The Week That Was: 2014-01-18 (January 18, 2014) Brought to You by SEPP (www.SEPP.org) The Science and Environmental Policy Project

Quote of the Week: *If you wish to converse with me, define your terms.* — Voltaire, H/t Gordon Cheyne, in Master Resource

Number of the Week: 679 - 23

No Consensus? Nature magazine published an article by Jeff Tollefson on the failure of the earth's surface to warm for the past 16 years that contained an interesting sentence: That has led sceptics — and some scientists — to the controversial conclusion that the models might be overestimating the effect of greenhouse gases, and that future warming might not be as strong as is feared. Could this be a first indication that Nature recognizes that there are qualified scientists who are skeptical of the work of the UN Intergovernmental Panel on Climate Change (IPCC) and the claim that human emissions of carbon dioxide (CO2) and other greenhouse gases are causing unprecedented and dangerous global warming? If so, is this an admission that there is no consensus as frequently claimed? One must be careful not to read too much into this sentence least that person be grouped with those military analysts who spent their cold war military careers looking for changes in Soviet policy by carefully dissecting sentences in the communist newspaper, Pravda.

To a limited extent, the article discusses some possible causes for the failure of the earth's surface to warm including changes in the trade winds over the tropical Pacific, which change cloudiness. When there are more clouds, the sun's energy is reflected back into space. When there are less clouds, more energy reaches the oceans, resulting in warming. Roy Spencer has long discussed that slight changes in cloudiness will have dramatic effects.

Other suggestions include changes in the sun, volcanoes emitting aerosols (fine particles and liquid droplets) that have a cooling effect (no major volcanoes noted), and China emitting aerosols (pollution).

Although the article offers no rigorous explanation of the possible causes, at least it brings up the issue that nature has failed to obey human-created climate models. Though not discussed, the article creates a question about the IPCC Summary for Policymakers with its claim in 2007 (Fourth Assessment Report – AR4) of 90% certainty and in 2013 (Fifth Assessment Report – AR5) of 95% certainty that humans are the cause of global warming/climate change. The question is: What is meant by this certainty? There are many issues of natural variation that are not discussed in the reports.

The article contained comments by members of the climate establishment who gave excuses why the models fail to perform, not rigorous explanations of what must be done to the models to give them predictive value. "If you are interested in global climate change, your main focus ought to be on timescales of 50 to 100 years," says Susan Solomon, a climate scientist at the Massachusetts Institute of Technology in Cambridge. Solomon was a drafting author of AR4 which expressed 90% certainty in its work.

The key period of the 2007 assertion certainty was late 20th century surface warming of a little more than 20 years – about 1976 to 1998. Now Solomon says periods of 50 to 100 years are needed. Does this mean that the certainty expressed in the IPCC AR4 and AR5 Summary for Policymakers are hasty conclusions? See links under Challenging the Orthodoxy and Problems in the Orthodoxy.

Warming Trend or Jolt? Writing in Master Resource, Robert Bradley Jr. discusses an article by Richard Kerr, a long-time writer for *Science*, "What Happened to Global Warming? Scientists Say Just Wait a Bit," which was published in the October 1, 2009 edition of the magazine. The article contained the statement: *In the HadCRUT3 temperature record, the world warmed by* 0.07°C±0.07°C from 1999 through 2008, not the 0.20°C expected by the Intergovernmental Panel on Climate Change. Corrected for the natural temperature effects of El Niño and its sister climate event La Niña, the decade's trend is a perfectly flat 0.00°C.

The Anti-Science Challenge: One incident coming from the Senate testimony is an anti-science challenge. Writing in the *New York Times*, Michael "Hockey-Stick" Mann labeled Judith Curry's testimony as anti-science. Curry has taken the challenge: *JC challenge to MM: Since you have publicly accused my Congressional testimony of being 'anti-science,' I expect you to (publicly) document and rebut any statement in my testimony that is factually inaccurate or where my conclusions are not supported by the evidence that I provide.*

During the Hearing, Senator Whitehouse asked me a question about why people refer to me as a 'contrarian.' I said something like the following: Skepticism is one of the norms of science. We build confidence in our theories as they are able to withstand skeptical challenges. If instead scientists defend their theories by calling their opponents names, well that is a sign that their theories are in trouble.

Anti-science is a murky word, with a number of connotations. An excerpt from the wikipedia article on Antiscience:

The question often lies in how much scientists conform to the standard ideal of "communalism, universalism, disinterestedness, originality, and... skepticism". Unfortunately, "scientists don't always conform... scientists do get passionate about pet theories; they do rely on reputation in judging a scientist's work; they do pursue fame and gain via research". Thus, they may show inherent biases in their work.

From the Rational Wiki article on Antiscience:

Anti-science proponents often attack science through: Attempts to discredit the scientists themselves. Attempts to use flawed arguments, such as argumentum ad populum to prove the

position correct even if it has no scientific basis. Attempts to label scientific ideas as conspiracy theories.

JC message to MM: If you want to avoid yourself being labeled as 'anti-science', I suggest that you are obligated to respond to my challenge.

A conspiracy buff may wonder if the *New York Times*, and other outlets, provide a forum for Mr. Mann in order to discredit science in general, and climate science in particular. If so, he is doing a good job. See link under Oh Mann!

Climate Vortex: The claim that global warming is causing more extreme cold events continues to reverberate. President Obama is scheduled to give his State of the Union address at 9 pm on Tuesday. Weather forecasts have Washington receiving another blast of cold air that day, with nighttime temperatures falling to about 11°F (-12 °C). [This is about 17°F (10°C, allow for rounding) below the mid-January normal low is about 28°F (-2 °C).] Will the President follow his chief science advisor and blame the cold on global warming? See links under Climate Vortex – Whirlpool, Cyclone, or Quagmire?

Base Load: Much has been written about natural gas replacing coal as the fuel of choice for producing electricity in the US. Economics professor Mark Perry brings up an excellent point regarding this shift. During severe cold weather, the price of natural gas spikes, causing the costs of generating electricity to spike. Perry gives some illustrations. He argues for using nuclear power plants for base load, because they are not subject to price spikes. [Base load is the electricity generation 24 hours a day 7 days a week, except for scheduled maintenance.] The same could be said for using modern coal-fired power plants, which the EPA will oppose. See link under Nuclear Energy and Fears

Wind Power: The web site, Master Resource has a 4 part series based on a letter Glen Schleede sent to the Senate Finance Committee exposing the economically destructive and foolish tax subsidies being considered by the Committee on behalf of so-called "clean energy" – producing electricity without generating carbon dioxide. The summary and part two on the high cost and low value of wind power were posted with the other two parts coming next week.

The main points brought up thus far are:

- Electricity from wind is high in true cost and low in true value.
- Massive wealth transfers harming ordinary taxpayers and electric customers.
- Misdirecting billions in capital investments dollars.
- High electricity prices that are particularly hard on low income people.
- Adverse environmental, ecological, scenic, and property values impacts.

See link under Alternative, Green ("Clean") Solar and Wind

Energy Policy: Former oil man and wind energy advocate, T. Boone Pickens points out that it has been over 40 years since President Nixon called for a national energy policy. Washington has had energy policies but not one singularly identified. Among the many policies are denial, advocacy, and benign neglect. These policies can be rated according to two standards: that which promotes Washington control and that which promotes general prosperity of the nation. The two standards suggested here are not absolute, but they give a starting point for evaluation.

The oil industry along the northern slope of Alaska is an example of denial. After the great success of the initial development of oil and the Alaska pipeline, Washington started to deny further exploration and development. The deliberate reduction in oil development is reaching the point at which it is questionable if the pipeline can be kept open in the future. It is having a negative effect on the budget of the state, which receives royalties. Each time proposals are made in Congress to open the North Slope to further development, the proponents are shouted down that it would take ten years. Washington's game have been going on for over a decade. It is an excellent illustration of Washington power and indifference to general prosperity.

The heavy subsidies to wind and solar power are examples of advocacy. The central problem of storage of electricity on an inexpensive, commercial scale has not been solved. After two decades of subsidies, wind and solar cannot stand on their own. Green jobs did not materialize in quantities promised, and they are not sustainable without subsidies or mandates. Wind and solar are examples of Washington's power and indifference to general prosperity. Perhaps what is needed is the requirement that all Federal buildings and official Washington rely only on wind and solar, with no back-up. Eventually, all but the most obtuse politicians and bureaucrats would grasp the problem.

Number of the Week: 679 – 23. According to Senator Tom Coburn (R., Okla.), the Ranking Member of the Senate Homeland Security and Governmental Affairs Committee, the US government has 679 renewable energy programs from 23 different agencies costing \$15 billion a year. Who says the Federal government does not have an energy policy? It has at least 679. See link under Green Jobs.

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. Alaska to Invest in Natural Gas Project

State to Pay Up to \$5.7 Billion for Stake in LNG Plant By Cassandra Sweet, WSJ, Jan 15, 2014

http://online.wsj.com/news/articles/SB10001424052702304149404579323224239571660?mod=WSJ_Energy

2. Arctic Passage Opens Challenges for U.S. Military

Thinning Polar Ice Expected to Give Way to New Commercial Waterways and Resource-Rich Frontier

By Julian Barnes, WSJ, Jan 12, 2014

http://online.wsj.com/news/articles/SB10001424052702303330204579250522717106330

3. No Quick Fix for China's Air Quality

By Andrew Browne, WSJ, Jan 14, 2014

http://online.wsj.com/news/articles/SB10001424052702303595404579319952865306072?mod=I TP_pageone_2

NEWS YOU CAN USE:

Science: Is the Sun Rising?

New Paper Says Sun Is Behind the Pause

Reduced solar activity may be behind the global warming pause according to a new paper by Peter Stauning of the Danish Meteorological Institute in Copenhagen, Denmark.

By Reporting Climate Science.com, Jan 14, 2014 [H/t GWPF]

http://www.reportingclimatescience.com/news-stories/article/new-paper-says-sun-is-behind-the-pause.html

Link to paper: Reduced Solar Activity Disguises Global Temperature Rise

By Peter Stauning, Atmospheric and Climate Sciences, Jan 2014

http://www.scirp.org/journal/PaperInformation.aspx?PaperID=41752#.Utf1555dXCt

Suppressing Scientific Inquiry

AGW inquisition burns a journal, Pattern Recognition in Physics

By Luboš Motl, Reference Frame, Jan 17, 2014

http://motls.blogspot.com/2014/01/agw-inquisition-burns-journal-pattern.html#more

The Copernicus-PRP fiasco: predictable and preventable

By Anthony Watts, WUWT, Jan 19, 2014

 $\underline{http://wattsupwiththat.com/2014/01/19/the-copernicus-prp-fiasco-predictable-and-preventable/}$

[SEPP Comment: An up-to-date account on an effort to suppress scientific inquiry.]

Challenging the Orthodoxy

Another year of global cooling

Falling temperatures are giving climate alarmists chills

By David Deming, Washington Times, Jan 16, 2014 [H/t NCTCSP]

http://www.washingtontimes.com/news/2014/jan/16/another-year-of-global-cooling/

IPCC WG3 plans to suck excess CO2 and kill 1 billion people

By Luboš Motl, Reference Frame, Jan 16, 2014

http://motls.blogspot.com/2014/01/ipcc-wg3-plans-to-suck-excess-co2-and.html

[SEPP Comment: The word kill may be a bit strong, but the IPCC scenario is science fiction.]

Defending the Orthodoxy

Biggest Emitter China Best on Climate, Figueres Says

By Sangwon Yoon, Bloomberg, Jan 14, 2014

 $\underline{http://www.bloomberg.com/news/2014-01-13/top-global-emitter-china-best-on-climate-change-figueres-says.html}$

Climate Theology

By Steven Hayward, Power Line, Jan 16, 2014

http://www.powerlineblog.com/archives/2014/01/climate-theology.php

UNFCC boss: democracy is "very detrimental" for war on AGW

Chinese communism is the best decision-making system

By Luboš Motl, Reference Frame, Jan 14, 2014

http://motls.blogspot.com/2014/01/unfcc-boss-democracy-is-very.html#more

UN climate chief: Communism is best to fight global warming

By Michael Bastasch, Daily Caller, Jan 15, 2014

http://dailycaller.com/2014/01/15/un-climate-chief-communism-is-best-to-fight-global-warming/

UN climate chief calls for tripling of clean energy investment

Christiana Figueres says \$1 trillion a year is required for the transformation needed to stay within 2C of warming

By Suzanne Goldenberg, Guardian, UK, Jan 14, 2014

http://www.theguardian.com/environment/2014/jan/14/un-climate-chief-tripling-clean-energy-investment-christiana-figueres

Questioning the Orthodoxy

Falsifiability in my lifetime

By Andrew Montford, Bishop Hill, Jan 16, 2014

http://bishophill.squarespace.com/blog/2014/1/16/falsifiability-in-my-lifetime.html

Freezing Is the New Warming

By Robert Tracinski, Real Clear Politics, Jan 13, 2014

http://www.realclearpolitics.com/articles/2014/01/13/freezing_is_the_new_warming_121202.html

Water is the Weather Wildcard

By Viv Forbes, American Thinker, Jan 10, 2014 [H/t Timothy Wise]

http://www.americanthinker.com/blog/2014/01/water is the weather wildcard.html

Richard Kerr (Science) in 2009: Warming 'Pause' About to Be Replaced by 'Jolt'

By Robert Bradley Jr. Master Resource, Jan 14, 2014

http://www.masterresource.org/2014/01/kerr-science-2009-pause-jolt/

Global Warming A Back Door To Socialism - And Now Even The UN Admits It

Editorial, IBD, Jan 16, 2014 [H/t Timothy Wise]

http://news.investors.com/ibd-editorials/011614-686713-climate-change-a-back-door-to-communism-and-the-united-nations-admits-it.htm?p=full

Maurice Newman: Mother Nature Suggests The Party's Over For The IPCC

By Maurice Newman, The Australian, Via GWPF, Jan 15, 2014

http://www.thegwpf.org/maurice-newman-mother-nature-suggests-partys-ipcc/

Social Benefits of Carbon

Bad news for Michael Mann's 'treemometers'?

By Anthony Watts, WUWT, Jan 15, 2014

http://wattsupwiththat.com/2014/01/15/bad-news-for-michael-manns-treemometers/

Problems in the Orthodoxy

Climate change: The case of the missing heat

Sixteen years into the mysterious 'global-warming hiatus', scientists are piecing together an explanation.

By Jeff Tollefson, Nature, Jan 15, 2014 [H/t WUWT]

http://www.nature.com/news/climate-change-the-case-of-the-missing-heat-1.14525

The journal Nature embraces 'the pause' and ocean cycles as the cause, Trenberth still betting his heat will show up

By Anthony Watts, WUWT, Jan 16, 2014

http://wattsupwiththat.com/2014/01/16/the-journal-nature-embraces-the-pause-and-ocean-cycles-as-the-cause-trenberth-still-betting-his-heat-will-show-up/

Cold Comfort On Global Warming

By Myron Ebell, Standpoint Magazine, Jan-Feb 2014

http://standpointmag.co.uk/dispatches-january-february-2014-cold-comfort-on-global-warming-myron-ebell-climate-change-warsaw

EU In Full Retreat On Climate Policy

By Staff Writers, EU-Info News, Translation, Philipp Mueller, Via GWPF, Jan 13, 2014 http://www.thegwpf.org/eu-full-retreat-climate-policy/

EU retreats on global warming while US pushes ahead

By Michael Bastasch, Daily Caller, Jan 14, 2014

http://dailycaller.com/2014/01/14/eu-retreats-on-global-warming-while-u-s-pushes-ahead/

Seeking a Common Ground

Out of control

By John Brignell, Number Watch, Jan 12, 2014 and

The cliché of our age – Worse than previously thought

http://www.numberwatch.co.uk/2014_january.htm#out

http://www.numberwatch.co.uk/2014 january.htm#cliche

The Realism of Global Optimism

By Bjørn Lomborg, Project Syndicate, Jan 16, 2014

http://www.project-syndicate.org/commentary/bj-rn-lomborg-blames-journalists--bias-in-favor-of-bad-news-for-our-failure-to-appreciate-how-much-the-world-has-improved

New data from the World Bank show that the proportion of extremely poor people has more than halved over the last 30 years, from 42% of the global population in 1981 to 17% in 2010.

[SEPP Comment: The UN and World Bank leaders are blissfully unaware.]

Global Warming is REAL but NOT a Big DEAL

By Ira Glickstein, WUWT, Jan 12, 2014

http://wattsupwiththat.com/2014/01/12/global-warming-is-real-but-not-a-big-deal-2/

Senate EPW Hearing on the President's Climate Action Plan

By Judith Curry, Climate Etc. Jan 16, 2014

http://judithcurry.com/2014/01/16/senate-epw-hearing-on-the-presidents-climate-action-plan/

Review of Recent Scientific Articles by NIPCC For a full list of articles see www.NIPCCreport.org

A 16-Year History of Coral Bleaching in Moorea, French Polynesia

Reference: Pratchett, M.S., McCowan, D., Maynard, J.A. and Heron, S.F. 2013. Changes in bleaching susceptibility among corals subject to ocean warming and recurrent bleaching in Moorea, French Polynesia. *PLOS ONE* 8: e70443.

http://nipccreport.org/articles/2014/jan/14jan2014a3.html

Simulating California (USA) Extreme Heat Conditions

Reference: Grotjahn, R. 2013. Ability of CCSM4 to simulate California extreme heat conditions from evaluating simulations of the associated large scale upper air pattern. *Climate Dynamics* 41: 1187-1197.

http://nipccreport.org/articles/2014/jan/15jan2014a1.html

Westerly Biases Over the Equatorial Atlantic

Reference: Zermeño-Diaz, D.M. and Zhang, C. 2013. Possible root causes of surface westerly biases over the equatorial Atlantic in global climate models. *Journal of Climate* 26: 8154-8168. http://nipccreport.org/articles/2014/jan/15jan2014a3.html

Cold-Water Corals of Chile

Reference: Jantzen, C., Haussermann, V., Forsterra, G., Laudien, J., Ardelan, M., Maier, S. and Richter, C. 2013. *Marine Biology* 160: 2597-2607. http://nipccreport.org/articles/2014/jan/15jan2014a4.html

Models v. Observations

What Causes the Atlantic to Bloom?

Scientists find surprising trigger for spring plant growth

By Cheryl Dybas, Lonny Lippsett, Oceanus, Jan 15, 2014

Using data from her colleagues' study site, her models confirmed that eddies were the underlying cause of the stratification and blooms that they saw.

[SEPP Comment: Models confirm data?]

Measurement Issues

Scientists Call November 2013 Alleged Record "A Flop": Far From Record Warmest...Series Of Problems With Surface Stations

Warmest November since measurements began? An analysis of global satellite data leads to a different conclusion

By Sebastian Lüning and Fritz Vahrenholt, Trans P. Gosselin, No Tricks Zone, Jan 11, 2013 http://notrickszone.com/2014/01/11/scientists-call-november-2013-alleged-record-a-flop-far-from-record-warmest-series-of-problems-with-surface-stations/

Changing Weather

Flooding chaos is down to David Cameron, not climate change

The Environment Agency's failure to dredge clogged-up rivers is causing floods By Christopher Booker, Telegraph, UK, Jan 11, 2014 [H/t GWPF] http://www.telegraph.co.uk/earth/environment/10565247/Flooding-chaos-is-down-to-David-Cameron-not-climate-change.html

[SEPP Comment: The government failure is not from failing to act on climate change, but from failing to dredge rivers. Also, discussion of plans to expand the power of the EU.]

NOAA "state of the climate" report: Contiguous US average temperature plummeted 2.9F in 2013

By Anthony Watts, WUWT, Jan 16, 2014

http://wattsupwiththat.com/2014/01/16/ncdc-state-of-the-climate-report-contiguous-us-average-temperature-plummeted-2-9f-in-2013/

[SEPP Comment: Will it be mentioned in President Obama's State of the Union speech.]

Extreme Drought in California

By Cliff Mass Weather Blog, Jan 17, 2014

http://cliffmass.blogspot.com/2014/01/extreme-drought-in-california.html

Fitch: California Drought to Take a Toll on Hydropower Generators

By Sonal Patel, Power Magazine, Jan 16, 2014

http://www.powermag.com/fitch-california-drought-to-take-a-toll-on-hydropower-generators/?hq e=el&hq m=2815658&hq l=6&hq v=5e660500d0

UK Flooding: No Climate Link

By David Whitehouse, GWPF, Jan 14, 2014

http://www.thegwpf.org/uk-flooding-climate-link/

Changing Climate

From the book "Omega – Murder of the Eco-system and the Suicide of Man, Paul K Anderson, 1971

Controlling the Planet's Climate

By John Brignell, Number Watch, No Date [H/t Dennis Ambler]

http://www.numberwatch.co.uk/cooling2.pdf

[SEPP Comment: Ideas from another age – to promote the control of weather in fear of the onset of a new ice age. The World Meteorological Organization was formed at that time, in 1961. One of the suggested changes was to engineer the disappearance of Arctic ice.]

Changing Seas

An Illustrated Introduction to the Basic Processes that Drive El Niño and La Niña Events By Bob Tisdale, WUWT, Jan 10, 2014

http://wattsupwiththat.com/2014/01/10/an-illustrated-introduction-to-the-basic-processes-that-drive-el-nino-and-la-nina-events/

Coral chemical warfare: Suppressing a competitor enhances susceptibility to a predator By Staff Writers, Atlanta GA (SPX), Jan 14, 2014

http://www.terradaily.com/reports/Coral_chemical_warfare_Suppressing_a_competitor_enhances_susceptibility_to_a_predator_999.html

Link to paper: Competition induces allelopathy but suppresses growth and anti-herbivore defence in a chemically rich seaweed

By Rasher and Hay, Proceedings of the Royal Society B, Feb 2014 http://rspb.royalsocietypublishing.org/content/281/1777/20132615

Changing Cryosphere – Land / Sea Ice

Emperor Penguins breeding on ice shelves

By Staff Writers, London, UK (SPX), Jan 13, 2014

http://www.terradaily.com/reports/Emperor_Penguins_breeding_on_ice_shelves_999.html

[SEPP Comment: Have they never done this before?]

Un-Science or Non-Science?

Europe to suffer from more severe and persistent droughts

By Staff Writers, Brussels, Belgium (SPX), Jan 13, 2014

http://www.terradaily.com/reports/Europe to suffer from more severe and persistent droughts 999.html

Link to paper: Ensemble projections of future streamflow droughts in Europe

By Forzieri, et al. Hydrology and Earth Systems, 2014

http://www.hydrol-earth-syst-sci.net/18/85/2014/hess-18-85-2014.html

Giant Antarctic glacier beyond point of no return

By Staff Writers, Paris (AFP), Jan 12, 2014

http://www.terradaily.com/reports/Giant_Antarctic_glacier_beyond_point_of_no_return_999.html

Lowering Standards

BBC's six-year cover-up of secret 'green propaganda' training for top executives

By David Rose, Mail, UK, Jan 11, 2013

 $\frac{http://www.dailymail.co.uk/news/article-2537886/BBCs-six-year-cover-secret-green-propagandatraining-executives.html \#ixzz2qBlfEG9a$

Row over BBC climate change conference 'cover up'

The BBC is dragged into a row over its coverage of climate change after spending thousands of pounds trying to keep details of an "eco conference" attended by top executives secret By Graeme Paton, Telegraph, UK, Jan 12, 2014

 $\underline{http://www.telegraph.co.uk/culture/tvandradio/bbc/10566952/Row-over-BBC-climate-change-conference-cover-up.html}$

Dems Want Networks To Manipulate Climate Coverage Like BBC

Editorial, IBD, Jan 15, 2014

 $\frac{http://news.investors.com/ibd-editorials/011514-686516-bbc-covers-up-secret-green-propagandatraining.htm?p=full}{}$

Climate Comedy?

Ship of Fools

By Steve McIntyre, Climate Audit, Jan 15, 2014

http://climateaudit.org/2014/01/15/ship-of-fools/

[SEPP Comment: Perhaps the definitive on this Antarctic misadventure and its leaders.]

Ship of Fools in the Antarctic

By Jack Kelly, Real Clear Politics, Jan 12, 2014

 $\frac{http://www.realclearpolitics.com/articles/2014/01/12/ship_of_fools_in_the_antarctic_121200.htm}{1}$

Game finally up for carboncrats

By Tom Switzer, Sydney Morning Herald, Jan 14, 2014 [H/t GWPF]

http://www.smh.com.au/comment/game-finally-up-for-carboncrats-20140113-30qqo.html

Climate Vortex – Whirlpool, Cyclone, or Quagmire?

The Polar Vortex: Myth and Reality

By Cliff Mass Weather Blog, Jan 13, 2014

http://cliffmass.blogspot.com/2014/01/the-polar-vortex-myth-and-reality.html

[SEPP Comment: Cliff Mass is hardly a skeptic of human induced global warming, but he gives a good description of the silliness of the claim that a polar vortex is descending on the US. He amusingly creates the term anti-vortex on the west coast – is it similar to anti-matter?]

It's The Circumpolar Vortex Not The Polar Vortex And Other PR Deceptions

By Tim Ball, WUWT, Jan 13, 2014

 $\underline{http://wattsupwiththat.com/2014/01/13/its-the-circumpolar-vortex-not-the-polar-vortex-and-other-pr-deceptions/}$

No pattern found in Northern Hemisphere atmospheric blocking and weather extremes

By Anthony Watts, WUWT, Jan 10, 2014

 $\frac{http://wattsupwiththat.com/2014/01/10/no-pattern-found-in-northern-hemisphere-atmospheric-blocking-and-weather-extremes/$

Hot Air About Cold Air

By Patrick J. Michaels and Paul C. "Chip" Knappenberger, CATO, Jan 16, 2014 http://www.cato.org/blog/hot-air-about-cold-air

'Polar vortex' that caused record cold is related to solar activity, not man-made CO2

The Hockey Schtick, Jan 11, 2014 [H/t GWPF]

http://hockeyschtick.blogspot.co.uk/2014/01/polar-vortex-that-caused-record-cold-is.html

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

'Climate Change': Unpacking a Political Term (looking through the looking glass)

By Wayne Lusvardi, Master Resource, Jan 15, 2014

http://www.masterresource.org/2014/01/climate-change-political-term/

[SEPP Comment: Clarifying some sloppy definitions.]

Climate Change Disbelief Rises in America

By Stephanie Pappas, Yahoo News, Jan 16, 2014 [H/t Timothy Wise]

http://news.yahoo.com/climate-change-disbelief-rises-america-180339949.html

[SEPP Comment: No doubt, greater exaggeration will achieve greater belief.]

Major newspaper coverage of climate change plummeted last year

By John Upton, Grist, Jan 15, 2014 [H/t GWPF]

http://grist.org/news/major-newspaper-coverage-of-climate-change-plummeted-last-year/

[SEPP Comment: Lamenting the decline in global warming coverage, as global warming stopped.]

Communicating Better to the Public – Make things up.

Climate Council's Deceitful Duplicitous Fraudulent Fibbing

Or Where's the Data? In Fact Where's the Report?

By Geoff Brown, NCTCSP, Jan 17, 2014

http://theclimatescepticsparty.blogspot.com.au/2014/01/climate-councils-deceitful-duplicitous.html

NYT Pushes the Rising Tide of Climate Nonsense – This time in the Dominican Republic

By Kip Hansen, WUWT, Jan 14, 2014

 $\underline{http://wattsupwiththat.com/2014/01/14/nyt-pushes-the-rising-tide-of-climate-nonsense-this-time-in-the-dominican-republic/}$

Communicating Better to the Public - Go Personal.

A conservative conspiracy around every corner?

By Martin Morse Wooster, Philanthropy Daily, Jan 7, 2014 [H/t Joe Bast] http://www.philanthropydaily.com/a-conservative-conspiracy-around-every-corner/

Expanding the Orthodoxy

The scientific abomination that is the "Circumpolar Monitoring Framework for Polar Bears"

By Susan Crockford, Polar Bear Science, Jan 14, 2014

http://polarbearscience.com/2014/01/14/the-scientific-abomination-that-is-the-circumpolar-monitoring-framework-for-polar-bears/

[SEPP Comment: Life is short. An international commission is not so cursed (or blessed)?

Questioning European Green

Fuelling the future

By Martin Livermore, Scientific Alliance, Jan 17, 2014

http://scientific-alliance.org/scientific-alliance-newsletter/fuelling-future

Consumers Rebel – Germany's Leading Daily Launches Campaign Against Exorbitantly High Electricity Prices!

By P. Gosselin, No Tricks Zone, Jan 14, 2014

http://notrickszone.com/2014/01/14/consumers-rebel-germanys-leading-daily-launches-campaign-against-exorbitantly-high-electricity-prices/

Green Fade-Out: Europe to Ditch Climate Protection Goals

By Gregor Peter Schmitz, Spiegel Online, Jan 15, 2014 [H/t GWPF]

http://www.spiegel.de/international/europe/european-commission-move-away-from-climate-protection-goals-a-943664.html

[SEPP Comment: Typical propaganda photo accompanying an article on carbon dioxide with chimneys billowing dark steam.]

Questioning Green Elsewhere

Climate Protection May Cut World GDP 4% by 2030, UN Says

By Alex Morale, Bloomberg, Jan 16, 2014

 $\frac{http://www.bloomberg.com/news/2014-01-16/climate-protection-may-cost-4-of-world-gdp-by-2030.html}{}$

Green Jobs

Congress Turns Spotlight to Government Waste

Hearing exposes billions in wasteful spending

By Elizabeth Harrington, Washington Free Beacon, Jan 9, 2014 [H/t Timothy Wise]

http://freebeacon.com/congress-turns-spotlight-to-government-waste/

The Political Games Continue

Sen. Inhofe on Obama's Global Warming Claims: 'The President Just Made that Up'

By Craig Bannister, CNS News, Jan 16, 2014 [H/t ICECAP]

http://www.cnsnews.com/mrctv-blog/craig-bannister/sen-inhofe-obamas-global-warming-claims-president-just-made

[SEPP Comment: Challenging EPA to provide evidence to support false claims by the President.]

Inhofe: 'Fewer and fewer' senators believe in global warming

By Michael Bastasch, Daily Caller, Jan 13, 2014

http://dailycaller.com/2014/01/13/inhofe-fewer-and-fewer-senators-believe-in-global-warming/

Senate Dems to set up global warming task force

By Michael Bastasch, Daily Caller, Jan 9, 2014 [H/t Timothy Wise] http://dailycaller.com/2014/01/09/senate-dems-to-set-up-global-warming-task-force/#ixzz2pxvhUBHl

Subsidies and Mandates Forever

Blown away? US suspends wind power subsidies, for now

By Staff Writers, Washington (AFP), Jan 15, 2014

http://www.winddaily.com/reports/Blown_away_US_suspends_wind_power_subsidies_for_now_999.html

EPA and other Regulators on the March

CO2 Regulation News from the Federal Register

By Paul C. "Chip" Knappenberger and Patrick J. Michaels , CATO, Jan 14, 2014 http://www.cato.org/blog/co2-regulation-news-federal-register

Emails Show Extensive Collaboration Between EPA, Environmentalist Orgs

Top officials coordinate messaging, help groups gather petitions
By Lachian Markay, Washington Free Beacon, Jan 15, 2014 [H/t Timothy Wise]
http://freebeacon.com/emails-show-extensive-collaboration-between-epa-environmentalist-orgs/
[SEPP Comment: Coffee at Starbucks?]

EPA Administrator Can't Say Whether Global Temperatures Are Increasing

By Staff Writers, Washington Free Beacon, Jan 16, 2014

http://freebeacon.com/epa-administrator-cant-say-whether-global-temperatures-are-increasing/ [SEPP Comment: Not qualified – to be responsible for EPA decisions?]

McCarthy Dodges Environmentalist Coordination Questions

Republicans press EPA chief on apparent collusion with far-left groups By Lachlan Markay, Washington Free Beacon, Jan 16, 2014 http://freebeacon.com/mccarthy-dodges-environmentalist-coordination-questions/

EPA's Final Regional Haze Rule for Wyoming Proves Costly for Coal Plants

By Sonal Patel, Power Magazine, Jan 16, 2014

http://www.powermag.com/epas-final-regional-haze-rule-for-wyoming-proves-costly-for-coal-plants/?hq_e=el&hq_m=2815658&hq_l=7&hq_v=5e660500d0

McCarthy Defends EPA Tactics to Tamp Down Power Plant Carbon Pollution

By Sonal Patel, Power Magazine, Jan 16, 2014

http://www.powermag.com/mccarthy-defends-epa-tactics-to-tamp-down-power-plant-carbon-pollution/?hq_e=el&hq_m=2815658&hq_l=2&hq_v=5e660500d0

[SEPP Comment: Publications such as Power Magazine use terms such as carbon pollution, demonstrates the success of EPA propaganda.]

Environmental Protection Agency and Army Corps of Engineers Ignore Science

By Staff Writer, NCPA, Jan 13, 2014

http://www.ncpa.org/sub/dpd/index.php?Article_ID=23985&utm_source=newsletter&utm_mediu m=email&utm_campaign=DPD

Link to report: EPA and the Corps Ignoring Sound Science on Critical Clean Water Act Regulations

By Daren Bakst, Heritage Foundation, Jan 8, 2014

 $\frac{http://www.heritage.org/research/reports/2014/01/critical-clean-water-act-regulations-epa-and-the-corps-ignoring-sound-science}{}$

EPA issues hazardous waste-tracking regs

By Ben Goad, The Hill, Jan 15, 2014

http://thehill.com/blogs/e2-wire/e2-wire/195585-epa-issues-hazardous-waste-rule

[SEPP Comment: Needed.]

Energy Issues – Non-US

No shortage of energy as emissions rise: BP

By Robin Webster, Carbon Brief, Jan 15, 2014

http://www.carbonbrief.org/blog/2014/01/no-shortage-of-energy-as-emissions-rise-

bp/?utm_source=Daily+Carbon+Briefing&utm_campaign=2fe19b4c36-

DAILY_BRIEFING&utm_medium=email&utm_term=0_876aab4fd7-2fe19b4c36-303421281

[UK Business Secretary] Vince Cable: Soaring Energy Costs Big Problem for UK Manufacturing

By Shane Croucher, International Business Times, Jan 16, 2014 [H/t GWPF]

http://www.ibtimes.co.uk/vince-cable-soaring-energy-costs-big-problem-uk-manufacturing-1432625

Germany: How Energy Polices Can Harm The Economy

By Bruno Waterfield, Telegraph, UK, Jan 17, 2014

http://www.thegwpf.org/germany-energy-polices-harm-economy/

Germany is a cautionary tale of how energy polices can harm the economy

Despite Germany's shift to renewable solar and wind energies, and amid a recession, its carbon emissions rose by 1.8pc last year

By Bruno Wateerfield, Telegraph, UK, Jan 16, 2014 [H/t Bishop Hill]

http://www.telegraph.co.uk/finance/newsbysector/energy/10577513/Germany-is-a-cautionary-tale-of-how-energy-polices-can-harm-the-economy.html

Is the energy business being renationalised?

By Nick Butler, Financial Post, Jan 12, 2014 [H/t GWPF]

http://blogs.ft.com/nick-butler/2014/01/12/is-the-energy-business-being-renationalised/

40 Years in the Energy Desert

By T. Boone Pickens, Real Clear Politics, Jan 16, 2014

http://www.realclearpolitics.com/articles/2014/01/16/40_years_in_the_energy_desert_121230.ht ml

States revolt against EPA's global warming agenda

By Michael Bastasch, Daily Caller, Jan 16, 2014 [H/t Timothy Wise]

http://dailycaller.com/2014/01/16/states-revolt-against-epas-global-warming-agenda/

Good news for 2014 -- a domestic energy revolution is underway in the USA

By Nathan Mehrens, Fox News, Jan 2, 2014

http://www.foxnews.com/opinion/2014/01/02/good-news-for-2014-domestic-energy-revolution-is-underway-in-usa/

[SEPP Comment: Overly optimistic about the inability of the opposition to thwart these efforts.]

US officials call for more safety for oil by rail

By Staff Writers, AP, Jan 16, 2014 [H/t Timothy Wise]

 $\frac{http://townhall.com/news/us/2014/01/16/us-officials-call-for-more-safety-for-oil-by-rail-n1780229$

US carbon emissions rose 2 percent in 2013

By Laura Barron-Lopez, The Hill, Jan 13, 2014

http://thehill.com/blogs/e2-wire/e2-wire/195221-us-carbon-emissions-rose-2-percent-in-2013 [SEPP Comment: Certainly not in response to a booming economy.]

Washington's Control of Energy

Canada Is Tired Of Obama's Keystone XL Pipeline Delays

Editorial, IBD, Jan 17, 2014

 $\frac{http://news.investors.com/ibd-editorials/011714-686905-canada-wants-obama-to-decide-on-keystone.htm}{}$

Examiner Editorial: Obama moves closer to killing coal industry

Washington Examiner, Jan 9, 2014

http://washingtonexaminer.com/examiner-editorial-obama-moves-closer-to-killing-coal-

 $\underline{industry/article/2541902?utm_source=Washington \%20 Examiner: \%20 Opinion \%20 Digest \%20 Reoccurring \%20-$

%2001/10/2014&utm_medium=email&utm_campaign=Washington%20Examiner:%20Opinion%20Digest

Murkowski calls for updating 'antiquated' energy trade policies

By Ramsey Cox, The Hill, Jan 15, 2014

http://thehill.com/blogs/floor-action/senate/195583-murkowski-calls-for-updating-antiquated-energy-trade-policies

U.S. Crude Oil and Natural Gas Production in Federal and Non-Federal Areas

By Marc Humphries, CRS, Mar 7, 2013

http://energycommerce.house.gov/sites/republicans.energycommerce.house.gov/files/20130228C RSreport.pdf

Oil and Natural Gas – the Future or the Past?

The Wright stuff,

By Andrew Montford, Bishop Hill, Jan 14, 2014

http://bishophill.squarespace.com/blog/2014/1/14/the-wright-stuff.html

[SEPP Comment: Tough statements by the boss of an American shale gas company on the possibility of shale gas in England.]

Acid mine drainage reduces radioactivity in fracking waste

By Staff Writers, Durham, NC (SPX), Jan 14, 2014

http://www.energy-

daily.com/reports/Acid_mine_drainage_reduces_radioactivity_in_fracking_waste_999.html

Link to paper: Radium and Barium Removal through Blending Hydraulic Fracturing Fluids with Acid Mine Drainage

By Kondash, et al. Environmental Science and Technology, Dec 24, 2013

http://pubs.acs.org/doi/abs/10.1021/es403852h

[SEPP Comment: Enough to drive an enviro mad!]

Lancashire Demands Bigger Slice Of Shale Profits

By Michael Savage, The Times, Via GWPF, Jan 14, 2014

http://www.thegwpf.org/lancashire-demands-bigger-slice-shale-profits/

[SEPP Comment: From opposition to greed: first, smart drilling would not work in Britain; now, communities want more in royalties from what many claimed would not work.]

New study: U.S. power plant emissions down

Press Release by Staff, Univ. Colorado, Jan 9, 2014 [H/t WUWT]

http://www.colorado.edu/news/releases/2014/01/09/new-study-us-power-plant-emissions-down [SEPP Comment: Who would have thought that burning less carbon per unit of energy released would produce less carbon dioxide?]

Return of King Coal?

Coal's Generation Market Share Rises To 39.1% In 2013 And May Break 40% In 2014

By John Hanger, Facts of the Day, Jan 9, 2014 [H/t GWPF]

http://johnhanger.blogspot.co.uk/2014/01/coals-generation-market-share-rises-to.html

Energy future is in innovation, not regulation

By Kipp Coddington, The Hill, Jan 9, 2014

http://thehill.com/blogs/congress-blog/energy-environment/194840-energy-future-is-in-innovation-not-regulation

[SEPP Comment: CO2 injection into existing wells is regionally very limited.]

Coal's New Best Friends: An Environmentalist and Obama's EPA

By Michael Krancer, Forbes, Jan 9, 2014

http://www.forbes.com/sites/michaelkrancer/2014/01/09/coals-new-best-friends-an-environmentalist-and-obamas-epa/

[SEPP Comment: Nonsense, all based on the assumption that CCS works. It has not been tested on a commercial scale. See link immediately above.]

Nuclear Energy and Fears

To Balance Energy Demand, We Need Nuclear Power

By Mark Perry, IBD, Jan 16, 2014

http://news.investors.com/ibd-editorials-viewpoint/011614-686691-us-energy-needs-cant-be-satisfied-only-with-natural-gas.htm

Alternative, Green ("Clean") Solar and Wind

Energy Tax Reform: Scrap the Baucus Proposal (Part II: High cost/low value of windpower)

By Robert Bradley Jr., Master Resource, Jan 17, 2014

http://www.masterresource.org/2014/01/bachus-energy-tax-reform-2/#more-29370

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

Incipient Clean Energy Grid Problems

By Donn Dears, Power for USA, Jan 17, 2014

http://dddusmma.wordpress.com/2014/01/17/incipient-clean-energy-grid-problems/

Alternative, Green ("Clean") Vehicles

New Year, New Buzz

By Donn Dears, Power for USA, Jan 14, 2014

http://dddusmma.wordpress.com/2014/01/14/new-year-new-buzz/

[SEPP Comment: See comment at the bottom on water as a possible source for hydrogen.]

Carbon Schemes

Chasing the Dream of Half-Price Gasoline from Natural Gas

A startup called Siluria thinks it's solved a mystery that has stymied huge oil companies for decades.

By Kevin Bullis, MIT Technology Review, Jan 15, 2014

http://www.technologyreview.com/news/523146/chasing-the-dream-of-half-price-gasoline-from-natural-gas/?utm_campaign=newsletters&utm_source=newsletter-daily-all&utm_email&utm_content=20140115

California Dreaming

\$5.4 Billion in Solar: California Goes All In

By Jerry Graf, Master Resource, Jan 13, 2013

http://www.masterresource.org/2014/01/5-4-billion-solar-california/

Oh Mann!

Mann on advocacy and responsibility

By Judith Curry, Climate Etc. Jan 18, 2014

http://judithcurry.com/2014/01/18/mann-on-advocacy-and-responsibility/#more-14347

Environmental Industry

Sierra Club Pressed EPA to Create Impossible Coal Standards

Environmentalist suggested EPA head was lying when she told reporters coal would remain viable under new standards

By CJ Ciaramella, Washington Fee Beacon, Jan 10, 2014 [H/t Timothy Wise]

http://freebeacon.com/sierra-club-pressed-epa-to-create-impossible-coal-standards/

Germany's Greens help the coal industry, while the US cut emissions by ignoring the greens By Jo Nova, Her Blog, Jan 12, 2014

http://joannenova.com.au/2014/01/germanys-greens-help-the-coal-industry-while-the-us-cut-emissions-by-ignoring-the-greens/

Environmental groups say Obama needs to address climate change more aggressively

By Juliet Eilperin and Lenny Bernstein, Washington Post, Jan 16, 2014

 $\frac{http://www.washingtonpost.com/national/health-science/environmental-groups-say-obama-needs-to-address-climate-change-more-aggressively/2014/01/16/1e891608-7ebd-11e3-93c1-0e888170b723_story.html?hpid=z1$

MoveOn Announces Effort to Slow Fracking Boom

Fracking propelling country toward domestically produced energy abundance By Lachian Markay, Washington Free Beacon, Jan 10, 2014 [H/t Timothy Wise] http://freebeacon.com/moveon-announces-effort-to-slow-fracking-boom/

If You Think Communism Is Bad For People, Check Out What It Did To The Environment

By Colin Brabow, Federalist, Jan 13, 2014 [H/t Timothy Wise]

 $\underline{http://thefederalist.com/2014/01/13/if-you-think-communism-is-bad-for-people-check-out-what-it-did-to-the-environment/}$

The WWF: Still Donning the Science Costume

By Donna Laframboise, NFC, Jan 15, 2014

http://nofrakkingconsensus.com/2014/01/15/the-wwf-still-donning-the-science-costume/

Other Scientific News

The Trouble With 'Scientific' Research Today: A Lot That's Published Is Junk

By Henry Miller and S. Stanley Young, Forbes, Jan 8, 2014 [H/t ASCH]

 $\frac{http://www.forbes.com/sites/henrymiller/2014/01/08/the-trouble-with-scientific-research-today-a-lot-thats-published-is-junk/$

The state of scientific research today

By Staff Writers, ACSH, Jan 10, 2014

http://acsh.org/2014/01/state-scientific-research-today/

Other News that May Be of Interest

A Report Card for Humanity: 1900-2050

21 economists crunch the numbers on 10 of the world's most bedeviling problems.

By Bjorn Lomborg, Atlantic, Jan 8, 2014 [H/t David Lessman]

 $\underline{\text{http://www.theatlantic.com/international/archive/2014/01/a-report-card-for-humanity-1900-2050/282928/}$

Al Gore: Geoengineering to ward off climate change is "insane"

By Laura Barron-Lopez, The Hill, Jan 16, 2014

http://thehill.com/blogs/e2-wire/e2-wire/195646-al-gore-geoengineering-to-ward-off-climate-change-is-insane

[SEPP Comment: If the statement refers to global warming, which is no longer happening, SEPP agrees.]

BELOW THE BOTTOM LINE:

Honest Crooks Join The Climate Con

By Tony Thomas, Quadrant, Jan 14, 2014 http://quadrant.org.au/opinion/doomed-planet/2014/01/honest-crooks-get-climate-scam/

New studies explore conscious and unconscious links between weather and climate change attitudes

By Ros Donald, Carbon Brief, Jan 16, 2014

http://www.carbonbrief.org/blog/2014/01/conscious-and-unconscious-links-between-weather-and-climate/?utm_source=Weekly+Carbon+Briefing&utm_campaign=597db089e6-Carbon_Brief_Weekly_18_7_137_18_2013&utm_medium=email&utm_term=0_3ff5ea836a-597db089e6-215218249

The seven deadly sinners driving global warming

By Kate Ravillious, New Scientist, Jan 15, 2014

http://www.newscientist.com/article/mg22129523.100?cmpid=NLC%7CNSNS%7C2014-0116-GLOBAL&utm_medium=NLC&utm_source=NSNS&#.UtlWQJ4o6po

[SEPP Comment: Identifying those guilty of driving the world out of the Little Ice Age, if you assume the CO2 hypothesis.]

Washington D.C. not only a source of hot air, but now "planet killing methane" too, By Anthon Watts, WUWT, Jan 16, 2014

 $\underline{\text{http://wattsupwiththat.com/2014/01/16/washington-d-c-not-only-a-source-of-hot-air-but-now-planet-killing-methane-too/}$

ARTICLES:

1. Alaska to Invest in Natural Gas Project

State to Pay Up to \$5.7 Billion for Stake in LNG Plant

By Cassandra Sweet, WSJ, Jan 15, 2014

http://online.wsj.com/news/articles/SB10001424052702304149404579323224239571660?mod=WSJ_Energy

Alaska officials want to invest billions of state dollars in a major natural gas transportation project that they say will increase energy sales and boost state revenue.

The administration of Gov. Sean Parnell, a Republican, said Wednesday that it would seek lawmakers' approval of an agreement with several big energy companies that would allow Alaska to become an equity partner in the export project, which state officials have been pursuing for years.

Oil production has been declining in Alaska, prompting Mr. Parnell and his predecessors to seek ways to shore up the state's finances, which have been heavily dependent on oil taxes and royalties. Officials have been eager to unlock natural gas that is trapped underground near the Prudhoe Bay oil fields and in another gas-rich region called Point Thomson.

"We have a compelling interest in seeing these resources monetized," Natural Resources Commissioner Joe Balash said in an interview. By partnering with the companies, the state would shoulder a share of the costs while also enjoying a share of the profits, he said.

BP, Exxon Mobil Corp., ConocoPhillips, and TransCanada Corp have been working to develop the project, which would include a pipeline that would ship natural gas from Alaska's North Slope

to the coast. A plant would convert the gas into liquid form at low temperature so that it could be loaded onto ocean vessels and shipped overseas.

The liquefying plant could cost as much as \$23 billion, while the pipeline and other related facilities and equipment could cost roughly \$22 billion more, according to estimates included in a November analysis commissioned by state.

The state plan entails buying as much as a quarter of the gas-export facility, which would require an investment of as much as \$5.7 billion. The state also would own a share of the pipeline, which TransCanada had previously agreed to build and for which it has already received about \$300 million in state funds.

2. Arctic Passage Opens Challenges for U.S. Military

Thinning Polar Ice Expected to Give Way to New Commercial Waterways and Resource-Rich Frontier

By Julian Barnes, WSJ, Jan 12, 2014

http://online.wsj.com/news/articles/SB10001424052702303330204579250522717106330

The 40-year-old Coast Guard icebreaker Polar Star returned to the Arctic Ocean this summer after seven years in semiretirement, charging into a thinning polar ice sheet that U.S. defense officials predict will give way to new commercial waterways and a resource-rich frontier by midcentury.

Navy officials say the Arctic will give the U.S. its first new ocean to police since the annexation of the Pacific Northwest in 1846. As the ice surrounding the North Pole retreats, officials say, commercial shippers will be able to eventually move goods faster between Asia and Europe. More open seas will also give energy companies greater access to offshore oil and gas in regions controlled by the U.S. and estimated by military officials to be worth \$1 trillion.

As the Polar ice cap melts and commercial traffic increases in the Arctic, the U.S. military must find the resources to patrol the area. In the meantime, it turns to a 40-year old ice breaker to get the job done. Photo: U.S. Coast Guard

"The inevitable opening of the Arctic will essentially create a new coast on America's north," said Adm. Jonathan Greenert, the Navy's top officer.

Even though the anticipated change is years away, Navy and Coast Guard officials say the U.S. needs to prepare now to patrol and defend the new waterways—designing ice-resistant ships and expanding Arctic naval exercises—when military scientists predict a new expanse of water freed of ice.

A new Navy strategy, set for release in coming weeks, says increased commercial traffic, oil and gas exploration and tourism will create new demands in the Arctic. The paper, a draft of which was reviewed by The Wall Street Journal, notes the Navy lacks "operational experience" and ships properly outfitted for the extreme weather. It must also address poor satellite coverage.

Pentagon budget cuts, however, make plans for the new Arctic frontier difficult. "This is not a good time to be putting a lot of bills on the table," said Army Gen. Charles Jacoby, the top officer at Northern Command, the military headquarters that oversees the Arctic Ocean.

While the Pentagon budget remains large, military spending is falling faster than any time since the end of the Korean War. The Pentagon faces \$31 billion in spending cuts this year and \$42 billion next year.

In November, Defense Secretary Chuck Hagel said the department must prepare to exercise U.S. sovereignty in the Arctic, despite budget cuts, and extend protection of the seas there.

For now, the defense of Arctic waters belongs to the Polar Star, the Coast Guard's single heavy icebreaker, and the service's medium icebreaker, the Healy.

"You can hear the ice continually scraping down the side of the hull. It drives some people nuts. But to us it is a very melodious sound," said Coast Guard Capt. George Pellissier, the commanding officer.

However melodious, barreling through the ice cap is tough on an aging ship. Constant shaking taxes the piping system, keeping the 145-person crew on alert for leaks, the captain said. The balky equipment includes computers to forecast weather; part of the ship's transmission was salvaged from a retired vessel.

With little money for new ships, the Polar Star is assigned double duty: working the Arctic in the summer and the Antarctic in winter.

Earlier this month, the Coast Guard ordered the Polar Star, which was headed to Antarctica to resupply a research station, to help rescue a Russian research vessel stuck in the southern ice. The ship broke free before the Polar Star arrived.

Such rigorous demands may prove difficult for the old ship, Coast Guard officers said. Some military officials would like to see 10% or more of new Navy ships ice-hardened for the expected expansion of Arctic operations. Now, it has none. Hardening a Navy warship for Arctic seas could cost as much as \$300 million, officials said.

Russia, by contrast, has 25 icebreakers, including six that are nuclear powered, according to the Center for Strategic and International Studies, a nonpartisan Washington think tank. Russian President Vladimir Putin recently promised to reopen old Arctic bases, a sign of Moscow's investment in the far north.

Some in the Navy and Coast Guard contend the U.S. will need as many as 10 icebreakers—at an estimated cost of \$784 million per ship—to keep shipping lanes free of ice, as well as aid search and rescue missions and ensure safe travel for vessels.

The 40-year-old Coast Guard icebreaker Polar Star in the Arctic this summer. The U.S. Navy is developing a new strategy for patrolling Arctic waters. U.S. Coast Guard

Military scientists steer clear of saying why the ice is melting and any public references to global warming. But the military views the retreat of Arctic ice as fact. "Climate change has had a visible and direct impact on the Arctic region," concludes the forthcoming Navy strategy paper.

In 2012, ice coverage was more than a million square miles less than the historical average—a reduction equal to about four times the size of Texas, according to government and university scientists. The amount of ice was significantly greater in 2013, but the coverage was still sixth lowest in recorded history, according to federal officials.

"I don't have the luxury of having a political opinion on this," Gen. Jacoby said. "It has happened. And it needs to be accounted for."

While Antarctica is a rocky continent covered in ice, the North Pole is mostly a 13-foot ice cap over ocean. The ice grows in the winter, and melts in the summer. While there is variation from year to year, the summer melt is growing more extensive, according to military officers.

The five nations bordering the Arctic Ocean all have economic exclusion zones extending 230 miles from land, and the Law of the Sea Treaty, which the U.S. hasn't ratified, allows nations to claim even more of the continental shelf and undersea energy resources.

The long coast of Alaska gives the U.S. claim to a large economic zone in the Arctic. Just as the U.S. Army cavalry protected railroads in the American West, Gen. Jacoby sees a military responsibility in these emerging waters.

For the Navy, that means protecting new shipping lanes and making waters safe for energy and mineral companies. For the Coast Guard, it means responsibility for rescues aboard foundering ships or endangered oil platforms.

Shipping companies say they are in no rush to use the Arctic; some parts are too shallow for container ships. A spokeswoman for A.P. Moller-Maersk said the shipping company doesn't believe the route will be economically viable over the next 20 years.

Others are more bullish and believe the military needs to invest soon.

"We aren't prepared," said Heather Conley, a defense analyst who has written on Arctic issues for CSIS, the Washington think tank. "We have to make some hard resource choices. We keep trying to avoid making a decision. That is going to come back to haunt us."

Adm. Greenert said the Navy needed to "get in tune" with the industry before any big spending decisions.

Coast Guard officials say traffic in the Arctic Ocean is expanding. The service tracked 240 ships operating off northern Alaska last year, compared with 190 in 2011. A ship from China last year used an Arctic sea route above Russia to shave two weeks off the time needed to reach Europe.

"Maritime commerce is happening at a much faster rate than people realize," said Rear Adm. Thomas Ostebo, who commands the Coast Guard's Alaska district. "All this activity gives opportunity for calamity."

The Navy began its Arctic operations during the Cold War. American nuclear-armed subscruised under the Arctic ice in a cat-and-mouse game with the former Soviet Union.

Ships supplied U.S. and Canadian early warning stations that watched for Soviet missile or bomber attacks. The Coast Guard polar icebreaking fleet near the height of the Cold War included seven smaller Wind-class ships and one Glacier-class vessel. But as the fleet of World War II era

ships aged, they were retired, replaced in the 1970s by the Polar Star and its sister ship, the Polar Sea, which is now used only for spare parts.

Military officers said despite growing tensions with Russia elsewhere in the world, there is no reemerging Cold War in the Arctic, beyond what are viewed as routine military exercises by Russia in the Bering Strait, the passage close to Alaska that separates Asia and North America.

The U.S. Naval War College in Newport, R.I., has run a series of war games to find new ideas for defending the emerging waterways.

The Navy predicts that by 2025, commercial traffic will be able to navigate swaths of the Arctic Ocean for several months a year. By 2040, it estimated that waterways will be navigable much of the year, requiring "sustained operations in the region."

To meet these goals, according to the draft strategy, the Navy is developing expanded Arctic training plans and improved weather forecasting and communications equipment.

Growth in Arctic shipping traffic prompted the Coast Guard to spend \$90 million on the Polar Star for system upgrades and to rebuild the engines, an overhaul expected to give the icebreaker at least seven more years of life, said the Congressional Research Service, a nonpartisan arm of Congress.

The Polar Star was originally supposed to be in service for 30 years. Its age and a lack of funding had prompted the Coast Guard to put the ship into semiretirement: afloat but not operational.

This summer, on its first voyage to the Arctic since 2001, veterans on the crew found a very different ocean.

"Back in the day there were a lot more challenges, more multiyear ice, you had to pick your spots through it," said Coast Guard Cmdr. Kenneth Boda, the ship's executive officer. "This summer we set a course and go...We were teaching our young officers to drive around the thicker stuff but we could have gone right through."

The changing conditions make the Arctic particularly unpredictable.

Lt. j.g. Paul Garcia, on his first icebreaking mission this summer, steered the Polar Star into what the Coast Guard calls a "blind alley."

In the Arctic, moving ice floes can bunch up to form mountainous ridges of ice. When three or four floes ram together, the ice can be so thick that even the Polar Star—capable of 75,000 horsepower—can't smash through, creating a blind alley.

"He picked an area to go where four floes had come together, forming a parking garage of pressure ridges," said Capt. Pellissier, who has served many of his 27 years in the Coast Guard on ice-breaking missions, including three tours on the Polar Star since 1999. "It is easy to get your icebreaker stuck."

"It was a learning experience," Lt. Garcia said, who had to "wiggle" and ram the icebreaker back out.

The Arctic trip was also a test of the Polar Star, to ensure the ship was able to break through the ice as well as it did in the old days. "The ship still run

"It just needs a good bit of TLC," said Marine Science Technician First Class Brian Carr.

Military analysts say the question facing the Pentagon is whether the ice will melt before the military spending freeze thaws.

3. No Quick Fix for China's Air Quality

By Andrew Browne, WSJ, Jan 14, 2014

To control the pollution that's choking Beijing, demolition squads recently swooped down on this industrial city located two hours away by car and crippled a batch of coal-burning steel works.

TV cameras caught the officially sanctioned saboteurs dismantling massive pieces of equipment in outdated steel facilities that had long resisted government orders to close. Some reports say they used explosives to blow up boilers in what was dubbed "Operation Sunday." The message to local officials who are often complicit with owners of polluting factories, many of them big taxpayers: Get serious about the urban cleanup.

As China's air pollution indexes spike to record highs, it's easy to conclude that the country's central government lacks resolve in dealing with the problem.

But the military-style operation in Tangshan suggests the opposite is true.

In fact, a team of scientists and engineers from Harvard University in the U.S. and several top Chinese institutions, including Tsinghua University, say that China's air quality is getting worse despite draconian efforts to eliminate sources of pollution.

And, even as the skies over Beijing and other major cities continue to darken, these experts credit the government with some of the most successful pollution-abatement programs in history.

The conclusion they reach is a troubling one both for China and its neighbors, including Japan and South Korea, which are in the exhaust stream of China's roaring industrial engine: The best efforts of Chinese authorities to combat pollution are being overwhelmed by the sheer pace of economic expansion in the country.

In short, these scientists say, there are no quick or easy fixes.

"There's nothing irrational about the claim that China has been very successful at certain types of pollution control," says Chris Nielsen, the executive director of the China Project at Harvard's School of Engineering and Applied Sciences.

The fact that this success hasn't immediately translated into bluer skies shows that "these are extraordinarily complex problems," he argues.

Brute force, exemplified by the Tangshan demolition raids, is a beguiling option for Chinese politicians eager to demonstrate progress against pollution to an increasingly angry and impatient public.

Air pollution is now the fourth-biggest health threat to Chinese people, according to a study published last year in the Lancet, a British medical journal. About 1.2 million people died prematurely in China in 2010 as a result of air pollution, the study showed. Chinese government data show that lung cancer is now the leading cause of death from malignant tumors. Many of those dying are nonsmokers.

Tangshan is ground zero in this escalating health crisis. On average last year, the air breathed by its 7.6 million people was considered hazardous to health for five days out of seven, according to China's own official standards. That makes Tangshan one of the filthiest cities in China—and thus the world.

Its noxious emissions, combined with those from other gritty cities surrounding Beijing, helped produced the "airpocalypse" a year ago when the Chinese capital experienced air pollution more than 70 times above the level considered safe in the U.S.

What's more, Tangshan's steel industry is plagued by overcapacity—an immense problem in China whose total redundant steel capacity is estimated to equal the entire U.S. steel-production capacity.

Disabling the oldest and dirtiest steel plants, therefore, struck at two problems at once.

However, says Mr. Nielsen, the huge complexity of China's pollution challenge doesn't always lend itself to the kind of top-down solutions favored by Chinese state planners.

Local officials resist factory closures to protect jobs and economic growth, the source of their political power.

Shifting climate patterns are also conspiring against the environmental cleanup. At one time, cold fronts moving through Beijing helped flush pollutants out to sea. But lately the air has become more stationary.

And China's dramatic progress in reducing sulfur-dioxide emissions from coal-fired power stations may actually have increased the levels of fine PM 2.5 particles in the air in north China during the winter. The particles, which do the most damage to human lungs, are formed by chemical reactions in the air. Removing the sulfur allowed even more polluting reactions to occur, says Mr. Nielsen.

"They're going after a moving target," says Deborah Seligsohn, an expert on the Chinese environment who is a researcher at the University of California, San Diego. Still, she predicts that in five to 10 years "there will be an improvement in air quality that you'll be able to see."

Last year, a National Action Plan targeted massive spending of \$275 billion on antipollution measures over the next five years until 2017. Over that period, the government has targeted a 25% reduction in PM 2.5 levels in the region around Beijing.

Mr. Nielsen believes that the ultimate answer may be a carbon tax on industry, a market-based solution also favored by China's new finance minister, Lou Jiwei.

Still, Mr. Nielsen points out that no country in the world has been able to shift suddenly from gray skies to blue. "It's going to take decades," he says.