

N. America May See Higher Late Season Frost, Freeze Risk

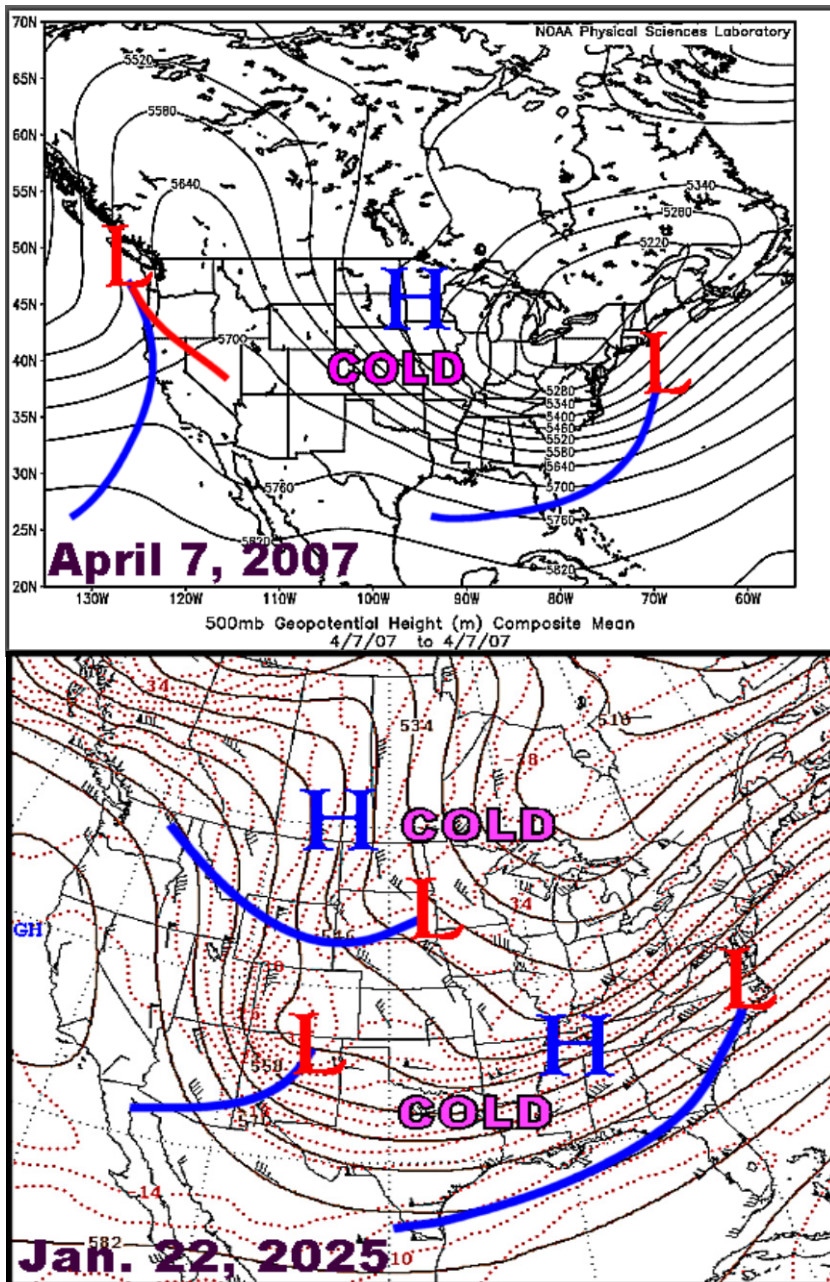
By Drew Lerner

Kansas City, February 27 (World Weather Inc.) – *Warm weather in North America this week has provided a great sigh of relief for folks suffering from bitter cold earlier this month; however, additional cold surges are likely this spring. World Weather, Inc. believes other bouts of colder than usual weather are likely after a period of warming like that which is under way now and the impact could be somewhat threatening to winter and earl- planted spring crops later in the year.*

A couple of impressive cold surges occurred in North America this winter impacting

aeras from Canada to northeastern Mexico and the southern United States. Some forecasters and analysts have claimed that these events were random and unexpected, but World Weather, Inc. has identified similar patterns in the winter of 1970-71 and 2006-07 and to a lesser degree 1988-89. In each of those winters there were alternating periods of warm and cold weather and in the cases of 1970-71 and 2006-7 there were a couple of very impressive deep troughs of low pressure that impacted North America just like that of this year.

Some will remember the great Easter freeze of 2007 that damaged all kinds of crops across the southern United States. Winter wheat was impacted along with some early season spring crops and a host of fruit trees and shrubs. **An exact repeat of the 2007 freeze is not**



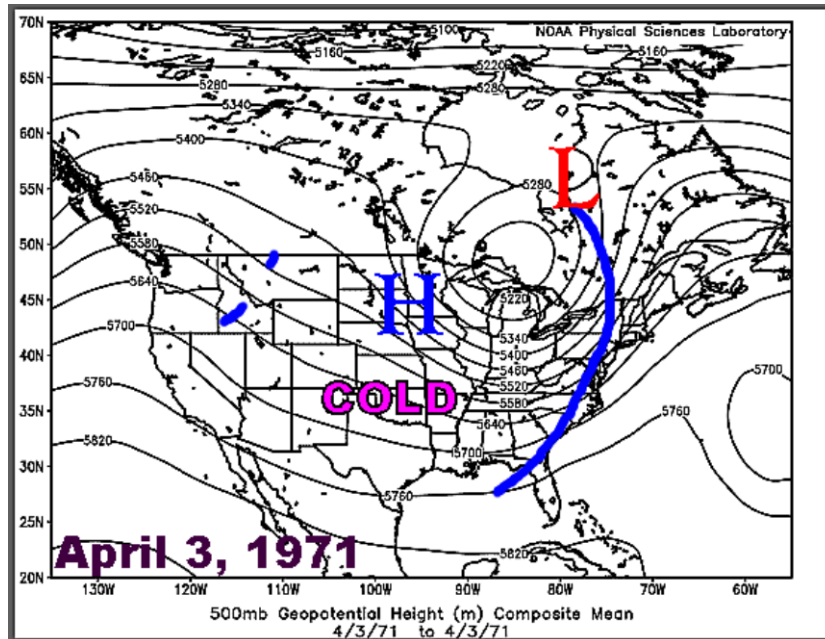
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expected, but the same pattern that presented impressive cold surges like that of January and earlier this month were seen in those winters as well.

That fact and the very low humidity remains from multiple years of drought from

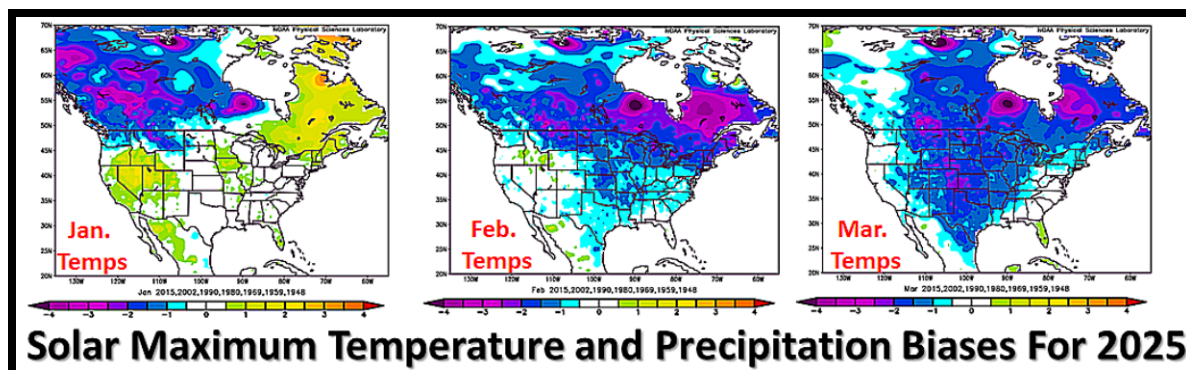
Canada's Prairies into the U.S. Plains and upper Midwest will contribute to more wild swings in temperature.

Recent afternoon temperatures in the 60s Fahrenheit as far north as southern South Dakota contrasted sharply with low temperatures that were in the lower -30s and -20s in the same state no more than a week earlier. The same kind of wild temperature swings have impacted all areas from Canada's Prairies to Texas and a few



neighborng areas to the east in the Gulf of Mexico coast states.

Low relative humidity always allows the air to heat and cool much faster and more significantly than air that is fully charged with moisture. Until significant precipitation returns to the Prairies and the Plains, the wildly swinging temperature pattern will continue. The returning upper air patterns from 1970-71 and 2006-07 are already providing an environment for big temperature changes, but the low relatively humidity is exaggerating those changes and this will likely continue.



It is also very important to note that winter season's that follow the solar maximum tend to be colder biased in North America and that was certainly the case this year. It looks as though the peak in sunspot numbers (solar maximum) occurred in August of 2024 and looking at the previous seven times that such a peak in the cycle has occurred since 1900 the results have generally been similar. Adding this fact to the dry air over North America and the returning upper air pattern of the past all adds up to more wild swings in temperature.

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These predicted swings in temperature have occurred in the past and no one should tie these events into climate change. With that said, *World Weather, Inc. fully expects to see additional infrequent bouts of significant cold air into the middle of North America this spring and if there is enough warm weather prior to the cold surges it will be possible that some winter wheat and possibly a few early planted spring crops will get nipped when the deeper cold surges return.*

This week's warm weather will help to wake up dormant crops in the southern U.S. Plains, Delta and southeastern states, but aggressive crop development is not very likely unless the warm period lasts more deeply into mid-March which is a possibility. Keeping an eye on soil temperatures, crop development and the long term weather trends will help to make a difference on producer decision making this spring. Some areas of the Midwest and Great Plains will need to be cautious about planting too early so that a sudden surge of cold air does not damage newly emerged and developing crops. This is not much of a concern for the next few weeks, but more so for possibly later in the spring season when planting is normally getting under way.

STRATOSPHERIC WARMING, AGAIN?

Some highly controversial weather modeling is trying to predict stratospheric warming events has revealed the potential for dramatic warming in the stratosphere a week from now. If that event occurs as advertised in recent days there could very well be a split in the polar vortex placing one deep upper level low pressure system over a part of Canada and another over northeastern Europe or northwestern Russia during mid-March.

If the polar vortex does split with each of the vortices moving into the positions noted above, the odds will become favorable for a new surge of cold into North America during the second half of this month. It is still unclear what the timing might be for this and it is still somewhat debatable over the significance of the event to begin with, so, much caution is advised.

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