Quote of the Week: “No government has the right to decide on the truth of scientific principles, nor to prescribe in any way the character of the questions investigated. Neither may a government determine the aesthetic value of artistic creations, nor limit the forms of literacy or artistic expression. Nor should it pronounce on the validity of economic, historic, religious, or philosophical doctrines. Instead it has a duty to its citizens to maintain the freedom, to let those citizens contribute to the further adventure and the development of the human race.” – Richard Feynman, "The Meaning of It All: Thoughts of a Citizen Scientist".

Number of the Week: 99.99997% Certainty

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

It’s Not Real, It’s Puccini: Last week’s TWTW discussed that in order to fully enjoy certain types of art, such as opera and some movies, members of the audience must suspend reality. Similarly, to believe certain claims by climate scientists, one must suspend reality – including knowledge of nature. As if on cue, the Nature publishing group came out with two papers that require suspending reality and knowledge of nature.

One paper, “Celebrating the anniversary of three key events in climate change science in Nature Climate Change,” claims the authors discovered a distinct human fingerprint with extremely high precision. The principal author was Benjamin Santer with many co-authors including two with the Remote Sensing Service (RSS) that has incorporated surface temperature measurements with its calculations of atmospheric temperature trends, creating a vague, sloppy product by adding noise. In 1995, Santer claimed that a pronounced warming trend over the tropics was a distinct human fingerprint – a warming trend that has yet to be found. The new Santer paper is discussed in this section of TWTW.

The second paper, “Possible climate transitions from breakup of stratocumulus decks under greenhouse warming,” was published in Nature Geoscience. It will be discussed in a section below.

The abstract of the Santer paper states:

“Climate science celebrates three 40th anniversaries in 2019: the release of the Charney report, the publication of a key paper on anthropogenic signal detection, and the start of satellite temperature measurements. This confluence of scientific understanding and data led to the identification of human fingerprints in atmospheric temperature.”

As readers of TWTW realize, 40 years of comprehensive atmosphere temperature trends from satellites are reason to celebrate. But contrary to claims in the Santer paper they do not support the speculations in the 1979 Charney Report that increases in water vapor will greatly amplify the
modest warming from carbon dioxide (CO2) demonstrated in laboratory experiments. Further, these atmospheric temperature trends do not support “the identification of human fingerprints in atmospheric temperature.” Perhaps the authors are using a debating technique described by Schopenhauer to baffle your opponent and the audience: when you have clearly lost your argument, suddenly state your opponent’s view is the one you have been advocating all along and declare victory!

The Santer paper was immediately rebuked on three levels: 1) Theoretical physics by string theorist Luboš Motl on his blog; 2) Statistics by Ross McKitrick on Climate Etc.; and 3) Physical measurement by Roy Spencer on his blog. Motl’s critique is most direct and goes to the absurdity of comparing climate science with precision in particle physics.

In the comments section of his post, Motl responds to a question that is very germane from a reader identified as Andreas, which explains Motl’s views: “Luboš, what kind of proof would you accept for man-made climate change?”

“Dear Andreas, I am a theorist and for theoretical reasons, I have no doubt that the mankind, and CO2 emissions in particular, affect the climate. Even the experimental proof was made in lab in the mid-19th century [by John Tyndall]. The question is how strong an effect it is in the real world - and the key point is that the contribution is negligible for all practical purposes according to all the available data.

“I would accept that there could be a problem if the warming rate sped up from 0.15 deg C a decade to more than 0.5 C a decade or something like that. This is not too much to ask. 0.5 C is still a tiny change and poses no threat. But if such a change doesn't occur even within a cherry-picked decade, there just cannot be a problem and all the people who have caused the wasting of hundreds of billions of dollars must be held responsible for their acts.”

Motl made his original post after receiving a tweet from Gavin Schmidt, head of NASA-GISS, who claimed a five-sigma certainty in the findings in the new paper. This degree of precision requires extremely tight laboratory controls and was attained in the European Organization for Nuclear Research (CERN) experiment to find Higgs boson particle. Motl’s rebuttal is directed toward Schmidt but it applies to the paper as well. Boldface added

“He picks about 3 scientific teams and praises them for reaching the "gold standard" of science (which is how the journalists hype it) – a five-sigma proof of man-made global warming. The signal-to-noise ratio has reached some critical threshold, it's those five-sigma, so the man-made climate change is proven at the same level at which we needed e.g. the Higgs boson to be discovered by CERN's particle physicists.

“It sounds great except it's complete nonsense. When we discover something at five-sigma, it means something that clearly cannot be the case in climatology. When we discover new physics at five-sigma, it means that we experimentally rule out a well-defined null hypothesis at the p-level of 99.9999% or so. Note that a "well-defined null hypothesis" is always needed to talk about "five sigma".

“In the case of the man-made climate change discussion, there is clearly no such "well-defined null hypothesis". In particular, when Schmidt and others discuss the "signal-to-noise ratio", they don't really know what part of the observed data is "noise" and how strong it should be. The
assumption must be that the "noise" is some natural variability of the climate. But we don't really have any precise enough and canonical enough model of the natural variability. The natural variability is undoubtedly very complex and has contributions from lots of natural and statistical phenomena and their mixtures. Cloud variations, irregular seasons, solar variability, volcanoes, even earthquakes, annual ocean cycles, decadal ocean cycles, centennial ocean cycles, 1500-year ocean cycles, irregularities in tropical cyclones, plants' albedo variations, residuals from a way to compute the average, butterfly wings in China, and tons of other things.

"So, we can't really separate the measured data to the "signal" and "noise". Even if we knew the relevant definition of the natural noise, we just don't know how large it was before the industrialization began. The arguments about the "hockey stick graph" are the greatest tangible proof of this statement. Some papers show the variability in 1000-1900 AD as 5 times larger than others – so "5 sigma" could very well be "1 sigma" or something else.

"Just like before Schmidt's tweet, it is perfectly possible that all the data we observe may be labeled "noise" and attributed to some natural causes. There may obviously be natural causes whose effect "n" [a symbol] the global mean temperature and other quantities is virtually indistinguishable from the effect expected from the man-made global warming.

"If the people observed some amazing high-frequency correlation between the changes of CO2 and the temperature, a great agreement between these two functions of time could become strong evidence of the anthropogenic greenhouse effect. But it's clearly impossible because we surely can't measure the effect of the tiny seasonal variations of the CO2 concentration – these variations are just a few ppm while the observed changes, seasons, are hugely pronounced and affected mostly by other things than CO2 (especially by the Sun directly).

"So, the growth of the CO2 was almost monotonic – and in recent decades, almost precisely linear. Nature may also add lots of contributions that change almost monotonically or linearly for a few decades. So, the summary is that Gavin Schmidt and his fellow fearmongers are trying to make the man-made climate science look like a hard science – perhaps even as particle physics – but it is not really possible for the climate science to be analogous to a hard science. The reason is that particle physics and hard sciences have nicely understood, unique, and unbelievably precise null hypotheses that may be supported by the data or refuted; while the climate science doesn't have any very precise null hypotheses.

"At most, the attribution of the climate change is as messy a problem as the attribution of the discrepancies between Hubble's constant obtained from various sources. It's just not possible to make any reliable enough attribution because the number of parameters that we may adjust in our explanations is larger than the number of unequivalent values that are helpful for the attribution and that we may obtain from observations. In effect, the task to "attribute" is an underdetermined set of equations: the number of unknowns is larger than the number of known conditions or constraints that they obey (i.e. than the number of observed relevant data).

"Gavin Schmidt and everyone else who tries to paint hysterical climatology as a hard science analogous to particle physics is simply lying. Particle physics is a hard science and "five sigma proofs" are possible in it, climatology is a soft science and "five sigma proofs" in it are just marketing scams, and cosmology is somewhere in between. We all hope that cosmology will return closer to particle physics, but we can't be sure.”
If we cannot separate the CO2 warming signal from the natural variability (noise), we cannot establish the extent of CO2 being a major cause. Yet, the UN Intergovernmental Panel on Climate Change (IPCC) and its dutiful followers such as the US Global Change Research Program (USGCRP) continue to ignore natural variability – the noise. Thus, they cannot separate the signal from the noise.

Ross McKitrick has similar comments as related to statistics. He realizes that statistical modeling cannot attain the precision needed by CERN and its Large Hadron Collider to find the Higgs boson. Asserting climate science has reached that degree of precision is fantasy.

Roy Spencer comments on the fantasy of claiming:

“that the 40-year record of global tropospheric temperatures agrees with climate model simulations of anthropogenic global warming so well that there is less than a 1 in 3.5 million chance (5 sigma, one-tailed test) that the agreement between models and satellites is just by chance.

This leads to the question of why the paper was published? Spencer may have the answer:

“In the end, I believe the study is an attempt to exaggerate the level of agreement between satellite (even UAH) and model warming trends, providing supposed “proof” that the warming is due to increasing CO2, even though natural sources of temperature change (temporary El Nino warming, volcanic cooling early in the record, and who knows what else) can be misinterpreted by their method as human-caused warming.”

The paper is unrealistic, but one item in the paper appears positive; at the end of the long acknowledgement sections there is a much-needed disclaimer:

“The views, opinions and findings contained in this report are those of the authors and should not be construed as a position, policy, or decision of the US Government, the US Department of Energy, or the National Oceanic and Atmospheric Administration.”


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**William Happer – Climate Realist:** The appointment of William Happer to a committee being formed to evaluate the threat to national security from carbon dioxide-caused climate change continues to garner praise and criticism. One of the “big” criticisms is that Happer is not a climate scientist. Will Happer is an AMO – Atomic, Molecular, and Optical – Physicist, and has decades of research in the field. The greenhouse effect is about the interaction between infrared (an optical thing) and CO2 molecules. The only thing that relates CO2 to climate is precisely that: AMO. Happer is a world’s expert, and to claim that he is not a climate scientist is to deny the AMO relationship. The IPCC etc. and most “climate scientists” do not understand this relationship.

If the publication discussed above is an example of climate science, then climate science is not suitable for evaluating national threats because it is a waste of resources to focus on threats identified by a false pretense of knowledge. SEPP board member Willie Soon sent TWTW an article by Happer written in 2011 in which he lays out his views of greenhouse gases and carbon dioxide. A few paragraphs set the tone:
"The message is clear that several factors must influence the earth’s temperature, and that while CO2 is one of these factors, it is seldom the dominant one. The other factors are not well understood. Plausible candidates are spontaneous variations of the complicated fluid flow patterns in the oceans and atmosphere of the earth—perhaps influenced by continental drift, volcanoes, variations of the earth’s orbital parameters (ellipticity, spin-axis orientation, etc.), asteroid and comet impacts, variations in the sun’s output (not only the visible radiation but the amount of ultraviolet light, and the solar wind with its magnetic field), variations in cosmic rays leading to variations in cloud cover, and other causes.

"Let me summarize how the key issues appear to me, a working scientist with a better background than most in the physics of climate. CO2 really is a greenhouse gas and other things being equal, adding the gas to the atmosphere by burning coal, oil, and natural gas will modestly increase the surface temperature of the earth. Other things being equal, doubling the CO2 concentration, from our current 390 ppm to 780 ppm will directly cause about 1 degree Celsius in warming. At the current rate of CO2 increase in the atmosphere—about 2 ppm per year—it would take about 195 years to achieve this doubling. The combination of a slightly warmer earth and more CO2 will greatly increase the production of food, wood, fiber, and other products by green plants, so the increase will be good for the planet, and will easily outweigh any negative effects. Supposed calamities like the accelerated rise of sea level, ocean acidification, more extreme climate, tropical diseases near the poles, and so on are greatly exaggerated.

"Mitigation’ and control efforts that have been proposed will enrich a favored few with good political ties—at the expense of the great majority of mankind, including especially the poor and the citizens of developing nations. These efforts will make almost no change in earth’s temperature. Spain’s recent experiment with green energy destroyed several pre-existing jobs for every green job it created, and it nearly brought the country to bankruptcy.

"The frightening warnings that alarmists offer about the effects of doubling CO2 are based on computer models that assume that the direct warming effect of CO2 is multiplied by a large “feedback factor” from CO2-induced changes in water vapor and clouds, which supposedly contribute much more to the greenhouse warming of the earth than CO2. But there is observational evidence that the feedback factor is small and may even be negative. The models are not in good agreement with observations—even if they appear to fit the temperature rise over the last 150 years very well.

"Indeed, the computer programs that produce climate change models have been “tuned” to get the desired answer. The values of various parameters like clouds and the concentrations of anthropogenic aerosols are adjusted to get the best fit to observations. And—perhaps partly because of that—they have been unsuccessful in predicting future climate, even over periods as short as fifteen years. In fact, the real values of most parameters, and the physics of how they affect the earth’s climate, are in most cases only roughly known, too roughly to supply accurate enough data for computer predictions. In my judgment, and in that of many other scientists familiar with the issues, the main problem with models has been their treatment of clouds, changes of which probably have a much bigger effect on the temperature of the earth than changing levels of CO2.”
Boldface added: To this, TWTW would add that the “desired answer” may still be the wrong answer, because the IPCC, etc. use surface temperatures, while the greenhouse effect occurs in the atmosphere, which is the appropriate place to measure it.

“What, besides the bias toward a particular result, is wrong with the science? Scientific progress proceeds by the interplay of theory and observation. Theory explains observations and makes predictions about what will be observed in the future. Observations anchor our understanding and weed out the theories that don’t work. This has been the scientific method for more than three hundred years. Recently, the advent of the computer has made possible another branch of inquiry: computer simulation models. Properly used, computer models can enhance and speed up scientific progress. But they are not meant to replace theory and observation and to serve as an authority of their own. We know they fail in economics. All of the proposed controls that would have such a significant impact on the world’s economic future are based on computer models that are so complex and chaotic that many runs are needed before we can get an “average” answer. Yet the models have failed the simple scientific test of prediction. We don’t even have a theory for how accurate the models should be.”

To this, TWTW would add that we cannot know how accurate the models should be until we understand natural variation. See links under Challenging the Orthodoxy and Change in US Administrations.

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It’s Not Nature, It’s Puccini: After a dose of climate realism, one may consider the second paper published by Nature claiming that increasing CO2 will lead to cloudless days and extreme warming, “Possible climate transitions from breakup of stratocumulus decks under greenhouse warming.” The paper led to a number of alarmist articles predicting a disastrous tipping point into a world without clouds within a few years.

As Roy Spencer discussess, such alarm is thoughtless generalization. The clouds are being generated from an upwelling of cold water from the deep oceans by an undersea current reaching a land barrier, such as Peru on the West Coast of South America. The currents were set into motion over a thousand years ago, and it is doubtful they will change from a slightly warming atmospheric effect from CO2. See links under Challenging the Orthodoxy and Defending the Orthodoxy.

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The Greenhouse Effect: The following is the second installment in a series on the greenhouse effect as it is being measured in the atmosphere. As discussed last week, the A-Train, and a similar, lower orbiting, C-Train, of multiple satellites from the US, France, and Japan collect a wide variety of data, including visible, infrared and microwave energy, phases of water, studies of vegetation, atmospheric pollutants, greenhouse gases, aerosols, clouds, water levels on land areas, snow depths, etc.

These data are very valuable to understanding the effects of greenhouse gases as they accumulate in the atmosphere, particularly CO2. Of primary concern is how greenhouse gases interfere with the flow of infrared energy from the surface to outer space, as measured from the top of the atmosphere. A marked decline of infrared energy from the surface to space is would be of concern, because it would indicate that an increase in greenhouse gas may be causing a warming of the globe.
This discussion will focus on the two primary entities collecting these data and putting them in suitable form for researchers that can be downloaded onto personal computers. As described on their web sites, the databases are

“The MODTRAN® (MODerate resolution atmospheric TRANsmission) computer code is used worldwide by research scientists in government agencies, commercial organizations, and educational institutions for the prediction and analysis of optical measurements through the atmosphere. MODTRAN was developed and continues to be maintained through a longstanding collaboration between Spectral Sciences, Inc. (SSI) and the Air Force Research Laboratory (AFRL). The code is embedded in many operational and research sensor and data processing systems, particularly those involving the removal of atmospheric effects, commonly referred to as atmospheric correction, in remotely sensed multi- and hyperspectral imaging (MSI and HSI).”

The other database is HITRAN:

“HITRAN is an acronym for high-resolution transmission molecular absorption database. HITRAN is a compilation of spectroscopic parameters that a variety of computer codes use to predict and simulate the transmission and emission of light in the atmosphere.

“The goal of HITRAN is to have a self-consistent set of parameters. However, at the same time the requirement is to archive the most accurate parameters possible. It must be emphasized that the parameters that exist in HITRAN are a mixture of calculated and experimental. Often the experimentally determined values are more accurate than the calculated ones, and vice versa. The calculated values have certain advantages, for example providing a more complete set. But the experimental ones still are usually more accurate. HITRAN provides the sources for the key parameters within each transition record whereby the user can determine from where the value came.

“The experimental data that enter HITRAN often come from the results of analysis of Fourier transform spectrometer laboratory experiments. Many other experimental data also are inputted, including lab results from tunable-diode lasers, cavity-ring down spectroscopy, heterodyne lasers, etc. The results usually go through elaborate fitting procedures. The theoretical inputs include standard solutions of Hamiltonians, ab initio calculations, and semi-empirical fits.”

These databases do not describe the atmosphere. But they can be used to determine whether estimates of warming of the atmosphere from climate models are reasonable, given a particular level of water vapor, CO2, methane, nitrous oxide and ozone at a specific latitude.

The next several TWTWs will discuss what is occurring in the atmosphere, a dynamic fluid in chaotic motion, as best described using modern instruments. See links under Questioning the Orthodoxy and Measurement Issues – Atmosphere.

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56 Million Years Ago: Another effort is being made to draw a parallel between what happened 56 million years ago and what may happen now with increasing CO2. However, we do not have a good explanation of what caused the sudden cooling and warming during the Younger Dryas, when the planet cooled then abruptly warmed. which happened about 13,000 to 12,000 years ago, resulting in a shift in temperatures of about 10 degrees C, 18 F in the Northern Hemisphere, if not the Southern. Yet, the land masses were approximately the same as today, though sea levels were
far lower, permitting land bridges. The ocean circulations were probably somewhat similar to today.

During the Paleocene-Eocene thermal maximum (PETM), claimed in an article, about 56 million years ago, there was no Drake Passage separating South America from Antarctica, making an Antarctic Circumpolar or Antarctic Subpolar circulation unlikely. Between North and South America, the Caribbean Seaway existed permitting water to flow between the Atlantic and Pacific in the tropics. The ocean circulation must have been dramatically different than today. As discussed by Happer, the oceans play a far more important role in determining temperatures and climate than CO2. Trying to equate estimated temperatures of the Paleocene-Eocene period with today based on atmospheric CO2 content is absurd. As Happer states, there is little correlation between CO2 and temperatures during the current Holocene Period. See links under Defending the Orthodoxy.

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**Number of the Week: 99.99997% Certainty:** Roy Spencer estimates the five-sigma certainty expressed by Santer, *et al.* works out to be 99.9997% Certainty. And we are expected to take this type of climate science seriously? See links under Challenging the Orthodoxy.

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**NEWS YOU CAN USE:**

**Censorship**

**Lessons of the Failure of Initiative 1631: A Political Analysis**
By Cliff Mass, Weather and Climate Blog, Mar 1, 2019

*Personal Note:
“My opposition to 1631 has resulted in my being demonized by activists, being called terrible names (e.g., racist, climate denier) and accused of being an agent of ‘big oil’. What I have learned is that some folks are so convinced they are saving the world and so self-righteous, that they feel that they can hurt other people, call names, and even do illegal acts. They are even willing to undermine the underpinning of our democracy (like tolerance for others and free speech) to get their way. Tragically, some of the worst abusers of free speech are found at a public institution, in the College of the Environment at the University of Washington, a place where tolerance of a diversity of ideas should be celebrated.”*

**Challenging the Orthodoxy -- NIPCC**

**Climate Change Reconsidered II: Physical Science**
Idso, Carter, and Singer, Lead Authors/Editors, 2013
[https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf](https://www.heartland.org/media-library/pdfs/CCR-II/CCR-II-Full.pdf)
*Summary:* [http://www.nipccreport.org/reports/ccr2a/pdf/Summary-for-Policymakers.pdf](http://www.nipccreport.org/reports/ccr2a/pdf/Summary-for-Policymakers.pdf)

**Climate Change Reconsidered II: Biological Impacts**
Idso, Idso, Carter, and Singer, Lead Authors/Editors, 2014
*Summary:* [https://www.heartland.org/media-library/pdfs/CCR-IIb/Summary-for-Policymakers.pdf](https://www.heartland.org/media-library/pdfs/CCR-IIb/Summary-for-Policymakers.pdf)

**Climate Change Reconsidered II: Fossil Fuels**
By Multiple Authors, Bezdek, Idso, Legates, and Singer eds., Nongovernmental International Panel on Climate Change, Draft Summary for Policymakers, NIPCC, 2019
Why Scientists Disagree About Global Warming
The NIPCC Report on the Scientific Consensus
http://climatechangereconsidered.org/
Download with no charge

Nature, Not Human Activity, Rules the Climate
S. Fred Singer, Editor, NIPCC, 2008

Challenging the Orthodoxy
The Truth About Greenhouse Gases
By William Happer, First Things, June 2011 [H/t Willie Soon]
“Men, it has been well said, think in herds; it will be seen that they go mad in herds, while they only recover their senses slowly, one by one.” – By Charles Mackay, “Extraordinary Popular Delusions and the Madness of Crowds,” second edition. [H/t William Happer]

"Five-sigma proof" of man-made climate change is complete nonsense
An analogy between cosmological and climatological anomalies
By Luboš Motl, The Reference Frame, Feb 27, 2019
Link to paper: Celebrating the anniversary of three key events in climate change science
By Benjamin D. Santer, Céline J. W. Bonfils, Qiang Fu, John C. Fyfe, Gabriele C. Hegerl, Carl Mears, Jeffrey F. Painter, Stephen Po-Chedley, Frank J. Wentz, Mark D. Zelinka & Cheng-Zhi Zou, Nature: Climate Change, Feb 25, 2019
https://www.nature.com/articles/s41558-019-0424-x

Critique of the new Santer et al. (2019) paper
By Ross McKitrick, Climate Etc. Mar 1, 2019
“In particular they have not identified a unique anthropogenic fingerprint, or provided a credible control for natural variability over the sample period. Nor have they justified the use of Gaussian p-values. Their claim to have attained a “gold standard” of proof are unwarranted, in part because statistical modeling can never do that, and in part because of the specific problems in their model.”

New Santer Study: 97% Consensus is now 99.99997%
By Roy Spencer, His Blog, Feb 27, 2019

No, Increasing CO2 isn’t going to trigger a hot world without clouds.
By Roy Spencer, His Blog, Mar 1, 2019
http://www.drroyspencer.com/2019/03/no-increasing-co2-isnt-going-to-trigger-a-hot-world-without-clouds/
Link to paper: Possible climate transitions from breakup of stratocumulus decks under greenhouse warming. By Tapio Schneider, Colleen M. Kaul & Kyle G. Pressel, Nature Geoscience, Feb 25, 2019 https://www.nature.com/articles/s41561-019-0310-1

Climate Science, Red in Tooth and Claw: Yapping Hyenas Attack a Lion
By Norman Rogers, American Thinker, Feb 24, 2019 https://www.americanthinker.com/articles/2019/02/climate_science_red_in_tooth_and_claw_yapping_hyenas_attack_a_lion.html
“There is no simple solution to the parade of doomsday theories. It would help if the government understood better that throwing more money at an alleged problem may exaggerate rather than alleviate the problem. Massive spending may not solve difficult scientific problems, but massive spending always creates bureaucracies that exist to sustain the spending.”

Hurricanes & climate change: landfalls
Part III: is there any signal of global warming in landfalling hurricanes and their impacts?

Don’t blame melting ice for polar bear attacks. Blame a bear baby boom
Opinion: Some scientists still think it’s OK to mislead the public to promote climate change alarm

Defending the Orthodoxy
A World Without Clouds
A state-of-the-art supercomputer simulation indicates that a feedback loop between global warming and cloud loss can push Earth’s climate past a disastrous tipping point in as little as a century.

Andrew Dessler: The Certain Climate Alarmist
“This warming [of 5 to 9 degrees Fahrenheit this century] is as certain as death and taxes.” (Professor Andrew Dessler, below)
[SEPP Comment: If government believes him, and he is wrong, who will pay the taxes he demands?]

Federal scientists defend warming study
By Nick Sobczyk, E&E News reporter, Feb 26, 2019 https://www.eenews.net/eenewspm/2019/02/26/stories/1060122485
“Michael Freilich, director of NASA’s Earth Science Division, and Neil Jacobs, the newly minted acting director of NOAA, were testifying at a House Commerce, Justice, Science and Related Agencies Appropriations Subcommittee hearing on climate science.”
“But they also defended their agencies' science and the rigorous peer review process of the NCA, which was vetted by more than a dozen federal agencies and warns of potentially disastrous economic consequences of unchecked climate change.” [Boldface added]

[SEPP Comment: The NCA is the National Climate Assessment by the USGCRP, which parrots IPCC.]

Earth may be 140 years away from reaching carbon levels not seen in 56 million years
By Staff Writers, Washington DC (SPX), Feb 25, 2019
http://www.terradaily.com/reports/Earth_may_be_140_years_away_from_reaching_carbon_levels_not_seen_in_56_million_years_999.html
Link to accepted paper: Temporal Scaling of Carbon Emission and Accumulation Rates: Modern Anthropogenic Emissions Compared to Estimates of PETM-Onset Accumulation
By Philip Gingerich, American Geophysical Union, 2019
Abstract: “The Paleocene-Eocene thermal maximum (PETM) was caused by a massive release of carbon to the atmosphere. This is a benchmark global greenhouse warming event that raised temperatures to their warmest since extinction of the dinosaurs.”
[SEPP Comment: What caused a massive release of carbon dioxide into the atmosphere about 56 million years ago?]

**Questioning the Orthodoxy**
Matt Ridley, The Rise of Fake Science
By Matt Ridley, The Spectator, Via GWPF, Feb 28, 2019
“Pseudoscience is on the rise – and the media is completely hooked”

A New Paper Affirms That Storm Energy And Cyclone Intensities Have Rapidly Declined Since 1979
By Kenneth Richard, No Tricks zone, Feb 28, 2019

**After Paris!**
India Set To Double Coal Consumption By 2040
By Paul Homewood, Not a Lot of People Know That, Mar 1, 2019
https://notalotofpeopleknowthat.wordpress.com/2019/03/01/india-set-to-double-coal-consumption-by-2040/

**Change in US Administrations**
White House to Create President’s Commission on National Climate Security
By Myron Ebell, CEI, Feb 23, 2019
https://cei.org/blog/white-house-create-president%E2%80%99s-commission-national-climate-security

Trump’s New Committee Could Include World’s Smartest Global-Warming Skeptics
By Lawrence Solomon, Financial Post, Can. Mar 1, 2019 [H/t Cooler Heads]
The White House is reportedly assembling a task-force of scientists to reevaluate the government’s climate assessments
By Alex Morrell, Business Insider, Feb. 24, 2019, [H/t GWPF]

White House Eyes Panel to Question Climate Threat to Security
By Timothy Gardner, Reuters, Mar 1, 2019 [H/t Cooler Heads]

White House recruits researchers for ‘adversarial’ climate science review
By Scott Waldman, E&E News, Via Science Mag, Feb 25, 2019

Trump admin recommends narrower agency deference rule
Ellen M. Gilmer, E&E News reporter, Feb 27, 2019
https://www.eenews.net/eenewspm/2019/02/27/stories/1060122591

When Will the Trump Administration Finally Confront the CIC?
Alan Carlin, Carlin Economics and Science, Feb 23, 2019
http://www.carlineconomics.com/archives/4866

Problems in the Orthodoxy
Europe's Populist Right Threatens to Erode Climate Consensus
By William Wilkes, Bloomberg, Feb 26, 2019

Top German MP Warns of ‘Dictatorship of Climate Law’
Interview, Deustschlandfunk, Via GWPF, Feb 23, 2019

EU hides their Toaster and Kettle bans so they don’t “galvanize” Brexit
By Jo Nova, Her Blog, Mar 1, 2019

“But in fact, these efficiency improvements have had a complicated relationship with public opinion in the past decade. Public backlash has been one of the biggest impediments to passing these EU laws.

“Dang voters are an impediment to bureaucrats.

“Joy. At least they stopped regulating toilet flushing (only just):”

German Christian Democrats Reject New Climate Change Law
By Staff Writers, Deutschlandfunk, Via GWPF, Feb 23, 2019
Germany's government coalition divided over draft Climate Action Law
By Kerstine Appunn, Clean Energy Wire, Feb 25, 2019 [H/t GWPF]

Seeking a Common Ground
Fighting for energy and human rights equality in Africa
The Congress of Racial Equality Uganda has lost another leader, but the fight continues
By Paul Driessen, WUWT, Feb 26, 2019

Correction of Labeling Errors in PTB 2019
By Roger Pielke Jr. His Blog, Feb 23, 2019
“In our new paper, Scientific Integrity and Anti-Doping Regulation at ISLJ we note that ‘Errors are inevitable in research, and when they are identified, they are corrected.’ Lucky us. We now have an opportunity to show how that is done.”

Review of Recent Scientific Articles by CO2 Science
Bird Behavioral Modifications to Ensure Reproductive Success
http://www.co2science.org/articles/V22/mar/a1.php

Ocean Acidification Impacts on a Marine Diatom
http://www.co2science.org/articles/V22/feb/a16.php

Attributable Fraction of Temperature-Related Cardiorespiratory Deaths in the USA
http://www.co2science.org/articles/V22/feb/a15.php

The Net Photosynthetic Response of Nine Taro Genotypes to Elevated CO2
http://www.co2science.org/articles/V22/feb/a14.php

Measurement Issues -- Surface
New Accusations Against Australian Met Office’s Warming Shenanigans
By Graham Lloyd, The Australian, Via GWPF, Feb 23, 2019
Link to post: Changes to Darwin’s Climate History are Not Logical
By Jennifer Marohasy, Her Blog, Feb 23, 2019
https://jennifermarohasy.com/2019/02/changes-to-darwins-climate-history-are-not-logical/

Darwin's temperature data changed by BoM
By Geoff Brown, Australian Climate Sceptics Blog, Feb 25. 2-10
Great Cartoon!

Measurement Issues -- Atmosphere
UAH Global Temperature Update for February 2019: +0.36 deg. C.
By Roy Spencer, His Blog, Mar 1, 2019

MODTRAN
By Staff Writers, MODTRAN, Accessed Feb 13, 2019
http://modtran.spectral.com/modtran_about

HITRAN on line
By Staff Writers, HITRAN, Accessed Feb 13, 2019
https://hitran.org/

Changing Weather
2018/19 Winter Only Ranks 17th Warmest On CET
By Paul Homewood, Not a Lot of People Know That, Mar 1, 2019
https://notalotofpeopleknowthat.wordpress.com/2019/03/01/2018-19-winter-only-ranks-17th-warmest-on-cet/
[SEPP Comment: With data going back to 1660, the warmest winter was in 1869.]

Climate alarmists should cool off about the warm weather
There’s a difference between weather and climate, as they never tire of telling us.
By George Harrison, Spiked, UK, Feb 27, 2019
https://www.spiked-online.com/2019/02/27/climate-alarmists-should-cool-off-about-the-warm-weather/
[SEPP Comment: During unusual warmth in February.]

A February to remembrrr in L.A.: It never even reached 70 degrees
By Hannah Fry, Alejandra Reyes-Velarde and Suhauna Hussain, LA Times, Feb 28, 2019 [H/t WUWT]
“For the first time since forecasters began recording data — at least 132 years — the mercury did not reach 70 degrees in downtown Los Angeles for the entire month of February.
“The average high for the month was 61 degrees, significantly lower than the historical average of 68 for February. That makes it the eighth-coldest February on record, said Ryan Kittell, a meteorologist with the National Weather Service in Oxnard.”
El Niño is weak, but it's here now -- and can still cause problems, forecasters say
By Judson Jones, CNN, Feb 15, 2019

Changing Cryosphere – Land / Sea Ice
Scientists Present New Artifact Evidence From An Arctic Island That Was 5-6°C Warmer 9000 Years Ago
By Kenneth Richard, No Tricks Zone, Feb 25, 2019
http://notrickszone.com/2019/02/25/scientists-present-new-artifact-evidence-from-an-arctic-island-that-was-5-6c-warmer-9000-years-ago/

State of the Polar Bear Report 2018: Polar bears continue to thrive
Link to report: State of the Polar Bear Report 2018
By Susan Crockford, GWPF, 2019

International Polar Bear Day: a time to admit the species is not threatened with extinction due to reduced sea ice habitat
By Susan Crockford, Polar Bear Science, Feb 26, 2019

Ringed and bearded seals, still listed as ‘threatened’, are still doing really well
By Susan Crockford, Polar Bear Science, Feb 24, 2019

Cool adaptations to the cold
By Staff Writers, Wurzburg, Germany (SPX), Feb 28, 2019
http://www.terradaily.com/reports/Cool_adaptations_to_the_cold_999.html
Link to paper: Antarctic blackfin icefish genome reveals adaptations to extreme environments
https://www.nature.com/articles/s41559-019-0812-7

Data Show Polar Sea Ice Stable 12 Years, Cause Global Warming Alarmists To Melt Down
By Kirye and P. Gosselin, No Tricks Zone, Feb 23, 2019

Changing Earth
Old stone walls record history of Earth’s magnetic wanderings
By Liza Lester, GeoSpace, Feb 27, 2019 [H/t WUWT]

Agriculture Issues & Fear of Famine
By Tim Ball, A Different Perspective, Feb 24, 2019
http://drtimball.ca/2019/soil-the-invaluable-resource-that-underscores-urban-rural-disconnect-part-2-

Lowering Standards
The supposedly impartial BBC should hang its head in shame at its relentless bias
By Christopher Booker, The Telegraph, UK, Via GWPF, Feb 24, 2019

BBC Retract Fake IPPR Extreme Weather Claims
By Paul Homewood, Not a Lot of People Know That, Mar 1, 2019
https://notalotofpeopleknowthat.wordpress.com/2019/03/01/bbc-retract-fake-ippr-extreme-weather-claims/

The Green Delusions Of Ambrose Evans-Pritchard
By Paul Homewood, Not a Lot of People Know That, Feb 25, 2019
https://notalotofpeopleknowthat.wordpress.com/2019/02/25/the-green-delusions-of-ambrose-evans-pritchard/#more-38021
“...it is quite astonishing that a journalist as astute as Ambrose Evans-Pritchard [with the Telegraph, UK] could be so taken in by the machinations of western governments, and their creatures, the IMF and IEA, and yet remain blind to what is going on in the real world.”

Lurching Left
By Donn Dears, Power For USA, Mar 1, 2019
http://ddears.com/2019/03/01/lurching-left/
[SEPP Comment: Substituting opinion for news in the Wall Street Journal.]

Communicating Better to the Public – Exaggerate, or be Vague?
At the turn of last century people didn’t know what a radio was
By Jo Nova, Her Blog, Feb 26, 2019

Bramble Cay Melomys Extinction
By Paul Homewood, Not a Lot of People Know That, Feb 24, 2019
https://notalotofpeopleknowthat.wordpress.com/2019/02/24/bramble-cay-melomys-extinction/
“The simple fact is that such a small population in such a small and unstable habitat is always at risk of extinction for a variety of reasons.
“In this instance, it seems pretty clear that the major factor was the loss of vegetation attributable to the activities of turtles and seabirds.
“But that does not make very good headlines, does it?”

Communicating Better to the Public – Make things up.
Fish Tale Part Deux: “Warming oceans are hurting seafood supply—and things are getting worse”
Guest sequel by David Middleton, WUWT, Mar 1, 2019
Puffins Thriving—Despite Climate Change!
By Paul Homewood, Not A Lot Of People Know That, Feb 24, 2019
https://notalotofpeopleknowthat.wordpress.com/2019/02/24/puffins-thriving-despite-climate-change/

Communicating Better to the Public – Use Propaganda on Children
“We, the young”: Open Letter From the Student Climate Change Strikers
By Eric Worrall, WUWT, Mar 2, 2019
From the Guardian article: “The strikes have been supported by Christiana Figueres, the UN’s climate chief when the Paris deal to fight global warming was signed in 2015. She said: ‘It’s time to heed the deeply moving voice of youth. The Paris Agreement was a step in the right direction, but it’s timely implementation is key.’ Michael Liebreich, a clean energy expert, said: ‘Anyone who thinks [the strikes] will fizzle out any time soon has forgotten what it is to be young.’”

Millennials haven’t forgotten Mao, Stalin or Lenin. They never knew them.
By Jo Nova, Her Blog, Feb 24, 2019

Will Climate Change the Courts?
In suing for “climate justice,” the “children’s climate crusade” aims to subvert the democratic process.
By David A. Murray, The New Atlantis, Winter, 2019 [H/t Donn Rapp]
https://www.thenewatlantis.com/publications/will-climate-change-the-courts
“The New Right to a ‘Stable Climate’”!!
[SEPP Comment: We live in an era when propaganda has replaced evidence in “science?”]

Questioning European Green
European Climate Seminar in Amsterdam
Press release, Ontgroeningsdag/ Degreening Day, Via GWPF, Feb 24, 2019

Climate Scientist Prof. Horst Lüdecke Tells German ‘Bundestag Environment Committee’ CO2 Reduction Policy Is “Mad”
By P Gosselin, No Tricks Zone, Feb 26, 2019

Europe’s popular right on the rise — replacing fake conservatives — threaten Climate Gravy-train
By Jo Nova, Her Blog, Feb 27, 2019
And in Week 15 of the Yellow Vest protest, another 46,600 people took the streets, again.

German WiWo Magazine Warns Of Green Madness… “Annihilating Landscape To Rescue Global Climate”
By P Gosselin, No Tricks Zone, Mar 1, 2019
“Already today, Knauss writes, 25% of Germany’s 30,000 wind turbines are operating in nature-protected areas and that ‘this is just the beginning’ should Germany attempt to install enough wind capacity to meet its ambitious 2050 CO2 reductions target.”

Thank heavens Constable’s on the Case
By Kathy Gyngell, The Conservative Woman, Feb 24, 2019
https://www.conservativewoman.co.uk/thank-heavens-constables-on-the-case/
“We have much to thank the Global Warming Policy Forum for. Who else is keeping a close, critical and sceptical eye on the EU’s and UK’s energy policy? Harry Wilkinson has already drawn our attention to Dieter Helm’s devastating critique of the cost of the UK energy policy and Business and energy Secretary Greg Clark’s complacent response about the high energy prices we suffer as a result.”

The Greatest Scientific Fraud Of All Time -- Part XXII
By Francis Menton, Manhattan Contrarian, Feb 26, 2019
[SEPP Comment: Answering objections to prior post on surface temperature adjustments.]

Questioning Green Elsewhere
The Farcical “Green New Deal"
By Richard A. Epstein, Hoover Institution, Feb 19, 2019 [H/t Mark Perry]
https://www.hoover.org/research/farcical-green-new-deal

How Does 'Boss' AOC Plan To Pay For Her $93 Trillion Green New Deal?
Editorial, IBD, Feb 26, 2019

Singapore’s highly successful economic evolution in an era of irrational global climate alarmism propaganda
Guest essay by Larry Hamlin, WUWT, Mar 1, 2019

Funding Issues
Is the World Bank Changing for the Better?
By Alex Alexiev, American Thinker, Feb 27, 2019
https://www.americanthinker.com/articles/2019/02/is_the_world_bankchanging_for_the_better.html
The Political Games Continue

Inslee announces White House bid
By Reid Wilson, The Hill, Mar 1, 2019
https://thehill.com/homenews/campaign/432148-washington-gov-inslee-to-run-for-president
"I'm running for president because I am the only candidate who will make defeating climate change our nation's No. 1 priority." [SEPP Comment: Nature has been changing climate for hundreds of millions of years. Now Mr. Inslee will defeat it?]

Dianne Feinstein Is a Bigger Climate Threat Than Trump
Only a bold plan like the Green New Deal can slow global warming, and that won't happen if powerful Democrats keep calling for moderation.
By Emily Atkin, The New Republic, Feb 26, 2019
https://newrepublic.com/article/153152/dianne-feinstein-bigger-climate-threat-trump
“As climate change worsens, so does President Donald Trump’s denial. On Sunday, The Washington Post reported that his administration is assembling a panel of fringe, industry-funded scientists who ‘represent the Trump administration’s most forceful effort to date to challenge the scientific consensus that greenhouse gas emissions are helping drive global warming and that the world could face dire consequences unless countries curb their carbon output over the next few decades.”

McConnell plans vote on Green New Deal before August recess
By Jordain Carney, The Hill, Feb 26, 2019

Dems to Trump: Don't let skeptics review science
Nick Sobczyk, E&E News reporter, Feb 28, 2019
https://www.eenews.net/eedaily/2019/02/28/stories/1060122645
[SEPP Comment: The E&E reporter apparently does not realize that being a skeptic is necessary to do science well – many more bad ideas than good ones.]

Litigation Issues

Virginia Legislature Restricts Privately-Funded State Legal Staff
By Christopher Horner, CEI, Feb 27, 2019
https://cei.org/blog/virginia-legislature-restricts-privately-funded-state-legal-staff

Parasite Green Lawyers Target Toilet Paper
By Donna Laframboise, Big Picture News, Feb 25, 2019

Subsidies and Mandates Forever

Wind energy suffers tough year in Europe with 12 nations failing to install a single turbine
Growth in onshore wind fell by more than half in Germany last year and "collapsed in the U.K." Overall, Europe managed to install 11.7 gigawatts of gross wind power capacity in 2018. Wind energy covered 14 percent of the European Union's electricity demand in 2018.
By Anmar Frangoul, CNBC, Feb 21, 2019
German renewable power producers face uncertainty as feed-in tariffs expire
By Kerstine Appunn, Clean Energy Wire, Feb 28, 2019

EPA and other Regulators on the March
Senate confirms Wheeler to lead EPA
By Miranda Green, The Hill, Feb 28, 2019

Senate Confirms Climate Realist, Reg Reformer Wheeler as EPA Administrator
By H. Sterling Burnett, Heartland Institute, Mar 1, 2019

Energy Issues – Australia
States with low cost solar and wind paying 1300% more at the moment
Any more free electricity and SA and Victoria will go broke.
By Jo Nova, Her Blog, Mar 1, 2019

Energy Issues -- US
Grid Operators Confirm: Wind Didn’t Work During Polar Vortex
By Isaac Orr, Center of the American Experiment, Feb 28, 2019 [H/t Cooler Heads]
https://www.americanexperiment.org/2019/02/grid-operators-confirm-wind-didnt-work-polar-vortex/
“Electricity output from wind plummeted due to low wind speeds and because it was ‘too cold’ for the wind turbines to operate.”
“A MISO presentation released ahead of the committee meeting today shows that when the grid operator declared a ‘maximum generation event’ just before 3 a.m. on Jan. 30, only about half of the almost 14,000-MW forecast of wind generation to be available was actually producing energy.” [Boldface in original]

Rent-Seeking under Public Utility Regulation: Who Protects Ratepayers?
By Kenneth Castello, Master Resource, Feb 28, 2019
[SEPP Comment: A critical question ignored by states and countries mandating solar and wind.]

U.S. Natural Gas Prices Now Range Bound
By Jude Clemente, Forbes, Feb 24, 2019

Oil and Natural Gas – the Future or the Past?
How the Shale Revolution Is Reshaping World Markets
By Nick Butler, Financial Times, Via GWPF, Feb 26, 2019
Nuclear Energy and Fears
Our Climate Solution? It May Be Written In the Stars
By Brian Isom, IBD, Feb 25, 2019
https://www.investors.com/politics/commentary/fusion-power-climate-solution-nuclear/

Alternative, Green (“Clean”) Solar and Wind
Danish wind turbine project facing stormy weather in Mexico
Green projects can also run into trouble if they are not carried out with sensitivity and an awareness of local feelings
By Stephen Gadd, CPH Post, DK, Feb 25, 2019 [H/t GWPF]
[SEPP Comment: How would the indigenous people react to a proposal to flood the valleys to create pumped hydro needed to back-up the erratic wind power?]

Wind Turbine Noise: Real Impacts on Neighbors
By Lisa Linowes, Master Resource, Mar 1, 2019
https://www.masterresource.org/wind-power-health-effects/wind-turbine-noise/
[SEPP Comment: Questioning studies that wind turbine noise is not a problem.]

Energy & Environmental Newsletter:
By John Droz, Jr. Master Resource, Feb 25, 2019
[SEPP Comment: Many links to the Green New Deal.]

Alternative, Green (“Clean”) Energy -- Storage
Quick! Tell the PM: Pumped Hydro is not a “generator”. It’s a $2 – $4b energy chewing “renewables” bandaid.
By Jo Nova, Her Blog, Feb 27, 2019

Alternative, Green (“Clean”) Vehicles
Demonised diesel Land Rover Discovery 4x4 found to be 20 times CLEANER than a Renault Clio as new emissions test reveals which cars really are dirty
By Ray Massey, Daily Mail, Feb 28, 2019 [H/t Paul Homewood]
Link to test results: How clean is your car?
By Staffers, Air Index (Accessed Mar 1, 2019)
https://www.airindex.com/

California Dreaming
California's San Bernardino County slams the brakes on big solar projects
By Sammy Roth, LA Times, Feb 28, 2019 [H/t WUWT]
**Health, Energy, and Climate**

**How Government Researchers Hijack Science for Political Purposes**
By John Dale Dunn, MD, JD, American Thinker, Feb 28, 2019
https://www.americanthinker.com/articles/2019/02/how_government_researchers_hijack_science_for_political_purposes.html

Link to essay: Modus Operandi: The Methods By Which EPA & ATSDR Keep The Fear Alive
By Frank Schnell, Science 2.0, Nov 7, 2018
https://www.science20.com/frank_schnell/modus_operandi_the_methods_by_which_epa_atsdr_keep_the_fear_alive-235123

“In EPA’s 1986 Risk Assessment Guidelines, the following, uncharacteristically honest, and seldom quoted (except by me) statement was made: ‘The true risk is unknown and may be as low as zero.’”

**Other Scientific News**

**Complete world map of tree diversity**
By Staff Writers, Leipzig, Germany (SPX), Feb 25, 2019
http://www.terradaily.com/reports/Complete_world_map_of_tree_diversity_999.html

Link to paper: Global patterns and drivers of tree diversity integrated across a continuum of spatial grains
https://www.nature.com/articles/s41559-019-0799-0

**BELOW THE BOTTOM LINE:**

**Ohio city votes to give Lake Erie same legal rights as a person**
By Aris Folley, The Hill, Feb 27, 2019

[SEPP Comment: How will the lake’s mental competence be determined?]

**House on stilts**
By Staff Writers, Climate Change Predictions.org. Mar 1, 2019
http://climatechangepredictions.org/uncategorized/7534

“Houses should be built on stilts to adapt to flooding caused by climate change, scientists have said. The Newcastle University study looked at the impact of predicted rises in temperature – particularly in urban areas.

“‘Houses built on stilts, flood resilient wiring where the sockets and wires are raised above flood level, and water resistant building materials are going to have to be incorporated into our building plans.’ said Dr Richard Dawson, one of the report’s authors.” Daily Telegraph, 12 Oct 2009

**Not fast & not furious**
By Staff Writers, Climate Change Predictions.org. Feb 28, 2019
http://climatechangepredictions.org/uncategorized/7536

“Women must stop admiring men who drive sports cars if they want to join the fight against global warming, the Government’s chief scientist has warned.

“Professor Sir David King singled out women who find supercar drivers ‘sexy’ adding that they should divert their affections to men who live more environmentally friendly lives.
“’I was asked at a lecture by a young woman about what she could do and I told her to stop admiring young men in Ferraris,’ he said.” Daily Telegraph, 16 Dec 2007

ARTICLES:

1. Bad Science May Banish Paper Receipts
California lawmakers seek a ban, based on a scare over BPA that was debunked two decades ago.
By Steve Milloy, WSJ, Feb 25, 2019
https://www.wsj.com/articles/bad-science-may-banish-paper-receipts-11551137837

SUMMARY: The publisher or JunkScience.com writes:

*Having vanquished plastic straws, the California Legislature is now considering a bill to ban paper cash-register receipts. One reason offered for the ban is to reduce carbon-dioxide emissions. The other is to reduce public exposure to bisphenol A, or BPA, a chemical used to coat receipts."

Citing the number of coal-fired power plants being planned, the author dismisses any possible benefit from reducing CO2. He continues:

“’The more interesting reason for the ban is the BPA argument, which is part of a broader trend of misuse of science in public policy. The alarm behind the California bill arises from the notion that BPA is an ‘endocrine disrupter’: a chemical that, even at low doses, can disrupt human hormonal systems. Such disruptions theoretically could cause a variety of ailments, from cancer to reproductive problems to attention-deficit disorder.

“’Like the panic over DDT that followed the 1962 publication of Rachel Carson’s ‘Silent Spring,’ the endocrine-disrupter scare made its public debut with a book, ‘Our Stolen Future’ (1996). Written by three activist authors and including a foreword by Al Gore, the book lays out a case for regulating various pollutants.

“’Our Stolen Future’ was followed the same year by a highly publicized Tulane University study that reported certain combinations of pesticides and other chemicals in the environment were much more potent endocrine disrupters than the individual chemicals themselves. Within weeks, this study prompted Congress to pass a bill directing the Environmental Protection Agency to develop a program to test chemicals for their potential harm to hormonal systems.

“’In the months that followed, the Tulane study began to fall apart. Independent laboratories around the world reported that they could not replicate its results. By July 1997, the original study was retracted. Federal investigators concluded in 2001 that the Tulane researchers had committed scientific misconduct by falsifying their results.

“’Yet the law and regulatory programs spawned by the false study remained in place. The endocrine-disrupter scare gained steam through the 2000s, and BPA became its biggest villain. Generous federal funding led to the publication of hundreds of BPA studies. A movement to ban BPA was joined by several cities, states such as California, and foreign nations including Canada, resulting in the elimination of the substance from plastic bottles in those regions. Regulators at
the Food and Drug Administration and the European Food Safety Authority pushed back against the scare, to little avail.

“Finally in 2012, the FDA decided to launch Clarity, a large $8 million study of BPA to be conducted according to regulatory guidelines known as the Good Laboratory Practices standard. Researchers, including those who had published studies claiming that low-dose exposures to BPA posed health risks, were provided with coded, pre-dosed animals to avoid bias and cheating. Researchers were required to upload their raw data to a government database before the identity of each dose group was disclosed to them.

“The results of Clarity were published in 2018. The FDA concluded that the study failed to demonstrate adverse health effects from exposure to BPA in low doses—like the amount one might be exposed to by handling a paper receipt.

“Yet despite its birth in scientific misconduct, its dismissals along the way by international regulators and science and public-health groups like the National Academy of Sciences and the World Health Organization, and finally its debunking by the FDA’s Clarity study, the BPA scare survives. Thanks to Congress, it lives on at the EPA, where a 22-year-old endocrine-disrupter screening program peddles merrily along despite producing no results of interest.

“It is a sad state of affairs when actual science cannot vanquish adjudicated science fraud in public policy.”

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2. Too Much Academic Science Is Bad Science

Steve Milloy recounts that bad science and sequelae of the Tulane University report in Science of hormone disrupters. Multiple labs couldn't replicate the finding.

By S. Stanley Young, Letters, WSJ, Mar 2, 2019
https://www.wsj.com/articles/too-much-academic-science-is-bad-science-11551469383

A health researcher and statistician writes of his efforts to find replication of the key study in the above article:

“Steve Milloy recounts the bad science and sequela of the Tulane University report in Science magazine of hormone disrupting chemicals in many paper receipts. Multiple labs couldn’t replicate the finding (“Bad Science May Banish Paper Receipts,” op-ed, Feb. 26). At the time, I wrote to the Tulane researchers asking for the data. No go. I asked those who funded the research. Again, no go. The experiment consisted of looking at pairs of compounds. With many pairs and experimental variability, the most extreme result looked real and was reported.

“Each of the universities tested only the reported positive pair, and their efforts failed. Science asked the Tulane researchers to respond. The principle investigator (PI) asked his assistant to replicate the work; the replication failed. The PI put the blame on the (innocent) assistant. The PI had rushed to publication without internally replicating the work. Had the entire experiment been replicated, there would have been an extreme pair, but it would have been a different pair. The analysis of the data wasn’t adjusted for asking multiple questions. The PI wouldn’t make the data public. All these flaws—no internal replication, not adjusting analysis for multiple questions, failing to make data available, are still rife throughout science, so it should be no surprise that well over half of the claims made in science papers fail to replicate.”