

From: Duke Meteorology
Sent: Thursday, December 22, 2022 6:10 AM
To: Weather-CAR-Discussion
Subject: Carolinas Weather Forecast Discussion - 12/22/2022

Thursday – Friday:

- Low pressure will track northward across the eastern Carolinas and southeastern VA today while chilly high pressure will otherwise remain across the interior Carolinas and Mid-Atlantic. Meanwhile, a strong cold front will approach from the west then blast across the region Friday morning, followed by an arctic air mass for the weekend.
- For today, the DEC region will be cloudy with rain likely in the morning and exiting east of the area by early afternoon. Temperatures will be nearly steady in the mid-upper 30s this morning, then warm into the lower 40s this afternoon once the rain departs.
- The DEP region will be cloudy with rain likely through mid-afternoon and exiting to the northeast by early evening. The main challenge today will be how far inland the warmer air at the coast penetrates. Our forecast continues to favor the colder model solutions that keep Raleigh in the 40s. But there is a risk that we see 50s reach Raleigh this afternoon before dropping back into the 40s this evening.
- Skies will be mostly cloudy tonight. System average temps are forecast to be in the lower 40s at 7pm and gradually rise overnight, reaching the upper 40s by 4am.
- The cold front will sweep across the DEC region between 4am and 7am. Our temperature forecast has the DEC sys avg dropping from the upper 40s to lower 30s during that period.
- The front will sweep across the DEP region between 7am and 12am. Our temperature forecast has the DEP avg dropping from around 50 degrees to lower 30s during that period.
- Friday will be sunny, windy and cold. Wind gusts 45 to 55 mph across the higher elevations, 35 to 45 mph elsewhere. Strongest gusts will be in the morning.
- DEC temps will be nearly steady in the low-mid 20s for much of the day on Friday with sustained winds 15 to 25 mph.
- DEP temps will gradually fall from the low-mid 30s mid-morning to mid-upper 20s by late afternoon with sustained winds 20 to 25 mph.
- Still concerned that the load models will under-estimate the impact of the winds along with the cold air. The wind chill at 7pm in Charlotte and Raleigh is expected to be in the mid single digits (compared to air temperatures in the upper teens and lower 20s, respectively)

Extended Range:

- Arctic high pressure will extend from the Plains to the Southeast through the weekend.
- Saturday will be sunny but cold with highs only in the upper 20s to middle 30s. For Sat AM, lowered DEC from 13 to 12 and the DEP from 16 to 15.
- Sunday will be sunny and continued cold. Lows in the mid-upper teens. Highs in the low-mid 30s west, mid-upper 30s east.
- Sunny on Monday. Lows in the upper teens. Highs in the mid-upper 30s west, low-mid 40s east.
- Still below normal on Tues-Wed with lows in the low-mid 20s and highs in the 40s.
- Turning warmer starting on Thursday when temperatures return to seasonal levels. Above normal temps for next Friday through the New Years weekend.

[REDACTED]