FATAL FLAW 5 – IN THE GLOBAL WARMING THEORY

THE ARCTIC

"The Polar Regions are the canary in the coalmine" Al Gore

Before we discuss the Arctic area, we need to look at the history of this area. In the Medieval Warming Period, Vikings colonised Greenland as the snow and ice had retreated to such an extent that lush pastures and ice-free fishing areas allowed the colony to survive for several hundred years. However, at the start of the Little Ice Age in 1300, the snow and ice returned and eventually the colony had to be abandoned. During the 550 years of the Little Ice Age which ended in 1850, the Arctic ice mass grew so large that there were several accounts of Inuits canoeing from the edge of the ice to the northern shores of Scotland[1].

So, as we move from the Little Ice Age into the present warming period, intuitively, we would expect both the Arctic ice, and the snow and ice in Greenland to retreat. For the Greens to claim man-made global warming is taking place at an accelerating pace in the whole Arctic region, they will need to differentiate the man-made effects from the natural underlying trend of retreating snow and ice in the area. These man-made effects must also be seen in the whole area (i.e. globally) and not just seen in some local areas.

You would expect the Arctic to be warmer than the Antarctic for two reasons. First, the lower elevation of the Arctic region means that air temperatures will be approximately 10^0C warmer than Antarctica. Second, there would be more water vapour in the greenhouse gasses over the Arctic to help warm the area. So, any accelerated warming should be detected in the Arctic before, say, Antarctica. However, because most of the Arctic ice is floating on the ocean, air temperature is not the sole influence on the extent of Arctic ice. The temperature of the ocean currents beneath the ice can have a significant impact.

The IPCC believes that the temperature of the Arctic region may have been rising[2], so it is understandable to see the Greens highlighting this area as an example of the effects of global warming. However, to claim that this is a result of man-made global warming, the warming rate has to be significantly larger (i.e.3-5 times is claimed by the Greens) than the natural underlying global warming occurring as we come out of the Little Ice Age. It also must not be local, Arctic, or Northern Hemisphere warming, as such warming cannot be considered **global** warming.

The Green's View of the Arctic Region

The Greens claimed that the four years, culminating in the summer melt of 2007, had seen a "dramatic" reduction in the Arctic ice. They also announced that the 2007 summer ice melt was the biggest seen in **"recorded history"**. Consequently, the Greens' propaganda machine went into overdrive.

Al Gore was telling audiences in Europe[3] and at climate conferences at Copenhagen[4] that the Arctic would be ice free in five years. He said:

> *"These figures are fresh. Some of the models suggest to Dr (Wieslav) Maslowski that there is a 75 per cent chance that the entire north polar ice cap, during the summer months, could be completely ice-free within five to seven years."*

In London, Al Gore was talking to business people about the dangers of global warming. Accompanying him was a Mr Lewis Gordon Pugh who on his own web page (http://www.lewispugh.com/) stated:

> *AL GORE – 29 November 2007*
> *Tomorrow I am the warm up act for Al Gore. He will be addressing a group of property financiers in London. I will give a personal account of the climate change I have witnessed in the Arctic.*

To raise the public's awareness of the dangers of global warming, Mr Pugh planned to canoe to the North Pole the following year. In his own words; *"the expedition will highlight how thin the sea ice has become in recent years. We are calling for world leaders to take a stand against the destruction of the Arctic ice."* On setting off the following year, he stated:

> *"I'm going to try and get all the way to the North Pole to show the world what is happening,"* the 38-year-old said after launching his Polar Defense Project expedition on the River Thames in London.
>
> **Lewis Gordon Pugh, interview in the London Times, July 16th, 2008.**

Meanwhile, the romanticism of 'journeying the North-West Passage' was resurrected by the Greens to keep the Media engaged with alarmists' stories about the lack of Arctic ice. Swept away with enthusiasm, one environmental and science journalist, travelling on a Canadian Coast Guard vessel, was willing to deceive his readers and imply that he was the first to successfully travel the North-West passage. The following are excerpts from his diary:

> "*Record summer melting of the sea-ice made this famous waterway that connects the Atlantic with the Pacific fully navigable this year. We've done it. After 600 miles (950km) steaming through the Arctic, we've crossed two time zones, completed a journey* ***that generations of explorers attempted*** *and we're now safely back on dry land. In fact, as we leave the Amundsen, I am surprised to feel a lump in my throat. This was home for a very intense, awe-inspiring week spent making one of the world's last great journeys."*
>
> **BBC science and environment correspondent David Shukman joined the Canadian Coast Guard research vessel, the Amundsen, as it**

attempted to make a crossing of the Northwest Passage. BBC News, Monday, 15 October 2007, 14:37 GMT 15:37 UK

Not to be outdone, CBC declared that the first commercial ship sails through Northwest Passage and did not see one cube of ice. Then, showing their journalistic professionalism and impartiality in the global warming debate, the report stated:

NEW ERA IN ARCTIC SHIPPING?

"Don't worry deniers, delayers, and most conservatives, the CBC isn't really saying this is a new era. It's just the same old era, accept, of course, a lot warmer and a lot less icy thanks to human emissions.

For a ship to be able to travel through the Northwest Passage, ***which has historically been impassable with thick ice,*** *had some wondering if the MV Camilla Desgagnés is heralding a new era in Arctic shipping."*

CBC News reports, "First commercial ship sails through Northwest Passage: "I didn't see one cube of ice", November 29, 2008

Associated Press joined the chorus:

"PARIS - Arctic ice has shrunk to the lowest level ***on record****, new satellite images show, raising the possibility that the Northwest Passage that* ***eluded famous explorers*** *will become an open shipping lane. Leif Toudal Pedersen, of the Danish National Space Center, said that Arctic ice has shrunk to some 1 million square miles. The previous low was 1.5 million square miles, in 2005.*
A U.N. panel on climate change has predicted that polar regions could be virtually free of ice by the summer of 2070 because of rising temperatures and sea ice decline, ESA noted."

By JAMEY KEATEN, Associated Press Writer Sun Sep 16 2007, 4:39 AM ET

This sounds bad, and most people in the world walked away believing that there was massive ice loss in the Arctic all caused by man-made global warming. So, what really happened?

Reality of the Arctic Region

The first reality check we must give ourselves after listening to the Greens' story is to identify what they mean by ***"recorded history"***. Apparently, this is the history since 1979. In that year, satellites began measuring the extent of Arctic ice. Are we meant to ignore all other recorded history that occurred before this miniscule thirty-year period that fortuitously started early in a 28 year warming period[5]? For

example, are we to ignore the following newspaper report published 57 years earlier than the start of the Greens' **"recorded history"**?

> *"The Arctic ocean is warming up, icebergs are growing scarcer and in some places the seals are finding the water too hot, according to a report to the Commerce Department yesterday from Consul Ifft, at Bergen, Norway.*
>
> *Reports from fishermen, seal hunters and explorers, he declared, all point to a radical change in climate conditions and hitherto unheard-of temperatures in the Arctic zone. Exploration expeditions report that scarcely any ice has been met with, as far north as 81 degrees 29 minutes. Soundings to a depth of 3,100 meters showed the gulf stream still very warm.*
>
> *Great masses of ice have been replaced by moraines of earth and stones, the report continued, while at many points well known glaciers have entirely disappeared. Very few seals and no white fish are found in the eastern Arctic, while vast shoals of herring and smelts, which have never before ventured so far north, are being encountered in the old seal fishing grounds."*
>
> As reported by the AP, and published in The Washington Post on the **November 2, 1922**.

On the romantic side, are we to crush the dreams of that now famous explorer, the BBC science and environment correspondent David Shukman, and tell him that the lack of ice in 1906 allowed Roald Amundsen, in his 47 ton herring boat named *Gjøa*, to make the first ***recorded*** crossing of the North West Passage. If he was then to check the remaining **non-Green *recorded history***, he might find that the passage has been crossed at least 14 times before his famous 'first' crossing (See Handout 3-9-2 for more details).

Boats that have made the crossing have varied from a supertanker[6] to catamarans and lifeboats. Interestingly, the dates of these crossings have not only been in warming periods – nine out of the fourteen have occurred in cooling periods[7]. So, should we take a North West Passage crossing in 2007, as proof of something exceptional happening with the Arctic ice, and is it so exceptional that man-made global warming can be the cause? I don't think so, but if you still have doubts, let us look at some more ***non-Green recorded history***.

In 1944, the North-East Passage was open far more than it is today (i.e. 2010 or 2007) and allowed both US and UK merchant ships to supply their new wartime ally Russia with military equipment during the Second World War. In the spring of 1959, the submarine USS Skate surfaced at the North Pole in open water. Later that year in the winter, it resurfaced at the North Pole through thin ice. Both these feats could not be done today[8].

Figure 1: Skate (SSN-578), surfaced at the North Pole, 17 March 1959. Image from NAVSOURCE

Yet another year, a photograph in Figure 2 shows USS Skate, at a rendezvous with her sister ship USS Seadragon, in open water at the North Pole in 1962. In the years following these events other submarines also visited the North Pole, yet apparently none of these events are recorded in the Greens' official history. It is a pity, because the Greens' propaganda machine could have made much of this, and undoubtedly will do so any time in the future when this occurs again.

Figure 2: Seadragon (SSN-584), foreground, and her sister Skate (SSN-578) during a rendezvous at the North Pole in August 1962

Meanwhile back to Mr Pugh on his "Mission from Gore"[9] to highlight the alarming rate at which the Arctic ice was melting, all due to man-made global warming.

On the 30th August 2008, Mr Pugh set off in his kayak on his seven hundred mile journey to the North Pole, which was expected to take approximately seven weeks. Unfortunately, Mr Pugh's 'dramatic' expedition was stopped within days of his departure some six hundred miles short of his destination. The ice was too thick for him to go any further[10]. He planted 192 flags, donated by the Hampshire Flag Company, representing each of the countries in the United Nations on a floating iceberg, and returned to the Island of Spitsbergen. Undeterred by what caused the premature end to his journey, on his return he stated:

> *"By planting flags of the world's 192 nations on the Arctic, I hope I have conveyed that despite it being thousands of miles away from most people, the loss of its sea ice will have profound consequences for us all,"*

Undeterred by the facts, the Media and his supporters claimed that his short voyage was a record, as this was the closest that any canoeist had paddled to the North Pole. This ignored several **non-Green recorded events** where canoeists had paddled up too three hundred miles closer than Pugh, with one trip made more than one hundred years earlier[11].

Mr Gore was also having a rough ride about his statements of an ice-free Arctic within five years. Mr Gore told the Copenhagen climate change summit[12]:

> *"These figures are fresh. Some of the models suggest to Dr [Wieslav] Maslowski that there is a 75 per cent chance that the entire north polar ice cap, during the summer months, could be completely ice-free within five to seven years."*

His scientific evidence for this claim was then challenged. Mr Gore's office then admitted that the 75 per cent figure was one used by Dr Maslowksi as a "ballpark figure" several years ago in a conversation with Mr Gore. So, this is no longer "***fresh*** scientific evidence", but is a "ballpark figure" used in an old conversation. Worse still, Dr Maslowski could not remember the conversation and stated[12]:

> *"It's unclear to me how this figure was arrived at. I would never try to estimate likelihood at anything as exact as this."*

However, none of these setbacks for the Green propaganda machine were ever given the headlines that the initial coverage gained.

So far in this handout we have listened to Green anecdotal tales being countered by Sceptic's anecdotal tales, so what is happening in the Arctic.

The Arctic Ice

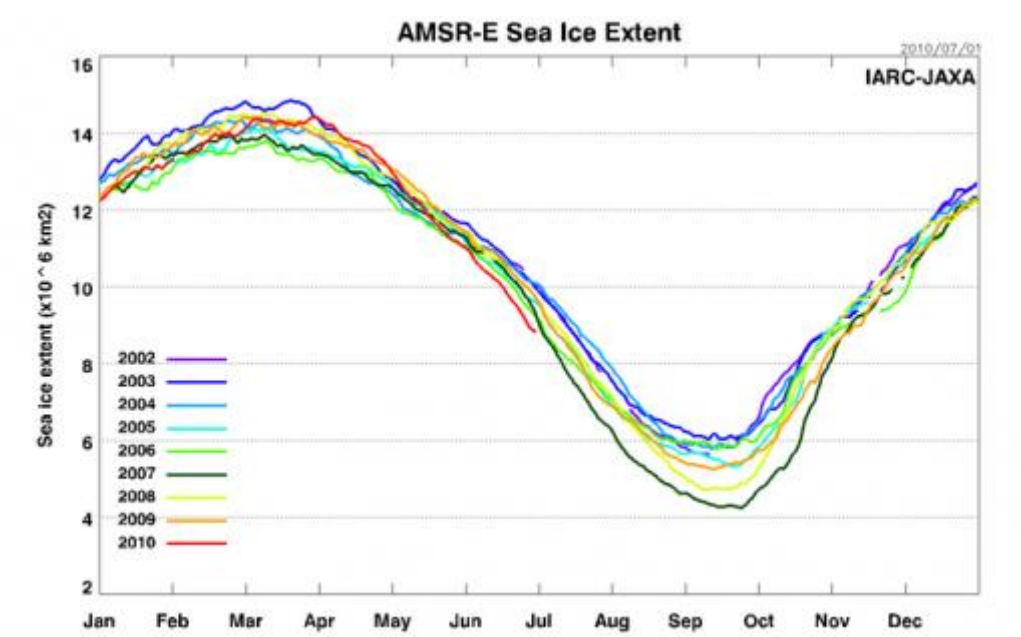
Figure 3 is a map of the arctic region with the blue dotted line showing the Arctic Circle. Figure 3 also shows the territory of several countries that lay inside the Arctic Circle (i.e. Greenland, Canada, Alaska (USA), Russia, and smaller areas of Norway, Sweden, and Finland).

Figure 3 – Map of Arctic (dotted blue line is the Arctic Circle)

Satellite measurements of the Arctic ice show that, in the middle of winter (i.e. March), the ice coverage is approximately 14 million square kilometres and this ice falls to a low of approximately 6 million square kilometres every summer (i.e. September) before rebuilding to same winter level of 14 million square kilometres. Although this movement varies a little every year, no significant accelerating trend has been established in the thirty years of satellite records. To put the record melt of 2007 and the previous three poor years in perspective, Figure 4 shows the sea ice extent for the years 2002 to 2010.

The record melt in the 2007 summer can be easily seen as the dark green line that nearly reached the 4 million square kilometres line on the graph. Just as obvious are the two following years (the yellow and orange lines) that show a significant recovery in the summer ice extent. In all years, the winter ice extent in

March is closely grouped irrespective of the extent of the summer melt. So are we really "losing ice" if it is regained each winter?



Source: http://www.ijis.iarc.uaf.edu/en/home/seaice_extent.htm , and http://climateinsiders.files.wordpress.com/2010/07/amsre_sea_ice_extent-4.png

Figure 3 – Arctic Ice Extent 2002-2010

In 2007, the Media reported the most expansive Arctic ice melt ever, but were silent about the record refreeze that autumn. During a ten-day period in November 2007, a NASA satellite recorded sea ice in the Arctic Ocean growing at 58,000 square miles **per day**--about the same size as Illinois or Georgia.[13] In the summer of 2008 and 2009, the Arctic ice melts were less significant, but the fall refreezes were nearly as dramatic as that witnessed in 2007.

With this graph before us, can we really say that the Arctic ice melt is extraordinary, and moving at a pace that is 4-5 times faster than normal? If your answer is "No", then man-made global warming is not at work here.

The Arctic Temperatures

However, the Greens believe that the average temperature of the Arctic region has been slowly increasing in the past two decades. This rate of this increase in temperature falls well below the computer modelling projections of what should be happening with man-made global warming. To confuse the issue further, twenty-six recent scientific studies of different areas in the Arctic[14], undertaken between 1996-2006, show conflicting evidence that both refutes, or might support the global warming theory. Some areas are cooling, some warming, and others are remaining stable. A summary of the results of these studies are shown in Figure 4.

26 SCIENTIFIC STUDIES OF TEMPERATURE TRENDS IN THE ARCTIC

Country Code:

ARC:	=	Whole Arctic	GRE:	=	Greenland	SCA:	=	Scandinavia
ALA:	=	Alaska	ICE:	=	Iceland	WRU:	=	West Russia
CAN:	=	Canada	ATL:	=	North Atlantic	ERU:	=	East Russia

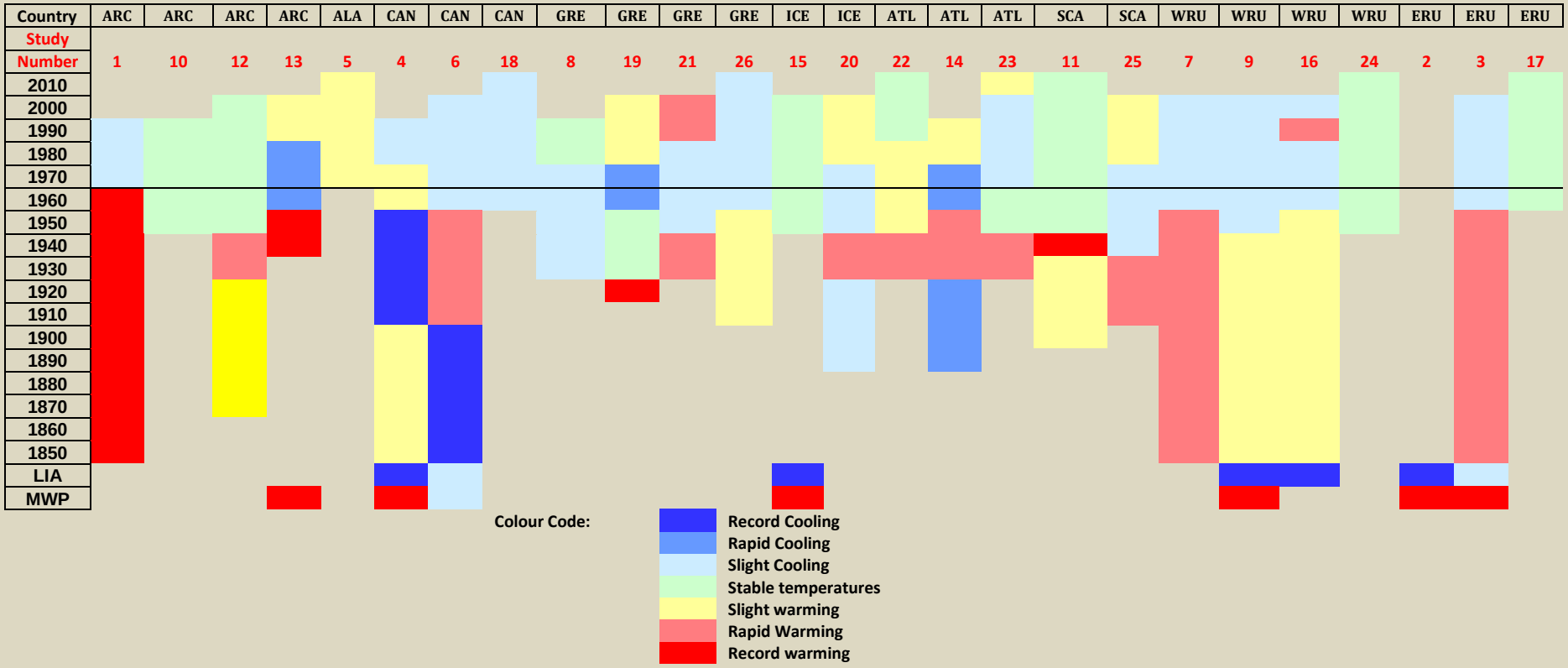


Figure 4. Temperature Trends in the Arctic

Thirteen of the studies explicitly state that their findings do not support the CO_2 induced global warming theory, while six other studies implicitly refute the theory by explaining their results are more likely to be explained by natural cycles or by some other theory (e.g. solar cycles). A further six studies detail their results, but offer no explanation on what might be causing the temperature changes. Only one study claims their findings support the theory. Not surprisingly, this study was completed by Hansen.

If the global warming theory was correct, there would be accelerated warming in the Arctic, and Figure 4 should have bright red and pink colouring above the 1970s decade marked by a black line. Instead there is a mixture of light blue (slight cooling), green (stable temperatures), and yellow (slight warming) colours. However, one conclusion can be drawn from these conflicting results. There is no accelerated warming in the Arctic as a whole, and it appears that regional effects are the predominant feature affecting temperatures in the Arctic.

For instance, the whole of Alaska has been warming for the past twenty years and could be confused as evidence of a global warming trend. However, at the start of this period, there was a shift in the Pacific Decadal Oscillation (PDO). For the past twenty years, this has brought a warm current from the south to the southern shores of Alaska and through the Bering Straight to the Beaufort Sea north of Alaska. This is a better explanation of this warming. Why? Because right next door to Alaska in Canada's territory, which is unaffected by this warm ocean current, temperatures are cooling. However to confuse the issue further some areas like Greenland have areas that are cooling with other areas that are warming

In Greenland, the last two decades of the century, the 1980s and 1990s, were colder than any of the previous six decades[15]. These two decades were in the middle of the last warming period. The only exception to the overall cooling, are two small strips of coastal land on the north-west and north-east of Greenland's coastline that have been warming this century. Once again, warm ocean currents are believed to be causing this rise in temperature. The two major glaciers in Greenland have been both shrinking and then regrowing. Not surprisingly, the Media gives excess coverage to the former events, with little coverage of the glaciers regrowing!

Air temperatures above the Arctic ice may have been warming for twenty years, but again warm ocean currents are a better explanation for the loss of Arctic sea ice. To support this explanation, most of Greenland and the whole of Iceland, which are affected by air temperatures (i.e. not ocean currents), have been cooling. Greenland temperature records over the past hundred years show that the warmest decades so far were the 1930s and 1940s, with 1941 the warmest year of all. Most of the studies in Figure 4 support the view that the warmest temperatures seen in the Arctic in the twentieth century occurred in the 1930s and 1940s.

Finally, one point stands out in this discussion – in the past fifty years, there has been no Arctic-wide accelerated warming, as predicted by all 22 major climate models.

Conclusion

If you ***assume*** that the greenhouse gas theory is correct, then Al Gore is correct in saying the "Polar regions are the canary in the coalmine". Any increase in global warming caused by increasing CO_2 concentrations will see a 4-5 times acceleration in the warming in the Polar Regions. However, the Greens have a problem – the canaries are not dying! Although CO_2 concentrations in the atmosphere have risen in the past fifty years, the Arctic has no evidence of accelerated warming. For the past sixty years, the Antarctic has *cooled* (See Handout 3-9A). Consequently, the canary is not even sick, it is becoming healthier every day!

Not one of the climate models has projected this result for the Polar Regions. Consequently, we should not ***assume*** that the greenhouse gas theory is correct. The failure of the Antarctic and Arctic canaries to die, indicates the theory has a fatal flaw.

Notes:

1. BBC News, http://news.bbc.co.uk/2/hi/uk_news/scotland/highlands_and_islands/8010513.stm There were reports of Inuit people arriving on Orkney between 1690 and 1728. One was said to have paddled down the River Don in Aberdeen.
2. IPPC, Fourth Assessment Report (2007), Chapter 10, Summary for Policymakers, p. 7
3. http://wattsupwiththat.com/2008/12/14/gore-entire-north-polar-ice-cap-will-be-gone-in-5-years/Timesonline, ", December 14, 2008.
4. Timesonline, "*Inconvenient truth for Al Gore as his North Pole sums don't add up ("fresh figures" yrs old)* ", December 15, 2009.
5. The warming period was from 1970 to 1998.
6. Before it was decided to build the Alaskan pipeline to carry oil to the South, a trial was carried out with this supertanker to see if oil could be commercially shipped out of Alaska from the North.
7. Dates of crossings were: Cooling Periods 1906, 1944, 1957, 1969, 2000, 2001, 2003, 2005, and 2007. Warming Periods 1940, 1977, 1984, and twice in1986.
8. That is in 2010 or at the height of the 2007 melt.
9. Apologies to the "Blues Brothers".
10. http://wattsupwiththat.com/2008/09/09/polar-defense-project-deletes-the-tough-questions/, 1237hrs, 15th July 2010
11. Ibid
12. Timesonline, "*Inconvenient truth for Al Gore as his North Pole sums don't add up ("fresh figures" yrs old)* ", December 15, 2009.
13. http://wattsupwiththat.com/2009/02/03/arctic-sea-ice-increases-at-record-rate/ 1608hrs, 13th July 2010

14. Idso, Craig and Singer, S. Fred, “Climate Change Reconsidered: The Report of the Nongovernmental International Panel on Climate Change”, The Heartland Institute, 2009, pp. 121-131
15. Lawson, Nigel, “An Appeal to Reason: A Cool Look at Global Warming”, Overlook Duckworth, Peter Mayer Publishers, London, 2008, Chapter 4: Apocalypse and Armageddon

Figure 4 Study Number References:

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