The Week That Was: 2022-03-26 (March 26, 2022) Brought to You by SEPP (www.SEPP.org) The Science and Environmental Policy Project

Quote of the Week: "If there is something very slightly wrong in our definition of the theories, then the full mathematical rigor may convert these errors into ridiculous conclusions."— Richard P. Feynman.

Number of the Week: 22.6%

THIS WEEK:

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

Scope: TWTW will present five additional essays by Atomic, Molecular, and Optical (AMO) physicist Howard Hayden, Numbers 6, 7, 8, 9, and 10. Hayden looks at the overall results of the work of van Wijngaarden and Happer. They used the high-resolution transmission molecular absorption database (HITRAN), [which is a compilation of spectroscopic parameters, constraints] to simulate and predict the transmission and emission of light in the atmosphere. Hayden wrote the series of brief essays using all-inclusive basic physics, explaining the importance of their work and the limitations it places on global climate modeling. In ignoring what is occurring in the earth's atmosphere, the climate modelers are creating an artificial world far different than the physical one, which may be best suited for their political aims.

Spectroscopy is used in many diverse fields as widespread as astronomy and chemistry (studying the influence of certain chemicals on the human body). In the 1860s, John Tyndall used early spectroscopy to discover that certain atmospheric gases, which he called greenhouse gases, prevent land masses from going into a deep freeze at night, promoting life on this planet. Yet, spectroscopy is largely ignored by the UN Intergovernmental Panel on Climate Change (IPCC) and its followers such as global climate modelers who claim to be authorities on the influence of greenhouse gases.

The possibility of two President Bidens is discussed. The promising Biden makes statements in Europe of supporting democracies in opposing the invasion of Ukraine by Russia. The regulating Biden opposes the expansion of the US oil and gas industries which is needed to support democracies in Europe. Recent announcements by the administration to expand regulatory authority are presented. As the *Wall Street Journal* states, the regulating Biden is in La-La-Land (imaginary land).

Francis Menton continues his work exposing the La-La thinking of those who claim wind and solar can easily replace fossil fuels and nuclear. This time, he discusses work in Germany. Until the Russian invasion, Germany was in La-La-Land. The US Energy Information Administration (EIA) appears to be embracing La-La economics in its latest *Annual Energy Outlook*. Meanwhile, Roger Bezdek exposes the green jobs myth.

A Better Way: The UN IPCC and its followers including global climate modelers have been bogged down in trying to understand the greenhouse effects from a doubling of CO2 since the Charney Report of 1979 which claimed that a doubling of CO2 would result in a warming of 3°C plus or minus 1.5°C. The claim was made without supporting physical evidence. The IPCC has

followed suit, repeating the unsupported claims in its six reports covering over 30 years. The science has stagnated. The fact that the atmosphere is not warming as the IPCC and its followers claim. Ignoring this physical evidence is inexcusable.

Climate modelers, such as those with NCAR, claim they have advanced the understanding of extreme weather events based on global warming. But as Ross McKitrick has shown, this claim is erroneous. It is based on a misinterpretation of the Gauss-Markov theorem in statistics stating the set of assumptions that must be met before assuming that estimates are reasonably close to the actual numbers (realistic). Unfortunately, hundreds of erroneous studies have been published repeating this error.

In discussing weather forecasting, Cliff Mass articulates the problem arising from using weather-based models for climate forecasting. Huge improvements were made since around 1980, thanks to satellites and increased computer power. Excellent forecasts can be made out to 3 to 4 days, and quite good forecasts to 6 days, but skill fails out at 9 to 10 days out. By 14 days, chaos takes over.

Forecasts of average conditions are possible, primarily from the El Niño Southern Oscillation (ENSO) if an El Niño or La Niña is occurring. But, as of yet, they cannot be predicted.

Thus, the approach offered by Howard Hayden is vastly superior to that used by the IPCC. It does not require an understanding of weather or the need to separate climate change internal to the earth's system from the greenhouse effect. The approach calculates the greenhouse effect as directly as possible. Unfortunately, it requires the subtraction of one large number from another large number, with associated possible errors. Direct measurement is not possible. Yet, the Hayden approach is far more direct than that used by the IPCC and its followers.

In Basic Climate Physics # 6, Hayden gives graphs showing the Climate Constraint Equation under different conditions. This requires a bit of calculus. It shows the tremendous disparity between what the IPCC numbers say will happen with a doubling of CO2 (an increased "forcing" of 3.47 watts per square meter) with what the IPCC claims is the likely increase in temperatures (3°C).

However, using the widely accepted Stefan-Boltzmann radiation law, Hayden calculates how much radiation would have to increase to achieve various increases in temperatures that are commonly suggested. An increase of 3°C requires an increase in surface radiation of 16.4 watts per square meter, not the 3.47 watts per square meter that the IPCC numbers show will happen. The disparity is 12.7 watts per square meter.

In Basic Climate Physics # 7, Hayden goes into the various scenarios the IPCC uses on carbon dioxide emissions now called Shared Socio-Economic Pathway (SSP), previously called Representative Concentration Pathway (RCP). The IPCC now extends them only to 2050 rather than 2100. Hayden then compares the IPCC's work with the Climate Constraint Equation. Regardless of what year it uses as the endpoint, 2050 or 2100, as Hayden states:

"Obviously, IPCC's analysis of climate is woefully incomplete, if not egregiously in error."

In Basic Climate Physics #8, Hayden goes into the Adiabatic Lapse Rate, which is used by some to argue that there is no greenhouse effect. The lapse rate is an idealized concept created for a

Standard Atmosphere to describe the decline in temperature with altitude to the tropopause (where water freezes out). The Tropopause is approximately 17 kilometers (11 mi) above the equatorial regions, and approximately 9 kilometers (5.6 mi) above the polar regions. Thermal inversions can invert the lapse rate. As Hayden demonstrates, the lapse rate cannot be used to explain away the greenhouse effect.

Basic Climate Physics #9 Hayden describes various feedback mechanisms. Feedbacks are a confusion in many climate studies. Probably the most notorious are claims of "tipping points" or points of no return. Yet for millions of years, the Earth has gone from periods of extreme glaciation to periods of considerable warming without any evidence of experiencing tipping points. As Hayden writes:

"So, the IPCC is saying that 3.71 W/m2 of heating begets 16.4 W/m2 of heating. Heat produces 4.4 times as much heat. That's positive feedback for you, and there is no end in sight. One unit of heat begets 4.4 units of heat, and each of the 4.4 units of heat begets 4.4 more units of heat, ... without end. To repeat the obvious, CO2 does not cause the alleged positive feedback mechanisms; heat does. Any heat from any cause does. So why isn't the planet boiling?

"Climate models have neither found a way to account for all the IR [infrared radiation] (especially the increase due to temperature rise) nor identified the negative feedback mechanisms that ultimately control the climate." [Boldface added]

In Basic Climate Physics #10, Hayden summarizes the previous essays, and highlights some of the deficiencies of the IPCC reports. The most glaring deficiency is the absence of discussion in the IPCC reports of the Stefan-Boltzmann law that applies to all bodies in space. The words appear in IPCC AR6 (2021) with some numbers but no discussion. Hayden writes:

"but nowhere—repeat **NOWHERE**—is there any mention that the Stefan-Boltzmann law always applies to the surface. Nor, more importantly, is the law actually applied to the model-predicted surface temperatures." [Boldface in original.]

The work of van Wijngaarden and Happer used the work of the famous physicist Max Plank to present the range of radiation that the Earth would emit without an atmosphere with greenhouse gases. But the IPCC gets the work of Max Planck wrong in its description of what it calls "The Planck Response." As Hayden writes:

"Look up **Planck Response** on the internet and you find this line repeated **ad nauseum**: "The Planck feedback is the most basic and universal climate feedback and is present in every climate model. It is simply an expression of the fact that a warm planet radiates more to space than a cold planet." In Lesson #3, we proved that statement false with two examples. (1) The earth with the same albedo but with either the presence or absence of the greenhouse effect (i.e., warmer or colder) emits exactly the same IR to outer space. (2) Venus, with lead-melting surface temperature emits less IR to space than does the earth." [Boldface are italics in the original.]

It is the difference between the incoming and outgoing radiation that warms or cools the planet. Hayden describes that the IPCC is addressing an unanswerable question then states:

"Turn that unanswerable question around and ask: "If the temperature rises by some amount (ΔT) , how much more heat flux (ΔI) does it radiate? The Stefan-Boltzmann law provides the

unambiguous answer and does so with a slide rule instead of a supercomputer. (N.B.: If you include emissivities, the numbers change a little, but not enough to balance the Climate Constraint Equation in Lesson 4.)

"IPCC's goal (aside from frightening the public) is to determine the ECS, the Equilibrium Climate Sensitivity, which is the surface temperature rise (△Tsurf) due to a doubling of CO2 concentration. They are free to speculate, of course, but they are intellectually obligated to see whether their ECS makes sense. All they have to do is to apply the Stefan-Boltzmann law to their predicted temperature rise.

"If they do so, they will find out that 16.4 W/m2 (for a 3°C) rise in radiative flux is violently in contradiction to the 3.71 W/m2 of 'radiative forcing' that their models say causes that 3°C temperature rise. They are free to come up with an explanation, but they first have to apply the Stefan-Boltzmann law to their ECS. Maybe in a few more decades, IPCC will make this discovery."

See links under Challenging the Orthodoxy, Changing Weather, and http://sepp.org/science papers.cfm

Which Biden Administration? The contradictions of the Biden Administration are articulated in an editorial in the Wall Street Journal. The editors write:

"The good news is that the U.S. finally agreed Friday to help Europe replace Russia as its main natural gas supplier. The bad news is that President Biden is still telling U.S. gas producers he wants to put them out of business.

"It sounds crazy but listen to Mr. Biden's remarks Friday. 'We're going to have to make sure the families in Europe can get through this winter and the next,' he said in announcing the deal to provide 15 billion cubic meters of gas this year, though not all from the U.S.

"But he added 'at the same time, this crisis also presents an opportunity' that will 'drive the investments we need to double-down on our clean energy goals and accelerate progress toward our net-zero emissions future.'

"The White House underlined the contradiction by saying the U.S. 'will maintain its regulatory environment.' More U.S. LNG exports will only be permitted to the extent they reduce emissions—for instance, by running on 'clean energy.'

"The reality today is the U.S. doesn't have enough LNG export capacity to replace the 170 billion or so cubic meters [bcm] that Russia sends Europe every year. Much of the 124 bcm/year of exports that the U.S. can technically ship are tied up in long-term contracts with Asia.

"But EQT CEO Toby Rice said this month he thinks the U.S. gas exports could 'easily' replace Russian supply over a matter of years, and the U.S. has the potential to quadruple its gas production by 2030. EQT is the largest U.S. natural gas producer.

"One major obstacle is a shortage of pipeline capacity. Several large pipelines and LNG export projects have been scrapped in recent years amid opposition from progressive states and green groups. It can take four to five years to get a federal permit for a pipeline that can be built in six

to nine months. The Trump Administration accelerated permitting, but Biden regulators have slow-rolled approvals. [Boldface added]

"Two applications to increase LNG exports sat at the Energy Department for more than two years. They were finally approved two weeks ago as the Administration scrambled to supply Europe with more gas. But that was too late to help this winter.

"Europe long resisted signing long-term contracts for U.S. LNG because Russia provided cheap gas. This hampered U.S. investment in LNG export facilities and is one reason there are 13 approved terminals that could ship 258 billion cubic meters each year that still aren't under construction. Most were approved in the Trump years.

"Now Europe is finally agreeing to long-term contracts, but the Administration says it opposes long-term U.S. gas investment. Listen to no less a power player than Gina McCarthy, the White House national climate adviser, this week. U.S. climate policy 'is not a fight about coal anymore. It is a challenge about natural gas and infrastructure investments because we don't want to invest in things that are time limited. Because we are time limited,' she said at an American Council on Renewable Energy forum. [Boldface added]

"What sane CEO is going to invest with Ms. McCarthy holding the sword of 'time limited' over his head? There's a reason the Energy Department's LNG export permits are good through 2050. It can take decades to recoup investment.

After writing that the EU is streamlining for LNG imports, extending the life of coal plants, and the UK is exploring for oil and gas in the North Sea, the Editors conclude:

"Too bad the Biden Administration is still living in la-la land."

Also, the Biden Administration has announced new regulation on permitting new, much needed natural gas pipelines further delaying them. The Biden appointee to Chair the SEC has announced mandatory climate risk disclosures for a non-existent threat. And the Secretary of Energy stated in a March 9 speech at CERA week 2022 in Houston:

"We are on a war footing—an emergency—and we have to responsibly increase short-term [oil and gas] supply where we can right now to stabilize the market and to minimize harm to American families.... And that means you producing more right now, where and if you can...."

But,

"And we want you to power this country for the next hundred years with zero-carbon technologies"

See links under Defending the Orthodoxy, Change in US Administrations, and Article # 2.

Unknown Costs of Alternatives: Francis Menton continues exploring the unknown costs of wind and solar replacing fossil fuels and nuclear power. The big issue is estimating the costs of storage. Previously, he discussed the independent work of Roger Andrews and Ken Gregory. Now he discusses the work of Oliver Ruhau and Staffan Qvist of the Leibniz Information Centre for Economics. Menton writes:

"At pages 5-6 of their paper, R&Q lay out the generation (installed capacity) and storage requirements for their view of an optimized system.

"First there will be a vastly over-built system of wind and solar facilities:

"On the supply side, almost 300 GW [gigawatts] of variable renewable generators are installed: 92 GW solar PV, 94 GW onshore wind, and 98 GW offshore wind For solar PV and onshore wind power, this is nearly twice as much as the installed capacity in 2020; for offshore wind power, this means more than a tenfold increase.

"For comparison, Germany's current peak demand is in the range of 100 GW, and average demand is in the range of 60 GW.

"Then there will be some 56 TWh [terawatt hours] of storage, equivalent as discussed to about 24 days of full electricity consumption for the entire country of Germany at near-peak usage levels. To get a handle on how much that is, consider that a Tesla battery is in the range of about 100 KWh [kilowatt hours], and sells for about \$13,500, or \$135/KWh. So, if you were trying to cover the 56 TWh of storage with Tesla-type batteries, it would run you around 56,000,000,000 x \$135, or about \$7.56 trillion — which is about double the GDP of Germany.

"But R&Q think they have a better idea than batteries, namely hydrogen as a vehicle for the storage. In their model, almost all (54.8 TWh out of the 56 TWh) of the storage comes from hydrogen. In the first instance, this requires adding yet another massive new cost element to the system, namely an entire network of some 62 GW of hydrogen-fired CCGT power plants, almost sufficient on their own to supply Germany's grid at average levels of demand.

"Add together the cost of three-times overbuilding of wind turbines and solar panels, 56 TWh of storage, and a network of new hydrogen-fired power plants almost as extensive as Germany's entire current generation system, and you have a collection of costs that can't possibly be feasible in any rational world."

A big issue with the above is that no one has a solid idea of the costs of hydrogen storage. Andrews and Gregory made calculations of the size and costs of pumped hydro storage, the permits for which are probably impossible. See links under Challenging the Orthodoxy.

Disturbing Omission: In its *Annual Energy Outlook*, 2022 the EIA reports

"Wind and Solar Incentives, Along with falling technology costs, support robust competition with natural gas for electricity generation, while the shares of coal and nuclear power decrease in the U.S. electricity mix:

"Electricity demand grows slowly across the projection period, which increases competition among fuels

"Renewable electricity generation increases more rapidly than overall electricity demand through 2050

"Battery storage complements growth in renewables generation and reduces natural gas-fired and oil-fired generation during peak hours [Boldface added]

"As coal and nuclear generating capacity retire, new capacity additions come largely from wind and solar technologies."

TWTW was unable to find any rigorous explanation of storage costs associated with unreliable electricity generation. See links under Lowering Standards.

Green Jobs? Roger Bezeck exposes the folly of green jobs. Looking at data from 1970 and forecasts to 2030, he writes:

"Most jobs generated by the green economy are not 'green'...Rather, the vast majority are standard jobs for accountants, engineers, analysts, clerks, factory workers, mechanics, etc., and most of the persons thus employed do not realize they owe their livelihood to the green economy."

- "1. Jobs generated by the USA green economy have increased from 1% of total jobs in 1970 to 6% in 2020 and are forecast to comprise 14% of jobs in 2030.
- 2. Most persons in these jobs do not realize that they owe their livelihood to the green economy.
- 3. Jobs generated by the green economy are at least 3 or 4 times larger [more] than realized.
- 4. Green energy investments have net positive economic and jobs benefits.
- 5. Most green jobs are not attractive, well paid, or unionized.
- 6. Green jobs salaries are not higher than average.
- 7. Advocates are their own worst enemies by misrepresenting green job realities.
- 8. The significance of green jobs is not appreciated."

[Boldface added] See link under Green Jobs

A Last Gasp? UN Secretary General Antonio Guterres continues to promote a false climate crisis while largely ignoring the Russian invasion of Ukraine. His dream of gathering hundreds of billions of dollars from a false war on climate may be ending with a real war in Europe, the first in central Europe since WW II. The value of the UN to humanity is dwindling. See links under Defending the Orthodoxy.

Number of the Week: 22.6%: The work of Howard Hayden indicates that with a doubling of CO2, the total greenhouse effect will be 3.47 watts per square meter. This is about 22.6% of the energy needed to bring the temperature of the Earth up 3°C, which the IPCC uses as an average.

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

Basic Climate Physics #6, #7, #8, #9, #10

By Howard "Cork" Hayden, SEPP website, Scientific Papers for 2022, Posted March 26, 2022 http://sepp.org/science papers.cfm

Can you really Trust the 'Science'?

By Joseph D'Aleo, CCM, ICECAP, Mar 26, 2022

http://icecap.us/index.php/go/joes-blog/can you really trust the science/

AR6 and Sea Level, Part 3, A Statistically Valid Forecast

By Andy May, WUWT, Mar 22, 2022

https://wattsupwiththat.com/2022/03/22/ar6-and-sea-level-part-3-a-statistically-valid-forecast/

Link to study: A Test of the Tropical 200- to 300-hPa Warming Rate in Climate Models

By Ross McKitrick & John Christy, Earth and Space Science, July 6, 2018

https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2018EA000401

Climate Alarmist Claim Fact Checks

By Joseph D'Aleo, ICECAP, Ma 24, 2022

http://icecap.us/index.php/go/political-climate/alarmist claim rebuttals updated/

Fractions, Methane and Significance, It's the Numbers Stupid

By Owen Jennings, WUWT, Mar 23, 2022

https://wattsupwiththat.com/2022/03/23/fractions-methane-and-significance-its-the-numbers-"stupid/

"There is one other important issue relevant to ruminant methane. The vegetation (mainly grass) eaten by ruminants relies on the natural carbon cycle where photosynthesis converts CO2 from the atmosphere into plant material. When eaten this green matter produces methane emitted into the atmosphere where it oxidises into CO2 and water vapour needed, in turn, to grow the grass."

More Confirmation Of The Infeasibility Of A Fully Wind/Solar/Storage Electricity System Py Francis Montan, Manhattan Contrarian, Mar 21, 2022

By Francis Menton, Manhattan Contrarian, Mar 21, 2022

https://www.manhattancontrarian.com/blog/2022-3-21-more-confirmation-of-the-infeasibility-of-a-fully-windsolarstorage-electricity-system

Link to Working Paper: Storage requirements in a 100% renewable electricity system: Extreme events and inter-annual variability

By Ruhnau, Oliver; Qvist, Staffan, ZBW – Leibniz Information Centre for Economics, Kiel, Hamburg, 2021

https://www.econstor.eu/bitstream/10419/236723/1/Ruhnau-and-Qvist-2021-Storage-requirements-in-a-100-renewable-electricity-system-EconStor.pdf

The UK is sitting on a gas gold mine, while Putin has Europe's energy market by the throat By Matt Ridley, Rational Optimist, Ma 3, 2022

https://www.rationaloptimist.com/blog/frack-to-the-future/

"Small tremors do happen during any kind of underground work, but in Britain the shale gas firms such as Cuadrilla were told to stop if they caused a 0.5 tremor on the Richter scale, equivalent to somebody sitting down hard in a chair, and far fainter than what the coal mining or geothermal — or indeed road and rail transport industries — cause all the time."

Defending the Orthodoxy

"This is madness": UN Secretary General Whining About Abandoned Climate Goals By Eric Worrall, WUWT, Mar 21, 2022

 $\underline{https://wattsupwiththat.com/2022/03/21/this-is-madness-un-secretary-general-bleating-about-abandoning-climate-goals/}$

Statement on Proposed Mandatory Climate Risk Disclosures

By Chair Gary Gensler, U.S. Securities and Exchange Commission, March 21, 2022 https://www.sec.gov/news/statement/gensler-climate-disclosure-20220321

Defending the Orthodoxy – Bandwagon Science

2021 emissions surge leaves less than 10 years to avoid 1.5 degree warming: study

By Zack Budryk, The Hill, Mar 24, 2022

https://thehill.com/policy/energy-environment/599592-2021-emissions-surge-leaves-less-than-10-years-to-avoid-15-degree

Link to paper: Monitoring global carbon emissions in 2021

By Zhu Liu, et al. Nature Review, Science & Environment, Mar 21, 2022

https://www.nature.com/articles/s43017-022-00285-w

Questioning the Orthodoxy

WUWT Contest Winner, General Audience, 1st Place – "Is There Really a Climate Crisis?" By C.M. Compton, WUWT, Mar 21, 2022

 $\frac{https://wattsupwiththat.com/2022/03/21/wuwt-contest-winner-general-audience-1st-place-ist-pl$

A new assessment of extreme weather trends: global greening

By John Robson, Climate Discussion Nexus, Mar 23, 2022

https://climatediscussionnexus.com/2022/03/23/a-new-assessment-of-extreme-weather-trends-global-greening/

Link to paper: A critical assessment of extreme events trends in times of global warming By Gianluca Alimonti, et al. The European Physical Journal Plus, Jan 13, 2022 https://link.springer.com/article/10.1140/epip/s13360-021-02243-9

From the abstract: "None of these response indicators show a clear positive trend of extreme events. In conclusion on the basis of observational data, the climate crisis that, according to many sources, we are experiencing today, is not evident yet. It would be nevertheless extremely important to define mitigation and adaptation strategies that take into account current trends."

'Climate change': An Ideologically Driven Movement

By Alexander G. Markovsky, American Thinker, Mar 23, 2022

https://www.americanthinker.com/articles/2022/03/climate_change_an_ideologically_driven_mov ement.html

Climate Change is About Control, Stupid – Not The Environment

By William Kovacs, WUWT, Mar 23, 2022

 $\underline{https://wattsupwiththat.com/2022/03/23/climate-change-is-about-control-stupid-not-the-environment/}$

Is it wet or dry down here?

By John Robson, Climate Discussion Nexus, Mar 23, 2022

https://climatediscussionnexus.com/2022/03/23/is-it-wet-or-dry-down-here/

'I know this site has a lot of climate skeptics, but I think we all need to acknowledge that climate science finally got a prediction right for once, with their prediction that when Australia is dry it is dry, except when it is wet."

Change in US Administrations

Big Business witnessing backdoor scheme to dig, shame, and harass

By Chris Woodward & Billy Davis, American Family News, Mar 22, 2022 [H/t Climate Depot] https://afn.net/science-tech/2022/03/22/big-business-witnessing-backdoor-scheme-to-dig-shame-and-harass/

[SEPP Comment: For government, the first step towards regulation is collecting information. Who sets the climate goals, the administration?]

Biden's War on American Energy

By Ron Clutz, Science Matters, Mar 23, 2022

https://rclutz.com/2022/03/23/bidens-war-on-american-energy/

[&]quot;In another piece Worrall sums it up by saying"

Biden's climate alarmist nominees send a chilling message to financial institutions, the energy industry

By Sen Kevin Cramer (R-N.C.), The Hill, Mar 16, 2022

https://thehill.com/blogs/congress-blog/energy-environment/598499-bidens-climate-alarmist-nominees-send-a-chilling

"Biden's climate alarmist nominees send a chilling message to financial institutions, the energy industry:

"We want them to go bankrupt if we want to tackle climate change."

Help Us, Surrender, and Submit: DOE Secretary Granholm at CERA

By Robert Bradley Jr., Master Resource, Mar 21, 2022

 $\underline{https://www.masterresource.org/u-s-department-of-energy/doe-granholm-fantasy-speech-cera-\\2022/$

Social Benefits of Carbon Dioxide

Higher CO2 Concentrations Mean Better Plant Water Use, Enhanced Photosynthesis, Expanding Sahel

Higher CO2 concentrations offer even more advantages

By William Astley, No Tricks Zone, Mar 19, 2022

https://notrickszone.com/2022/03/19/higher-co2-concentrations-mean-better-plant-water-use-enhanced-photosynthesis-expanding-sahel/

Fewer rainy days and earlier springs linked in northern climates

New model shows leaves appearing 1-2 days earlier each decade

Press Release, NSF, Mar 21, 2022

https://www.nsf.gov/discoveries/disc_summ.jsp?WT.mc_id=USNSF_1&cntn_id=304698&utm_medium=email&utm_source=govdelivery

Link to paper: Decreasing rainfall frequency contributes to earlier leaf onset in northern ecosystems

By Jian Wang, et al. Nature Climate Change, Feb 14, 2022

https://www.nature.com/articles/s41558-022-01285-w

[SEPP Comment: Question the decreasing spring rains, but earlier spring days since 1982 are probably more due to increased CO2 than higher spring temperatures.]

Problems in the Orthodoxy

China To Boost Coal Output

By Paul Homewood, Not a Lot of People Know That, Mar 22, 2022

https://notalotofpeopleknowthat.wordpress.com/2022/03/22/china-to-boost-coal-output/

Money squawks

By John Robson, Climate Discussion Nexus, Mar 23, 2022

https://climatediscussionnexus.com/2022/03/23/money-squawks/

Quote from a Joel Makower after listing a host of ills: "And who has the mental bandwidth to absorb it all, anyway?' But hey, with COP26 there was supposedly 'a brief moment when much of the world — at least, its business, policy and civil society leaders — leaned into the terrifying reality of a rapidly changing climate. But in less than four months, the topic seems to have faded from public view.' Which tells you how seriously they took it."

"Our favourite quotation from committee chair Lord Hollick, however, is 'there is no point planning a carbon-free energy future if you haven't got a clue how you will get there or how it will be paid for." [Boldface added]

Seeking a Common Ground

Total Least Squares Bias when Explanatory Variables are Correlated

By Ross McKitrick, Essoar, Mar 24, 2022

https://www.essoar.org/doi/10.1002/essoar.10510919.1

Measurement Issues -- Surface

The sunburnt lands up north: Kugluktuk

By John Robson, Climate Discussion Nexus, Mar 23, 2022

https://climatediscussionnexus.com/2022/03/23/the-sunburnt-lands-up-north-kugluktuk/

Measurement Issues -- Atmosphere

UAH vs. RSS

By Andy May, WUWT, Mar 25, 2022

https://wattsupwiththat.com/2022/03/25/uah-vs-rss/

[SEPP Comment: In addition to May's comparison, RSS has incorporated surface-air temperatures which distort atmospheric measurements.]

Changing Weather

How far into the future are weather forecasts skillful? And the weekend forecast.

By Cliff Mass, Weather Blog, Marr 25, 2022

 $\underline{https://cliffmass.blogspot.com/2022/03/how-far-into-future-are-weather.html}$

Podcast

The Tactical and Strategic Implications of the Weather Situation in the Ukraine

By Cliff Mass, Weather Blog, Mar 22, 2022

https://cliffmass.blogspot.com/2022/03/the-tactical-and-strategic-implications.html

Are atmospheric rivers a new meteorological phenonomon?

By Cliff Mass, Weather Blog, Mar 24, 2022

https://cliffmass.blogspot.com/2022/03/are-atmospheric-rivers-new.html

Decline in Powerful Typhoons

By Tony Heller, His Blog, Mar 25, 2022

https://realclimatescience.com/2022/03/decline-in-powerful-typhoons/

[SEPP Comment: Comparing tracks of intense typhoons (greater than 150 kts) from 1950 to 1979 with those of 1980 to 2017]

Cooling Springs: Hamburg Phenological Spring Has Not Been Arriving Earlier Over Past 50 Years

By Josef Kowatsch (EIKE) (Translated by P. Gosselin), No Tricks Zone, Mar 20, 2022 https://notrickszone.com/2022/03/20/cooler-springs-hamburg-phenological-spring-has-not-been-arriving-earlier-over-the-past-50-years/

Changing Climate

Horses Grazed On Grass Year-Round In A Birch-Forested Siberian Arctic Until 2200 Years Ago

By Kenneth Richard, No Tricks Zone, Mar 24, 2022

https://notrickszone.com/2022/03/24/horses-grazed-on-grass-year-round-in-a-birch-forested-siberian-arctic-until-2200-years-ago/

Link to latest paper: Alpine permafrost could account for a quarter of thawed carbon based on Plio-Pleistocene paleoclimate analogue

By Feng Cheng, et al. Nature Communications, Mar 14, 2022

https://www.nature.com/articles/s41467-022-29011-2

Changing Seas

New Study: Sea Of Japan 3-6°C Warmer, Sea Levels 2-3 Meters Higher 8000-5000 Years Ago

By Kenneth Richard, No Tricks Zone, Mar 21, 2022

 $\frac{https://notrickszone.com/2022/03/21/new-study-sea-of-japan-3-6c-warmer-sea-levels-2-3-meters-higher-8000-5000-years-ago/$

Link to paper: Late Pleistocene–Holocene environmental and cultural changes in Primorye, southern Russian Far East: A review

By Marina S.Lyashchevskaya, et al,., Quaternary International Feb 26, 2022

https://www.sciencedirect.com/science/article/pii/S1040618222000246

[SEPP Comment: Question the sea level claims unless winds were much stronger from the east. Today, in the Northern Sea of Japan, they tend to blow to the northwest.]

https://www.data.jma.go.jp/gmd/cpd/longfcst/en/tourist_japan.html#:~:text=Winter%20(Decembe r%2DJanuary%2DFebruary)&text=Prevailing%20northwesterly%20winds%20cause%20the,(downstream%20of%20mountainous%20land).

Changing Cryosphere – Land / Sea Ice

Arctic sea ice maximum extent was present for at least two weeks at about 14.9 million km2 By Susan Crockford, Polar Bear Science, Mar 22, 2022

https://polarbearscience.com/2022/03/22/arctic-sea-ice-maximum-extent-was-present-for-at-least-two-weeks-at-about-14-9-million-km2/#more-129525

Arctic sea ice maximum at tenth lowest in satellite record

By Staff, National Snow & Ice Data Center, March 22, 2022 [H/t WUWT] https://nsidc.org/arcticseaicenews/2022/03/arctic-sea-ice-max-tenth-lowest/ See link immediately above.

Cherry Picking Antarctica

By Paul Homewood, Not a Lot of People Know That, Mar 21, 2022 https://notalotofpeopleknowthat.wordpress.com/2022/03/21/cherry-picking-antarctica/

Agriculture Issues & Fear of Famine

Protect farmland to protect food supply

By Mike Alder, Net Zero Watch, Mar 23, 2022

https://www.netzerowatch.com/protect-farmland-to-protect-food-supply/

"Ukraine produces 12% of the world's wheat, and Ukraine and Russia together produce over 35% of the world's wheat exports."

Lowering Standards

EIA: "Policies, rather than market demand, drive the adoption of biomass-based diesel fuels"...

By David Middleton, WUWT, Mar 24, 2022

https://wattsupwiththat.com/2022/03/24/eia-projects-that-renewable-diesel-will-soon-surpass-biodiesel-in-aeo2022/

Link to report: Annual Energy Outlook, 2022

By Staff, EIA, Mar 3, 2022

https://www.eia.gov/outlooks/aeo/

How to design a study to fail, and create bad PR for Ivermectin: Plus a lesson in white lies from the Wall Street Journal

By Jo Nova, Her Blog, Mar 22, 2022

https://joannenova.com.au/2022/03/how-to-design-a-study-to-fail-to-create-bad-pr-on-ivermectin-plus-a-lesson-in-white-lies-from-the-wall-street-journal/

Communicating Better to the Public - Make things up.

"Longest Tornado" Fake News

By Tony Heller, His Blog, Mar 24, 2022

https://realclimatescience.com/2022/03/tornado-fake-news/

Polar Heatwave Scare Debunked

By Paul Homewood, Not a Lot of People Know That, Mar 23, 2022

https://notalotofpeopleknowthat.wordpress.com/2022/03/23/polar-heatwave-scare-debunked/

Communicating Better to the Public – Use Propaganda

BBC's Climate Check-Feb 22

By Paul Homewood, Not a Lot of People Know That, Mar 22, 2022

https://notalotofpeopleknowthat.wordpress.com/2022/03/22/bbcs-climate-check-feb-22/

MSM Scares Themselves, Confuse 'Unprecedented' Weather Model Temperature Spikes with Actual Temperatures

By Anthony Watts, WUWT, Mar 25, 2022

https://wattsupwiththat.com/2022/03/25/msm-scares-themselves-confuse-unprecedented-weather-model-temperature-spikes-with-actual-temperatures/

Communicating Better to the Public – Protest

Climate-vandals are coming to let down your SUV tyres — if only they had evidence to persuade you instead

By Jo Nova, Her Blog, Mar 20, 2022

https://joannenova.com.au/2022/03/climate-vandals-are-coming-to-let-down-your-suv-tyres-if-only-they-had-evidence-to-persuade-you-instead/

Guardian Promoting Vandalism

By Paul Homewood, Not a Lot of People Know That, Mar 23, 2022

https://notalotofpeopleknowthat.wordpress.com/2022/03/20/guardian-promoting-vandalism/

Expanding the Orthodoxy

The SEC's Power Grab Attempt: A Powerful Dissent

By Richard W. Fulmer, Master Resource, Mar 25, 2022

https://www.masterresource.org/security-exchange-commission-energy/the-secs-power-grabattempt/

Energy regulator backtracks on assessing climate impacts of natural gas pipelines

By Zack Budryk, The Hill, Mar 25, 2022

 $\underline{https://thehill.com/policy/energy-environment/599743-energy-regulator-backtracks-on-assessing-climate-impacts-of-natural}$

Questioning European Green

How Putin spent millions spreading fake news about fracking

By Matt Ridley, Rational Optimist, Mar 15, 2022

https://www.rationaloptimist.com/blog/putins-fake-fracking-news/

Questioning Green Elsewhere

This won't hurt a bit

By John Robson, Climate Discussion Nexus, Mar 23, 2022

https://climatediscussionnexus.com/2022/03/23/this-wont-hurt-a-bit/

"Polluting here, of course, means GHGs and nothing but. Perhaps we are old-fashioned. But we think things like mining rare earths for batteries generate a good deal of what used to be called pollution, stuff that actually harmed human beings."

Green Energy

By Tony Heller, His Blog, Mar 25, 2022

https://realclimatescience.com/2022/03/green-energy-5/

The environmental disaster shown below is called green energy – and the exponential growth they are referring to is 1.4% solar and 2.6% wind.

Link to propaganda: Explaining the Exponential Growth of Renewable Energy

By Joel Jaeger, World Resources Institute, Sep 20, 2021

https://www.wri.org/insights/growth-renewable-energy-sector-explained

Green Jobs

The Reality of American 'Green jobs'

By Roger Bezdek, Real Clear Energy, March 21, 2022

https://www.realclearenergy.org/articles/2022/03/21/the_reality_of_american_green_jobs_822885_html

Litigation Issues

SEC proposes far-reaching climate disclosure rules for companies – here's where the rules may be vulnerable to legal challenges

By Daniel E. Walters, Penn State and William M. Manson, Penn State, Via WUWT, Mar 25, 2022 https://wattsupwiththat.com/2022/03/25/sec-proposes-far-reaching-climate-disclosure-rules-for-companies-heres-where-the-rules-may-be-vulnerable-to-legal-challenges/

"If the SEC votes to finalize the rule after a public comment period, it would standardize, extend and mandate disclosure requirements that the SEC encouraged in a guidance document back in 2010."

Subsidies and Mandates Forever

Drax Subsidies Hit £893 Million Last Year

By Paul Homewood, Not a Lot of People Know That, Mar 19, 2022

https://notalotofpeopleknowthat.wordpress.com/2022/03/19/drax-subsidies-hit-893-million-last-year/

Link to misleadingly named report: Innovating for apositive future

By Staff: Drax Group plc Annual report and accounts 2021

https://www.drax.com/wp-content/uploads/2022/03/Drax AR2021 2022-03-07.final .pdf

"Our purpose is to enable a zero carbon, lower cost energy future"

Our ambition is to become carbon negative by 2030. Being carbon negative means that we will be removing more carbon dioxide from the atmosphere than we produce throughout our direct business operations globally – creating a carbon negative company."

[SEPP Comment: By getting more subsidies to burn more trees! Primarily, the trees come from British Columbia and southern US. What happens when they run out? It happened in the US in the 1880s when virtually all the eastern forests were denuded.]

Kansas Wind Subsidies: Senator Thompson's Protest

By Robert Bradley Jr., Master Resource, Mar 23, 2022

https://www.masterresource.org/wind-power-tax-law/state-wind-subsidies-kansas/

Energy Issues – Non-US

As Energy System Comes Apart, Germany Now Preparing Emergency Natural Gas Rationing Plans

By P Gosselin, No Tricks Zone, Mar 22, 2022

 $\underline{https://notrickszone.com/2022/03/22/as-its-energy-system-comes-apart-germany-now-preparing-emergency-gas-rationing-plans/}$

US, EU announce effort to reduce European reliance on Russian energy

By Brett Samuels, The Hill, Mar 25, 2022

 $\underline{https://the hill.com/policy/energy-environment/599709-us-announces-effort-to-reduce-european-reliance-on-russian-}$

energy?utm_source=Sailthru&utm_medium=email&utm_campaign=03.25.22%20EM%20The%2 0Hill%20-%20Energy%20%26%20Environment&utm_term=Energy%20and%20Environment

Netherlands doubles wind energy targets for 2030

By AFP Staff Writers, The Hague (AFP), March 18, 2022

https://www.winddaily.com/reports/Netherlands_doubles_wind_energy_targets_for_2030_999.ht ml

"The Dutch government on Friday doubled its forecasts for offshore wind power generation in the country by 2030 as the Netherlands seeks to curb its reliance on fossil fuels and imports from Russia."

"The total capacity will double to around 21 GW by 2030 with the five zones, it added.

"'An additional 10.7 GW represents twice the electricity consumption of all Dutch households,' [Dutch Climate and Energy Minister Rob] Jetten said, quoted in the statement."

[SEPP Comment: Doubt that is enough!]

So, does Canada get serious?

By John Robson, Climate Discussion Nexus, Mar 23, 2022

https://climatediscussionnexus.com/2022/03/23/so-does-canada-get-serious/

"'Meanwhile Canada, with the world's third-largest oil reserves and the potential to produce far more than its current approximately 4 million barrels per day, is sacrificing hundreds of billions of dollars per year in revenues and new capital investment, along with tens of thousands of wellpaying jobs, on the Net Zero altar with policies that discourage new production and all-but rule out building new oil export pipelines."

Energy Issues -- US

USGS Releases Oil and Gas Assessment for the Bakken and Three Forks Formations of Montana and North Dakota

By Staff, Office of Communications and Publishing, USGS, Dec 15, 2021

https://www.usgs.gov/news/national-news-release/usgs-releases-oil-and-gas-assessment-bakken-and-three-forks-formations

Link to report: Assessment of Undiscovered Continuous Oil Resources in the Bakken and Three Forks Formations of the Williston Basin Province, North Dakota and Montana, 2021

Fact Sheet 2021-3058

By: Kristen R. Marra, et al. USGS, Dec 15, 2021

https://pubs.er.usgs.gov/publication/fs20213058

Full Report: Assessment of Undiscovered Continuous Oil Resources in the Bakken and Three Forks Formations of the Williston Basin Province, North Dakota and Montana, 2021 By Staff, USGS, Dec 2021

https://pubs.usgs.gov/fs/2021/3058/fs20213058.pdf

Clarifying Oil Information

By Donn Dears, Power For USA, Mar 22, 2022

https://ddears.com/2022/03/22/clarifying-oil-information/

"Imported oil is primarily used to ensure the proper grades of oil are used in each refinery while considering the total cost of crude, including transportation."

An Energy Independent America

By Mary Anna Mancuso, Real Clear Energy, March 22, 2022

https://www.realclearenergy.org/articles/2022/03/22/an_energy_independent_america_823060.html

Nuclear Energy and Fears

Belgium delays nuclear energy exit 10 years due to Ukraine war

By AFP Staff Writers, Brussels (AFP), March 18, 2022

https://www.nuclearpowerdaily.com/reports/Belgium_delays_nuclear_energy_exit_10_years_due to Ukraine war 999.html

[SEPP Comment: Doubt California would do the same.]

Alternative, Green ("Clean") Solar and Wind

Industrial Wind Turbines: Report from Ground Zero

By Robert Bradley Jr. Master Resource, Mar 24, 2022

 $\underline{https://www.masterresource.org/wind-power-grassroots-debate/industrial-wind-ground-zero-plagge/}$

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

Hagen Germany Massacres Forest, Popular Hiking Route, To Build 200-Mater Tall Wind Turbines

By P Gosselin, No Tricks Zone, Mar 23, 2022

 $\frac{https://notrickszone.com/2022/03/23/hagen-germany-massacres-forest-popular-hiking-route-to-build-200-mater-tall-wind-turbines/$

California Dreaming

Los Angeles becomes 1st in US to reach \$6 gas average

By Alexa Mae Asperin, Fox 5, Mar 22, 2022

https://www.fox5ny.com/news/los-angeles-is-1st-major-city-in-u-s-to-reach-6-gas-average

Newsom proposes \$11B relief package for Californians grappling with high gas prices By Sharon Udasin, The Hill, Mar 23, 2022

 $\underline{https://thehill.com/policy/equilibrium-sustainability/599469-newsom-proposes-11b-relief-package-for-californians}$

Other News that May Be of Interest

Inflation and Rule of 70

By Donn Dears, Power for USA, Mar 25, 2022

https://ddears.com/2022/03/25/inflation-and-rule-of-70/

BELOW THE BOTTOM LINE

RCT study shows parachutes make no difference when jumping from aircraft

By Jo Nova, Her Blog, Mar 23, 2022

https://joannenova.com.au/2022/03/rct-study-shows-parachutes-make-no-difference-when-jumping-from-aircraft/

Randomized Controlled Trials

Atlantic piece mocked for warning of nuclear war's effects on climate change: 'Out of whack with reality'

Bjorn Lomborg, Rachel Campos-Duffy on 'climate-obsessed' left By Joshua Nelson, Fox News, Mar 15, 2022

https://www.foxnews.com/media/atlantic-nuclear-war-climate-change-lomborg

ARTICLES

1. Environmental Alarmism Has Hardly Changed Since the '60s

Population then, climate change now—the scare tactics are the same and the predictions equally outlandish.

By Jason L. Riley, WSJ, March 22, 2022

https://www.wsj.com/articles/environmental-alarmism-has-hardly-changed-since-the-60s-climate-change-global-warning-scare-tactics-11647984765?mod=opinion_featst_pos2

TWTW Summary: The journalist begins:

"The Biden administration's overly ambitious climate-change agenda has gone next to nowhere in Congress, but the war on coal, oil and natural-gas production has continued by other means.

"The White House has tried to fill top positions at the Federal Reserve Board with people who want the Fed to restrict capital flowing to fossil fuels, as if Chairman Jerome Powell and company don't have their hands full fighting four-decade-high inflation rates. The Securities and

Exchange Commission, meanwhile, wants to force companies to report detailed data on their carbon emissions, which Republican Sen. Pat Toomey correctly describes as 'a thinly veiled effort to have unelected financial regulators set climate and energy policy for America.'

"To understand the Biden administration's stubbornness, it helps to appreciate how long environmental alarmism has been capturing the imagination of our intellectual elites. Before global warming, overpopulation was the existential threat du jour. The modern green movement dates to the 1960s and apocalyptic predictions have long been the coin of this realm. In 1967, brothers William and Paul Paddock wrote 'Famine 1975!' In 1968, Paul Ehrlich's 'The Population Bomb' declared that 'the battle to feed all of humanity is over. In the 1970s, the world will undergo famines—hundreds of millions of people are going to starve to death despite any crash programs embarked upon now.'

"In 1969, President Nixon called for a task force to examine the effects of population growth. And 50 years ago this month, the Rockefeller Commission on Population Growth and the American Future released its findings. The document predicted a seemingly endless string of catastrophes that a more populous America would have to confront. More droughts, famines and pollution were in store. Energy shortages, mineral depletion and deforestation were inevitable. Higher poverty rates and fewer job opportunities were unavoidable. 'In short, we find no convincing economic argument for continued national population growth,' it concluded. 'Recognizing that our population cannot grow indefinitely . . . the Commission recommends that the nation welcome and plan for a stabilized population.'

"Five decades on, these predictions have not aged well. The U.S. population now numbers more than 330 million, up from around 200 million in 1970. Yet Americans breathe cleaner air and drink cleaner water than they did 50 years ago. Poverty rates are lower, obesity is a bigger problem than hunger, and the current unemployment rate if anything reflects a labor shortage. Internationally, the trends have likewise been favorable, even as the world's population has doubled over the past half-century. The International Monetary Fund has tracked the quality of air, water, fisheries and natural habitats in 180 countries for more than a decade, and 178 of them have shown improvement. Between 1990 and 2014, the proportion of land set aside for wildlife reserves, national parks and the like grew by 80%, and marine conservation areas more than doubled.

After discussing current predictions that climate change will wipe out civilization in 10 to 12 years, the journalist concludes:

"In reality, since the 1960s the global production of food calories has risen dramatically and can easily satisfy the nutritional needs of everyone on the planet. And since 1980 the world-wide number of annual deaths from famine has been 90% to 95% lower than the first half of the 20th century. But ideological environmentalism isn't about following the data and the science. It's about frightening others into accepting your way of thinking. It's about curtailing the freedom of other people to make decisions for themselves and live their lives as they see fit. In the end, the White House and its green allies aren't really trying to win over public sentiment through facts and reason. For them, public sentiment and the legislative process are obstacles to overcome by whatever means necessary.

"More disturbing is that the administration's environmental priorities seem unaffected by Russia's invasion of Ukraine and the resulting upheaval in global energy markets. At a time when domestic

fossil-fuel production could provide the U.S. with all manner of leverage in helping allies in the region rebuff Vladimir Putin's aggression, Mr. Biden has been reluctant to change course. Geopolitical considerations take a back seat to fighting global warming, even if it means thousands die, millions are displaced, and autocracies like Russia, China and Iran gain the upper hand."

2. Biden's Great Energy and Climate Contradiction

He wants more gas for Europe from U.S. companies he wants to put out of business.

By The Editorial Board, WSJ, March 25, 2022

https://www.wsj.com/articles/joe-bidens-energy-contradiction-lng-europe-gas-companies-russia-ukraine-gina-mccarthy-11648244471?mod=opinion_lead_pos3

TWTW Summary: The editorial is summarized in the This Week section above.

3. How Bill Clinton Sealed Ukraine's Fate

The inside story of the Budapest Memorandum of 1994, when Kyiv returned its nuclear weapons to Russia in return for 'assurances' from Moscow and Washington.

By George E. Bogden, WSJ, March 25, 2022

https://www.wsj.com/articles/how-bill-clinton-sealed-ukraines-fate-disarmament-nuclear-weapons-power-america-russia-kyiv-11648217959?mod=hp opin pos 5#cxrecs s

TWTW Summary: The fellow at the Smith Richardson Foundation and at the German Marshall Fund of the U.S., a law clerk at the U.S. Court of International Trade and a senior visiting researcher at Bard College writes:

Immediately after Ukraine signed its final agreement to renounce nuclear weapons in 1994, the country's first president, Leonid Kravchuk, grimly remarked: 'If tomorrow Russia goes into Crimea, no one will raise an eyebrow.' As we now know, that isn't all Moscow would attempt to reclaim. Recently released archival documents demonstrate how American officials, adamant about the country's denuclearization, ignored the sentiments of Ukraine's postcommunist leaders, who were desperate to secure their new country.

Vladimir Putin's carnage in Ukraine and threats of nuclear escalation cast a haunting shadow over the Budapest Memorandum, the accord that occasioned Mr. Kravchuk's remorse. By its terms, Ukraine forfeited an inherited Soviet nuclear arsenal in exchange for Western pledges of aid and 'assurances' from Russia, the U.S. and the U.K. that its borders would remain intact. Disarmament experts hailed the pact, but it invited Mr. Putin's revanchism.

I have spent the past two years reviewing previously sequestered tranches of documents (some released in the past six months) provided by presidential libraries, the United Nations, the National Security Archive and the British National Archives. They pull back the curtain at a critical moment, revealing how the Clinton administration ignored flashing warning signs as it pushed Ukraine hard to accept unilateral disarmament—depriving Kyiv of a deterrent against Russia while providing nothing real to replace it.

The U.S.-led campaign to denuclearize Ukraine began in 1992. Having strained under the yoke of foreign powers for centuries, Kyiv jealously guarded its nascent independence. Many Russians viewed their neighbor's sovereignty as anomalous, and Ukraine's postcommunist leadership feared what they might do about it. Mr. Kravchuk had been born in 1934 under one foreign government, Poland; saw his father die fighting a second, Germany; and lived decades under

communist rule. He was determined not to see his nation subjugated again. The inherited Soviet arsenal represented a potent check against future Russian aggression.

Kravchuk's government therefore harbored apprehensions about abandoning it. He considered trading this ace for an ironclad territorial guarantee, something akin to the North Atlantic Treaty Organization's Article 5 umbrella. But Secretary of State James Baker balked. He believed this would result in identical demands from all post-Soviet states. When Ukraine subsequently resisted committing to disarmament through the 1992 Lisbon Protocol, Mr. Baker put this defiance to an end with a blistering phone call. 'I have never heard one man speak to another in quite that way,' Jim Timbie, an aide who was with Mr. Baker at the time, said in describing the secretary's side of the conversation to Ambassador Thomas Graham Jr. Mr. Baker required that the signing ceremony the next day adjourn without speeches from the parties.

Following U.S. elections that November, Mr. Kravchuk gained an untested negotiating partner but not new leverage. Bill Clinton's administration proved even less amenable to his concerns. As archival documents show, a new cadre of officials approached the issue with a heightened sense of certainty—and urgency. 'Ukraine could not keep nuclear weapons,' Steven Pifer, a State Department official who later served as ambassador to Ukraine (1998-2000), recalled in 2018. 'No one in the U.S. government questioned' this objective. A sign in the Office of New Independent States fashioned a Clintonian mantra to match the prevailing view: 'It's the nukes, stupid.'

The full-court press began on the president's sixth day in office. Teleconference transcripts reveal Mr. Clinton neither waited for the full-scale review of disarmament policy the General Accounting Office recommended in 1993 nor for Ambassador Strobe Talbott's comprehensive appraisal of existing policies toward post-Soviet states before dialing up the pressure on Kyiv. On his first call with Mr. Kravchuk in office, on Jan. 26, 1993, Mr. Clinton offered \$175 million—which grew to \$700 million by 1994—in exchange for dismantlement of Ukraine's nuclear arsenal. He also proposed 'strong security assurances' from the U.S. to assuage Mr. Kravchuk's security fears.

A wily former apparatchik, Mr. Kravchuk bet that if he stayed at the table, his country wouldn't end up on the menu. He relayed his concerns in stark terms. 'The fear,' he explained to Mr. Clinton, 'is political explosion and the dividing up of Ukraine—autonomy for Donetsk, and Krivoi Rog, and Galicia, and finally the dismemberment of the country.' These warnings, prescient as they seem now, didn't move Mr. Clinton or his team. National security adviser Anthony Lake, writing to the president in 1993, complained that promised future cooperation had failed 'to spur the Ukrainians to see their security as enhanced by eliminating nuclear weapons.' Kyiv didn't understand its true 'long-term interest,' Mr. Lake insisted; only he and his colleagues did.

After discussing further political intrigue in the Clinton Administration and in Russia, the author concludes:

The smoldering rubble in Ukraine may not be prima facie evidence that its post-Soviet government should have insisted on nuclear warheads as its birthright. But it does beckon something more than contrived historical resignation. In his 2018 tract on Ukrainian-American relations, Mr. Pifer ended the chapter on disarmament with a sentence that reads like a stale afterthought: The Clinton administration, he wrote, 'could have provided greater military assistance, including some lethal military equipment, to strengthen Ukraine's ability to defend itself and deter further Russian aggression.'

The legacy of the Budapest Memorandum doesn't lie in crude conclusions about the desirability of disarmament itself. That straw man obscures insights provided by the vibrant historical record now emerging. Rather, comments like Mr. Pifer's raise a more pressing question: If Ukraine's nuclear weapons 'had to go,' what means should Kyiv have been provided to halt the historic cycle of domination from Moscow? The flaw of the Budapest Memorandum from its inception—reflected in Ukraine's immiseration today—is that this question appears to have gone unanswered, if it was seriously considered at all.

Altogether, the archival record paints a picture of a new administration charting what it believed was a benevolent path. Its peerless strength, afforded by Soviet disintegration, produced an undisciplined fixation on disarmament. The first Democrats to govern since Jimmy Carter failed to reckon with the wisdom of the party's most celebrated strategist, Zbigniew Brzezinski. 'Without Ukraine, Russia ceases to be an empire,' he said. 'But with Ukraine suborned and then subordinated, Russia automatically becomes an empire.'

Perhaps the administration would have done well to heed the back-channeled common sense conveyed by Mr. Mamedov in 1994. 'Many on our side will resent your meddling in something that they believe is none of your business,' he said. 'Kyiv will resent your taking away the strongest card in their hand.' Instead, they chose to invent an Esperanto of disarmament, democracy and free markets.

Perhaps they believed these words alone might lead to their adoption from Vancouver to Vladivostok. Nearly 30 years on, it's clear that they didn't. It's hard to accept that the approach that gave us the memorandum can truly provide a defensible framework for U.S. policy making in the future—certainly not with the road to Kyiv as fraught with Russian aggression as in decades before.