Short-Range Outlook for North Carolina

Week 1: January 7 to 13, 2021



Rain, Snow Event on Friday

orecipitation ♣

Low pressure to our south will see precipitation begin early Friday morning in the Mountains and end late Friday night at the coast. Liquid totals of 0.5 to 2 inches are likely, falling primarily as snow in the north and west with light accumulations expected.

Cooler Weather Ahead



As high pressure builds to our north, temperatures will remain in the 30s and 40s through the weekend. Next week could stay cooler, but uncertainty in the precipitation pattern is high. Another system may move in from the Gulf of Mexico early next week.

Forecast Confidence



Model forecasts vary in depicting the transition to frozen precip. on Friday and the potential for more rain or snow next week.

This infographic is based on forecast and outlook guidance from the National Weather Service. For more information, visit **www.weather.gov**.



Week 2: January 14 to 20, 2021

Likely remaining cooler Possible precipitation chances?

A Cooler Pattern Persists

Troughing is expected to develop in the jet stream over the eastern US and cooler high pressure should move in from the north by late next weekend. Highs could remain mostly in the 40s with lows in the 20s through much of this one-week period.

Precip. Possible Later



Forecast Confidence



Uncertainty is highest over how long the troughing and cool air might stick around. That also affects our precipitation chances.





A Warm-Up in February?

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Near- to below-normal temperatures may remain through late January before jet stream ridging is expected to build over the Southeast US by early February. That would push our temperatures back above normal in a more typical La Niña-like pattern.

An Uncertain Precipitation Forecast

A changing pattern with more southeastern ridging may favor drier weather by Week 4 of this forecast period, but the winter so far has defied the dry La Niña forecast, and moisture availability in the Gulf could continue fueling regular precipitation.

Forecast Confidence



NORTH CAROLINA CLIMATEOFFICE Model agreement is limited about when the large-scale pattern will change and what the impacts might be in NC.





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The Latest on La Niña: A Mid-Winter Update

Current Conditions

Sea surface temperatures across the equatorial Pacific Ocean show that a moderate La Niña remains, with its strength holding steady at 1 to 1.5°C below normal since mid-November.



Typical Impacts in NC

La Niña usually causes a **weakening of the jet streams** that pushes them -- and the prevailing storm track -- farther north, often giving **warmer and drier winters** in the Southeast, including North Carolina.



Impacts This Winter

Winds and cloud cover across the Pacific have responded as expected to the La Niña event, so it *is* having impacts to the global atmosphere.

As predicted, the winter has been dry across the southwestern US due to the subtropical jet stream shifting northward.

Percent of Normal Precipitation (%) 10/1/2020 - 12/31/2020



We haven't yet seen the expected impact of drier weather in North Carolina, though.

The jet stream pattern, including pronounced ridging to our west, has resulted in a continuing storm track from the Gulf of Mexico across the Carolinas, similar to what we saw throughout the fall. Last month was our 44th-wettest December on record.

The Latest Forecasts

Model forecasts show La Niña conditions persisting through the early spring. Many also indicate warmer weather across the Southeast in February, but the precipitation forecast for North Carolina is less certain.

Past La Niña Februarys

In past La Niña winters at a similar strength as this, 4 of 6 were warmer than normal and only half were dry in February.

Winter	February in NC	
1949-50	28th-warmest	17th-driest
1955-56	21st-warmest	12th-wettest
1970-71	55th-coolest (tie)	28th-wettest
1984-85	55th-coolest (tie)	34th-wettest
1998-99	34th-warmest	32nd-driest (tie)
2010-11	24th-warmest (tie)	32nd-driest (tie)

The Bottom Line

La Niña remains active and current forecasts show a transition to a warmer pattern by early February, but **at this point**, **there is no guarantee and little confidence that the precipitation pattern in NC will become drier this winter or spring**.

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