

The Week That Was: 2012-07-21 (July 21, 2012)
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The Science and Environmental Policy Project

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Quote of the Week:

"In their statement Sunday, Science editors said, "The scientific process is a naturally self-correcting one, as scientists attempt to replicate published results." WSJ July 9, 2012

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Number of the Week: 0.007%

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On the Road Again: At the end of the month Fred Singer will be traveling and speaking at various locations. Talks include:

July 27, 11 am Seminar: Brookhaven National Lab, Patchogue, Long Island, New York

Doctors for Disaster Preparedness, Long Island Marriot, 101 James Doolittle Blvd, Uniondale, NY

<http://www.ddponline.org/2012/03/08/2012-ddp-meeting-july-27-29/>

July 29, 9:00 am, Registration may be required

Heartland Institute

July 30, 2012, 11:30 am - 1:30 pm One South Wacker Drive, #2740, Chicago, IL 60606

Registration required, \$10, Contact Tonya Houston at thouston@heartland.org or 312/377-4000

The 15th Annual International Mars Society Convention

August 3 to 5, 2012 Pasadena Convention Center, CA

<http://www.marssociety.org/convention2012>

Morning of Aug 4, Registration may be required

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THIS WEEK:

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

Challenging the Orthodoxy: Some of the biggest news this week comes from a number of new papers that challenge the procedures and findings of the UN Intergovernmental Panel on Climate Change (IPCC). These challenges include the data and data manipulation used, and the divergence between model projections and observations.

Procedures: Meteorologists Joe D'Aleo and Anthony Watts, and others, have long challenged procedures used to correct errors in the 20th century data record including a statistical procedure called homogenization. These apply to the data reported by the Global Historical Climatology Network (GHCN) and are used by the three entities that report surface temperature trends, NOAA, NASA-GISS, and the Climatic Research Unit (CRU). Researchers E. Steirou and D. Koutsoyiannis presented to the European Geosciences Union that they found in 67% of the stations examined the procedures used introduced a greater warming trend (or lessened a cooling trend). Using random chance, one would expect the percentage to be about 50%. Upon examination of the series, the raw data indicated an increase in global temperatures of 0.42 deg C while the adjusted data indicated an increase of 0.76 deg C. If this new research is replicated, it seriously affects the findings.

Steve McIntyre pointed out that the statistical procedures used by the GHCN were never discussed in a journal focused on statistics. As with the hockey-stick, which had statistical problems, climate scientists should seek independent review of their statistical procedures by those knowledgeable in statistics, and not colleagues in climate science. McIntyre, McKittrick, and later Wegman, who demonstrated the bias introduced by the procedure used in the hockey-stick were bitterly attacked by the climate science community for doing so. It remains to be seen how this insular community will respond to this new research. The research demonstrates the hollowness of claims that only climate scientists are fit to analyze climate data. Please see links under Challenging the Orthodoxy.

Models: Roger Pielke Sr, and others, posted a number of new papers that show a significant divergence between projections from models and actual observation, including for temperatures, sea surface temperatures, precipitation, and water vapor. These divergences illustrate the foolhardiness of using climate models to predict future weather (climate) conditions on any scale, be it local, regional, or global.

One of the new papers focuses on how human alteration of the land surface can raise recorded minimum temperatures. This is particularly important, because the main influence of increased greenhouse gases, such as atmospheric carbon dioxide, is not an increase on the daytime highs but an increase in the nighttime lows. This was shown by John Christy, et al. for the San Joaquin valley in California which underwent urbanization and irrigation (increases in the primary greenhouse gas, water vapor), and, as Ross McKittrick has pointed out, these socio-economic factors are ignored by the IPCC. Please see links under Challenging the Orthodoxy and Models v. Observations.

It should be noted that these new papers, as well as others such as the one showing a 2,000 year general cooling trend with significant variation, do not disprove the hypothesis that human emissions of CO2 are causing global warming. But, they show that climate science, as practiced by the IPCC, is inadequate and that the models used fail to account for major natural influences, and have no predictive skill.

Climategate: The Norfolk police responsible for investigating the breach of security that resulted in the leak of the University of East Anglia (UEA) Climategate emails in the fall of 2009 announced they are no longer pursuing the case. The statute of limitations (time in which charges can be filed) is running out and the police have no positive leads. The police said the breach was the result of a hacker rather than a leaker at the University. No doubt many who closely followed the case are not quite so certain the conclusion is correct. Steve McIntyre, who has requested the remaining emails under the Freedom of Information Act, wondered what will happen to the emails now the computer has been returned to UEA.

Drought: The hot, dry weather in the Midwest has resulted in a dramatic decline in the projected corn crop (maize). Since the US is a major exporter of food crops, the drought has raised the possibility of significant price increases worldwide. Further, from 23 to 30% of the corn is used in making the biofuel ethanol (number depends upon definitions used to classify the use and how much goes to other uses after the ethanol is made). Consequently, the use of agriculture land and crops to make biofuels is being severely criticized. The US tax subsidies in the form of a tax credit expired at the end of 2011, which had an estimated cost of \$6.9 Billion per year. But the

Federal mandates of at least 10% ethanol in gasoline remain. If food prices increase significantly, the biofuel industry will come under significant criticism. (The US Navy has an extremely expensive biofuel program that is based on chicken fat and algae, not on corn or other crops.) Please see links under Alternative Energy – Other.

EIA Levelized Costs: In June, the Energy Information Administration (EIA) published its annual Energy Outlook, which did not include its estimates of levelized costs of generating electricity. These estimates are probably the best estimates generally available to the public giving cost comparisons of generating electricity by competing methods. These estimates include capital costs, operating and maintenance costs (including fuel), and transmission investment. The costs are calculated over an expected project life of 30 years.

On July 12, the EIA released its latest estimates using 2017 as the projected base year for comparison. This allows for reasonable lead times to plan and construct generating facilities. Some methods, such as nuclear, need considerably longer lead times. The estimated costs vary significantly by region and must be so adjusted. Gas-fired plants do not perform well unless there is a pipeline delivering the gas.

In the latest estimates, the EIA tried to include the increase in costs due to new EPA regulations such as Mercury and Air toxics Standards and the Cross-State Air Pollution Rule. It also included a small annual adjustment arising from EPA efforts to limit carbon dioxide emissions. However, it did not include the impact of the EPA attempting to shut-off any new construction of coal-fired power plants. In addition the Gulf of Mexico production data was revised downward to reflect the regulatory efforts of the Department of Interior.

Very interestingly, the plant types were divided into two categories, dispatchable, and non-dispatchable. If the technology is reliable, and plant operators can predict how much energy they can produce on a given day (at least 24 hours in advance), it is considered dispatchable. If the technology relies on the whims of nature, and the operator cannot predict they can produce on a given day (at least 24 hours in advance), it is non-dispatchable. Solar and wind fall into the latter category. Also, off-shore wind was dropped off the estimates as a feasible technology. No doubt, some groups will be angered by this.

Advanced combined-cycle natural gas is estimated to be, by far, the lowest cost means of generating electricity for ordinary purposes with conventional combined cycle slightly higher. The costs of conventional coal, the next major fuel, are estimated to be about 50% greater.

The estimates for combined-cycle natural gas did not fall significantly from the 2009 estimates even though the price of natural gas is now comparatively low. The reason is that EIA estimates the price of natural gas will increase to about \$4.5 per million BTUs by 2017, up from about \$3 per million BTUs paid by utilities today. Clearly, the EIA expects a market shake-out resulting in less drilling and new production because the prices received today are lower than the costs of production. Please see link under Energy Issues – US.

A New Energy World? Commentator Walter Russell Mead has a series of provocative essays on what he terms the energy revolution – extraction of oil and gas from shale and from deepwater sources. Some may consider that he is too optimistic about the potential from these sources.

Certainly, the practical history is not sufficiently long to make any long term predictions. Further, he may be too optimistic about the willingness of governments to permit the development of these resources. The recent actions of the US EPA and the Department of Interior are not encouraging and the outright banning of hydraulic fracturing in France is discouraging. Nonetheless, his projections of the geo-political consequences for the US and for the world are interesting.

Quote of the Week: One would hope the editors of *Science* would heed their words rather than reject qualified rebuttals to articles they have published on topics relating to climate. It is doubtful *Science* would have published any of the articles linked today that question IPCC data and procedures. (The quote was in regard to *Science* publishing an article rebutting a prior article stating that arsenic can replace phosphorus as one of the six elements needed for life.)

Number of the Week: 0.007%. The summertime warming chorus is increasing its volume. A chunk of ice equal in area to twice that of Manhattan broke off from a Greenland ice sheet. This immediately became an important symbol of global warming and rising sea levels – the ice sheet will disappear and coastal communities will drown. According to reports, the area of the chunk is estimated to be 46 square miles. According to Wikipedia, the area of the Greenland ice sheet is estimated to be 660,235 square miles. Thus, the chunk is 0.007% of the area of the Greenland ice sheet. Since the Greenland ice sheet has a variable thickness up to over 10,000 feet, a calculation of the percentage of mass lost would be trivial. See links under Communicating Better to the Public – Exaggerate or be Vague?

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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. How Insider Politics Saved California's Train to Nowhere

The high-speed rail line may never be built, but it will save a few Democratic seats.

By Allysia Finley, WSJ, Jul 13, 2012

http://online.wsj.com/article/SB10001424052702304373804577521432823203066.html?mod=IT_P_opinion_0

2. Trade Dries Up Along With Mississippi

By Cameron McWhirter, WSJ, Jul 13, 2012

http://online.wsj.com/article/SB10001424052702303292204577519294147139420.html?mod=IT_P_pageone_1

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NEWS YOU CAN USE:

Climategate Continued

Climategate police inquiry closes

By Andrew Montford, Bishop Hill, Jul 18, 2012

<http://www.bishop-hill.net/blog/2012/7/18/climategate-police-inquiry-closes.html>

Scotland Yard Interviewed

By Steve McIntyre, Climate Audit, Jul 19, 2012

<http://climateaudit.org/2012/07/19/scotland-yard-interviewed/>

Police closes UEA investigation

By Staff Writers, Norfolk Constabulary, Jul 18, 2012 [H/t Climate Audit]

<http://www.norfolk.police.uk/newsevents/newsstories/2012/july/ueadatabreachinvestigation.aspx>

Suppressing Scientific Inquiry

JGR Paper Submitted: Modeling Ocean Warming Since 1955

By Roy Spencer, Global Warming, Jul 18, 2012

<http://www.drroyspencer.com/2012/07/jgr-paper-submitted-modeling-ocean-warming-since-1955/>

[SEPP Comment: Announcing a new paper submitted for review. Apparently Spencer's name strikes fear in the hearts of editors of the Geophysical Research Letters.]

“AGU Journals Should Ask Authors to Publish Results

By Steve McIntyre, Climate Audit, Jul 14, 2012

<http://climateaudit.org/2012/07/14/agu-journals-should-ask-authors-to-publish-results/>

[SEPP Comment: Editors of American Geophysical Union journals should follow their own rules for publication, but do not.]

Challenging the Orthodoxy

Smaller 20th Century Warming: Hotter Medieval Warm Period

By David Whitehouse, The Observatory, Jul 17, 2012

<http://thegwpc.org/the-observatory/6195-smaller-20th-century-warming-hotter-medieval-warm-period.html>

[SEPP Comment: Statistical overestimate of recent temperature trends, empirical research shows underestimation of Medieval temperatures.]

Station Homogenization as a Statistical Procedure

By Steve McIntyre, Climate Audit, Jul 17, 2012

<http://climateaudit.org/2012/07/17/station-homogenization-as-a-statistical-procedure/>

[SEPP Comment: McIntyre discussion on the statistical processes leading to overestimation of 20th century temperature trends.]

New paper blames about half of global warming on weather station data homogenization

By Anthony Watts, WUWT, Jul 17, 2012

<http://wattsupwiththat.com/2012/07/17/new-paper-blames-about-half-of-global-warming-on-weather-station-data-homgenization/>

Static Climate Models In A Virtually Unknown Dynamic Atmosphere

By Tim Ball, A Different Perspective, Jul 13, 2012

<http://drtimball.com/2012/static-climate-models-in-a-virtually-unknown-dynamic-atmosphere/>

[SEPP Comment: A step-by-step explanation into what is not known yet claimed to be definitive.]

CMIP5 Climate Model Runs – A Scientifically Flawed Approach

By Roger Pielke, Sr, Climate Science, Jul 20, 2012

<http://pielkeclimatesci.wordpress.com/2012/07/20/cmip5-climate-model-runs-a-scientifically-flawed-approach/>

[SEPP Comment: The predictive skill of the new set of models used in the upcoming IPCC report may be no better than the old models – no skill.]

BOMs new data set, ACORN, so bad it should be withdrawn (954 min temps larger than the max!)

By Jo Nova, Her Blog, Jul 16, 2012

<http://joannenova.com.au/2012/07/boms-new-data-set-acorn-so-bad-it-should-be-withdrawn-954-min-temps-larger-than-the-max/#more-22725>

[SEPP Comment: Errors in official Australian historic temperatures.]

Climate change readings 'inaccurate'

By Trevor Quinn, Auckland Now, Jul 16, 2012 [H/t WUWT]

<http://www.stuff.co.nz/auckland/local-news/7287585/Climate-change-readings-inaccurate>

SEPP Comment: Questioning the official New Zealand historic temperatures.]

Twenty Times More Likely (Not): The Science

By John Nielsen-Gammon, Houston Chronicle, Jul 20, 2012 [H/t Climate Etc.]

<http://blog.chron.com/climateabyss/2012/07/twenty-times-more-likely-not-the-science/>

[SEPP Comment: Debunking NOAA's press release claiming established probabilities of events such as last year's Texas heat wave on global warming.]

Winning the War with Global Warming Alarmists

By Walter Cunningham, Space News, Jul 10, 2012 [H/t Joe Bast]

<http://www.spacenews.com/commentaries/120709-winning-war-global-warming-alarmists.html>

Tree rings suggest Roman world was warmer than thought

By Fred Pearce, New Scientist, ICECAP, Jul 20, 2012

http://icecap.us/index.php/go/political-climate/tree_rings_suggest_roman_world_was_warmer_than_thought/

[SEPP Comment: The following response by Rupert Wyndham to this inadequate description by Pierce of the research is worth the read.]

UK Temperature Trends

By Paul Homewood, Not a Lot of People Know That, Jul 19, 2012 [H/t GWPF]

<http://thegwgf.org/the-climate-record/6215-uk-temperature-trends.html>

[SEPP Comment: Met Office using Mr. Mann's clippers to snip early data.]

Defending the Orthodoxy

Climate scientists want 'serious' State Dept. review of oil sands emissions

By Ben Geman, The Hill, Jul 17, 2012

<http://thehill.com/blogs/e2-wire/e2-wire/238389-climate-scientists-want-serious-state-dept-review-of-oil-sands-emissions>

Fed agency: June fourth hottest on record worldwide

By Ben Geman, The Hill, Jul 16, 2012

<http://thehill.com/blogs/e2-wire/e2-wire/238075-fed-agency-says-june-was-4th-hottest-on-record-worldwide>

[SEPP Comment: The statement is misleading. Measurements were hardly global in the early part of the record.]

Questioning the Orthodoxy

IPCC Admits Its Past Reports Were Junk

By Joseph L. Bast, American Thinker, Jul 16, 2012

http://www.americanthinker.com/2012/07/ipcc_admits_its_past_reports_were_junk.html

[SEPP Comment: Note that this was written based on the initial report of the InterAcademy Council (IAC), not the final report which was heavily sanitized.]

The Mother of All Hoaxes

By Alan Caruba, Warning Signs, Jul 17, 2012

<http://factsnotfantasy.blogspot.com/2012/07/mother-of-all-hoaxes.html>

That Scientific Global Warming Consensus...Not!

By Larry Bell, Forbes, Jul 17, 2012

<http://www.forbes.com/sites/larrybell/2012/07/17/that-scientific-global-warming-consensus-not/>

About that overwhelming 97-98% number of scientists that say there is a climate consensus...

By Antony Watts, WUWT, Jul 18, 2012

<http://wattsupwiththat.com/2012/07/18/about-that-overwhelming-98-number-of-scientists-consensus/>

[SEPP Comment: A follow-up with a graph on the link above. The visual impression is striking.]

Madrid 1995 And The Quest For The Mirror In The Sky, Part II

By Bernie Lewin, Enthusiasm, Scepticism and Science, Jul 1, 2012

<http://enthusiasmscepticismscience.wordpress.com/2012/07/01/madrid-1995-and-the-quest-for-the-mirror-in-the-sky/>

[SEPP Comment: IPCC searching for the human fingerprint to global warming.]

Climate change caused by seawater, claim scientists

By Staff Writers, The Scotsman, Jul 19, 2012 [H/t GWPF]

<http://www.scotsman.com/news/environment/climate-change-caused-by-seawater-claim-scientists-1-2419961>

Questioning European Green

The law of unintended consequences

By Martin Livermore, Scientific Alliance, Jul 20, 2012

<http://www.scientific-alliance.org/scientific-alliance-newsletter/law-unintended-consequences>

[SEPP Comment: Some well-intended schemes become disasters. The US biofuel tax credit subsidy costing about \$6.9 Billion per year ended in December 2011, but the Congressional mandate continues.]

Doubts Rising over German Switch to Renewables

By Staff Writers, Spiegel Online, Jul 17, 2012 [H/t GWPF]

<http://www.spiegel.de/international/germany/doubts-increasing-about-germany-s-switch-to-renewable-energy-a-844844.html>

Sand, salt, volcanoes add to EU clean air challenge

By Stephanie Ebbs, World Environment News, Jul 16, 2012 [H/t Hugh Sharman]

<http://planetark.org/wen/65912>

[SEPP Comment: Nature polluting.]

Average Chinese person's carbon footprint now equals European's

The per capita emissions of the world's largest national emitter is almost on a par with the European average, new figures show

Duncan Clark, Guardian, UK, Jul 18, 2012 [H/t SPPI]

<http://www.guardian.co.uk/environment/2012/jul/18/china-average-europe-carbon-footprint?CMP=EMCNEWEML1355>

Questioning Green Elsewhere

Which Is Better for the Environment: Transit or Roads?

By Randal O'Toole, NCPA, July, 2012 [H/t John Olson]

<http://www.ncpa.org/pdfs/ib111.pdf>

[SEPP Comment: Questioning benefits of public transit.]

Polar Bears And Inuit Victims of Environmental Hysteria and Inadequate Science, Not Global Warming.

By Tim Ball, A Different Perspective, Jul 18, 2012

<http://drtimball.com/2012/polar-bears-and-inuit-victims-of-environmental-hysteria-and-inadequate-science-not-global-warming/>

Australia's Green Ideological Disaster

By Sam Fielding, American Thinker, Jul 19, 2012

http://www.americanthinker.com/2012/07/australias_green_ideological_disaster.html

Expanding the Orthodoxy

U.S. ranks low in energy efficiency

By Staff Writers, Washington (UPI), Jul 13, 2012

http://www.energy-daily.com/reports/US_ranks_low_in_energy_efficiency_999.html

[SEPP Comment: The easiest way to improve energy efficiency is to put Americans in European sized homes, with accompanying population densities, and no air conditioning, as some environmentalists demand.]

Seeking a Common Ground

Rob W in the Courier

By Andrew Montford, Bishop Hill, Jul 20, 2012

<http://bishophill.squarespace.com/blog/2012/7/20/rob-w-in-the-courier.html>

[SEPP Comment: Montford states why the new paper on temperatures in Northern Europe for the past since the Roman Warm Period does not does not disprove the claim of human caused global warming.]

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

Democrat Markey says massive ice break makes case for climate change action

By Ben Geman, The Hill, Jul 18, 2012

<http://thehill.com/blogs/e2-wire/e2-wire/238619-markey-rises-says-massive-ice-break-makes-case-for-climate-action>

Crack in the Earth: Greenland glacier loses ice island twice the size of Manhattan

By Anthony Watts, WUWT, Jul 17, 2012

<http://wattsupwiththat.com/2012/07/17/crack-in-the-earth-greenland-glacier-loses-ice-island-twice-the-size-of-manhattan/>

Greenland glacier loses large mass of ice

By Juliet Eilperin and Jason Samenow, Washington Post, Jul 17, 2012

http://www.washingtonpost.com/national/health-science/greenland-glacier-loses-large-mass-of-ice/2012/07/17/gJQAf5CQsW_story.html

What else did the '97% of scientists' say?

By Barry Woods, WUWT, Jul 18, 2012

<http://wattsupwiththat.com/2012/07/18/what-else-did-the-97-of-scientists-say/>

[SEPP Comment: A rather long explanation of a sensationalist poll that was essentially meaningless.]

Communicating Better to the Public – Make things up.

A World Without Coral Reefs

By Roger Bradbury, NYT, Jul 13, 2012

http://www.nytimes.com/2012/07/14/opinion/a-world-without-coral-reefs.html?_r=1&nl=todaysheadlines&emc=edit_th_20120714

[SEPP Comment: The research on ocean acidification projects a 2 deg C rise in ocean temperature by 2050 to 2100. Yet the atmosphere has stopped warming and there has been little or no warming of the oceans in the tropics.]

The challenges facing the vulnerable Antarctic

By Staff Writers, Melbourne, Australia (SPX) Jul 18, 2012

http://www.terraily.com/reports/The_challenges_facing_the_vulnerable_Antarctic_999.html

[SEPP Comment: The “vulnerable” Antarctic. Try living there without modern equipment!]

The Endless Summer

By Mark Bittman, NYT, Jul 18, 2012

http://opinionator.blogs.nytimes.com/2012/07/18/the-endless-summer/?nl=todaysheadlines&emc=edit_th_20120719

[SEPP Comment: From the Times magazine food columnist.]

Texas Tall Tales and Global Warming

By Cliff Mass, Guest Post, WUWT, Jul 15, 2012

<http://wattsupwiththat.com/2012/07/15/texas-tall-tales-and-global-warming/>

[SEPP Comment: The conclusion demonstrates that the author is not a global warming skeptic.]

Models v. Observations

Guest Post “Modeled European Precipitation Change Smaller Than Observed”

By Ronald van Haren, Geert Jan van Oldenborgh, Geert Lenderink and Wilco Hazeleger, Royal Dutch Meteorological Institute (KNMI), Pielke Climate Science, Jul 17, 2012

<http://pielkeclimatesci.wordpress.com/2012/07/17/guest-post-modeled-european-precipitation-change-smaller-than-observed-by-ronald-van-haren-geert-jan-van-oldenborgh-geert-lenderink-andwilco-hazeleger/>

New Paper “SST And Circulation Trend Biases Cause An Underestimation Of European Precipitation Trends” By Van Haren Et Al 2012

By Roger Pielke Sr, Climate Science, Jul 16, 2012

<http://pielkeclimatesci.wordpress.com/2012/07/16/new-paper-sst-and-circulation-trend-biases-cause-an-underestimation-of-european-precipitation-trends-by-van-haren-et-al-2012/>

New Paper “Weather And Climate Analyses Using Improved Global Water Vapor Observations” By Vonder Haar Et Al 2012

By Roger Pielke Sr, Climate Science, Jul 16, 2012

<http://pielkeclimatesci.wordpress.com/2012/07/16/new-paper-weather-and-climate-analyses-using-improved-global-water-vapor-observations-by-vonder-haar-et-al-2012/>

New Paper “Parameterization Of Instantaneous Global Horizontal Irradiance At The Surface. Part II: Cloudy-Sky Component” By Sun Et Al 2012

By Roger Pielke Sr, Climate Science, Jul 29, 2012

<http://pielkeclimatesci.wordpress.com/2012/07/19/new-paper-parameterization-of-instantaneous-global-horizontal-irradiance-at-the-surface-part-ii-cloudy-sky-component-by-sun-et-al-2012/>

These errors are clearly larger than the few W m⁻² that are due to human climate forcings, and even large relative to the natural variations of radiative fluxes. This is yet another example of why the IPCC models are not robust tools to predict changes in global, regional and local climate statistics.

Measurement Issues

Further Confirmation Of The Misinterpretation Of Minimum Land Surface Temperature Trends By NCDC, CRU, GISS And BEST As Part Of A Diagnostic Of Global Warming

By Roger Pielke Sr, Climate Science, Jul 18, 2012

<http://pielkeclimatesci.wordpress.com/2012/07/18/further-confirmation-of-the-misinterpretation-of-minimum-land-surface-temperature-trends-by-ncdc-cru-giss-and-best-as-part-of-a-diagnostic-of-global-warming/>

In other words, the magnitude of multi-decadal land temperature trends, as a diagnostic of global warming, as reported by NCDC, GISS, CRU and BEST for the last several decades is significantly overstated. These organizations are miscommunicating the complete explanation for observed surface temperature trends over land.

Fahrenheit vs. Celsius

By Roger Pielke Jr, His Blog, Jul 16, 2012

<http://rogerpielkejr.blogspot.com/2012/07/fahrenheit-vs-celsius.html>

[SEPP Comment: Amusing look at three temperature scales from a human prospective.]

Changing Weather

US suffers worst drought in 56 years

By Staff Writers, Washington (AFP), July 16, 2012

http://www.terraily.com/reports/US_suffers_worst_drought_in_56_years_999.html

Tornado Season Statistics Update – ‘remarkably quiet’

By Paul Homewood, WUWT, Jul 16, 2012

<http://wattsupwiththat.com/2012/07/16/tornado-season-statistics-update-remarkably-quiet/>

Blowing smoke over global warming

Hot snapshots screen out the chill

Editorial, Washington Times, Jul 16, 2012

<http://www.washingtontimes.com/news/2012/jul/16/blowing-smoke-over-global-warming/>

Cold Winter and Summer Have Some Ready to Leave Alaska

After record-breaking winter, cool summer is a bummer

By Janessa Webb, KTVA Alaska, Jul 20, 2012 [H/t Gordon Fulks, Steven Goddard]

<http://www.ktva.com/home/outbound-xml-feeds/Cold-Winter-and-Summer-Have-Some-Ready-to-Leave-Alaska-162668566.html>

Changing Sea Ice

New Paper Challenges Climate Models That Predict Ice-Free Conditions In The Arctic

By Hockey Shtick, GWPF, Jul 8, 2012

<http://thegwgf.org/science-news/6197-new-paper-challenges-climate-models-that-predict-ice-free-conditions-in-the-arctic.html>

Cap-and-Trade and Carbon Taxes

Carbon prices fall to new record low -- \$4 per ton (Australians will pay \$23 – that’s 500% more!)

By Jo Nova, Her Blog, Jul 17, 2012

<http://joannenova.com.au/2012/07/carbon-prices-fall-to-new-record-low-4-per-ton-australians-will-pay-23-thats-500-more/>

GOP leaders slam the door on carbon taxes

By Ben Geman, The Hill, Jul 16, 2012

<http://thehill.com/blogs/e2-wire/e2-wire/238111-boehner-mcconnell-slam-door-on-carbon-taxes>

Energy Issues – Non-US

New Gulf pipeline to bypass ‘world’s most important oil chokepoint’

By Yadullah Hussain, Financial Post, Jul 13, 2012

http://business.financialpost.com/2012/07/13/new-gulf-pipeline-to-bypass-worlds-most-important-oil-chokepoint/?_lsa=6c591dab

Arctic oil: Putin's last chance

By Matthew Hulbert, European Energy Review, Jul 19, 2012

http://www.europeanenergyreview.eu/site/pagina.php?email=ken@haapala.com&id_mailing=300&toegang=94f6d7e04a4d452035300f18b984988c&id=3813

Canada's Arctic push: Left out in the cold?

By Yadullah Hussain, Financial Post, Jul 20, 2012

http://business.financialpost.com/2012/07/20/left-out-in-the-cold/?_lsa=6c591dab

IEA Misses the Point on Renewables

By Andrés Cala, Energy Tribune, Jul 18, 2012

<http://www.energytribune.com/articles.cfm/11207/IEA-Misses-the-Point-on-Renewables>

[SEPP Comment: Policy on Renewables should be based on economics not an ideological imperative. In some countries renewables may make economic sense, especially hydro.]

Clinton urges Mekong nations to avoid US dam mistakes

By Staff Writers, Phnom Penh (AFP), July 13, 2012

http://www.terraily.com/reports/Clinton_urges_Mekong_nations_to_avoid_US_dam_mistakes_999.html

[SEPP Comment: Keep them electricity free. See link immediately above.]

Italy Seeks \$18 Billion Investment Ditching Offshore Ban: Energy

By Ladka Bauerova and Chiara Vasarri, Bloomberg, Jul 19, 2012 [H/t GWPF]

<http://www.businessweek.com/news/2012-07-18/italy-seeks-18-billion-investment-ditching-offshore-ban-energy>

Energy Issues -- US

Levelized Cost of New Generation Resources in the Annual Energy Outlook 2012

By Staff Writers, EIA, Jul 12, 2012

http://www.eia.gov/forecasts/aeo/electricity_generation.cfm

Energy Revolution 3: The New American Century

By Walter Russell Mead, American Interest, Jul 18, 2012

<http://blogs.the-american-interest.com/wrm/2012/07/18/energy-revolution-3-the-new-american-century/>

Energy 'Rebounds' and 'Backfires': An Introduction and Literature Overview

By Robert Michaels, Master Resource, Jul 17, 2012

<http://www.masterresource.org/2012/07/energy-rebounds-backfires-overview/>

Oil and Natural Gas – the Future or the Past?

Enough Oil for Independence?

By Donn Dears, Power For USA, Jul 20, 2012

<http://dddusmma.wordpress.com/2012/07/20/enough-oil-for-independence/>

Liquids can't prop up natural gas companies' profits for long: S&P

By Yadullah Hussain, Financial Post, Jul 10, 2012

<http://business.financialpost.com/2012/07/10/liquids-cant-prop-up-natural-gas-companies-profits-for-long-sp/>

Washington looks to North Dakota for economic, energy blueprint

By Rob Bluey, Hot Air, Jul 14, 2012

<http://hotair.com/archives/2012/07/14/washington-looks-to-north-dakota-for-economic-energy-blueprint/>

Experts: arctic drilling for security

By Yue Wang, Medill News Service, Washington (UPI), Jul 16, 2012

http://www.energy-daily.com/reports/Experts_arctic_drilling_for_security_999.html

The ecology of natural gas

By Staff Writers, Washington DC, (SPX) Jul 17, 2012

http://www.energy-daily.com/reports/The_ecology_of_natural_gas_999.html

[SEPP Comment: Starting the base to attack natural gas use.]

Thanks in Good Measure to Fracking U.S. Carbon Dioxide Emissions Down 9 Percent From 2007 Peak

By Ronald Bailey, Reason, Jul 20, 2012

<http://reason.com/blog/2012/07/20/thanks-in-good-measure-to-fracking-us-ca>

[SEPP Comment: A poor economy and high gasoline prices also helped.]

Feeding China's Energy Appetite, Naturally

By Kevin Jianjun Tu and David Livingston, Energy Tribune, Jul 17, 2012

<http://www.energytribune.com/articles.cfm/11206/Feeding-Chinas-Energy-Appetite-Naturally>

[SEPP Comment: Explaining why a Chinese oil company may buy natural gas assets of the US Chesapeake Energy in spite of low natural gas prices in the US.]

Washington's Control of Oil and Gas

Shell's Arctic drilling plan could go down to the wire

By Ben Geman, The Hill, Jul 17, 2012

<http://thehill.com/blogs/e2-wire/e2-wire/238463-shells-arctic-drilling-plan-may-go-down-to-the-wire>

[SEPP Comment: Washington's performance is called slow-rolling.]

Obama Continues to Despise American Energy

By Eileen F. Toplansky, American Thinker, Jul 19, 2012

http://www.americanthinker.com/2012/07/obama_continues_to_despise_american_energy.html

Return of King Coal?

China's downturn affecting coal

By Staff Writers, Beijing (UPI) Jul 19, 2012

http://www.energy-daily.com/reports/Chinas_downturn_affecting_coal_999.html

[SEPP Comment: According to the estimate China consumes 300 million tons of coal a month. (That was the EIA estimate in 2010.) About 30% more than the US.]

India to boost coal imports

By Staff Writers, New Delhi (UPI), Jul 17, 2012

http://www.energy-daily.com/reports/India_to_boost_coal_imports_999.html

Nuclear Energy and Fears

Picture record of tsunami arrival

By Staff Writers, WNN, Jul 11, 2012

http://www.world-nuclear-news.org/RS_Picture_record_of_tsunami_arrival_1106121.html

Alternative, Green (“Clean”) Solar and Wind

Pumping Up Storage

By Donn Dears, Power For USA, Jul 17, 2012

<http://dddusmma.wordpress.com/2012/07/17/pumping-up-storage/>

[SEPP Comment: A discussion on the need to store electricity due to expansion of solar and wind.]

Italy’s Solar Bust: Just Another Data Point

By Carlo Stagnaro, Master Resource, Jul 20, 2012

<http://www.masterresource.org/2012/07/italy-solar-bust/#more-20847>

[SEPP Comment: Italy’s policies created a disaster – high direct subsidies, mandates creating unlimited demand, and implicit subsidies of other forms of generation having to provide back-up. Same theme, different country.]

Bulgaria's renewables market goes from boom to bust

By Mariyana Yaneva, European Energy Review, Jul 19, 2012

<http://www.europeanenergyreview.eu/site/pagina.php?id=3814>

[SEPP Comment: Same theme, different country.]

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

Politicians cause another food crisis

By Andrew Montford, Bishop Hill, Jul 20, 2012

<http://www.bishop-hill.net/blog/2012/7/20/politicians-cause-another-food-crisis.html>

A soaring food price fear

By Karen Maley, Business Spectator, Jul 20, 2012 [H/t GWPF]

<http://www.businessspectator.com.au/bs.nsf/Article/commodities-prices-corn-soybeans-global-growth-pd20120720-WCTTZ?OpenDocument>

Paraguayan Food Vs Fuel

By Natalia Alonso, Oxfam, Jul 17, 2012

<http://thegwgf.org/energy-news/6191-paraguayan-food-vs-fuel.html>

Navy pushes forward with 'Green Fleet' despite GOP resistance

By Zack Colman, The Hill, Jul 19, 2012

<http://thehill.com/blogs/e2-wire/e2-wire/239023-navy-pushes-forward-with-qgreen-fleetq-despite-gop-resistance>

Geothermal project will cut university carbon footprint in half

By Staff Writers, Muncie IN (SPX), Jul 16, 2012

http://www.energy-daily.com/reports/Geothermal_project_will_cut_university_carbon_footprint_in_half_999.html

[SEPP Comment: The press releases do not discuss the capital costs. According to Clean Technica the capital cost of the project is \$50 million. The internal rate of return is hardly spectacular. <http://cleantechnica.com/2012/03/26/ball-state-dedicates-largest-closed-loop-geothermal-system-in-america/>]

Platinum is wrong stuff for fuel cells

By Staff Writers, Cleveland OH (SPX), Jul 17, 2012

[http://www.spacemart.com/reports/Platinum is wrong stuff for fuel cells 999.html](http://www.spacemart.com/reports/Platinum_is_wrong_stuff_for_fuel_cells_999.html)

Alternative, Green (“Clean”) Vehicles

RNC hits Obama on loan to automaker

By Ben Geman, The Hill, Jul 19, 2012

<http://thehill.com/blogs/e2-wire/e2-wire/238985-rnc-hits-obama-on-fisker-automotive-loan>

California Dreaming

Jerry Brown signs rail bill, avoids Central Valley opponents

By David Siders, Sacramento Bee, Jul 19, 2012

<http://www.sacbee.com/2012/07/19/4641314/jerry-brown-signs-rail-bill-avoids.html>

[SEPP Comment: The two urban areas that supposedly benefit the most had to be bribed?]

California Air Resources Board cap and trade program circumvents state open meeting laws with a Moonbeam assist

By Anthony Watts, WUWT, Jul 14, 2012

<http://wattsupwiththat.com/2012/07/14/california-air-resources-board-cap-and-trade-program-circumvents-state-open-meeting-laws-with-a-moonbeam-assist/>

[SEPP Comment: A government agency forming a private corporation to avoid public disclosure when imposing hidden taxes. Long but interesting.]

Review of Recent Scientific Articles by NIPCC

For a full list of articles see www.NIPCCreport.org

Acclimatization of Corals to Thermal Stress

Reference: Bellantuono, A.J., Hoegh-Guldberg, O. and Rodriguez-Lanetty, M. 2012. Resistance to thermal stress in corals without changes in symbiont composition. *Proceedings of the Royal Society B* 279: 1100-1107.

<http://www.nipccreport.org/articles/2012/jul/17jul2012a4.html>

A Data-Rich 1200-Year Temperature History of the Northern Hemisphere

Reference: Ljungqvist, F.C., Krusic, P.J., Brattstrom, G. and Sundqvist, H.S. 2012. Northern Hemisphere temperature patterns in the last 12 centuries. *Climate of the Past* 8: 227-249.

<http://www.nipccreport.org/articles/2012/jul/18jul2012a1.html>

Effects of Rising Temperatures on the Progamic Phase of High-Mountain Plants

Reference: Steinacher, G. and Wagner, J. 2012. Effect of temperature on the progamic phase in high-mountain plants. *Plant Biology* 14: 295-305.

<http://www.nipccreport.org/articles/2012/jul/18jul2012a2.html>

The Potential for Adaptive Evolution to Enable the World's Most Important Calcifying Organism to Cope with Ocean Acidification

Reference: Lohbeck, K.T., Riebesell, U. and Reusch, T.B.H. 2012. Adaptive evolution of a key phytoplankton species to ocean acidification. *Nature Geoscience* 5: 346-351.

<http://www.nipccreport.org/articles/2012/jul/18jul2012a3.html>

"contemporary evolution could help to maintain the functionality of microbial processes at the base of marine food webs in the face of global change [*italics added*]."

[SEPP Comment: *Nature adjusts as it has for eons.*]

Other Scientific News

The Clovis First Theory is put to rest at Paisley Caves

By Staff Writers, Copenhagen, Denmark (SPX) Jul 16, 2012

[http://www.terraily.com/reports/The Clovis First Theory is put to rest at Paisley Caves 99.html](http://www.terraily.com/reports/The_Clovis_First_Theory_is_put_to_rest_at_Paisley_Caves_99.html)

Other News that May Be of Interest

Farmers to fight a £6bn asbestos scam

A legal challenge is being mounted to the new asbestos regulations

By Christopher Booker, Telegraph, UK, Jul 14, 2012

<http://www.telegraph.co.uk/comment/columnists/christopherbooker/9399656/Farmers-to-fight-a-6bn-asbestos-scam.html>

Universities lobby for a seat at the table

By Mara Grebnick, David Unger & Jean Song, Medill News Service, Washington (UPI) Jul 20, 2012

[http://www.terraily.com/reports/Universities lobby for a seat at the table 999.html](http://www.terraily.com/reports/Universities_lobby_for_a_seat_at_the_table_999.html)

Charles Sturt's time: so hot that thermometers exploded. Was Australia's hottest day in 1828? 53.9C!

By Jo Nova, Her Blog, Jul 15, 2012

<http://joannenova.com.au/2012/07/charles-sturts-time-so-hot-that-thermometers-exploded-was-australias-hottest-day-in-1828-53-9c/#more-22045>

Oh Great: US geoengineers to spray sun-reflecting chemicals from balloon

By Staff Writers, Blacklisted News, Jul 18, 2012 [H/t ICECAP]

[http://www.blacklistednews.com/Oh Great%3A US geoengineers to spray sun-reflecting chemicals from balloon/20576/0/38/38/Y/M.html](http://www.blacklistednews.com/Oh_Great%3A_US_geoengineers_to_spray_sun-reflecting_chemicals_from_balloon/20576/0/38/38/Y/M.html)

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BELOW THE BOTTOM LINE:

Study: Wolverines need refrigerators

Will insects and bacteria consume more of the wolverine's food if the climate warms?

Press Release: Wildlife Conservation Society, Jul 12, 2012 [H/t WUWT]

http://www.eurekalert.org/pub_releases/2012-07/wcs-swn071212.php

Molecule bottled water is 'pure' nonsense

By Steve Cuozzo, New York Post, Jul 19, 2012 [H/t ACSH]

http://www.nypost.com/p/news/local/molecule_bottled_water_is_pure_nonsense_Fu6jlpIEozZ7bNnHMaUJMJ

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ARTICLES:

1. How Insider Politics Saved California's Train to Nowhere

The high-speed rail line may never be built, but it will save a few Democratic seats.

By Allysia Finley, WSJ, Jul 13, 2012

http://online.wsj.com/article/SB10001424052702304373804577521432823203066.html?mod=ITP_opinion_0

Environmentalism may be religion to some on the left, but its high priests aren't all pure and righteous. Consider the not-so-immaculate conception of California's bullet train.

Last week, the state's legislature authorized \$4.7 billion in bonds to start construction on high-speed rail, which had been stalled in Sacramento for more than a decade due to logistical and political malfunctions. This train is now out of the station—though it's almost certain to break down soon.

The project's godfather is Democratic Congressman Jim Costa, who as a state senator in the 1990s wrote legislation creating California's High-Speed Rail Authority and helped plan the 500-mile route between San Francisco and Anaheim. Before being elected to Congress (in 2004), he also authored a \$10 billion state bond initiative to finance the project. Lawmakers in Sacramento postponed that initiative until 2008, fearing that California's recurring budget crises would make it a hard sell.

But sell it they did. The rail authority promised voters that the train wouldn't require a subsidy and that the feds and private sector would pick up most of the \$33 billion tab. Expecting a free ride, voters leapt on board and approved the initiative in November 2008. Not long afterward, the authority raised the price to \$43 billion.

Investors refused to plunk down money without a revenue guarantee—that is, a subsidy—from the state, which wasn't forthcoming. California's attorney general, whom we now call Gov. Jerry Brown, declined to investigate the bait-and-switch.

As soon as he took office, President Obama tried to help the state with \$2.4 billion in stimulus money. A year and a half later—and two weeks before the 2010 midterm elections—the White House offered an additional \$900 million, provided that the \$3.3 billion sum be spent in the sparsely populated Central Valley. That is, in the congressional districts of Mr. Costa and fellow Blue Dog Democrat Dennis Cardoza, both of whom had provided critical votes for ObamaCare in March 2010 and were then in political peril.

The congressmen rode the subsidy train to re-election, flogging the 135,000 jobs that the construction would supposedly create in the Central Valley. To be sure, Mr. Costa denies trading his ObamaCare vote for high-speed rail money: "That's not something I do," he tells me. Besides, he says, the train "had already become unpopular by [the 2010 election]," so it couldn't have accounted for his victory.

Actually, the train's popularity didn't plunge until 2011, when costs exploded to nearly \$100 billion and the California Legislative Analyst's Office (among others) warned that the first 130-mile segment would become a train to nowhere. Since congressional Republicans promised to zero out federal funding for high-speed rail, analysts noted, the state wouldn't have enough money to electrify the tracks, let alone build out.

Meanwhile, many parties—farmers in the Central Valley and governments in the Valley's Kings County and the tony liberal cities of Palo Alto, Menlo Park and Atherton—were suing the rail authority for not adequately addressing the train's environmental impacts. Gov. Brown proposed shielding the train from such environmental lawsuits but abandoned the idea after the Sierra Club threw a tantrum.

The more people read and heard about the train, the more they disliked it. A string of Field and Los Angeles Times polls this year have shown that voters would block the train by a two-to-one margin if it were put up for a referendum. In 2008, 55% of voters approved the rail bond.

Souring public opinion started to give some Democratic legislators—particularly in the Bay Area and Los Angeles—cold feet. They threatened to waylay the train if their grievances weren't addressed, chief among them that the rail authority and White House weren't giving them their fair share. They wanted to milk the bullet train for whatever Democratic leaders thought their votes were worth.

But in Washington, Secretary of Transportation Ray LaHood had different plans. Two months ago, he threatened to claw back federal funding if Sacramento didn't green-light construction before summer's end. "We can't wait," he said. And why not? Because Republicans were threatening to claw back the money if they took the White House and Senate in November.

Mr. Brown used that threat to demand that legislators authorize \$2.7 billion in state bonds before they adjourned this week. He sweetened the deal for Bay Area and L.A. legislators by adding \$2 billion for regional rail projects. Included was \$700 million to bail out—"modernize"—Silicon Valley's insolvent Caltrain.

The governor rounded up just enough Democratic votes for passage. Four Democratic senators demurred, including Ventura County's Fran Pavley, author of the state's 2006 cap-and-trade law. She and two others faced tough re-election challenges.

The fourth nay vote came from Palo Alto's Joe Simitian, who has sat on a high-speed rail subcommittee. He tells me he knew better since he "had ample opportunity to probe deeply" into the project. And other Democrats? "I'm sure they all felt fully informed," he says unpersuasively.

"The whole thing was carefully staged to allow [dissenting Democrats like Mr. Simitian] to speak about their no votes just before their vote was taken. But Brown knew he had his 21 votes in his pocket," says Bay Area economic analyst Bill Warren. Democrats gave their OK, he says, because they wanted money for local rail projects and construction jobs. "I doubt if any of them actually believe in their hearts that the rail system will ever be completed."

Indeed, environmental lawsuits could block construction in the Central Valley or at least delay it for several years. The White House will no doubt send its regrets to Rep. Costa.

Regardless, the Bay Area and L.A. will likely get their pound of taxpayer flesh. Next year taxpayers will have to start paying interest on the rail bonds—about \$380 million annually for the next 30 years—assuming investors bite. That's nearly as much as the governor is proposing to cut from higher education if voters don't approve his millionaires' tax initiative in the fall.

This plundering of higher education should serve as a warning to voters who think that approving the millionaires' tax will somehow save them from one day becoming sacrificial lambs on the government's altar. Nothing is sacred.

Ms. Finley, a Californian who loves her state unconditionally, is assistant editor of OpinionJournal.com.

2. Trade Dries Up Along With Mississippi

By Cameron McWhirter, WSJ, Jul 13, 2012

http://online.wsj.com/article/SB10001424052702303292204577519294147139420.html?mod=IT_P_pageone_1

A year after historic flooding brought the Mississippi River up to record levels, the severe drought hitting the central U.S. has caused water levels along parts of the waterway to plummet, disrupting barge traffic from Cairo, Ill., to Natchez, Miss.

In some places, the water level is about 50 feet below what it was during the flood's peak.

At one bend of the river between Vicksburg, Miss., and Memphis, Tenn., barges ran aground several weeks ago because of low water and had to be rescued, according to Cmdr. Tim Wendt, chief of the waterways-management branch for U.S. Coast Guard operations in the central U.S.

The Coast Guard, the Army Corps of Engineers and barge companies are meeting regularly to monitor the growing problem, he said.

Barge operators have sharply reduced their loads to get through tightening river passages. They say major rain is needed soon or they would have to reduce commerce even more, causing shipment delays and driving up transportation costs. With forecasts showing little prospect of significant rain, hydrologists see no relief in sight for the giant inland waterway that also includes the Ohio River.

The rivers and their tributaries, which splay out across the eastern and central U.S. like a tree with many branches, let barge operators ferry key American exports, including grain, corn and soybeans, and imports such as steel, rubber and coffee. Coal, fertilizer and petroleum products move up and down the rivers as well. Barge transport is generally less expensive than moving goods by train or truck, depending on the location and the material.

While parts of the river system can handle normal traffic now, disruptions along the Mississippi—the main trunk of the river system's tree—cause costly delays. Shippers worry that the drought could become as bad as 1988, when low water halted barge traffic for days.

The system needs a major infusion of rain or "the vast majority of commerce would have to stop," said P.B. Shah, president of Ingram Barge Co. of Nashville, Tenn., the largest operator of cargo barges on the Mississippi and Ohio rivers.

Ingram, which typically handles close to 100 million tons of bulk cargo a year, already has reduced barge loads and the number of barges pulled by a single boat, shrinking the company's load capacity by more than 40%, Mr. Shah said. If conditions worsened, the company would have to reduce capacity to below 50% of normal levels, and consider invoking "force majeure" clauses in its shipping agreements, whereby natural disasters can be cited to free a party from contractual obligations, he said.

"It's causing headaches all up and down the river system right now," said Martin Hettel, senior manager of bulk sales for AEP River Operations, a St. Louis-based barge company.

Mark Fletcher, owner of Ceres Barge Line of East St. Louis, Ill., said about 70% of his 220 barges aren't being used now. First, the drought cut crops, reducing demand for shipping. Now, low water levels are making it more costly to ship.

"It's not good if you are in the barge business right now," he said. "In the last 60 days, you've watched a whole lot of money go out the window."

Some river ports have been forced to close temporarily or shut down parts of their operations because of the low water levels. At the port of Rosedale in the Mississippi Delta, port director Robert Maxwell Jr. said water levels are about 50 feet below what they were last year, when flooding shut down the port. If the water falls any lower, there was a "high likelihood" he would have to close, he said. One of the port's public loading docks is inoperable, with equipment normally in the water now hanging the air. The Army Corps of Engineers is supposed to come this week to dredge, where heavy equipment is used to dig out sediment from waterways to make them passable for shipping.

"This is absolutely not normal," Mr. Maxwell said.

The port of Lake Providence, La., recently had to shut down until it was dredged, and the port at Hickman, Ken., is closed, said Steve Jones, navigation manager of the Army Corps's Mississippi Valley Division.

"Dredging will definitely be picking up as the river continues to fall," he said.

At this time of year, the river is normally low, but less snow than normal in the upper Midwest this winter, a lack of major tropical storms coming to the lower Mississippi River region from the Gulf of Mexico, and the recent baking heat have combined to cause reservoirs and creeks that feed major rivers to shrink, said Marcelo Garcia, a river hydrology expert and professor at the University of Illinois at Urbana-Champaign.

"Even if it started to rain a lot now, it would take a long time to catch up" to normal river levels, he said.

Since major rain is not forecast any time soon, Mr. Garcia said he expected the low water levels to get worse.

