

# The Week That Was: 2018-03-03 (March 3, 2018)

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### The Science and Environmental Policy Project

**Quote of the Week.** *For a successful technology, reality must take precedence over public relations, for nature cannot be fooled.* – Richard Feynman

**Number of the Week:** 750,000 pairs

#### **THIS WEEK:**

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

**Bureaucratic Science:** TWTW has used the term bureaucratic science, which may have confused some of its readers. Bureaucratic science occurs when a government entity, or a similar organization, charged with applying the best science possible, drifts from its purpose and institutes policies and procedures (methodology) that are inconsistent with its mission. The brightest, most competent and conscientious people may be involved. Education level does not matter. Bureaucratic science can be considered a subset of Group Think, ably discussed by Christopher Booker, presented in last week's TWTW.

The investigation into the Challenger space shuttle disaster unveiled how bureaucratic science slowly replaced NASA's principal mission of human safety in space exploration. The following discussion is based largely on the observations by Nobel Laureate Richard Feynman, who served on the Rogers Commission investigating the disaster, and "The *Challenger* Accident," a chapter in a NASA publication on the history of the Marshall Space Flight Center.

The discussion of the 25<sup>th</sup> Shuttle mission by NASA's Kennedy Space Flight Center on its web site goes through the launch sequence on January 28, 1986, and is based on the film recording of the event. It states that after 37 seconds the Challenger encountered several high-altitude wind shear conditions. "The wind shear created forces on the vehicle with relatively large fluctuations." At 59 seconds a small flame appeared on one of the Solid Rocket Boosters (SRB) which breached the external tank containing liquid fuel, subsequently resulting in the explosion. The discussion concludes with:

*"The Explosion [sic] 73 seconds after liftoff claimed crew and vehicle. Cause of explosion was determined to be an O-ring failure in right SRB. Cold weather was a contributing factor."*

Unfortunately, this conclusion ignores the bureaucratic science involved in the launch and NASA's ignoring significant problems in the design of the joints in the Solid Rocket Motor (SRM), which are discussed in the sources mentioned above.

The solid rocket motor (SRM) of the Shuttle was made of several segments and had joints when assembled. This design required joints and seals to prevent leaks of the high temperature, high-pressure propulsion gases. The model used in the design was the well tested and highly successful Titan III intercontinental ballistic missile. However, the SRM was much larger and was designed to be reused after being refurbished. The differences in the design of the joints between the Titan III and the SRM were significant.

Ideally, when the rocket sections are assembled the result is a cylinder with a straight-line axis through the center. When the rocket is launched the cylinder and the straight-line axis should be maintained. If a straight line is not maintained, the joint is said to rotate. As a fail-safe precaution against leakage of high pressure gases in the case of joint rotation, two O-rings, (mentioned in the quote above) were used in the joints to seal them.

As Feynman demonstrated convincingly during a hearing of the Rogers Commission investigation, the O-ring material lost elasticity, resilience, when chilled by ice water. Cold weather was a contributing factor to the explosion, but not the primary cause. The primary cause was a design flaw that allowed the rotation of the joint, moving the rocket section slightly off-center, which, in turn, necessitated that the O-rings function properly. The O-rings failed when cold. However, the O-ring failure covered the design flaw.

As both Feynman and the authors of “The *Challenger* Accident” state, the designed flaw was revealed early in testing. The O-rings had significant erosion during both cold weather and warm weather tests. If the joints were designed properly, erosion of O-rings should not occur. The contractor performed various patches such as applying different types of putty to the joints to reduce the erosion, but the safety issue remained. As Feynman wrote:

*“...The O-rings of the Solid Rocket Boosters were not designed to erode. Erosion was a clue that something was wrong. Erosion was not something from which safety can be inferred.*

*“There was no way, without full understanding, that one could have confidence that conditions the next time might not produce erosion three times more severe than the time before. Nevertheless, officials fooled themselves into thinking they had such understanding and confidence, in spite of the peculiar variations from case to case. A mathematical model was made to calculate erosion. This was a model based not on physical understanding but on empirical curve fitting.”*

As missions continued with partial damage to critical components, but without drastic failure, the management of Marshall Space Flight Center became more self-assured as to the safety of the Shuttle. A sense of conformity, Bureaucratic Science, set in with O-ring erosion considered normal.

[Marshall project manager] “Mulloy, in testimony to a Senate committee, best summarized the circumstances. ‘We at NASA,’ he said, ‘got into a **group-think** about this problem. We saw it, we recognized it, we tested it, and we concluded it was an acceptable risk. ... When we started down that road we were on the road to an accident. [footnote 126] Indeed the teleconference was a classic case of **groupthink**, ‘a form of decision making in which group cohesion overrides serious examination of alternatives. Top level Marshall and Thiokol officials, believing the joint was safe, rationalized bad news from experts, and refused to consider contingency plans. Recognizing consensus among superiors, some subordinate engineers exercised self-censorship. Consequently, participants in the teleconference failed to communicate and find useful ways to analyze the risks of cold temperature. [footnote 127] Two personnel experts, who conducted management seminars at NASA from 1978 to 1982, argued that **groupthink** was not unique to Marshall and was inherent in NASA culture. They believed that internal career ladders, homogeneous professional backgrounds, masculine management styles, political pressures to downplay problems, and over-confidence resulting from a history of success had produced **a quest for harmony that was often dysfunctional.**” [footnote 128] p.377 [Boldface added]

In this instance, NASA's Bureaucratic Science, group think, led to failure in NASA's mission and death.

As Feynman wrote in the introduction of his paper:

*"It appears that there are enormous differences of opinion as to the probability of a failure with loss of vehicle and of human life. The estimates range from roughly 1 in 100 to 1 in 100,000. The higher figures come from the working engineers, and the very low figures from management. What are the causes and consequences of this lack of agreement? Since 1 part in 100,000 would imply that one could put a Shuttle up each day for 300 years expecting to lose only one, we could properly ask 'What is the cause of management's fantastic faith in the machinery?'"*

One can ask the same question about the research and government reports based on defective global climate models. *'What is the cause of management's fantastic faith in the models?'*

As discussed in last week's TWTW, repeatedly, John Christy has shown serious design flaws in virtually all the global climate models demonstrating their failure to properly estimate atmospheric temperatures, where the greenhouse gas effect occurs. The failure of the climate establishment to recognize its failing efforts will be discussed more fully in the next TWTW.

Apollo veterans Hal Doiron and Jim Peacock of the Right Climate Stuff Team provided valuable guidance in sources for preparing the above. However, it is solely the product of Haapala. See links under Challenging the Orthodoxy and <https://science.ksc.nasa.gov/shuttle/missions/51-1/mission-51-1.html>

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**Good Climate News:** Writing in the *Wall Street Journal*, Holman Jenkins discusses Equilibrium Climate Sensitivity (ECS) to carbon dioxide (CO<sub>2</sub>) and an article appearing in the journal *Nature* stating that the standard estimate of the UN Intergovernmental Panel on Climate Change (IPCC) may be too high. Jenkins notes that the standard estimate was developed by the National Academy of Science, National Research Council in 1979. [ECS is the amount of warming occurring with a doubling of CO<sub>2</sub>, once equilibrium is obtained. An important question is: was the globe ever in equilibrium?]

*"This 40-year lack of progress is no less embarrassing for being thoroughly unreported in the mainstream press. The journal Nature, where the new study appears, frankly refers to an 'intractable problem.' In an accompanying commentary, a climate scientist says the issue remains 'stubbornly uncertain.'"* [Boldface added.]

Of course, the uncertainty is not expressed by the IPCC or the US Global Change Research Project (USGCRP). Jenkins asserts that the new study may be part of a trend. But, the new study is based on measurements of surface temperatures, a design flaw for estimating the effect of CO<sub>2</sub> on temperatures. The globe is over 70% water, and no one has demonstrated a credible theory on how the greenhouse effect occurs in the oceans.

In the electronic version of the article, Haapala added the comment: The greenhouse effect occurs in the atmosphere, where the greenhouse gases are. Yet, the IPCC and most climate scientists are trying to estimate the greenhouse effect using surface temperature data, which are influenced by many other human activities, such as urbanization, farming, irrigation, etc. Repeatedly, John

Christy of the University of Alabama in Huntsville has testified to the House Science Committee that the average of the climate models used by the IPCC, and others, overestimates the warming in the atmosphere by 2.5 to 3 times. No wonder these scientists have an “intractable problem.” They are looking in the wrong place for an answer. See Article # 1.

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**Spencer’s New Model:** As discussed in the last TWTW, Roy Spencer posted his new one-dimensional model using surface temperature data (ocean data to a depth of 2,000 meters). This seemed strange since Spencer is the co-discoverer of the method of calculating temperatures from satellite data. His model showed an Equilibrium Climate Sensitivity (ECS) of 1.54 C, at the very low end of what the IPCC publishes. This week he plays further with the model. Then he reveals his purpose:

*“Of course, this whole exercise assumes that, without humans, the climate system would have had no temperature trend between 1765-2100. That is basically the IPCC assumption — that the climate system is in long-term energy equilibrium, not only at the top-of atmosphere, but in terms of changes in ocean vertical circulation which can warm the surface and atmosphere without any TOA radiative forcing.*

*“I don’t really believe the ‘climate stasis’ assumption, because I believe the Medieval Warm Period and the Little Ice Age were real, and that some portion of recent warming has been natural. In that case, the model climate sensitivity would be lower, and the model warming by 2100 would be even less.”*

Spencer is exposing a false assumption of the IPCC: without human intervention there would be little or no change to the enormously complex climate system. See link under Challenging the Orthodoxy.

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**Russian Influence:** Students of propaganda may be amused and / or bored with the efforts to tie the Trump Administration to Russian efforts to influence the recent election. Russians have attempted to influence US elections since the 1930s, and the US has tried to influence elections in other countries before that. Now we are seeing reports covering attempts by Russians to influence decisions on pipelines, hydraulic fracturing, genetically modified organisms (foods), etc.

This is not particularly surprising, because the US has long been a major exporter of agriculture products and is becoming a major player in the international markets for oil and natural gas. Russia’s government is heavily dependent on oil and gas production. US production is causing OPEC and Russia to cut back on production, severely damaging the ability of these governments to meet their budgets. One can call the propaganda a symptom of a trade war. See links under The Political Games Continue

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**Very, very scary – The Cube is Coming?** No doubt to alert oil producers in Canada, the *Financial Post* had an amusing headline on an article discussing the possibility of a new form of oil and gas extraction in the Permian shale basin in West Texas. The basin has multiple layers of hydrocarbon producing rock interspaced with impervious rock. Multiple horizontal wells, drilled into different formations, at different levels may be a cost effective way to develop in this basin. As compared with traditional methods, the surface infrastructure costs can be kept down while production increased. Will Russian media interests play up the threat? See link under Oil and Natural Gas – the Future or the Past?

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**Number of the Week: 750,000 pairs.** Traces of guano stains seen in NASA satellite imagery led to the discovery of over 1.5 million, over 750,000 pairs, of Adélie penguins in the Danger Islands of Antarctica where they were not known to exist. Of course, some people claimed that a decline in penguins was being caused by global warming / climate change. Strange, how people will go to the ends of the earth to discover a colony of birds showing up in satellite imagery, yet ignore temperatures calculated from satellite data, which show a general cooling over Antarctica.

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### **NEWS YOU CAN USE:**

#### ***Challenging the Orthodoxy -- NIPCC***

##### **Climate Change Reconsidered II: Physical Science**

Idso, Carter, and Singer, Lead Authors/Editors, 2013

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

Summary: <http://www.nipccreport.org/reports/ccr2a/pdf/Summary-for-Policymakers.pdf>

##### **Climate Change Reconsidered II: Biological Impacts**

Idso, Idso, Carter, and Singer, Lead Authors/Editors, 2014

<http://www.nipccreport.org/reports/ccr2b/pdf/Full-Report.pdf>

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

##### **Why Scientists Disagree About Global Warming**

The NIPCC Report on the Scientific Consensus

By Craig D. Idso, Robert M. Carter, and S. Fred Singer, NIPCC, Nov 23, 2015

<http://climatechangereconsidered.org/>

Download with no charge

<https://www.heartland.org/policy-documents/why-scientists-disagree-about-global-warming>

##### **Nature, Not Human Activity, Rules the Climate**

S. Fred Singer, Editor, NIPCC, 2008

[http://www.sepp.org/publications/nipcc\\_final.pdf](http://www.sepp.org/publications/nipcc_final.pdf)

#### ***Challenging the Orthodoxy***

##### **Power to Explore: A History of Marshall Space Flight Center 1960-1990**

By Andrew Dunar and Stephen Waring, NASA, 1999

<https://history.nasa.gov/SP-4313.pdf>

##### **Personal observations on the reliability of the Shuttle**

R. P. Feynman, 51-L, NASA, Appendix F 1996

<https://science.ksc.nasa.gov/shuttle/missions/51-l/mission-51-l.html>

##### **Climate Models: Useful, But Not for Policymakers**

By Andrew Montford, GWPF, Feb 28, 2018

<http://www.thegwpf.com/climate-models-useful-but-not-for-policymakers/>

Link to paper: Climate Models Are Uncertain, but We Can Do Something About It

Model simulations of many climate phenomena remain highly uncertain despite scientific advances and huge amounts of data. Scientists must do more to tackle model uncertainty head-on.

By Carslaw, Lee, Regayre, and Johnson, EOS, Feb 26, 2018

<https://eos.org/opinions/climate-models-are-uncertain-but-we-can-do-something-about-it>

### **Rebuttals to Ten Typical False Claims by Climate Alarmists**

By Alan Carlin, Carlin Economics and Science, Feb 20, 2018

<http://www.carlineconomics.com/archives/4197>

*[SEPP Comment: With links to specifics of rebuttals and the authors.]*

### **Warming to 2100: A Lukewarmer Scenario**

By Roy Spencer, His Blog, Feb 28, 2018

<http://www.drroyspencer.com/2018/02/warming-to-2100-a-lukewarmer-scenario/>

### **Recognizing The Obvious: World CO2 Emissions Will Continue To Increase**

By Francis Menton, Manhattan Contrarian, Feb 25, 2018

<http://manhattancontrarian.com/blog/2018/2/25/recognizing-the-obvious-world-co2-emissions-will-continue-to-increase>

### **Time to Cool It: The U.N.'s Moribund High-End Global Warming Emissions Scenario**

By Patrick Michaels, CATO, Feb 28, 2018

<https://www.cato.org/blog/time-cool-it-uns-moribund-high-end-global-warming-emissions-scenario>

[Link to: Comments on the \[DRAF\] Fourth National Climate Assessment](#)

By Patrick Michaels, CATO, Feb 1, 2018

<https://www.cato.org/publications/public-comments/comments-fourth-national-climate-assessment>

### **New Report: Polar Bears Are Thriving**

By Staff Writers, GWPF, Feb 27, 2018

<http://www.thegwpf.com/new-report-polar-bears-are-thriving/>

Link to report: State of the Polar Bear Report, 2017

By Susan Crockford, GWPF, 2018

<https://www.thegwpf.org/content/uploads/2018/02/Polarbears2017.pdf>

### ***Challenging the Orthodoxy -- GroupThink***

#### **Climate Groupthink: Understanding Intellectual Error**

By Christopher Booker, Master Resource, Feb 22, 2018

<https://www.masterresource.org/climate-establishment/climate-groupthink-booker/>

Booker's introduction.

### **Groupthink and global warming**

By Dale Leuck, American Thinker, Mar 1, 2018

[https://www.americanthinker.com/blog/2018/03/groupthink\\_and\\_global\\_warming.html](https://www.americanthinker.com/blog/2018/03/groupthink_and_global_warming.html)

### ***Defending the Orthodoxy***

#### **Spiegel: Leaked "Controversial" Draft 6th IPCC Report...Deciding On Final Version "Like A Bazaar" [Bazaar]..."Personal Reputations" At Play**

By P. Gosselin, No Tricks Zone, Feb 25, 2018

<http://notrickszone.com/2018/02/25/spiegel-leaked-controversial-draft-6th-ipcc-report-deciding-on-final-version-like-a-bazaar-personal-reputations-at-play/#sthash.rEinLOrJ.5HgpfVaM.dpbs>

"Negotiating what goes into report 'like a bazar.'"

## **New cutting-edge science confirms that Antarctica is losing ice faster every year**

By Zoë Schlanger, Quartz, Feb 22, 2018

<https://qz.com/1213702/a-new-nasa-image-confirms-that-antarctica-is-losing-ice-faster-every-year/>

Link to paper: Increased West Antarctic and unchanged East Antarctic ice discharge over the last 7 years

By Alex S. Gardner, Cryosphere, Feb 13, 2018

<https://www.the-cryosphere.net/12/521/2018/tc-12-521-2018.pdf>

*[SEPP Comment: Yet, CO2 is not warming the atmosphere above Antarctica. What is the cause?]*

## ***Questioning the Orthodoxy***

### **On the naming and shaming of Carbon Dioxide**

Guest essay by Tom Peer, WUWT, Feb 27, 2018

<https://wattsupwiththat.com/2018/02/27/on-the-naming-and-shaming-of-carbon-dioxide/>

*[SEPP Comment: A bit of humor.]*

## **A Teetering Consensus: 97 New Papers Amassed In 2018 Support A Skeptical Position On Climate Alarm**

By Kenneth Richard, No Tricks Zone, Feb 26, 2018

<http://notrickszone.com/2018/02/26/a-teetering-consensus-97-new-papers-amassed-in-2018-support-a-skeptical-position-on-climate-alarm/#sthash.BZrx49FW.dpbs>

## **Delingpole: The Shocking True Story of How Global Warming Became the Biggest #Fakenews Scare of All Time (Pt 1)**

By James Delingpole, Breitbart, Feb 23, 2018

<http://www.breitbart.com/big-government/2018/02/28/delingpole-the-shocking-true-story-of-how-global-warming-became-the-biggest-fakenews-scare-of-all-time-pt-1/>

## ***After Paris!***

### **Radical change urged over 20 years to attain climate goals: institute**

By Alister Doyle, Reuters, Feb 23, 2018 [H/t Dennis Ambler]

<https://www.reuters.com/article/us-climatechange-germany/radical-change-urged-over-20-years-to-attain-climate-goals-institute-idUSKCN1G727L>

*[SEPP Comment: According to the new co-director of the German government-funded Potsdam Institute for Climate Impact Research (PIK).]*

## **Unwritten Paris rules dominate as tense year of climate diplomacy begins in Japan**

Diplomats meeting in Japan focused heavily on the contentious rules for the Paris deal, which are due to be set by the end of this year

By Karl Mathiesen, Climate Home News, Feb 24, 2018

<http://www.climatechangenews.com/2018/02/24/unwritten-paris-rules-dominate-tense-year-climate-diplomacy-begins-japan/>

## **Reality Check: China's Coal Consumption Rising Again**

By Staff Writers, Financial Times, Via GWPF, Mar 1, 2018

<http://www.thegwpf.com/reality-check-chinas-coal-consumption-rising-again/>

## ***Change in US Administrations***

### **Pruitt Vows to Repeal 'Prohibition' on U.S. Energy Resources**

By Eric Roston, Bloomberg, Feb 23, 2018

<https://www.bloomberg.com/news/articles/2018-02-24/pruitt-vows-to-repeal-prohibition-on-u-s-energy-resources>

### **Some Critical Points Often Overlooked in the Climate Policy Debate**

By Marlo Lewis, CEI, Mar 1, 2018 [H/t Cooler Heads]

<https://cei.org/blog/some-critical-points-often-overlooked-climate-policy-debate>

### ***Seeking a Common Ground***

#### **Nature Unbound VIII – Modern global warming**

By Javier, Climate Etc. Feb 26, 2018

<https://judithcurry.com/2018/02/26/nature-unbound-viii-modern-global-warming/#more-23860>

[SEPP Comment: Long post suggesting the increase in CO<sub>2</sub> has had little or no impact on climate except in the Cryosphere.]

### ***Review of Recent Scientific Articles by CO<sub>2</sub> Science***

#### **Elevated CO<sub>2</sub> Enhances Phytoplankton NPP in a Freshwater Microcosm Experiment**

Shi, X., Li, S., Wei, L., Qin, B. and Brookes, J.D. 2017. CO<sub>2</sub> alters community composition of freshwater phytoplankton: A microcosm experiment. *Science of the Total Environment* 607/608: 69-77. March 2, 2018

<http://www.co2science.org/articles/V21/mar/a2.php>

“Given the above findings, it would appear that freshwater phytoplankton, contrary to conventional wisdom, are presently carbon-limited (at least for this lake setting) and will likely benefit from so-called freshwater acidification by enhancing their NPP as atmospheric CO<sub>2</sub> concentrations continue to rise in the years and decades ahead.”

#### **Acceleration of Tree Growth in Urban Areas in Recent Decades**

Pretzsch, H., Biber, P., Uhl, E., Dahlhausen, J., Schütze, G., Perkins, D., Rötzer, T., Caldentey, J., Koike, T., van Con, T., Chavanne, A., du Toit, B., Foster, K. and Lefer, B. 2017. Climate change accelerates growth of urban trees in metropolises worldwide. *Scientific Reports* 7: 15403, DOI:10.1038/s41598-017-14831-w. Mar 1, 2018

<http://www.co2science.org/articles/V21/mar/a1.php>

“Thus, it would seem that if cities are truly analogs for the future temperature and CO<sub>2</sub> concentration of the planet, earth's trees will greatly benefit from their respective increases in terms of growth.”

#### **Millennial Moisture Variability on the Eastern Tibetan Plateau**

Deng, Y., Gou, X., Gao, L., Yang, M. and Zhang, F. 2017. Spatiotemporal drought variability of the eastern Tibetan Plateau during the last millennium. *Climate Dynamics* 49: 2077-2091. Feb 26, 2018

<http://www.co2science.org/articles/V21/feb/a15.php>

“Probably the most pertinent observation, however, is that neither the north or south reconstruction of the ETP show *unusual, unnatural or unprecedented* moisture conditions over the most recent century, during which time the CO<sub>2</sub> content of the atmosphere rose by more than 40 percent. Despite this increase, there appears to be no discernible impact on drought or flood, which climatic features presently remain well within the bounds of their multi-century records.”

### ***Model Issues***

#### **Challenging statistics of weather extremes**



By Anthony Watts, WUWT, Feb 28, 2018

<https://wattsupwiththat.com/2018/02/28/challenging-statistics-of-weather-extremes/>

Link to paper: Modeling spatial processes with unknown extremal dependence class

By Huser & Wadsworth, Journal of the American Statistical Association, Jan 15, 2018

<https://www.tandfonline.com/doi/full/10.1080/01621459.2017.1411813>

### **Study: ‘Chaos Seeding’ impairs the interpretation of Numerical Weather Models**

By Anthony Watts, WUWT, Feb 27, 2018

<https://wattsupwiththat.com/2018/02/27/study-chaos-seeding-impairs-the-interpretation-of-numerical-weather-models/>

Link to preliminary Accepted Version of paper: Seeding Chaos: The Dire Consequences of

Numerical Noise in NWP Perturbation Experiments,

AMS, No Date

<https://journals.ametsoc.org/doi/pdf/10.1175/BAMS-D-17-0129.1>

### ***Measurement Issues -- Surface***

#### **Bourke: How 1km of land clearing can warm a million square miles**

By Jo Nova, Her Blog, Feb 26, 2018

<http://joannenova.com.au/2018/02/bourke-how-1km-of-land-clearing-can-warm-a-million-square-miles/>

### **The Rise and Fall of Central England Temperatures: Part II**

By Tony Brown, Climate Etc. Mar 3, 2018

<https://judithcurry.com/2018/03/03/the-rise-and-fall-of-central-england-temperatures-part-ii/#more-23878>

[SEPP Comment: An interesting look at the longest instrumental surface temperature record.]

### ***Measurement Issues -- Atmosphere***

#### **UAH Global Temperature Update for February, 2018: +0.20 deg. C**

By Roy Spencer, His Blog, Mar 1, 2018

<http://www.drroyspencer.com/2018/03/uah-global-temperature-update-for-february-2018-0-20-deg-c/>

### ***Changing Weather***

#### **This Week’s Snow Is A Taste Of The Past**

By Paul Homewood, Not a Lot of People Know That, Mar 2, 2018

<https://notalotofpeopleknowthat.wordpress.com/2018/03/02/this-weeks-snow-is-a-taste-of-the-past/>

“Looking at March temperatures, yesterday was the coldest March day since 1965, and 5th coldest on record.” [In central England since 1772.]

### **Explainer: The polar vortex, climate change and the ‘Beast from the East’**

While much of Europe is shivering in subzero temperatures, the Arctic and eastern US have basked in unseasonably warm conditions in recent weeks.

By Robert McSweeney, Carbon Brief, Mar 1, 2018

[https://www.carbonbrief.org/explainer-polar-vortex-climate-change-and-beast-from-the-east?utm\\_source=Weekly+Carbon+Briefing&utm\\_campaign=447cc24f77-Carbon\\_Brief\\_Weekly\\_02\\_03\\_2018&utm\\_medium=email&utm\\_term=0\\_3ff5ea836a-](https://www.carbonbrief.org/explainer-polar-vortex-climate-change-and-beast-from-the-east?utm_source=Weekly+Carbon+Briefing&utm_campaign=447cc24f77-Carbon_Brief_Weekly_02_03_2018&utm_medium=email&utm_term=0_3ff5ea836a-)

[447cc24f77-215218249&ct=t\(Carbon\\_Brief\\_Weekly\\_02\\_03\\_2018\)&goal=0\\_3ff5ea836a-447cc24f77-215218249](http://447cc24f77-215218249&ct=t(Carbon_Brief_Weekly_02_03_2018)&goal=0_3ff5ea836a-447cc24f77-215218249)

## **Monbiot's 2005 Irrationality Exposed As Deadly Cold Sweeps Over Europe, UK Sees "Coldest Spring Day On Record"**

By P Gosselin, No Tricks Zone, Mar 2, 2018

<http://notrickszone.com/2018/03/02/monbiots-2005-irrationality-exposed-as-deadly-cold-sweeps-over-europe-uk-sees-coldest-spring-day-on-record/#sthash.roI4JnNQ.dpbs>

### **How cities heat up**

By Staff Writers, Science Codex, Feb 23, 2018 [H/t Toshio Fujita]

<http://www.sciencecodex.com/how-cities-heat-619225>

Comment from physicist Don Rapp: "Urban heat islands have been studied for many years and it is very well known that cities store solar energy and generated energy and release this energy typically at night, while at all times cities remain warmer than their surroundings.

"Two consequences of this are:

"(1) As global warming proceeds, we see the warming much more as an increase in lows, than as an increase in highs. This is more true in cities, but seems to be widespread.

"(2) The urban measurement stations as part of the global network to monitor climate show exaggerated warming compared to the past. In addition, the many stations that were suburban or exurban when they were first installed, have now become urban as cities expanded outward, and due to this effect, show even more exaggerated warming compared to the past. These measurements do not reflect global warming due to greenhouse gases, but rather, they are local hotspots that skew the global climate measurement system into suggesting global warming is greater than it actually is."

### ***Changing Climate***

#### **African rainforests vanished for 600 years, then bounced back—why?**

A new study argues humans caused a rainforest crisis, but not everyone's convinced.

By Kiona Smith, Ars Technica, Feb 27, 2018 [H/t GWPF]

<https://arstechnica.com/science/2018/02/did-humans-or-climate-cause-the-great-rainforest-crisis/>

Link to new paper: Early anthropogenic impact on Western Central African rainforests 2,600 y ago

By Yannick Garcin, et al. PNAS, Feb 26, 2018

<http://www.pnas.org/content/early/2018/02/16/1715336115>

Link to prior paper: Late Holocene forest contraction and fragmentation in central Africa

By Jean Maley, et al. Quaternary Research, Dec 12, 2017

<https://www.cambridge.org/core/journals/quaternary-research/article/late-holocene-forest-contraction-and-fragmentation-in-central-africa/97E7BBD33C8036A9DB92EE4C0B89905F>

### ***Changing Cryosphere – Land / Sea Ice***

#### **Arctic Alarmists Hit New Records Of Hysteria**

By Paul Homewood, Not a Lot of People Know That, Feb 28, 2018

<https://notalotofpeopleknowthat.wordpress.com/2018/02/28/arctic-alarmists-hit-new-records-of-hysteria/>

#### **Cape Morris Jesup**

By Paul Homewood, Not a Lot of People Know That, Mar 1, 2018

<https://notalotofpeopleknowthat.wordpress.com/2018/03/01/cape-morris-jesup/>

“DMI’s measurement station at Kap Morris Jesup is the world’s northernmost weather station located on land...” [Measured above freezing for 24 hours.]  
[SEPP Comment: See link immediately above.]

**Another New Paper Shows Arctic Sea Ice Has Been INCREASING Overall Since The 1930s**  
By Kenneth Richard, No Tricks Zone, Mar 1, 2018

<http://notrickszone.com/2018/03/01/another-new-paper-shows-arctic-sea-ice-has-been-increasing-overall-since-the-1930s/#sthash.Gf9NBTzH.dpbs>

[SEPP Comment: A more correct headline would be “has increased and decreased for centuries.”]

**The Ross Ice Shelf is Freezing, Not Melting. Which Is Weird.**

Scientists were surprised by the results of their study.

By Sophie Weiner, Popular Mechanics, Feb 23, 2018

<https://www.popularmechanics.com/science/environment/a18697409/ross-ice-shelf-melting/?src=socialflowTW&src=socialflowTW&src=socialflowTW>

### ***Changing Earth***

**LOUISIANA: They’re trying to wash you away**

News Analysis by Kip Hansen, WUWT, Feb 27, 2018

<https://wattsupwiththat.com/2018/02/27/louisiana-theyre-trying-to-wash-you-away/>

[SEPP Comment: One could add to the essay: if Henry Shreve had not accomplished the cut-off of Turnbull’s Bend of the Mississippi in 1831 and later the Corps of Engineers had not prevented cuts in the Mississippi banks from expanding into Atchafalaya River, the main flow of the Mississippi would be going into the Atchafalaya, bypassing Baton Rouge and New Orleans. Later the Corps of Engineers prevented a direct cut into Lake Pontchartrain, to protect shipping to New Orleans. Without these engineering efforts, Louisiana would be dramatically different in shape and in wetlands accumulation.]

### ***Communicating Better to the Public – Go Personal.***

**Sean Carroll: denialists have been extraordinarily effective**

By Luboš Motl, The Reference Frame, Mar 1, 2018

<https://motls.blogspot.com/2018/03/sean-carroll-denialists-have-been.html>

[SEPP Comment: Contrary to Motl’s opening sentence, it is unlikely that Willie Soon “bragged” about any of his publications. Note: Soon is a director of SEPP.]

### ***Questioning European Green***

**The Beast from the East and European Energy Security**

By Euan Mearns, Energy Matters, Feb 28, 2018

<http://euanmearns.com/the-beast-from-the-east-and-european-energy-security/#more-21084>

**Freezing Britain Running Out Of Gas And Electricity**

By Paul Homewood, Not a Lot of People Know That, Mar 1, 2018

<https://notalotofpeopleknowthat.wordpress.com/2018/03/01/freezing-britain-running-out-of-gas-and-electricity/#more-32585>

**Type Failure or Wear and Tear in European Offshore Wind?**

By John Constable, GWPF, Feb 25, 2018

<http://www.thegwpf.com/type-failure-or-wear-and-tear-in-european-offshore-wind/>

## ***Questioning Green Elsewhere***

### **Living on the Edge**

By Donn Dears, Power For USA, Mar 2, 2018

<http://ddears.com/2018/03/02/living-on-the-edge/>

*[SEPP Comment: Renewable energy can make life risky.]*

## ***The Political Games Continue***

### **The Russian role in the nuclear winter theory**

By Matt Ridley, The Rational Optimist, Feb 25, 2018

<http://www.rationaloptimist.com/blog/nuclear-winter/>

“The physicists Freeman Dyson and Fred Singer, who would end up on the opposite side of the global-warming debate from Schneider and [Russell] Seitz, calculated that any effects would be patchy and short-lived, and that while dry soot could generate cooling, any kind of dampness risked turning a nuclear smog into a warming factor and a short-lived one at that.”

### **House panel: Russia aimed to disrupt US energy markets using social media**

By Miranda Green, The Hill, Mar 1, 2018

<http://thehill.com/policy/energy-environment/376248-russia-used-social-media-to-wage-us-energy-misinformation-campaign>

Link to report: Russian Attempts to Influence U.S. Domestic Energy Markets by Exploiting Social Media

By Majority Staff, United States House of Representatives Committee on Science, Space, and Technology, Mar 1, 2018

<https://science.house.gov/sites/republicans.science.house.gov/files/documents/SST%20Staff%20Report%20-%20Russian%20Attempts%20to%20Influence%20U.S.%20Domestic%20Energy%20Markets%200by%20Exploiting%20Social%20Media%2003.01.18.pdf>

### **Anti-GMO articles tied to Russian sites, ISU research shows**

By Donnelle Eller, Des Moines Register, Feb 25, 2018

<https://www.desmoinesregister.com/story/money/agriculture/2018/02/25/russia-seeks-influence-usa-opinion-gmos-iowa-state-research/308338002/>

### **Al Jazeera: Open Borders will Force Climate Action by Punishing the West with Refugees**

Guest essay by Eric Worrall, WUWT, Feb 23, 2018

<https://wattsupwiththat.com/2018/02/23/al-jazeera-open-borders-will-force-climate-action-by-punishing-the-west-with-refugees/>

## ***Litigation Issues***

### **A California Judge May Have Just Sunk All Those Climate Lawsuits Against Energy Companies**

By Tim Pearce, Daily Caller, Feb 28, 2018

<http://dailycaller.com/2018/02/28/california-climate-lawsuits-doomed/>

Link to press release by National Association of Manufacturers' (NAM) Manufacturers' Accountability Project (MAP): MAP Statement on Federal District Court Decision to Hear San Francisco Climate Case

By Staff Writers, MAP, Feb 28, 2018

<http://mfgaccountabilityproject.org/>

*[SEPP Comment: The judge ruled the cases are more appropriate in federal court. He wrote: “[t]he scope of the worldwide predicament demands the most comprehensive view available, which in our American court system means our federal courts and our federal common law ... A patchwork of 50 different answers to the same fundamental global issue would be unworkable.”]*

### **EXCLUSIVE: Eco-Billionaire Gave \$500K To Oakland Mayor’s Pet Project Shortly Before Climate Lawsuit**

By Chris White, Daily Caller, Feb 22, 2018

<http://dailycaller.com/2018/02/22/steyer-oakland-mayor-lawsuit-energy-companies/>

### ***Energy Issues – Non-US***

Frackers in U.K. Pick Cold as Time to Make Point on Gas Supply

By Jeremy Hodges Kelly Gilblom, Bloomberg, Mar 2, 2018 [H/t GWPF]

<https://www.bloomberg.com/news/articles/2018-03-02/frackers-in-u-k-pick-cold-as-time-to-make-point-on-gas-supply>

*[SEPP Comment: A gas importer since 2004, in 2010 the UK, began importing more gas than it produced.]*

### **Israel aims to eliminate use of coal, gasoline and diesel by 2030**

Energy minister to present plan to reduce pollution, strengthen 'peace axis' through sole use of natural gas and alternative fuels for energy production and transportation

By Shoshanna Solomon, The Times of Israel, Feb 27, 2018

<https://www.timesofisrael.com/israel-aims-to-eliminate-use-of-coal-gasoline-and-diesel-by-2030/>

“Already this year, the balance of electricity production will be 71% natural gas, 25%-27% coal, and 2% renewable energy, with the economy transitioning to using coal only for emergency and backup purposes by 2030.”

*[SEPP Comment: According to Index Mundi (from EIA data), Israel produced zero (0) tons of coal for many years and little oil, 400 Barrels of crude oil per day from 2011 to 2013 (last year of full data). Meaningful production of dry natural gas started in 2004.]*

### ***Energy Issues – Australia***

#### **The Desperation of the Environmentalists.**

By Terence Cardwell, The Australian Climate Sceptics Blog, Feb 24, 2018

<http://theclimatescepticsparty.blogspot.com.au/2018/02/the-desperation-of-environmentalists.html>

### ***Energy Issues -- US***

#### **How America went from a grateful oil importer to global energy powerhouse in just five years**

The implications of this breathtaking transformation go far beyond oil markets and are reshaping the world’s economic order

By Yadullah Hussain, Financial Post, Feb 2, 2018

<http://business.financialpost.com/commodities/energy/how-america-went-from-a-grateful-oil-importer-to-a-global-energy-powerhouse>

#### **Blackouts Are Coming to New England**

By Donn Dears, Power For USA, Feb 27, 2018

<http://ddears.com/2018/02/27/blackouts-coming-new-england/>

[SEPP Comment: New challenges to the 78 mi (126 km) Boston subway system, the “T”, the oldest and considered the slowest in the US. <https://www.boston-discovery-guide.com/boston-subway.html>]

### ***Subsidies and Mandates Forever***

#### **Drax Biomass Subsidies Rise To £729m In 2017**

By Paul Homewood, Not a Lot of People Know That, Feb 27, 2018

<https://notalotofpeopleknowthat.wordpress.com/2018/02/27/drax-biomass-subsidies-rise-to-729m-in-2017/#more-32520>

[SEPP Comment: How many other organizations in market economies have such a large subsidy to burn forests from the US and elsewhere.]

### ***EPA and other Regulators on the March***

#### **New EPA rule gives states power to determine coal ash disposal**

By Miranda Green, The Hill, Mar 1, 2018

<http://thehill.com/policy/energy-environment/376359-new-epa-rule-gives-states-power-to-determine-coal-ash-disposal>

[SEPP Comment: The article exaggerates the toxic nature of coal ash. Proper disposal is a solvable problem. Fly ash can be recycled into concrete or wallboard. It's a matter of cost.

### ***Washington's Control of Energy***

#### **Panel recommends Zinke cut offshore drilling royalty rates by a third**

By Timothy Cama, The Hill, Feb 28, 2018

<http://thehill.com/policy/energy-environment/376156-panel-votes-to-recommend-one-third-cut-to-offshore-drilling-royalty>

[SEPP Comment: It may make more sense to share the royalties with impacted states.]

### ***Oil and Natural Gas – the Future or the Past?***

#### **‘Very, very scary’: This mammoth new shale drilling method is about to supersize the future of fracking**

'Cube development,' which taps multiple layers of shale all at once, could accelerate the U.S. shale boom and make the global supply glut even worse

By Alex Nussbaum, Financial Post, Feb 23, 2018 [H/t GWPF]

<http://business.financialpost.com/commodities/energy/permissians-mammoth-cubes-herald-supersized-future-for-shale-1>

[SEPP Comment: Very, very scary to competitors.]

#### **US will overtake Russia as top oil producer by 2019, says the International Energy Agency**

By Staff Writers, Reuters, Feb 27, 2018

<https://www.cnn.com/2018/02/27/us-will-overtake-russia-as-top-oil-producer-by-2019.html>

#### **The growth of shale means US is no longer reliant on Saudi oil**

By Andrew Critchlow, Telegraph, UK, Via GWPF Feb 23, 2018

<http://www.thegwpf.com/opecs-final-showdown-with-shale/>

### ***Return of King Coal?***

#### **Asian coal demand to offset EU and US decline**

Industry body chief predicts continued regional dominance

By Yukako Ono, Nikkei, Feb 23, 2018 [H/t GWPF]

<https://asia.nikkei.com/Markets/Commodities/Asian-coal-demand-to-offset-EU-and-US-decline>

### ***Alternative, Green (“Clean”) Solar and Wind***

#### **Global Renewable Sector faces Enron-Style Collapses, Iberdrola Chief Warns**

By Staff Writers, The Times, Via GWPF, Feb 23, 2018

<http://www.thegwpf.com/iberdrola-chief-says-global-renewable-sector-faces-enron-style-collapses/>

“How the world was fooled by green fantasists!

“Ignacio Galán, the chief executive of Spanish utility Iberdrola, said that new non-industrial entrants with little experience were making overly aggressive bids on contracts to build renewable energy, thinking it was a financial ‘el Dorado’”.

### ***Carbon Schemes***

#### **Bosses at world’s most ambitious CCS plant kept problems secret for years**

By Paul Homewood, Not a Lot of People Know That, Mar 2, 2018

<https://notalotofpeopleknowthat.wordpress.com/2018/03/02/bosses-at-worlds-most-ambitious-ccs-plant-kept-problems-secret-for-years/>

### ***Health, Energy, and Climate***

#### **The Return of a Forgotten Killer**

By Bjørn Lomborg, Project Syndicate, Feb 21, 2018

<https://www.project-syndicate.org/commentary/tuberculosis-leading-infectious-killer-by-bjorn-lomborg-2018-02>

### ***Environmental Industry***

#### **Why Climate Alarmist “Environmetalists” Are the Enemies of Human Civilization and Plants**

By Alan Carlin, Carlin Economics and Science, Mar 2, 2018

<http://www.carlineconomics.com/archives/4248>

### ***Other Scientific News***

#### **A previously unknown 'supercolony' of 1.5 million penguins has been discovered in Antarctica**

By Josh Gabbatiss, The Independent, Mar 2, 2018 [H/t Cooler Heads]

<http://www.businessinsider.com/unknown-supercolony-of-penguins-discovered-in-antarctica-2018-3>

### ***Other News that May Be of Interest***

#### **The New West Coast Weather Satellite is Launched**

By Cliff Mass, Weather an Climate Blog, Mar 2, 2018

<http://cliffmass.blogspot.com/2018/03/the-new-west-coast-weather-satellite-is.html>

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## **BELOW THE BOTTOM LINE:**

### **Return of the butterfly,**

By Staff Writers, Climate Change Predictions.org March 1, 2018

<http://climatechangepredictions.org/uncategorized/3141>

“The large blue butterfly went extinct in the UK in 1979 despite a prolonged campaign by conservationists to try and save the species.

“Prof Jeremy Thomas, head of ecology at Oxford University, said it is only now that the climate is warming and suitable spots have been discovered in the Cotswolds that the species is able to start spreading across Britain once again.”

The Telegraph (UK) 28 Jun 2010 “Climate change brings back endangered butterfly”

### **How now brown owl?**

By Staff Writers, Climate Change Predictions.org March 2, 2018

<http://climatechangepredictions.org/uncategorized/3139>

“Tawny owls turn brown to survive in warmer climates, according to scientists in Finland. Feather colour is hereditary, with grey plumage dominant over brown. But the study, published in the journal Nature Communications, found that the number of brown owls was increasing. As winters become milder, the scientists say, grey feathered tawny owls are likely to disappear.

“This study indicates that the birds are evolving in response to climate change. Climate-driven selection has led to an evolutionary change in the population. Dr Patrik Karell from the University of Helsinki, who led the study, gathered together data from long-term tawny owl studies carried out across Finland over the last 30 years.”

BBC News, 22/2/11

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## **ARTICLES:**

### **1. Good Climate News Isn't Told**

Reporting scientific progress would require admitting uncertainties.

By Holman Jenkins, Jr. WSJ, Feb 27, 2018

<https://www.wsj.com/articles/good-climate-news-isnt-told-1519772044>

Link to letter: Emergent constraint on equilibrium climate sensitivity from global temperature variability

By Cos, Huntingford, & Williamson, Nature Letter, Jan 18, 2018

[https://www.nature.com/articles/nature25450.epdf?referrer\\_access\\_token=DIMsySL3On5aRiqzCUH9hNRgN0jAjWel9jnR3ZoTv0PyODaZGGnFL0k\\_aLNPU\\_eSZO\\_ob8Z2mlyde8dguBezZxtpDo\\_xF-Mqobj7RMKekx9HEqQcbG4OD6-kzo5\\_BB5p9U6XWYopgdiUf\\_L1zvgjEpIjm8XrnCm5AewdXD43gCl5dCLGj1eZNIY3QgzVYuZJMYoMhL8fUOg\\_agmRf8h5axeoAw2EGB-vYfSK5s1Nze0%3D&tracking\\_referrer=www.wsj.com](https://www.nature.com/articles/nature25450.epdf?referrer_access_token=DIMsySL3On5aRiqzCUH9hNRgN0jAjWel9jnR3ZoTv0PyODaZGGnFL0k_aLNPU_eSZO_ob8Z2mlyde8dguBezZxtpDo_xF-Mqobj7RMKekx9HEqQcbG4OD6-kzo5_BB5p9U6XWYopgdiUf_L1zvgjEpIjm8XrnCm5AewdXD43gCl5dCLGj1eZNIY3QgzVYuZJMYoMhL8fUOg_agmRf8h5axeoAw2EGB-vYfSK5s1Nze0%3D&tracking_referrer=www.wsj.com)

SUMMARY: The article is discussed in the This Week Section above. The author concludes with:

*“Leaving climate sensitivity uncertainties out of the narrative certainly distorts the reporting that follows. Take a widely cited IPCC estimate that “with 95% certainty,” humans are responsible for at least half the warming observed between 1951 and 2010.*

*“This sounds empirical and is reported as such. In fact, such estimates are merely derivative of how much warming should have taken place if the standard climate sensitivity estimate is correct. Imagine predicting an 8 before letting the dice fly, then assuming an 8 must have come up because that’s what your model predicted.*



*“To be clear, the U.S. and other governments have done increasingly minute and exacting work in cataloging actual climate and weather patterns. We argue here they have grossly underperformed in sorting out cause and effect. And since the press’s job is to hold institutions accountable, the output of government climate science is so poor partly because of the abysmally bad job done by reporters on the climate beat.*

*“No better example exists than their gullibility in the face of U.S. government press releases pronouncing the latest year the “warmest on record.” Scroll down and the margin of error cited in the government’s own press release would lead you rightly to suspect that a clear trend is actually hard to find in recent decades despite a prodigious increase in CO2 output.*

*“Well, guess what? Taking account of the actual temperature record and its tiny variations is exactly what the Exeter group and others have been doing in order to make progress on the 40-year problem of climate sensitivity. And they are finding less risk of a catastrophic outcome than previously thought.*

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## **2. Germany Paves Way for Diesel Ban, Dealing Blow to Auto Makers**

Court allows major German cities to ban older diesel vehicles

By William Boston, WSJ, Feb 27, 2018

[https://www.wsj.com/articles/major-german-cities-allowed-to-ban-older-diesel-vehicles-1519737230?mod=trending\\_now\\_5](https://www.wsj.com/articles/major-german-cities-allowed-to-ban-older-diesel-vehicles-1519737230?mod=trending_now_5)

SUMMARY: The author states:

*“A German court on Tuesday rang the death knell for certain diesel cars in a blow to the country’s flagship auto industry, which could now be forced to spend billions to upgrade or replace millions of cars.*

*“In a landmark decision, a federal court ruled that German cities Stuttgart and Düsseldorf could ban diesel vehicles from their streets as a way to reduce pollution, rejecting an appeal of a lower-court ruling. Ultimately, the ruling clears the way for any German city to ban older diesel vehicles and could inspire similar measures in cities around Europe, analysts said.*

*“The closely watched ruling on Tuesday by the Federal Administrative Court in Leipzig is likely to accelerate the demise of a technology that German auto makers have long promoted as combining solid driving performance with fuel economy and low greenhouse-gas emissions, but which has been largely been [sic] discredited in the wake of the emissions-cheating scandals at Volkswagen and other car makers.*

After discussing assumed health effects and presenting current differences in re-sale values of diesel vs. gasoline vehicles, the author states:

*Diesel vehicles in Germany certified between 2009 and 2014 under the so-called Euro 5 emissions standard, numbering about 5.9 million vehicles, wouldn’t be subject to a ban until September 2019, the Leipzig court ruled. Vehicles certified later under the Euro 6 regime would likely be exempt from any bans.*

*But all other diesels in the country certified before 2009, nearly 7 million vehicles in operation today, could be subject to bans at any time. Those individuals hit hardest will be owners of the*

*oldest diesels on the road that don't adhere to Euro 6. That segment accounts for 2.7 million of the 15 million diesels in use, according to the German Automotive Industry Association.*

The author concludes with efforts of various municipal governments to ban diesels, and local and business issues.

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