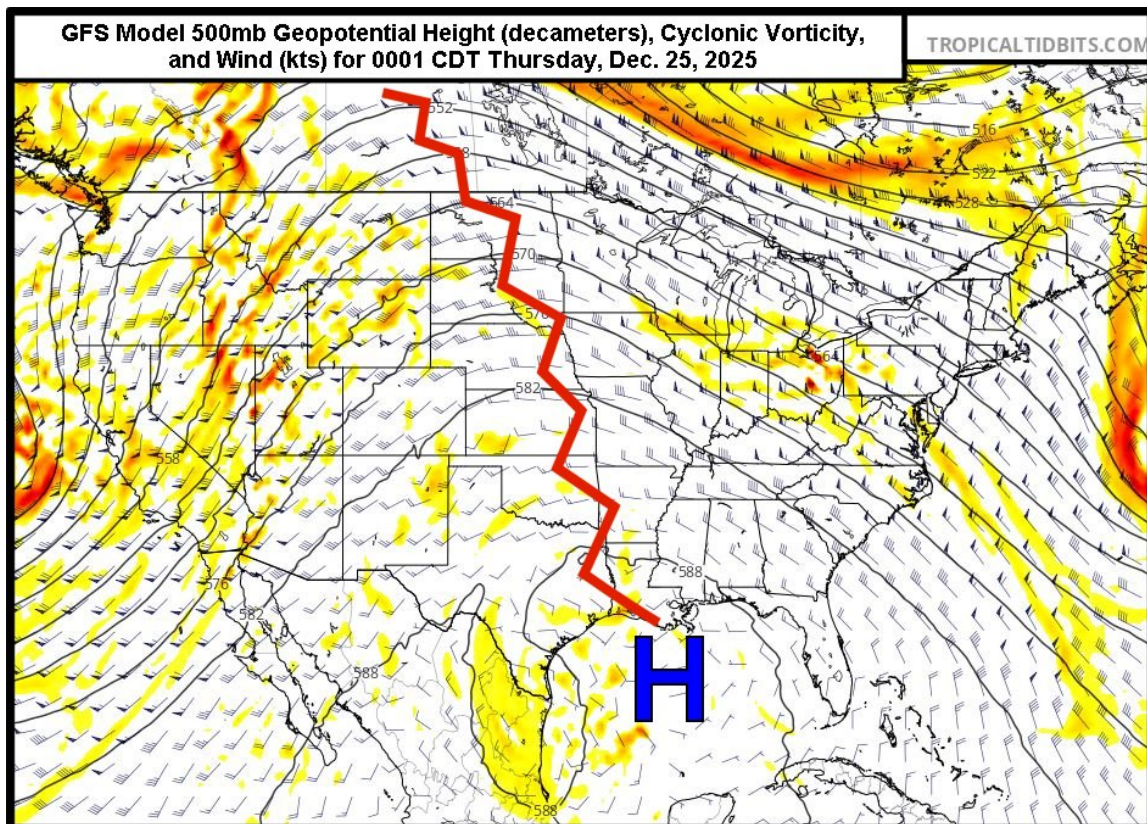


Heat To Expand Central U.S. Dryness; Much Colder Sunday

By Brad Luchen

Kansas City, Dec. 24 (World Weather Inc.) – *A significant ridge of high pressure has built into the central U.S. as expected and is causing temperatures to become incredibly warm for this time of year across much of the country. Many record highs will be broken today through Saturday before a period of cooling evolves. The heat will induce some livestock stress from West Texas into Oklahoma. The ridge will also further deplete soil moisture worsening moisture shortages already present in a part of the Great Plains southwestern Midwest and Delta. Snow cover has been recently diminishing in the Northern Plains and with additional melting may leave some areas exposed to subzero Fahrenheit temperatures when much colder air arrives Sunday.*

An impressive high pressure ridge has built into the central U.S. and can be seen quite well in 500mb geopotential height maps. In the image below, the large ridge can clearly be seen in the GFS model's projection for what its position and amplitude will be tonight when the ridge is near its peak intensity. Despite the ridge being near its peak intensity tonight and weakening occurs into the weekend, *the associated extreme warmth anomalies will occur into Saturday before a much colder air mass pushes the heat away.*

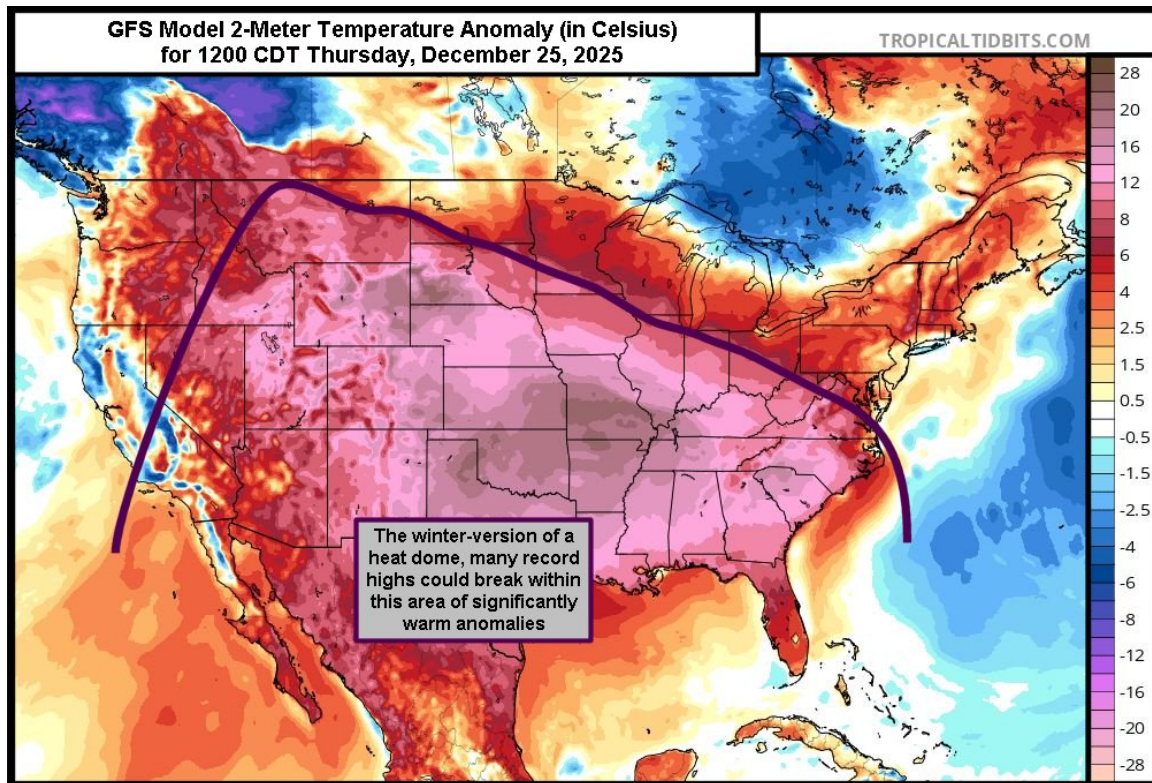


Temperature anomalies will be extremely warm across a large portion of the country into Saturday. In the image below, a snapshot of the likely anomalies can be seen for the Christmas Holiday. Each day through Saturday will have anomaly maps that look similar to this before a colder air mass arrives. *A large portion of the country will be more*

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than 18 degrees Celsius (30 degrees Fahrenheit) above average today into Saturday. Many record highs will be broken in various cities.

High temperatures today through Saturday will be mostly in the 70s and 80s Fahrenheit in the southern half of the U.S. east of the Rockies, with a few extremes possibly getting up to near 90 degrees in central and interior northwestern Texas. [The warmth is expected to continue reducing winter crop hardness especially in Texas, Oklahoma, southern and western Kansas, and eastern Colorado.](#)



[This weather pattern is quite dry for many U.S. crop regions east of the Rocky Mountains.](#) A high pressure ridge generally leads to dry weather underneath it. [As the ridge weakens later this week, a trough of low pressure will move in with the colder air; however, this trough will have very little moisture to work with.](#) There will, however, be some rain along a cold front associated with the trough Sunday from central Texas through Ohio.

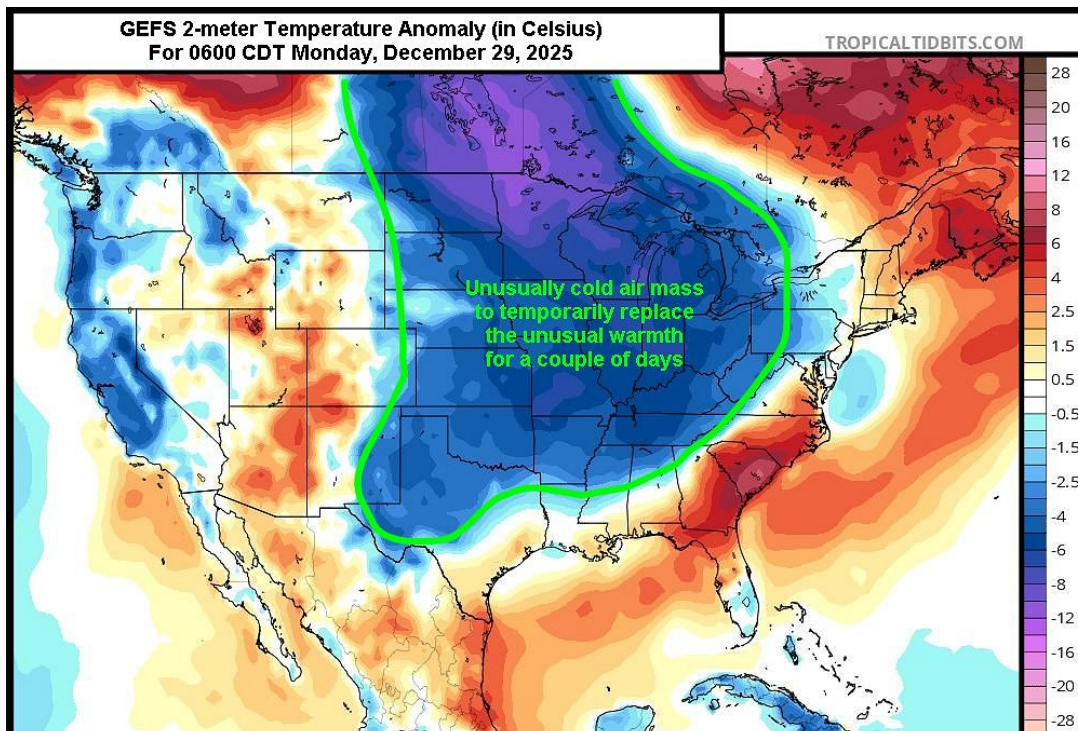
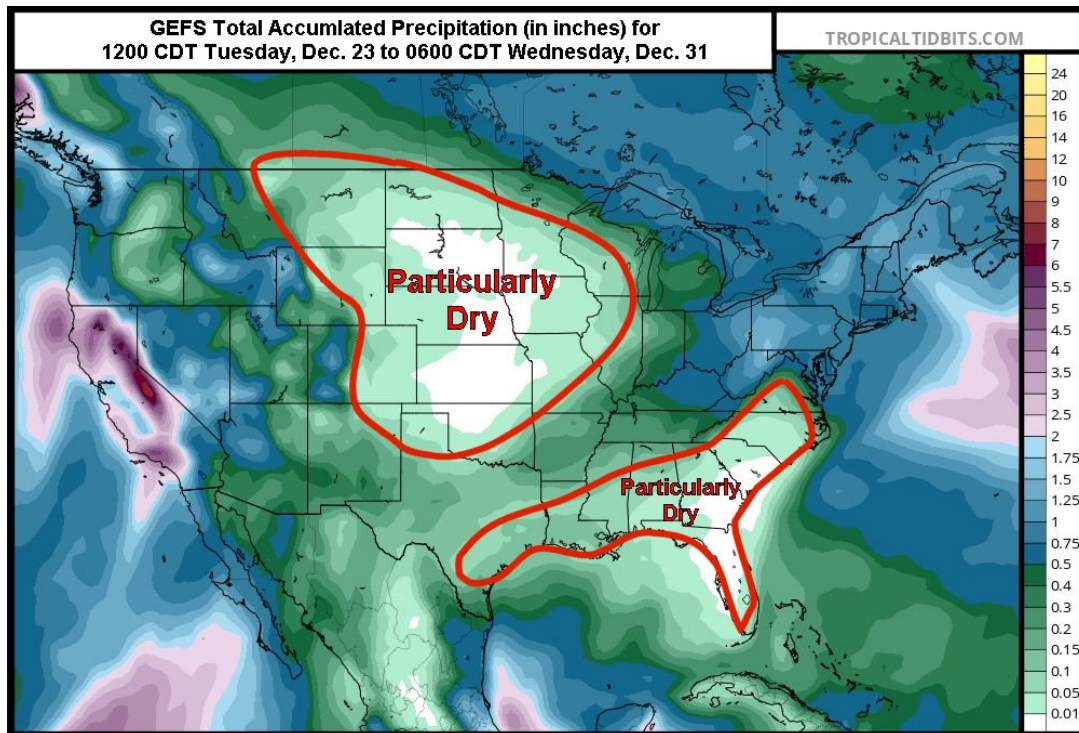
Much colder air associated with the late weekend trough of low pressure is expected in the Northern Plains Saturday and by early Monday it will have spread across hard red winter wheat areas and the Corn Belt. [Temperatures in hard red winter wheat areas of the Plains and soft wheat areas in the Midwest are not expected to become threateningly cold](#) except possibly in a few far northern parts of the region where there may still be some lingering snow cover.

[There may be a little more concern over the potential for winterkill in the northern Plains where snow free areas could be subjected to zero or near-zero degree low temperatures.](#)

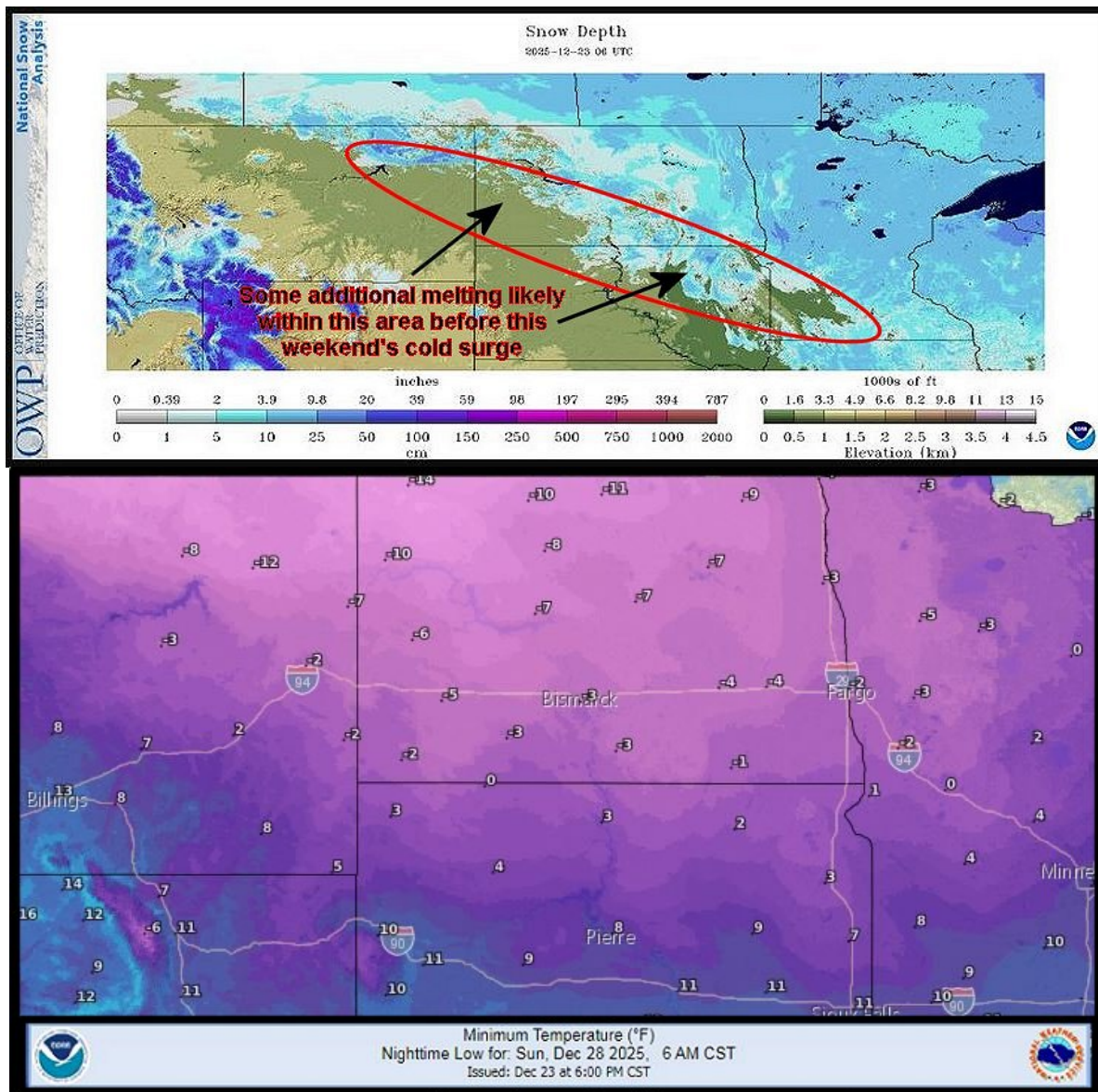
Snow cover in the Northern Plains has been thinning out and retreating northward due to recent days of warmer air and this trend will continue until much colder air arrives later this weekend. [Morning low temperatures Sunday will potentially be in the negative](#)

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single digits in some snow-free areas of eastern Montana, North Dakota, and South Dakota. Most crops in the northern Plains subjected to the coldest temperatures should survive without much potential loss, although a little winterkill cannot be ruled out.



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The image above is a possible temperature solution for Sunday morning. Notice some negative single digit reading lows are projected for some areas that have no snow today and the snowfield may erode farther to the northeast from the next few days of warm weather. There is potential that subzero degree low temperatures will shift a little farther to the east for Monday morning, possibly occurring over some snow-free area of southwestern Minnesota.

The bottom line is that this week's high pressure ridge will lead to some issues in the U.S. east of the Rocky Mountains. Some livestock stress will increase, the need for greater precipitation will increase, and some winterkill may occur in the Northern Plains due to the reduced snow cover. Some greater precipitation will likely occur in the first week of January; though, temperatures will also trend unusually warm again ahead of this weather disturbance and the wild temperature swings could promote more livestock stress.

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