

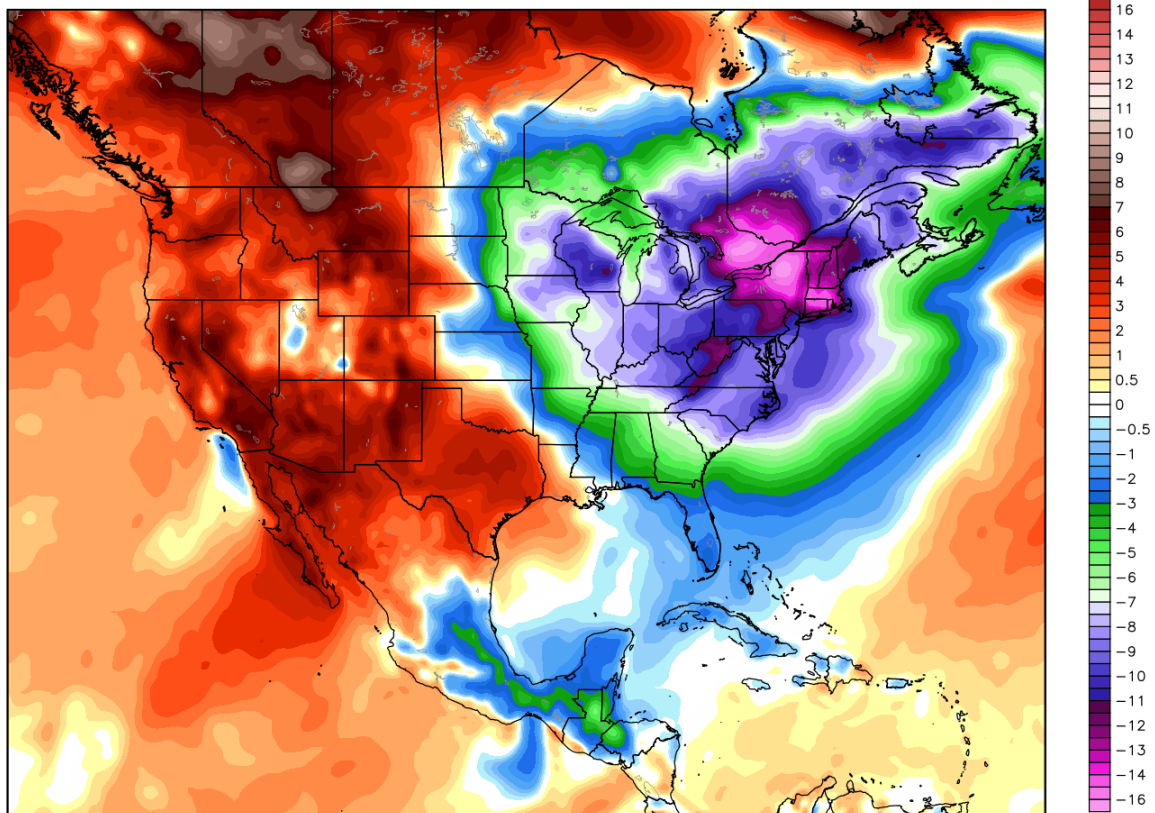
Historic Weekend Cold in the Northeast

A brutally cold air mass took rode the arctic express from north of Alaska and northern Canada to the northeast in just two days. It arrived with temperatures surface and aloft that we were more extreme than we have seen in decades.

We were 10 to 20 below zero here in central New England late on Saturday, Sunday morning and again Monday morning and Sunday barely reached the low teens. Wind chill reached the -30s and even -40s at times Saturday evening and Sunday morning.

Boston set records on Saturday with -4F (edging out -3F in 1967), and on Sunday with an amazing -9F, well below the old record of -3F in 1934. It was tied for Boston's 4th coldest daytime low on record since the official measurements began at Logan Airport in 1936. It also was coldest temperature at Logan since January 1957, almost 60 years ago. The average temperature was more than 30F below the normal for the date.

NCEP CFSv2 Temperature [2-m] Anomaly [°C] 06Z13FEB2016 --> 06Z15FEB2016 | Last 2 -days Average



NCEP CFSR 1981–2010 Climatology | T574 CFSv2 Analysis Grid | Ryan N. Maue | WeatherBELL

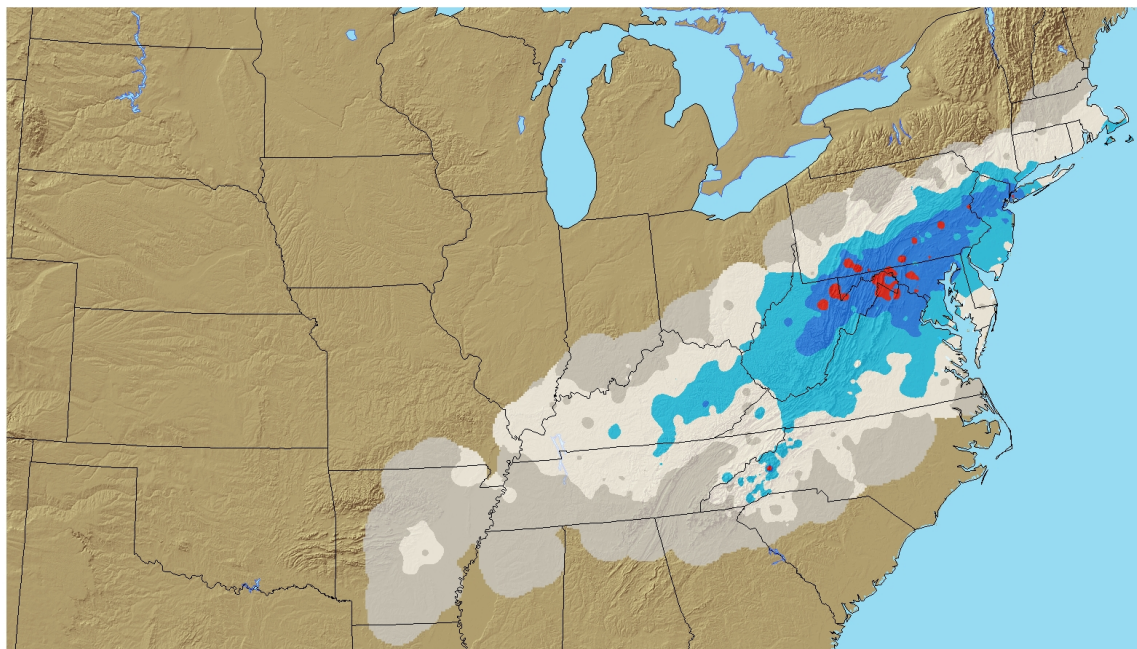
It reached -30F at Saranac Lake and -37F at Watertown in New York State and -40F on Mt. Washington with wind chills to -80F. Dozens of people were trapped for several hours on stalled tram cars on a snowy New Hampshire mountain Sunday,

braving subzero temperatures while the cars dangled in mid-air before being rescued.

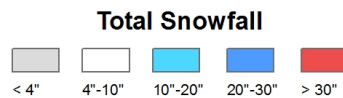
Even New York City dropped to -1F Sunday, coldest since 1994 with wind chills plunging below -30F. NYC cancelled their ice festival Sunday because it was too cold. Ironically last month they cancelled the Central Park Snow Festival because of too much snow.

For the 10 northeast states and DC, January to March in 2014 was the 11 coldest in the record since 1895 (with March ranked coldest to second coldest here in northern New England) and last year, January to March was the all-time coldest (tied with 1904). February 2015 was the coldest month of any month in our part of New England in history and also the snowiest (100 inches in 39 days).

This year thanks to El Nino, the cold has been extreme but so far, episodic instead of more continuous and the record breaking January blizzard stayed just to our south.



22-24 January 2016
NESIS = 7.66
Category 4



With the very warm December, temperatures for the meteorological winter of December to February will be above normal here in the northeast (though colder than normal to our south). However, January to March could again end up colder than normal here too, though it will not rank up there with the last two years.

I found the 60 year ago record broken interesting. In climate, we have a well-established 60-year cycle in weather, riding on many longer-term cycles related to behavior of the sun and oceans. This is much like the waves on the ocean riding on the longer swells. I have written about these in books and peer-reviewed papers. A change occurred 60 years ago, which I catalogued in my master's thesis on east coast snowstorms. At that time cold and snow for a few decades suddenly became biased to the latter part of winter. That certainly has been the case the last three years.

At Weatherbell, we advised our clients most of the winter would come January to March, with the potential for significant cold outbreaks and more snowstorms.

Here, we will continue to ride the roller coaster into early next week, but then stronger cold returns again with more snow threats.

In the last El Nino in 2009/10 when the Mid-Atlantic received all-time record snows in what was called 'Snowmageddon', we in New England ended up near to below normal for snowfall. Though that may in the end happen this year, we will have numerous chances the next 5 to 6 weeks and one or more may track just right to bury 'us'. If so, don't blame me. I am just the messenger. Blame 'Phil'.