The Week That Was: 2018-04-14 (April 14, 2018) Brought to You by SEPP (www.SEPP.org) The Science and Environmental Policy Project

Quote of the Week. "There is no more common error than to assume that, because prolonged and accurate mathematical calculations have been made, the application of the result to some fact of nature is absolutely certain." — A.N. Whitehead, [H/t Tim Ball]

Number of the Week: \$1.00 per month

THIS WEEK:

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

Which Trends? Last week's TWTW may have given a wrong impression to some readers. In discussing the estimate by Christy, et al., of the rate of warming of the bulk atmosphere over the past 38 years of 0.10 ± 0.03 °C per decade, the rate of warming was used to project the warming from a doubling of CO2. Not emphasized sufficiently strongly is that the projection embodies the highly speculative assumption that the rate will continue for about two centuries. Most assuredly, it will not.

The rate of warming or cooling will change constantly, and we cannot forecast, which direction, how much, or why. The principle source of energy is the sun, providing irradiance, solar wind (plasma), and solar magnetism. The changing intensity of the sun, changing orbit of the earth, and the slowly changing tilt of its rotation axis all affect the earth's climate. Also, galactic cosmic rays may play a role. These are external sources of instability and uncertainty.

Complicating the issue even further is the earth's rotation produces gyres and flows in two dynamic fluids, the atmosphere and the oceans, resulting in a turbulent system. Oceans cover over 70% of the earth's surface. Fluid dynamics is not well understood. Coupled with the rotation of the earth, these two dynamic fluids create internal variability in the climate system. The exchange of energy within or between the oceans and the atmosphere can cause one or the other to warm or cool without any change in the energy provided by the sun.

Thus, we have natural variation without human influence, some of it is poorly understood or misunderstood. For example, carbon dioxide (CO2) is the atmospheric gas most readily absorbed by water, rain. Cold water more readily absorbs gases than warm water. When the oceans cool they absorb more atmospheric CO2, when they warm they release CO2, increasing its concentration in the atmosphere.

This variation in the composition of the atmosphere is seen in ice cores, such as those taken at Vostok in Antarctica. Many people believe variation in CO2 caused the variation in temperatures recorded in ice cores, thus declaring CO2 was the cause of the temperature change. However, the correlation was the opposite. Temperature change caused by other mechanisms preceded the change in CO2 concentrations. Careful examination of the ice cores at the end of the last warm period, the Eemian, show that falling temperatures lead falling CO2 concentrations for about 14,000 years. Both fall, but temperatures first.

Some of the difficulties of predicting / projecting global warming / climate change are discussed in a paper written by Jay Lehr, Kenneth Haapala, Patrick Frank, and Patrick Moore in addressing the eight questions asked by Judge William Alsup in the public nuisance lawsuit brought by Oakland and San Francisco against oil companies. The paper was published by The Heartland Institute, which published the reports of the Nongovernmental International Panel on Climate Change (NIPCC). See links under Challenging the Orthodoxy – NIPCC and Challenging the Orthodoxy.

Exponential Functions: Exponential functions are ones in which a constant is increased by an exponent, in effect, multiplied by itself, perhaps several times. They are used frequently in reports of the Intergovernmental Panel on Climate Change (IPCC) and by advocates of these reports. For example, as discussed in last week's TWTW, in his judicial tutorial on behalf of the California Cities, Myles Allen, a lead author in the Fifth Assessment Report (IPCC, AR5, 2013 & 14) used exponential functions to project future increases of sea level in the Bay Area.

This use is highly misleading. It gives the impression that the rate of sea level rise will become infinite sometime in the future. Unless there are compelling reasons given, any such projections should be heavily discounted. [Some investment analysts have considered the use of exponential functions sufficient reason to dismiss an investment prospectus.] Previously, the NASA-GISS (Goddard Institute for Space Studies) web site had an exponential function for 21st century sea level rise. The bulk of the rise would be in the last decade of the century, with a rate of rise equal or greater than the rate of rise during the melting of the great ice sheets covering the northern part of the Northern Hemisphere during the last Ice Age. It made no sense. [Note that a recent search of the web site failed to uncover it.]

In recent reports on local sea level rise, NOAA has resorted to similar tricks to deceive the public. Sea level rise projections of up to 7 feet (2 meters) in the Tampa-St. Petersburg, Florida, are but one example. Such exaggerations are indicative of an irresponsible government agency.

Please note that decades of experiments in different laboratories clearly establish that the ability of carbon dioxide (CO2) to absorb infrared radiation, energy given off from the earth to space, is logarithmic. Logarithmic is the opposite of exponential, and like exponential should only be used based on strong evidence. Unless there is compelling evidence indicating otherwise, TWTW will assume that adding CO2 to the atmosphere will modestly increase atmospheric temperatures, while recognizing that the CO2 influence may be overwhelmed by natural variation. See last week's TWTW, "In Defense of Oakland and San Francisco" and referenced links.

NASA – No Data from Space? A review of NASA-GISS material produced two articles with James Hansen, former head of NASA-GISS, as the lead author. One was published in 1988, the other in 2008, twenty years later. Of particular interest was the use of atmospheric temperature data from satellite measurement – there was none. In 1988, the technique for using satellite observations for estimating temperatures had not been developed. But, in 2008 a 29-year database existed. Yet, it was ignored by NASA-GISS. Perhaps, one can attribute this ignorance to inertia in bureaucratic science. See links under Defending the Orthodoxy.

Multi-Layered Defense: Our friends in the New Zealand Climate Science Coalition (NZCSC) have spent months to get the Royal Society of New Zealand to substantiate the claim that mankind is causing dangerous global warming. They final received an answer – a link to a

February 17, 2014 web post by The Royal Society in the UK titled: "Climate change: evidence and causes."

The project background section states:

"The Royal Society and the US National Academy of Sciences, with their similar missions to promote the use of science to benefit society and to inform critical policy debates, offer this new publication as a key reference document for decision makers, policy makers, educators, and other individuals seeking authoritative answers about the current state of climate change science. The publication makes clear what is well established, where consensus is growing, and where there is still uncertainty. It is written and reviewed by a UK-US team of leading climate scientists. It echoes and builds upon the long history of climate-related work from both national science academies, as well as the newest climate change assessment from the United Nations' Intergovernmental Panel on Climate Change."

The answer to the key question: "How do scientists know that recent climate change is largely caused by human activities?" is:

"Scientists know that recent climate change is largely caused by human activities from an understanding of basic physics, comparing observations with models, and fingerprinting the detailed patterns of climate change caused by different human and natural influences.

"Since the mid-1800s, scientists have known that CO2 is one of the main greenhouse gases of importance to Earth's energy balance. Direct measurements of CO2 in the atmosphere and in air trapped in ice show that atmospheric CO2 increased by about 40% from 1800 to 2012. Measurements of different forms of carbon (isotopes, see Question 3) reveal that this increase is due to human activities. Other greenhouse gases (notably methane and nitrous oxide) are also increasing as a consequence of human activities. The observed global surface temperature rise since 1900 is consistent with detailed calculations of the impacts of the observed increase in atmospheric CO2 (and other human-induced changes) on Earth's energy balance.

"Different influences on climate have different signatures in climate records. These unique fingerprints are easier to see by probing beyond a single number (such as the average temperature of Earth's surface), and looking instead at the geographical and seasonal patterns of climate change. The observed patterns of surface warming, temperature changes through the atmosphere, increases in ocean heat content, increases in atmospheric moisture, sea level rise, and increased melting of land and sea ice also match the patterns scientists expect to see due to rising levels of CO2 and other human-induced changes (see Question 5).

"The expected changes in climate are based on our understanding of how greenhouse gases trap heat. Both this fundamental understanding of the physics of greenhouse gases and fingerprint studies show that natural causes alone are inadequate to explain the recent observed changes in climate. Natural causes include variations in the Sun's output and in Earth's orbit around the Sun, volcanic eruptions, and internal fluctuations in the climate system (such as El Niño and La Niña). Calculations using climate models (see Learn about... computer models) have been used to simulate what would have happened to global temperatures if only natural factors were influencing the climate system. These simulations yield little warming, or even a slight cooling, over the 20th century. Only when models include human influences on the composition of the

atmosphere are the resulting temperature changes consistent with observed changes." [Boldface added.]

So, the quest for hard evidence is dismissed with bureaucratic science capped with circular reasoning and models that produce infinite solutions, while ignoring the atmosphere, where the greenhouse effect occurs.

See links under Challenging the Orthodoxy and Defending the Orthodoxy.

Real Threats: The electrical grid is an energized system serving all those on it, producers and consumers alike. It can be likened to a nervous system, serving all organs in the human body. Failure, for whatever reason, such as South Australia Black Event or the US Northeast blackout of 2003, can be dangerous and expensive. In the US and southern Canada, independent system operators (ISOs) or regional transmission organizations (RTOs) are responsible for maintaining the grid at a constant level – voltage and frequency. Frequency is kept to tight tolerances.

Serving about 65 million people, the PJM Interconnection is the largest ISO in the US, in terms of population. It serves parts or all of Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia.

During the harsh storm of December 27, 2017, to January 8, 2018, called the Bomb Cyclone, the PJM Interconnection almost failed. John Constable of the Global Warming Policy Foundation discusses an important study of this near failure, and the near failure of other ISOs in the Northeast and Midwest. Failure was prevented by coal-fired power plants increasing electrical generation by 63%, natural gas plants by 20%, nuclear by 5.3% and seldom used oil by 26% over planned generation. These forms of electrical generation are condemned by the environmental industry.

Generation from highly praised and highly subsidized wind and solar fell by 12%. So-called sustainable energy cannot be sustained in bad weather.

Modern civilization requires reliable electricity. Power engineers call it dispatchable, it can be dispatched when and where needed. Pretending that wind and solar can substitute for thermal electricity generation (coal, oil, gas, and nuclear) is promoting a myth, just like the myth promoted by the EPA that carbon dioxide emissions endanger public health and welfare. However, based on these myths, the environmental and energy policies by many in the federal government and many states are endangering public health and welfare. These are the real threats, not a gas needed for life. See links under Challenging the Orthodoxy and Energy Issues – Real Threats.

Clean Coal in China: China, and much of Asia, has a real health threat from the smog produced by burning coal in the winter for heat, particularly in residences. The source of the threat has been misinterpreted by much of the western press as coming from coal-fired power plants.

China is a world leader in building modern, high-efficiency coal-fired power plants, when equipped with proper filters, emit few smog-causing compounds. Further, when Chinese leaders speak of "clean coal" they are not referring to the absurd western concept of burying carbon dioxide into the ground at the cost of billions of dollars, which may work in highly specialized

circumstances only. They are referring to modern, high-efficiency power plants. See Article # 2 and links under Energy Issues – Non-US.

Number of the Week: \$1.00 per month. The largest hydro-electric system in the US is the Columbia-Snake River system operated by the Bonneville Power Authority. It continues to be attacked by environmental groups for maintaining dams built forty to eighty years ago. Federal courts have ruled the dams built on the lower Snake River, hundreds of miles from the ocean, are threat to sea life – killer whales and salmon. A group called NW Energy Coalition produced a study claiming:

"Balanced portfolios of clean energy resources, including solar, wind, energy efficiency, demandresponse, and storage can replace the power the four LSR Dams contribute to the Northwest region."

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 six past recipients, Lisa Jackson, Barrack Obama, John Kerry, Ernest Moniz, John Holdren and Gena McCarthy are not eligible. Generally, the committee that makes the selection prefers a candidate with a national or international presence. The voting will close on July 30. Please send your nominee and a brief reason why the person is qualified for the honor to Ken@SEPP.org. Thank you. The award will be presented at the annual meeting of the Doctors for Disaster Preparedness in August.

NEWS YOU CAN USE:

Science: Is the Sun Rising?

Prof Nir Shaviv: The Cosmic Ray Climate Link

Video, GWPF, Apr 9, 2018

https://www.thegwpf.com/prof-nir-shaviv-the-cosmic-ray-climate-link/

Solar activity over nine millennia: A consistent multi-proxy reconstruction

By Chi Ju Wu, I. G. Usoskin, N. Krivova, G. A. Kovaltsov, M. Baroni, E. Bard, and S. K. Solanki, Astronomy & Astrophysics, Apr 5, 2018 [H/t GWPF]

https://arxiv.org/pdf/1804.01302.pdf

From the abstract: "Here we aim to provide a new consistent multiproxy reconstruction of the solar activity over the last 9000 years, using all available long-span datasets of 10Be and 14C in terrestrial archives."

Sunspot update for March 2018: the sun crashes!

By Robert Zimmerman, Behind the Black, Apr 9, 2018

http://behindtheblack.com/behind-the-black/essays-and-commentaries/sunspot-update-for-march-2018-the-sun-crashes/

Commentary: Is the Sun Rising?

Astronomers Just Found They've Been Completely Wrong About These Giant Sun Tornadoes

By Mike McRae, Science Alert, Apr 6, 2018

https://www.sciencealert.com/astronomers-have-been-completely-wrong-about-these-giant-solar-twisters

Put-up-or-Shut-up Time for the Sun Spot Theory

By James Bacon, Bacon's Rebellion, Apr 12, 2018 [H/t GWPF]

http://baconsrebellion.com/put-up-or-shut-up-time-for-the-sun-spot-theory/

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

A Climate Science Tutorial Prepared for Hon. William Alsup

By Jay Lehr, Kenneth Haapala, Patrick Frank, and Patrick Moore, The Heartland Institute, Apr 13, 2018

https://www.heartland.org/publications-resources/publications/a-climate-science-tutorial-prepared-for-hon-william-alsup

Coal and Oil Prevented US Blackouts This Winter

By John Constable, GWPF, Apr 8, 2018

https://www.thegwpf.com/coal-and-oil-prevented-us-blackouts-this-winter/

Link to report: Reliability and the Oncoming Wave of Retiring Baseload Units, Volume I: The Critical Role of Thermal Units During Extreme Weather Events

By Peter Balash, et al, National Energy Technology Laboratory, DOE, Mar 13, 2018 https://www.netl.doe.gov/research/energy-analysis/search-publications/vuedetails?id=2594

Appeasement in the Bizarre World of Climate, Politics, and Big Oil

Guest Opinion: Dr. Tim Ball, WUWT, Apr 5, 2018

https://wattsupwiththat.com/2018/04/05/appeasement-in-the-bizarre-world-of-climate-politics-and-big-oil/

"Commerce is greedy. Ideology is blood thirsty."

The Parade of Impending Catastrophes

By Norman Rogers, American Thinker, Apr 11, 2018

https://www.americanthinker.com/articles/2018/04/the parade of impending catastrophes.html [SEPP Comment: Among other issues, Rogers explains that herbicide resistant crops, feared by some, reduce soil erosion by allowing no-till farming.]

Kiwi Royal Society fails to produce climate evidence

By Richard Treadgold, Climate Conversation Group, Apr 8, 2018 [H/t GWPF] https://www.climateconversation.org.nz/2018/04/kiwi-royal-society-fails-to-produce-climate-evidence/

"The Royal Society of New Zealand (RSNZ) cannot substantiate their claim that mankind is causing dangerous global warming. The NZ Climate Science Coalition (NZCSC) have just spent months pursuing them for evidence, which they failed to produce. We believe that it does not exist."

New Climate Reports Make Much Ado about Little

By Patrick Michaels, Cato, Apr 12, 2018

https://www.cato.org/blog/new-climate-reports-make-much-ado-about-little

Steve Amstrup is lying to the media about my critique of his 2007 model

By Susan Crockford, Polar Bear Science, Apr 12, 2018

https://polarbearscience.com/2018/04/12/steve-amstrup-is-lying-to-the-media-about-my-critique-of-his-2007-model/

"Amstrup fell in love with his 2007 predictive model (Amstrup et al. 2008), a deadly sin for any scientist."

Defending the Orthodoxy

How do scientists know that recent climate change is largely caused by human activities?

By Staff Writers, The Royal Society with US National Academy of Sciences, Accessed Apr 12, 2018

Climate change: evidence and causes

https://royalsociety.org/topics-policy/projects/climate-change-evidence-causes/

The actual question:

https://royalsociety.org/topics-policy/projects/climate-change-evidence-causes/question-2/

Selection of Authors for IPCC Sixth Assessment Report

By Staff Writers, IPCC, Apr 6, 2018 [H/t Climate Etc.] http://www.ipcc.ch/news and events/pr ar6 authors.shtml

Global climate changes as forecast by Goddard Institute for Space Studies threedimensional model

By J. Hansen, I. Fung, A. Lacis, D. Rind, S. Lebedeff, R. Ruedy, G. Russell and P. Stone, Journal of Geophysical Research, Aug 20, 1988

https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1029/JD093iD08p09341

http://sealevel.info/hansen1988.pdf

[SEPP Comment: The 1988 model from Hansen.]

Target Atmospheric CO2: Where Should Humanity Aim?

By James Hansen, et al, NASA-GISS, 2008

http://www.columbia.edu/~jeh1/2008/TargetCO2 20080407.pdf

[SEPP Comment: The 2008 model from Hansen, after comprehensive atmospheric temperature measurements were well established.]

The Confidence Trap: Balancing the Proof Burden in the Climate Conversation

By Roger Cooke, Resources for the Future, Winter 2017 [H/t Climate Etc.] http://www.rff.org/research/publications/confidence-trap-balancing-proof-burden-climate-conversation

"RFF's Roger Cooke discusses the confidence trap and how current conversations about climate change misallocate the burden of proof. Cooke was a lead author of the chapter on risk and uncertainty in the Intergovernmental Panel on Climate Change's Fifth Assessment Report."

"The reality is that we have to make decisions about climate change before all the facts are in. We don't want to get our confirmation as we did at Pearl Harbor."

[SEPP Comment: What a foolish example!]

2018 March for Science will be far more than street protests

By Jeffrey Mervis, Science, Apr 4, 2018

http://www.sciencemag.org/news/2018/04/2018-march-science-will-be-far-more-street-protests [SEPP Comment: Which science – objective or bureaucratic?]

American conservatives are still clueless about the 97% expert climate consensus

Dana Nuccitelli, The Guardian, Apr 5, 2018 [H/t Dennis Ambler]

 $\underline{https://www.theguardian.com/environment/climate-consensus-97-per-cent/2018/apr/05/american-conservatives-are-still-clueless-about-the-97-expert-climate-consensus}$

[SEPP Comment: Expert in misleading the public by using falsified models?]

New Zealand bans offshore drilling to combat climate change

By Jacquelin Thomsen, The Hill, Apr 13, 2018

 $\frac{http://thehill.com/policy/energy-environment/383033-new-zealand-bans-offshore-drilling-to-combat-climate-change}{}$

Coal use will drastically decline in the next 30 years, the World Bank predicts

By Bhawna Sharma, CNBC, Apr 1, 2018

https://www.cnbc.com/2018/04/01/coal-use-will-drastically-decline-in-the-next-30-years-the-world-bank-predicts.html

Questioning the Orthodoxy

A Startling New Discovery Could Destroy All Those Global Warming Doomsday Forecasts Editorial, IBD, Apr 9, 2018

https://www.investors.com/politics/editorials/global-warming-computer-model-nitrogen-rocks/

"Climate scientists have long known that plants offset some of the effects of climate change by absorbing and storing CO2. But climate scientists assumed that the ability to plants to perform this function was limited because the availability of nitrogen in the atmosphere was limited. "As a 2003 study published in the same Science journal put it, 'there will not be enough nitrogen

available to sustain the high carbon uptake scenarios."

[SEPP Comment: Dry air is 78% nitrogen, 21% oxygen.]

The War On Science Isn't Coming From The Right

By John Stossel, IBD, Apr 11, 2018

https://www.investors.com/politics/columnists/war-on-science-coming-from-left/

After Paris!

The Paris Climate Accords Are Looking More and More Like Fantasy

By David Wallace-Wells, New York Mag, Mar 25, 2018 [H/t Climate Etc.]

http://nymag.com/daily/intelligencer/2018/03/the-paris-climate-accords-are-starting-to-look-like-fantasy.html?utm source=tw&utm medium=s3&utm campaign=sharebutton-b

Bangladesh, Ethiopia, China Demand More Geoengineering Money

Guest essay by Eric Worrall, WUWT, Apr 8, 2018

https://wattsupwiththat.com/2018/04/08/bangladesh-ethiopia-china-demand-more-geoengineering-money/

Developing countries must lead on solar geoengineering research

The nations that are most vulnerable to climate change must drive discussions of modelling, ethics and governance, argue

By A. Atiq Rahman, Paulo Artaxo, Asfawossen Asrat, Andy Parker and 8 co-signatories. Nature, Apr 3, 2018

https://www.nature.com/articles/d41586-018-03917-8

[Great propaganda photo of villagers at the edge of an eroding riverbank – riverbanks have never eroded before?]

Argentina accused of caving to Trump by dropping carbon price from G20 talks

By Annemarie Botzki, Climate Home News, Apr 10., 2018

http://www.climatechangenews.com/2018/04/10/argentina-accused-caving-trump-dropping-carbon-price-g20/

Change in US Administrations

Scott Pruitt, Warrior for Science

Democrats and liberal journalists attack the EPA head for insisting on transparency, shared research, and rigorous peer review.

By John Tierney, City Journal, Apr 11, 2018 [H/t Cooler Heads]

https://www.city-journal.org/html/scott-pruitt-warrior-science-15821.html

Climate Sceptics Feel Empowered to 'Keep Pushing' Under Trump

By Zack Colman, E&E News, Via GWPF, Apr 7, 2018

https://www.thegwpf.com/climate-sceptics-feel-empowered-to-keep-pushing-under-trump/ The link may not work.

Dems call for probe into EPA chief's use of multiple email addresses

By Miranda Green, The Hill, Apr 12, 2018

http://thehill.com/policy/energy-environment/382870-dems-epa-chief-uses-at-least-four-emails-to-conduct-business

[SEPP Comment: Is he using fictitious employees as Lisa Jackson did?]

Media Focuses On Scott Pruitt, After Eight Years Of Ignoring Obama EPA Scandals

By Michael Bastasch, Daily Caller, Apr 9, 2018 [H/t Cooler Heads]

http://dailycaller.com/2018/04/09/media-epa-scott-pruitt-obama-scandals/

The New EPA And Why The Radical Left Is Losing It

By Steve Forbes, IBD, Apr 5, 2018

https://www.investors.com/politics/commentary/the-new-epa-and-why-the-radical-left-is-losing-it/

Problems in the Orthodoxy

New source of global nitrogen discovered: Earth's bedrock

Nutrient fuels plant growth worldwide

By Staff Writers, NSF, Apr 5, 2018

https://www.nsf.gov/news/news_summ.jsp?cntn_id=244968&WT.mc_id=USNSF_51&WT.mc_ev=click

Seeking a Common Ground

Steering clear of climate alarm

Climate change alarmists should chill on Earth Day 2018

By Anthony J. Sadar, the Washington Times, Apr 11, 2018

https://www.washingtontimes.com/news/2018/apr/11/five-reasons-not-to-freak-out-about-manmade-climat/

Review of Recent Scientific Articles by CO2 Science

Elevated CO2 Improves the Growth of a Tropical Diatom Community

Shaik, A.U.R., Biswas, H. and Pal, S. 2017. Increased CO2 availability promotes growth of a tropical coastal diatom assemblage (Goa coast, Arabian Sea, India). *Diatom Research*, Volume 32, 2017 - Issue 3, Apr 12, 2018

http://www.co2science.org/articles/V21/apr/a7.php

"Consequently, Shaik et al. write in conclusion that, given the significantly positive responses observed in their analyses, the natural phytoplankton community will likely 'benefit and exhibit higher growth' from any future decline in seawater pH, be it of natural or anthropogenic origin. And that could have incredibly positive impacts on higher organisms within the food chain that rely upon these key primary producers."

[SEPP Comment: The link to the paper is

https://www.tandfonline.com/doi/abs/10.1080/0269249X.2017.1379443?journalCode=tdia20]

The Influence of Extreme Temperatures on Respiratory Morbidity in China

Song, X., Wang, S., Li, T., Tian, J., Ding, G., Wang, J., Wang, J. and Shang, K. 2018. The impact of heat waves and cold spells on respiratory emergency department visits in Beijing, China. *Science of the Total Environment* 615: 1499-1505. Apr 11, 2018 http://www.co2science.org/articles/V21/apr/a6.php

Elevated CO2 Improves the Net Photosynthesis and Water Use Efficiency of Soybean

Wang, Y., Yan, D., Wang, J., Sing, Y. and Song, X. 2017. Effects of elevated CO2 and drought on plant physiology, soil carbon and soil enzyme activities. Pedosphere 27: 846-855. Apr 9, 2018 http://www.co2science.org/articles/V21/apr/a5.php

Model Issues

Predicting water storage beyond 2-5 years over global semiarid regions

By Staff Writers, Chinese Academy of Sciences, Apr 4, 2018

https://phys.org/news/2018-04-storage-years-global-semiarid.html

Link to paper: A First Look at Decadal Hydrological Predictability by Land Surface Ensemble Simulations

Geophysical Research Letters, Mar 5, 2018

https://agupubs.onlinelibrary.wiley.com/doi/abs/10.1002/2018GL077211

Measurement Issues -- Surface

A look at the GHCN Daily Minimums Debunks a Basic Assumption of Global Warming Guest essay by Mark Fife, WUWT, Apr 5, 2018

https://wattsupwiththat.com/2018/04/05/a-look-at-the-ghcn-daily-minimums-debunks-a-basic-assumption-of-global-warming/

Measurement Issues -- Atmosphere

Array Of Data Shows Atmospheric Temperatures In Free Fall, Ocean Surfaces Cooling Off By P Gosselin, No Tricks Zone, Apr 11, 2018

http://notrickszone.com/2018/04/11/array-of-data-shows-atmospheric-temperatures-in-free-fall-ocean-surfaces-cooling-off/#sthash.hRyFFowy.dpbs

[SEPP Comment: "Free Fall" is a poor way to describe the decline.]

Changing Weather

Here's what Yosemite's recent flooding looked like. Oh, those thundering waterfalls

By Mary Forgione, LA Times Apr 12, 2018 [H/t Howard Hayden]

http://www.latimes.com/travel/la-tr-yosemite-flooding-video-20180411-

story.html#nws=mcnewsletter

[SEPP Comment: In the past, such floods prompted the building of reservoirs to protect communities downriver, leading to the irrigation system serving farming in the Central Valley.]

West Coast Precipitation Trends

By Cliff Mass, Weather and Climate Blog, Apr 9, 2018

http://cliffmass.blogspot.com/2018/04/west-coast-precipitation-trends.html

- "(1) With all the talk of droughts and floods in the media, there is really very little long-term trend in winter precipitation over the U.S. West Coast.
- "(2) The West Coast has a lot of year-to-year variability, so having dry and wet years is not unusual."

Stormy April to give snow job to Midwest

By Roy Spencer, His Blog, Apr 12, 2018

http://www.drroyspencer.com/2018/04/stormy-april-to-give-snow-job-to-midwest/

Will There Be A 2018/19 El Niño?

Guest Post by Bob Tisdale, WUWT, Apr 6, 2018

https://wattsupwiththat.com/2018/04/06/will-there-be-a-2018-19-el-nino/

[SEPP Comment: Not clear!]

Changing Climate

Climatic Cycles Globally...Spitzbergen Weather Records Show It Was Just As Warm 70 Years Ago!

On Spitzbergen it was as warm 70 years ago as it is today

By Dr. Sebastian Lüning and Prof. Fritz Vahrenholt (German text translated by P Gosselin), No Tricks Zone, Apr 8, 2018

http://notrickszone.com/2018/04/08/climatic-cycles-globally-spitzbergen-weather-records-show-it-was-just-as-warm-70-years-ago/#sthash.lARIJ2JA.dpbs

Link to paper: Air temperature conditions in northern Nordaustlandet (NE Svalbard) at the end of World War II

By Rajmund Przybylak, Przemysław Wyszyński, and Marta Woźniak, Royal Meteorological Society, Mar 6, 2018

https://rmets.onlinelibrary.wiley.com/doi/abs/10.1002/joc.5459

Changing Seas

70+ Papers: Holocene Sea Levels 2 Meters Higher – Today's Sea Level Change Indistinguishable From Noise

By Kenneth Richard, No Tricks Zone, Apr 12, 2018

http://notrickszone.com/2018/04/12/70-papers-holocene-sea-levels-2-meters-higher-todays-sea-level-change-indistinguishable-from-noise/#sthash.PDRZngff.dpbs

[SEPP Comment: Poor Title / Headline.]

Changing Cryosphere – Land / Sea Ice

New study reveals increased snowfall in Antarctica over last two centuries

By Staff Writer, British Antarctic Survey, Apr 9, 2018

https://phys.org/news/2018-04-reveals-snowfall-antarctica-centuries.html

Link to paper: Regional Antarctic snow accumulation over the past 1000 years,

By Elizabeth Thomas, et al., Climate of the Past, Nov 10, 2017

https://www.clim-past.net/13/1491/2017/

S'No Surprise in Antarctica!

By Patrick Michaels, Cato, Apr 12, 2018

https://www.cato.org/blog/sno-surprise-antarctica

The Arctic Appears to be Headed for Another Summer Melting Season with Near Normal Temperatures

By Paul Dorian, Vencore, Weather. Apr 9, 2018 [H/t GWPF]

https://www.vencoreweather.com/blog/2018/4/9/800-am-the-arctic-appears-to-be-headed-for-another-summer-melting-season-with-near-normal-temperatures

CLAIM: Melting of Arctic mountain glaciers unprecedented in the past 400 years

By Anthony Watts, WUWT, Apr 10, 2018

https://wattsupwiththat.com/2018/04/10/claim-melting-of-arctic-mountain-glaciersunprecedented-in-the-past-400-years/

Link to paper: A 400-year ice core melt layer record of summertime warming in the Alaska Range By Dominic Winski, et al, AGU, 2018

https://agupubs.onlinelibrary.wiley.com/doi/pdf/10.1002/2017JD027539

"Warm conditions in the tropical Pacific Ocean are likely responsible for part of the amplified warming signal observed on Mt. Hunter."

Decline of Two Glaciers in Northwest Greenland

By Kathryn Hansen, Earth Observatory, NASA, Apr 8, 2018 https://earthobservatory.nasa.gov/IOTD/view.php?id=91956&src=eoa-iotd Photos in 1987 & 2017

Agriculture Issues & Fear of Famine

El Niño Affects Up to Two-Thirds of the World's Harvests

By Staff Writers, Aalto University, Finland, Via GWPF, Apr 7, 2018

https://www.thegwpf.com/el-nino-affects-up-to-two-thirds-of-the-worlds-harvests/

[SEPP Comment: Drier in South Asia, South Africa, Australia and northern South America, wetter in US and southern Central Asia.]

Whitestown Revisited – a weather benchmark location for the Corn Belt

Guest essay by David Archibald, WUWT, Apr 5, 2018

https://wattsupwiththat.com/2018/04/05/whitestown-revisited-a-weather-benchmark-location-forthe-corn-belt/

Lowering Standards

Polar Bears & the Sleazy New York Times

By Donna Laframboise, Big Picture News, Apr 13, 2018

https://nofrakkingconsensus.com/2018/04/13/polar-bears-and-the-sleazy-new-york-times/

BBC Climate Explainers Recycle Yesterday's "The Day After Tomorrow"

Guest essay by Eric Worrall, WUWT, Apr 11, 2018

https://wattsupwiththat.com/2018/04/11/bbc-climate-explainers-recycle-yesterdays-the-day-aftertomorrow/

Link to paper: Observed fingerprint of a weakening Atlantic Ocean overturning circulation By Caesar, Rahmstorf, Robinson, Feulner & Saba, Nature, Apr 11, 2018 https://www.nature.com/articles/s41586-018-0006-5

Communicating Better to the Public – Make things up.

Easter Island's "ecological suicide" – myths and realities

The island's demise was a human and Little Ice Age tragedy, not "ecological suicide" Guest essay Dennis Avery, WUWT, Apr 7, 2018

https://wattsupwiththat.com/2018/04/07/easter-islands-ecological-suicide-myths-and-realities/

[SEPP Comment: Exposing another myth.]

CO2 causes baby fish to get lost on their way home. Save Nemo, change a lightglobe!!

By Jo Nova, Her Blog, Apr 13, 2018

http://joannenova.com.au/2018/04/co2-causes-baby-fish-to-get-lost-on-their-way-home-save-nemo-change-a-lightglobe/#more-58374

Link to paper: On the wrong track: ocean acidification attracts larval fish to irrelevant environmental cues

By Tullio Rossi, et al. Nature, Apr 11, 2018

https://www.nature.com/articles/s41598-018-24026-6

Communicating Better to the Public - Go Personal.

Climate mauling, polar bears, and the self-inflicted wounds of the self-righteous

By Susan Crockford, Polar Bear Science, Apr 10, 2018

 $\underline{https://polarbearscience.com/2018/04/10/climate-mauling-polar-bears-and-the-self-inflicted-wounds-of-the-self-righteous/}$

Lengthy Post, with references.

Pushing back against "The stupidest scientific paper ever published"

By Anthony Watts, WUWT, Apr 11, 2018

 $\underline{https://wattsupwiththat.com/2018/04/11/pushing-back-against-the-stupidest-scientific-paper-ever-published/}$

Expanding the Orthodoxy

Feature: IMO prepares for showdown over shipping decarbonization

By Staff Writers, S&P Global, Platts, Apr 6, 2018

https://www.platts.com/latest-news/shipping/london/feature-imo-prepares-for-showdown-over-shipping-26931834

Questioning European Green

The UK will spend trillions to reduce C02 emissions while the real offenders do little

By Paul Homewood, Not a Lot of People Know That, Apr 9, 2018

https://notalotofpeopleknowthat.wordpress.com/page/2/

"Booker 'celebrates' the 10th anniversary of the Climate Change Act!"

Claire Perry Blames British Gas For Her Own Climate Policies

By Paul Homewood, Not a Lot of People Know That, Apr 11, 2018

https://notalotofpeopleknowthat.wordpress.com/2018/04/11/claire-perry-blames-british-gas-for-her-own-climate-policies/

Cost Of Green Subsidies Rises To £11.3bn

By Paul Homewood, Not a Lot of People Know That, Apr 7, 2018

https://notalotofpeopleknowthat.wordpress.com/2018/04/07/cost-of-green-subsidies-rises-to-11-3bn/

Greens Oppose Giant Solar Farm Planned In Kent

By Paul Homewood, Not a Lot of People Know That, Apr 10, 2018

 $\underline{https://notalotofpeopleknowthat.wordpress.com/2018/04/10/greens-oppose-giant-solar-farm-planned-in-kent/}$

Funding Issues

AUDIT: Mismanagement At NASA's Global Warming Arm Resulted In \$1.6 Million In 'Unallowable' Costs

By Michael Bastasch, Daily Caller, Apr 6, 2018 [H/t William Readdy] http://dailycaller.com/2018/04/06/audit-mismanagement-at-nasa/

NASA'S Management of GISS: The Goddard Institute for Space Studies

Office of Audits, Office of Inspector General, NASA, Apr 5, 2018 [H/t Cooler Heads] https://oig.nasa.gov/docs/IG-18-015.pdf

"In Fiscal Year 2016, NASA provided 96 percent of GISS' \$19.1 million annual funding."

Litigation Issues

Top Massachusetts court rules against Exxon in climate case

By Miranda Green, The Hill, Apr 13, 2018

http://thehill.com/policy/energy-environment/383013-top-massachusetts-court-rules-against-exxon-in-climate-case

"The internal correspondence also showed that the company did not alert the public of the public health risks, as mandated by the state, and 'instead sought to undermine the evidence of climate change altogether, in order to preserve its value as a company,' the court wrote."

[SEPP Comment: The secret document is a summary of an IPCC report distributed world-wide in multiple languages.]

Litigation Issues -- California

A rebuttal to an ugly amicus brief attack in the #ExxonKnew case

By Anthony Watts, WUWT, Apr 7, 2018

 $\underline{https://wattsupwiththat.com/2018/04/07/a-rebuttal-to-an-ugly-amicus-brief-attack-in-the-exxonknew-case/}$

Comments by Christopher Monckton

Looping the loop: how the IPCC's feedback aerobatics failed

Guest essay By Christopher Monckton of Brenchley, WUWT, Apr 6, 2018 https://wattsupwiththat.com/2018/04/06/looping-the-loop-how-the-ipccs-feedback-aerobatics-failed/

What Did Shell Know and When Did They Know It?

Guest ridicule by David Middleton, WUWT, Apr 11, 2018

https://wattsupwiththat.com/2018/04/11/what-did-shell-know-and-when-did-they-know-it/

Subsidies and Mandates Forever

Solar farms receive more cash from green subsidies than selling the energy they produce By Colin Fernandez, Daily Mail, UK, Apr 8, 2018 [H/t GWPF]

http://www.dailymail.co.uk/news/article-5592691/Solar-farms-receive-cash-green-subsidies-selling-energy-produce.html

Energy Issues – Real Threats

DOE Confirms Threat to Grid Reliability

By Donn Dears, Power For USA, Apr 10, 2018

http://ddears.com/2018/04/10/doe-confirms-threat-to-grid-reliability/

A Catch 22 Is Ensnaring Hydroelectricity And Salmon In The Northwest

By Ken Silverstein, Forbes, Apr 6, 2018

https://www.forbes.com/sites/kensilverstein/2018/04/06/a-catch-22-is-ensnaring-hydroelectricity-and-salmon-in-the-northwest/#f323b531b079

Link to report: The Lower Snake River Dams Power Replacement Study

Reliable and affordable clean energy options that help restore salmon and protect the environment By Staff Writers, NW Energy Coalition, Apr 2, 2018

https://nwenergy.org/featured/lsrdstudy/

"In a study just released, the energy coalition says that wind, solar and geothermal energies could replace almost all of the hydro that would be closed and that it would result in little, if any, added greenhouse gas emissions — a position with which the BPA [Bonneville Power Authority] has traditionally taken issue."

"Further, 'the cost of replacing of dams is small: just a couple percent and it would amount to a \$1 a month for customers,' Fred Heutte, senior policy analyst for the group said on a conference call this week with reporters. 'Clean energy portfolios could replace the four dams,'

Hidden Costs: how wind generation makes gas power \$30/MWh more expensive

By Jo Nova, Her Blog, Apr 11, 2018

http://joannenova.com.au/2018/04/hidden-costs-how-wind-generation-makes-gas-power-30mwhmore-expensive/

"Renewables are not just a waste of space, they're like anti-matter on the grid, damaging everything around them."

Google says it's the biggest corporate buyer of renewable energy on the planet

Google now has contracts to buy 3 gigawatts of output from renewable energy projects.

The search giant says it will carry on signing contracts to purchase more renewable energy. By Anmar Frangoul, CNBC, Apr 5, 2018

https://www.cnbc.com/2018/04/05/google-says-its-the-biggest-corporate-buyer-of-renewable-energy-on-the-planet.html

[SEPP Comment: Renewables are not reliable.]

Google Engineers Explain Why They Stopped R&D in Renewable Energy

"This realization was frankly shocking."

By Stephen Lacy, Greentech Media, Nov 19, 2014 [H/t Peter Rees]

 $\frac{https://www.greentechmedia.com/articles/read/google-engineers-explain-why-they-stopped-rd-in-renewable-energy\#gs.MsI5_So$

[SEPP Comment: Not practical?]

Offshore Wind Surge Threatens Merchant Generator Profits

By Sonal Patel, Power Mag, Apr 4, 2018

http://www.powermag.com/offshore-wind-surge-threatens-merchant-generator-

profits/?mkt_tok=eyJpIjoiTnpZd1kyTmpabVpsTkRsbCIsInQiOiJzXC9SaGdBWnpoazBlY3Exej FGbDFGMVVDeVJPZlo4alRuZ0MxdzIreEMwdVBpNkpiTGJoSDVobUw4MVwvc3gxa0ZHM XRmUkdVbUdacVUzbWx4VlhBM3hUWW56clBwWUNhekJkejJoMVYrTTNVUXFYSVZNc EE2aGtHdFB2K1Q2Wm5iIn0%3D

PJM: More Than 3,600 MW Will Retire in 2018

By Derrell Proctor, Power Mag, Apr 4, 2018 [H/t Toshio Fujita] http://www.powermag.com/pjm-more-than-3600-mw-will-retire-in-2018/

Apple caught fibbing about running on 100% renewable energy

Guest opinion by Tim Worstall, WUWT, Apr 10, 2018

https://wattsupwiththat.com/2018/04/10/apple-caught-fibbing-about-running-on-100-renewable-energy/

[SEPP Comment: And Apple expects others to subsidize its moralistic attitude.]

Energy Issues – Non-US

China's Coal-for-Coal Substitution (CERA's Zhou explains what the US press does not) By Robert Bradley, Jr. Master Resource, Apr 11, 2018

https://www.masterresource.org/china-international/china-coal-country-coal-coal-substitution-underway/

Link to important article on China's Energy Policy: How China's Anti-smog Campaign Triggered a Natural Gas Crisis and a Switch to "Clean Coal"

By Xizhou Zhou, CERAWeek, 2018

http://partners.wsj.com/ceraweek/connection/chinas-anti-smog-campaign-triggered-natural-gas-crisis-switch-clean-coal/

EU documents lay bare Russian energy abuse

By Andrew Rettman, EUObserver, Apr 12, 2018 https://euobserver.com/foreign/141584

Leaked EU files show Brussels cover-up and collusion on Putin's Gazprom abuses

By Ambrose Evans-Pritchard, Telegraph, Via GWPF, Apr 13, 2018 https://www.thegwpf.com/leaked-eu-files-show-brussels-cover-up-and-collusion-on-putins-gazprom-abuses/

Billions, Schmillions!

By Paul Homewood, Not a Lot of People Know That, Apr 13, 2018 https://notalotofpeopleknowthat.wordpress.com/2018/04/13/billions-schmillions///SEPP Comment: Waiting for the smart grid.]

Houthi Missile Hits Saudi Oil Tanker

By Tsvetana Paraskova, Oil Price.com, Apr 3, 2018 https://oilprice.com/Energy/Energy-General/Houthi-Missile-Hits-Saudi-Oil-Tanker.html

OPEC sees oil markets tighten further even as U.S. shale booms

By Ahmad Ghaddar, Dmitry Zhdannikov, and Alex Lawler, Reuters, Apr 12, 2018 https://www.reuters.com/article/us-opec-oil/opec-sees-oil-markets-tighten-further-even-as-u-s-shale-booms-idUSKBN1HJ1LT

Energy Issues -- US

De Blasio's 'carbon divestment' means huge bills for taxpayers

By Benjamin Zycher, New York Post, Apr 4, 2018

https://nypost.com/2018/04/04/de-blasios-carbon-divestment-means-huge-bills-for-taxpayers/

Oil and Natural Gas – the Future or the Past?

Prime Minister Jacinda Ardern bans new offshore oil and gas exploration in New Zealand By Audrey Young, NZ Herald, Apr 12, 2018 [H/t Christopher Smith] https://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12030723

Wind of Change, Part 2 - Oil-Weighted Exploration and Production Companies Are Flush at \$60 Oil

By Nick Caccopne. RBM Energy, Apr 5, 2018

https://rbnenergy.com/wind-of-change-part-2-oil-weighted-exploration-and-production-companies-are-flush-at-60-dollar-oil

All Dressed Up With Nowhere to Go - Permian Differentials Widening on a Wave of New Crude Supplies

By John Zanner, RBN Energy, Apr 4, 2018

https://rbnenergy.com/all-dressed-up-with-nowhere-to-go-permian-differentials-widening-on-a-wave-of-new-crude-supplies

Bahrain Says Giant Discovery Holds 80 Billion Barrels Of Oil

By Tsvetana Paraskova, Oil Price.com, Apr 4, 2018

https://oilprice.com/Energy/Crude-Oil/Bahrain-Says-Giant-Discovery-Holds-80-Billion-Barrels-Of-Oil.html

Return of King Coal?

Coal is here to stay! Botswana to drive the future of coal power demand

By Dale Benton, Mining, Apr 7, 2018 [H/t GWPF]

http://www.miningglobal.com/operations/coal-here-stay-botswana-drive-future-coal-power-demand

Alternative, Green ("Clean") Solar and Wind

Solar power eclipsed fossil fuels in new 2017 generating capacity: U.N.

By Nina Chestney, Alister Doyle, Reuters, Apr 5, 2018 [H/t Toshio Fujita]

 $\frac{https://www.reuters.com/article/us-renewables-investment/solar-power-eclipsed-fossil-fuels-in-new-2017-generating-capacity-u-n-idUSKCN1HC1NC$

"Fossil fuels, however, still dominate existing capacity. Solar, wind, biomass and other renewables generated 12.1 percent of world electricity in 2017, up from 5.2 percent a decade earlier, it said."

"Climate scientists have advised governments that renewables should be the world's dominant source of energy by mid-century if they want to achieve the toughest goals set under the 2015 Paris climate agreement to combat global warming."

[SEPP Comment: Who cares about blackouts at critical times? Unable to link to report.]

Migration forecasts could help prevent wind turbines and buildings from killing millions of birds

By Erik Stokstad, Science, Apr 5, 2018 [H/t Toshio Fujita]

 $\underline{\text{http://www.sciencemag.org/news/2018/04/migration-forecasts-could-help-prevent-wind-turbines-and-buildings-killing-millions}$

[SEPP Comment: It does not address the problem of wind turbines killing soaring birds.]

Alternative, Green ("Clean") Vehicles

Transforming transport

By Martin Livermore, The Scientific Alliance, Apr 13, 2018

http://scientific-alliance.org/scientific-alliance-newsletter/transforming-transport

Electric Vehicle Report Card 1Q 2018

By Donn Dears, Power For USA, Apr 13, 2018

http://ddears.com/2018/04/13/electric-vehicle-report-card-1q-2018/

California Dreaming

California Energy Reform: Shellenberger's One-Fourth Loaf

By Robert Bradley Jr., Master Resource, Apr 9, 2018

https://www.masterresource.org/california-energy-policy/california-energy-statism-higher-prices/ [Gubernatorial Candidate] "Michael Shellenberger needs to go Alex Epstein. He must explain the fundamental energy concepts of density and intermittency in his political quest in the Golden State...."

LA Painting Streets White to Prevent Global Warming

Guest essay by Eric Worrall, WUWT, Apr 10, 2018

https://wattsupwiththat.com/2018/04/10/la-painting-streets-white-to-prevent-global-warming/

"Los Angeles is spending \$40,000 per mile painting asphalt streets white to try to prevent global warming."

Starbucks in the Land of Fruits and Nuts

By Ted Noel, M.D., American Thinker, Apr 6, 2018

 $\underline{https://www.americanthinker.com/articles/2018/04/starbucks_in_the_land_of_fruits_and_nuts.html$

"I can't prove that air doesn't cause cancer. Or water. Everyone who got cancer has breathed air and drunk water! So obviously they're carcinogenic.

Health, Energy, and Climate

48,000 Brits dead after worst winter in 42 years

THE UK is being hit by its worst winter death toll in 42 years, a new search says.

By Hayley Coyle, Daily Star, Apr 7, 2018 [H/t GWPF]

https://www.dailystar.co.uk/news/latest-news/694368/flu-winter-death-cold-fatalities

Other Scientific News

OSU Professor Falsified Data on Eight Papers, Resigns

Ching-Shih Chen's research involved anticancer therapeutics that were being tested in clinical trials.

By Catherine Offord, The Scientist, Apr 2, 2018

https://www.the-scientist.com/?articles.view/articleNo/52212/title/OSU-Professor-Falsified-Data-on-Eight-Papers--Resigns/

Other News that May Be of Interest

The coagulated economy

How public and private bureaucracies stifle innovation

By Matt Ridley, Rational Optimist, Apr 9, 2018

http://www.rationaloptimist.com/blog/how-bureaucracies-and-crony-capitalists-stifle-innovation/

Cities are the new Galapagos

Urban wildlife is expanding and evolving faster than expected

By Matt Ridley, The Rational Optimist, Apr 8, 2018

http://www.rationaloptimist.com/blog/the-wealth-of-urban-biodiversity/

How the Closing of the Campus Mind Threatens Freedom

In contemporary America, particularly on college campuses, opinions based on feelings top everything.

By Barry Brownstein, FEE, Apr 6, 2018

https://fee.org/articles/how-the-closing-of-the-campus-mind-threatens-freedom/

BELOW THE BOTTOM LINE:

Latest nutty Geoengineering idea: Salt the atmosphere

By Anthony Watts, WUWT, Apr 10, 2018

https://wattsupwiththat.com/2018/04/10/latest-nutty-geoengineering-idea-salt-the-atmosphere/

Smaller Fish

By Staff Writers, Climate Change Predictions.org, Apr 13, 2018 http://climatechangepredictions.org/uncategorized/3820

"The findings published in Proceedings of the Royal Society B follows research showing fish have lost half their average body mass as a result of global warming over the past 20 to 30 years. A recent study also showed a herd of wild Soay sheep in the Outer Hebrides had decreased by five per cent in the last 24 years for exactly the same reason."

The Telegraph (UK), 12/8/09

Speak for yourself, thank you

By Staff Writers, Climate Change Predictions.org, Apr 7, 2018 http://climatechangepredictions.org/uncategorized/1489

"Australia's Climate Commissioner, Professor Tim Flannery, believes we must move towards a global ant's nest, regulated by a global intelligence, and sharing all resources equally. In this world there will be no room for individual choice, individuals will have their specialised roles defined and limited and world population will be massively reduced." interview 2011- link -- see also BBC News article

ARTICLES:

1. Big Oil's New Favorite Toy: Supercomputers

BP, others boost raw computing power in digital arms race to find oil and trim costs By Sarah Kent and Christopher Mathews, WSJ, Apr 20, 2018 https://www.wsj.com/articles/big-oils-new-favorite-toy-supercomputers-1523358000

SUMMARY: For some years, designing programs for super computers has been one of the hottest employment opportunities for young, highly qualified programmers. The data collected by sensors on the drilling heads are enormous. The problem is detecting clear signals from the complex data. The reporters start:

"Xukai Shen, a geophysicist working at BP had a hunch he could solve a riddle that had vexed the company: whether there was a lot of oil hidden beneath a salt dome 7,000 feet underwater in the Gulf of Mexico. So he asked to use the company's supercomputer exclusively for two weeks to check it out.

"Using an algorithm, the 33-year-old with a Stanford PhD harnessed the computer's massive power last year to produce a clearer seismic image of what lay beneath. The result: a potentially massive oil find. With a clearer picture of the area, BP estimated 200 million barrels of crude lay hidden in the Atlantis oil field, a region the company had been plumbing for decades.

"Basically, we found a field within a field,' said Ahmed Hashmi, BP's head of technology for exploration and production, during a recent tour of the company's Houston supercomputer, as the machine hummed nearby.

"BP is now in love with beefy computer power—and it's far from the only one in the oil patch. Italy's Eni has built a computing facility the size of a soccer field outside of Milan, crediting its help in all its most recent oil and gas discoveries. France's Total SA recently upgraded its Pangea supercomputer, nearly tripling its computing power.

"While big oil companies were early adapters of supercomputers, some have poured hundreds of millions into upgrades, and now possess some of the most powerful commercially owned computers on the planet.

After a bit of history, they continue:

"The computers are costly, but can reduce the oil exploration process by months and save companies tens of millions of dollars by avoiding misplaced wells. To harness their potential, the companies are increasingly seeking to compete with Silicon Valley firms for top data and computer scientists.

"'We're going all in,' said Bernard Looney, BP's head of exploration and production. 'We're only scratching the surface today of what's possible.'

"BP is in the middle of a five-year, \$100 million investment in its Houston supercomputer. It's built a 15,000-square-foot room in a 3-story, flood-proof building to house the titan, which currently takes up about 50% of the space and has the computing power of around 50,000 iPhone 7s.

After a brief discussion in changes in the oil market, which caused independent producers to cut back on their computer teams, the authors conclude with.

"BP says it's already reaping the benefits of experiments with advanced technology.

"In Alaska, the company said it crunched 40 years of data on its operations, weather patterns and pipeline corrosion and found ways to maintain its 1,300 miles of pipelines in the state more efficiently by reducing on-site inspections.

"The physical inspections—as many as 100,000 locations a year—only found issues 2.5% of the time, and were difficult to perform in a state where temperatures can get so cold that workers can only be in the elements for minutes at a time. With the analysis, BP has managed to reduce inspections 25% and better predict corrosion, Mr. Looney said.

2. The New Science of Smog

Other things pollute the air more than gasoline exhaust does.

Editorial, WSJ, Apr 8, 2018 https://www.wsj.com/articles/the-new-science-of-smog-1523220802?mod=ITP opinion 2&tesla=y

SUMMARY: In defending the Trump administration's plans to reduce the fuel-mileage rules promulgated by the Obama administration the editors cite recent studies:

"A recent study in the journal Science traced and measured volatile organic compounds (VOCs) in Los Angeles. In the presence of sunlight, these compounds react with NOx to form ozone and smog. Car exhaust was once a greater relative contributor of VOCs and NOx, but engines are now much cleaner.

"Researchers at the University of Colorado found that petroleum-based chemicals such as those found in deodorant, soap, hair spray, household cleaners, pesticides and other commercial products account for about half of VOCs emissions in industrial cities. Gasoline fuel and exhaust make up about 32%.

"Environmentalists have long blamed L.A.'s car-driving culture for its smog. But even if most gas-burning vehicles were replaced by electric cars, L.A. would still have a smog problem because of its pollutant-trapping topography and sunny weather.

"People could perhaps reduce pollution by showering and cleaning their homes less, but wait . . . trees and people also emit VOCs. The study didn't consider the biological sources of VOCs, which are to blame for the blue haze in the Appalachian Mountains. When Ronald Reagan quipped that trees cause more pollution than automobiles do, he had a point.

"Another big source of pollution: Dirt. According to a recent study in the journal Science Advances, cropland and natural sources contribute up to 40% of California's NOx emissions—about 10 times as much as the California Air Resources Board has estimated. Motor vehicles make up about 30%."

The editors conclude by stating the real target of those protesting revised standards are carbon dioxide emissions, which do not create smog