The Week That Was: 2013-06-01 (June 1, 2013) Brought to You by SEPP (<u>www.SEPP.org</u>) The Science and Environmental Policy Project

Quote of the Week: *The great tragedy of Science - the slaying of a beautiful hypothesis by an ugly fact.* Thomas Huxley

Number of the Week: \$6.40/mcf

THIS WEEK:

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

Making the Best of Otto: The paper by 17 Climate Establishment scientists, "Energy budget constraints on climate response" in *Nature Geoscience*, continues to disturb others in the Climate Establishment, particularly those who predict drastic global warming and drastic sea level rise (from global warming). By adding surface temperature data from 2000 to 2009 to the data from starting in 1970, the study stated the most probable temperature increase from a doubling of CO2 will be 2.0 °C, with a 5 to 95% confidence interval of 1.2 to 3.9 °C. These temperature increase estimates are significantly lower than those in the 2007 Fourth Assessment Report (AR4) by the UN Intergovernmental Panel on Climate Change (IPCC) and lower than those included by the latest round of models (CMIP5) of 2.2–4.7 °C, as reported in the draft of the upcoming IPCC Fifth Assessment Report (AR5),

A number of those who advocate strong government measures for controlling CO2 emissions in a hope to stop global warming/climate change are trying to put a positive twist on these findings. They are claiming that this lower estimate of the influence of CO2 on climate gives humanity a second chance before certain doom. The comments by Myles Allen, a participant in the study, as presented by Judith Curry, are more thought provoking than most. However, another view is that the danger of human (anthropogenic) emissions of carbon dioxide (CO2) causing significant global warming (carbon-based AGW) is vastly overrated.

The issues concerning the above probability calculations aside, the restatement of highest likelihood demonstrates that the 90 to 99% certainty in the results of the models given in AR4 was misplaced. There is no reason to have high certainty in the latest calculations, despite the probability statements. The researchers may have adjusted the models for the latest data, but the statistical calculations remain a circular argument. The models are not sufficiently tested against past climate change. The time-frame of 1970 to 2009 is insufficient given historical changes in climate.

If nature continues to refuse to cooperate with the climate models, then another restatement would be needed in the future. Perhaps, one day, the Climate Establishment will be forced to admit that CO2 is not the "control knob" of climate and that natural influences are far more significant than man. Please see links under Problems in the Orthodoxy,

http://www.nature.com/ngeo/journal/vaop/ncurrent/full/ngeo1836.html and http://judithcurry.com/2013/05/19/mainstreaming-ecs-2-c/#more-11727 *****

CFC Not CO2?: A new paper in *International Journal of Modern Physics B*, by Qing-Bin Lu, a professor of physics and astronomy, biology and chemistry in the Faculty of Science at the

University of Waterloo (Canada) shows a far tighter correlation between chlorofluorocarbons (CFCs), along with cosmic rays, and temperatures from 1950 to 2002 than the correlation between CO2 and temperatures. Of course, correlation is not causation and it may be just coincidence. Nevertheless, the paper is interesting and so has been the response from the Climate Establishment – silence.

Luboš Motl has an interesting take on this silence: "The apparent observation that no one can really safely show that the paper is wrong and why the paper is wrong highlights the immense degree of uncertainty about the truly dominant climate drivers on the decadal and centennial timescales." Please see links under Challenging the Orthodoxy. [SEPP Comment: Handle with care!]

Going Green: A new paper published in the Geophysical Research Letters further strengthens the extensive work done by Sherwood, Craig and Keith Idso on the environmental benefits of adding CO2 to the atmosphere. The authors of the paper state they had predicted that a 14% increase in CO2 would result in a 5 - 10% increase in green foliage in warm, arid environments. Satellite observations reveal an 11% increase, after adjusting for rainfall. The paper contradicts claims in the IPCC AR4 that the deserts are advancing.

Of course, the environmental benefits of enhanced atmospheric CO2, and subsequent environmental enrichment cannot go uncontested. The EPA is funding research on human health impacts of increased pollen. Please see links under Challenging the Orthodoxy and Below the Bottom Line.

Litigation Issues: As expressed earlier, SEPP is an Additional Petitioner in a request that the Supreme Court review the decision by the US Court of Appeals for the District of Columbia supporting the EPA finding that Greenhouse Gas (GHG) emissions, primarily CO2, endanger human health and welfare (Petition for Writ of Certiorari). The writ was filed by the Southeastern Legal Foundation. A number of other requests for Supreme Court review have also been filed, but the one by Southeastern Legal Foundation addresses scientific issues as well as procedural issues.

The EPA has been granted a 30 day extension to file its response to these requests. Thus it is unlikely that the Court will grant, or refuse, the request prior to its summer recess.

A group of eleven scientists have filed an Amicus Brief (a friend in court) supporting the petition by the Southeastern Legal Foundation. The amicus brief addresses the three lines of evidence the EPA claimed supports its endangerment finding. These are: one, the distinct human fingerprint (hot spot of atmospheric warming over the tropics); two, the surface warming over the past several decades has been unusual and dangerous; and, three, the computer climate models simulate the likely response of the climate system to increasing CO2.

Until the EPA files its response, TWTW is not commenting on the filings. Please see links under Litigation Issues.

Two Issues: On her web site, Climate Etc., Judith Curry has several interesting posts. One discusses the op-ed by US Representative Lamar Smith published in the Washington Post (linked last week), "Overheated rhetoric on climate change doesn't make for good policies," and the

responses to it. Curry finds that, from a scientific perspective, Rep. Smith comes off far better than his critics.

The second post questions the concept of sustainability, the definition of which is elusive – it can mean virtually whatever the person who invokes it wants. [One could argue that from the concept of entropy, nothing is sustainable.] Curry suggests that a better concept may be resilience – being able to adjust to change and extreme events. This concept may be more politically practical given the great uncertainty of what nature may deliver, or mankind may develop. Please see links under Seeking a Common Ground.

Absolutist Administration? President Obama declared that there can no debate about the cause of global warming/climate change – it's human. He stated: "We also know that the climate is warming faster than anybody anticipated five or 10 years ago." Apparently, the global warming pause has not reached the White House.

According to reports, the new Secretary of Energy, Ernest Moniz, echoed the White House in addressing the White House Leadership Summit on Women, Climate and Energy "I'm not here to debate what's not debatable." ... "The threat from climate change is real and urgent." One wonders what Moniz would say about the findings by Otto, et al. Please see links under Defending the Orthodoxy.

Argument by Accusation: As some may realize, those skeptical of carbon-based AGW are often accused of receiving major funding from fossil fuel industries, as if the source of funding is the final scientific argument. For three years Russell Cook has independently sought the source of multiple reports that many, if not most, skeptics are heavily backed by the fossil fuel industry. According to Cook, the source of most of these claims appears to be the environmental journalist Ross Gelbspan. In his honor, Cook has established a web site that will "focus on an accusation that is being used unjustly to stop debate and marginalize skeptical climate scientists in an important public policy debate." Please see link under: Accusation Issues.

Number of the Week: \$6.40/mcf. (about \$6.40/mmbtu) According to Thomas Tunstall, research director of the University of Texas at San Antonio Institute for Economic Development, it will cost approximately \$6.40 per thousand cubic feet (mcf) to deliver natural gas from the US to Japan. This is the cost to liquefy, transport and re-gasify the natural gas at the delivery point. Thus at this time, the estimated cost of transportation from the US to Japan alone is more than 50% above the cost of the gas at the US Henry Hub (about \$4.00/mcf). At the delivery point the cost of the gas would be about \$10.40/mcf, 2.5 times the cost of the gas at the Henry Hub.

The transportation costs from the US to Japan undermine many of the arguments used by those who oppose the US export of liquefied natural gas (LNG). An industry that is a large user of natural gas, say the fertilizer industry, will locate where the gas is less expensive and ship the finished product elsewhere. Thus, the US exporting LNG will not deprive these industries of the advantages in locating where the cost natural gas is comparatively low. [The actual transportation costs may be somewhat lower or higher, but the concept applies.] Please see Article #1.

ARTICLES:

For the numbered articles below please see this week's TWTW at: **www.sepp.org**. The articles are at the end of the pdf.

1. Exporting Natural Gas Will Stabilize U.S. Prices

Limiting LNG exports will have the unintended effect of limiting supply. By Thomas Tunstall, WSJ, May 29, 2013 http://online.wsj.com/article/SB10001424127887323611604578396441358002584.html?mod=W SJ_Opinion_LEFTTopOpinion

2. The EPA's Project Veto

A court ruling gives the agency vast new permitting power. Editorial, WSJ, May 29, 2013 <u>http://online.wsj.com/article/SB10001424127887324767004578485121293481346.html?mod=W</u> <u>SJ_Opinion_AboveLEFTTop</u>

3. Mississippi Clean Coal Slaw

The greens turn on their own green-energy project Editorial, WSJ, May 29, 2013 <u>http://online.wsj.com/article/SB10001424127887324659404578503261521429942.html?mod=W</u> <u>SJ_Opinion_AboveLEFTTop</u> The real green energy policy seems to be none of the above

4. U.S. Oil Stockpile Highest in More Than 80 Years

By Jerry DiColo, WSJ, Money Beat, May 30, 2013 http://blogs.wsj.com/moneybeat/2013/05/30/u-s-oil-stockpile-highest-in-more-than-80-years/ [SEPP Comment: Contrary to what the article suggests, according to production statistics from the State of Pennsylvania, the oil production from Marcellus shale is relatively small. It is the natural gas production that is significant.]

NEWS YOU CAN USE:

Commentary: Is the Sun Rising?

Researchers reveal model of Sun's magnetic field By Staff Writers, Leeds, UK (SPX), May 24, 2013 http://www.spacedaily.com/reports/Researchers_reveal_model_of_Suns_magnetic_field_999.htm 1

Climategate Continued

Briffa 2013 By Steve McIntyre, Climate Audit, May 24, 2013

http://climateaudit.org/2013/05/24/briffa-2013/

[SEPP Comment: After several years of delay in responding to Steve McIntyre inquiries, the scientists at the Climatic Research Unit (CRU) dig deeper.]

Suppressing Scientific Inquiry

Liberal academics use 'climate science' to suppress independent thinkers By Anthony Sadar, Washington Examiner, Apr 30, 2013 http://washingtonexaminer.com/op-ed-liberal-academics-use-climate-science-to-suppressindependent-thinkers/article/2528509

Challenging the Orthodoxy

John Christy: Climate Change Overview in Six Slides By Marlo Lewis, Global Warming, May 31, 2013 http://www.globalwarming.org/2013/05/31/john-christy-climate-change-overview-in-six-slides/

AGW theory has failed all tests, so alarmists return to the 'consensus' hoax

By Staff Writer, ICECAP, May 31, 2013 <u>http://icecap.us/index.php/go/new-and-</u> cool/agw theory has failed all tests so alarmists return to the consensus hoax/

Study says global warming caused by CFCs interacting with cosmic rays, not carbon dioxide

By Anthony Watts, WUWT, May 30, 2013 <u>http://wattsupwiththat.com/2013/05/30/study-says-global-warming-caused-by-cfcs-not-carbon-dioxide/</u>

Link to paper: Cosmic-Ray-Driven Reaction and Greenhouse Effect of Halogenated Molecules: Culprits for Atmospheric Ozone Depletion and Global Climate Change By Qing-Bin Lu, International Journal of Modern Physics B, May 30, 2013 <u>http://www.worldscientific.com/doi/abs/10.1142/S0217979213500732</u> [SEPP Comment: Handle with care!]

AGW: due to cosmic rays and freons?

By Luboš Motl, Reference Frame, May 31, 2013 <u>http://motls.blogspot.com/2013/05/agw-due-to-cosmic-rays-and-freons.html#more</u> [SEPP Comment: See link immediately above.]

Elevated carbon dioxide making arid regions greener

By Staff Writers, AGU Press Release, May 31, 2013 [H/t WUWT] <u>http://www.agu.org/news/press/pr_archives/2013/2013-24.shtml</u> Link to paper: CO2 fertilisation has increased maximum foliage cover across the globe's warm, arid environments By Randall Donohue et al., GRL, May 31, 2013 <u>http://onlinelibrary.wiley.com/doi/10.1002/grl.50563/abstract</u>

Defending the Orthodoxy

Climate change: we're not doomed quite yet

By Tom Chivers, Telegraph, UK, May 27, 2013 [H/t Bishop Hill] http://blogs.telegraph.co.uk/news/tomchiversscience/100218937/climate-change-were-notdoomed-quite-yet/

Comments by Andrew Montford: There are some gripes, however:

- the suggestion that Otto is a an outlier a single paper is <u>demonstrably nonsense</u>. There are now many papers showing climate sensitivity less than 2°C.
- the suggestion that the heat is all going into the oceans is at best only "possible". All the studies with low climate sensitivity take ocean heat uptake into account (or, in Forster and

Gregory's case use a methodology that is unaffected by it). Trenberth's new suggestion that the heat is below 2 km depth in the deep ocean is at best speculative. http://www.bishop-hill.net/blog/2013/5/28/tom-chivers-on-climate-sensitivity.html

The tropical upper atmosphere 'fingerprint' of global warming

By Staff Writers, Manoa HI (SPX) May 24, 2013 <u>http://www.terradaily.com/reports/The_tropical_upper_atmosphere_fingerprint_of_global_warmi</u> <u>ng_999.html</u> [SEPP Comment: A new, distinct human fingerprint?]

Obama: No 'patience' for climate skeptics

By Ben Geman, The Hill, May 30, 2013 http://thehill.com/blogs/e2-wire/202537-obama-has-no-patience-for-climate-skeptics

The Guardian (2009): "World Will Warm Faster Than Predicted in Next Five Years, Study Warns"

By Paul Homewood, GWPF, May 29, 2013 http://www.thegwpf.org/guardian-2009-world-warm-faster-predicted-years-study-warns/

New Energy Secretary on Climate Change: 'I'm Not Here to Debate What's Not Debatable'

By Elizabeth Harringtton, CNS News, May 30, 2013 [H/t Timothy Wise] <u>http://www.cnsnews.com/news/article/new-energy-secretary-climate-change-i-m-not-here-debate-what-s-not-debatable</u> Moniz said the only "legitimate debate" regarding climate change involves solutions to the problem, not its cause.

Century-Old Science Helps Confirm Global Warming

By Staff Writers, Pasadena CA (JPL), May 27, 2013 http://www.terradaily.com/reports/Century_Old_Science_Helps_Confirm_Global_Warming_999. html

Questioning the Orthodoxy

Science in the Service of Ideology: The National Climate Assessment By Norman Rogers, American Thinker, May 31, 2013 http://www.americanthinker.com/2013/05/science_in_the_service_of_ideology_the_national_cli mate_assessment.html

So Far, Climate Scepticism is Right

By Christopher Monckton, SPPI, May 30, 2013 http://scienceandpublicpolicy.org/so_far_climate_scepticism_is_right.html

Is it a failure to communicate, or faulty climate science?

By Steve Goreham, Washington Times, May 29, 2013 <u>http://communities.washingtontimes.com/neighborhood/climatism-watching-climate-science/2013/may/29/it-failure-communicate-or-faulty-climate-science/</u>

Some Thoughts about Policy for the Aftermath of the ClimateWars

By Pointman, His Blog, May 10, 2013 [H/t Roger Cohen]

http://thepointman.wordpress.com/2013/05/10/some-thoughts-about-policy-for-the-aftermath-ofthe-climate-wars/

[SEPP Comment: A long essay by the blogger who posted the Climategate II emails.]

Who Are the Real Climate Deniers?

By David Solwayd, PJ Media, May 24, 2013 http://pjmedia.com/blog/who-are-the-real-climate-deniers/

Problems in the Orthodoxy

Alarm Called Off! Leading Swiss Daily NZZ On Otto et al: "Climate Reacts Less To CO2 Than Thought" By P Gosselin, No Tricks Zone, May 31, 2013 <u>http://notrickszone.com/2013/05/31/alarm-called-off-leading-swiss-daily-nzz-on-otto-et-alclimate-reacts-less-to-co2-than-thought/</u>

Myles Allen: why we're wasting billions on global warming

By Judith Curry, Climate Etc., May 26, 2013 http://judithcurry.com/2013/05/26/myles-allen-why-were-wasting-billions-on-globalwarming/#more-11772 [SEPP Comment: Allen looks to Carbon Capture & Sequestration (CCS) as the solution?]

Max Planck Institute For Meteorology: "Prognoses Confirm Model Forecasts" Warming Postponed "Hundreds Of Years"

By P. Gosselin, No Tricks Zone, May 26, 2013 [H/t Climate Depot] http://notrickszone.com/2013/05/26/max-planck-institute-for-meteorology-prognoses-confirmmodel-forecasts-warming-postponed-hundreds-of-years/

Scientists narrow global warming range

Press Release, Univ of Melbourne, AU, May 27, 2013 [H/t WUWT] http://newsroom.melbourne.edu/news/scientists-narrow-global-warming-range

"...exceeding 6 degrees warming was now unlikely while exceeding 2 degrees is very likely for business-as-usual emissions."

Link to letter: Uncertainty in temperature projections reduced using carbon cycle and climate observations

By Roger W. Bodman, Peter J. Rayner, David J. Karoly, Nature Climate Change, May 26, 2013 <u>http://www.nature.com/nclimate/journal/vaop/ncurrent/full/nclimate1903.html</u>

The climate change sceptics are winning - and the environmental lobby only has itself to blame

For all the Nobel prizes and predictions of global apocalypse and preaching to the converted, climate change remains a niche issue

By Liam Dennis, Independent, May 28, 2013

http://www.independent.co.uk/voices/comment/the-climate-change-sceptics-are-winning--and-the-environmental-lobby-only-has-itself-to-blame-8634681.html

[SEPP Comment: One this issue, where are the Nobel prizes in science?]

Seeking a Common Ground

Rep. Lamar Smith on climate change By Judith Curry, Climate Etc., May 31, 2013 http://judithcurry.com/2013/05/31/rep-lamar-smith-on-climate-change/#more-11794

Forget sustainability - it's about resilience

By Judith Curry, Climate Etc., May 29, 2013 http://judithcurry.com/2013/05/29/forget-sustainability-its-about-resilience/#more-10882

Climate researchers discover new rhythm for El Niño

Press Release, Univ of Hawaii –SOEST – May 26, 2013 <u>http://www.eurekalert.org/pub_releases/2013-05/uoh-crd052213.php</u> Link to paper: A combination mode of the annual cycle and the El Niño/Southern Oscillation By Stuecker, et al, Nature Geoscience, May 26, 2013 [H/t WUWT] <u>http://www.nature.com/ngeo/journal/vaop/ncurrent/full/ngeo1826.html</u> [SEPP Comment: Another natural feature ignored by the IPCC?]

Accusation Issues:

Accuse a Scientist of Corruption. Later, Replace His Name Without Explanation. Everybody OK With That? By Russell Cook, GelbspanFiles, May 27, 2013

http://gelbspanfiles.com/?p=223

Expanding the Orthodoxy

Big firms should report environmental impact: UN panel By Michelle Nichols and Allster Doyle, Reuters, May 30, 2013 <u>http://uk.reuters.com/article/2013/05/30/us-un-idUKBRE94T0KT20130530</u> Link to the report: High-level Panel on the Post-2015 Development Agenda *Eminent Persons from Around the World Call for a New Global Partnership to Eradicate Poverty and Transform Economies through Sustainable Development* By Staff Writers, May 30, 2013 <u>http://www.post2015hlp.org/featured/high-level-panel-releases-recommendations-for-worldsnext-development-agenda/</u> *[SEPP Comment: According to the UN, we cannot help the poor unless we deny them the use of*

fossil fuels which are needed to eliminate their poverty.]

Impacts World, International Conference on Climate Change

Potsdam, May 27 – 30 http://www.climate-impacts-2013.org/

Laying the foundations for climate impacts research

By Freya Roberts, Carbon Brief, May 28, 2013 http://www.carbonbrief.org/blog/2013/05/laying-the-groundwork-for-climate-impacts-researchimpacts-world-2013

This week's conference is hosted by two major scientific institutions - the Potsdam Institute for Climate Impact Research (PIK) and the International Institute for Applied Systems Analysis (IIASA).

Questioning European Green

The unravelling of EU energy policy By Martin Livermore, Scientific Alliance, May 31, 2013 <u>http://scientific-alliance.org/scientific-alliance-newsletter/unravelling-eu-energy-policy</u>

Cheap Chinese Solar Panels Spark an EU Civil War

By Walter Russell Mead, Via Meadia, May 29, 2013 [H/t GWPF] http://blogs.the-american-interest.com/wrm/2013/05/29/cheap-chinese-solar-panels-spark-an-eucivil-war/

Questioning Green Elsewhere

China Gives Greens False Hope on Climate Treaty By Walter Russell Mead, Via Meadia, May 28, 2013 [H/t GWPF] <u>http://blogs.the-american-interest.com/wrm/2013/05/28/china-gives-greens-false-hope-onclimate-treaty/</u>

The Ungreening of Windpower: Dina Cappiello (AP) Blows the Whistle on Big Wind (and others are following)

By Robert Bradley Jr., Master Resource, May 28, 2013 http://www.masterresource.org/2013/05/ungreening-windpower-cappiello/#more-25672

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

Rice's Baker Institute Climate Embarrassment (Sass's ad hominem response to Rep. Smith) By Robert Bradley Jr., Master Resource, May 31, 2013 <u>http://www.masterresource.org/2013/05/rice-baker-climate-embarrassment/#more-25865</u>

'Landmark consensus study' is incomplete

By Shub Niggurath, Bishop Hill, May 27, 2013 http://www.bishop-hill.net/blog/2013/5/27/landmark-consensus-study-is-incomplete.html [SEPP Comment: What about the tens of thousands of studies that do not match the search criteria.]

We all agree about communicating climate consensus, don't we?

By Ros Donald and Roz Pidcock, Carbon Brief, May 24, 2013

http://www.carbonbrief.org/blog/2013/05/we-all-agree-about-communicating-climate-consensus,dont-we

[SEPP Comment: Further justifying rigged surveys such as the one by John Cook that does not substantiate what is claimed.]

Global warming paradox: More sea ice around Antarctica in winter, study says

By Alister Doyle, Reuters, Apr 1, 20113 [H/t Clyde Spencer] http://worldnews.nbcnews.com/_news/2013/04/01/17546564-global-warming-paradox-more-seaice-around-antarctica-in-winter-study-says

'Grave indicator': Penguins' survival at stake as Antarctic ice disappears By Kerry Sanders, NBC News, Mar 11, 2013 http://worldnews.nbcnews.com/_news/2013/03/11/17239373-grave-indicator-penguins-survivalat-stake-as-antarctic-ice-disappears

[SEPP Comment: Conflicting stories. The second article assumes that what is happening in the extreme tip of the Antarctic Peninsula is indicative of the entire continent.]

Communicating Better to the Public – Make things up.

Claim: 400 PPM CO2 gives the weather 'personality' of the extreme kind – rebuttal to CBS News Face the Nation By Anthony Watts, WUWT, May 26, 2013

 $\underline{http://wattsupwiththat.com/2013/05/26/claim-400-ppm-co2-gives-the-weather-personality/2013/05/claim-400-ppm-co2-gives-the-weather-personality/2013/05/claim-400-ppm-co2-gives-the-weather-personality/2013/05/claim-400-ppm-co2-gives-the-weather-personality/2013/05/claim-400-ppm-co2-gives-the-weather-personality/2013/05/claim-400-ppm-co2-gives-the-weather-personality/2013/05/claim-400-ppm-co2-gives-the-weather-personality/2013/05/claim-400-ppm-co2-gives-the-weather-personality/2013/05/claim-400-ppm-co2-gives-the-weather-personality/2013/05/claim-400-ppm-co2-gives-the-personality/2013/05/claim-400-ppm-co2-gives-the-personality/2013/05/claim-400-ppm-co2-gives-the-personality/2013/05$

Report: Climate change affects Virginia disasters

By Bill Sizemore, Virginian-Pilot, May 29, 2013 [H/t Timothy Wise] http://hamptonroads.com/2013/05/report-climate-change-affects-virginia-disasters

Communicating Better to the Public – Go Personal

Calling out climate change deniers in Congress By Judith Curry, Climate Etc., May 27, 2013 <u>http://judithcurry.com/2013/05/27/president-obama-calls-out-the-climate-change-deniers-in-</u> congress/#more-11779

Blacklisted Science Journalists Taking German Environment Ministry To Court For Defamation, Violating Neutrality

By P Gosselin, No Tricks Zone, May 30, 2013 http://notrickszone.com/2013/05/30/blacklisted-science-journalists-taking-german-environmentministry-to-court-for-defamation-violating-neutrality/

German Association Of Journalists Demands Apology From German Ministry Of

Environment For "Black List Of Skeptics"! By P. Gosselin, No Tricks Zone, May 28, 2013 <u>http://notrickszone.com/2013/05/28/german-association-of-journalists-demands-apology-from-german-ministry-of-environment-for-black-list-of-skeptics/</u>

Vahrenholt Hits Back At German Government's Pillory Of Skeptics: "Why Did You Falsify My Biography?"

By P Gosselin, No Tricks Zone, May 25, 2013 http://notrickszone.com/2013/05/25/vahrenholt-hits-back-at-german-governments-pillory-ofskeptics-why-did-you-falsify-my-biography/

Changing Weather

Last three years provides evidence AGW not responsible for tornadoes By Joseph D'Aleo, ICECAP, May 29, 2013 <u>http://icecap.us/index.php/go/joes-</u> blog/last_three_years_prove_agw_not_responsible_for_tornadoes/

Five myths about tornadoes

By Michael Smith, Washington Post, May 24, 2013 [H/t WUWT]

http://www.washingtonpost.com/opinions/five-myths-about-tornadoes/2013/05/24/21f39502c329-11e2-9fe2-6ee52d0eb7c1_story.html

Germany Now Recording Coldest Spring In 40 Years! "...Climate Experts Running Out Of Arguments..."!

By P Gosselin, No Tricks Zone, May 27, 2013 http://notrickszone.com/2013/05/27/germany-now-recording-coldest-spring-in-40-years-climateexperts-running-out-of-arguments/

French ski station to re-open slopes, in June!

By Staff Writers, The Local, May 29, 2013 [H/t No Tricks Zone] http://www.thelocal.fr/20130529/as-summer-arrives-french-ski-station-opens-slopes [SEPP Comment: A first!]

Would you believe ski areas plead for effort to combat climate change?

By Joseph D'Aleo, Weatherbell Analytics, May 30, 2013 http://icecap.us/index.php/go/new-and-cool/would_you_believe_ski_areas_plead_for1/

Changing Seas

City's sea-level plans don't hold water

By Bob Carter, Newcastle Herald, AU, May 28, 2013 <u>http://www.theherald.com.au/story/1522356/opinion-citys-sea-level-plans-dont-hold-water/?cs=308</u>

Hansen falsified: His extreme sea level rise projections are drowning in hubris

By Patrick Michaels and Chip Knappenberger, WUWT, May 29, 2013 <u>http://wattsupwiththat.com/2013/05/29/hansen-falsified-his-extreme-sea-level-rise-projections-are-drowning-in-hubris/</u>

[SEPP Comment: Hansen's use of an exponential curve makes it impossible to test his hypothesis in his lifetime. It can only be considered an oddity for the next few decades or so.]

Review of Recent Scientific Articles by NIPCC

For a full list of articles see <u>www.NIPCCreport.org</u>

Growth Responses of Tree Roots to Atmospheric CO2 Enrichment

Reference: Smith, A.R., Lukac, M., Bambrick, M., Miglietta, F. and Godbold, D.L. 2013. Tree species diversity interacts with elevated CO2 to induce a greater root system response. *Global Change Biology* 19: 217-228.

http://nipccreport.org/articles/2013/may/28may2013a1.html

Wind Speeds over China: AR5 Climate Models vs. Real-World Data

Reference: Chen, L., Pryor, S.C. and Li, D. 2012. Assessing the performance of Intergovernmental Panel on Climate Change AR5 climate models in simulating and projecting wind speeds over China. *Journal of Geophysical Research* 117: 10.1029/2012JD017533. http://nipccreport.org/articles/2013/may/28may2013a2.html

Modeling Precipitation Over the Mediterranean Region

Reference: Barkhordarian, A., von Storch, H. and Bhend, J. 2013. The expectation of future precipitation change over the Mediterranean region is different from what we observe. *Climate Dynamics* 40: 225-244.

http://nipccreport.org/articles/2013/may/29may2013a1.html

More CO2 but Less Nitrogen: A Double Whammy for Diatoms?

Reference: Li, W., Gao, K. and Beardall, J. 2012. Interactive effects of ocean acidification and nitrogen-limitation on the diatom Phaeodactylum tricornutum. *PLOS ONE* 7: e51590 http://nipccreport.org/articles/2013/may/29may2013a2.html

The Political Games Continue

Sessions: EPA nominee Gina McCarthy is 'stonewalling' By Ramsey Cox, IBD, May 31, 2013 <u>http://thehill.com/blogs/floor-action/senate/302711-sessions-epa-nominee-gina-mccarthy-is-</u> <u>stonewalling</u> [SEPP Comment: Answered some questions, and ignored the most important ones.]

Litigation Issues

Submission of Legal Brief To the US Supreme Court. By Tim Ball, A Different Perspective, May 27, 2013 <u>http://drtimball.com/2013/submission-of-legal-brief-to-the-us-supreme-court/</u> Link to the Brief: BRIEF OF AMICI CURIAE SCIENTISTS IN SUPPORT OF THE PETITIONS FOR CERTIORARI <u>http://drtimball.com/wp-content/uploads/2013/05/Amicus-Brief.pdf</u>

Group goes to court over text messages of Obama's EPA nominee

By Ben Geman, The Hill, May 29, 2013 http://thehill.com/blogs/e2-wire/e2-wire/302459-conservative-group-sues-for-epa-nominees-textmessages

Cap-and-Trade and Carbon Taxes

U.S. should heed failure of cap and trade in Europe

Editorial, Examiner, May 29, 2013 http://washingtonexaminer.com/examiner-editorial-u.s.-should-heed-failure-of-cap-and-trade-ineurope/article/2530749?utm_source=Washington%20Examiner:%20Opinion%20Digest%20-%2005/30/2013&utm_medium=email&utm_campaign=Washington%20Examiner:%20Opinion% 20Digest

Subsidies and Mandates Forever

Are renewables subsidies on their way out? By Ros Donald, Carbon Brief, May 29, 2013 <u>http://www.carbonbrief.org/blog/2013/05/are-renewables-subsidies-on-their-way-out</u> [SEPP Comment: What type of accounting trick is there to use energy security to demand spending on a source of energy that stops without notice?]

EPA and other Regulators on the March

EPA's back-room 'Sue and Settle' deals require reform

Editorial, Washington Examiner, May 26, 2013

http://washingtonexaminer.com/epas-back-room-sue-and-settle-deals-requirereform/article/2530505?utm_source=Washington%20Examiner:%20Opinion%20Digest%20-%2005/27/2013&utm_medium=email&utm_campaign=Washington%20Examiner:%20Opinion% 20Digest

Oil industry frets over new smog standard

By Julian Hattem, The Hill, May 30, 2013 http://thehill.com/blogs/regwatch/energyenvironment/302573-oil-industry-frets-new-smogstandard-

Link to study: Health Benefits from Large-Scale Ozone Reduction in the United States By Berman, et al., Environmental Health Perspectives, Oct 2012 <u>http://ehp.niehs.nih.gov/wp-content/uploads/2012/09/ehp.1104851.pdf</u>

[SEPP Comment: Can the health researchers delineate a decrease in ozone-related premature mortality and morbidity resulting from prior regulations?]

Energy Issues – Non-US

Cold climate wind energy showing huge potential By Staff Writers, Helsinki, Finland (SPX), May 29, 2013 http://www.winddaily.com/reports/Cold_climate_wind_energy_showing_huge_potential_999.htm

[SEPP Comment: And huge costs!]

Energy Issues -- US

The President's Legacy on Energy By Michael Economides, Energy Tribune, May 24, 2013 http://www.energytribune.com/77160/the-presidents-legacy-on-energy#sthash.koO7Y7ht.dpbs

Misguided Energy Policy: Alone, Enough to Cause American Failure

The responses of Barbara Boxer and Sheldon Whitehouse to the deadly tornado strike portend more disaster By Tom Harris, PJ Media, May 31, 2013 http://pjmedia.com/blog/misguided-energy-policy-alone-enough-to-cause-american-failure/

Putting the Grid at Risk

By Donn Dears, Power for USA, May 28, 2013 <u>http://ddusmma.wordpress.com/</u>

Interior moves ahead on offshore drilling safety institute

By Ben Geman, The Hill, May 29, 2013 http://thehill.com/blogs/e2-wire/e2-wire/302369-interior-to-create-offshore-drilling-safetyinstitute

Oil and Natural Gas – the Future or the Past?

Who Loses from Rising Natural Gas Prices? By Robert Rapier, Energy Tribune, May 29, 2013 http://www.energytribune.com/77255/who-loses-from-rising-natural-gasprices#sthash.tDx5bbKH.dpbs

Natural Gas Bonanza from Hydrates By Donn Dears, Power for USA http://ddusmma.wordpress.com/2013/06/01/natural-gas-bonanza-from-hydrates/

Nuclear Energy and Fears

Ike grasped the potential of 'Atoms for Peace' By David Rossin, Herald Tribune, Sarasota, FL, May 18, 2013 http://www.heraldtribune.com/article/20130518/COLUMNIST/305189998

Despite safety and other concerns, nuclear power saves lives, greenhouse gas emissions By Staff Writers, Washington DC (SPX), May 30, 2013 http://www.nuclearpowerdaily.com/reports/Despite_safety_and_other_concerns_nuclear_power_ saves_lives_greenhouse_gas_emissions_999.html [SEPP Comment: Question the numbers in preventable deaths. James Hansen is one of the authors of the study.]

Alternative, Green ("Clean") Solar and Wind

Desertec abandons Sahara solar power export dream By Staff Writers, EurActiv, May 31, 2013 [H/t GWPF] <u>http://www.euractiv.com/energy/desertec-abandons-sahara-solar-p-news-528151</u> [SEPP Comment: The grand scheme was too grand and too impractical. At least taxpayer funds were not squandered in its execution.]

Google acquires kite-power generator

By Staff Writers, BBC, May 23, 2013 [H/t Number Watch] <u>http://www.bbc.co.uk/news/technology-22636565</u> [SEPP Comment: For twelve years, John Brignell of Number Watch has brought up a major issue regarding these schemes: How much do the tethering cables weigh?] <u>http://www.numberwatch.co.uk/cables.htm</u>

Solar Industry Anxious Over Defective Panels

By Todd Woody, NYT, May 28, 2013 http://www.nytimes.com/2013/05/29/business/energy-environment/solar-powers-dark-side.html

Turbine Plans Unnerve Fans of Condors in California

By Felicity Barringer, NYT, May 25,2013 [H/t Cathrine French] http://www.nytimes.com/2013/05/26/us/turbine-plans-unnerve-fans-of-condors-incalifornia.html?nl=todaysheadlines&emc=edit_th_20130526&_r=1& [SEPP Comment: Could the Grey Lady be recognizing that "green energy" is not environmentally benign?]

Alternative, Green ("Clean") Vehicles

'My scientists made me shrink your car' How government scientists plunder the till in the name of science By Patrick Michaels, Washington Times, May 28, 2013 http://www.washingtontimes.com/news/2013/may/28/my-scientists-made-me-shrink-your-car/

Carbon Schemes

CO2 sequestration process produces supergreen hydrogen fuel, offsets ocean acidification By Anne M Stark for LLNL News Livermore CA (SPX) May 29, 2013 <u>http://www.spacedaily.com/reports/Livermore_scientists_develop_CO2_sequestration_technique_that_produces_supergreen_hydrogen_fuel_offsets_ocean_acidification_999.html</u>

California Dreaming

Democrats Block California's 'Economic Miracle' Editorial, IBD, May 31, 2013 <u>http://news.investors.com/ibd-editorials/053113-658403-california-wont-be-the-next-north-dakota.htm?p=full</u>

Other Scientific News

Radiation on trip to Mars near lifetime limit By Staff Writers, Washington (AFP) May 30, 2013 http://www.marsdaily.com/reports/Radiation on trip to Mars near lifetime_limit_999.html

Peer review falls for recycled manuscripts

By Anthony Watts WUWT, May 29, 2013 http://wattsupwiththat.com/2013/05/29/peer-review-falls-for-recycled-manuscripts/

Plants frozen for centuries come back to life

BELOW THE BOTTOM LINE:

Climate Change Leading to Pollen Plague?

By Wendy Koch, USA Today, May 31, 2013

http://www.wltx.com/news/story.aspx?storyid=238669

[SEPP Comment: The journalist may know about the birds and the bees, but not about the flowers and the trees. More EPA financing of a potential fear campaign.]

Climate Craziness of the Week: James Hansen calls for new political party to combat climate change

By Anthony Watts, WUWT, May 30, 2013 http://wattsupwiththat.com/2013/05/30/climate-craziness-of-the-week-james-hansen-calls-for-

new-political-party-to-combat-climate-change/

Domino makes carbon-free cane-sugar. It's certified.

By Jo Nova, Her Blog, May 26, 2013 http://joannenova.com.au/2013/05/domino-makes-carbon-free-cane-sugar-its-certified/ [SEPP Comment: Next step, carbon-free meat, then carbon-free carbohydrates, and then carbonfree life!]

Friday Funny - The Global Warming Escalator -vs- The Rocket

By Anthony Watts, WUWT, May 31, 2013

http://wattsupwiththat.com/2013/05/31/friday-funny-the-global-warming-escalator-vs-the-rocket/ [SEPP Comment: Playing games with chartmanship, the art of adjusting a chart to give a frightening impression.]

ARTICLES:

1. Exporting Natural Gas Will Stabilize U.S. Prices

Limiting LNG exports will have the unintended effect of limiting supply. By Thomas Tunstall, WSJ, May 29, 2013 http://online.wsj.com/article/SB10001424127887323611604578396441358002584.html?mod=W SJ_Opinion_LEFTTopOpinion

Last month the Obama administration gave final approval for a \$10 billion natural-gas export facility in Quintana Island, Texas. There are another 19 applications for natural-gas export still awaiting government approval, representing billions of dollars of proposed investment.

All of this sounds like a clear win-win. Thanks to hydraulic fracturing and horizontal drilling, the U.S. is now the world's largest producer of natural gas. Natural-gas exports provide a clean and much-needed source of energy to our trading partners and economic growth and jobs in the U.S.

Nevertheless there are opponents who argue that the natural-gas market is historically too volatile and that exports will contribute to higher domestic prices, harming U.S. consumers and crucial industries such as chemical manufacturing.

Natural-gas prices over the past decade have fluctuated wildly—ranging between \$2 and \$12 per thousand cubic feet. But revolutionary changes are at work that will transform the market landscape significantly, contributing to more stable prices in the future.

At present, global natural-gas markets are not integrated. Prices are 75 cents per thousand cubic feet in Saudi Arabia. They are \$3-\$4 in the U.S. and around \$12 in Europe, and as high as \$16-\$17 in Japan. These varying prices are based on short-term shifts in supply and demand, which have created opportunities for arbitrage through exports that will bring prices closer to uniformity.

In order to ship natural gas from the U.S. efficiently, the gas must be supercooled to minus 260 degrees Fahrenheit near an export terminal at a deep-water port and transformed into liquefied natural gas—a transformation that reduces the volume of gas by more than 600 times. An LNG tanker then transports the product to its designated foreign market. When the LNG reaches its destination, it is re-vaporized (or "re-gasified") before being shipped to its final destination by pipeline. Each step in this process has significant costs.

For example, given the current world-wide price differentials, it is profitable to ship LNG to Japan from the U.S. Assuming a U.S. market price of \$4 per thousand cubic feet, there is the additional cost of approximately \$6.40 to liquefy, transport and re-gasify at the delivery point in Japan—more than doubling the price. Even so, a healthy profit of \$6.60 for every thousand cubic

feet is still generated. This lucrative opportunity will not go unnoticed by Australian, East African and even Canadian natural gas suppliers—all of whom have substantial natural gas reserves and are equally or better positioned logistically to ship to Japan than is the U.S.

Prices in Europe have also remained artificially high because of Russia's Gazprom monopoly on natural gas exports. With the threat of LNG imports from the U.S., Ukraine and other countries, prices in Europe are unlikely to remain at current levels. Gazprom's pipeline monopoly is already under siege from domestic producers in Russia, such as Novatek and Rosneft, and Statoil in Norway.

In short, the eventual synchronization of supply and demand will serve to both moderate the demand for exports from the U.S., as well as put downward pressure on natural gas prices. In the same way that crude oil has become a global market, so will natural gas. This will come about as a direct result of new, significant natural gas discoveries and eventual production in Australia, East Africa and probably China—perhaps other countries as well.

These countries will seek to export their surplus, or in the case of China, reduce their need to import. Taken as a whole, these new supplies will serve to keep a cap on U.S. domestic natural-gas prices in what our research at the University of Texas, San Antonio (as well as independent research conducted by James Henderson at the Oxford Institute for Energy Studies) estimates will eventually be in the \$5-\$6 range.

There is always a tendency to attempt to project the future in a linear fashion. However, the development of shale gas reserves on a global basis more likely represents a paradigm shift in the way natural gas markets operate.

If this is the case, simple extrapolations from the recent past will prove to be inadequate forecasting tools. Yet this is essentially the approach being taken by analysts who examine the U.S. natural gas supply market in isolation. Opponents of exports discount how the current depressed U.S. price levels for natural gas already appear to be acting as a deterrent to future exploration and production.

This year, for example, natural gas production in the Eagle Ford Shale area in South Texas has flattened out at roughly 2012 output levels (about two billion cubic feet per day), meaning that there has been essentially no increase in year-over-year production. Gas production in the Barnett and Haynesville shale fields is similarly muted.

Over the long haul, market dynamics—which include the ability to export without undue uncertainty or restriction—will best manage global supply and demand curves for natural gas. Evidence strongly suggests that limiting exports will simply have the unintended effect of also limiting supply.

Mr. Tunstall is research director of the University of Texas at San Antonio Institute for Economic Development. **********

2. The EPA's Project Veto

A court ruling gives the agency vast new permitting power.

Editorial, WSJ, May 29, 2013 http://online.wsj.com/article/SB10001424127887324767004578485121293481346.html?mod=W SJ_Opinion_AboveLEFTTop

The Environmental Protection Agency isn't known for restraint, and now it has a new reason to let it all hang out. A federal court says it can be judge and jury for every development project in the U.S.

That's the impact of a unanimous late April decision by the D.C. Circuit Court of Appeals upholding the EPA's veto of the Arch Coal Spruce Mine in West Virginia. The sweeping but little-publicized decision remakes regulation under the Clean Water Act, turning the Army Corps of Engineers into a bystander and elevating EPA to the nation's water regulator of consequence.

Arch Coal first received a state mining permit for Spruce in 1998. Following one of the most rigorous federal environmental reviews, the Army Corps in 2007 issued its approval permit with EPA signoff. Then the Obama Administration came to town and the EPA ordered the Army Corps to withdraw its permit. When the Army Corps refused, the EPA unilaterally revoked the permit, citing authority under the Clean Water Act.

Arch Coal sued, and a federal judge initially ruled the EPA could not kill a permitted project ex post facto. The appeals court overruled that judgment last month, with Judge Karen Henderson finding that the statute granted the EPA "authority to prohibit/deny/restrict/withdraw a specification at any time" (our italics).

Most notable here is that the Obama EPA has forced this moment. In 40 years the EPA has exercised its veto authority under the Clean Water Act only 12 times, and prior to Spruce it had never revoked a permit.

That's because the Clean Water Act recognizes the Army Corps as the government's water expert and gives it primary authority to approve development permits. EPA was given a consulting role, with the opportunity to press higher environmental standards prior to permitting. Congress envisioned EPA's veto authority as a last and extreme check—to be exercised prior to permit approval.

Congress didn't envision that EPA would stretch its authority to subject every Army Corps permit to a potential post-permit veto, or to shut down industries on ideological grounds. But the Spruce veto isn't about water quality. It's about killing coal as part of the Obama Administration's climate agenda.

The practical effect of the D.C. Circuit decision is that the EPA will now be the main federal permitter for water projects, including those already underway. This is vast new authority because the Army Corps issues some 60,000 permits a year—for public works, energy plants, mining, road-building, residential and commercial development.

A recent study by Berkeley Professor David Sunding estimates that some \$220 billion of annual investment depends on these permits; the fact of an EPA veto will deter new investment. EPA is

already warning that it will use its veto to kill Alaska's proposed Pebble mine—potentially the largest gold and copper project in North America—though its owners haven't applied for a permit.

Arch Coal hasn't said if it will appeal, though we're told by lawyers we respect that the appellate decision will be hard to overturn. That means it's up to Congress to reassert its original intent. Members of both parties have introduced bills that would strip the EPA of its veto authority, and the issue ought to be a litmus test of support for new jobs and faster economic growth

3. Mississippi Clean Coal Slaw

The greens turn on their own green-energy project Editorial, WSJ, May 29, 2013 <u>http://online.wsj.com/article/SB10001424127887324659404578503261521429942.html?mod=W</u> <u>SJ_Opinion_AboveLEFTTop</u> The real green energy policy seems to be none of the above

President Obama wants the U.S. to lead the world in green power, with his energy regulators imposing a moratorium on new coal plants and grinding down the ones still operating. But when the supposedly environmentally friendly replacements do come on line, they face the familiar obstacle of . . . environmentalists.

Consult the saga of the \$4.3 billion green-energy experiment in "clean coal" now being conducted in Kemper County, Mississippi. The first-of-its-kind project is one of the few commercial demonstrations of carbon capture and storage technology, which will convert low-grade lignite coal to gas for power generation and then strip out most of the carbon dioxide that will be sold as a byproduct for unconventional oil drilling.

The project's budget has nearly doubled over original estimates, with the utility Southern Company booking a \$540 million charge against earnings this month and sacking the president of its Mississippi Power subsidiary. This accountability is unusual. In the green-energy business, cost overruns are usually eaten by taxpayers first, and then electric consumers are forced to pay higher prices, but shareholders seldom pay. Managers in government who mess up are rarely held accountable for failure, a la Solyndra.

The latest problems are largely the result of higher labor costs and using more expensive piping. Southern also told the Securities and Exchange Commission that it uncovered financial problems related to the Kemper project that "constitute a material weakness in internal control over financial reporting."

The bigger news is that the environmental movement is showing far less forbearance for trial and error than it usually does for green science projects. Pressure groups led by the Sierra Club have filed a barrage of lawsuits to stop the plant and are also lobbying the state utility regulator, the Mississippi Public Service Commission, to revoke approval. Southern faces a "prudency hearing" this summer to prove that the capital costs it wants to recover from ratepayers are legitimate.

The irony is that the enviros are objecting because they claim the consumer costs are too high. Mississippi Sierra Club president Louie Miller says that "We can't allow struggling families to be charged for a \$4 billion plant that doesn't operate as promised."

That's some switcheroo because the whole point of green-energy activism is to raise carbon energy prices, such as through cap and tax. But having succeeded in banishing traditional coalfired power from the future electric-power mix, the greens are now trying to scuttle any realistic alternative, even the clean coal they claim to support.

Mr. Obama often touts his support for clean coal, and he ran campaign ads in Ohio attacking Mitt Romney for being insufficiently pro-clean coal. In May 2010, then Energy Secretary Steven Chu called the Kemper project "of national importance" in a letter to the Public Service Commission. The sudden Mississippi opposition gives such support the flavor of a political bait and switch.

The Magnolia State hasn't built a power plant of any kind in 30 years and its aging coal fleet is being retired under pressure from Mr. Obama's regulators. The real green energy policy seems to be none of the above

4. U.S. Oil Stockpile Highest in More Than 80 Years

By Jerry DiColo, WSJ, Money Beat, May 30, 2013

http://blogs.wsj.com/moneybeat/2013/05/30/u-s-oil-stockpile-highest-in-more-than-80-years/ [SEPP Comment: Contrary to what the article suggests, according to production statistics from the State of Pennsylvania, the oil production from Marcellus shale is relatively small. It is the natural gas production that is significant.]

For anyone still questioning whether the U.S. shale-oil boom is a historic reshaping of the U.S. energy market, today's Energy Department report on domestic crude-oil stockpiles offers a striking statistic: The U.S. currently has more oil in storage than at any time since 1931.

Commercial crude-oil stockpiles rose to by 3 million to 397.6 million barrels last week, the Energy Department said in its weekly Petroleum Status Report. Oil stockpiles are up 10% since the start of the year and 30% since May 2008.

All that extra supply has kept U.S. oil prices under \$100 a barrel even as prices overseas remain in triple digits. (Nymex crude-oil futures were recently 33 cents higher Thursday, at \$93.46 a barrel, supported by a jump in gasoline demand.)

The source of the new supply: North Dakota, the Eagle Ford shale in South Texas and the Marcellus formation in Pennsylvania, areas where hydraulic-fracturing drilling technology has sent output surging. North Dakota produced 783,000 barrels a day in March, a seven-fold increase from the 115,000 barrels a day the state produced at the end of 2006. Texas oil production has nearly doubled in the past six years, and is at the highest level since 1989.

There's a surprising historic parallel between the high supply levels today and stockpiles in 1931. In both instances, a massive new source of domestic production overwhelmed the U.S. market. According to Daniel Yergin's The Prize, in 1930, aging wildcatter Columbus "Dad" Joiner discovered the East Texas oil field in Rusk County, Texas, which would prove to be the largest oil reservoir in the contiguous U.S. After producing virtually nothing just a few years earlier, by 1931, the field produced 500,000 barrels a day, and sent oil prices in Texas plummeting from over \$1 a barrel to six cents a barrel.

While we're at it, here's a quick primer on what things looked like the last time the U.S. had this much oil on hand:

Herbert Hoover was President of the United States, which according to the Census Bureau had a gross-domestic product of \$76.6 billion, or \$703.6 billion in 1996 dollars. Comparatively, U.S. GDP in 2012 was well over \$15 trillion (in 2012 dollars). Roughly 124 million people lived in the U.S., less than half of today's population. 24 million motor vehicles were registered in the U.S., compared to roughly 250 million in 2010. Oil traded at 65 cents a barrel, about \$10/bbl in today's dollars. The St. Louis Cardinals won the World Series over the Philadelphia A's.

T. Boone Pickens was three years old. Warren Buffett was about to turn one.