

The Week That Was: 2021-07-03 (July 3, 2021)

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The Science and Environmental Policy Project

Quote of the Week: “*All men are born free and equal,...*” – Opening phrase, Part the First, A Declaration of the Rights of the Inhabitants of the Commonwealth, in the 1780 Constitution of the Commonwealth of Massachusetts, drafted by John Adams, which is the world's oldest functioning written constitution. The phrase was used by the Supreme Court of Massachusetts to abolish slavery in the Commonwealth on July 8, 1783, before the Revolutionary War ended with the Treaty of Paris of September 3, 1783. [The abolition included female slaves.]

Number of the Week: – 1 to 2°F out of 30 to 40°F?

THIS WEEK:

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

“The Proof” That Isn’t: As mentioned in last week’s TWTW, the heatwave in the US Northwest and Canada’s Southwest came primarily from a high-pressure dome that settled over the area. The system was “stalled” by a north-south flow of the jet stream guided by Rossby Waves. Rossby Waves are planetary waves naturally occurring in rotating fluids such as the Earth’s oceans and atmosphere. First identified by Carl-Gustaf Rossby in 1939, in the atmosphere these waves can stall the normal flow of weather systems over a particular area of the earth’s land surface. In the summer, they are linked with a number of extreme “heatwaves” over Europe, Asia, and North America.

Unfortunately, many in the media, including climate scientists, claimed this localized extreme heatwave was “proof” of carbon dioxide-caused global warming / climate change. It is not. A significant part of central United States, the breadbasket of the country, was cooler than normal. Further, part of the Southern Hemisphere has been colder than normal.

Roy Spencer reports that for June 2021, global lower atmosphere temperatures were slightly below the thirty-year average. These are the most comprehensive temperature trends existing, independently verified by weather balloon data taken with different instruments. They refute the claims that the extreme heat is the result of global warming. Spencer wrote:

The Version 6.0 global average lower tropospheric temperature (LT) anomaly for June 2021 was -0.01 deg. C, down from the May 2021 value of +0.08 deg. C.

REMINDER: *We have changed the 30-year averaging period from which we compute anomalies to 1991-2020, from the old period 1981-2010. This change does not affect the temperature trends.* [Boldface in original.]

The linear warming trend since January 1979 remains at +0.14 C/decade (+0.12 C/decade over the global-averaged oceans, and +0.18 C/decade over global-averaged land).

Despite the near-normal global average temperatures, the USA Lower 48 temperature anomaly of +1.44 deg. C was the warmest in the 43-year satellite record, ahead of +1.15 deg. C in 1988. In

contrast, the Antarctic region (poleward of 60 S latitude) experienced its 2nd coldest June (-1.25 deg. C below the 30-year baseline), behind -1.34 deg. C in June 2017.

The full University of Alabama, Huntsville, Global Temperature Report is not yet out, but should be within a few days.

See links under Challenging the Orthodoxy, Defending the Orthodoxy, Defending the Orthodoxy – Bandwagon Science, Changing Weather, and <https://oceanservice.noaa.gov/facts/rossby-wave.html>.

Thomas Hans Wysmuller, RIP: Tom Wysmuller of Ogunquit, Maine, passed away at the age of 77 on June 29, 2021, after a long bout with cancer.

In 1968, Tom was one of nine people chosen through a series of nationwide exams for NASA Executive Interns in the U.S. He worked at NASA before, during, and after the moon landings. His programming skills were so well-known throughout the agency that at one point he was the youngest person ever selected to serve on NASA's Source Selection Board for agency-wide computer services.

In 2009, Tom helped found The Right Climate Stuff Climate Research team (TRCS) which used the scientific methods developed for the lunar landings to investigate the danger of human-caused global warming. [On his website “The Colder Side of Global Warming” Tom criticized the shift from HadCRUT 3 to HadCRUT 4 which added to the urban heat island bias but preferred that data to GISTEMP (NASA-GISS) and other surface datasets.] Using surface temperature data, the TRCS team concluded there is no climate emergency.

“Our conclusions, based on empirical data, are clear: The warming of the atmosphere caused by increased amounts of CO₂ are small and insignificant, only about one degree centigrade for this century. Our further studies showed that the claims of climate change causing more frequent and more severe hurricanes, tornadoes, droughts, floods, sea level rise, forest fires, etc. are false. The actual measured data shows no increase in any of these serious conditions. Our conclusion is simple: Mother Nature is controlling the climate; CO₂ emissions are not. And more CO₂ is definitely beneficial to Mother Nature’s work. There is valid proof of significant greening of the earth since the beginning of fossil fuel use.”

Tom was extremely concerned that satellite data showed a far greater rate of sea level rise than shown by geologically stable tidal gages. NOAA and NASA reports claimed accelerating sea level rise. According to his obituary, Tom wrote:

“He considered it one of his greatest achievements when in 2018, he solved the discrepancy of Sea-Level Rise (SLR) reported by The University of Colorado and NASA’s Satellites in comparison to land coupled tide gauges. His ‘reverse-engineering’ technique showed how a programming error generated the much higher rate of SLR being reported by satellites vs worldwide tide gauge measurements.

The failure to validate the computer programs by thorough testing against physical evidence would have been unacceptable to the Apollo Team. It demonstrates the lowering of standards at NASA. The TRCS website states:

“We need to give you a word of caution when we refer to ‘NASA.’ The TRCS Research Team was founded by engineers and scientists retired from the NASA Johnson Space Center (JSC) in Houston. We sometimes arrive at conclusions about climate change and its effects significantly different from conclusions published by other NASA Centers.”

Those who knew Tom recognized his zest for life and how well he disguised his cancer, not letting it interfere with living, including driving numerous times between Maine and Houston over the past decade. We shall miss him. See <http://wysmu.com/tom/>,
<https://www.therightclimatesuff.com/> and
<http://www.colderside.com/Colderside/HadCRUT4.html>

Pogo Stick Power: Pogo Sticks are devices used primarily by children to jump off the ground repeatedly while standing on the stick. Last week, TWTW reported on the changes in wind power generation as reported by the Bonneville Power Administration (BPA), which includes the Columbia River Gorge “where the wind always blows.” As of May 4, the total nameplate generation is 27,879 MW of which 79.5% is hydro and 10.5% (2930 MW) is wind.

Over the week from Saturday June 26 to Saturday July 3, wind power hit zero two times, on June 26 and June 29, during the extreme heatwave. It went from zero on June 29 to near maximum of over 2500 MW on June 30. It has bounded up and down like a child on a pogo stick. Even though BPA has reliable hydro power to back up wind, Advista Corp of Spokane, Washington, which generates and distributes electricity in four Northwest States, announced rolling blackouts (greenouts) during the extreme heatwave.

Yet many politicians are insisting that pogo stick power can replace reliable power generation from fossil fuels and nuclear. See links under Energy Issues -- US

Wildfire Threat: President Biden claimed that recent outbreaks of wildfires are caused by global warming, “the climate crisis.” On their websites, government agencies are eliminating wildfire data prior to 1983. In the 1980s and 90s Federal fire policy went from fire suppression to let-it-burn. Thus, eliminating a major part of the record is grossly misleading. In May, Jim Steele posted an excellent review of wildfires and their fuels. As Steele states:

“More so, the 2°F increase in global air temperatures since the Little Ice Age, increases the fuel’s temperature insignificantly and thus highly unlikely to increase ‘the likelihood of a fire starting, or increasing the speed at which it spreads’ as NASA claimed.”

The resolute Tony Heller has dug through records to show how grossly misleading government websites have become about wildfires. See links under Challenging the Orthodoxy, Questioning the Orthodoxy, and Change in US Administrations.

Science Integrity Task Force: On June 25, the Biden Administration’s “Scientific Integrity Task Force” issued a press release stating:

On January 27, 2021, President Biden issued a Presidential Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking (2021 Memorandum). The Memorandum asserts the Start Printed Page 34065Administration’s goal to develop sound policy to make evidence-based decisions guided by the best available science and data, recognizing that scientific and technological information, data, and evidence are central to

the development and iterative improvement of sound policies and to the delivery of equitable programs across every area of government.

Today, the Scientific Integrity Task Force opens a window to receive input from the American people on ways to help ensure that scientific integrity is paramount in Federal governance for years to come. The feedback gleaned from the request for information (RFI), available today and open for 30 days from its official date of publication on Monday, will inform the Task Force's recommendations to ensure robust and accurate evidence-based policymaking and to restore public trust in government.

The task force has nearly 50 members representing numerous agencies, including EPA, DOE, NASA, NSF, NOAA, DOD, etc. Ex Officio members include Jane Lubchenco of the Office of Science and Technology Policy. During her previous government service as head of NOAA, she gave a speech stating, in effect, it is the duty of scientists to support government policy in exchange for government support.

Participation is voluntary, with no government support. Note that the limit is 7 pages 12-point font, with a due date of July 28, 2021, 5 PM ET. The submissions are to be electronic:

*"Interested individuals and organizations should submit comments electronically to **ScientificIntegrityRFI@ostp.eop.gov** and include "SI-FTAC RFI" in the subject line of the email. Due to time constraints, mailed paper submissions will not be accepted, and electronic submissions received after the deadline cannot be ensured to be incorporated or taken into consideration." [Boldface italics in original]*

In preparing a submission on the Social Cost of Carbon, SEPP did not see any page limit and was forced to delete much of its submission at the last moment to meet the limits set for the electronic submission. Also, note that the 2009 Presidential Memorandum cited as supplementary information stated:

*"The 2009 Presidential Memorandum articulates 6 principles to guide recommendations for Presidential Action to guarantee scientific integrity throughout the executive branch: (1) Selection and retention of candidates for science and technology positions in the executive branch should be based on the candidate's knowledge, credentials, experience, and integrity; (2) Agencies should have appropriate rules and procedures to ensure the integrity of the scientific process within the agency; (3) **Scientific and technical information used in agency decisions should be subject to established scientific processes, including peer review;** (4) Agencies should make available to the public the scientific or technological findings or conclusions considered or relied upon in policy decisions (to the extent release is not restricted); (5) Agencies should have in place procedures to identify and address instances in which the scientific process or the integrity of scientific and technological information may be compromised; and (6) Agencies should adopt procedures, including whistleblower protections, needed to ensure the integrity of scientific and technological information and processes used for decision-making or otherwise prepared."* [Boldface added]

Note that the 2009 memorandum states peer review, not in a peer-reviewed journal. Scientific integrity can be a more precise topic compared with the Social Cost of Carbon. SEPP intends to submit comments, adhering strictly to the page limits of submission. See links under Change in US Administrations.

A Cooling Climate: There has been a flurry of papers published by the Nature publishing group emphasizing species extinctions during cold periods. On WUWT, Eric Worrall links to an essay in *The Conversation* that may suggest a reason. The argument could be that virtually all species today evolved in a cooling world. Since carbon dioxide is warming the globe (by a tiny amount) this warming could result in great species extinction. Of course, such an extinction requires a temperature sensitivity of the globe to carbon dioxide far beyond anything that can be justified by observations and experiments. But such a point has not stopped the Nature publishing group before. See links under Changing Climate and Below the Bottom Line.

14th ICCC: The 14th International Conference on Climate Change presented by The Heartland Institute will be October 15 to 17, 2021, at Caesars Palace in Las Vegas. See <https://climateconference.heartland.org/>

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 past recipients, Lisa Jackson, Barrack Obama, John Kerry, Ernest Moniz, Michael Mann, Christiana Figueres, Jerry Brown, AOC, and Neil Ferguson 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 31. Please send your nominee and a brief reason why the person is qualified for the honor to Ken@SEPP.org. Thank you. For a list of past recipients and their accomplishments in earning this honor see <http://www.sepp.org/april-fools-award.cfm>

Number of the Week: – 1 to 2°F out of 30 to 40°F? On his weather blog, Cliff Mass, professor of Atmospheric Sciences at the University of Washington, comments how absurd it is to claim that the extreme weather event in northwest US and southwest Canada was the result of human caused global warming. Even if one accepts that all the warming from the beginning of the industrial revolution was caused by humans. That would mean 1 to 2°F (0.5 to 1°C) was human caused. Yet, temperatures in the affected communities were 30 to 40°F above normal. (17 to 22°C). And high-pressure areas tend to become less intense with global warming. See links under Challenging the Orthodoxy.

NEWS YOU CAN USE:

Challenging the Orthodoxy -- NIPCC

Climate Change Reconsidered II: Physical Science

Idso, Carter, and Singer, Lead Authors/Editors, Nongovernmental International Panel on Climate Change (NIPCC), 2013

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

Summary: https://www.heartland.org/_template-assets/documents/CCR/CCR-II/Summary-for-Policymakers.pdf

Climate Change Reconsidered II: Biological Impacts

Idso, Idso, Carter, and Singer, Lead Authors/Editors, Nongovernmental International Panel on Climate Change (NIPCC), 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, April 2019

<http://store.heartland.org/shop/CCR-II-Fossil-Fuels/>

Download with no charge:

<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, Nongovernmental International Panel on Climate Change (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

Global Sea-Level Rise: An Evaluation of the Data

By Craig D. Idso, David Legates, and S. Fred Singer, Heartland Policy Brief, May 20, 2019

https://www.heartland.org/_template-assets/documents/publications/SeaLevelRiseCCRII.pdf

Challenging the Orthodoxy

UAH Global Temperature Update for June 2021: -0.01 deg. C

By Roy Spencer, His Blog, July 2, 2021

<http://www.drroyspencer.com/2021/07/uah-global-temperature-update-for-june-2021-0-01-deg-c/>

New Podcast: Global Warming and the Northwest Heatwave, Plus the Weekend Forecast

By Cliff Mass, Weather Blog, July 2, 2021

<https://cliffmass.blogspot.com/2021/07/new-podcast-global-warming-and.html>

A Canadian heatwave & the heat dome: unprecedented or unusual?

By David Whitehouse, GWPF, July 2, 2021

<https://www.thegwpf.com/a-canadian-heatwave-the-heat-dome-unprecedented-or-unusual/>

Fact Checking the Wildfire-Climate Link

By Jim Steele, Landscapes and Cycles, May 24, 2021

<http://landscapesandcycles.net/fact-checking-the-wildfire-climate-link.html>

Dear Climate Alarmists: Your fearmongering isn't cool anymore

By Daniel Nebert, Minding the Campus, June 29, 2021 [H/t David Acevedo]

<https://www.mindingthecampus.org/2021/06/29/dear-climate-alarmists-your-fearmongering-isnt-cool-anymore/>

Defending the Orthodoxy

Media reaction: Pacific north-west ‘heat dome’ and the role of climate change

By Multiple Authors, Carbon Brief, June 30, 2021 (updated July 2, 2021)

https://www.carbonbrief.org/media-reaction-pacific-north-west-heat-dome-and-the-role-of-climate-change?utm_campaign=Carbon%20Brief%20Weekly%20Briefing&utm_content=20210702&utm_medium=email&utm_source=Revue%20Weekly

Link to report: Attribution of Extreme Weather Events in the Context of Climate Change

By Numerous Authors, National Academy Press, 2016

<https://www.nap.edu/catalog/21852/attribution-of-extreme-weather-events-in-the-context-of-climate-change>

From article: “In Lytton, a small village in Canada, record-breaking temperatures of 46.1C (115F), 47.9C (118F) and 49.6C (121.3F) were recorded on three consecutive days. Before this heatwave, the highest recorded temperature in the region was 45C.”

[SEPP Comment: Measurements to a tenth of a degree C or F?]

Scores dead as record-breaking heat wave grips Canada, US

By AFP Staff Writers, Vancouver (AFP). June 30, 2021

https://www.terrordaily.com/reports/Scores_dead_as_record-breaking_heat_wave_grips_Canada_US_999.html

Is It All Just Greenwashing? How to Recognise Genuine Sustainable Commitment

By Regina Henkel, ISPO, June 28, 2021

<https://www.ispo.com/en/trends/it-all-just-greenwashing-how-recognise-genuine-sustainable-commitment>

Rocky Mountain forests burning more than any point in past 2,000 years

Scientists analyzed a unique network of fire-history records

Press Release, NSF, July 1, 2021

https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=303008&WT.mc_id=USNSF_1

Link to paper: Rocky Mountain subalpine forests now burning more than any time in recent millennia

By Philip E. Higuera, et al. PNAS, June 22, 2021

<https://www.pnas.org/content/118/25/e2103135118>

Edited by Michael E. Mann

[SEPP Comment: How much is due to policies of fire suppression during the bulk of the 20th century?]

Defending the Orthodoxy – Bandwagon Science

Canada, US heat wave 'on steroids' due to climate change, say experts

By Lucie Aubourg Washington (AFP) July 1, 2021

https://www.terrardaily.com/reports/Canada_US_heat_wave_on_steroids_due_to_climate_change_say_experts_999.html

[SEPP Comment: All-seeing experts with blinders.]

Questioning the Orthodoxy

We Can Greatly Reduce the Wildfire Threat. Will Our Leaders Take the Necessary Steps?

By Cliff Mass, Weather Blog, June 30, 2021

<https://cliffmass.blogspot.com/2021/06/we-can-greatly-reduce-wildfire-threat.html>

“Today, a major (lightning-caused) fire has started in nearby British Columbia (the Lytton Fire) and has spread to over 12,000 acres, showing that the potential for large fires exists right now. “If state leaders do nothing and a major fire occurs during the next few months due to fireworks or powerline interactions with vegetation, responsibility will be clear. And vague statements blaming global warming will not be acceptable.”

“Countless Scientists”

By Tony Heller, His Blog, June 26, 2021

<https://realclimatescience.com/2021/06/countless-scientists/>

“The last time CO₂ was at the safe level of 350 PPM was 1988, when Yellowstone burned, the Mississippi River almost dried up, and Cancun was largely destroyed by the second most intense Atlantic Hurricane on record.”

[SEPP Comment: And Jim Hansen testified to a Senate committee on dangerous CO₂-caused global warming.]

Global Warming 33 Year Birthday a Celebration of Failures

By Larry Hamlin, WUWT, June 30, 2021

<https://wattsupwiththat.com/2021/06/30/global-warming-33-year-birthday-a-celebration-of-failures/>

Then And Now In Stoke on Trent

By Paul Homewood, Not a Lot of People Know That, June 29 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/06/28/then-and-now-in-stoke-on-trent/>

[SEPP Comment: A few photos of pollution in the “good old days.”]

Change in US Administrations

The Biden Administration’s Scientific Integrity Task Force Seeks Ideas from the American People

Press Release, The White House, June 25, 2021

<https://www.whitehouse.gov/ostp/news-updates/2021/06/25/the-biden-administrations-scientific-integrity-task-force-seeks-ideas-from-the-american-people/>

Link to publication: Request for Information To Improve Federal Scientific Integrity Policies

A Notice by the Executive Office of the President on 06/28/2021

By Staff, Federal Register, June 28, 2021

<https://www.federalregister.gov/documents/2021/06/28/2021-13640/request-for-information-to-improve-federal-scientific-integrity-policies>

USA Energy Trends

By Paul Homewood, Not a Lot of People Know That, July 2, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/07/02/usa-energy-trends/>

'We have to act and act fast:' Biden says climate change is driving wildfires and historic heat wave

By Nikki Carvajal and Kate Sullivan, CNN, June 30, 2021

<https://edition.cnn.com/2021/06/30/politics/wildfire-response-western-governors-biden-meeting/index.html>

Joe Biden – Wildfire Expert

By Tony Heller, His Blog, July 1, 2021

Video: <https://realclimatescience.com/2021/07/joe-biden-wildfire-expert/>

Written: <https://realclimatescience.com/2021/06/biden-weighs-in-on-forest-fires/>

Joe Biden blames climate crisis for deadly heatwave in western US and Canada

By Staff, Climate Brief, July 1, 2021

https://www.carbonbrief.org/daily-brief/joe-biden-blames-climate-crisis-for-deadly-heatwave-in-western-us-and-canada?utm_campaign=Carbon%20Brief%20Weekly%20Briefing&utm_content=20210702&utm_medium=email&utm_source=Revue%20Weekly

Problems in the Orthodoxy

Five Asian countries will build 600 coal plants, wreck world, but who cares?

By Jo Nova, Her Blog, July 3, 2021

<https://joannenova.com.au/2021/07/five-asian-countries-will-build-600-coal-plants-wreck-world-but-who-cares/>

“Carbon Tracker, a financial thinktank, has found that China, India, Indonesia, Japan and Vietnam plan to build more than 600 coal power units, even though renewable energy is cheaper than most new coal plants.

“Why are they knocking back all the cheap solar and wind power? Could it be that China, India, Indonesia, Japan and Vietnam are filled with stupid people who can’t add up. Or is it that they can do the sums and they noticed that every nation with renewables also has expensive electricity?”

Business Daily ‘Handelsblatt’ Reports Germany Gripped By Electricity Price Shock...”Driven By CO2 Price”

By P Gosselin, No Tricks Zone, June 29, 2021

<https://notrickszone.com/2021/06/29/business-daily-handelsblatt-reports-germany-gripped-by-electricity-price-shock-driven-by-co2-price/>

“Handelblatt reports, that the price increases ultimately will have to be borne by the German consumers, who already are paying among the highest rates in the world. More than three quarters of the price paid by German consumers is made up by various taxes, fees and climate-related surcharges.”

Seeking a Common Ground

Climate Change, Extreme Weather, and Electric System Reliability

By Judith Curry, Climate Etc. June 27, 2021

<https://judithcurry.com/2021/06/27/climate-change-extreme-weather-and-electric-system-reliability/>

By Andy May, WUWT, June 28, 2021

<https://wattsupwiththat.com/2021/06/28/science-philosophy-and-politics/>

Ten Thousand Commandments 2021

An Annual Snapshot of the Federal Regulatory State

By Clyde Wayne Crews, CEI, June 30, 2021

<https://cei.org/studies/ten-thousand-commandments-2021/>

Science, Policy, and Evidence

Professor: Natural Gas Could Supply 600 Million Africans With Electricity...So Europe, USA Ban Its Use

By Kenneth Richard, No Tricks Zone, June 28, 2021

<https://notrickszone.com/2021/06/28/professor-natural-gas-could-supply-600-million-africans-with-electricity-so-europe-usa-ban-its-use/>

Link to paper: Blanket bans on fossil-fuel funds will entrench poverty

Africa needs reliable energy infrastructure, not rich-world hypocrisy.

By Vijaya Ramachandran, Nature, April 20, 2021

<https://www.nature.com/articles/d41586-021-01020-z>

Variations In COVID-19 Rates Among 100 Large U.S. Counties

By Fred Lipfert, and Sheldon Lipsky, ACSH, June 25, 2021

<https://www.acsh.org/news/2021/06/25/variations-covid-19-rates-among-100-large-us-counties-15632>

[SEPP Comment: Age and smoking were the strongest variables. Using models, not measurements, to estimate air pollution the study concluded: "Among the air pollution variables, only SO₄ retained statistical significance in multivariable models; PM2.5 was usually negative and never significant, which could have resulted from inappropriate timing of the measurements as well the absence of physiological effects."]

Review of Recent Scientific Articles by CO₂ Science

The Response of Six Tropical Legumes to CO₂ Enrichment in Low Light Conditions

Baligar, V.C., Elson, M.K., He, Z., Li, Y., Paiva, A.Q., Almeida, A.-A.F. and Ahnert, D. 2021.

Impact of ambient and elevated [CO₂] in low light levels on growth, physiology and nutrient uptake of tropical perennial legume cover crops. *Plants* 10, 193,

doi.org/10.3390/plants10020193., June 24, 2021

<http://www.co2science.org/articles/V24/jun/a5.php>

"In light of all the above, it is expected that rising CO₂ will enhance the growth and survivability of tropical understory plants, which will yield important environmental dividends, including a reduction in (1) soil erosion, (2) nutrient leaching and (3) weed infestations and improvements in (4, 5) soil organic matter and nutrient content. It will also help to (6) conserve soil moisture and (7) improve soil fertility."

The Early Growth Response of Brazilian Ginseng to Elevated CO₂

Louback, E., Batista, D.S., Pereira, T.A.R., Mamedes-Rodrigues, T.C., Silva, T.D., Felipe, S.H.S., Rocha, D.I., Steinmacher, D.A. and Otoni, W.C. 2021. CO₂ enrichment leads to altered cell wall composition in plants of *Pfaffia glomerata* (Spreng.) Pedersen (Amaranthaceae). *Plant Cell, Tissue and Organ Culture*, doi.org/10.1007/s11240-021-02031-4.

<http://www.co2science.org/articles/V24/jun/a4.php>

Model Issues

Have we mentioned lately that models overstate warming?

By John Robson, Climate Discussion Nexus, June 30, 2021

<https://climatediscussionnexus.com/2021/06/30/have-we-mentioned-lately-that-models-overstate-warming/>

Measurement Issues -- Surface

Was 2020 a Record-Breaking Hurricane Season? Yes, But. . .

By Chris Landsea and Eric Blake, Inside the Eye, National Hurricane Center, NOAA, June 30, 2021 [H/t WUWT]

<https://noaanhc.wordpress.com/2021/06/30/was-2020-a-record-breaking-hurricane-season-yes-but/>

“Regardless of the validity of the AMO, the bottom line is that the doubling in the number of named storms over a century is very likely due to technology change, not natural or man-made climate change.”

Measurement Issues -- Atmosphere

NASA Satellites See Upper Atmosphere Cooling and Contracting Due to Climate Change

By Lina Tran, NASA Goddard Space Flight Center, June 30, 2021 [H/t WUWT]

<https://www.nasa.gov/feature/goddard/2021/nasa-satellites-see-upper-atmosphere-cooling-contracting-climate-change>

[SEPP Comment: *The late Fred Singer looked into this issue and found it insignificant.*]

Changing Weather

The Big Heat Post Mortem and the Next Few Days

It's over.

By Cliff Mass, Weather Blog, June 29, 2021

<https://cliffmass.blogspot.com/2021/06/the-big-heat-post-mortem-and-next-few.html>

“Portland cooled by 52F (116 to 64) and Salem by 56F (117 to 61) in a matter of hours.

“Seattle cooled by an impressive 46F!”

“Ozone is another issue and is actually worst not in the cities, but downwind in vegetated areas, such as the foothills of the Cascades. Look at the ozone in Enumclaw, southeast of Seattle.

Progressively increased during the last week before dropping rapidly last night.”

Heatwave Trends In Oregon

By Paul Homewood, Not a Lot of People Know That, June 30, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/06/30/heatwave-trends-in-oregon/>

Suppose You Were A Member Of Congress

By Tony Heller, His Blog, July 1 (written) & July 2 (video), 2021

Video: <https://realclimatescience.com/2021/07/ suppose-you-were-a-member-of-congress/>

Written: <https://realclimatescience.com/2021/07/ suppose-you-were-a-member-of-congress/>

The Record Heatwave Of 2021

By Tony Heller, His Blog, July 1, 2021

<https://realclimatescience.com/2021/07/the-record-heatwave-of-2021/>

“Number of US All Time Maximum Temperature Records Set or Tied At All 650 USHCN Stations Which Have Been Active For At Least 100 Years”

[SEPP Comment: *2021 highs were far exceeded in 1925, 1930, 1934, 1936, and 1954.*]

Approximately 1,000 evacuated as Canadian fires engulf town

By AFP Staff Writers, Vancouver (AFP), July 1, 2021

https://www.terrordaily.com/reports/Approximately_1000_evacuated_as_Canadian_fires_engulf_town_999.html

"The town of Lytton, 250 kilometers (155 miles) northeast of Vancouver, "has sustained structural damage and 90 percent of the village is burned, including the centre of town," local MP Brad Vis said.

"The village's 250 residents were evacuated on Wednesday evening, one day after it set a jaw-dropping Canadian record high temperature of 49.6 degrees Celsius (121 degrees Fahrenheit)."

Freak weather, heat domes, cold snaps, all grist for the Global Witchdoctors

By Jo Nova, Her Blog, July 2, 2021

<https://joannenova.com.au/2021/07/freak-weather-heat-domes-cold-snaps-all-grist-for-the-global-witchdoctors/>

Over 150 fire scientists urge the US West: Skip the fireworks this record-dry 4th of July

Posted by Charles Rotter, WUWT, July 2, 2021

<https://wattsupwiththat.com/2021/07/02/over-150-fire-scientists-urge-the-us-west-skip-the-fireworks-this-record-dry-4th-of-july/>

133 Degrees In Santa Barbara, California [1859]

By Tony Heller, His Blog, June 27, 2021

<https://realclimatescience.com/2021/06/133-degrees-in-santa-barbara-california/>

Changing Climate

Climate change, not humans, fueled decline of prehistoric elephants, mammoths

By Brooks Hays, Washington DC (UPI) Jul 1, 2021

https://www.terrordaily.com/reports/Climate_change_not_humans_fueled_decline_of_prehistoric_elephants_mammoths_999.html

Link to paper: The rise and fall of proboscidean ecological diversity

By Juan L. Cantalapiedra, et al. Nature Ecology & Evolution, July 1, 2021

<https://www.nature.com/articles/s41559-021-01498-w>

"From approximately 6 million years ago, and especially since 3 million years ago, the ecomorphological diversity of proboscideans started to decrease globally in increments, following events of climatic cooling and harshening,' co-author Juha Saarinen, a postdoctoral researcher at the University of Helsinki in Finland, told UPI in an email."

[SEPP Comment: Glaciation was tough on large herbivores.]

Large Herbivores Grazed On Grass Year-Round In The Arctic When CO2 Was 180 ppm. Now They Cannot.

By Kenneth Richard, No Tricks Zone, July 1, 2021

<https://notrickszone.com/2021/07/01/large-herbivores-grazed-on-grass-year-round-in-the-arctic-when-co2-was-180-ppm-now-they-cannot/>

Link to latest paper: Effects of large herbivore grazing on relics of the presumed mammoth steppe in the extreme climate of NE-Siberia

By Jennifer Reinecke, Nature, Scientific Reports, June 21, 2021

<https://www.nature.com/articles/s41598-021-92079-1>

Dinosaurs were struggling long before the asteroid hit

By Brooks Hays, Washington DC (UPI), Jun 29, 2021

https://www.terrordaily.com/reports/Dinosaurs_were_struggling_long_before_the_asteroid_hit_999.html

Link to paper: Dinosaur biodiversity declined well before the asteroid impact, influenced by ecological and environmental pressures

By Fabien L. Condamine, et al. Nature Communications, June 29, 2021

<https://www.nature.com/articles/s41467-021-23754-0>

From abstract: “We analyse the speciation-extinction dynamics for six key dinosaur families, and find a decline across dinosaurs, where diversification shifted to a declining-diversity pattern ~76 Ma. We investigate the influence of ecological and physical factors, and find that the decline of dinosaurs was likely driven by global climate cooling and herbivorous diversity drop. The latter is likely due to hadrosaurs outcompeting other herbivores.”

Changing Seas

Peter Ridd: New evidence that coral bleaching is nothing new

By Peter Ridd, Via GWPF, June 29, 2021

<https://www.thegwpf.com/peter-ridd-new-evidence-that-coral-bleaching-is-not-new/>

Link to paper: Coral Bleaching Recorded During the Little Ice Age

By Thomas Cedhagen, Aarhus University

https://km.dmcg.go.th/ckeditor/upload/files/Research%20Bulletin/FullpaperPMBC/06Coral_bleaching_recorded_during.pdf

“Reef-scientists often claim that coral bleaching is a new phenomenon that only started in the 1970’s due to climate change. But a remarkable new paper published by Tomas Cedhagen, of Aarhus University in Denmark has uncovered a very early lithograph showing bleaching in 1862.”

[SEPP Comment: In the Red Sea, off the Sinai Peninsula. Before temperature measurements of the area.]

What Corals Can Tell Us About Climate Change

By John Abbot, Institute of Public Affairs, AU, June 24, 2021

<https://ipa.org.au/research/climate-change-and-energy/what-corals-can-tell-us-about-climate-change>

Link to report: What Corals Can Tell Us About Climate Change: Temperature Variability Over Millennia

By John Abbot, Institute of Public Affairs, AU, 2021

<https://ipa.org.au/wp-content/uploads/2021/06/IPA-Report-What-Corals-Can-Teach-Us-About-Climate-Change.pdf>

Coastal sinking, caving explained by researchers at Texas A&M Corpus Christi

From 2016 - 2019, a huge section of South Texas from Victoria to McAllen was researched to see how the land moves over time.

By Michael Gibson, K 3 News, June 28, 2021 [H/t Bernie Kepshire]

<https://www.kiii.com/article/news/local/research-about-sinking-areas-in-the-coastal-bend/503-c1f04b8d-bdb7-4575-ad16-994bf559061d>

Great Barrier Reef Not In Danger

By Bob Irvine, WUWT, June 28, 2021

<https://wattsupwiththat.com/2021/06/28/great-barrier-reef-not-in-danger/>

Changing Cryosphere – Land / Sea Ice

Arctic Tales and Fails

By Joseph D'Aleo, CCM, ICECAP, June 26, 2021

http://icecap.us/index.php/go/new-and-cool/arctic_tales_andfails/

Greenland Ice Core CO₂ during the past 1,000 years

By Renee Hannon, WUWT, July 2, 2021

<https://wattsupwiththat.com/2021/07/02/greenland-ice-core-co2-during-the-past-1000-years/>

Barents Sea polar bears thriving despite huge summer ice loss: spring research results are in

By Susan Crockford, Polar Bear Science, July 1, 2021

<https://polarbearscience.com/2021/07/01/barents-sea-polar-bears-thriving-despite-huge-summer-ice-loss-spring-research-results-are-in/>

Guest post: Deciphering the rise and fall of Antarctic sea ice extent

By Clare Eayrs and David Holland, Center for Sea Level Change at New York University, Abu Dhabi, Climate Brief, June 29, 2021

https://www.carbonbrief.org/guest-post-deciphering-the-rise-and-fall-of-antarctic-sea-ice-extent?utm_campaign=Carbon%20Brief%20Weekly%20Briefing&utm_content=20210702&utm_medium=email&utm_source=Revue%20Weekly

Link to paper: Rapid decline in Antarctic sea ice in recent years hints at future change

By Clare Eayrs, et al, Nature Geoscience, June 28, 2021

<https://www.nature.com/articles/s41561-021-00768-3>

[SEPP Comment: Hints are not useful for prediction that Antarctic sea ice will continue to fall over a long term as it has done in the short term beginning in 2016.]

Pine Island Glacier's ice shelf is ripping apart, speeding up key Antarctic glacier thinning

From 2017 to 2020, large icebergs at the ice shelf's edge broke away

Press Release, NSF, June 28, 2021

https://www.nsf.gov/discoveries/disc_summ.jsp?cntn_id=302983&WT.mc_id=USNSF_1

Link to paper: Ice-shelf retreat drives recent Pine Island Glacier speedup

By Ian Joughin, et al. Science Advances, June 11, 2021

<https://advances.sciencemag.org/content/7/24/eabg3080>

[SEPP Comment: Panic journalism. See link immediately below.]

Orbital- and millennial-scale Antarctic Circumpolar Current [ACC] variability in Drake Passage over the past 140,000 years

By Shuzhuang Wu, et al. Nature Communications, June 24, 2021

<https://www.nature.com/articles/s41467-021-24264-9>

From abstract: We found significant glacial-interglacial changes of ACC flow speed, with weakened current strength during glacials and a stronger circulation in interglacials.

Changing Earth

Invisible bursts of electricity from volcanoes signal explosive eruptions

Mysterious electrical signals could help warn aviators of impending volcanic ash plumes

By Alka Tripathy-Lang, Science News, July 1, 2021

https://www.sciencenews.org/article/invisible-bursts-electricity-volcano-explosive-eruptions-warning?utm_source=email&utm_medium=email&utm_campaign=latest-newsletter-v2&utm_source=Latest_Headlines&utm_medium=email&utm_campaign=Latest_Headlines

India-Asia collision as a driver of atmospheric CO₂ in the Cenozoic

By Zhengfu Guo, et al. Nature Communications, June 23, 2021

<https://www.nature.com/articles/s41467-021-23772-y>

From abstract: Deep Earth degassing is a critical forcing factor for atmospheric CO₂ variations and palaeoclimate changes in Earth's history. For the Cenozoic, the key driving mechanism of atmospheric CO₂ variations remains controversial.

[SEPP Comment: *The Cenozoic Era started about 66 million years ago.*]

Acidic Waters

James Cook University Researchers Refuted: “Ocean Acidification Does not Impair” Fish behaviour

By P Gosselin, No Tricks Zone, June 27, 2021

<https://notrickszone.com/2021/06/27/james-cook-university-researchers-refuted-ocean-acidification-does-not-impair-fish-behaviour/>

Link to paper challenging earlier research. Ocean acidification does not impair the behaviour of coral reef fishes

By Timothy D. Clark, et al. Nature, Jan 8, 2020

<https://www.nature.com/articles/s41586-019-1903-y>

Agriculture Issues & Fear of Famine

Rainfall Driving Bumper Crops and Crop Failures Is Neither Random Nor Due to Global Warming

By William Balgord, Townhall, June 30, 2021

<https://townhall.com/columnists/williamdbalgord/2021/06/30/boys-and-girls-at-play-rainfall-driving-bumper-crops-and-crop-failures-is-neither-random-nor-due-to-global-warming-n2591760>

Lowering Standards

Met Office Hype US Heatwave, But Forget 1930s Heatwaves

By Paul Homewood, Not a Lot of People Know That, June 29, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/06/29/met-office-hype-us-heatwave-but-forget-1930s-heatwaves/>

Communicating Better to the Public – Use Yellow (Green) Journalism?

Major Media FAIL on Reporting the Pacific Northwest Heatwave

By Anthony Watts, WUWT, June 30, 2021

<https://wattsupwiththat.com/2021/06/30/major-media-fail-on-reporting-the-pacific-northwest-heatwave/>

“We Can’t Say For Certain”

By Tony Heller, His Blog, June 28, 2021

<https://realclimatescience.com/2021/06/we-cant-say-for-certain/>

Battery catches fire: Film at 11

By John Robson, Climate Discussion Nexus, June 30, 2021

<https://climatediscussionnexus.com/2021/06/30/battery-caughts-fire-film-at-11/>

“Now the *Times* also opines that ‘That environmental toll has often been overlooked in part because there is a race underway among the United States, China, Europe and other major powers.’ But we think it would also be fair to say that it has been overlooked in part because climate alarmists, including those at the *Times*, have not wanted people to think there’s a downside to ditching fossil fuels.”

BBC Go Into Hysteria Mode Over Canadian Heatwave

By Paul Homewood, Not a Lot of People Know That, July 1, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/07/01/bbc-go-into-hysteria-mode-over-canadian-heatwave/>

<https://notalotofpeopleknowthat.wordpress.com/2021/07/01/bbc-go-into-hysteria-mode-over-canadian-heatwave/>

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

“The Worst Is Yet To Come” (Again)–IPCC

By Paul Homewood, Not a Lot of People Know That, June 26, 2021

<https://notalotofpeopleknowthat.wordpress.com/2021/06/26/the-worst-is-yet-to-come-again-ipcc/>

Communicating Better to the Public – Make things up.

Junk Science Week: Attenborough flogs COP26 ‘tipping point’

Ever since the falling walrus footage, Sir David appears to have abandoned his journalistic principles to achieve a political objective

By Susan J. Crockford, Financial Post, Canada, June 24, 2021

<https://financialpost.com/opinion/junk-science-week-attenborough-flogs-cop26-tipping-point>

Communicating Better to the Public – Go Personal.

‘Ecocide’: The Climate Church Wants to Imprison Nonbelievers

By Robert Bradley Jr., Master Resource, June 28, 2021

<https://www.masterresource.org/climate-exaggeration/ecocide-imprisonment/>

Communicating Better to the Public – Use Propaganda

BBC Censors their Own Climate Change Page

By Eric Worrall, WUWT, July 2, 2021

<https://wattsupwiththat.com/2021/07/02/bbc-censors-their-own-climate-change-page/>

Expanding the Orthodoxy

Gnomes of Zurich to the climate rescue

By John Robson, Climate Discussion Nexus, June 30, 2021

<https://climatediscussionnexus.com/2021/06/30/gnomes-of-zurich-to-the-climate-rescue/>

Questioning European Green

Planned EU carbon market reform is ‘politically suicidal’, warns French MEP

By Clara Bauer-Babef and Kira Taylor | EURACTIV.fr | translated by Daniel Eck, July 1, 2021

<https://www.euractiv.com/section/climate-environment/news/planned-eu-carbon-market-reform-is-politically-suicidal-warns-french-mep/>

Cost of green home measures such as insulation and heat pumps ‘putting homeowners off’ amid calls to scrap VAT

By Madeleine Cuff, I News, UK, June 28, 2021

<https://inews.co.uk/news/green-home-insulation-heat-pumps-cost-1074655>

Funding Issues

BlackRock's 'No. 1' goal in 'woke' investing: Huge ESG-funds haul

By Charles Gasparino, New York Post, June 5, 2021

<https://nypost.com/2021/06/05/blackrocks-no-1-goal-in-woke-investing-huge-esg-funds-haul/>

"In short, Fink will look like a darling to Democratic politicians, he'll get a lot of left-leaning rich people to put cash in what they feel are "moral" stocks — and he'll laugh all the way to the bank."

[SEPP Comment: "Moral" investing requires higher management fees?]

Democrats say there's no time to wait on including climate in infrastructure

By Anuli Ononye, The Hill, July 1, 2021

<https://thehill.com/policy/equilibrium-sustainability/561253-democrats-say-theres-no-time-to-wait-on-including-climate>

[SEPP Comment: Time to panic!]

The Political Games Continue

No Climate, No Deal: US Democrats go to war over climate trillions after radical left threatens to derail Biden deal

By Staff, Daily Mail, Via GWPF, June 29, 2021

<https://www.thegwpf.com/no-climate-no-deal-us-democrats-go-to-war-over-climate-trillions-after-radical-left-threatens-to-derail-biden-deal/>

Litigation Issues

Climate Litigation Supporters Admit That Attribution Science Is Failing In Court

By William Allison, Energy in Depth, June 28, 2021 [H/t WUWT]

<https://eidclimate.org/climate-litigation-supporters-admit-that-attribution-science-is-failing-in-court/>

Climate lawsuit litigants are relying on dated science, study finds

By Brooks Hays, Washington DC (UPI), Jun 28, 2021

https://www.terrordaily.com/reports/Climate_lawsuit_litigants_are_relying_on_dated_science_study_finds_999.html

Link to paper: Filling the evidentiary gap in climate litigation

By Rupert Stuart-Smith, Nature Climate Change, June 28, 2021

<https://www.nature.com/articles/s41558-021-01086-7>

From abstract: "Here we assess the scientific and legal bases for establishing causation and evaluate judicial treatment of scientific evidence in 73 lawsuits. We find that the evidence submitted and referenced in these cases lags considerably behind the state of the art in climate science, impeding causation claims."

[SEPP Comment: Could it be the courts do not recognize model speculation as evidence?]

Glyphosate 2.0: Lawsuits Claiming Herbicide Paraquat Causes Parkinson's Move Forward

By Cameron English, ACSH, June 28, 2021

<https://www.acsh.org/news/2021/06/28/glyphosate-20-lawsuits-claiming-herbicide-paraquat-causes-parkinsons-move-forward-15633>

EPA and other Regulators on the March

White House delays agency changes to environmental law procedures under Trump rule by two years

By Rachel Frazin, The Hill, June 28, 2021

<https://thehill.com/policy/energy-environment/560600-white-house-delays-agency-changes-to-environmental-law-procedures>

[SEPP Comment: *Protecting the bureaucratic morass called NEPA.*]

EPA chief defends infrastructure plan after climate protests: 'This is a historic investment'

By Zack Budryk, The Hill, June 30, 2021

<https://thehill.com/policy/equilibrium-sustainability/560957-epa-chief-defends-infrastructure-plan-after-climate>

[SEPP Comment: *Is it an investment that pays dividends or a luxury such as an unreliable sports car?*]

Energy Issues – Non-US

Vietnam at the Energy Crossroads: Will it Choose the Best Way Forward?

By Vijay Jayaraj, Master Resource, June 30, 2021

<https://www.masterresource.org/vjayaraj/vietnam-energy-crossroads-2021/>

As US and Europe push climate policies, Middle East and Russian state oil producers stand to benefit

In the long term, US and EU green policies to reduce fossil fuel investments will increase the market share of Middle Eastern and Russian oil and gas producers

Global demand for fossil fuels shows no sign of slowing as developing countries aim to grow rapidly to meet the aspirations of their citizens

By Tilak K. Doshi, South China Morning Post, July 1, 2021 [H/t WUWT]

<https://www.scmp.com/comment/opinion/article/3139193/us-and-europe-push-climate-policies-middle-east-and-russian-state>

Is wind locking us into fossil fuels?

By Staff, Our Energy Future, UK, June 15, 2021 [H/t Paul Homewood]

https://our-energy-future.com/News_Articles/News-2021-06-15-01

Energy Issues – Australia

SMH: Aussie Government Economic Forecasts Ignoring Net Zero Impacts

By Eric Worrall, WUWT, June 29, 2021

[https://wattsupwiththat.com/2021/06/29/smh-aussie-government-economic-forecasts-ignoring-netzero-impacts/](https://wattsupwiththat.com/2021/06/29/smh-aussie-government-economic-forecasts-ignoring-net-zero-impacts/)

SMH: Sydney Morning Herald.

Energy Issues -- US

Alex Epstein on Energizing Puerto Rico

By Ron Clutz, Science Matters, July 2, 2021

<https://rclutz.com/2021/07/02/alex-epstein-on-energizing-puerto-rico/>

“Here are three crucial facts that I almost never hear discussed about Puerto Rico and I want to highlight them.

“First, the percentage of Puerto Ricans currently living in poverty is 43 percent.

“Second, the cost of energy in Puerto Rico versus the states is up to three times higher

“Third, the per capita income in Puerto Rico is \$13, 000.

“Honorable members does it strike you as fair that someone earning \$13,000 per year should be paying three times what you and I pay for the energy that powers our homes? I don’t think that’s fair and I’m guessing you don’t think so either.”

[SEPP Comment: *Testimony to House Natural Resources Committee, June 30, 2021*]

Electricity Planning Quagmire: Marginal Cost Pricing & Renewables

By Robert Bradley Jr. Master Resource, July 1, 2021

<https://www.masterresource.org/texas-blackout-2021/electricity-distortion-why-marginal-pricing-in-wholesale-market-may-need-reform/>

Rolling Blackouts Triggered as Historic Heatwave Grips Pacific Northwest

Utilities across the Pacific Northwest are bracing for exceptional stress on the grid as record-breaking temperatures continue to fester across the region, and at least one utility—Avista Corp.—this week began rolling outages as a measure to alleviate strain on the electric system.

By Sonal Patel, Power Mag, June 30, 2021

https://www.powermag.com/rolling-blackouts-triggered-as-historic-heatwave-grips-pacific-northwest/?oly_enc_id=7809H6412578J0B

Bonneville Power Administration

By Staff, BPA.Gov/transmission, Accessed June 26

BPA Balancing Authority Total Wind Generation, Near-Real-Time

<https://transmission.bpa.gov/Business/Operations/Wind/twndbspt.aspx>

BPA Balancing Authority Load and Total Wind, Hydro, Fossil/Biomass, and Nuclear Generation, Near-Real-Time

<https://transmission.bpa.gov/Business/Operations/Wind/baltwg.aspx>

Washington's Control of Energy

The End? - Alaska's Crude Oil Production Continues To Decline On Stronger Headwinds

By Housley Carr, RBN Energy, June 30, 2021

<https://rbnenergy.com/the-end-alaskas-crude-oil-production-continues-to-decline-on-stronger-headwinds>

Nuclear Energy and Fears

Why "nuclear batteries" offer a new approach to carbon-free energy

By David L. Chandler for MIT News. Boston MA (SPX), Jun 28, 2021

https://www.energy-daily.com/reports/Why_nuclear_batteries_offer_a_new_approach_to_carbon_free_energy_999.html

Link to paper: A Strategy to Unlock the Potential of Nuclear Energy for a New and Resilient Global Energy-Industrial Paradigm

By Jacopo Buongiorno, et al, National Academy of Engineering, June 15, 2021

<https://www.nae.edu/255810/A-Strategy-to-Unlock-the-Potential-of-Nuclear-Energy-for-a-New-and-Resilient-Global-EnergyIndustrial-Paradigm>

“These proposed systems could provide heat for industrial processes or electricity for a military base or a neighborhood, run unattended for five to 10 years, and then be trucked back to the factory for refueling and refurbishment.”

[SEPP Comment: *Battery sounds better than small modular reactor?*]

Alternative, Green (“Clean”) Solar and Wind

Wind energy in crisis as expansion stalls in Germany

By Alex Reichmuth; Nebelspalter, Via GWPF, June 28, 2021

<https://www.thegwpf.com/wind-energy-in-crisis-as-expansion-stalls-in-germany/>

“Now wind industry lobbyists are calling for new subsidies and construction rules to be relaxed.”

New Jersey Awards 2.7 GW of Offshore Wind Projects

New Jersey utility regulators have issued what officials are calling the largest combined award of offshore U.S. wind generation capacity to date.

By Darrell Proctor, Power Mag, June 30, 2021

https://www.powermag.com/new-jersey-awards-2-7-gw-of-offshore-wind-projects/?oly_enc_id=7809H6412578J0B

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

World's second-largest hydropower dam goes online in China

By AFP Staff Writers, Beijing (AFP), June 28, 2021

https://www.terrordaily.com/reports/Worlds_second-largest_hydropower_dam_goes_online_in_China_999.html

“Baihetan was built with a total installed capacity of 16,000 megawatts, which means it will eventually be able to generate enough electricity **each day once to meet the power needs of 500,000 people for an entire year**, according to state broadcaster CCTV.” [Boldface added]

Amazon hydropower plant contributes significant greenhouse emissions: study

By Philip Van Slooten, Washington (AFP) June 25, 2021

https://www.terrordaily.com/reports/Amazon_hydropower_plant_contributes_significant_greenhouse_emissions_study_999.html

But climate researchers now know hydropower is not as good for the environment as once assumed. Though no fossil fuels are burned, the reservoirs release millions of tons of methane and carbon dioxide as vegetation decays underwater.

[SEPP Comment: *Decaying vegetation on dry land does not create CO₂ and methane?*]

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

Long-Duration Energy Storage: A Strategy for Retiring Coal Plants?

By Ty Jagerson, Power Mag, June 29, 2021

https://www.powermag.com/long-duration-energy-storage-a-strategy-for-retiring-coal-plants/?oly_enc_id=7809H6412578J0B

Alternative, Green (“Clean”) Vehicles

Should America's Future Rely on BEVs? Part 1

By Donn Dears, Power For USA, June 29, 2021

<https://ddears.com/2021/06/29/should-americas-future-rely-on-bevs-part-1/>

[SEPP Comment: *Battery only or hybrid electric with both an electric motor and a gasoline engine?*]

Should America's Future Rely on BEVs? Part 2

By Donn Dears, Power For USA, July 2, 2021

<https://ddears.com/2021/07/02/should-americas-future-rely-on-bevs-part-2/>

171 Scientists: CO₂ Budget Of Electric Mobility “Twice As Big As Assumed” By European Leaders

By P Gosselin, No Tricks Zone, June 30, 2021

<https://notrickszone.com/2021/06/30/171-scientists-co2-budget-of-electric-mobility-twice-as-big-as-assumed-by-european-leaders/>

As Globe Cools, Snow And Cold Return. German Post Electric Delivery Vehicles And Mail Go Up In Flames

By P Gosselin, No Tricks Zone, June 25, 2021

<https://notrickszone.com/2021/06/25/as-globe-cools-snow-and-cold-return-german-post-electric-delivery-vehicles-and-mail-go-up-in-flames/>

Carbon Schemes

Energy Transition: Blue Oil Edition

By David Middleton, WUWT, June 29, 2021

<https://wattsupwiththat.com/2021/06/29/energy-transition-blue-oil-edition/>

[SEPP Comment: *Can enhanced oil recovery make the US carbon neutral?*]

Health, Energy, and Climate

UK Government Explicitly Exempts Rich People and Other Elites from Covid Lockdown Rules

By Eric Worrall, WUWT, June 29, 2021

<https://wattsupwiththat.com/2021/06/29/uk-government-explicitly-exempts-elites-from-covid-lockdown-rules/>

[SEPP Comment: *Perhaps they think they are so healthy or quick witted that no viruses can catch them!*]

Environmental Industry

VW Files “Criminal Complaint” After Greenpeace Removes 1000 Keys From New VW Cars

By P Gosselin, No Tricks Zone, June 26, 2021

<https://notrickszone.com/2021/06/26/vw-files-criminal-complaint-after-greenpeace-removes-1000-keys-from-new-cars/>

BELOW THE BOTTOM LINE

The Conversation: Earth Exhibits a Cold Climate Species Distribution

By Eric Worrall, WUWT, June 30, 2021

<https://wattsupwiththat.com/2021/06/30/the-conversation-earth-exhibits-a-cold-climate-species-distribution/>

Vultures circle collapsed building

By John Robson, Climate Discussion Nexus, June 30, 2021

<https://climatediscussionnexus.com/2021/06/30/vultures-circle-collapsed-building/>

“So they managed to find a leading expert on sea level rise who thinks a 3 mm per year increase adds up to 11 feet per century.”

U.N. Predicts Disaster if Global Warming Not Checked

By Peter James Spielmann, AP, Via WayBackMachine, **June 29, 1989** [H/t Jonathon Moseley]

<http://web.archive.org/web/20200924233458/https://apnews.com/article/bd45c372caf118ec99964ea547880cd0>

"A senior U.N. environmental official says entire nations could be wiped off the face of the Earth by rising sea levels if the global warming trend is not reversed by the year 2000."

Wind, climate caused record melt of Arctic's 'Last Ice Area'

By Patrick Galey, Paris (AFP), July 1, 2021

https://www.spacedaily.com/reports/Wind_climate_caused_record_melt_of_Arctics_Last_Ice_Area_999.html

ARTICLES

1. Panama Canal Tackles Climate-Change Puzzle: Too Little Rainwater or Too Much

Authorities to unveil \$2 billion plan to help with droughts and extreme storms: 'We are seeing more frequent and more severe extreme weather events'

By Santiago Perez, WSJ, June 28, 2021

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TWTW Summary: According to the journalist:

"...the Panama waterway faces more serious long-term challenges that could also disrupt global shipping. The biggest problem is diminishing rainwater needed to operate the 50-mile waterway, through which 4% of global trade passes. Four of the past seven years have been among the driest since 1950, according to estimates from the state-run Panama Canal Authority.

"Our challenge is how to solve the water problem," said Ricaurte Vásquez, chief of the Panama Canal Authority. There is too little water during the dry months, or too much all at once as warmer weather causes bigger storms to hit the area, including nearby hurricanes.

Canal authorities are working on a \$2 billion plan to build infrastructure to manage and preserve freshwater reserves—an amount equal to the canal's annual contributions to Panama's government coffers. On Monday, officials said they would choose from among 30 proposed solutions and put those out for bids in about two years. The projects, with a completion target of 2028, are expected to be a combination of new dams and reservoirs, using treated sewage water, or finding alternative freshwater sources like diverting flows from other rivers. Authorities have also considered pumping desalinated seawater.

Several countries, such as the U.S., have developed large reservoirs and river transfers to offset growing water shortages. Cities such as New Orleans or Italy's Venice have developed levees and barriers to contain flooding and sea-level rise. Miami Beach is planning to invest \$1 billion to raise roads, lift sea walls and install pump stations to drain storm water.

But a comprehensive project of the magnitude planned by the Panama Canal doesn't exist anywhere else in the world, said Daniel Muschett, who heads the canal's environment and water division.

The canal's role in global shipping comes as skyrocketing demand for consumer goods has sparked congestion in the world's busiest shipping routes.

The author discusses the importance of the Suez and Panama canals to shipping especially to Europe, then continues:

Unlike Suez, a flat seawater canal whose stream flow is defined by the tide, the Panama Canal is a much more complex infrastructure that relies on freshwater and uses a system of locks as aquatic elevators, lifting ships almost 90 feet above sea level onto a navigable waterway, and then lowering them down the other end.

The Panama waterway depends on rainwater to fill reservoirs and lakes that provide trillions of gallons of freshwater to fill the locks, which empty into the sea after every use. Its daily water consumption is triple that of New York City. Every time a ship traverses the waterway, the canal uses between 200 million and 350 million gallons of water—enough to fill as many as 500 Olympic-sized swimming pools.

Fortunately for the canal, Panama is the world's fifth-rainiest country. But the supply of freshwater is no longer steady, with very strong storms at the end of the wet season or long spells of dryness. Canal officials say they have faced more challenges during the past 12 years than the rest of the canal's existence since 1914.

After brief comments from representatives from the Smithsonian Tropical Research Institute about more frequent and more severe extreme weather events, the article continues:

The Panama Canal Authority, which charges tolls as high as \$1 million for the biggest cargo ships, last year introduced a freshwater surcharge of more than 10% depending on the depth of Lake Gatún. The artificial lake carries ships for about 20 miles of their transit across the isthmus and is the main reservoir to fill its locks.

A decline in Lake Gatún's depth means ships can't go through fully loaded. Authorities also face the possibility of reducing the number of ships that cross the canal. Monster storms test the resistance of dams and increase the risk of landslides and sedimentation that can clog narrow passages of the waterway such as the difficult Culebra Cut.

After additional comments of problems caused by volatile weather, the article brings up the other major problem

Pressure on Panama's watershed intensified after a \$5 billion expansion of the canal's system of locks in 2016 to accommodate larger vessels. A growing urban population and agriculture have also drawn water away from the area.

The article offers no details about the extinct agriculture and urbanization use water.
