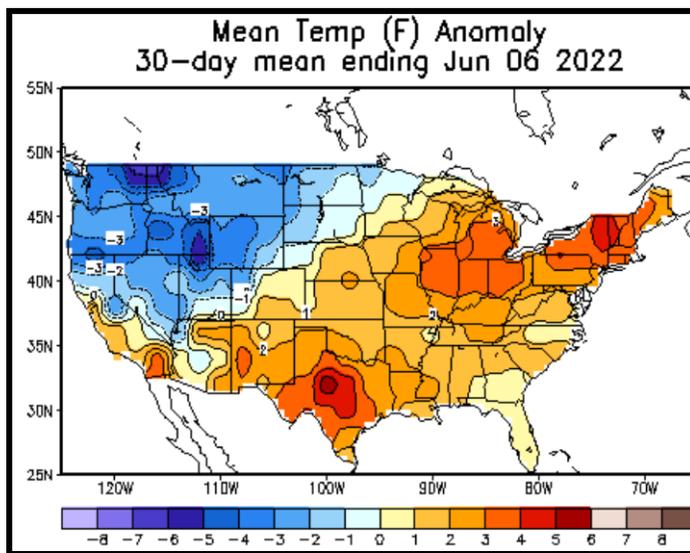


Energized Jet Stream May Prevent Blocking Ridge For A While

By Drew Lerner

Kansas City, June 8 (World Weather Inc.) – The world is watching North America weather like a hawk watches future prey. Much excitement entered the commodity market place earlier this week as the first signs of a summertime ridge of high pressure reached the forecast model runs. However, [the jet stream in North America remains highly energized and that is likely to work against a “blocking” high pressure ridge for a while. That does not mean parts of the Midwest, Great Plains and Delta will not experience some drying, but it does raise the potential for some timely rainfall to occur in the northern half of the Plains and the northern half to two thirds of the Midwest.](#)

Mild to cool weather has occurred often in recent weeks across parts of North



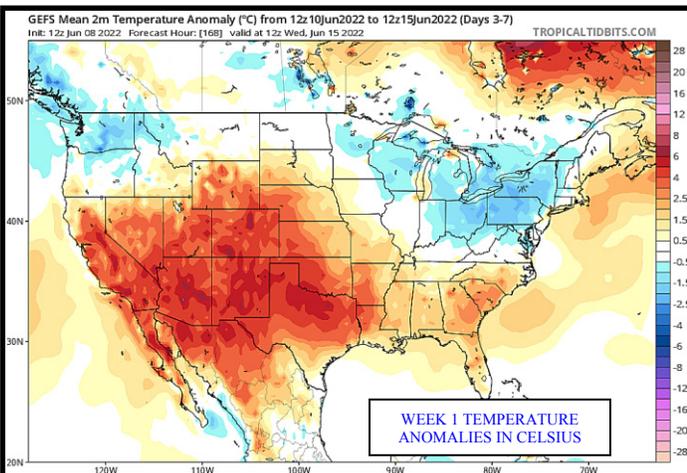
America. The cool bias has been most pronounced and persistent from Canada’s Prairies into the northern U.S. Plains and the Pacific Northwest. That was one of the primary reasons for poor planting conditions in those areas. The cool temperatures prevented good drying conditions from evolving between significant rain events.

Temperatures advertised by the GFS and ECMWF forecast model ensembles during the next two weeks will be much closer to normal in the Midwest, central and northern Plains and Canada’s Prairies. For most of those areas, the warmer bias will certainly be welcome and help get field conditions in better shape and induce faster crop development.

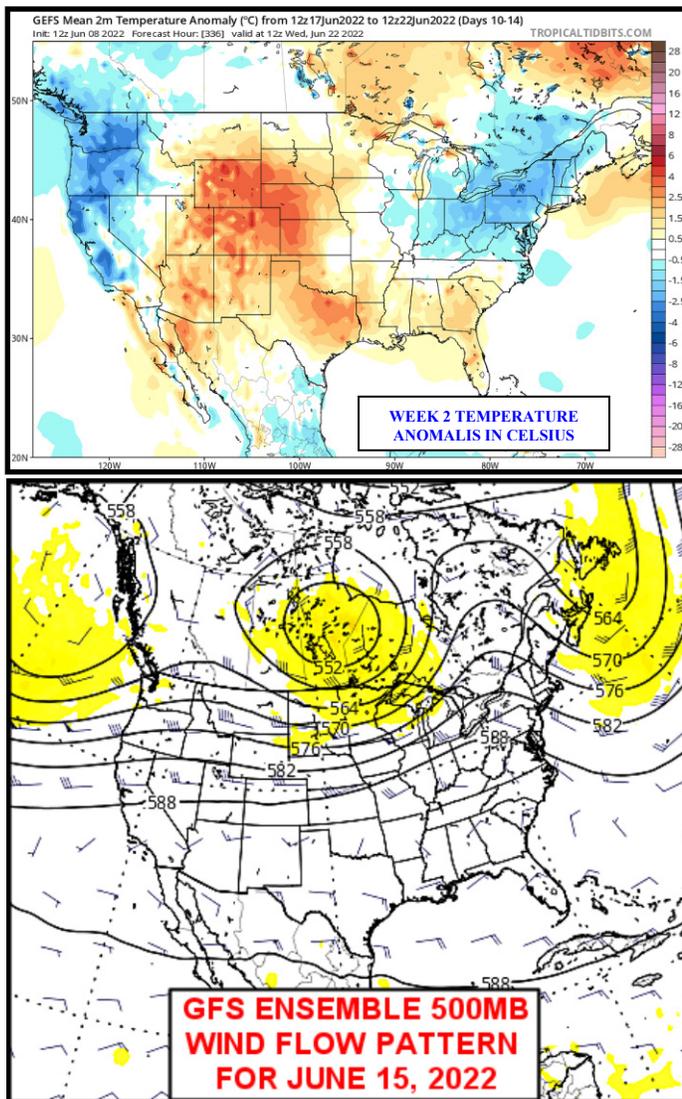
A little farther to the south soil moisture has been nearly ideal recently in parts of the central Plains and lower Midwest as well as the Delta and southeastern states. These areas have been seeing a good mix of weather for a while and crop development should be advancing

quite favorably. A change toward warmer temperatures and less frequent rain in these areas will eventually bring on drier soil and a little rise in concern over future crop development.

One of the most significant features to the North America weather pattern prevailing today is high level wind speeds. The wind is quite strong and is a byproduct of the recent cooler atmospheric temperatures in the higher latitudes and the warmth that has been



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prevailing in the southern parts of North America. This contrast in airmass temperatures has driven the high level wind speeds at a very fast pace sending one disturbance after another across North America and inducing a routine occurrence of rainfall.

Warming has begun to occur in the higher latitudes and that is the first step in eventually weakening the jet stream (high level winds). The

removal of cold air allows the jet stream to slow just enough to buckle it so that the quasi-zonal (west to east) flow pattern aloft becomes more changeable with ridges of high pressure and troughs of low pressure evolving and co-existing. The jet stream has not slowed enough to allow any one of these weather features to become stagnant which means for a while the quickly changing weather pattern is sure to continue.

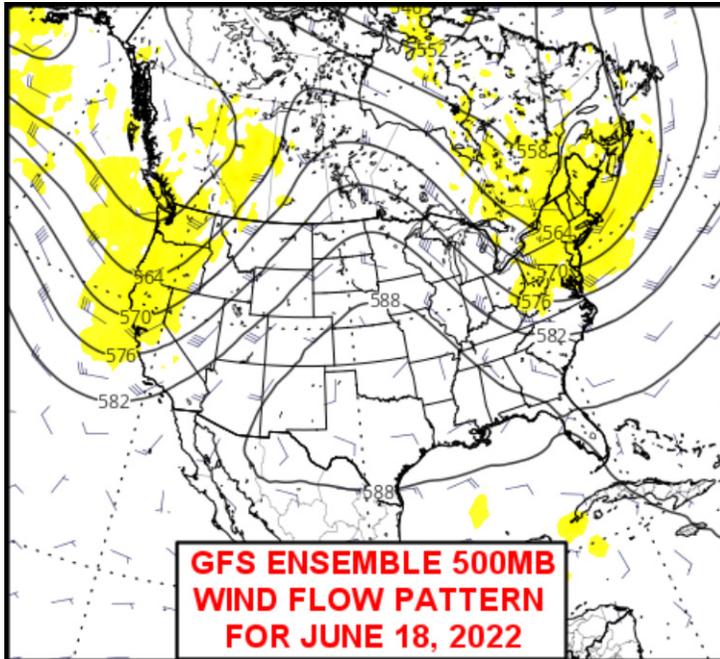
Until the jet stream slows additionally which is not likely until late this month or more likely in July, the rapidly changing weather should continue, although the jet

stream will shift a little more to the north allowing greater warmth to occur at times.

These changes also allow a mean ridge of high pressure to evolve in central North America which is normal and usually occurs in mid- to late May rather than early to mid-June. This delay in the ridge evolution reflects the cool bias noted above and is also another reason why it will take a while for the jet stream to slow enough to raise the potential for a stagnant weather pattern to evolve.

One of the reasons for stronger ridge building in the central United States in recent forecast model runs is the potential for some kind of tropical disturbance to evolve in the Caribbean Sea and/or Gulf of Mexico. If this tropical event actually evolves (and the jury is still out on that) it would help to build a stronger ridge of high pressure over the central U.S. for a little while. But then one has to consider where the tropical system goes after the ridge builds up. Does it go into the Midwest? If so, significant rain would fall as the system comes north through the Midwest following a period of warm and dry weather. Does the tropical system go into Texas? If so, it will eventually be picked up by westerly winds aloft carrying the remnants into the northern Plains and western Corn Belt adding rain back to the outlook for some of those areas that might dry out a little next week. The odds are not good

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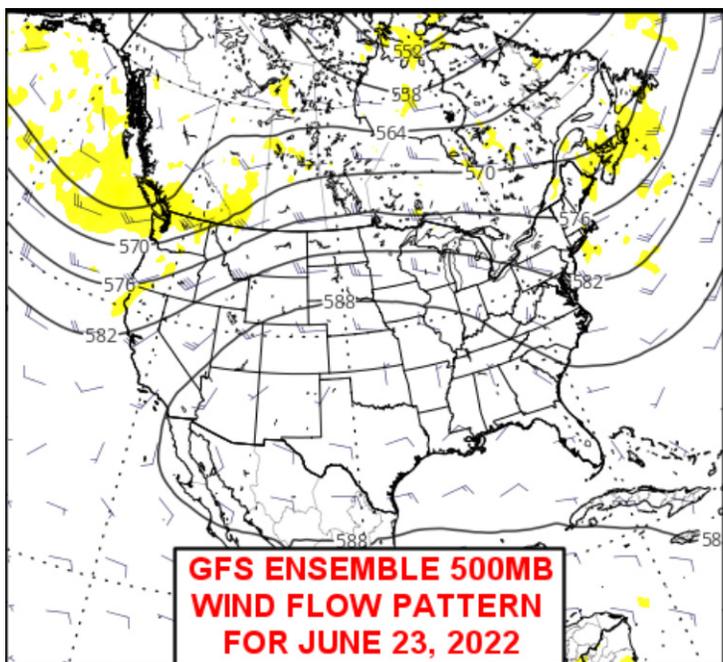


that a tropical system will turn to the northeast from the Gulf of Mexico in this scenario which makes landfall in the southeastern U.S. a low potential.

The point of all of this discussion is that the jet stream is too strong and energized to allow a stagnant weather pattern to evolve. Any high pressure ridge aloft that evolves will likely move around allowing some rain and thunderstorms to occur periodically. Less frequent and less significant rain is predicted during the second week of the outlook and temperatures will be warmer which will lead to

quicker drying when rain is not falling.

World Weather, Inc. does not believe the pattern right now is all that negative on crop production for the next two weeks and perhaps a little longer, but the situation does raise a bit of interest for July weather when the jet stream is sure to be weaker allowing a more persistent ridge of high pressure to possibly evolve.



The frequent changes in the jet stream advertised over the next two weeks will allow some variation in rainfall to occur across the central United States; however, notice that the one region that will be most under the influence of the ridge will be Texas, Oklahoma, The Delta and a part of the southwestern Corn Belt. These areas WILL experience persistent heat and dryness as long as no tropical cyclone comes inland from the Gulf of Mexico. *The strong jet stream will help keep hot and dry weather out of the key Midwestern crop areas for a while, but if the pattern prevails*

while the jet stream is slowing in July and August the situation could become a little more threatening for summer crop development.

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