



## WEATHER UPDATE

A free service to member companies of New England Fuel Institute

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### **SPECIAL WEATHER DISCUSSION FOR THE NORTHERN MIDDLE ATLANTIC, NEW YORK AND NEW ENGLAND REGIONS**

**FAX-ALERT WEATHER SERVICE, LLC**

Monday, December 1, 2008 Issued: 3 AM

#### **TEMPERATURE OUTLOOK & TRENDS** **DISRUPTIVE / HAZARDOUS WEATHER OUTLOOK**

**THE QUESTION IS NOT WHETHER TO TWEAK OR NOT TO TWEAK THE DECEMBER FORECAST, BUT RATHER HOW MUCH TO TWEAK THE OUTLOOK...**

**THE FAILURE OF THE NORTH ATLANTIC PART OF THE DECEMBER FORECAST PUZZLE TO START FALLING INTO PLACE LIKELY MEANS THE EXTREME COLD OPTION AND THE ANALOG TO 1989 SHOULD BE DROPPED...**

**THE MONTHLY OUTLOOK WILL CONTINUE TO CALL FOR A COLDER THAN NORMAL DECEMBER, BUT WILL SHY AWAY FROM RECORD COLD...**

**THE EAST – WEST PULSING OF THE COLD INTRUSIONS DURING THE FIRST 6 TO 12 DAYS OF THE MONTH WILL COMBINE WITH INLAND STORM TRACKS TO KEEP THE HEART OF THE COLDEST CORE FROM SETTING UP ACROSS THE NORTHEAST DURING THE EARLY MONTH PERIOD...**

**WITH BRUTALLY COLD AIR MASS FORMATION UNDERWAY ACROSS THE POLAR REGIONS, THE WILD CARD NATURE OF THE PATTERN MAKES ME WARY OF OVER-COMPENSATING FOR ANY SHORT-TERM PATTERN DEVELOPMENT ISSUES...**

**TODAY'S STORM EVENT EXITS THE REGION WITH RAIN BEING THE DOMINANT PRECIP TYPE FOR MANY AREAS... MIXED PRECIP AND FREEZING RAIN MAY STILL PRESENT SOME ISSUES ACROSS MAINLY FAR NORTHERN NY, NORTHERN VT/NH, AND NORTHERN MAINE, BUT THE TRULY HEAVY SNOW IS OCCURRING WELL TO THE WEST...**

**NO IMMINENT REGION-WIDE WINTER STORM SIGNAL IN PLAY FOR THE NEXT FEW DAYS, BUT SIGNIFICANT WINTER STORM POTENTIAL WILL LIKELY INCREASE OVER THE UPCOMING WEEKEND...**

#### **TEMPERATURE DISCUSSION:**

Due the Thanksgiving Day holiday period some of you may not have seen or read my Friday discussion. I will restate some of the main points here to not only get everyone up to speed but to also give myself another opportunity to try to explain an increasingly complex hemispheric pattern.

In my full December forecast issued early last week, I discussed how several atmospheric features appeared to be coming together to force a brutally cold December period that would also be very widespread. One of the main components of this pattern evolution was the expected development of a -NAO (negative North Atlantic Oscillation), which would allow for strong North Atlantic blocking. Sustained Northeastern U.S. cold is most often associated with a strongly -NAO. When it combines with strong western U.S. ridging, record setting cold can develop across the eastern U.S. Modeling and actual pattern trends were very supportive of a strong -NAO getting underway fairly early in December.

Given the degree of cold air development across the northern latitudes and the ongoing western ridging, a call for a 1989 style December cold wave seemed very plausible as one of the forecast options.

Now the problem! The current state of the North Atlantic pattern and the latest model guidance is not moving toward a –NAO. While it may well come to pass as the month progresses, it is unlikely to be in place prior to December 10<sup>th</sup>. This means the extreme cold option of 1989 is unlikely and I will remove it from the analog list.

Because I am taking away the 1989 extreme cold option does not mean I am changing my call for an overall colder than normal month. The basic pattern is still supportive of enough cold air intrusions to force the month to average colder than normal. Also the potential still exist for true arctic air to overspread the eastern U.S., but it is unlikely we are going to see unusual cold overwhelm the Northeast prior to December 12<sup>th</sup>. There will be significant periods of colder than normal air, but just not excessive cold. In fact, many of my mid-November discussions indicated the likelihood of a lessening of the mid/late November cold with a moderating period quite possible from very late November into early December, prior to the real December pattern showing itself. I think this is exactly where we are right now.

I have redrawn the December Forecast map and it shows my new anomaly forecast. Generally I have decreased each cold anomaly zone by at least 1 or 2 degrees. I have also spread the cold anomaly coverage a bit further west, as well as increasing the warmer than normal zones to include parts of southern Texas and much of central and southern Florida.

It also shows the **“MAINE PROBLEM.”** There has been enough offshore ridging to allow much of Maine to run warmer than normal during November, and this could once again play out during December. For this reason, I will also skew Maine above normal, which is another from my earlier release.

I am a bit fearful that taking away the extreme cold option mentioned in my original December might make some, if not many, of you to conclude that brutally cold arctic air will not be plunging into the country this month. That is not at all the case! Several powerful arctic intrusions are going to come south. But the other issue I harped about in my December forecast, where the best point of attack would be, continues to cause forecast headaches.

In the short term (this week), it appears as if the first attack will come into the Plains and then spread eastward by late in the week. Before it can reach the Northeast, another storm will develop across the Midwest and streak northward into eastern Canada west of New England. Like several recent storm systems this inland storm will cause another shot of storm induced warming to come northeastward into much of the Northeast prior to the arrival of the arctic front. With this in mind, the call will be for a shot of colder than normal air to arrive across the region by the end of the week, but it will be preceded by temps that likely jump above normal.

Once into the middle of next week and beyond we will need to see if the North Atlantic signal makes any attempt to become more favorable for long running, more intense colder than normal regime setting up across the Northeast. We will also have to see where the second surge of arctic air tries to enter the country. If the Plains and the Midwest are the favored entry points, then we will continue to sit on the eastern edge of the core of the coldest air. This means temps average colder than normal across our region of the country, but they would not be excessively cold through December 15<sup>th</sup>.

So for now I will not push the excessive cold issue and let the large-scale pattern show more consistency before trying to bring it to the East Coast. If the North Atlantic signal improves, then a call for more intense and long-lasting cold will be made. If not, then a forecast for modestly colder than normal conditions evolving as we progress through the through the second full week of December.

A side issue about the long range forecast has to do with what any lessening of the December cold pattern might mean to the mid-winter forecast period? The flip to a warmer mid-winter period is very much tied to the December pattern getting very cold across the eastern U.S. If the December pattern ends up just modestly colder than normal, the degree of January moderation may turn out to be only modest.

#### **10-DAY TEMPERATURE PATTERN SUMMARY FOR THE NORTHEAST & NEW ENGLAND**

- **Moderation of pattern continues today until storm induced warming can be fully flushed out of the region late today or tonight.**
- **Temps return to normal Tuesday but moderate back above normal Wednesday into Thursday.**
- **Polar front passage late Thursday into Friday drops temps back below normal, but not excessively so.**
- **Pattern continues to pulse into early next week and this means that while widespread arctic air coverage is not likely to be in play temps will still average significantly colder than normal overall.**

#### **DISRUPTIVE WEATHER POTENTIAL**

The same reasons we are not seeing a quick advance and development of the arctic air into the Northeastern U.S. are also leading to a Midwest and Plains storm track.

The storm that arrived yesterday and produced a mix bag of snow, sleet, freezing rain and rain across the region is still in progress this morning. Most areas that started as snow, sleet or freezing rain have long since changed to rain. The only areas of concern early this morning for frozen or freezing precip lies across the far northern areas near the Canadian border with northeastern Maine likely the most prone area to continuing freezing precip. Most other areas of New York and New England will see leftover rain or rain showers change to snow flurries, snow showers or squalls. The Lake Effect snow machine will be cranking back-up today into tonight and this means favored downwind areas of NY and western New England will see some decent snow squall action evolving today and continuing tonight into early Tuesday. Most other areas will see just scattered rain or snow showers this afternoon on into tonight.

A system cutting by to the northwest of New England late Wednesday night through Thursday will force scattered rain and snow showers to move across much of the Northeast during this period. It is possible areas of northern NY, northern VT/NH/ME will see a period of accumulating snow as the storm sweeps by to the north Thursday, but a major winter storm event is unlikely.

The next time period that will need to be monitored for possible winter storm impacts will be the Saturday Sunday as a complex storm center across the Great Lakes tries to reform near the New England coastal plain. With no clear signal yet of a major winter storm, I will not hype the weekend event and wait to see how pattern trends evolve over the next 2 to 4 days.

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