

Claims that the globe has recently experienced the warmest ever month or year are totally unsupported by any credible analysis of raw surface temperature data and its availability. As such, in reality, they are just politically driven fictions.

Stories frequently appear in the once-reliable media, citing formerly unbiased NOAA/NASA/Hadley CRU data centers, that proclaim the recent time period had the warmest temperatures in the entire record back to 1900 or even earlier. However, the Peer Reviewed and Published Research Report, entitled:

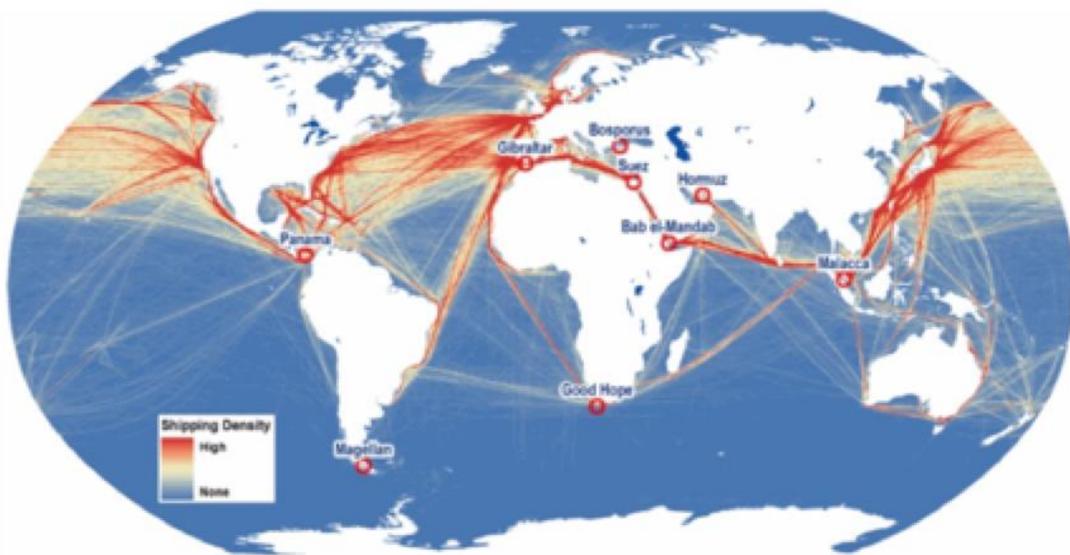
On the Validity of NOAA, NASA and Hadley CRU Global Average Surface Temperature Data & The Validity of EPA's CO2 Endangerment Finding, Abridged Research Report, Dr. James P. Wallace III, Dr. (Honorary) Joseph S. D'Aleo, Dr. Craig D. Idso, June 2017 ([here](#)),

provided ample evidence that the Global Average Surface Temperature (GAST) data, without doubt, has been invalidated for use in climate analyses and modeling as well as for any other climate change policy analysis purpose. More specifically, it stated:

“The conclusive findings of this research are that the three GAST data sets are not a valid representation of reality. In fact, the magnitude of their historical data adjustments, that removed their cyclical temperature patterns, are totally inconsistent with published and credible U.S. and other temperature data. Thus, it is impossible to conclude from the three published GAST data sets that recent years have been the warmest ever – despite current claims of record setting warming.”

This fact becomes readily apparent given that 71% of the earth's surface is ocean and the only ocean temperature data available, prior to the satellite era which began in 1979, was limited to ship routes -mainly near land in the northern hemisphere. The Southern Hemisphere Ocean Temperature data record is extremely limited by the number of available measurements, both historically and even presently, from Antarctica to the equatorial regions.

In 1978, the [New York Times](#) reported there was too little temperature data from the Southern Hemisphere to draw any reliable conclusions. The report, prepared by German, Japanese and American specialists, appeared in the Dec. 15, 1977 issue of *Nature*, the British journal and stated that "Data from the Southern Hemisphere, particularly south of latitude 30 south, are so meager that reliable conclusions are not possible," the report says. "Ships travel on well-established routes so that vast areas of ocean, are simply not traversed by ships at all, and even those that do, may not return weather data on route."



Globe is 71% ocean, 81% in the Southern Hemisphere.

In 1981, NASA’s James Hansen et al reported that “Problems in obtaining a global temperature history are due to the uneven station distribution, with the Southern Hemisphere and ocean areas poorly represented,” - - - - (Science, 28 August 1981, Volume 213, Number 4511([link](#)))

The cited Research Report findings were further corroborated, in June 2020, by MIT graduate [Dr. Mototaka Nakamura](#) in a book ([in Japanese](#)) on “*the sorry state of climate science*” titled *Confessions of a climate scientist: the global warming hypothesis is an unproven hypothesis*. He wrote: “*The supposed measuring of global average temperatures from 1890 has been based on thermometer readouts barely covering 5 per cent of the globe until the satellite era began 40-50 years ago. We do not know how global climate has changed in the past century, all we know is some limited regional climate changes, such as in Europe, North America and parts of Asia.*”

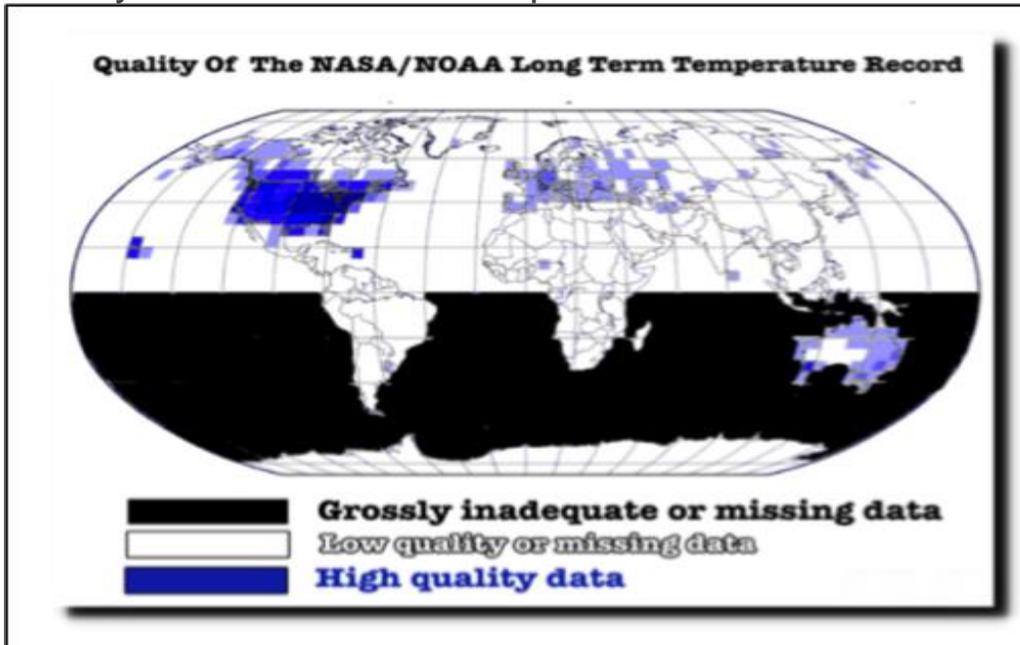
Below note how few land stations were in the databases in the early decades of the data window.

Number of GHCN-D Stations Recording Average Daily Temperature

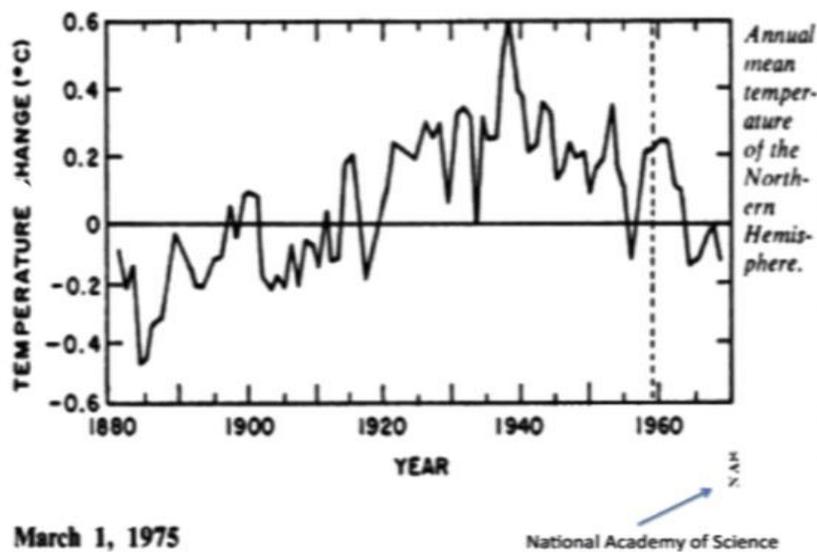
Start Year	Years of Data	Northern Hemisphere			Southern Hemisphere			Total
		Arctic (60°N - 90°N)	Mid Latitude (30°N - 60°N)	Tropics (0°N - 30°N)	Tropics (0°S - 30°S)	Mid Latitude (30°S - 60°S)	Antarctic (60°S - 90°S)	
1820	200	0	2	0	0	0	0	2
1840	180	0	5	0	0	0	0	5
1860	160	0	9	0	0	2	0	11
1880	140	0	21	1	0	4	0	26
1900	120	2	630	19	3	10	0	664
1920	100	34	1,674	52	14	25	0	1,799
1940	80	122	2,987	128	25	34	0	3,296
1960	60	336	5,790	680	102	114	2	7,024
1980	40	620	9,305	2,297	354	348	11	12,935
2000	20	1,235	15,933	4,724	792	732	29	23,445

Source: NOAA GHCN

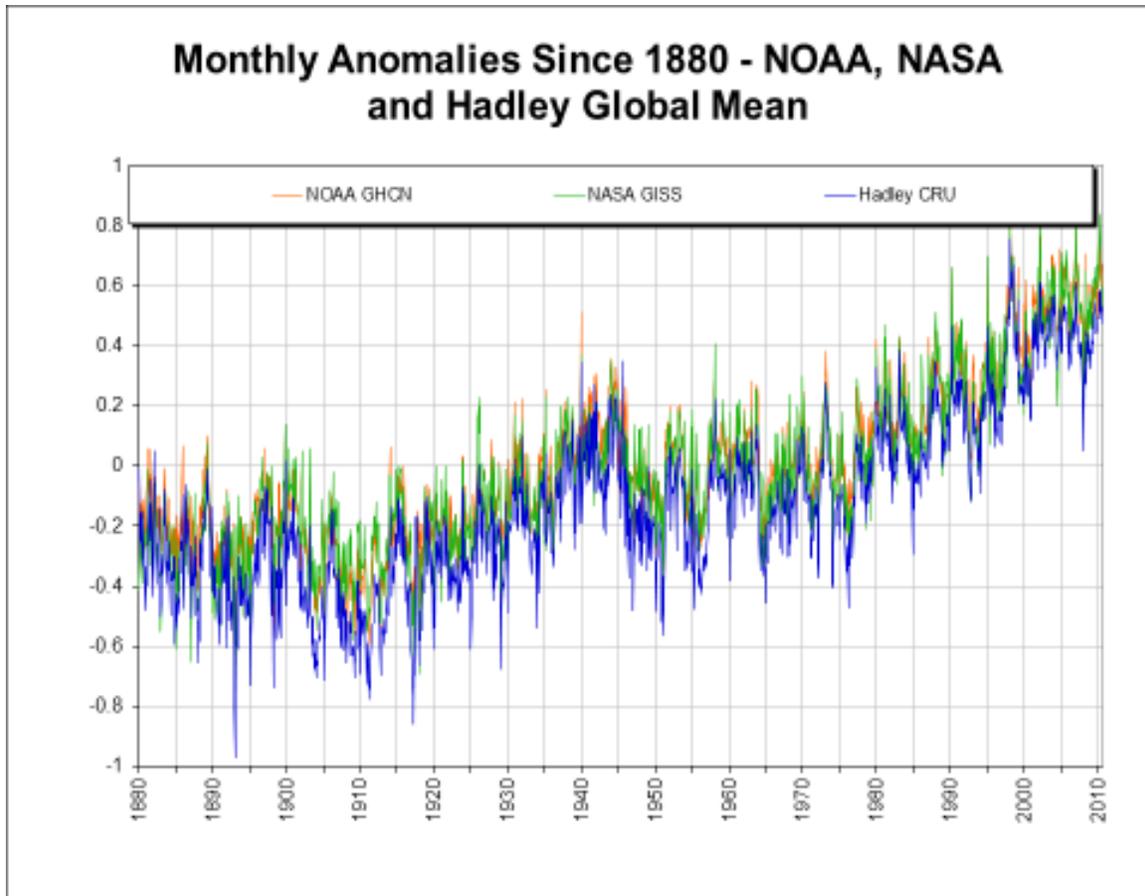
Based on the above information, the figure below depicts the Quality of the historical Temperature Data.



The National Academy of Science recognized these facts in their first attempt at determining a trend in temperature in the 1970s, which they limited to the Northern Hemisphere land areas. It showed a dramatic warming from the 1800s to around 1940 and then a reversal ending in a very significant cooling by the late 1970s.

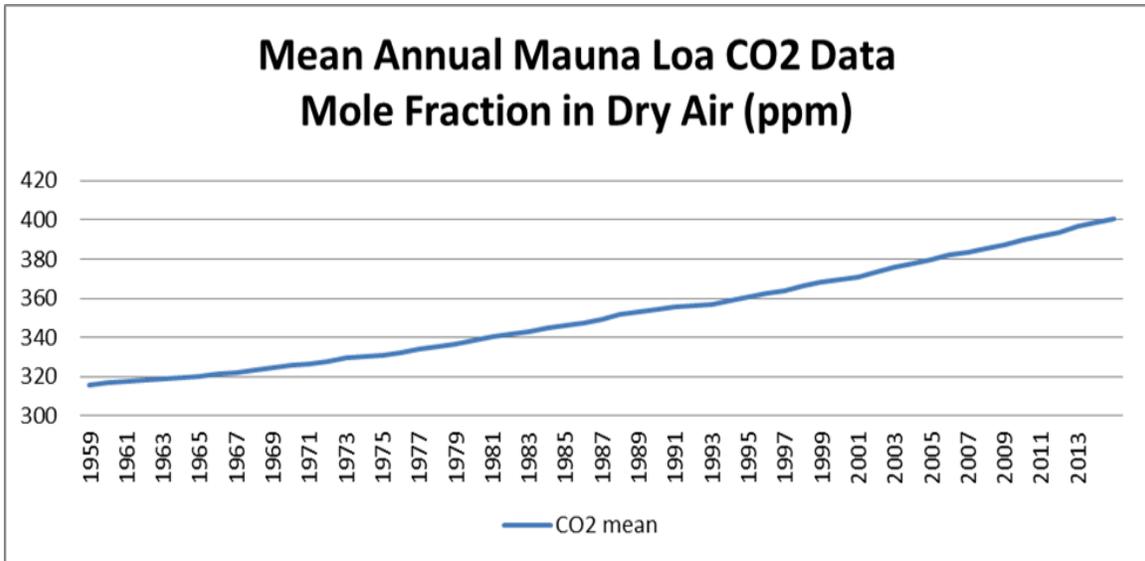


However, the fact that today, all three of these entities' Global Average Surface Temperature data portray the same basic pattern over the last 100 plus years cannot be taken as further evidence as to their individual credibility. Their data gathering and analysis efforts are clearly not independent. Below see Figure II-1 of the Research Report cited above.



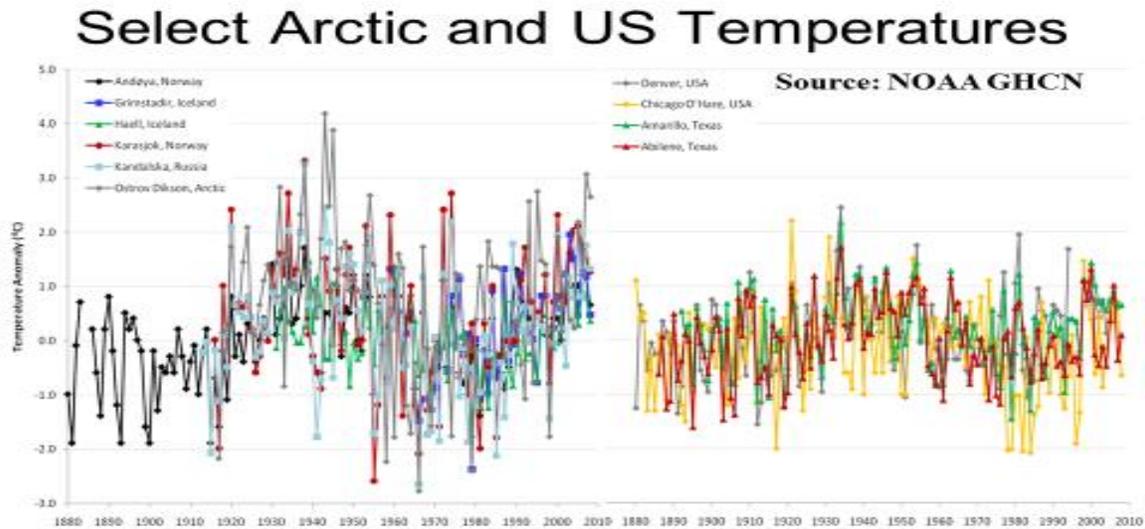
In fact, the Research Report cited above shows how all three data sets had their previous reported cyclical patterns similarly modified over time. Invariably these adjustments pushed down temperatures in the 1930s and 40s and pushed up temperatures in the 1970s -hereby turning a cyclical pattern into a hockey stick. In the figure above, note the purported Global Average Surface Temperature (GAST) rapid rise since 1960.

This resultant GAST data pattern fits nicely with the rising atmospheric CO2 concentration pattern shown below.



But it does not mesh well at all with a large number of other highly credible temperature data sets (See pages 17-22). Just one such example from the Report is shown below.

Figure V-14

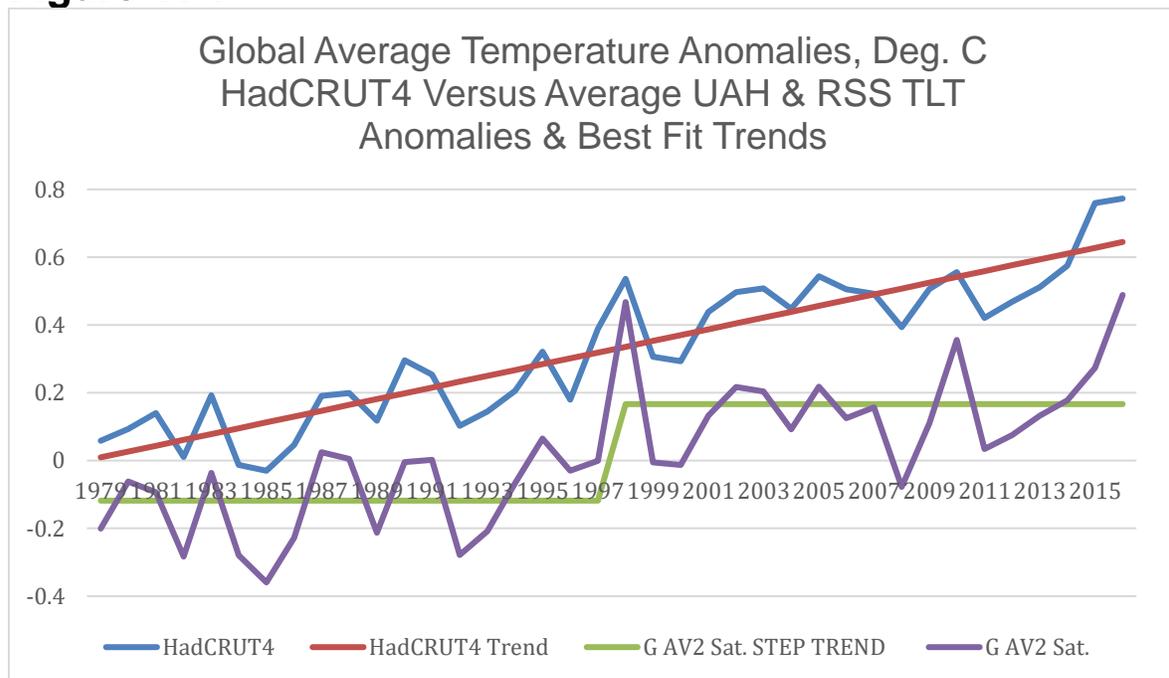


<http://diggingintheclay.files.wordpress.com/2010/10/arctic-usa.png>

Source: NOAA GHCN

The UN uses Hadley CRU data, which implies the UN feels it to be the most reliable and best constructed global surface temperature data set. Figure VI-1 below shows the Hadley CRUT4 temperature data and its steeply upward sloping linear Trend line versus the Average of UAH & RSS Lower Troposphere Satellite Temperature data and its 1998 Step Trend Line. Comparing the two very different trend lines, the question is which best represents the actual trend in global average temperature. They could both be wrong, but only one can be correct.

Figure VI-1



Source:

<http://www.metoffice.gov.uk/hadobs/hadcru4/data/current/download.html>

http://data.remss.com/msu/monthly_time_series/RSS_Monthly_MSU_AMSU_Channel_TLT_Anomalies_Land_and_Ocean_v03_3.txt

http://www.nsstc.uah.edu/data/msu/v6.0/tlt/uahncdc_lt_6.0.txt

The “Best Fit Trend” is that having the highest Adjusted R Square.

The answer is simple, surely it is the Trend Line that shows a nearly 20-year pause. Only the satellite data have a sufficiently regular and global spatial coverage to claim a temperature measurement unencumbered by Urban Heat Island and other complicating huge missing data issues.

Thus, the conclusive findings of relevant research are that the three GAST data sets are not a valid representation of reality. In fact, the magnitude of their historical data adjustments, that removed their cyclical temperature patterns, are **totally inconsistent** with very considerable published and credible U.S. and other temperature data. Thus, it is impossible to conclude from the three published GAST data sets that recent years have been the warmest ever –despite current claims of record setting warming.

Finally, since GAST data set validity is a necessary condition for EPA's 2009 GHG/CO₂ Endangerment Finding, it too is invalidated by these research findings. But, if the causal link between higher atmospheric CO₂ concentrations and higher global average surface temperature ("GAST") is broken by invalidating each of EPA's three lines of evidence, then EPA's assertions that higher CO₂ concentrations also cause loss of Arctic ice¹, sea-level increases² and more frequent severe Temperatures,³ storms,⁴ floods,⁵ and droughts⁶ are

¹ Technical Support Document for Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act ("TSD"), pp. ES-4 ("Sea ice extent is projected to shrink in the Arctic under all IPCC emissions scenarios") *See also id.* at pp. 52; 73

² *Id.* at p. ES-4 ("By the end of the century, global average sea level is projected by IPCC to rise between 7.1 and 23 inches."); *See also id.* at 52,73.

³ *Id.* at pp. ES-4 ("It is very likely that heat waves will become more intense, more frequent, and longer lasting in a future warm climate, whereas cold episodes are projected to decrease significantly."); *See also id.* at pp. 44-45; 73-74.

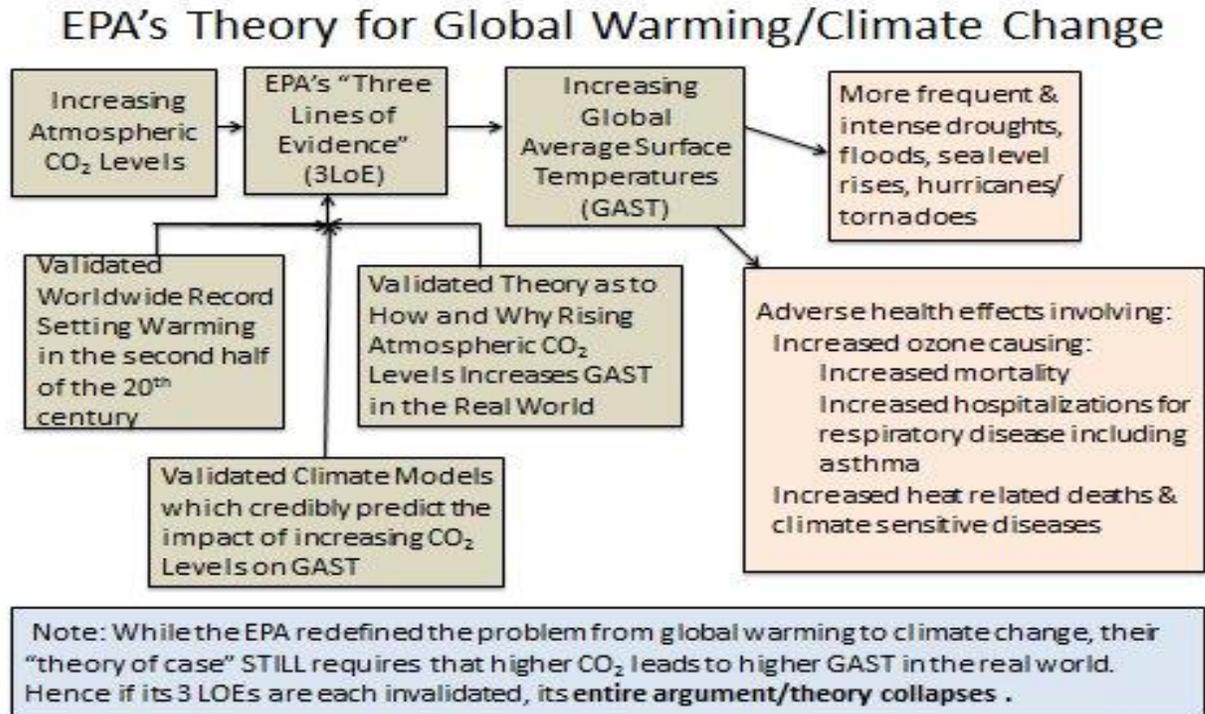
⁴ *Id.* at ES-4 ("It is likely that hurricanes will become more intense").

⁵ *Id.* at ES-4 ("Intensity of precipitation events is projected to increase in the United States and other regions of the world. More intense precipitation is expected to increase the risk of flooding.")

⁶ *Id.* at p. ES-6 (Reduced snowpack, earlier spring snowmelt, and increased likelihood of seasonal summer droughts are projected in the Northeast, Northwest, and Alaska. More severe, sustained

also necessarily disproved. (See: <https://thsresearch.files.wordpress.com/2018/03/ef-cpp-fifth-supplement-to-petition-for-recon-final0d0a-020518-3.pdf>)

EPA’s faulty chain of reasoning is depicted in the Figure below



Such causality assertions require a validated theory that higher atmospheric CO₂ concentrations cause increases in GAST and in turn cause these other phenomena. Lacking such a validated theory, EPA’s conclusions cannot stand. In science, credible empirical data always trump proposed theories, even if those theories are claimed to (or actually do) represent the current consensus.

droughts and water scarcity are projected in the Southeast, Great Plains, and Southwest.”); 45-46; 73-74.

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