

Contrarian Response Part 2:

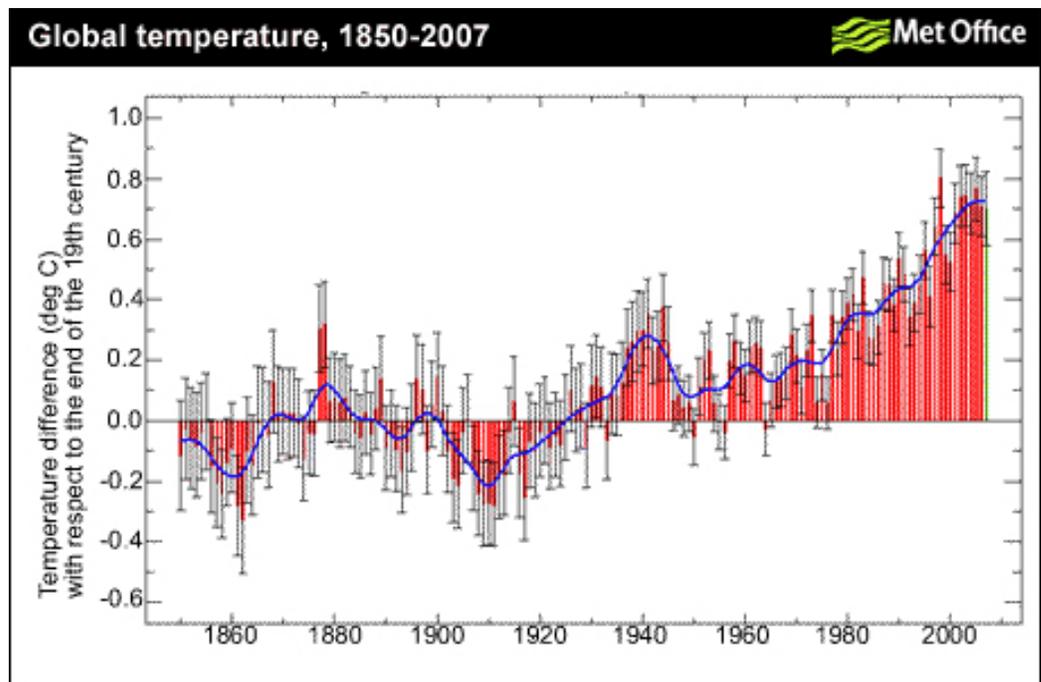
Contrarians accost me regularly. Fortunately it is not as regularly as it once was. I read recently that we could fit all of the remaining public climate contrarians in a bathtub. A similar diminishment of climate contrarians can be seen from where I stand, but there are still too many around for the safety of our planet. So I offer the following as ammunition to those of you who find yourself in similar situations.

The hysteria being perpetrated by these fanatical skeptics is frightening. The reasons are numerous, but mostly it's the vast complications of climate science that allow a very small fraction of society to turn a few inappropriately used pieces of data into statements of belief. These statements are picked up through any number of different mechanisms - and circulated throughout society as if they were valid. When one encounters these statements they are rarely backed up by data. When they are that data is misused or inappropriately aligned to convey meaning that was never intended.

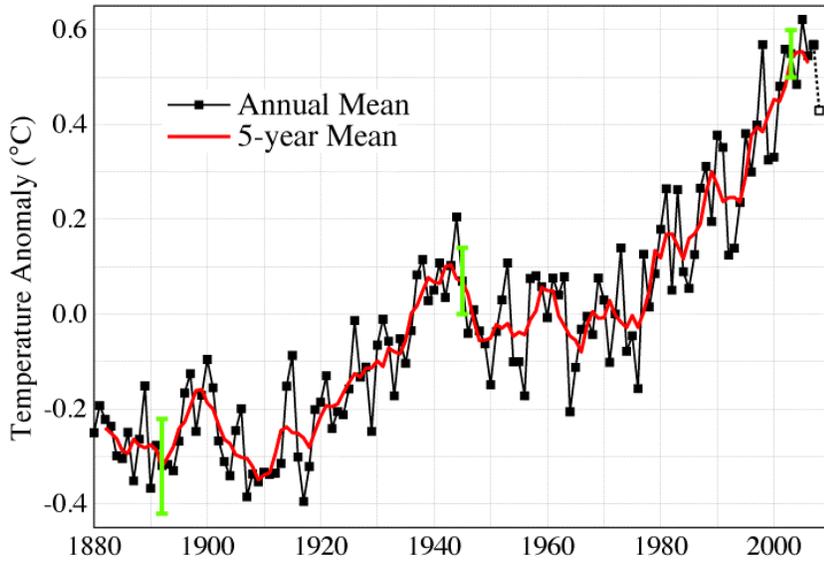
Fact: There ain't been no warming since 1998.

Having a graph or two hanging around puts this one to bed pretty quick.

The top graph is global temperature from the United Kingdom Meteorological Center (HadCRUT3 dataset). The bottom is from the US MNASA Goddard Institute for Space Studies. 2008 was ranked 8th, 9th or 10th warmest, depending on who's dataset is used, UK Met or GISS, and how the data was interpreted. To say there has been no



Global Land-Ocean Temperature Index

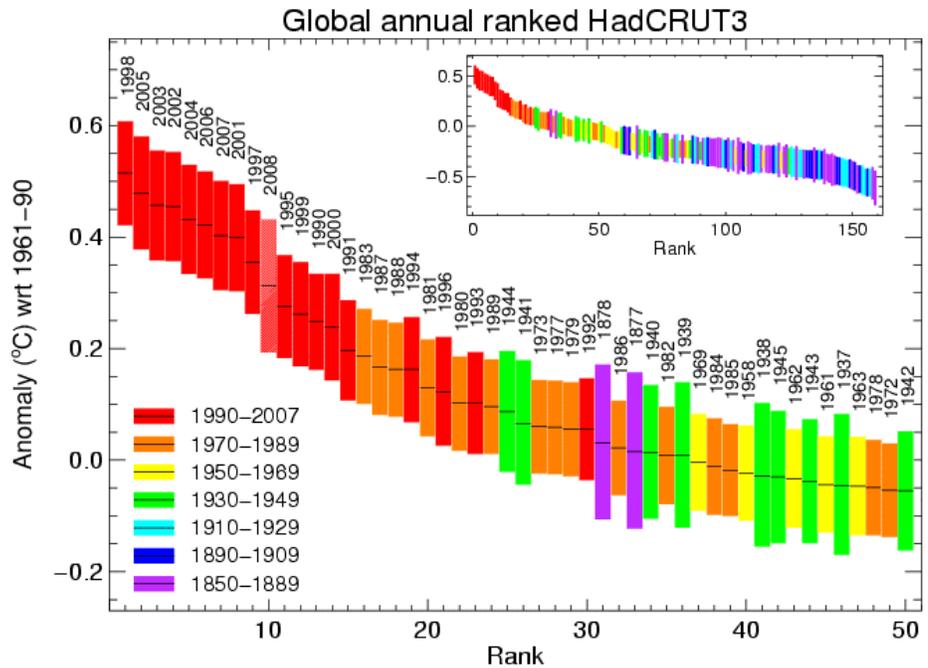


warming since 1998 is vaguely true. But to not acknowledge the climate swings and the definition of climate as long-term weather is a bit misleading. In reality, UK Met says that no year has been warmer than 1998 and GISS says only 2005. The rest of the story is that the last 7 years have been warmer than the only other two years in the period 1998 to 2008.

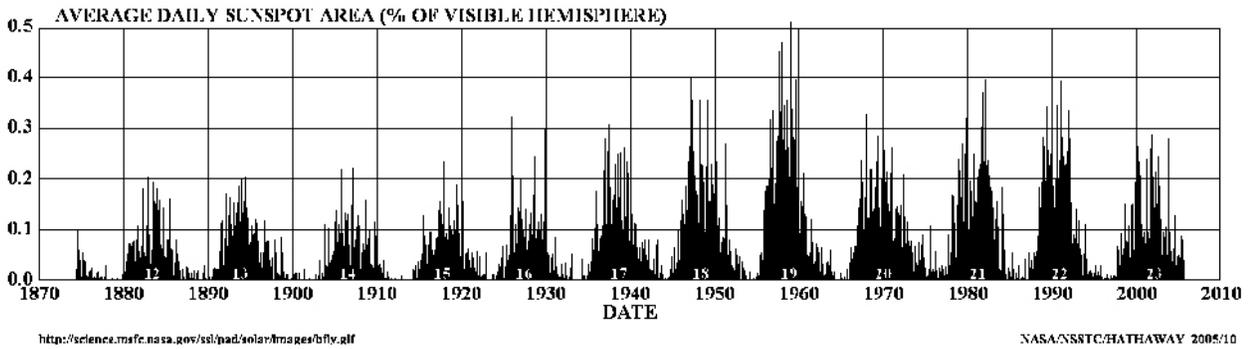
Fact: Global cooling has wiped out almost all global warming back to the year 1971.

The above graph is also from the UK Met, HadCRUT3 dataset. You can see 2008 is the 10th warmest. BTW, the UK Met has the most conservative of the climate science temperature recording methodologies. The only years cooler than 2008, after 1998, were 1999 and 2000, and they were just a wee bit cooler. To get back to 1971 levels is a long trek indeed.

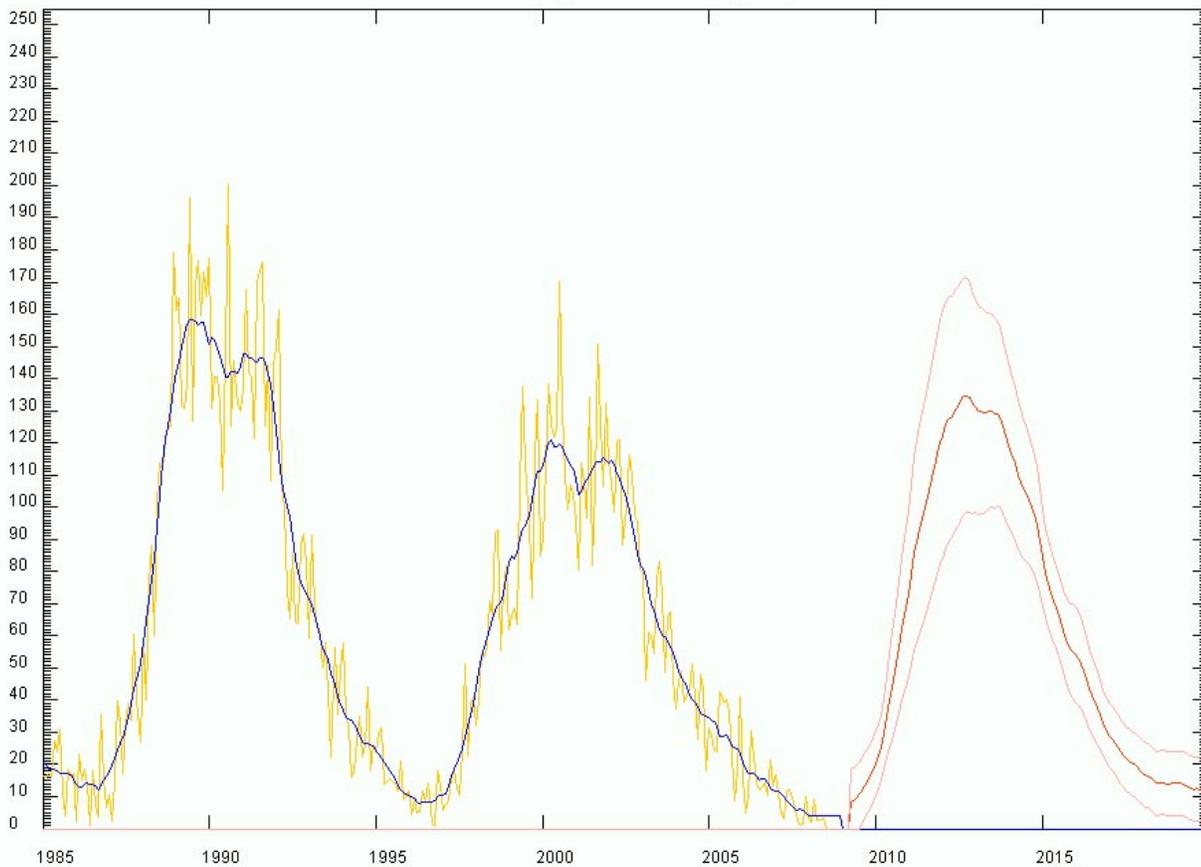
So why has the global temperature, according to the global temperature records above, seemingly leveled off, and why are the skeptics declaring these things that they are declaring? We are currently at the very bottom of the natural 22-year sun spot cycle. Because sunspots are hotter than the rest of the sun, there is less solar radiation coming from the sun now than at any other time during this 22 year cycle. It amounts to about 0.3 watts per meter squared (about the same amount of energy that comes from one mini-Christmas light per each square meter of land on Earth) which is enough to make the difference in the global temperatures that we are seeing today. I don't have time to



kick up the references, but GISS and UK Met both say that we are very likely to beat 1998 in Obama's first term. The traditional cooling of the sunspot minimum only last a couple of years.



Sunspot Count from 1985 and Projection for the Next Sunspot Cycle
Ionospheric Prediction Service
Australian Space Weather Agency

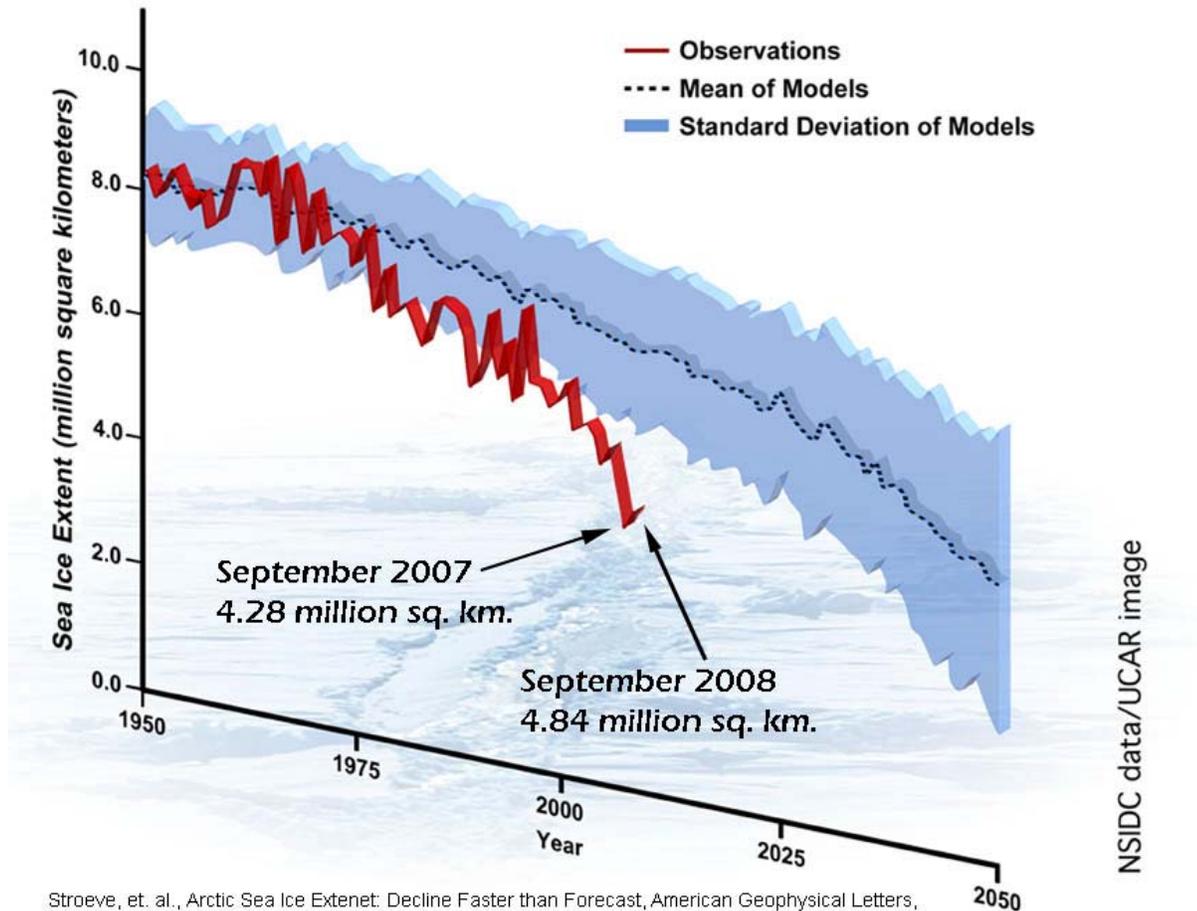


The above two images clearly show where we are in the sunspot cycle. The bottom one is from the Australian Space Weather Agency, the top NASA.

Fact: Arctic sea ice state as of Dec 31, 2008 was back to 1979 levels.

This is a statement that comes in many forms and I will use this one to show how some of these statements are created.

Arctic September Sea Ice Extent: Observations and Model Runs



Stroeve, et. al., Arctic Sea Ice Extent: Decline Faster than Forecast, American Geophysical Letters, Volume 34, February 2006 (2006 data)
Updated with 2007 data by Bruce Melton, October 2007
National Snow and Ice Data Center (NSIDC),
University Corporation for Atmospheric Research (UCAR)
Updated 2008

It is painfully clear that sea ice extents have entered a new era. The buzz at the American Geophysical Union Annual meeting with 15,000 Earth scientists in attendance in 2007 was exactly this. But there has been too little time elapsed to statistically prove anything - remember what the scientists said in the 80s, it would take 20 years to prove that mankind is warming the planet. What the scientists are saying is that this threshold is irreversible because future warming will be too great to allow for natural cycles to rebound
ice extents.

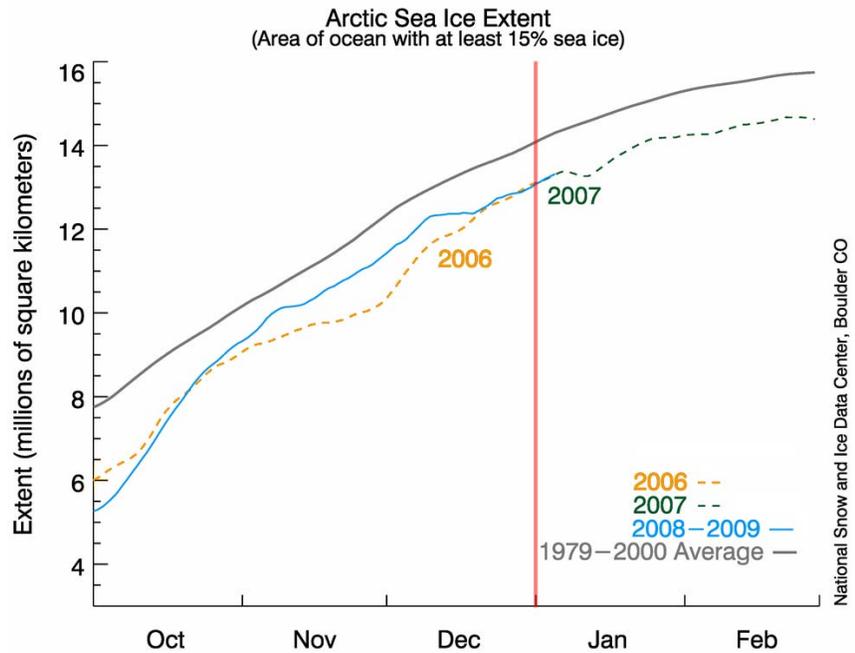
An interesting note: The National Snow and Ice Data Center year end review of Arctic sea ice suggests that even though we did not set a record ice coverage last year (darned close though, and way below the supercomputer model projections), we did set an all time record minimum ice volume.

So this statement of “Fact” is not well supported. An example of how this sort of thing is believable

follows: The statement "The artic (sic) sea ice state as of Dec 31, 2008 was back to 1979 levels." is true! well almost... only the relevance of the statement is inappropriate. The following graph shows current Arctic Sea ice Extents from the National Snow and Ice Data Center:

If you look at where the blue line ends and read the area on the left you get 13 million square kilometers. Based on the NSIDC plot of December anomalies (this is the difference in the December ice extent vs. the average) we should be at 13.5 million square kilometers, but we are not we are at 13 million - four percent below average, a large percentage when considering the normal range. What I expect happened to get this rumor moving was that

someone looked at the graph above this one labeled Arctic Sea Ice Extent and looked at where the red line meets the blue line and determined that they coincided with the average 1979-2000 average and made the statement "The artic (sic) sea ice state as of Dec 31, 2008 was back to 1979 levels."



To find reliable information on climate look at GISS or the UK Met or the IPCC. The complicated reality is that climate change is much worse than we understand it to be. This is one of the big reasons why the climate models are being found to be so conservative. One of the most respected climate modelers in the World would not be standing in front of 16,000 of his peers making astonishing statements about Earth and the probabilities and inevitabilities of the Venus Syndrome if things weren't really, really bad.

