

# **Scientists Respond to the Obama Administration's National Climate Assessment – 2014**

The National Climate Assessment - 2014 (NCA) is a masterpiece of marketing that shows for the first time the full capabilities of the Obama Administration to spin a scientific topic as they see fit, without regard to the underlying facts. With hundreds of pages written by hundreds of captive scientists and marketing specialists, the administration presents their case for extreme climate alarm.

As independent scientists, we know that apparent evidence of “Climate Change,” however scary, is not proof of anything. Science derives its objectivity from robust logic and honest evidence repeatedly tested by all knowledgeable scientists, not just those paid to support the administration’s version of “Global Warming,” “Climate Change,” “Climate Disruption,” or whatever their marketing specialists call it today.

We are asked to believe that humans are drastically changing the earth's climate by burning fossil fuels. The problem with their theory is very simple: **It is NOT true.** Here we address the administration’s basic thesis and the essential evidence that they claim support extreme concern.

The theory of 'Catastrophic Anthropogenic Global Warming' (CAGW) is based on a string of inferences that begins with the assumptions that carbon dioxide is a 'greenhouse gas' and that we are slowly driving up the atmospheric concentration by burning fossil fuels. It is therefore claimed as self-evident that the Global Average Surface Temperature (GAST) has already risen significantly and will continue to do so. Higher GAST is then presumed to lead to all sorts of negative consequences, especially Extreme Weather. They promote their 'Climate Models' as a reliable way to predict the future climate. But these models dramatically fail basic verification tests. Nowhere do they admit to these well-known failures. Instead, we are led to believe that their climate models are close to perfection.

This document is structured around a “fact-check,” where we quote a number of the government's key claims in the NCA and show each to be invalid. The first three claims involve their three crucial scientific arguments (Three Lines of Evidence or 3 LoE), which, if valid, would satisfy a necessary, but not sufficient, condition for making their case. But each is easily shown to be false; and because each is crucial, their entire theory collapses. That means that all of the overblown “Climate Disruption” evidence that they mention, whether true or not, **cannot** be tied back to man's burning of fossil fuels. Hence, efforts to reduce or eliminate Extreme Weather by reducing the burning of fossil fuels are completely nonsensical.

## **NCA CLAIM #1: “*First 'Line of Evidence' (LoE) - Fundamental Understanding of GH Gases*”**

**“The conclusion that human influences are the primary driver of recent climate change is based on multiple lines of independent evidence. The first line of**

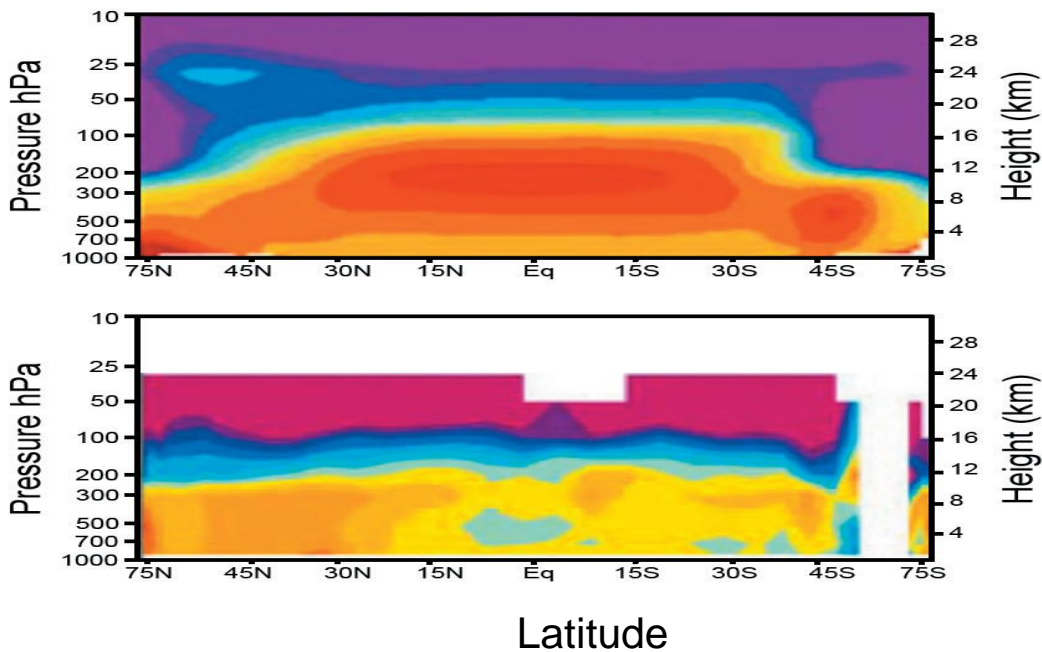
evidence is our fundamental understanding of how certain gases trap heat, how the climate system responds to increases in these gases, and how other human and natural factors influence climate.” (NCA, Page 23)

**RESPONSE:** Many scientists have provided ample evidence that the government's finding, used by the Environmental Protection Agency (EPA), is grossly flawed. In its Endangerment Finding, EPA claimed with 90-99% certainty that observed warming in the latter half of the twentieth century resulted from human activity. Using the most credible empirical data available, it is relatively straightforward to soundly reject each of EPA's Three LoE. This U.S. Supreme Court Amicus brief contains the details:

<http://sblog.s3.amazonaws.com/wp-content/uploads/2013/07/GW-Amicus-2013-05-23-Br-of-Amici-Curiae-Scientists-ISO-Petitions-fo...2.pdf>

EPA's Greenhouse Gas 'Hot Spot' theory is that in the tropics, the mid-troposphere must warm faster than the lower troposphere, and the lower troposphere must warm faster than the surface, all due to rising CO2 concentrations. However, this is totally at odds with multiple robust, consistent, independently-derived empirical datasets, all showing no statistically significant positive (or negative) trend in temperature and thus, no difference in trend slope by altitude. Therefore, EPA's theory as to how CO2 impacts GAST must be rejected. Below is a graphical comparison of their Hot Spot theory versus reality, where reds denote warming and blues, cooling. Clearly, the government's understanding of how CO2 gas traps heat is fundamentally flawed.

### Models (top) vs. Measured Temperatures Changes (bottom)



**NCA CLAIM #2: “Second LoE - Unusual Warming in recent decades”**

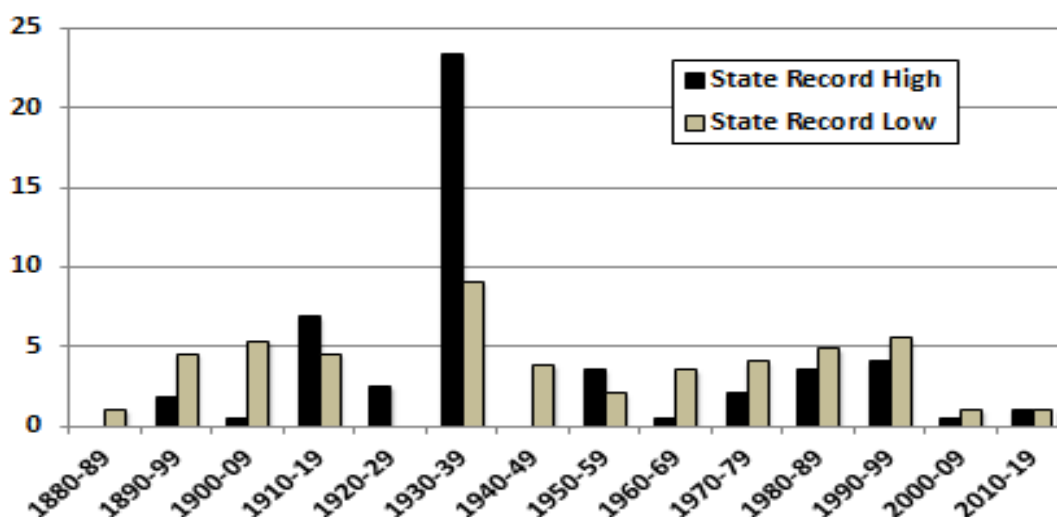
“The second line of evidence is from reconstructions of past climates using evidence such as tree rings, ice cores, and corals. These show that global surface temperatures over the last several decades are clearly unusual, with the last decade (2000-2009) warmer than any time in at least the last 1,300 years and perhaps much longer.” (NCA, Page 23)

**RESPONSE:** “Global Warming” has not been global and has not set regional records where warming has occurred. For example, over the last fifty years, while the Arctic has warmed, the tropical oceans had a flat trend (see e.g. NOAA Buoy Data: NINO 3.4, Degrees C, available at <http://www.cpc.ncep.noaa.gov/data/indices/ersst3b.nino.mth.81-10.ascii>), and the Antarctic cooled slightly.

The most significant warming during this period occurred in the Northern Hemisphere, north of the tropics but that ceased over the last 15 years or more. Also, as the figure below shows, over the last 130 years the decade of the 1930’s still has the most U.S. State High Temperatures records. And, over the past 50 years, there were more new [State Record Lows](#) set than Record Highs. In fact, roughly 70% of the current State Record Highs were set prior to 1940.

[http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore\\_id=66585975-a507-4d81-b750-def3ec74913d](http://epw.senate.gov/public/index.cfm?FuseAction=Files.View&FileStore_id=66585975-a507-4d81-b750-def3ec74913d)

## Number of State Record High & Low Temperatures by Decade



See NOAA NATIONAL CLIMATIC DATA CTR., State Climate Extremes Committee, Records, <https://www.ncdc.noaa.gov/extremes/scec/records> (last visited 12/15/ 2013)

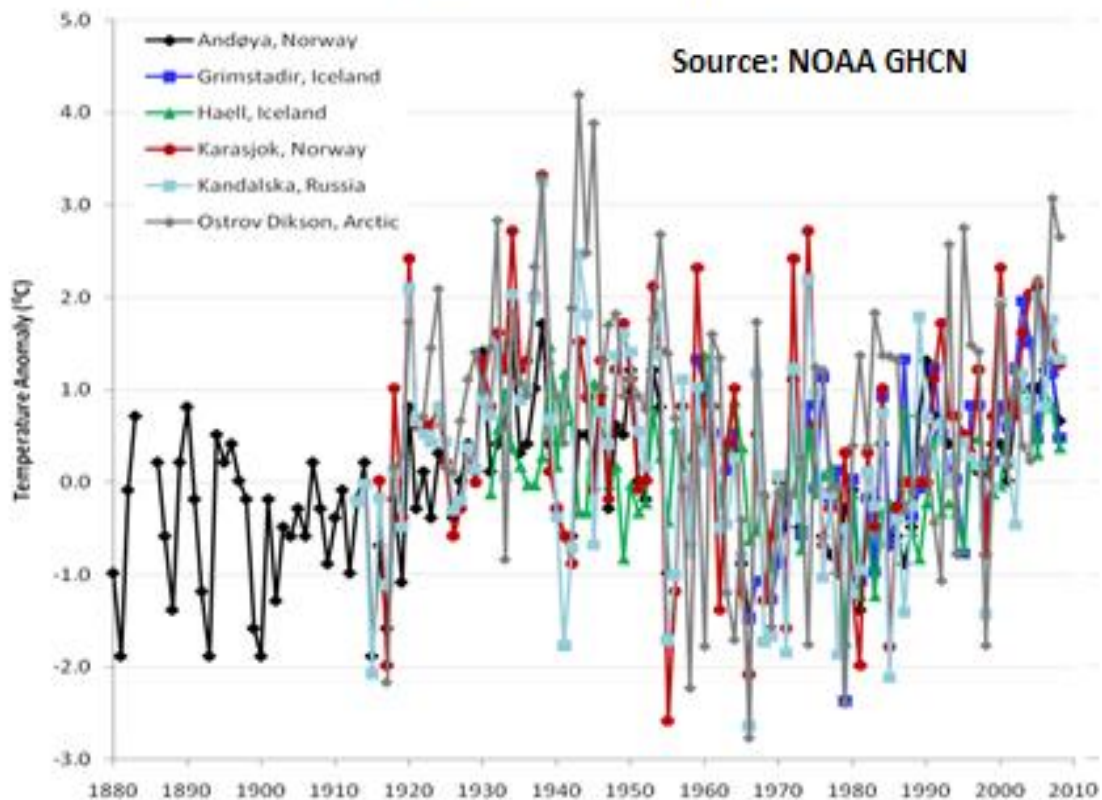
If the observed warming over the last half century can anywhere be claimed to be unusual, it would have to be where it was greatest – in the Arctic. Both satellite and surface station data show a warming of about two degrees Celsius since the 1970's. But the surface station data (see the Figure below) show that warming in context. Recent warming was very similar to the previous warming from 1900 to 1940, reaching virtually the same peak.

This refutes the government claim that recent warming (which occurred when man-made CO2 was rising) was notably different from an era when man-made CO2 was not claimed to be a factor.

It also points out an essential feature of most credible thermometer records that cover many decades. **Our climate is highly cyclical**, driven in fact by ocean and solar cycles, not carbon dioxide.

***Using only the upward trend of the most recent half cycle to suggest relentless warming is very deceptive.***

## Arctic Region Temperatures

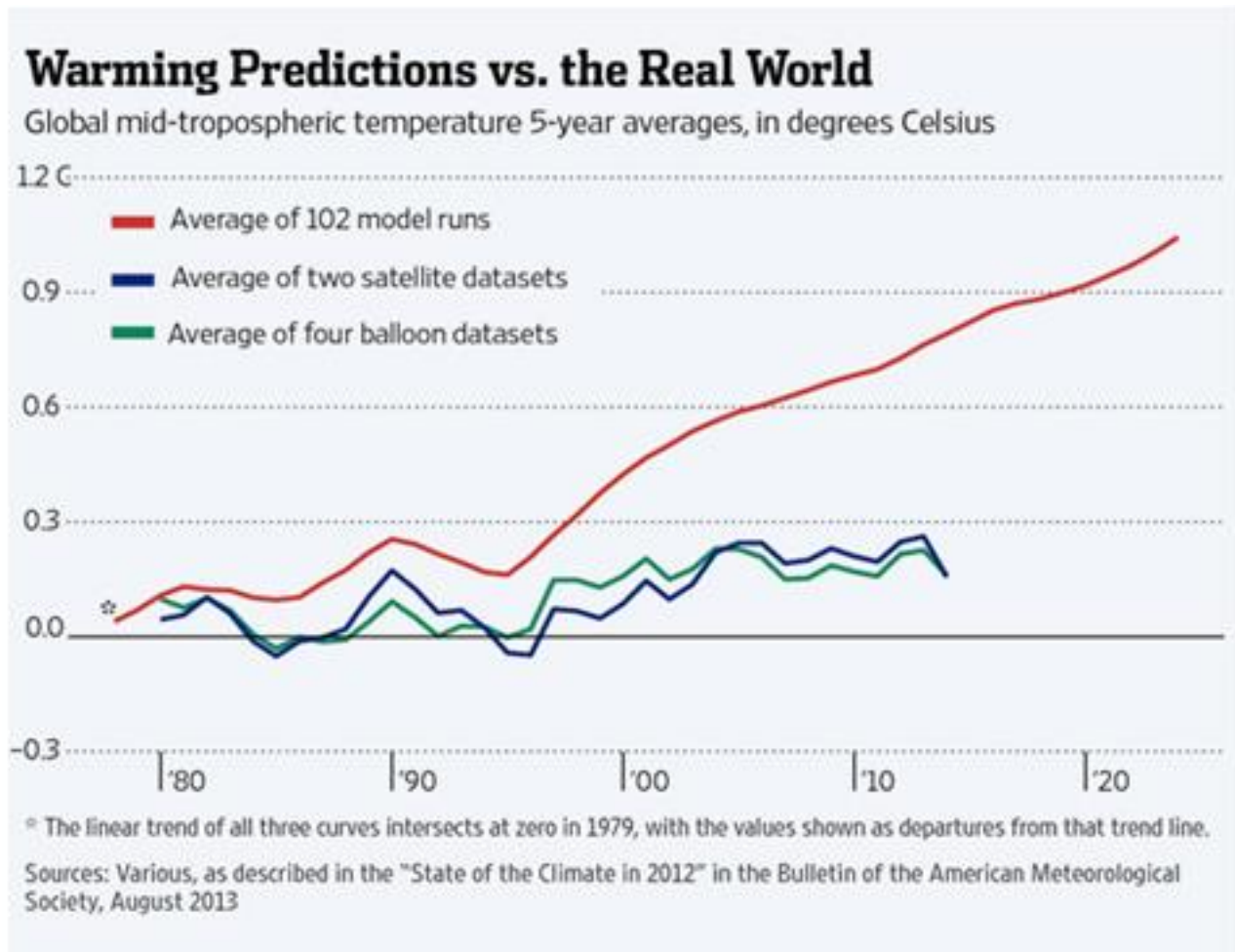


<http://diggingintheclay.files.wordpress.com/2010/10/arctic-usa.png>

### NCA CLAIM #3: *Third LoE – “The Climate Models”*

The third line of evidence comes from using climate models to simulate the climate of the past century, separating the human and natural factors that influence climate. (NCA, Page 24)

**RESPONSE:** The Administration relied upon *Climate Models*, all predicated on the GHG Hot Spot Theory, that all fail standard model validation and forecast reliability tests. These Climate Models are simulations of reality and far from exact solutions of the fundamental physics. The models all forecast rising temperatures beyond 2000 although the GAST trend has recently been flat. See the figure below. This is not surprising because EPA never carried out any published forecast reliability tests. The government's hugely expensive climate models are **monumental failures**.



*Model Lower Tropospheric Temperature forecasts versus actual*

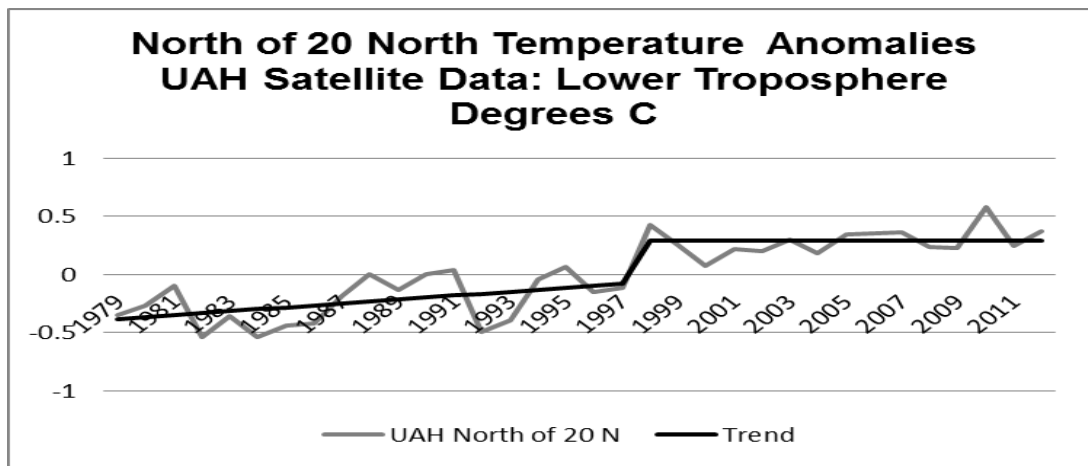
**NCA CLAIM #4: “Extreme Weather – Temperatures”**

“global temperatures are still on the rise and are expected to rise further.” (NCA, Page 8)

“The most recent decade was the nation’s and the world’s hottest on record, and 2012 was the hottest year on record in the continental United States. All U.S. regions have experienced warming in recent decades, but the extent of warming has not been uniform. (NCA, Page 8)

**RESPONSE:** As mentioned in the response to CLAIM #2, most of the warming in the second half of the 20<sup>th</sup> century occurred north of the tropics. But as shown below, this warming stopped over 17 years ago. Furthermore, the Hadley Centre (upon which the government and the UN IPCC heavily relied) recently announced a forecast that the GAST trend line will likely remain flat for another five years. See *Decadal forecast*, MET OFFICE, <http://www.metoffice.gov.uk/research/climate/seasonal-to-decadal/long-range/decadal-fc> (last visited Dec. 15, 2013).

As for claims about record setting U.S. temperatures, please see our response to CLAIM #2 above.



See National Space Sci. & Tech.Ctr., North of 20 North Temperature Anomalies UAH Satellite Data: Lower Troposphere Degrees C, available at <http://vortex.nsstc.uah.edu/data/msu/t2lt/uahncdc.lt> (last visited May 17, 2013).

**The National Academy of Sciences (NAS)** was [critical](#) of the draft National Climate Assessment, saying that “An overly narrow focus can encourage one-sided solutions, for instance by giving an impression that reducing greenhouse gas emissions alone will solve all of the major environmental concerns discussed in this report.” The NAS has also criticized “the lack of explicit discussion about the uncertainties associated with the regional model projections,” saying that “Decision makers need a clear understanding of these uncertainties in order to fairly evaluate the actual utility of using these projections as a basis for planning decisions.”

## **NCA CLAIM #5**

### ***“Extreme Weather – Hurricanes”***

**“The intensity, frequency, and duration of North Atlantic hurricanes, as well as the frequency of the strongest (Category 4 and 5) hurricanes, have all increased since the early 1980s.” (NCA, Page 20)**

### ***“Extreme Weather - “Droughts and Floods”***

**“both extreme wetness and extreme dryness are projected to increase in many areas.” (NCA, Page 33)**

**RESPONSE:** According to the **UN Intergovernmental Panel on Climate Change** (IPCC,) there is “high agreement” among leading experts that long-term trends in weather disasters **are not attributable to our use of fossil fuels.**

Hurricanes have not increased in the United States in frequency, intensity, or normalized damage since at least 1900. Currently, the U.S. is enjoying a period of over eight years without a Category 3 or stronger hurricane making landfall. Government data also indicate no association between use of fossil fuels and tornado activity.

The data on droughts paint a similar picture. **The National Oceanic and Atmospheric Administration** found that “Climate change was not a significant part” of the recent drought in Texas. And the IPCC found that “in some regions, droughts have become less frequent, less intense, or shorter, for example, central North America ....” **The IPCC** also states there is “low confidence” in any climate-related trends for flood magnitude or frequency on a global scale.

## **Still More NCA CLAIMS**

**RESPONSE:** All of the other government claims worth discussing have been answered effectively in other commentaries. These include those related to ocean and lake ice levels, sea levels, and ocean alkalinity. Detailed rebuttals of such government claims can be found in reports available from CATO, CEI, Climate Depot, Heritage, ICECAP, TWTW, and WUWT.

## SUMMARY

The Obama Administration's National Climate Assessment begins with probably their most preposterous claims:

**“Climate change, once considered an issue for a distant future, has moved firmly into the present.”** (NCA, Page 1)

**“Evidence for climate change abounds, from the top of the atmosphere to the depths of the oceans.”** (NCA, Page 7)

**“There is still time to act to limit the amount of change and the extent of damaging impacts”** (NCA, Page 2)

**RESPONSE:** This is pure rhetorical nonsense born of a cynical attempt to exploit short term memories and/or little knowledge of the Earth's climate history and climate processes.

**Our climate is constantly changing for perfectly natural reasons that have nothing to do with carbon dioxide.**

With the Earth's vast oceans and atmosphere never in complete equilibrium, our climate will always be changing on time scales from weeks to months to years to decades to centuries and beyond. With a star varying cyclically as our heat source and with an enormous planet like Jupiter tugging on our orbit around the Sun, dramatic climate changes are expected to occur. (See pages 39-50 in USCA, Case #09-1322, Document #1312291, Filed: 06/08/2011.) However, none of these dramatic climate changes have any connection to our use of fossil fuels.

Yet the Obama Administration insists on building a House of Cards predicated on their Three Lines of Evidence as discussed in CLAIMS 1, 2, and 3 above. With all three of their Lines of Evidence shown to be invalid, their entire House of Cards collapses. For example, if increasing atmospheric CO<sub>2</sub> concentrations do not yield higher GAST, the claimed CO<sub>2</sub> connection to higher sea levels is lost.

What about their frequent claims that nearly all scientists agree with their analysis findings? By ignoring and even denouncing growing criticism, they have lost the benefit of crucial scientific debates which are critical to keeping their analyses honest and objective. In fact, as documented above in response to Claims 4 and 5, they are even disregarding their usual allies, the UN IPCC and US National Academy of Sciences, both of whom have been dialing back apocalyptic claims, not amplifying them due at least in part to such critical feedback.

**Bottom-Line: This NCA is so grossly flawed it should play no role in U.S. Energy Policy Analyses and CO<sub>2</sub> regulatory processes. As this rebuttal makes clear, the NCA provides no scientific basis whatsoever for regulating CO<sub>2</sub> emissions.**



## **NCA REBUTTAL AUTHORS/REVIEWERS**

Joseph S. D'Aleo  
Certified Consultant Meteorologist,  
American Meteorological Society Fellow  
M.S., Meteorology, University of Wisconsin  
B.S., Meteorology (cum laude), University of Wisconsin

Dr. Harold H. Doiron  
Retired VP, Engineering Analysis and Test Division, InDyne, Inc.  
Ex-NASA JSC, Aerospace Consultant  
B.S. Physics, University of Louisiana - Lafayette  
M.S., Ph.D. Mechanical Engineering, University of Houston

Dr. Don J. Easterbrook  
Emeritus Professor of Geology, Western Washington University  
Ph.D., Geology, University of Washington, Seattle  
M.S., Geology, University of Washington, Seattle  
B.S., Geology, University of Washington, Seattle

Dr. Theodore R. Eck  
Ph.D., Economics, Mich. State U.; M.A, Economics, U. of Michigan  
Fulbright Professor of International Economics  
Former Chief Economist of Amoco Corp. and Exxon Venezuela  
Advisory Board of the Gas Technology Institute and Energy Intelligence Group

Dr. Neil Frank  
B.S., Chemistry, Southwestern College  
M.S., Ph.D. Meteorology, Florida State  
Former Director of the National Hurricane Center

Dr. Gordon J. Fulks  
Ph.D., Physics, University of Chicago  
M.S., Physics, University of Chicago  
B.S., Physics, University of Chicago

Dr. William M. Gray  
Emeritus Professor of Atmospheric Science, Colorado State University  
Ph.D., Geophysical Sciences, University of Chicago  
M.S., Meteorology, University of Chicago  
B.S., Geography, George Washington University

Art Horn  
B.Sc. Meteorology Lyndon State College  
Teaches Meteorology/Climatology at Tunxis Community College  
TV Meteorologist 25 years, lecturer, expert witness, radio broadcaster

Dr. Thomas P. Sheahan  
Ph.D., Physics, M.I.T.  
B.S., Physics, M.I.T.

Dr. S. Fred Singer  
Fellow AAAS, APS, AGU  
Prof Emeritus of Environmental Sciences, U of VA  
Ph. D., Physics, Princeton University  
BEE, Ohio State University

Dr. Anthony R. Lupo  
IPCC Expert Reviewer  
Professor, Atmospheric Science, University of Missouri  
Ph.D., Atmospheric Science, Purdue University  
M.S., Atmospheric Science, Purdue University

Dr. Madhav Khandekar  
Retired Scientist, Environment Canada  
Expert Reviewer IPCC 2007 Climate Change Documents

George Taylor  
Certified Consulting Meteorologist  
President Applied Climate Services  
Two time President of the American Association of State Climatologists  
B.A. Mathematics, University of California  
M.S. Meteorology University of Utah

Dr. James P. Wallace III  
Jim Wallace & Associates, LLC  
Ph.D., Economics, Minor in Engineering, Brown University  
M.S., Mechanical Engineering, Brown University  
B.S., Aeronautical Engineering, Brown University

Dr. George T. Wolff  
Former Chair EPA's Clean Air Scientific Advisory Committee  
Ph.D., Environmental Sciences, Rutgers University  
M.S., Meteorology, New York University  
B.S., Chemical Engineering, New Jersey Institute of Technology

May 15, 2014