successors. Yet a federal judge last week divined an exception to this constitutional axiom by enshrining a Barack Obama order walling off 128 million acres of the Arctic and eastern seaboard from oil and gas production. Behold how liberals are attempting to entrench the Obama Presidency.

"In December 2016 Mr. Obama invoked the 1953 Outer Continental Shelf Lands Act to 'indefinitely' ban drilling in federal waters off the Alaska and Atlantic coasts. The law's purpose was to encourage more resource production by delegating to the President power to lease coastal land and 'from time to time, withdraw from disposition any of the unleased lands of the outer Continental Shelf.'

"Until now it's been understood that Presidents cannot permanently withdraw land from production. George H.W. Bush barred drilling off the Pacific Coast, North Atlantic and eastern Gulf of Mexico through 1998. Bill Clinton extended the moratorium through 2008, but this was partly rescinded by George W. Bush.

"Enter Mr. Obama, who declared that the Arctic and Atlantic offshore areas, while too expensive to develop when oil was fetching \$40 a barrel, needed to be permanently off limits 'to move decisively away from fossil fuels.' Shortly before leaving office, his Interior Department also tried to tie these lands in a double knot by excluding them from its five-year leasing plan.

"President Trump rescinded the Obama oil blockade in April 2017, but 10 environmental groups sued. They argue that the Outer Continental Shelf Lands Act does not expressly allow a President to revoke a prior land withdrawal without Congressional approval. Taken to its logical extent this would mean a President can't undo his own actions.

"Federal Judge Sharon Gleason last week agreed with the plaintiffs in an outlandish opinion that ignores the law and constitutional principles. Judge Gleason first ignored that the green groups lack legal standing to sue since they haven't suffered a concrete injury. Only after a five-year leasing plan is developed would the controversy be ripe for judicial review, and then the 1953 law cedes jurisdiction to the D.C. Circuit Court of Appeals.

"But liberal groups wagered they'd get a more favorable reception in the Ninth Circuit Court of Appeals, and Judge Gleason obliged. Seismic tests may occur before a five-year leasing plan is set, she held in an earlier ruling granting the plaintiffs standing, and 'if animals are exposed to high enough levels of sound, such as exist close to some seismic airguns, they can suffer shifts in hearing thresholds and hearing loss that may result in mortality,' which could impair the groups' enjoyment of the environment (our emphasis). These harms are all speculative.

"In her decision last week, she ruled that if Congress had intended to let a President revoke a prior executive order, it would have said so as some other laws do. She concludes that Mr. Obama 'intended [land withdrawals] to extend indefinitely, and therefore be revocable only by an act of Congress.' Ergo, President Obama's intent is supreme.

"This contradicts the general constitutional principle that each branch of government can reconsider its prior actions. Congress may repeal or amend laws even though the Constitution only grants it explicit authority to enact them, just as executive agencies may revise regulations without Congressional instruction. The Supreme Court may reverse its precedents.

"The left is nonetheless advancing a doctrine of executive entrenchment that would allow Presidents to bind their successors. Environmental groups are using similar logic to challenge Mr. Trump's modifications of Mr. Obama's sweeping national monument designations under the 1906 Antiquities Act."

The decision probably will not be reviewed until after the 2020 election

2. The Climate Needs Nuclear Power

If governors are serious about global warming, they'll preserve this vital source of clean energy. By James Hansen and Michael Shellenberger, WSJ, Apr 4, 2019 https://www.wsj.com/articles/the-climate-needs-nuclear-power-11554420097

Mr. Hansen is a climate scientist and head of Climate Science, Awareness and Solutions Program at Earth Institute Columbia University. Mr. Shellenberger is president of Environmental Progress.

SUMMARY: They write:

"Many environmentalists have changed their minds about nuclear energy over the past decade. While the share of energy produced by solar and wind has grown rapidly, nuclear remains America's largest source of clean, zero-emissions electricity. Anyone seriously interested in preventing dangerous levels of global warming should be advocating nuclear power.

"But two-thirds of U.S. nuclear plants in the U.S. are at risk of being closed prematurely and replaced by natural-gas generation, which is currently cheaper in many states. If that happens, carbon emissions could increase by an amount equivalent to adding 47 million new cars to the road.

"Ideally, the federal government would solve this problem, but between Republican skepticism of climate change and Democratic opposition to nuclear energy, that's unlikely to happen before many nuclear-plant operators must decide whether to shut down. Thus the job of keeping these beleaguered nuclear plants open falls to state governments.

"Lawmakers in Ohio and Pennsylvania are considering proposals to keep their nuclear plants operating. Ohio is at risk of losing two plants that produce 90% of its clean energy. Pennsylvania's five nuclear plants produce nearly as much electricity as do all of America's solar panels and farms. Nuclear accounts for 93% of the Keystone State's clean, zero-emissions electricity. If Pennsylvania and Ohio's nuclear plants close and are replaced by facilities that burn natural gas, it would be like adding 13.5 million new cars to the roads.

"Nuclear plants can be saved through modest subsidies similar to the ones extended by lawmakers in Connecticut, Illinois, New Jersey and New York between 2016 and 2018. Those subsidies have been smaller than the federal subsidy that wind-energy generators have received for 27 years. In 2017 New York energy regulators gave nuclear power generators a subsidy of \$17.34 per megawatt-hour. They also subsidized wind generators at \$23 per megawatt-hour on top of the federal subsidy of \$22 per megawatt-hour. [Boldface added.]

"The fossil-fuel lobby's objections to nuclear power are understandable. The American Petroleum Institute wants to replace Ohio's and Pennsylvania's nuclear plants with natural-gas plants because its members stand to benefit. But why do groups that claim to be concerned about the climate oppose nuclear power?

"Some Democratic lawmakers in Pennsylvania and environmental groups such as the Natural Resources Defense Council are urging state legislators not to subsidize nuclear without

increasing subsidies for solar and wind. While combining subsidies for nuclear with subsidies for wind and solar worked to get legislation passed in New York and Illinois in 2016, such an approach risks backfiring in Ohio and Pennsylvania, where state lawmakers are more fiscally conservative and tend to be skeptical of renewables.

"Saving nuclear plants won't be free, but keeping them open will keep electricity prices lower than if natural gas is allowed to dominate. Both Ohio and Pennsylvania still produce large amounts of electricity from coal, which is being replaced by natural gas. If both coal and nuclear plants are replaced by gas, ratepayers will be vulnerable to future price increases at the hands of monopolistic gas generators.

"New York and California, meanwhile, are moving ahead with plans to close two nuclear plants. In the Empire State, Westchester County's Indian Point will close in 2021 and, on the West Coast, San Luis Obispo's Diablo Canyon will go offline in 2025. California is already set to miss its 2030 target of a 40% reduction in emissions below 1990 levels. If Diablo Canyon closes and half of its output is replaced by natural gas, there's no way they'll get there.

"It is notable that while three natural-gas plants are being built to succeed Indian Point, local opposition to the construction of solar and wind farms has kept them from being built at anywhere near the rate necessary to replace the nuclear facility's output.

"We've been here before. Environmentalists promised that solar and wind would replace output from California's San Onofre Generating Station, which closed in 2013, and the Vermont Yankee Nuclear Plant, which shut down the following year. Instead, they were replaced mostly by natural gas, and emissions rose in both states. At the rate Vermont is building new wind farms, it would take 474 years to match the electricity generation it lost from closing Vermont Yankee.

[Boldface added]

"The problem isn't only that nuclear plants generate far more electricity. It's that solar and wind generate it only sporadically, which means they must be backed up by other sources of power 100% of the time. There is great hype about batteries, and using dams as pumped storage. But those solutions remain extremely expensive, which is why whenever nuclear plants close anywhere in the world, they are usually replaced by coal or natural-gas plants—not solar, not wind and not batteries."

The authors close by arguing that the governors should take action in their home states.