Updated at 6:30 AM, February 24, 2016

http://weather.gov/Raleigh

Bottom Line Up Front

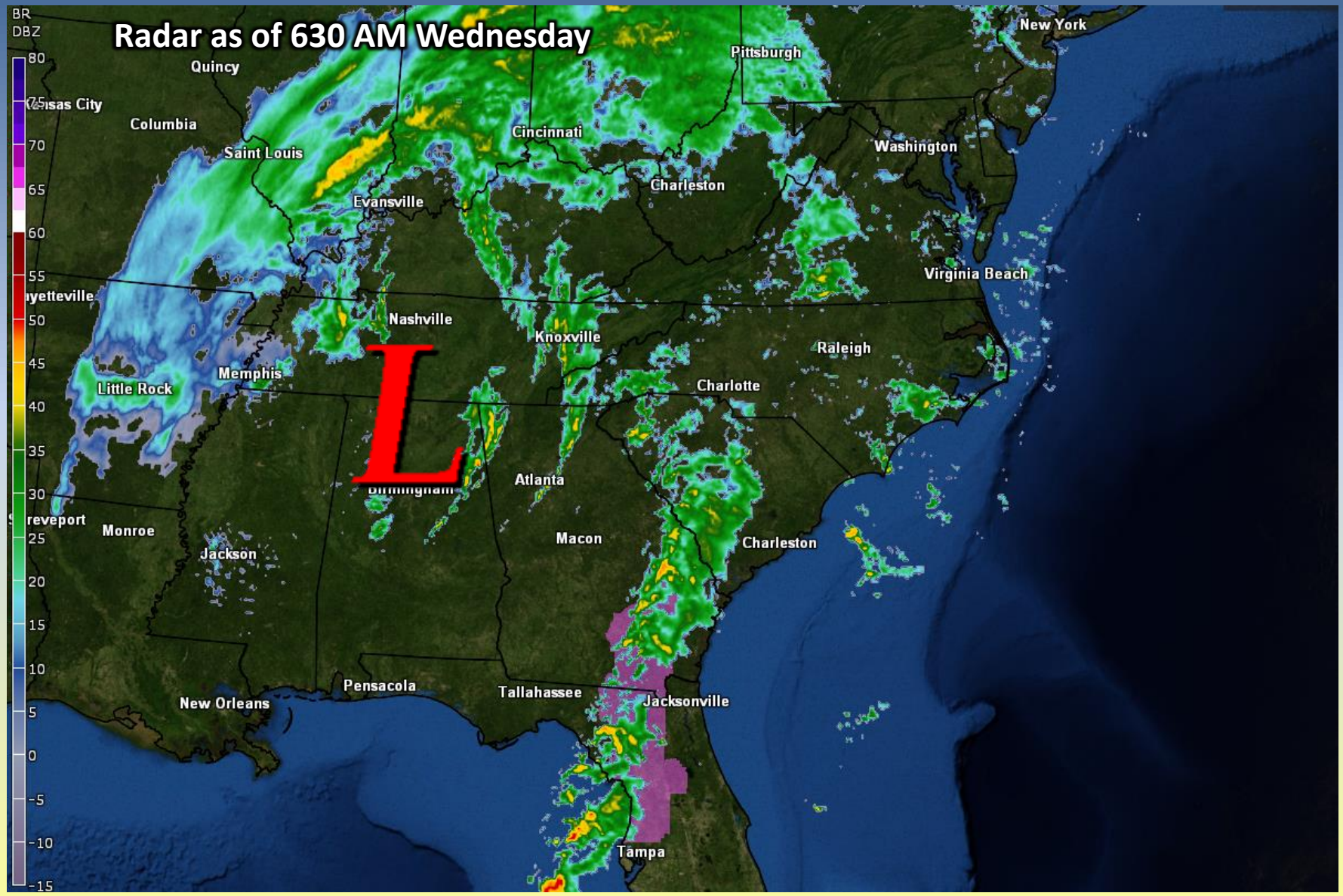
- The likelihood for pockets of straight-line wind damage occurring across central North Carolina today is a near certainty. The risk for multiple tornadoes is fairly high, including strong tornadoes.

- The straight-line wind gusts may be particularly strong (greater than 70 mph) and associated damage with these wind gusts may be tornado-like in intensity. As such, severe thunderstorm warnings should not be ignored, and should be treated like tornado warnings.

- **Everyone should take time today to review their severe weather and tornado safety plans. http://www.nws.noaa.gov/om/severeweather/prepare.shtml**

- **With the squall line expected to move across central North Carolina during daytime school hours (noon to 6 PM), schools and universities across central NC are particularly encouraged to take some time today to review their severe weather safety plans, and review their tornado sheltering procedures.**

A Powerful Storm System is Headed Our Way Today

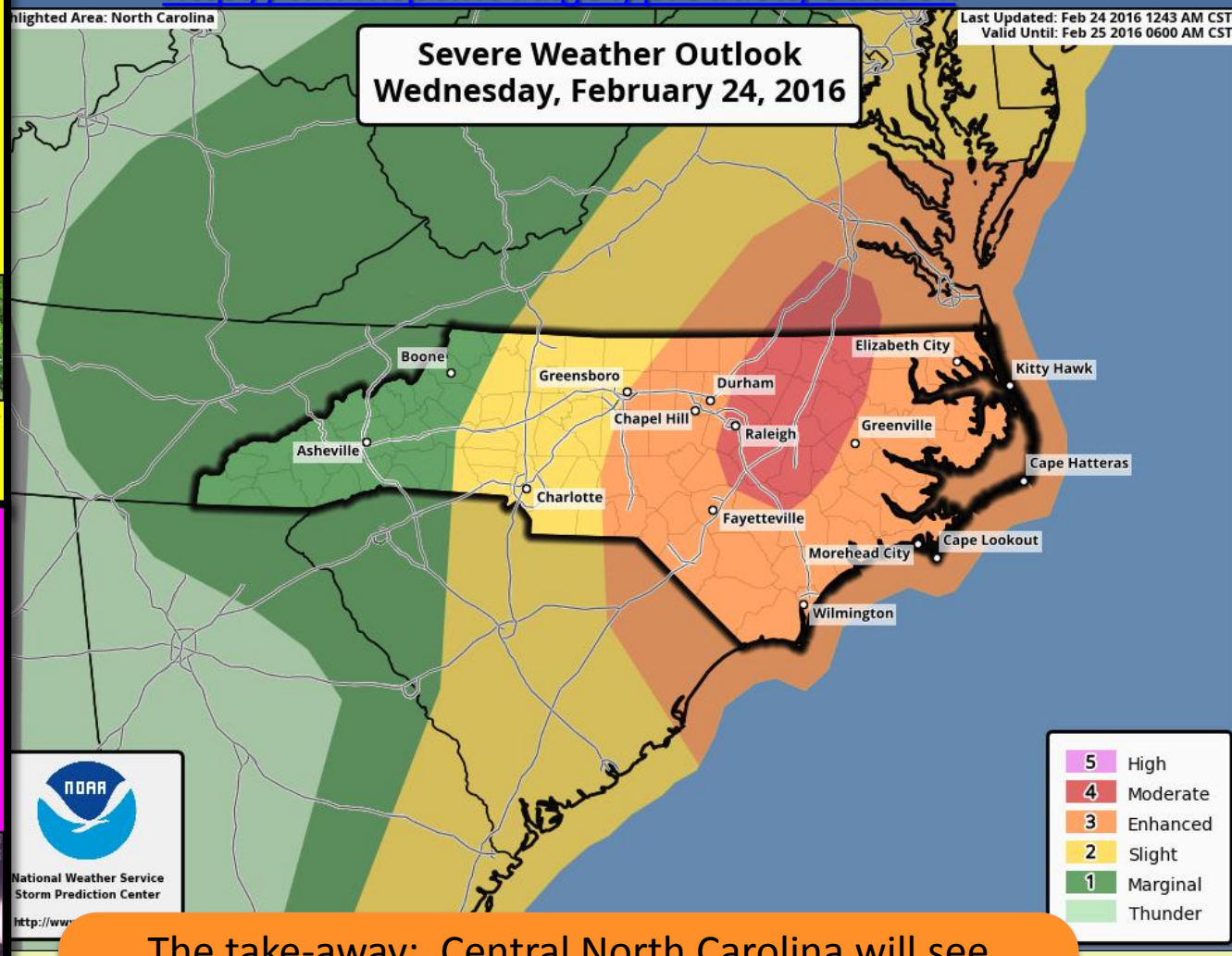


Storm Prediction Center Day 1 Outlook

http://www.spc.noaa.gov/products/outlook

THUNDERSTORMS (no label)	1 - MARGINAL (MRGL)	2 - SLIGHT (SLGT)
No severe* thunderstorms expected	**Isolated severe thunderstorms possible**	**Scattered severe storms possible**
Lightning/flooding threats exist with <u>all</u> thunderstorms	Limited in duration and/or coverage and/or intensity	Short-lived and/or not widespread, isolated intense storms possible
		
• *Winds to 40 mph* • *Small hail*	• *Winds 40-60 mph* • *Hail up to 1"* • *Low tornado risk*	• *One or two tornadoes* • *Reports of strong winds/wind damage* • *Hail ~1", isolated 2"*

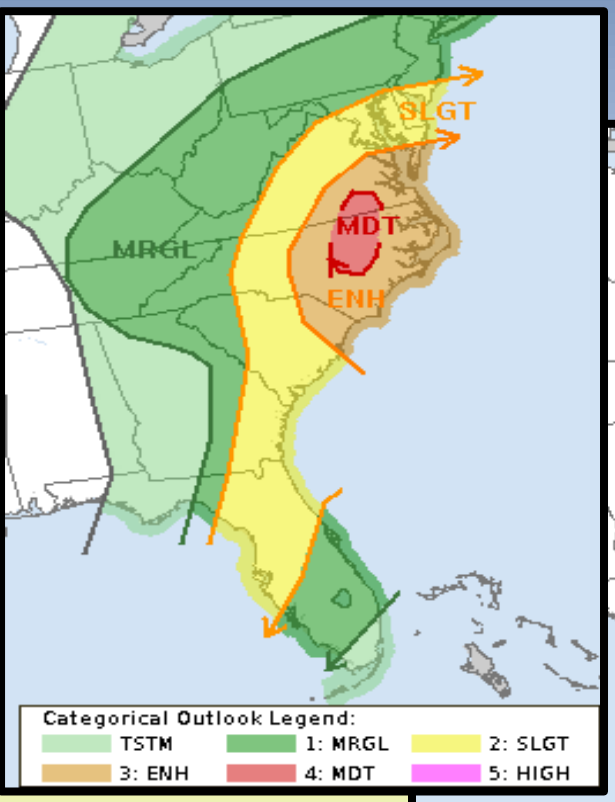
3 - ENHANCED (ENH)	4 - MODERATE (MDT)	5 - HIGH (HIGH)
Numerous severe storms possible	**Widespread severe storms likely**	**Widespread severe storms expected**
More persistent and/or widespread, a few intense	Long-lived, widespread and intense	Long-lived, very widespread and particularly intense
		
• *A few tornadoes* • *Several reports of wind damage* • *Damaging hail, 1 - 2"*	• *Strong tornadoes* • *Widespread wind damage* • *Destructive hail, 2" +*	• *Tornado outbreak* • *Derecho*

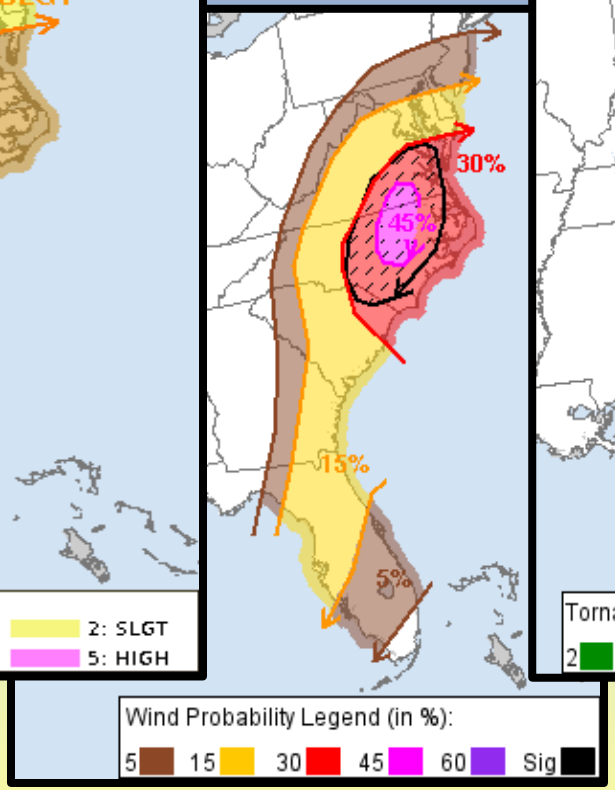


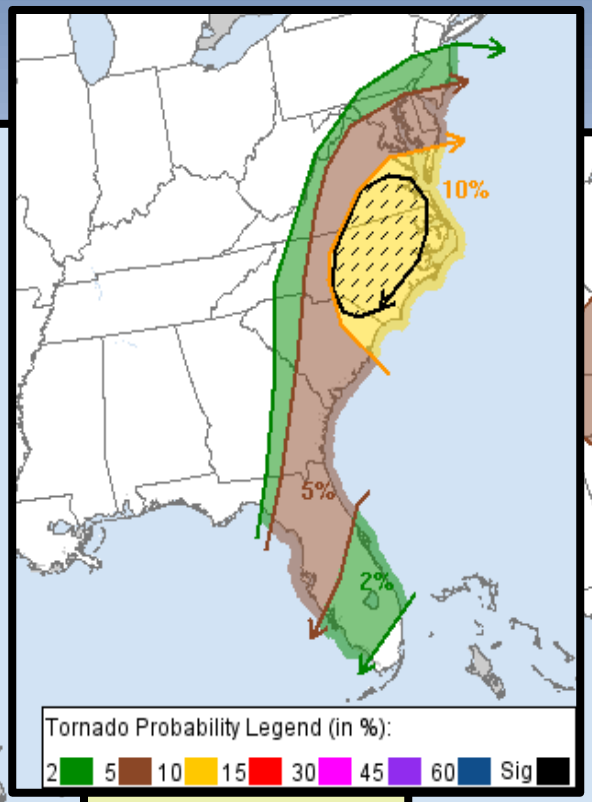
The take-away: Central North Carolina <u>will</u> see scattered severe thunderstorms. However, areas east of US-1 will have the greatest risk to see more numerous severe storms, with greater impacts.

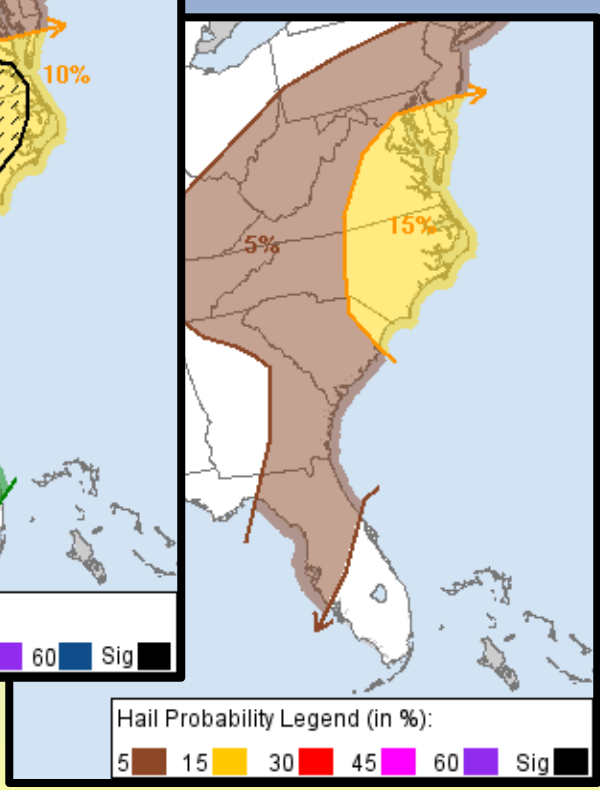
Severe Weather Hazards

- Tornado/Convective Wind/ Hail values are probabilities of an event within 25 miles of any point.
- Hatched areas indicate a 10% or greater probability of a strong tornado, very large hail, and/or particularly damaging thunderstorm wind gusts.



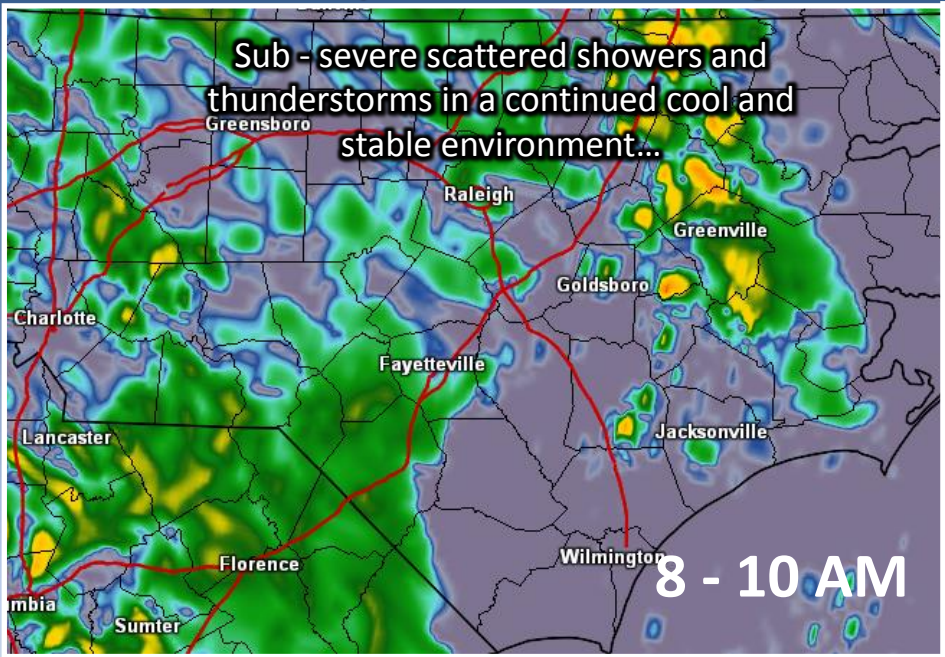


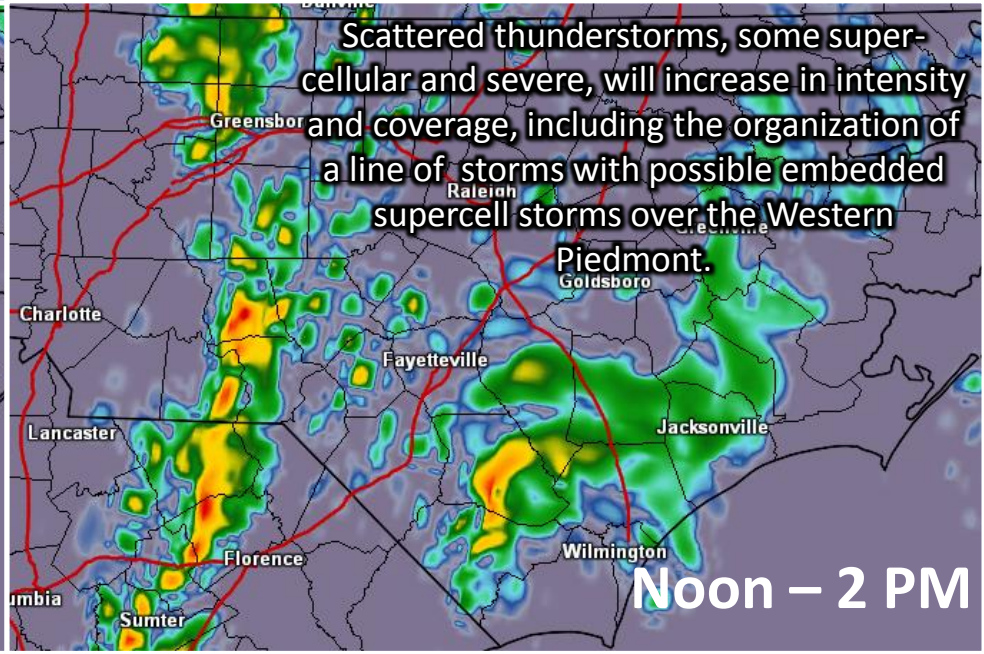


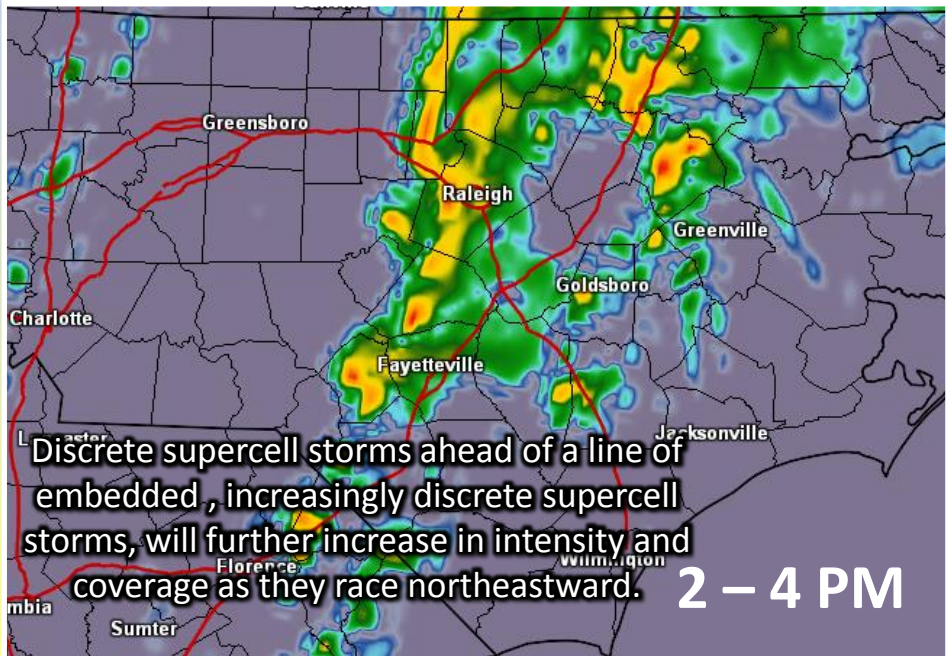


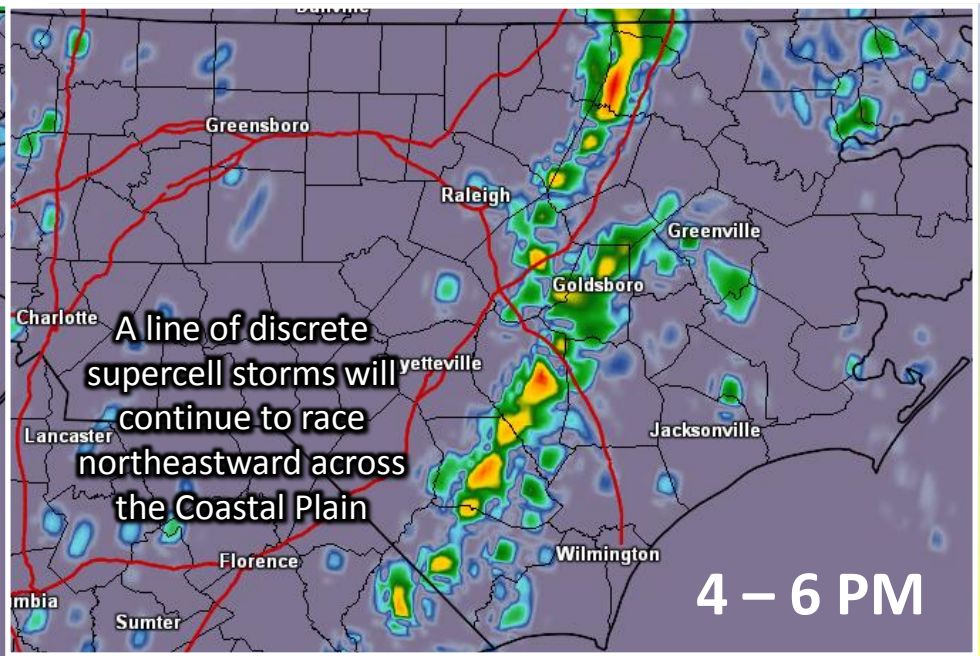
Timing for Today

Radar simulations presented here are to give a sense of evolution of storms, timing, and general location.









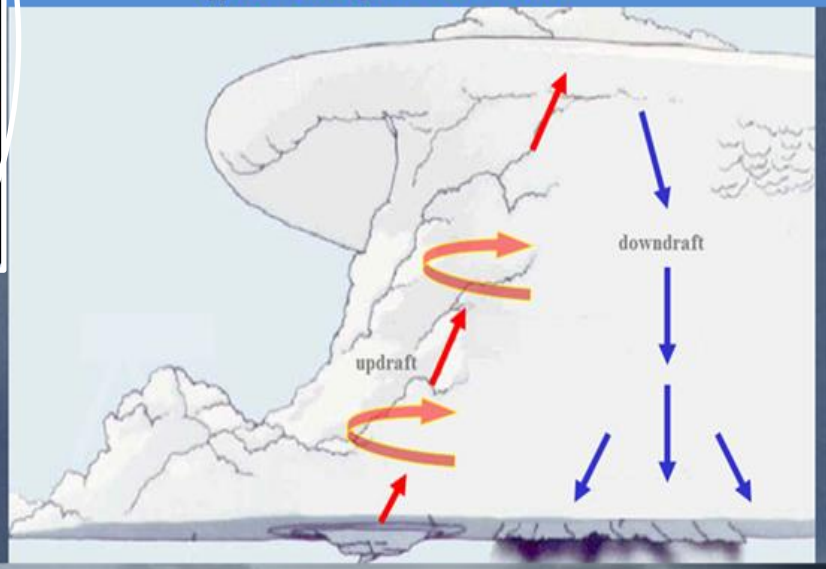
The Thunderstorm Spectrum

Single Cell	Multicell Cluster	Multicell Line	Supercell
Updraft Strength: Weak: Non-Severe Strong: Maybe Severe	Updraft Strength: Weak: Non-Severe Strong: Severe	Updraft Strength: Weak: Non-Severe Strong: Severe	Updraft Strength: Intense Mesocyclone Almost Always Severe
SLIGHT THREAT	MODERATE THREAT	MODERATE THREAT	HIGH THREAT

- Supercell storms, can persist for many hours and travel large distances, are characterized by a rotating updraft called a mesocyclone. Supercells are highly-organized storms that develop in strongly-sheared environments; **and almost all produce some type of severe weather**, ranging from very large hail, extreme straight-line wind gusts, to (sometimes violent) tornadoes.

Supercell Thunderstorm

Typical Life Span: 1 - 6 Hours



What is the difference between a Tornado Watch and a Tornado Warning issued by the National Weather Service?

Tornado Watch: Be Prepared! Tornadoes are possible in and near the watch area. Review and discuss your emergency plans and check supplies and your safe room. Be ready to act quickly if a warning is issued or you suspect a tornado is approaching. Acting early helps to save lives! Watches are issued by the Storm Prediction Center for counties where tornadoes may occur. The watch area is typically large, covering numerous counties or even states.

Tornado Warning: Take Action! A tornado has been sighted or indicated by weather radar. There is imminent danger to life and property. Move to an interior room on the lowest floor of a sturdy building. Avoid windows. If in a mobile home, a vehicle, or outdoors, move to the closest substantial shelter and protect yourself from flying debris. Warnings are issued by your local forecast office. Warnings typically encompass a much smaller area (around the size of a city or small county) that may be impacted by a tornado identified by a forecaster on Radar or by a trained spotter/law enforcement who is watching the storm.

Severe Thunderstorm Watch: Be Prepared! Severe thunderstorms are possible in and near the watch area. Stay informed and be ready to act if a severe thunderstorm warning is issued. Watches are issued by the Storm Prediction Center for counties where severe thunderstorms may occur. The watch area is typically large, covering numerous counties or even states.

Severe Thunderstorm Warning: Take Action! Severe weather has been reported by spotters or indicated by radar. Warnings indicate imminent danger to life and property. Take shelter in a substantial building. Get out of mobile homes that can blow over in high winds. Warnings are issued by your local forecast office. Warnings typically encompass a much smaller area (around the size of a city or county) that may be impacted by an on-going severe thunderstorm.

http://www.nws.noaa.gov/om/severeweather/index.shtml

Tornado Safety

- **Have a preparedness plan.** Know your tornado shelter!
- **Home:** Basement and under the stairwell or heavy piece of furniture. If *no basement*, then an interior closet, hall, or bathroom on lowest floor
- **Schools, hospitals, and office buildings:** Small interior rooms or interior halls on lowest floor, and avoid long corridors with windows and large open areas with free span roofs such as gymnasiums
- **Steel and concrete high rise buildings:** Interior halls, bathrooms or closets and stay away from windows
- **Shopping centers:** Bathrooms and small interior spaces and avoid large open areas and glass
- **Abandon mobile homes and vehicles for a nearby reinforced building**, and only to a ditch as a last resort

Take Shelter for Severe Thunderstorm Warnings

…straight line winds can cause as much damage as tornadoes

For details for your specific area, including all watches, warnings, and advisories…

Please refer to the following sites:

- Northeast NC: http://weather.gov/akq
- Eastern NC: http://weather.gov/mhx
- Southeast NC: http://weather.gov/ilm
- Central NC: http://weather.gov/rah
- Northwest NC (& mountains): http://weather.gov/rnk
- Southwest NC (& mountains): http://weather.gov/gsp
- Cherokee and Clay Counties: http://weather.gov/mrx

For specific hour-by-hour forecast details and trends for your exact location, please visit http://forecast.weather.gov/gridpoint.php?site=rah&TypeDefault=graphical
This link will include hour-by-hour forecasts for temperature, wind, wind gusts, wind chill, precipitation chance, etc.