Winter 2010, Play That Tune One More Time.

By Art Horn, Meteorologist

On October 21st the Associated Press came out with a story entitled "<u>Sea Ice Melting as</u> <u>Arctic Temperatures Rise</u>." The gulp in my throat I felt after reading this ominous analysis was brought on by the implication that it's all over for the Arctic. The fat lady is belting out an apocalyptic version of "Hot Town Summer in the City." The ice will be gone before you can say Igloo! Polar bears will be stalking large refrigerated fishing vessels, eating the crew and taking over the ship in a last ditch effort to stay cool. The impression one gets after reading the story is that something new is happening in the Arctic.

If you live in the real world you know that this story is another attempt to keep the global warming momentum alive. It's a bit like trying to salvage any sitting Democrats congressional seat. There's been no global warming in a decade. The climate change fire is running out of fuel. Stories like this one are equivalent to tossing another twig on the dying embers.

The climate of this planet is always doing something, either warming or cooling. This change happens on time scales that make it difficult for humans to appreciate due to our brief 70 to 100 year visit here. The earth has been warming unevenly for about 300 years. You're telling me that "global warming" is old news? The short answer is yes. Three hundred years ago we were at the bottom of the "Little Ice Age" This little ice age was a 450 to 500 year cold spell that in part prompted people to get out of frozen Europe and find something better. Columbus went south not north! If one examines temperature data derived from oxygen isotopes in ice cores drilled in places like Greenland, you find that today's temperature is, get ready for this, unremarkable! In fact the data shows us that today's temperature is actually significantly cooler than most of the last 10,000 years (fig. 1). We live in the interglacial, the warm time between the ice ages. The Greenland ice core data also show a rather disturbing temperature trend. It's been getting colder for 3,000 years. There have been 17 ice ages in the last two million years of the earth's history. Eventually history will repeat itself and another ice with grip the planet.



The story from the AP seems to indicate that the warming of the Arctic is unprecedented and that global warming (caused by our way of building civilization) is the root evil causing it. The reality check in the Arctic is that it's all happened before. The simple truth is that the sun warms the earth unevenly. The poles get the least amount of sunlight annually and the equatorial regions get the most. This makes it hot in the tropics and cold at the poles. In some years the forces of nature get a little out of balance and the areas of cold and warm are displaced. This is what happened this year and it is not unusual.

The winter of 1978 was a good example of this. Warmer air aloft was displaced into the Arctic (fig. 2). This warmer air piled up on top of the colder air below and produced large areas of higher atmospheric pressure. These massive, heavy "blocks" in the atmosphere re-arranged the global temperature patterns, pushing colder air farther south in some regions. This resulted in a very cold and severe winter in the middle latitudes that year. Record breaking blizzards shut down the Midwest and east coast of the United States. But nobody was talking about global warming back then, they were worried about the coming of the next ice age! Earth's temperature had been falling for more than three decades. All the stories you read about global warming today were about global cooling then, go figure!



Another example of Artic warming producing cold mid-latitude winters was 1936. Once again warmer air aloft pushed the cold air southward resulting in bitterly cold weather across almost all of North America and a large portion of Asia (fig 3). Niagara Falls in Western New York state froze solid that winter.



The bitter winter of 1917 came at a very bad time for soldiers fighting in the First World War in Europe. A massive, warm blocking high pressure area over northern Canada and Greenland forced arctic air southward into all of Europe and most of Asia (fig 4).



The winter of 2010 was another example of this same weather pattern. A large blocking high pressure area over the Arctic diverting colder air farther south, not new and not unusual (fig 5).. The AP story talks about the record breaking snows in the Middle Atlantic States. All that snow was from three slow moving storms. In most winters these would have been farther north where people are more accustomed to them. Last winter the blocking Arctic high pressure pushed the cold air southward and with it the paths of the winter storms.



As they say records were made to be broken. Our historical temperature and snowfall record are but a tiny blip in the context of the last 10,000 years. When it comes to nature and weather records expect the unexpected.

ICECAP NOTE: Note some of the apparent warming in recent years is due to the many issues in the global data bases that exaggerate recent warmth (<u>PDF</u>).

Also this like most all the stories on the arctic don't have any sense of history. A cyclical pattern of temperatures and ice extent has been observed for centuries in the arctic as shown here by Leonid Klashtorin (*PDF*).

