



WEATHER UPDATE

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LONG RANGE – SEASONAL OUTLOOK UPDATE

FAX-ALERT WEATHER SERVICE, LLC

November 25, 2008

DECEMBER 2008 FORECAST

PATTERN SIGNALS AND TRENDS CONTINUE TO ADVERTISE THE LIKELIHOOD OF A VERY COLD, POSSIBLY RECORD SETTING AT TIMES; REGIME WILL OVERWHELM MUCH, IF NOT ALL, OF THE EASTERN HALF OF THE COUNTRY DURING DECEMBER...

THERE ARE STILL QUESTIONS ABOUT WHERE THE BEST DELIVERY POINT OF THE ARCTIC CHARGE WILL BE AND HOW MUCH EAST TO WEST OSCILLATION WILL OCCUR WITH THE PATTERN, BUT THERE SEEMS LITTLE DOUBT A VERY SIGNIFICANT COLD PATTERN IS ON THE WAY...

WINTER STORM THREATS WILL BECOME INCREASINGLY SERIOUS AND WIDESPREAD OVER THE COMING 4 WEEKS, AND THE POTENTIAL FOR A BLOCKBUSTER EAST COAST, I-95 CORRIDOR, STORM BEFORE MIDMONTH IS FAIRLY HIGH...

General Discussion:

The mainstay of my winter forecast has been for a colder than normal start to the winter season anytime from mid-November on through December. Regardless of what happens after December, it appears likely that the first third of the winter forecast is going to verify.

Several hemispheric and global weather and oceanic features appear to be coming together just in time to drive the December forecast into the cold tank, as has been preached for more than 2 months now. The tropical Pacific is currently in a weak La Nina setup, and it does not appear to be increasing rapidly as it last fall. The central and north Pacific sea-surface temperature and atmospheric pattern is much more favorable for early winter cold across the eastern U.S. than it has been for a few years. The high latitude pressure and jet stream height pattern across the northern polar regions is moving toward what is called a negative Arctic Oscillation (-AO) at the same time the North Atlantic pattern seems ready to enter into a negative North Atlantic Oscillation (-NAO), which in turn will help generate a very strong blocky look to the jet stream flow across North America over the next few weeks. All of these features will allow the large-scale North American jet stream flow to favor a strong western ridge / eastern trough regime from early December well into the mid or late month period. While no forecast is ever a lock, if all of these items continue to evolve as trends and modeling indicate, a very cold pattern will overwhelm much of the eastern U.S. and Canada fairly early in December and it will have legs well into or through the midmonth period.

The overall degree of the cold air intrusions expected to become common during December will be dependent upon the amplitude pulses of the western ridge and the strength and final location of the North Atlantic block. If and when things line up perfectly, brutal arctic air mass intrusions will be possible.

There has been and continues to be debate about when the December pattern will be moving toward maturity. I think it will take a few days early in the month to get it fully underway, and while solidly colder than average temps are likely to spread back across much of the region during the first week, we may now be looking closer to the second full week of the month before the true attack comes south and east.

As shown on the weather map that accompanies this forecast, I am calling for a very extensive colder than average end of the month anomaly that covers most of the eastern 2/3's of the country. I believe the core of the coldest anomalies will end-up across the Great Lakes, upper Midwest and northern Ohio Valley, in what I am calling **ZONE C**. The coverage of the colder than normal monthly average will extend outward from **Zone C** with **ZONE B** stepping down a bit and **ZONE C** taking the last step down.

All of the colder than normal zones (A, B & C) will have periods prior to midmonth that see daily and/or weekly cold anomalies that far exceed the end of the month value. That means that when the true arctic surges come southward we will likely see some periods when daily averages run anywhere from 15 to 20 degrees colder than normal. If and when these colder periods coincide with windy conditions, some dangerous cold is likely to occur.

Please keep in mind; the cold values indicated in my map assume there will be some relaxation in the cold pattern during the last 5 or 10 days of December. That is not a certainty and if the relaxation is delayed the cold anomaly values shown on my map will not be low enough in many areas.

One of the most uncertain things about the December cold pattern is will there be a significant westward shifts from time to time? If there are shifts, how far west and how intense will they be? There does seem support for the axis of the cold pattern to pull westward a couple of time. When that happens, the door will open for arctic air to plunge southward into western portions of Canada on into the northern Rockies and parts of the Pacific Northwest. Right now there is enough uncertainty with this aspect of the pattern to keep the Pacific Northwest and parts of western Canada out of the cold anomaly, but there will likely be at least one solid cold to very cold period in these areas during early or mid December. I may be under-estimating the cold potential in these areas, and may need to adjust these areas to the cold side of normal during early December.

The only area there is much confidence of an end of the month positive anomaly (**ZONE D**) covers portions of interior California, Nevada, Arizona, and possibly southern areas of Oregon.

DECEMBER 2008 SUMMARY POINTS FOR THE NORTHEAST/ MIDDLE ATLANTIC & NEW ENGLAND REGIONS

- **Much colder than normal month will be the forecast even though the core of the overall coldest anomaly center may lock in just west of the region.**
- **Widespread -4 to -8 end of the month cold anomalies expected with portions of Maine tapering a bit to -2 to -4 due to the moderating effects of the North Atlantic block.**
- **Pattern trends strongly colder than normal during early December but true strength of the coming cold pattern may not show itself until the second full week of December.**
- **Potential exists for 2 or 3 pure arctic intrusions into the eastern U.S.**
- **Cold pattern may ease a bit during the last week or so of the month but that is not a certainty.**

WINTER STORM POTENTIAL...

While much of the Middle Atlantic and southeastern NY, southern & eastern New England managed to escape serious snow or ice accumulations during the November cold period. I doubt that will be the case for December.

I will, as always, take each winter storm threats one at a time. But I can make some general statements now about the December storm potential.

The pattern is starting to look favorable for a series of disturbances to move from southwest to northeast out of the southern states along or near the East Coast. It is doubtful that one coming along this weekend will have enough cold air to its north and west to present a serious snow or ice threat from southeastern NY/CT/MA/RI southward. It could be close though and locations across southeastern NY and Southern New England will need to monitor late week and weekend updates. A decent snow event is possible, if not likely, for interior New England from this system.

Once the cold becomes better established during early and mid December the potential for a serious East Coast winter storm or two will rise significantly. Unless the cold just overwhelms the pattern completely, I expect 1 or 2 disruptive winter storm threats between December 5th and December 15th. If the pattern does become excessively cold, we may have to watch for the potential for a serious snow or ice storm across the Deep South and Southeastern states.

BEYOND DECEMBER...

My winter forecast has and continues to advertise a breakdown of the cold pattern during the midwinter period. Whether that happens during early January or waits until mid-January is not clear to me at the moment. Pattern analogs continue to show a pattern reversal during January, but no analog is perfect and with the weak tropical Pacific signals this year the potential exist for other items such as the North Pacific and/or North Atlantic patterns to at least fight the reversal to a mild midwinter period.

For now, I will let the winter forecast issued early continue in play, which means a January reversal to milder conditions across the eastern U.S. is likely. But I will be closely monitoring the pattern signals come mid-December and will reassess the January forecast at that time.

Meteorologist John Bagioni

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