

Ten Major Failures of Consensus Science

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INTRODUCTION

The US congress sub-committee on Energy and Commerce Committee held hearings on whether to restrict in some way the EPA's regulatory authority relative to greenhouse gas emissions.

There were 7 scientists invited to testify. Three of the four who argued not to restrict the EPA played a key role in the last IPCC report (and will also in the next one) and generally started with the position that IPCC science was sound and there was a consensus of all real scientists.

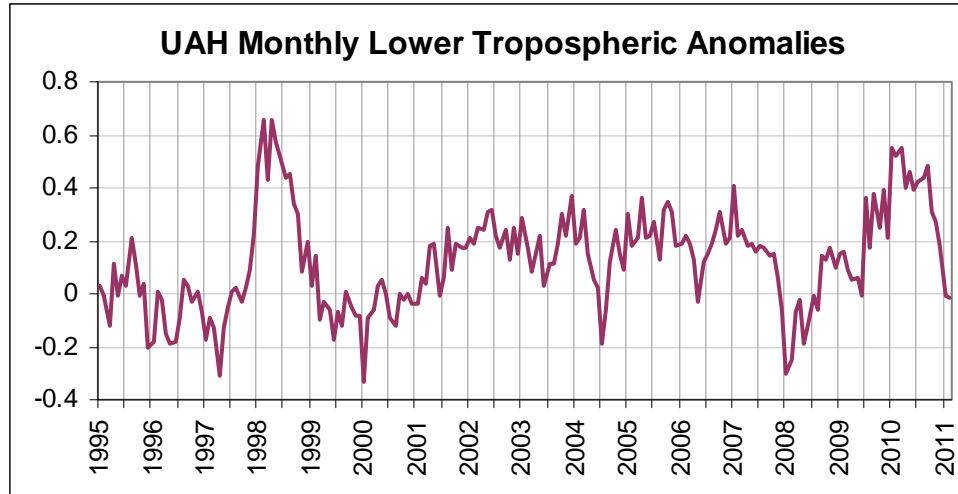
In the attached analysis we take a look at the IPCC based science. We are going to ignore all the many 'gates' that were uncovered like the Himalayan glaciers, Amazon rain forests, how many real scientists there were who authored the key summaries and all the issues as to whether the summaries truly reflected the scientific information in the chapters and despite claims to the contrary, how a significant percentage of citations were not peer reviewed.

We will not attempt to address the issues of sensitivity for CO₂ or solar and cloud and water vapor feedbacks relative to the models. We will also ignore the many model shortcomings - like inability to forecast regional patterns, ocean oscillations, etc. We will focus on how actual data compares to the consensus science, model based virtual world view of climate.

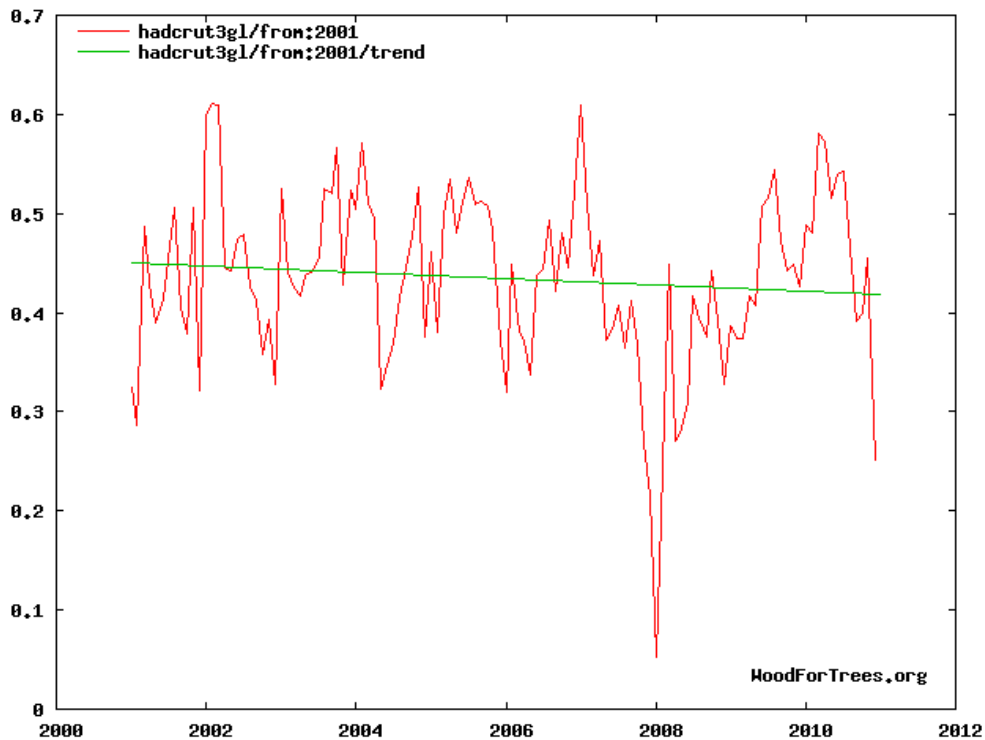
We will look at some of the major findings, assessments or model predictions from the IPCC and other national climate centers and NGOs, that we believe have failed and let you decide then whether or not their science and model projections should be the bedrock onto which we build public policy.

1. Warming is said to be unprecedented and accelerating. It is neither.

Satellite and surface data shows no warming for 15 years despite CO₂ increases

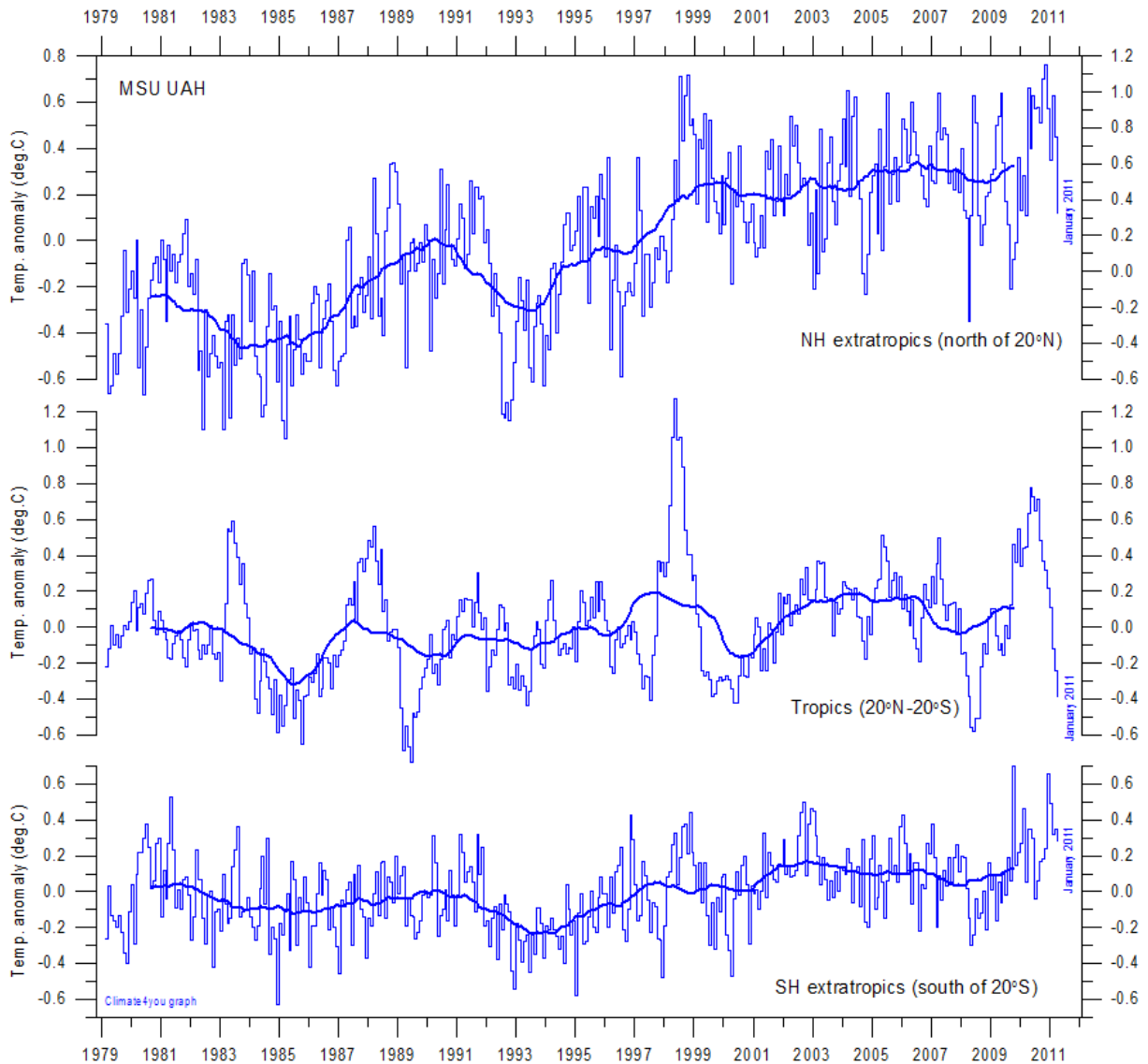


Phil Jones of the CRU admitted there was no statistically significant warming since 1998 with a slight cooling in from 2002 to 2009 (0.12C).



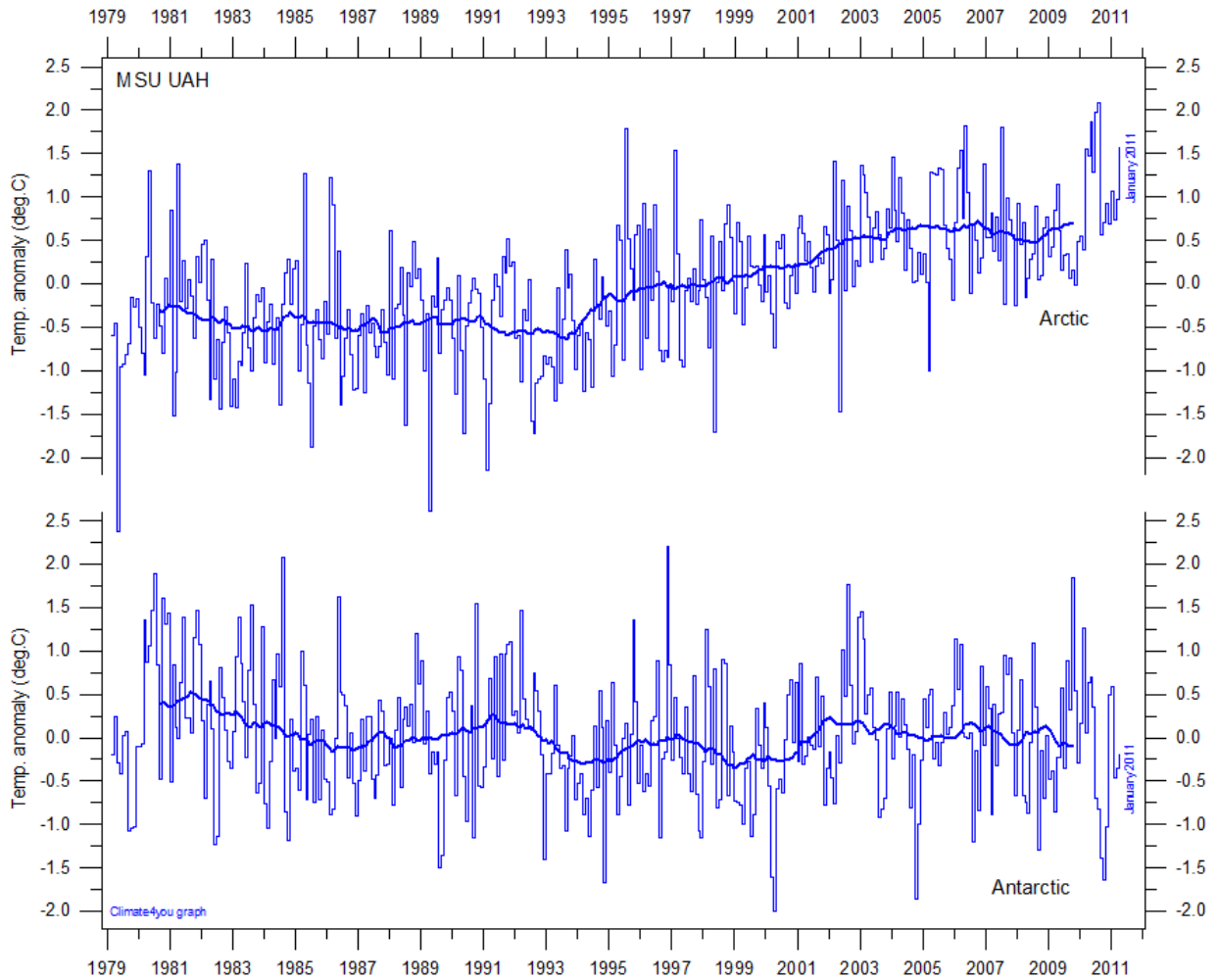
2. Global warming is not GLOBAL

The UAH satellite shows the changes since 1979 for the northern and southern hemisphere extratropics and the tropics (20N to 20S)



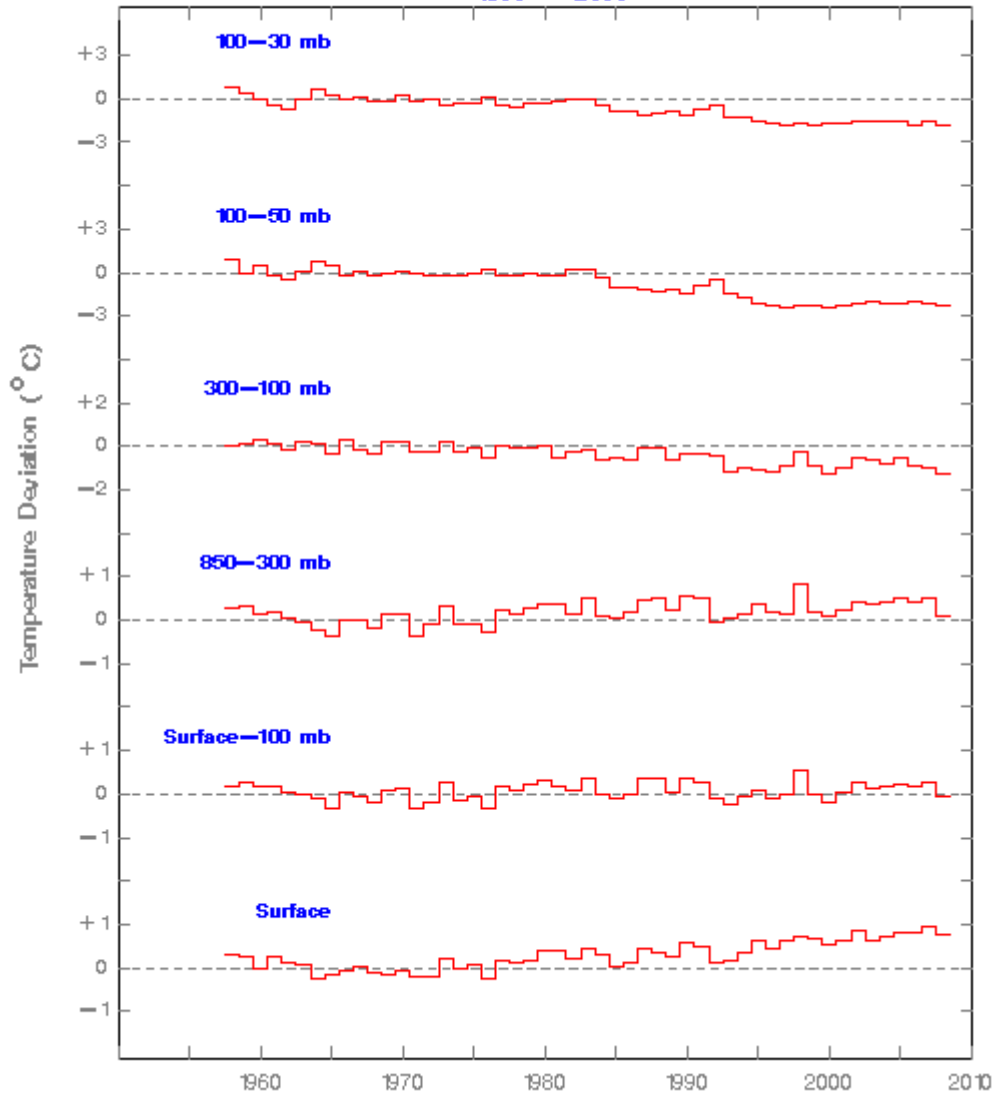
The warming was primarily in the Northern hemisphere north of 20N and most all of that warming prior to 1998. There was no warming in the tropics and no statistically significant warming in the southern hemisphere extratropics (south of 20S).

The warming was greatest in the arctic. No change or even a slight cooling meanwhile was observed in the Antarctic. [This analysis](#) shows the arctic temperature changes are cyclical and relate to multidecadal changes in the Atlantic and Pacific and on the sun.

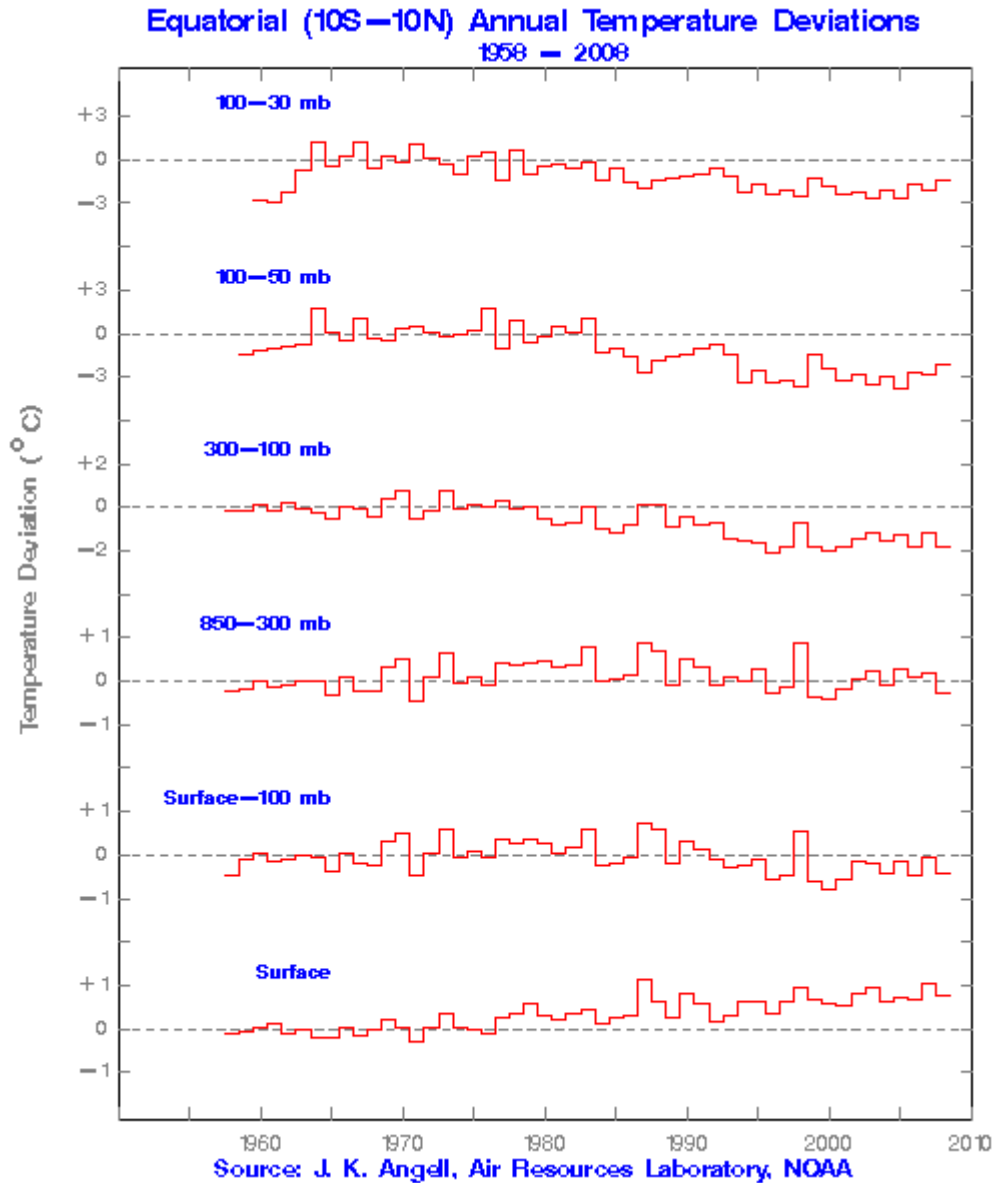


Weather balloons show no warming except at the surface for the globe and even slight cooling in the tropics in the low to mid troposphere where all the climate models suggest the warming should be greatest. (Source Angell NOAA ORNL)

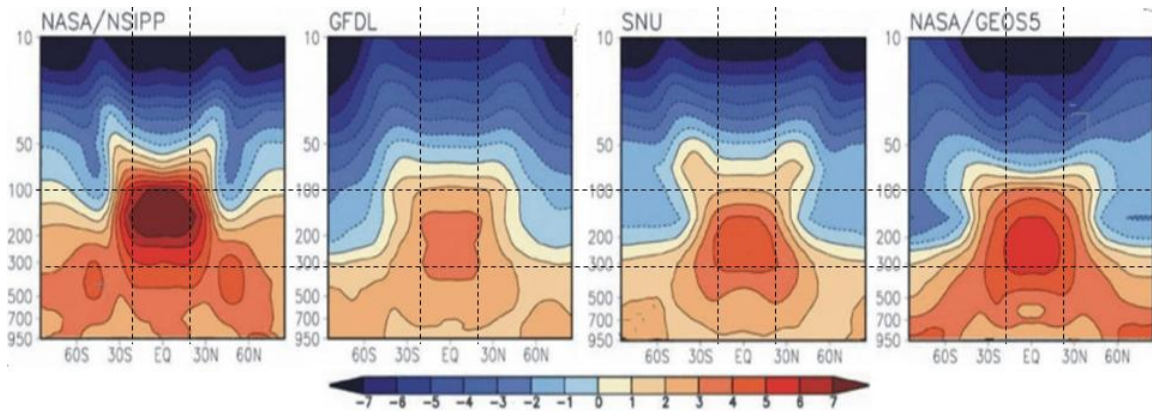
Global Annual Temperature Deviations 1958 - 2008



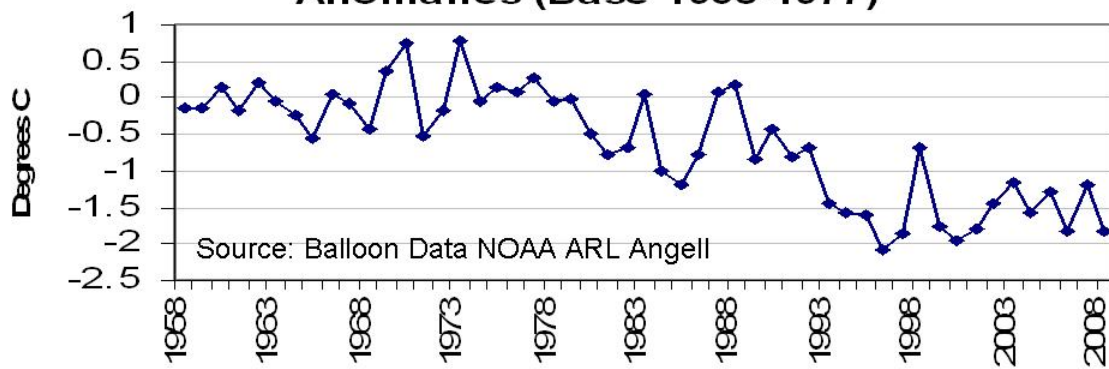
Source: J. K. Angell, Air Resources Laboratory, NOAA



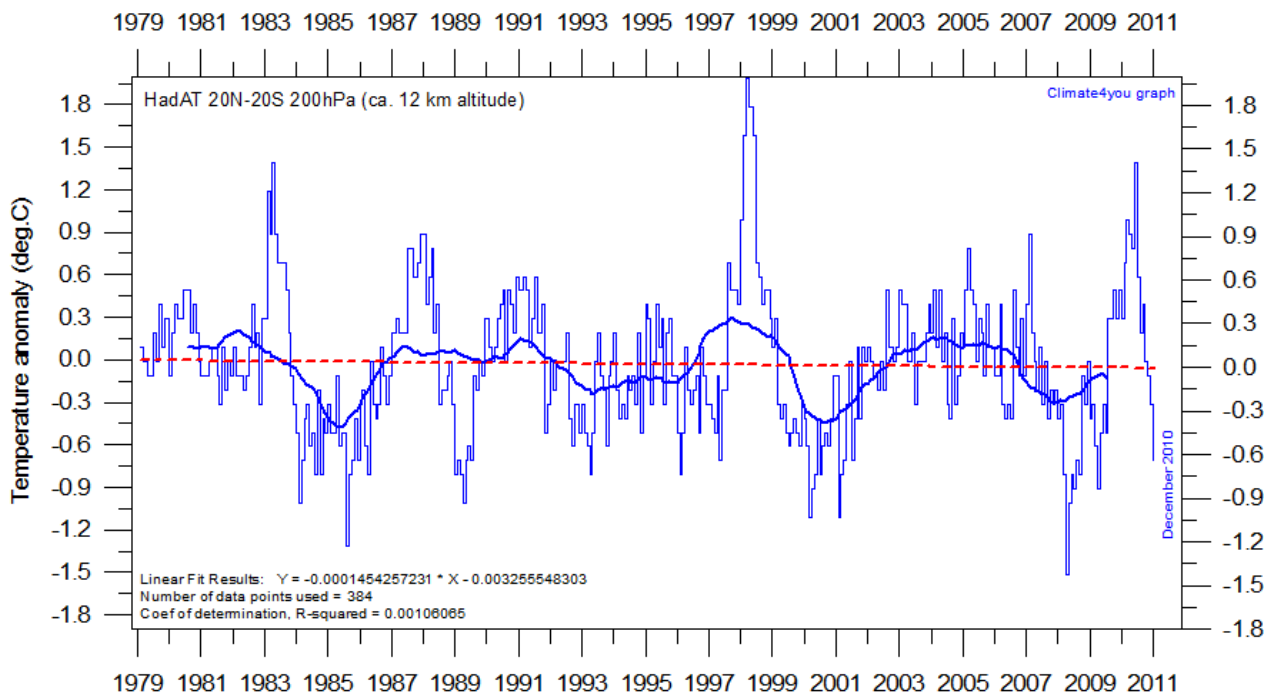
These are the climate models which uniformly suggest this tropical mid tropospheric hot spot. See the downtrend in the temperatures in the layer where the greenhouse warming is modeled the greatest!



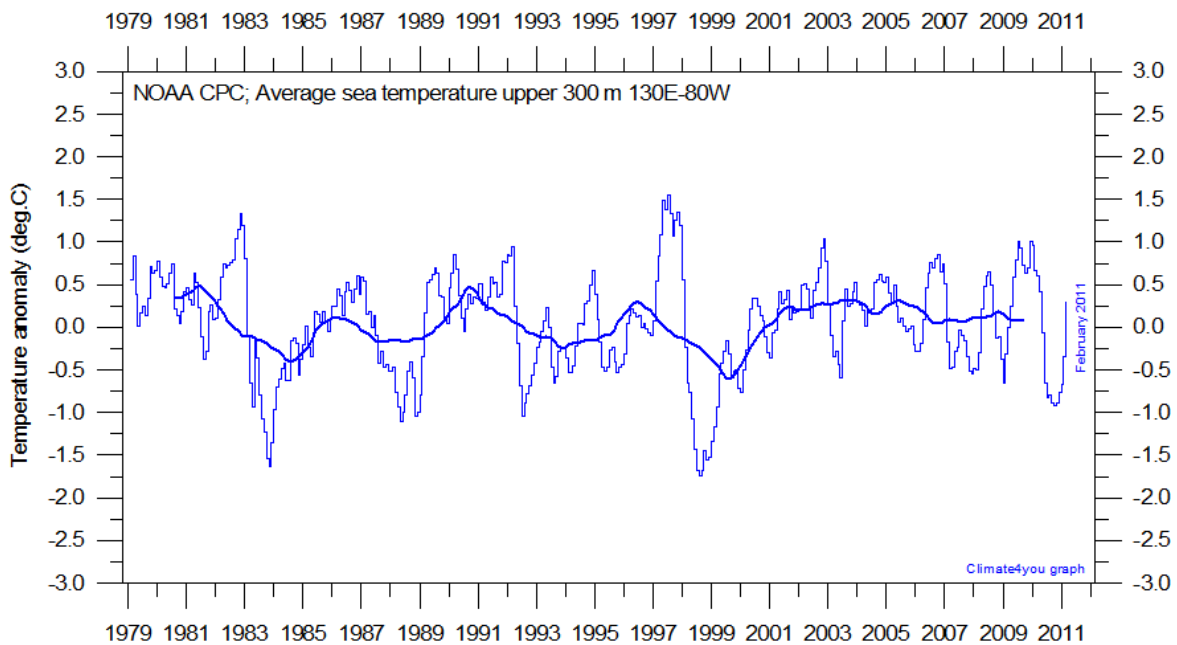
20N to 20S 100-300mb Temperature Anomalies (Base 1958-1977)



This is a Hadley centre analysis based on balloon data that confirms the lack of warming for now over 30 years in this important greenhouse signature mid tropospheric level.



Roger Pielke Sr. testified that ocean heat content was the most robust measure of climate change. Tropical sea surface temperatures are measured very accurately using buoys. They show no change since 1958 in the ocean heat content in the tropics down to 300 meters depth in the entire equatorial Pacific from 130E to 80W.



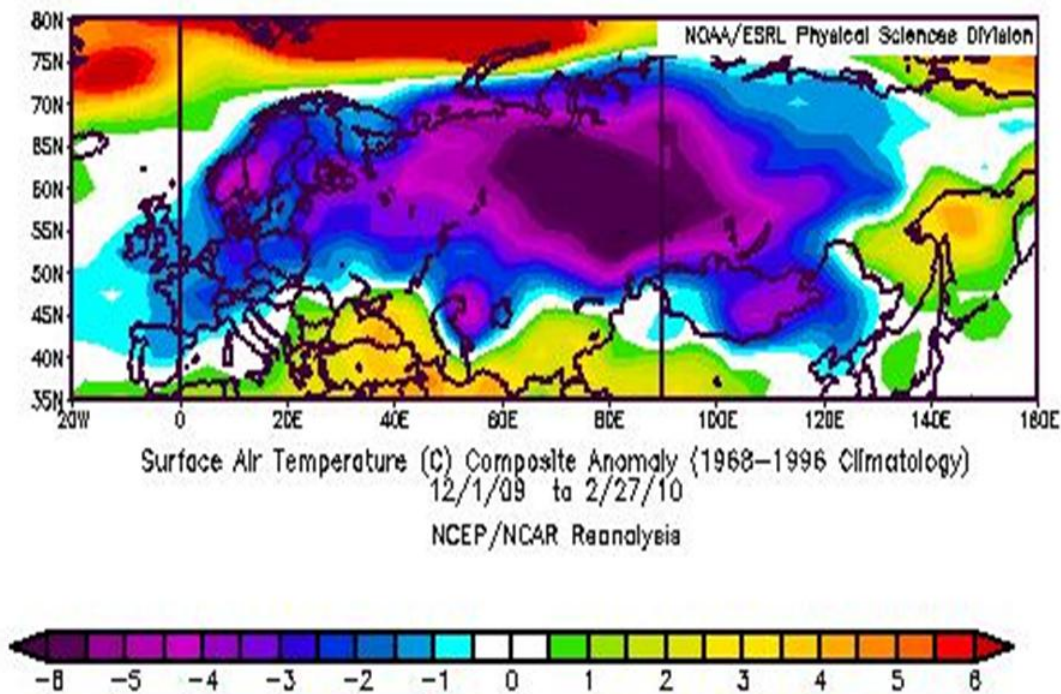
(3) Winters would grow increasingly warm

NASA [claimed in 1999](#) that winters would warm across the hemisphere based on their models. NOAA in the [2009 CCSP](#) claimed: “...cold days and cold nights are very likely to become much less frequent over North America.”

The [IPCC warned in 2007](#) “In addition to warmer winters, Europe’s northern regions will experience more precipitation and run-off. The expansion of forests and agricultural productivity will be accompanied by greater flooding, coastal erosion, loss of species and melting of glaciers and permafrost.

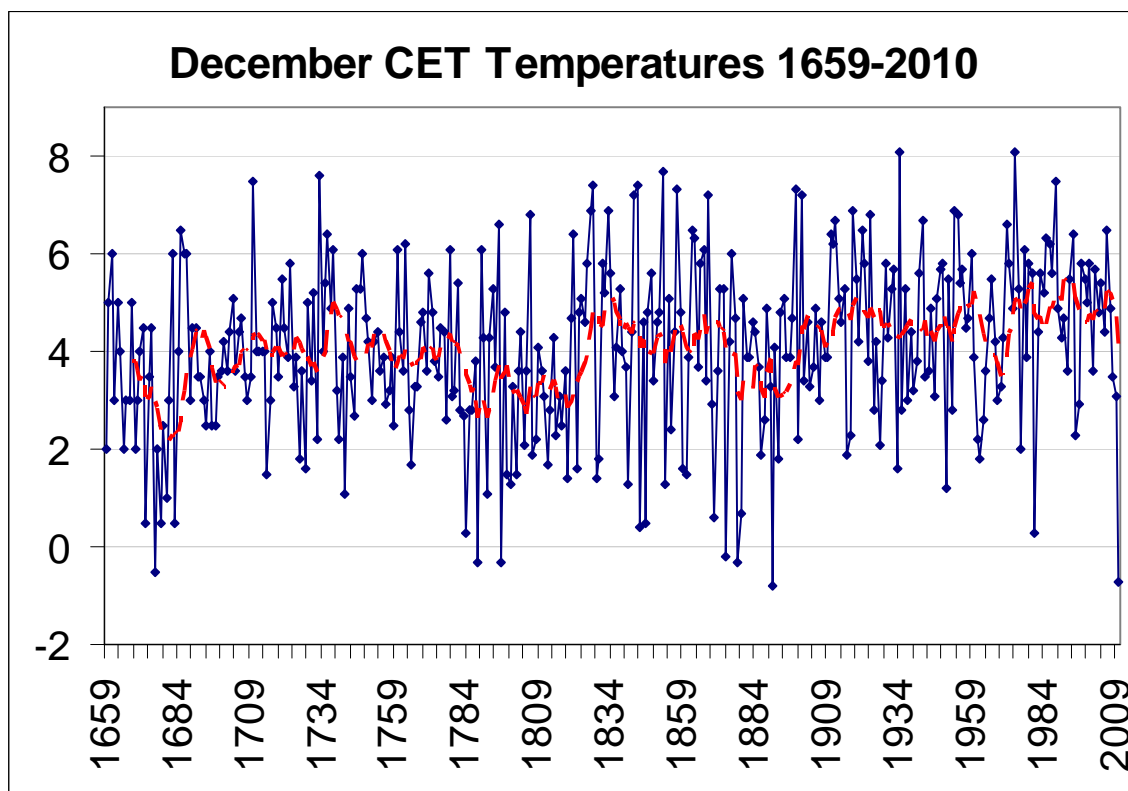
This winter marks the fourth consecutive winter where that forecast has failed. So much so that the UK Met Office under intense public and media pressure has stopped issuing winter forecasts.

The 2009/10 was brutal across all of Europe and Asia. It was the coldest ever in parts of Siberia.



In the UK, the winter of 2010/11 got off to an historic start. The Central England Temperature record is one of the longest continuous temperature record in the world extending back to the Little Ice age in 1659.

December 2010 was the coldest December in 120 years with an average of -0.7C just short of the record of -0.8C recorded in December 1890 and the **Second Coldest December Temperature** in the entire record (352 years).



And in the Central England temperature record, 2010 ranked 9th coldest since 1900!
Annual average temperatures in degrees C.

Central England Temperature Annual		
1	1963	8.47
2	1919	8.48
3	1917	8.51
4	1909	8.55
5	1962	8.59
6	1922	8.67
7	1986	8.74
8	1979	8.81
9	2010	8.83

According to [Met Eireann](#), Ireland's meteorological service, December 2010 was officially the coldest month ever since records began 130 years ago.

Ireland's Armagh Observatory has a long period of record extending back to 1795. The Armagh mean monthly temperature was -0.3 degrees Celsius (31.4 degrees Fahrenheit), about 5.4 Celsius below average, making **December 2010 the second coldest December** in Armagh. The three coldest Decembers in Armagh are now those of 1878, 2010 and [1796](#), with average temperatures of -0.5 C, -0.3 C and 0.6 C respectively.

Probably the most notable record was the new all time record low for Northern Ireland, of -18.7 C recorded on the 23rd of December at Castleberg, County Tyrone.

NORTHEAST EUROPE

Germany has experienced the coldest December in more than 40 years, the German Weather Service (DWD) said. See report [here](#). The average temperature in December was 4.3 degrees C below the past records on average, the DWD said. People have never seen such a freezing December since 1969.

The bitter cold was mainly stuck in the north and east of the country, where night temperatures in many places were below minus 20 degrees C, the weather agency added. A DWD monitoring station near northeastern city of Postdam recorded only four days when the temperatures were above zero degrees this month. Poland temperatures were over 5C below normal.

SCANDINAVIA

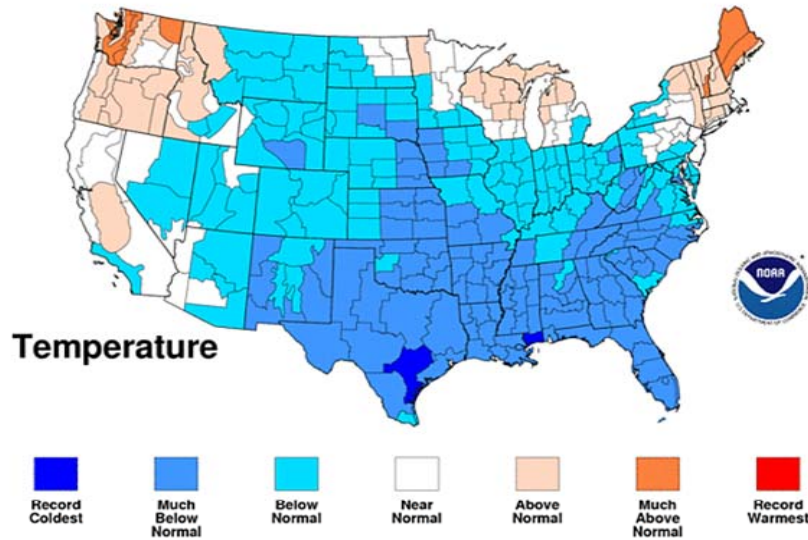
According to the Swedish meteorological agency SMHI, several parts of Sweden, including the Gotland and eastern Svealand, experienced the coldest December in at least 110 years. In addition, 2010 was the coldest year in Sweden for 23 years and the coldest on Norway since 1941.

UNITED STATES WINTERS CONTINUE RAPID COOLING

The winter of 2009/10 averaged 2.2F below normal and was the coldest ever in parts of Texas and Mississippi and among the top coldest in much of the south.

Dec 2009 - Feb 2010 Divisional Ranks

National Climatic Data Center/NESDIS/NOAA

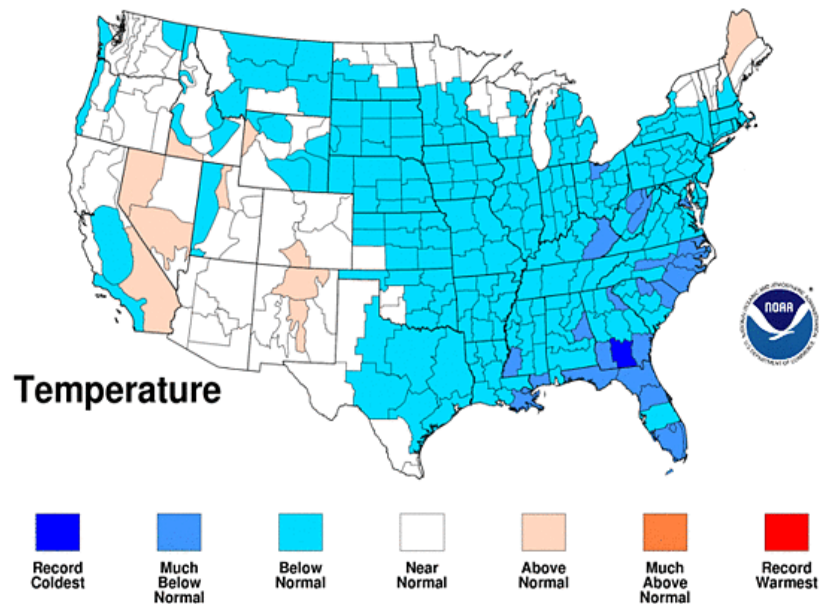


December 2010 was the coldest ever December in Florida and Georgia. December 2010 and January 2011 was the coldest such period in Florida.

This past winter was the 39th coldest for the United States

Dec 2010 - Feb 2011 Divisional Ranks

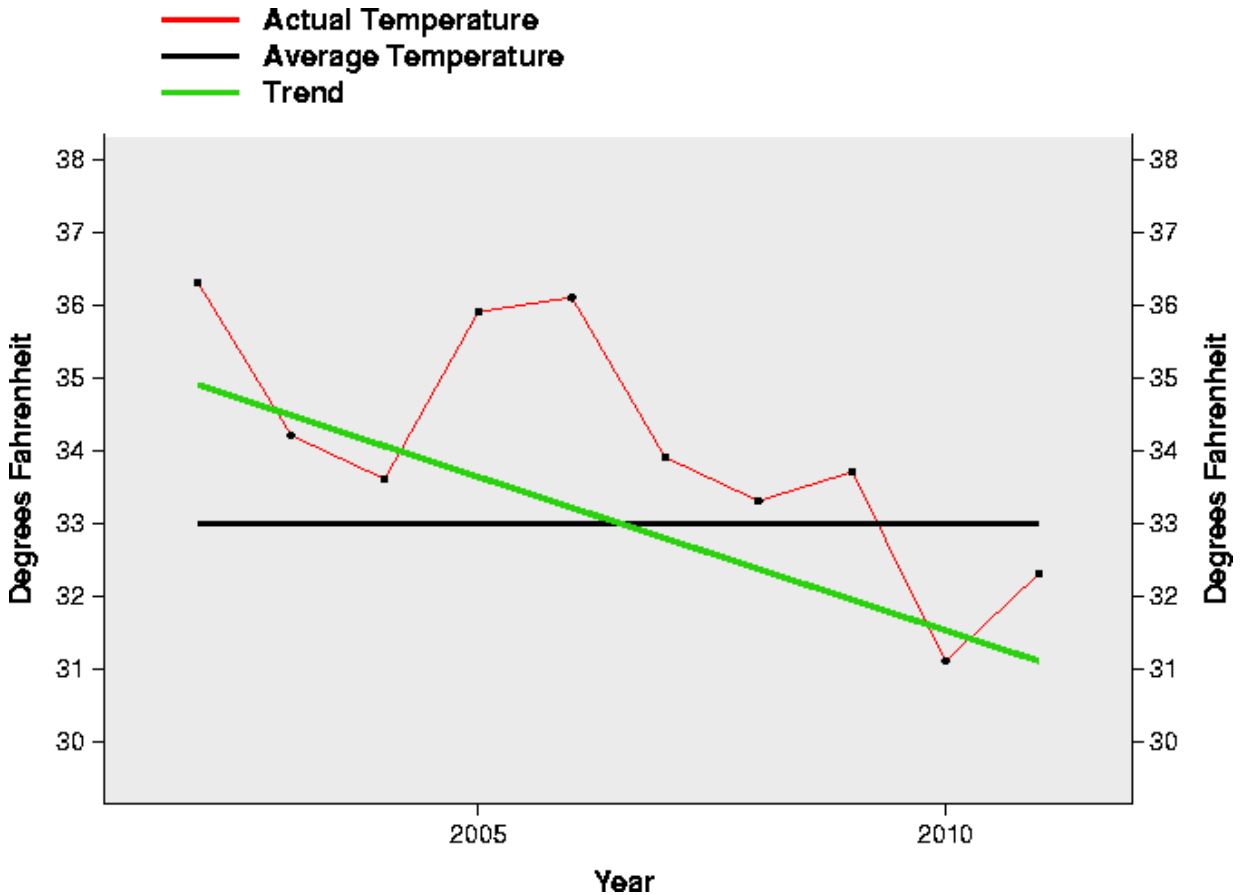
National Climatic Data Center/NESDIS/NOAA



This continues a downtrend the last century of an amazing 4.1F per decade or 41F per century. NO climate model suggested this kind of interlude.

Here is the very latest NOAA plot of decadal winter temperatures for the United States.

US Winter (Dec-Feb) 2002 - 2011 Trend = -4.10 degF / Decade



4. The entire Northern Hemisphere would experience less snow and snowcover

The IPCC, the UK Hadley and CRU, NOAA CCSP and NASA models all predicted less snow and cold.

On March 20, 2000, The Independent, a British newspaper, reported that the Dr. David Viner of [the UK's Climate Research Unit](#) warning within a few years snowfall will become “a very rare and exciting event.” Indeed, Viner opined, “Children just aren’t going to know what snow is.”

Similarly, David Parker, at the UK’s Hadley Centre for Climate Prediction and Research, said that eventually British children could have only “virtual” experience of snow via movies and the Internet.

The last three winters in the UK were forecast by the UK Met Office to be mild and snowless. Instead, brutal cold and snow in the UK has the UK Met Office on their heels. Indeed the cold and snow was a throwback to the age of Dickens in the early 1800s. UK MPs called for Official Parliamentary Probe into whether the UKMO reliance on their ideology and CO2 models had biased their predictions.

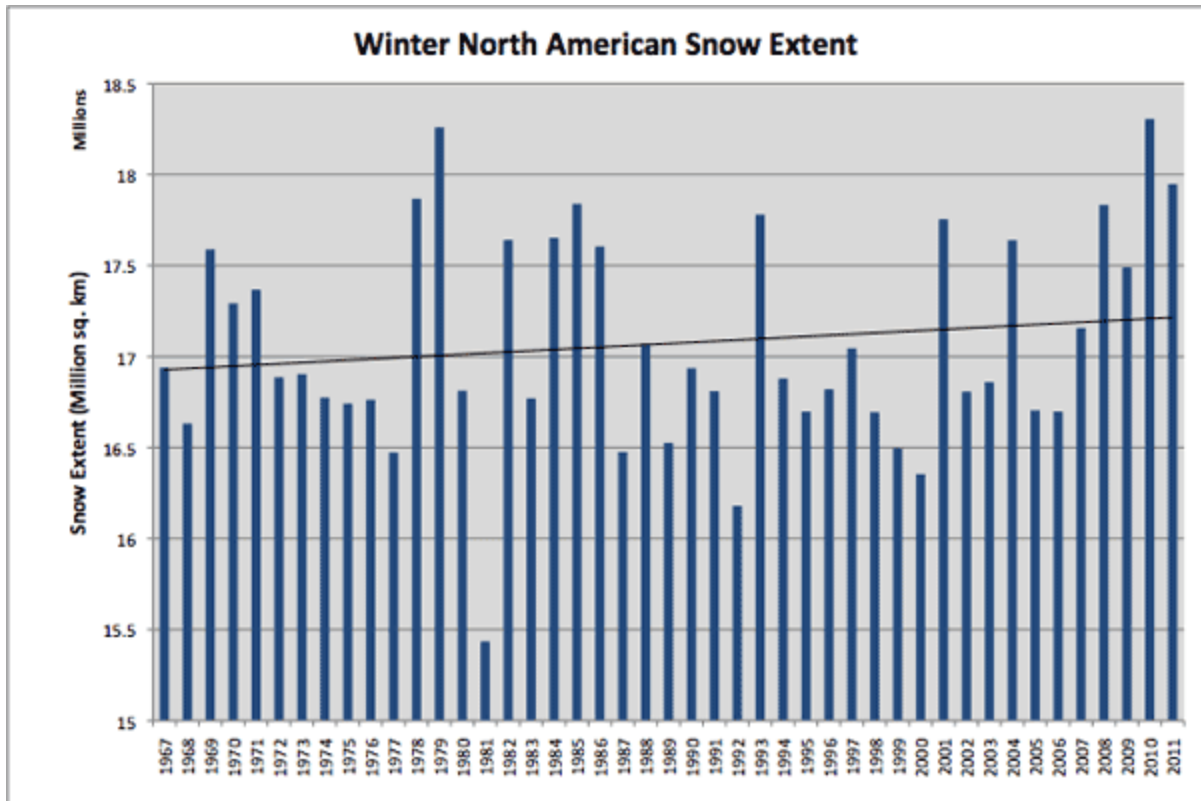
In the United States, NOAA echoing the UN IPCC, claimed snow would retreat north with the storm tracks and major cities would get more rain than snow along with milder, shorter winters.

The Union of Concerned Scientists opined confidently in 2004 [scientists claim winters were becoming warmer and less snowy](#). In 2008, [Robert F. Kennedy Jr.](#) bemoaned that children would be robbed of the childhood joys of sledding and skiing in the DC area due to global warming. A year later, the area set a [new seasonal snowfall record](#) with 5 to 6 feet of snow and sleds and skis were the only way to get around.

Snowfall was very heavy across Europe this past December. Munich, Germany, recorded a snowfall total for December, 2010 of 52 inches and the temperature averaged 6.3C below normal. 42 inches of snow was reported in Berlin. For the first time since 1981, all people in every place of the country celebrated "a white Christmas" together in this December. In western Poland, the city of Poznan had a snowfall total of 58 inches.

Snowcover for the hemisphere has been increasing the last 45 years with records abounding the last 4 years. A new record was set for this December/January this past winter, last year ranks 2nd for that period. 1977/78 was third, 2007/08 fourth.

For the entire winter, 2009/10 was top, 1977/78 second and 2010/11 third greatest, 2007/08 not far behind.



Source [Rutgers NOAA Data Snow Lab](#)

After the fact, scientists scurried to find an excuse for the forecast failure. It was stated that extremes of weather – bigger, stronger, wetter storms are consistent with global warming.

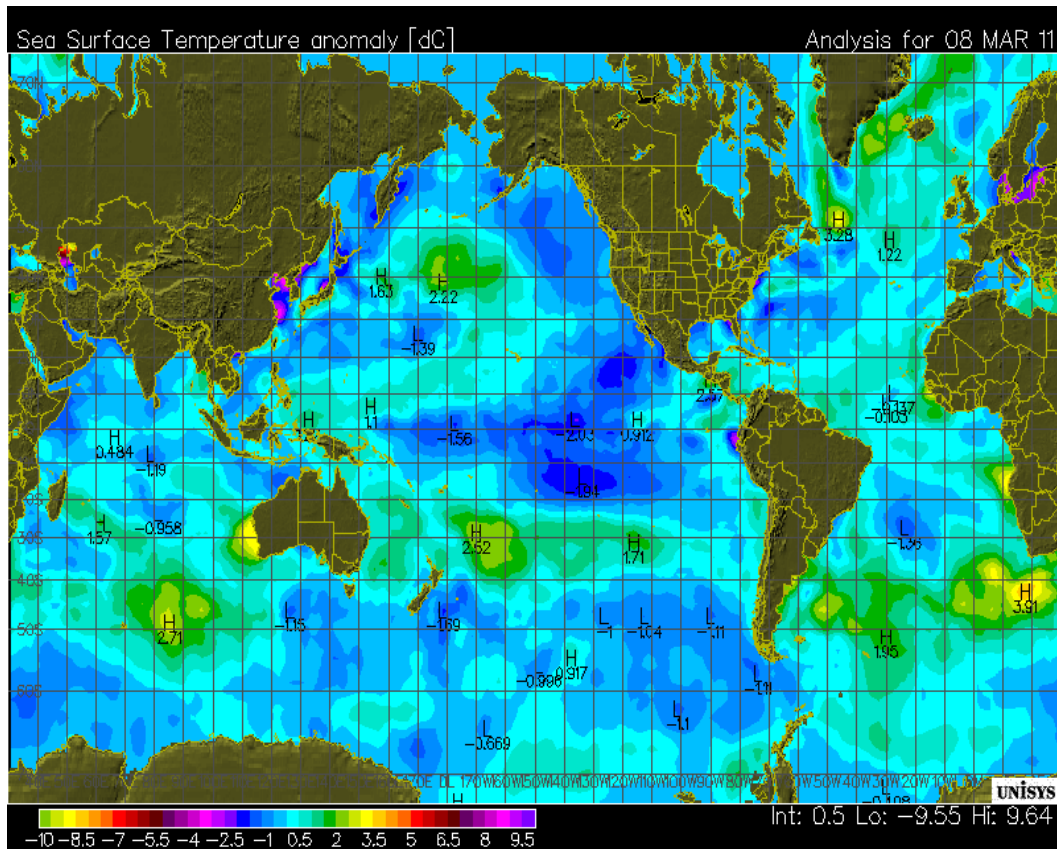
But, in fact global warming is supposed to have its greatest effects in colder locations thus reducing the contrast in temperatures with warmer air masses at lower latitudes which fuel winter storms. Big storms occur in years with the coldest air furthest south, as we saw in 1977/78, 2007/08, 2009/10 and 2010/11.

Global warming scientists and the media then took a contrary view focusing more on moisture content in the warm air which became the theme for this and last winters big snows.

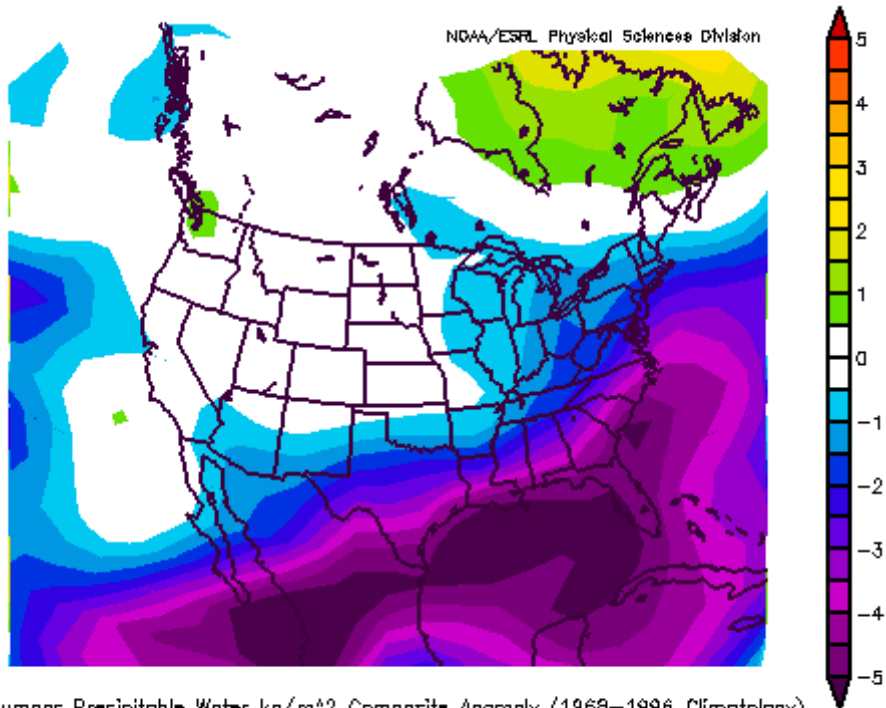
“The old adage, ‘It’s too cold to snow,’ has some truth to it. A colder atmosphere holds less moisture, limiting the snowfall that can occur.” Heavy snowstorms are not inconsistent with a warming planet,” said scientist Jeff Masters. “In fact, as the Earth gets warmer and more moisture gets absorbed into the atmosphere, we are steadily loading the dice in favor of more extreme storms in all seasons, capable of causing greater impacts on society.”

First of all the last two winters were colder than normal not warmer as we have already seen.

Second the global oceans are colder than normal (blues), especially around the United States as seen from this UNISYS SST anomaly analysis.

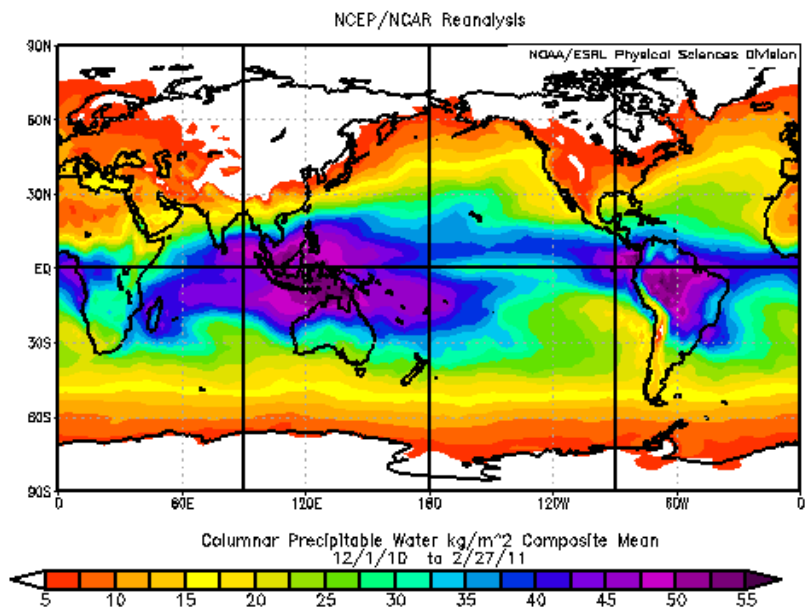


Third the amount of moisture in the air this winter was below normal (blues) in all the areas that had abnormal snow. The same was true last year.

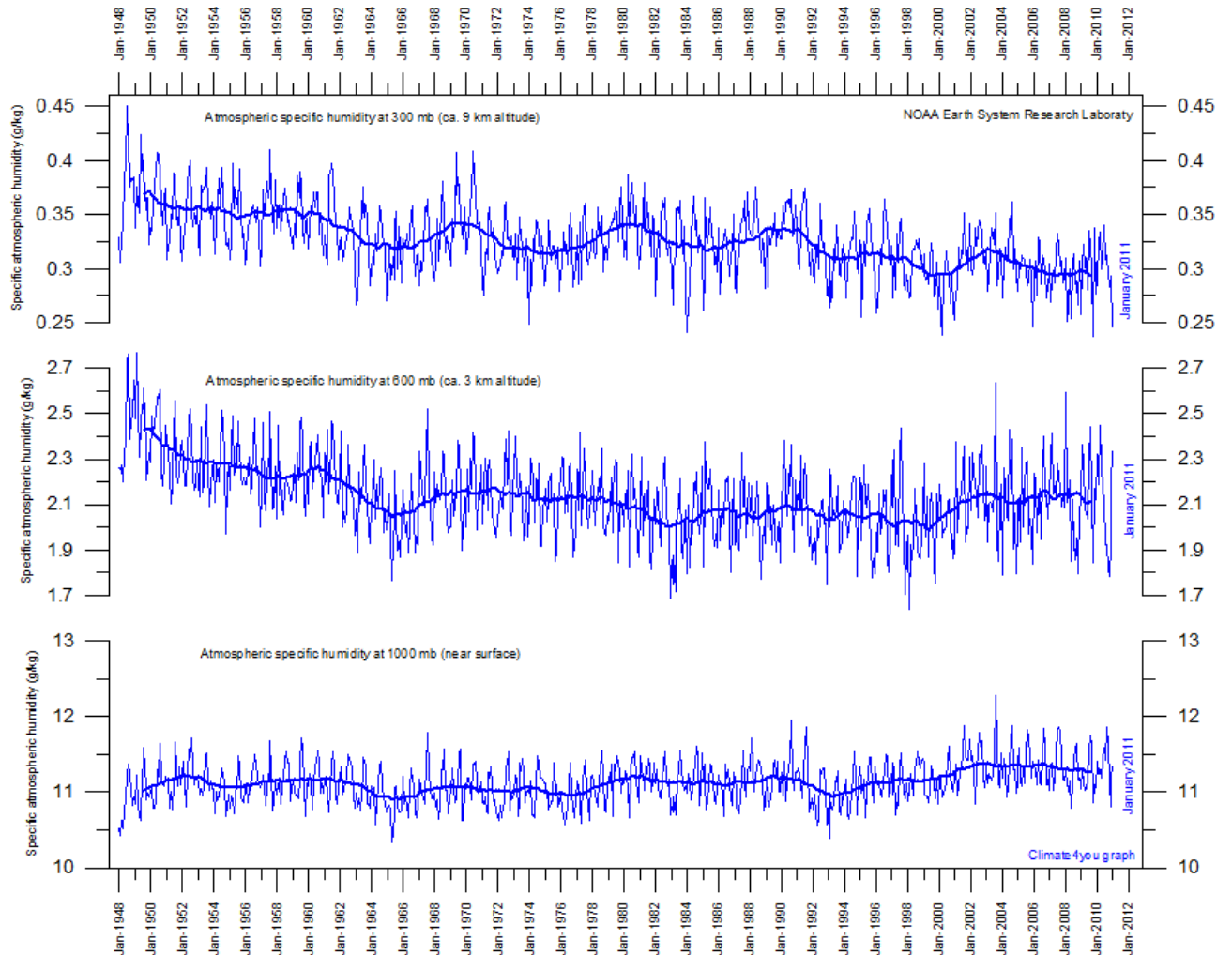


Columnar Precipitable Water kg/m^2 Composite Anomaly (1968–1996 Climatology)
 12/1/10 to 2/27/11
 NCEP/NCAR Reanalysis

The actual tropospheric precipitable water content from surface to 500mb shows most the tropical atmosphere has over ten times the water content of the polar and middle latitudes.



Also tropospheric relative and specific humidity has significantly declined since 'safe CO2 levels' of 1948, 2) atmospheric water vapor has declined since satellite measurements began in 1983, 3) there has been no statistically significant global warming since 1995.

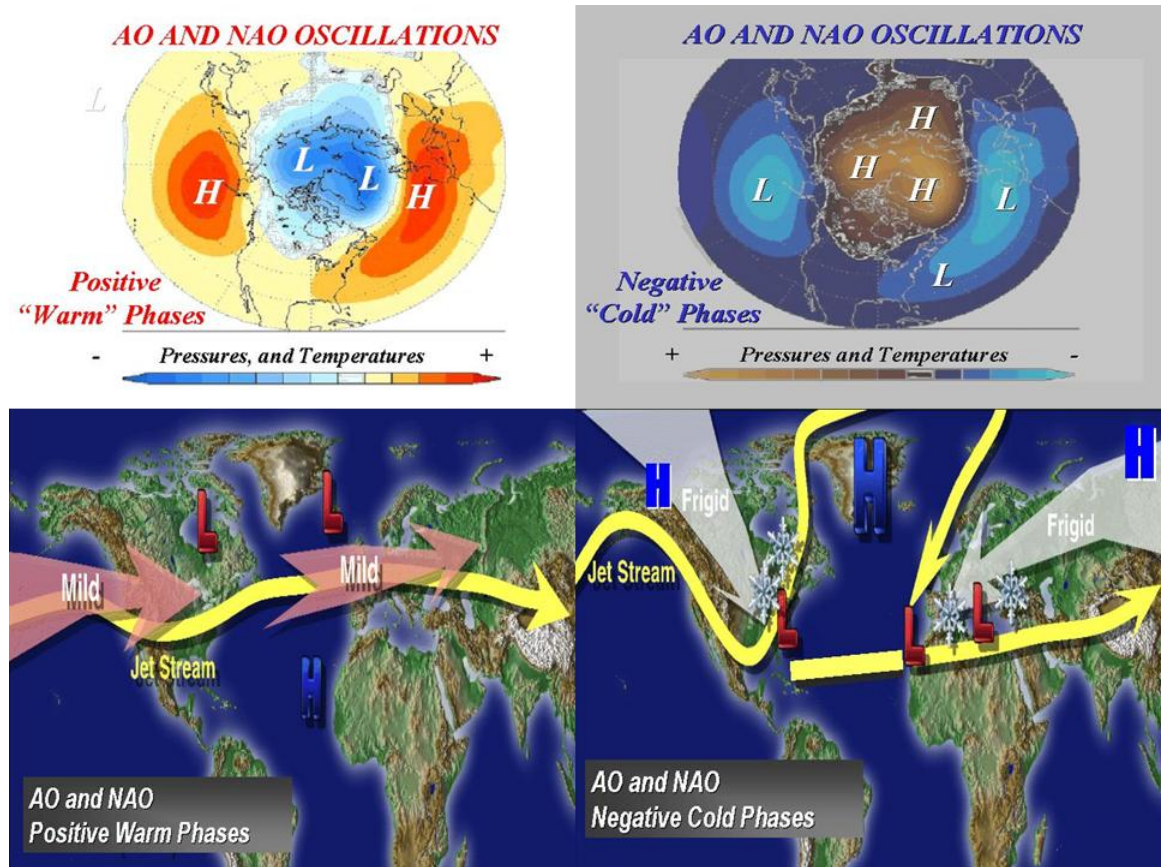


The snow resulted from a **rapid cooling** as we went from a strong El Nino to a strong La Nina and high latitude blocking consistent with a warm AMO mode and a still quiet sun (maybe some residual help from the high latitude volcanoes of recent years). Global temperature anomalies have plunged more than a whole degree (F) from their peak last summer and early fall. February 2011's anomaly (UAH) came in as -0.018F relative to the 30 year average.

Global temperatures lag ENSO by about 7 months. Global teleconnections are most similar to the late 1950s, 1960s and 1970s when frequent snowy cold winters caused the world to increasingly think an ice age was coming.

THE ARCTIC BLAMED

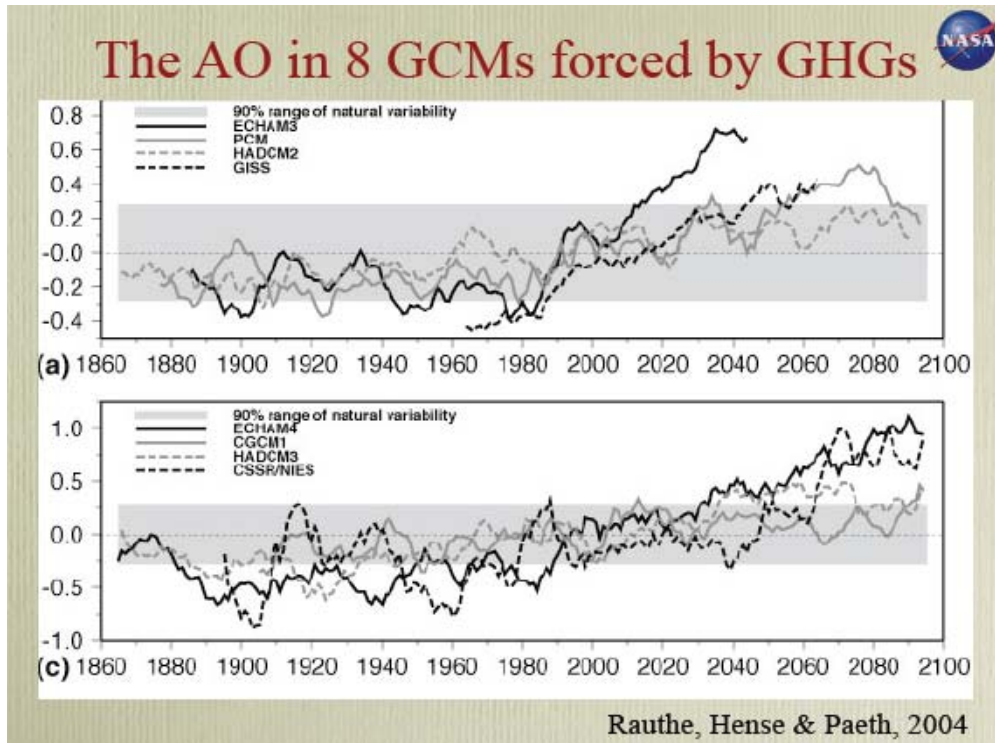
In Europe, the heavy snow was attributed to global warming induced reduction in arctic ice and warmer North Atlantic and arctic waters, which was said to produce the strongly negative arctic oscillation observed the last few winters. The Arctic Oscillation or AO (also known as the Northern Annular Mode or NAM) is a dominant oscillation in the hemisphere and has profound effects on winter weather – cold AND snow. The positive warm phase leads to the dominance of Pacific air and less snow in North America (exception (western Mountains) and more Atlantic air and less snow in Europe. The negative phase leads to colder temperatures, more snow with a suppressed storm track in the United States and cold and snow from Siberian air drawn west through Europe. The negative phase has dominated the last 4 years



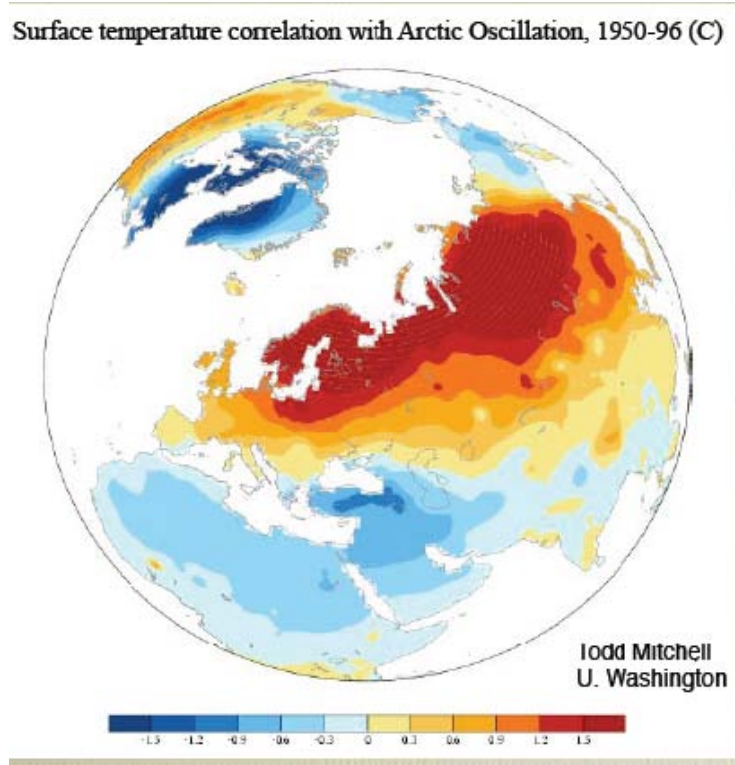
Although the arctic oscillation was indeed a factor, **the climate models had predicted that the arctic oscillation would be increasingly in the opposite warm positive phase due to greenhouse gases.**

5. Increasingly positive AO

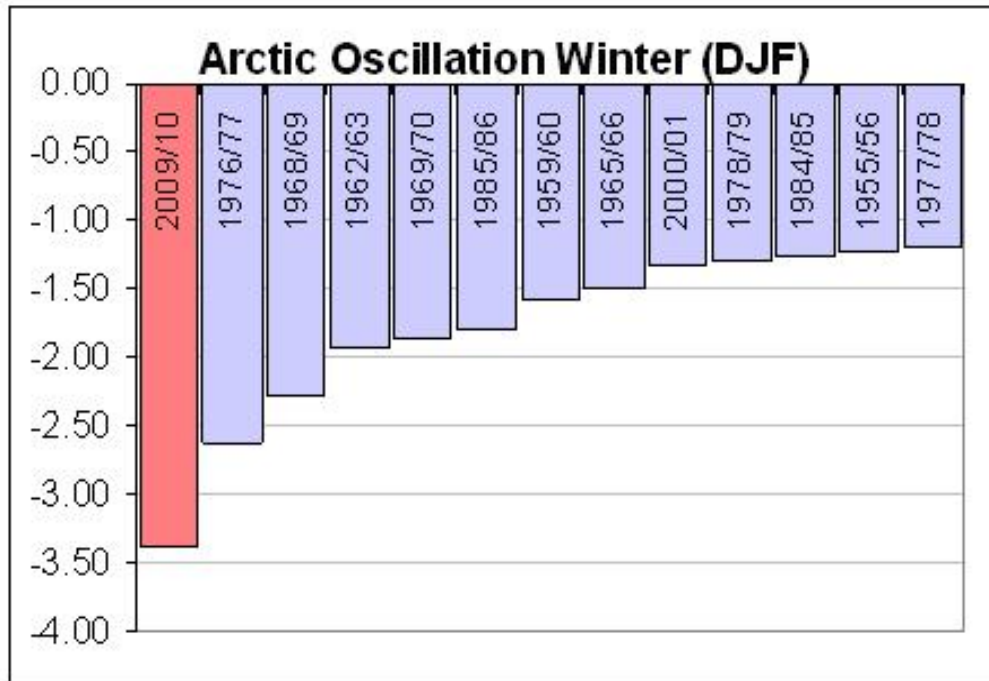
Climate models predicted uniformly that global warming would lead to a semi-permanent positive arctic oscillation state.



This was the predicted result with widespread warmth across Eurasia and North America with cold air trapped in polar regions (the arctic) and less snow.

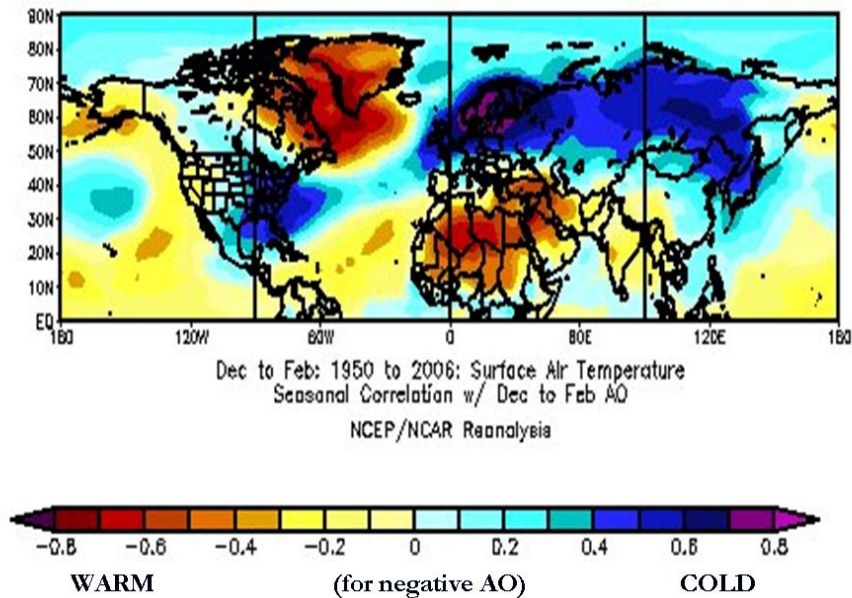


Instead the AO and NAO have been strongly negative. In fact in 2009/10 the AO was the most negative last winter of any year back to at least 1950. 2010/11 started strongly negative but a positive February took it just out of the top ten.

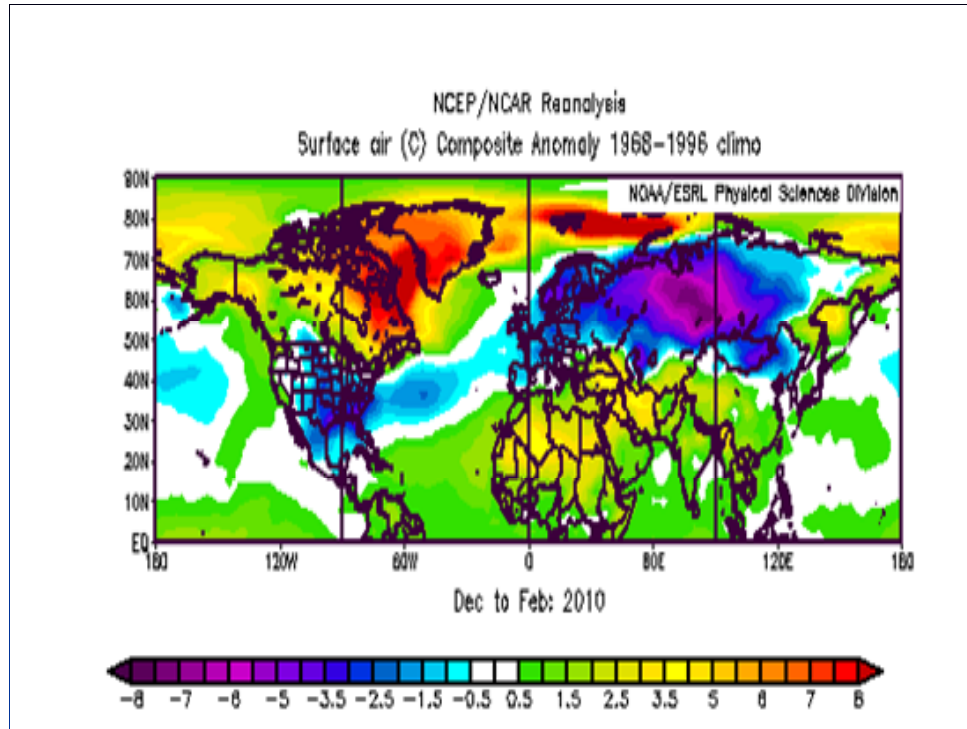


The negative AO and NAO favors the opposite pattern in winter from the predicted positive AO state.

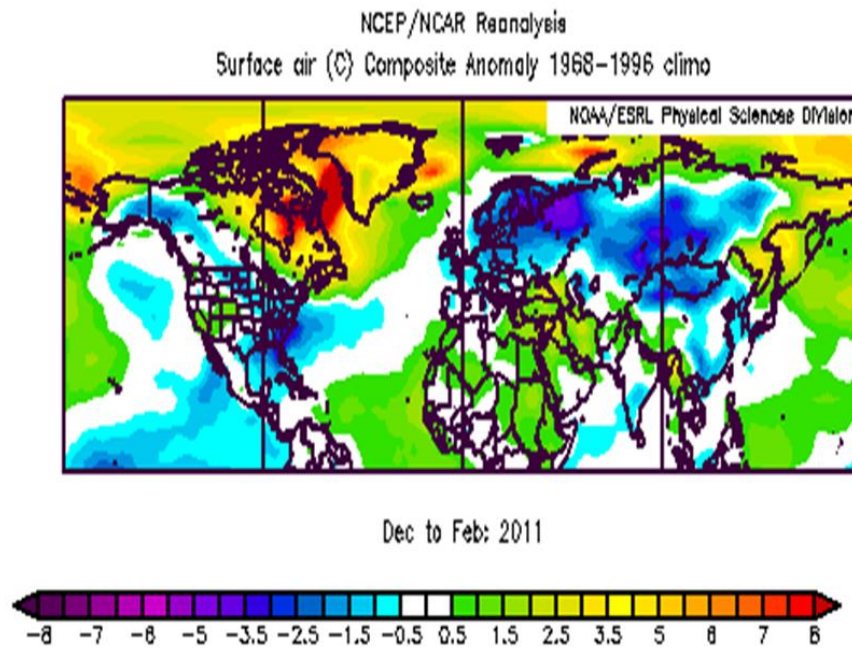
AO and Surface Temperatures (DJF)



This explained 2009/2010 to a tee.

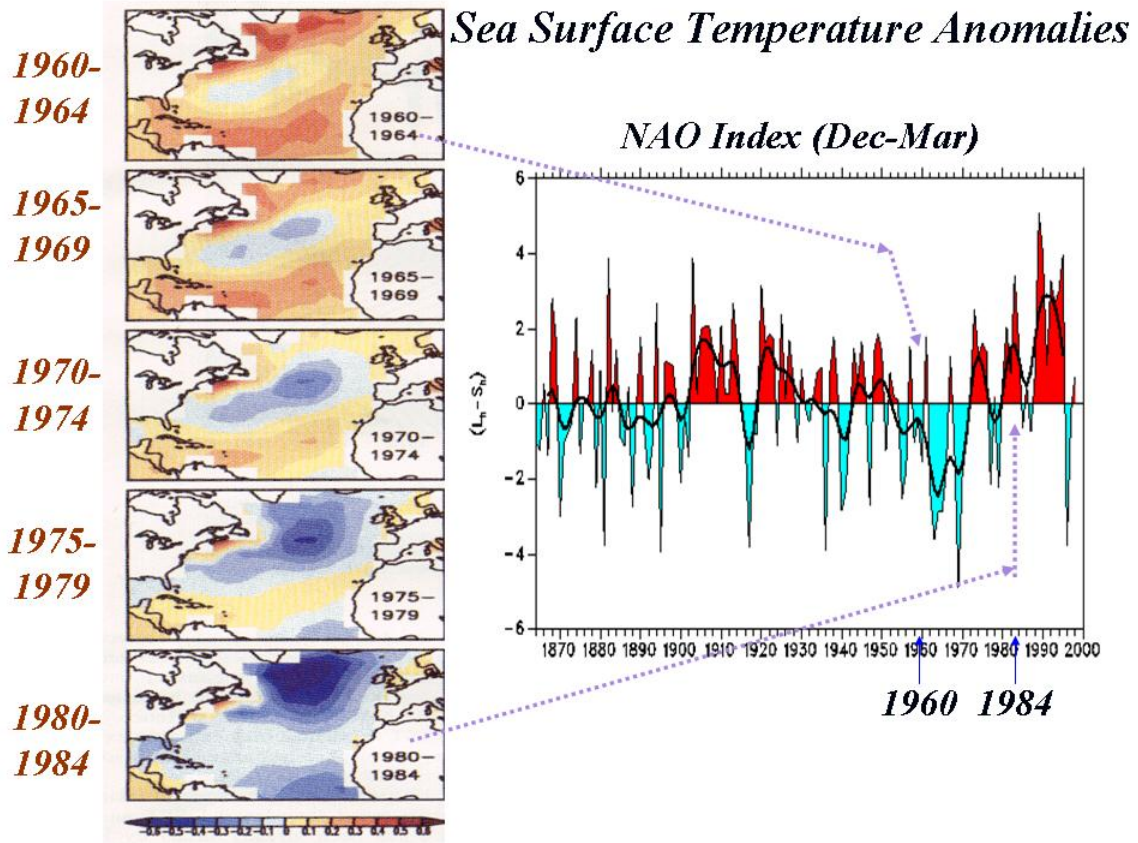


This winter was the virtual mirror image of 2009/10 for the Northern Hemisphere.



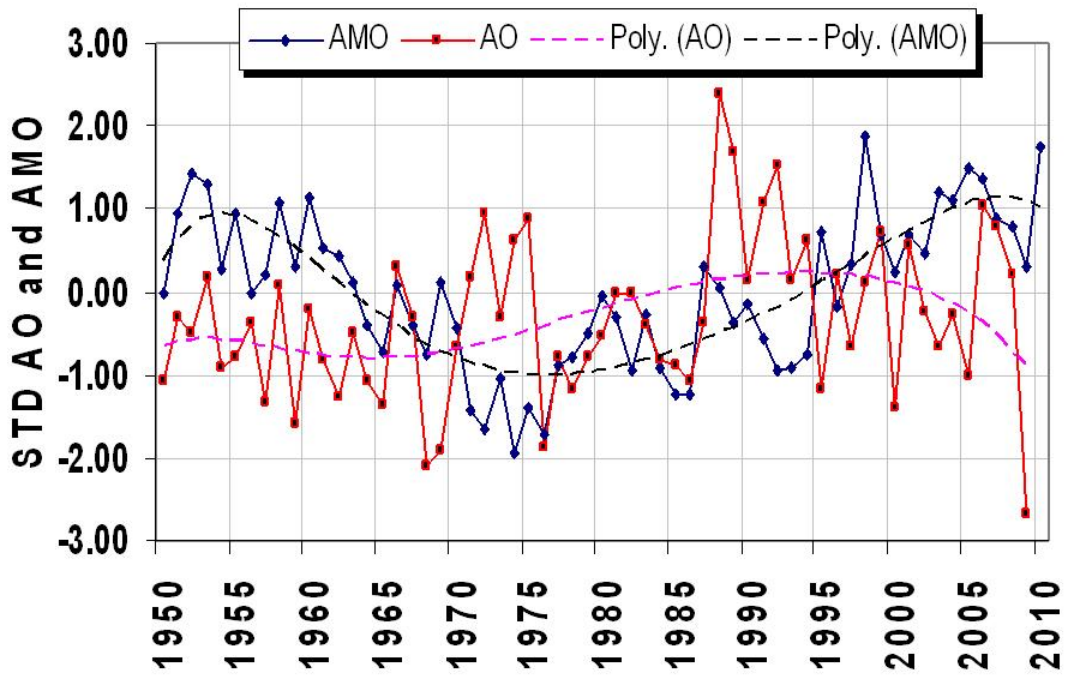
This similarity of the two winters was despite the fact that one was an strong El Nino and the second a strong La Nina winter.

The high latitude blocking that keeps cold air trapped over North America and funnels cold Siberian air west through Europe is favored in the warm mode of the Atlantic Multidecadal Oscillation or AMO. The AMO is a pattern of ocean temperatures in the North Atlantic that relates to multidecadal changes in the thermohaline (temperature and salinity) driven ocean circulation on a 60-70 year cycle. The warm AMO mode tends to favor high latitude blocking and a negative AO as we saw in the late 1950s and 1960s.



Note the return to the warm AMO (blue) after 1995 and a gradual decline in the arctic oscillation in winters (red).

AMO vs AO DJFM



This AMO and AO relationship is mentioned in the IPCC AR4. This 60-70 year AMO cycle has been observed back at least into the 19th century and is acknowledged to be a natural cycle.

