

# CHECKING THE NDC REPORT AGAINST REAL DATA REVEALS MAJOR DISCREPANCIES

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Science is based on the 'scientific method,' which has been articulately described by Richard Feynman, a Cal Tech, nobel-prize-winning physicist.

1. Science is a method of finding things out by observation, experimentation, and testing, which is the ultimate judge of the truth of a concept.
2. If any exception to a concept can be proven by observation, the concept is wrong.
3. The number of scientists who believe something is irrelevant to the validity of a concept.
4. No government or other authority can decide the truth of a scientific concept.
5. All scientists are skeptics—it is important to doubt in order to test concepts and look in new directions.

He outlines the necessary steps in using the scientific method as follows:

“In general, we look for a new law by the following process: First we guess it; then we compute the consequences of the guess to see what would be implied if this law that we guessed is right; then **we compare the result of the computation to nature, with experiment or experience, compare it directly with observation, to see if it works. If it disagrees with the experiment, it is wrong. In that simple statement is the key to science. It does not make any difference how beautiful your guess is, it does not make any difference how smart you are, who made the guess, or what his name is—if it disagrees with experiment, it is wrong.**” (Richard Feynman).

How well do claims and assertions in the just-released 890-page report by the NDC stack up against unequivocal, real-time data? Let's apply the scientific method, as outlined by Feynman, to the NDC report. We'll first state each assertion made in the NDC report, then test it against real-time observation and data. The report begins with dire predictions based on computer models, so let's start with that. Here is their assertion, based on the graph below.

**NDC assertion: “Temperatures are projected to rise another 2°F to 4°F in most areas of the United States over the next few decades.” “By the end of this century, a roughly 3°F to 5°F rise is projected under a lower emissions scenario, and a 5°F to 10°F rise for a higher emissions.”**

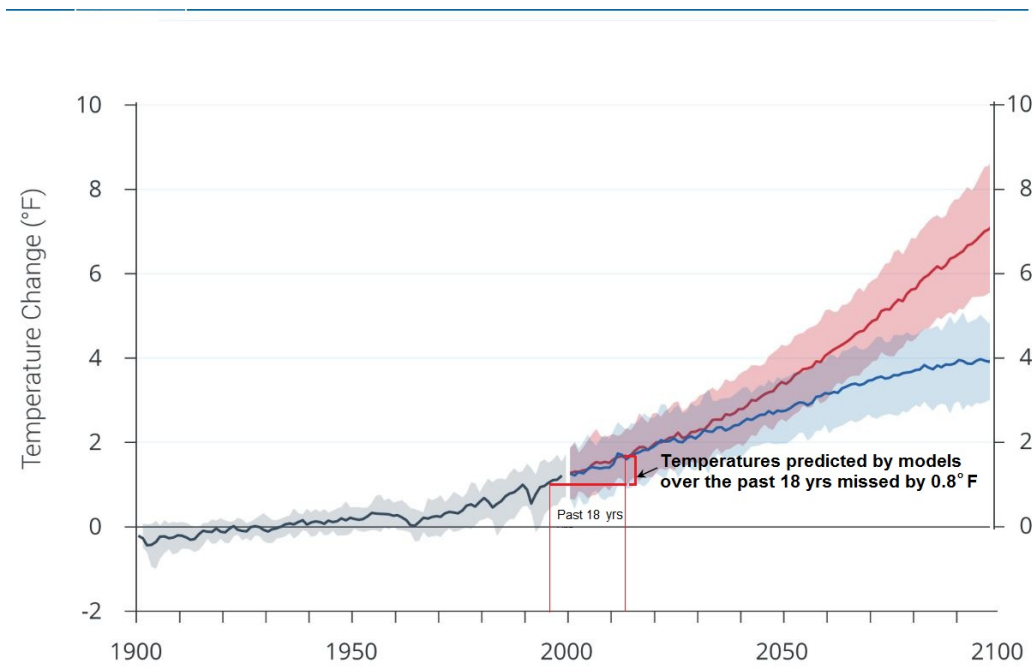


Figure 1. NDC temperature predictions

**Facts:** How do we check the validity of this prediction? Well, we can look at comparisons of previous computer model results to recorded satellite temperatures. Figure 2 shows Roy Spencer's plot of 44 of the latest climate models versus satellite measurements. As his graph shows, the models were not even close to the real measured temperatures. The obvious conclusion here is that the models failed miserably, a fact admitted to by the IPCC in their latest report.

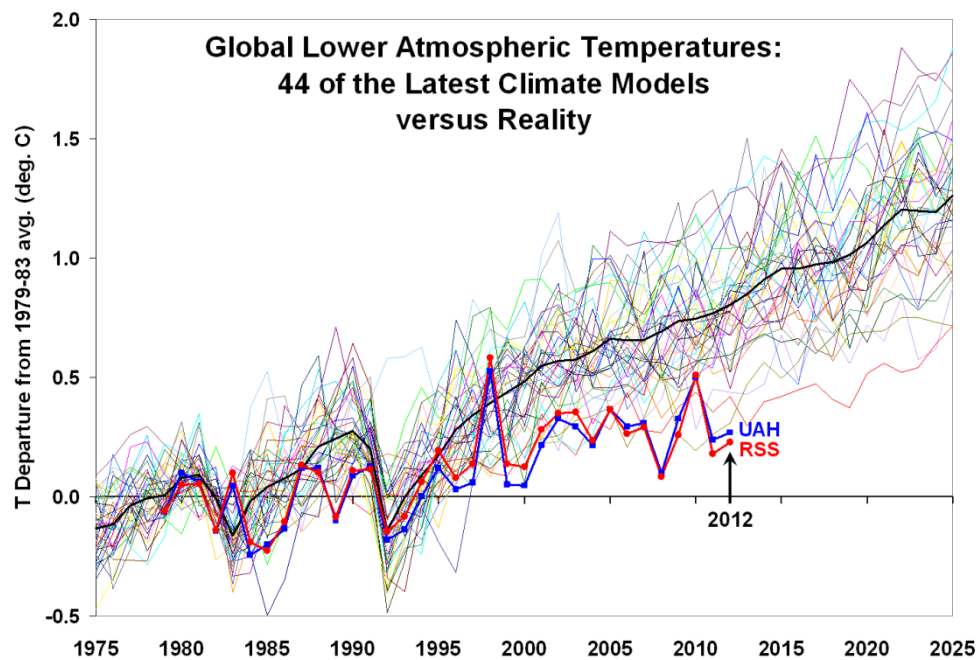


Figure 2. Temperatures from 44 of the latest computer climate models plotted against UAH and RSS satellite temperature measurements. The models weren't even close! (Spencer, 2014)

Well, maybe the graph from the 16 climate models used in the NDC report weren't included in the 44 models in the Spencer plot, so let's check their particular model results by looking at the 18 year period of overlap of the NDC model results and satellite measurements in Figure 1. The graph shows that the computer model predicted an increase of 0.8° F during the past 18 years when satellite measurements record no warming at all! That's a huge difference over such a time period--the modeled results are nowhere near reality. If the model can't come any closer than 0.8 ° F in 18 years, why should we believe that it is any more accurate over the next 86 years to the end of the century? The modeled temperature predictions fail verification from measured temperatures and thus fail the Feynman test "*If it disagrees with the experiment, it is wrong.*" We can therefore confidently conclude that the NDC temperature predictions are not valid.

At this point, we might ask, since virtually everything else in the NDC report is based on these computer models, doesn't that invalidate all that follows? It certainly invalidates their dire predictions, but the report also contains assertions that are based on claims other than from models. So let's look at some of those.

The report claims that:

1. **NDC assertion:** "*The burning of coal, oil, and gas, and clearing of forests have increased the concentration of carbon dioxide in the atmosphere by more than 40% since the Industrial Revolution.*"

**Facts:** This percentage increase means nothing. Human CO<sub>2</sub> emissions didn't begin to rise significantly until after 1945 at the end of WWII, so no warming prior to that can be attributed to CO<sub>2</sub>. The CO<sub>2</sub> composition of the atmosphere then was about 0.030 %. The CO<sub>2</sub> composition of the atmosphere recently reached 0.04%, a total increase of only 0.010% since ~1950. But the period of 'global warming didn't begin until 1978 when CO<sub>2</sub> made up 0.034% of the atmospheric, so that's an increase of only 0.006%. ' That's about as close to nothing as you can get, and even if you double or triple it, you still have close to nothing!

2. **NDC assertion:** "*It has been known for almost two centuries that carbon dioxide traps heat.*"

**Facts:** That's *not* the question—it's not *if* CO<sub>2</sub> is a greenhouse gas, it's how much is there in the atmosphere (Fig. 3) and how much can it affect climate? CO<sub>2</sub> makes up only 3.6% of the greenhouse gases (Fig. 4) and coupled with the fact that the atmospheric concentration has changed only 0.0065% since recent warming began in 1978 (Fig. 3), there is no way that this miniscule amount can have any significant effect on climate. Water vapor accounts for ~95% of the greenhouse effect and computer modelers put a large arbitrary water vapor factor in their computer programs, claiming that if CO<sub>2</sub> increases, so will water vapor. But that isn't true—atmospheric water vapor has been declining since 1948 (Fig. 5), not increasing, so modelers who put a water vapor driver in their programs will not have a valid output.

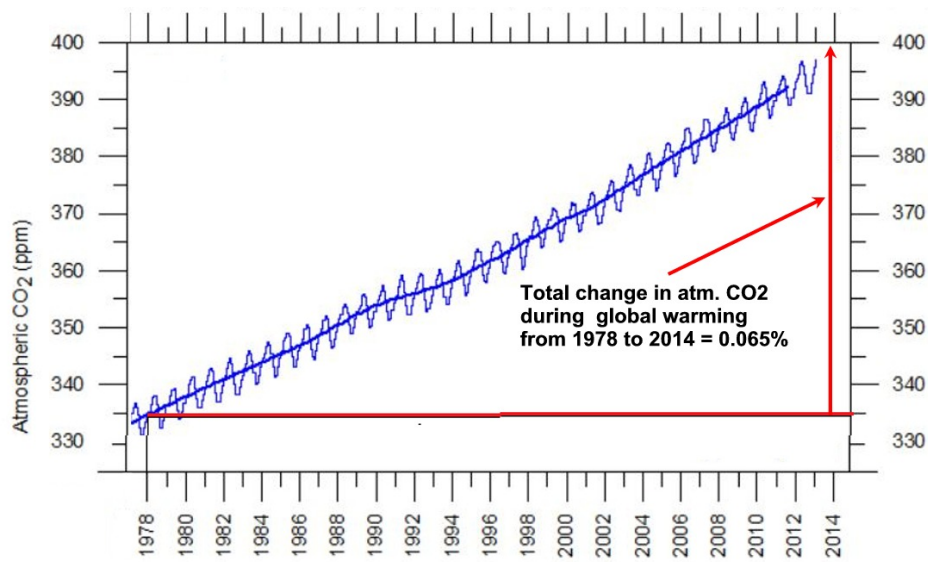


Figure 3. Total change in CO<sub>2</sub> content in the atmospheric since global warming began in 1978. (Mauna Loa observatory)

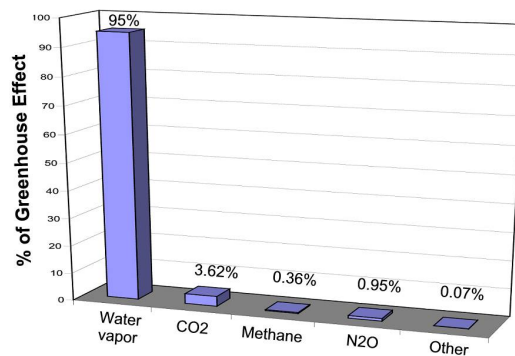


Figure 4. Greenhouse effect of CO<sub>2</sub> and water vapor.

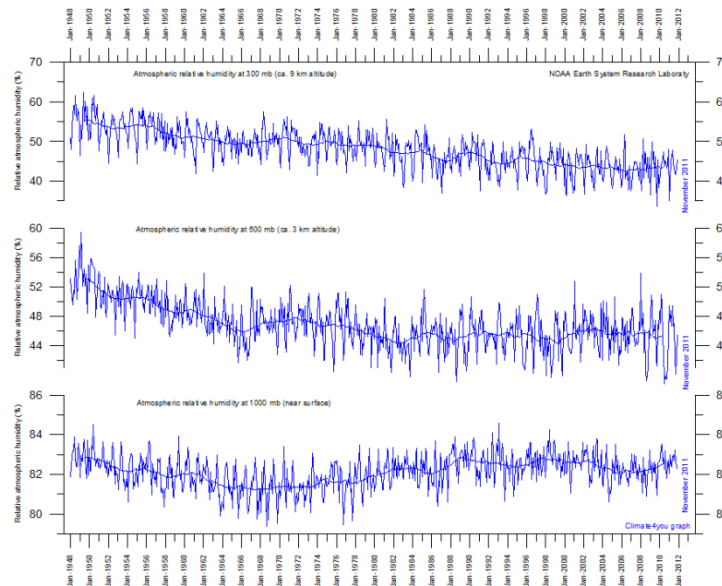


Figure 5. Decline in atmospheric water vapor since 1948. Water vapor is clearly NOT increasing as required by computer models in predicting catastrophic atmospheric warming. (NOAA)

Ice cores clearly show that CO<sub>2</sub> increases always follow warming (Fig. 6), not precede warming as would occur if CO<sub>2</sub> *caused* the warming.



Figure 6. CO<sub>2</sub> lags behind warming in the Vostok ice core.

CO<sub>2</sub> also lags short-term warming (Fig. 7), showing that warming *causes* rise in CO<sub>2</sub>, not the other way around if CO<sub>2</sub> was the cause. (see joannenova.com.au for references)

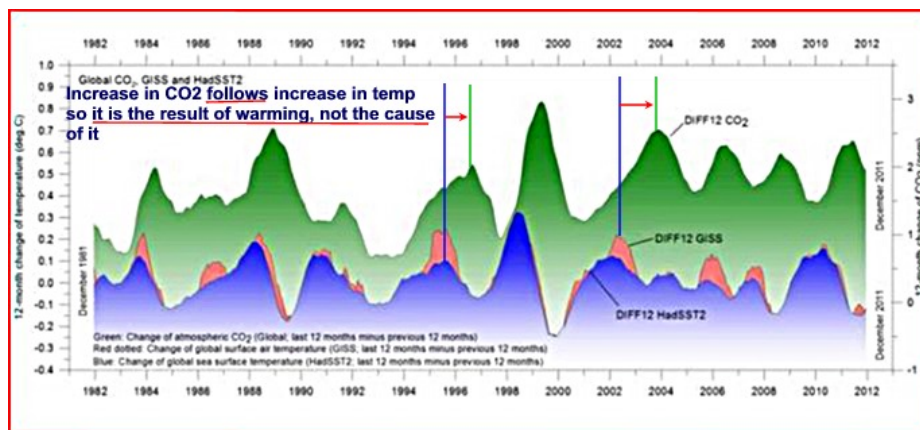


Figure 7. CO<sub>2</sub> also lags short-term warming, again showing that warming causes CO<sub>2</sub> to rise, not the other way around.

3. **NDC assertion:** *“Data show that natural factors like the sun and volcanoes cannot have caused the warming observed over the past 50 years.” “Sensors on satellites have measured the sun’s output with great accuracy and found no overall increase during the past half century.”*

**Fact:** This is a very outdated statement—global climate marches in lock step with sun spots, length of the sun spot cycle, and intensity of the solar magnetic field. This excellent correlation has long puzzled scientists because even though total solar insolation (TSI) correlates very well with climate, the variation doesn’t appear to be great enough to have much effect on climate. New research at Cern (Svensmark) has shown that a very likely cause of this is fluctuation of the sun’s magnetic field that affects radiation reaching the atmosphere where ionization leads to cloud formation and changes in albedo. You’d think that with all those scientists who wrote this report, at least someone would know about that. Bottom line here is that this statement is obsolete because of the ‘Svensmark process.’

4. **NDC assertion:** *The pattern of temperature change through the layers of the atmosphere, with warming near the surface and cooling higher up in the stratosphere, further confirms that it is the buildup of heat-trapping gases (also known as “greenhouse gases”) that has caused most of the Earth’s warming over the past half century.*

**Fact:** Comparison of model results and real measurements show that this statement is not true—they are quite different.

5. **NDC assertion:** *“U.S. average temperature has increased by 1.3°F to 1.9°F since 1895, and most of this increase has occurred since 1970.”*

**Fact:** As shown by HadCrut4 data (Fig. 8) this statement is not true. 56% of the warming since 1895 occurred prior to 1945.

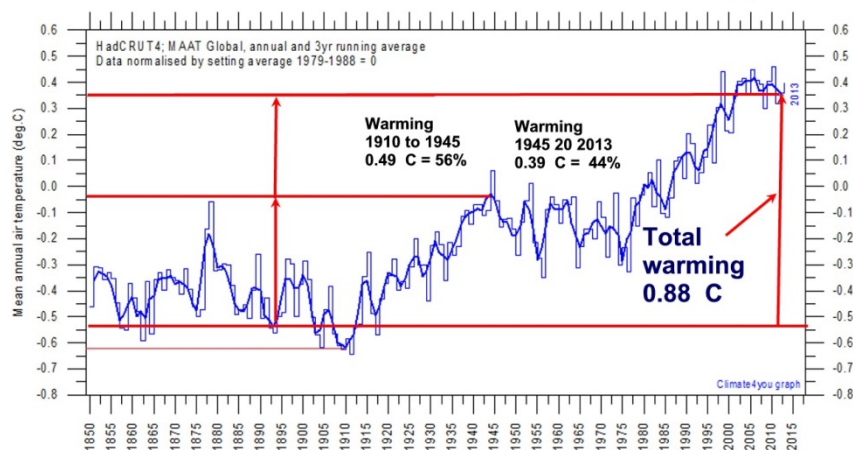


Figure 8. HadCRUT4 temperature curve showing that 56% of the warming since 1895 occurred prior to 1945, not “most of this increase has occurred since 1970.”.

The rate of warming from 1910 to 1945 was 0.174°C per decade (prior to increase in CO<sub>2</sub> that occurred after 1945). The rate of warming from 1978 to 2014 was 0.176 °C per century, virtually the same as the 1910-1945 warming. What this means is that 56% of the warming over the past century occurred before the rise of human CO<sub>2</sub> emissions and the rate of warming from 1910 to 1945 (0.174°C per decade) was identical to the warming from 1978 to 2014 (0.176 °C per decade)

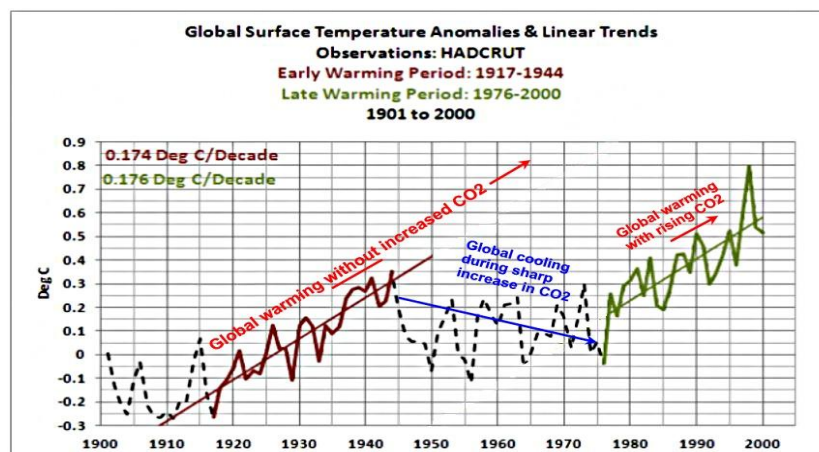




Figure 9. Two periods of global warming occurred during the past century, 1910 to 1945 and 1978 to 2000. The rates of warming were identical for both periods, but the 1910 to 1945 warming occurred *before* the rise of human CO<sub>2</sub> emissions so could not have been caused by rise in CO<sub>2</sub>.

6. **NDC assertion:** ***“The most recent decade was the nation’s and the world’s hottest on record.”***  
***“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.”***

**Fact:** This contention is totally false. The Greenland ice cores and a vast amount of other paleotemperature data show that temperatures during the Medieval Warm Period (900 AD to 1300 AD) were warmer than at present (Fig. 10).

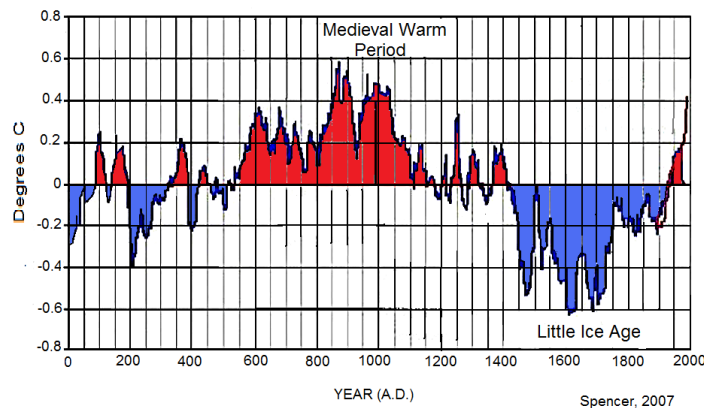


Figure 10. The Medieval Warm Period was warmer than present.

7. **NDC assertion:** ***“2012 was the hottest year on record in the continental United States.”***

**Fact:** The 2012 temperatures were essentially the same as 1921, 1931, and 1934 (Fig. 11), using original data not altered by USCHN. The NDC claim is based on tampering of the original data (see data at <http://stevengoddard.wordpress.com/tracking-us-temperature-fraud/>). The authors of the NDC report don’t seem to know the difference between weather and climate. In any event, this is weather and tells us nothing about climate--warmer and cooler years can happen anytime in the record, regardless of climate.

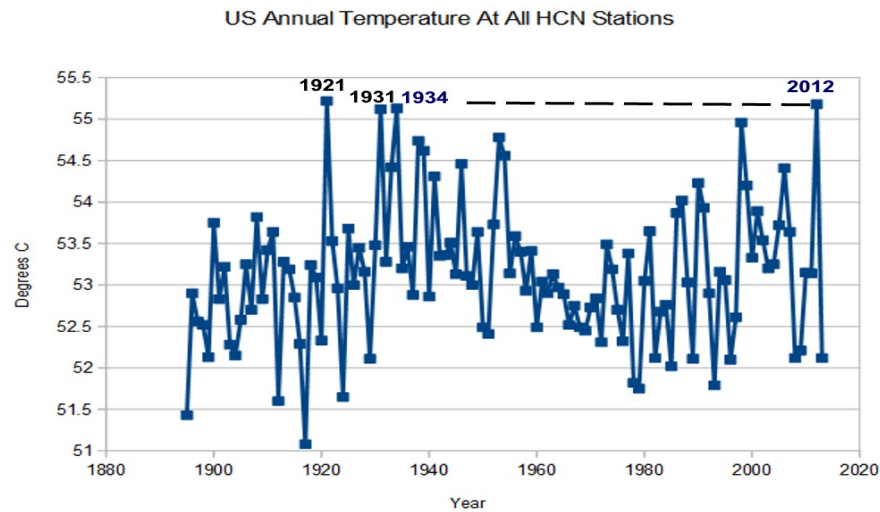


Figure11. U.S. annual temperature from original data. (USHCN arbitrarily subtracts temperatures from the early part of the record and adds to the more recent records, severely biasing the data). Temperatures in 2012 were clearly essentially the same as those in 1921, 1931, and 1934.

Globally, 2012 was not unusually warm. Satellite (RSS) measurements show the 2012 was well below 1998, 2010, and slightly below half a dozen other years (Fig. 12)

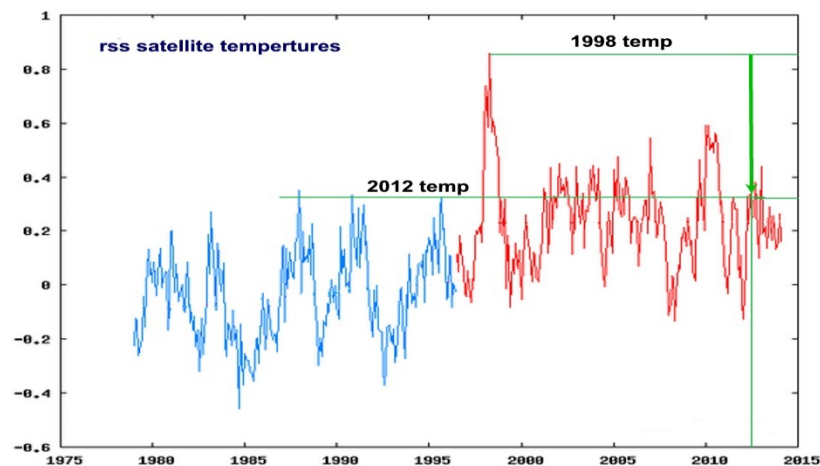


Figure 12. Satellite temperature measurements. 2012 temperatures were well below 1998, and 2010 temperatures, and were slightly below more than half a dozen other years.

8. **NDC assertion:** *All U.S. regions have experienced warming in recent decades.*

**Fact:** This statement is not true. Although the climate warmed from 1978 to 2000, in general, the eastern half of the U.S. has cooled recently and the western half has warmed or been neutral (Fig 12).



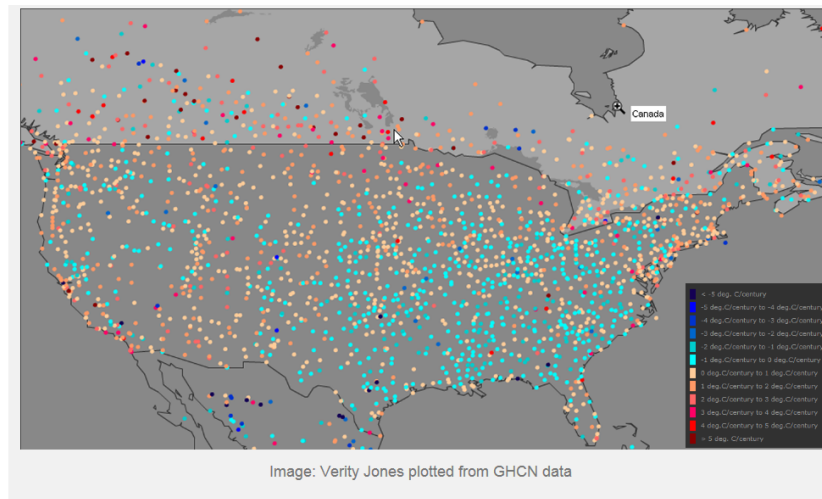


Figure 12. U.S. Temperature stations. Blue dots are station showing recent cooling, tan dots are neutral, and red dots are warmer. Most of the eastern half of the country has cooled, and most of the western U.S. has been neutral with some warming.

Much of the NOAA temperature data has been artificially inflated to show warming. NOAA stations that meet siting requirements show warming of 0.155°C per decade and NOAA stations that do not meet minimum siting requirements show warming of 0.248 °C per decade. However, the warming reported by NOAA is 0.309 °C per decade, twice as much as shown by the good data (Watts, 2010).

Twice as many maximum temperature records were set in the decade of the 1930s as in the past decade and four times as many summer maximum records set in the decade of the 1930s as in the past decade (Fig. 13).

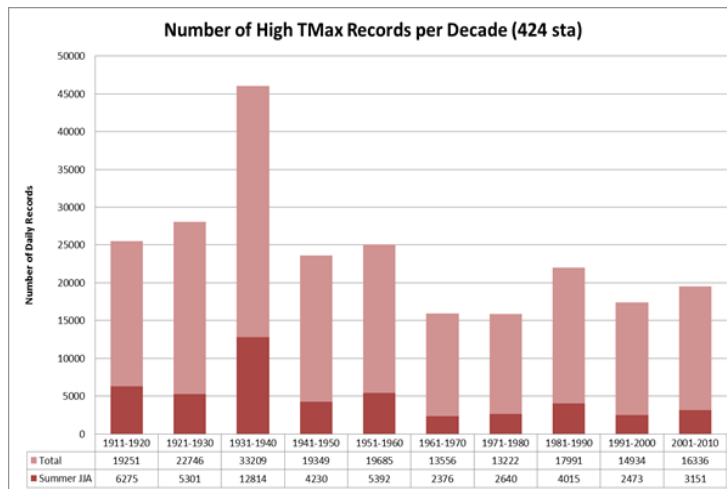


Figure 13. Number of maximum temperature records set per decade.

Globally, there has been no warming over the past 17½ years (Fig. 13).

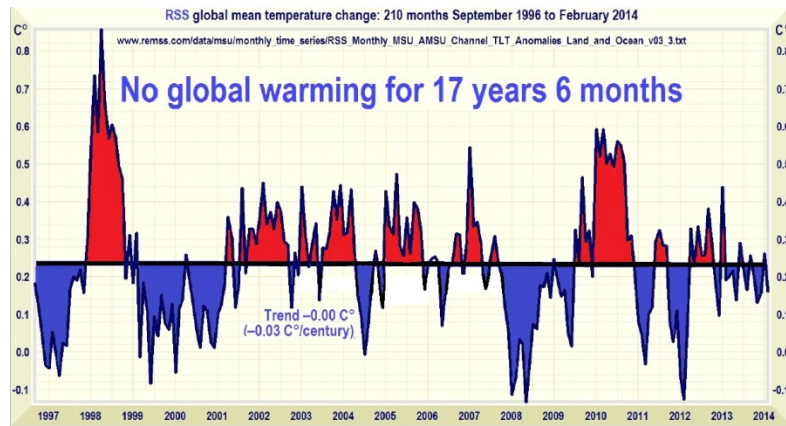


Figure 14. Global satellite (RSS) temperatures show no warming over the past 17½ years (Monckton, 2014).

Winters in all regions of the U.S. have become decidedly colder over the first decade of this century (Fig. 15). Winters in the north-central U.S. are more than -8 °F/decade cooler, the south-central U.S. -3-5 °F/decade cooler, and the west and east coasts -1-2 °F/decade cooler.

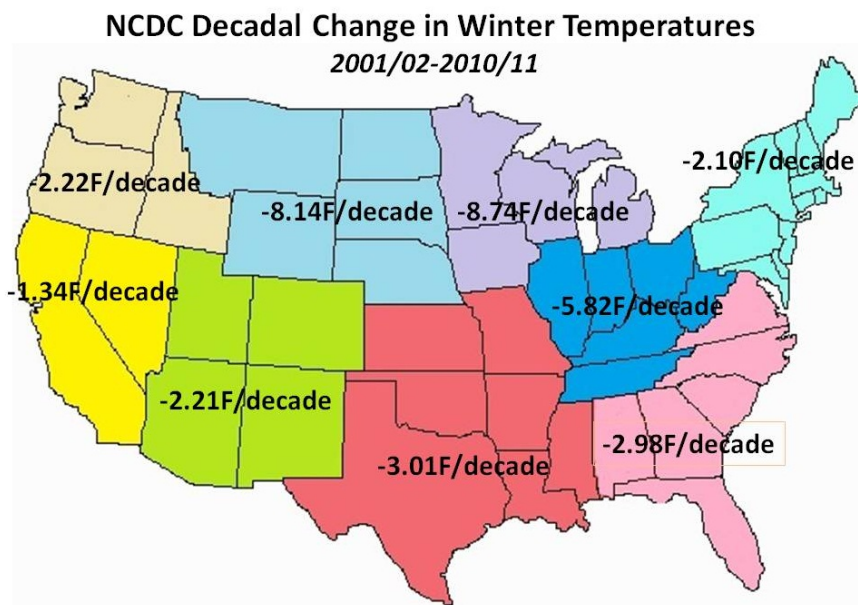


Figure 15. Cooling of all regions in the winter for the first decade of this century.

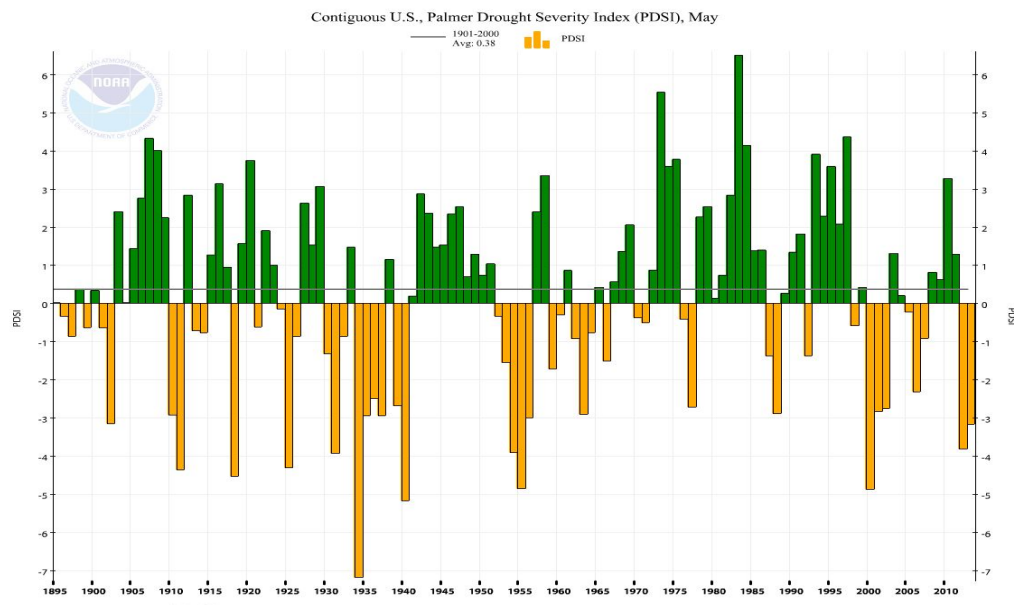
9. **NDC assertion:** *Heat waves have generally become more frequent across the U.S. in recent decades, with western regions setting records for numbers of these events in the 2000s. Tree ring data suggests that the drought over the last decade in the western U.S. represents the driest conditions in 800 years.*

**Facts:** The 'record-setting droughts in the 2000s' were not really records at all. The only year of any substantial drought was 2012 and according to the NCDC, it ranked only number 6 in the past century. The others were:

<u>Year</u>	<u>% of US in drought</u>
1934	79.9%

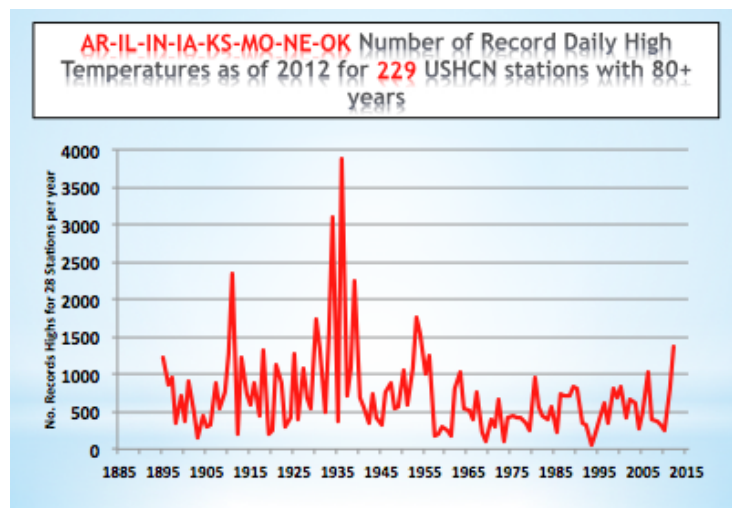
1939	62.1
1954	60.4
1956	57.6
1931	54.9
2012	54.6
(NCDC)	

The droughts of the 1930s and 1950s were stronger than those of the 2000s according to the Palmer Drought Severity Index.



**Figure 16. Drought Severity Indices, 1895-2013 (NOAA)**

The number of daily high temperature records clearly shows that the 1930s were significantly warmer than the 2000s (Fig. 17). Almost 4,000 high temperature records were set in 1936 and more than 3,000 in 1934 compared to only 1,300 in 2012.



**Figure 17. Number of daily high temperatures for 229 USHCN stations having more than 80 years of record.**

Other evidence that the 1930s were warmer than the 2000s includes the number of records of temperatures over 105 °F (Fig. 18). 16,000 days in the 1930s had temperatures at or above 105 °F, but only 2,500 days were above 105 °F in the 2000s.

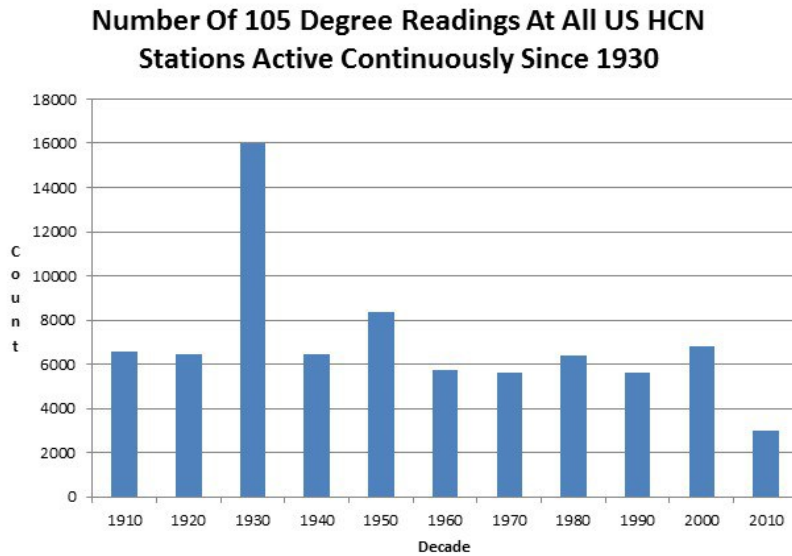


Figure 18. Number of days warmer than 105 °F.

**10. NDC assertion: *The intensity, frequency, and duration of North Atlantic hurricanes, as well as the frequency of the strongest hurricanes, have all increased since the early 1980s.***

**Facts:** It has been 9 years since the last Category 3 hurricane (Wilma, 2005). That’s the longest period—by far—in records that extend back to 1900. There have been no hurricanes during the Obama administration (Sandy was not technically a hurricane when it came onshore). The number of hurricanes in Florida didn’t vary much from 1870 to 1970, dropped to a low in 1980, rose to match the high of the century (1950), and has now fallen to an all-time low (Fig. 19).

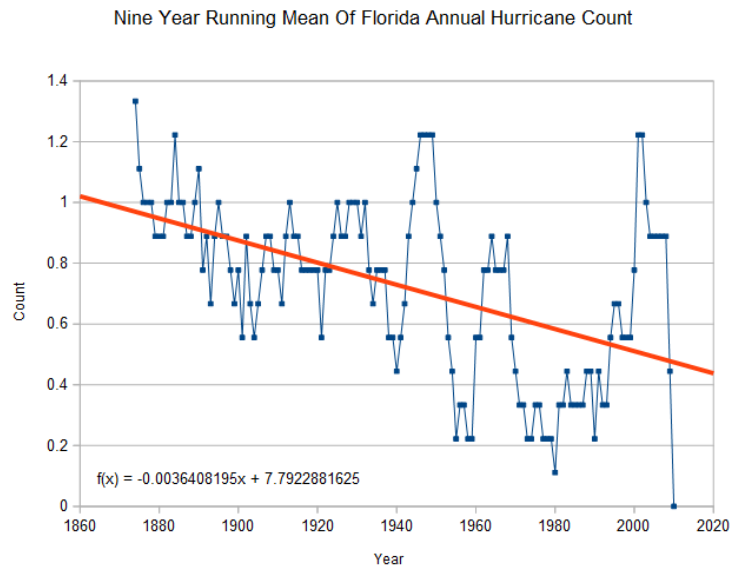


Figure 19. Number of Florida hurricanes per year since 1870. We are now at an all-time low.

The Accumulated Cyclone Energy in both the Northern Hemisphere globally has been declining since the early 1990s (Fig).

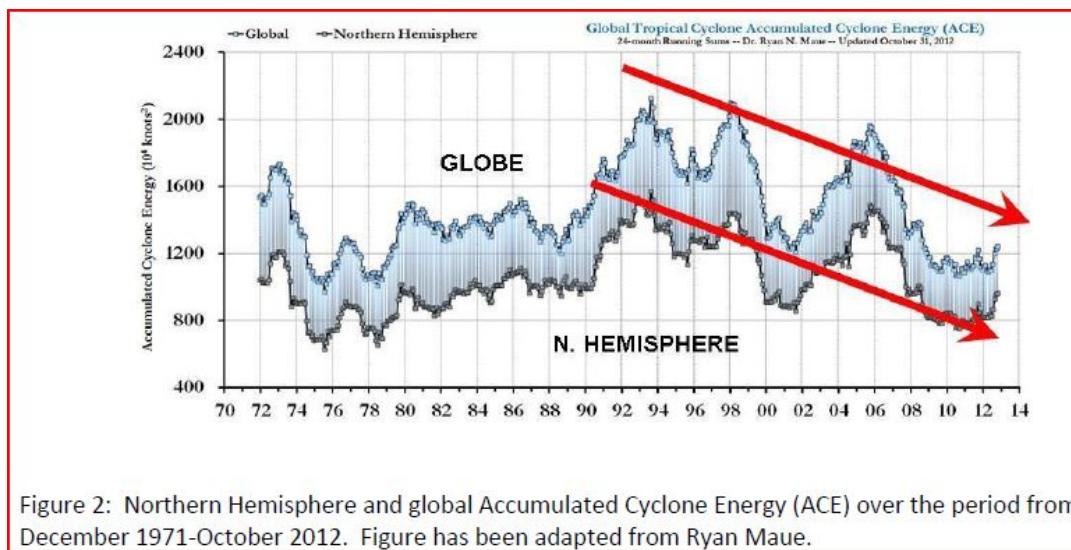


Figure 20. Accumulated Cyclone Energy in both the Northern Hemisphere globally since 1972.

11. ***NDC assertion Global sea level has risen by about 8 inches since reliable record keeping began in 1880. The future scenarios range from 0.66 feet to 6.6 feet in 2100. This recent rise is much greater than at any time in at least the past 2000 years.***

**Facts:** During the last Ice Age (~10-20,000 years ago), vast areas of continents were covered with ice sheets up to 10,000 feet thick. There was so much water tied up in these ice sheets that it caused sea level to drop about 120 meters (400 feet). 11,500 years ago, the climate changed abruptly, warming at rates up to 20 °F in a century, bringing the Ice Age to a very sudden end. The ice sheets melted at an astonishing rate, causing sea level to rise sharply. We know the chronology of this sea level rise (Fig. 21), so we can calculate the rate of sea level rise as the ice sheets melted. Sea level rose 50 meters (160 ft) between 12,000 and 8,000 years ago. That's a rate of sea level rise of 4 feet per century, during a time when gigantic ice sheets were melting from warming of tens of degrees per century.

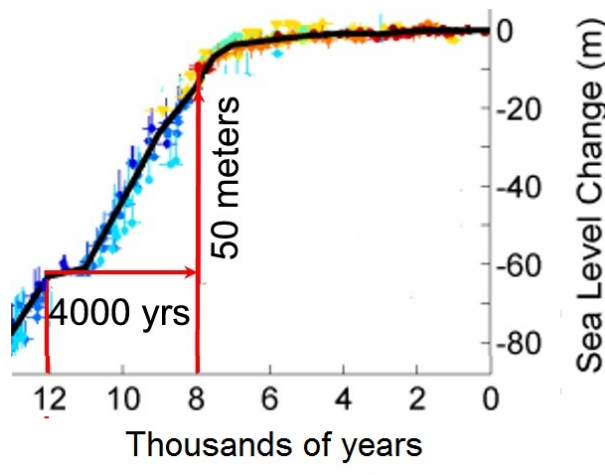


Figure 21. Sea level over the past 12,000 years.



The authors of the NDC report (and NOAA) want us to believe that sea level may rise as much as 6.6 feet by 2100 (86 years from now), a rate of sea level rise of 7.7 feet per century! That's about twice the rate at which sea level rose while the huge Ice Age ice sheets melted under warming of tens of degrees per century. So where do the so-called scientists of this report think all this water will come from? Those huge Ice Age ice sheets no longer exist, so the only possible source is melting of the Antarctic and Greenland ice sheets? How likely is it that a 0.006% rise in CO<sub>2</sub> is going to melt a significant portion of the Antarctic ice sheet? Probably zero to none. Why couldn't the so-called scientists who authored the NDC report do the simple math? If they had even read the literature, this analysis has already been published (Morner, 2020).

The East Antarctic ice sheet (the major Antarctic ice sheet with ice up to 15,000 feet thick) first appeared in the Miocene, 15 million years ago. Throughout most of the Antarctic ice sheet history, global CO<sub>2</sub> levels were 1000-2000 ppm (compared to present 400 ppm), so the recent miniscule rise of CO<sub>2</sub> is peanuts compared to what it has been. So even doubling, tripling, quadrupling, or quintupling of CO<sub>2</sub> would still be well below the levels of most of the ice sheet's history and the ice sheet survived those quite nicely.

The Antarctic ice sheet is continuing to grow, not melt, and sea ice is presently at an all-time high (Fig. 22). The average daily temperature in Antarctica is -58° F, so to get significant ice to melt would require raising the average daily temperature from -58 to +32 ° F (melting point of ice), plus another ~10 ° F, a total warming of +100° F. Not likely!

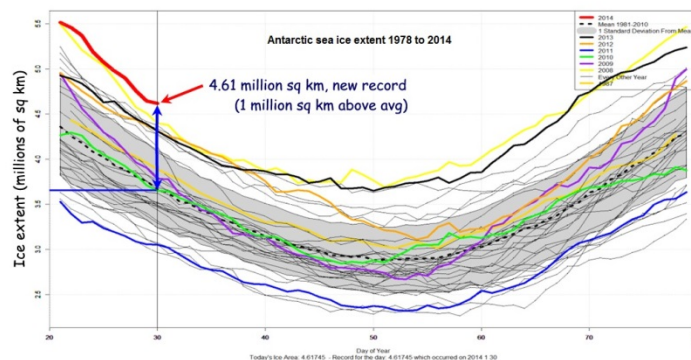


Figure 22. Antarctic sea ice is presently at an all-time high, about a million square kilometers above average.

Another way to look at the ridiculousness of the NDC predicted sea level rise is to compare their predictions with history sea level rates. The rate of sea level rise from 1900 to 2000 was 1.7 mm/yr (~7 inches per century) (Fig. 23). Figure 24 shows a comparison of the sea level rise over the past century with the NDC predicted sea level rise. The huge difference is impossible because there is no source of water for the NDC predicted rise.



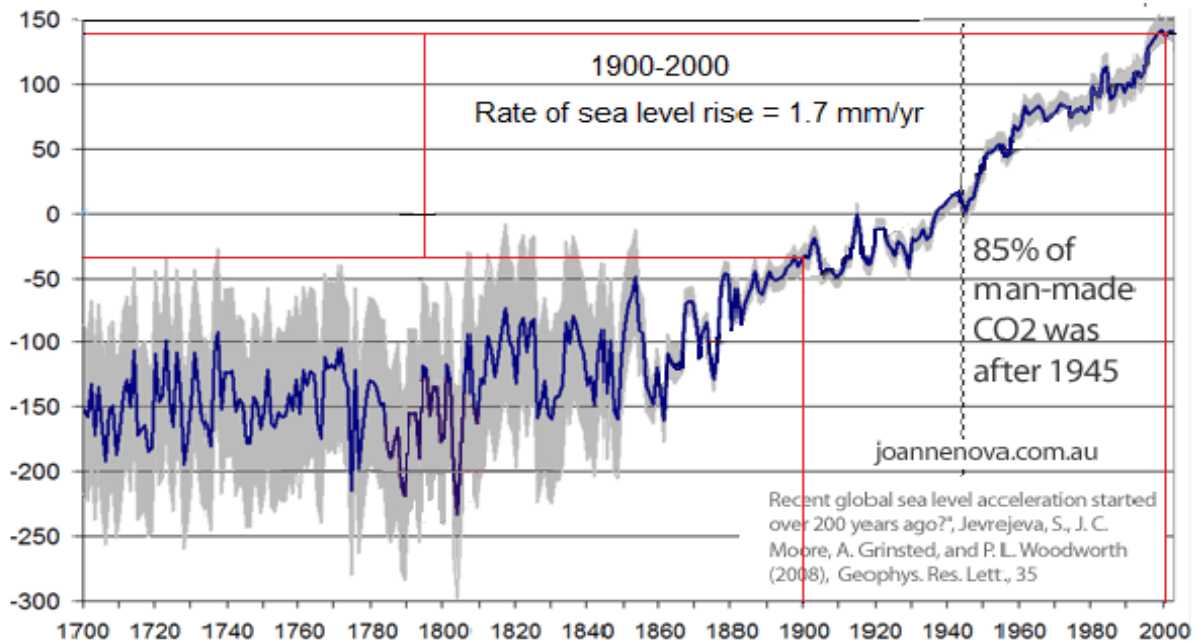


Figure 23. Sea level since 1700 AD

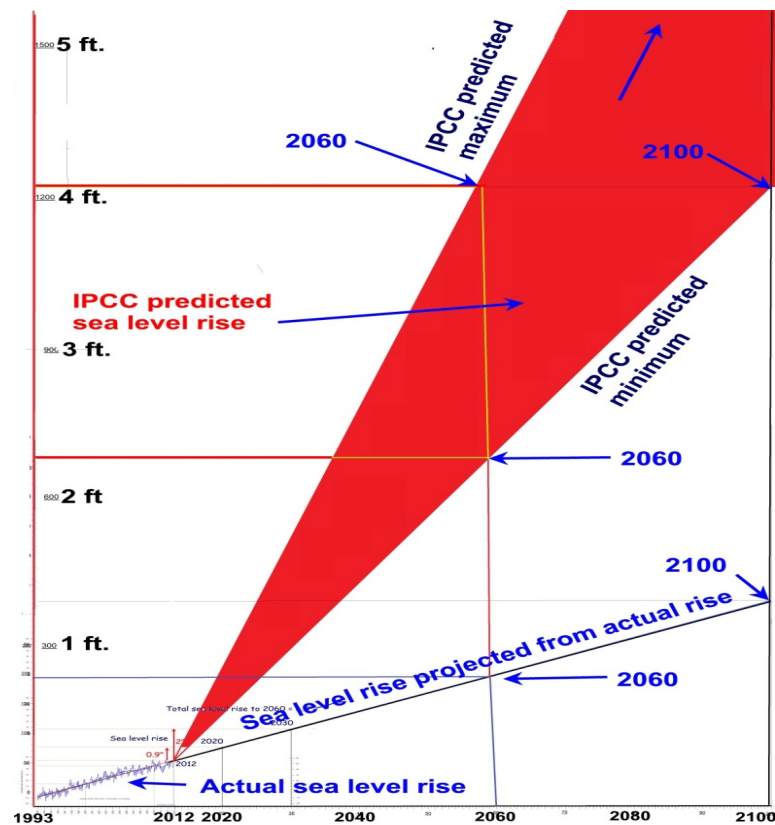


Figure 24. NDC sea level rise prediction compared to projection of sea level rise over the past century.

## CONCLUSIONS

How well do the NDC assertions compare with real data? As can be seen from the data above, they diverge wildly from real data. The report is filled with wild distortions and outright fabrications. If we apply Feynman's scientific method (if an assertion disagrees with observations

or data, it is wrong) to the NDC report, we can only conclude that the report fails badly. One can only wonder why the so-called scientists who wrote the report could possibly justify making such unsupported assertions contrary to hard data.

A substantial part of the report emphasizes weather events (drought, hurricanes, tornados, storms, etc). The authors don't seem to know the difference between *weather* and *climate*. None of the 'extreme events' they cite have any meaning whatsoever to climate. Single weather events can happen at any time, regardless of the climate.

The authors also don't seem to be able to distinguish cause-and-effect relationships from artificial scenarios. They frequently point to 'global warming' as if that somehow proves it was caused by CO<sub>2</sub>, totally ignoring vast amounts of data showing that CO<sub>2</sub> always lags warming, even on a short term basis. If CO<sub>2</sub> lags warming, it can't be the cause of the warming!

The most obvious shortcoming of the NDC report is all of the assertions that are contrary to hard data. But the report is also weakened by the wholesale ignoring of relevant data. Rather than discussing data and justifying their assertions, the authors simply disregard any data that doesn't fit their scenarios.

From these observations, one can only conclude that the report is really not a scientific document at all, but rather a huge political propaganda effort. Anthony Watts (<http://wattsupwiththat.com/>) said it quite succinctly: *"To me, this looks more like a glossy sales pitch from a company that is pushing a product they know people may not need, but if marketed just right, it would be something they'd buy. It reminds me of some insurance commercials I've seen in the past, where the commercial portrays all the bad things that could happen to you if you don't get covered. Basically, they are trying to make people afraid of the weather, and then they pitch a solution to that fear in a way that's right up there with the best traditions of salesmanship: Who wouldn't want better weather? Just buy our product."*



Figure 25. NDC portrayal of climate factors. The problem with this diagram is that the arrows are pointing in the wrong direction (see discussion below).