

# Main Points



## Thursday Severe Threat

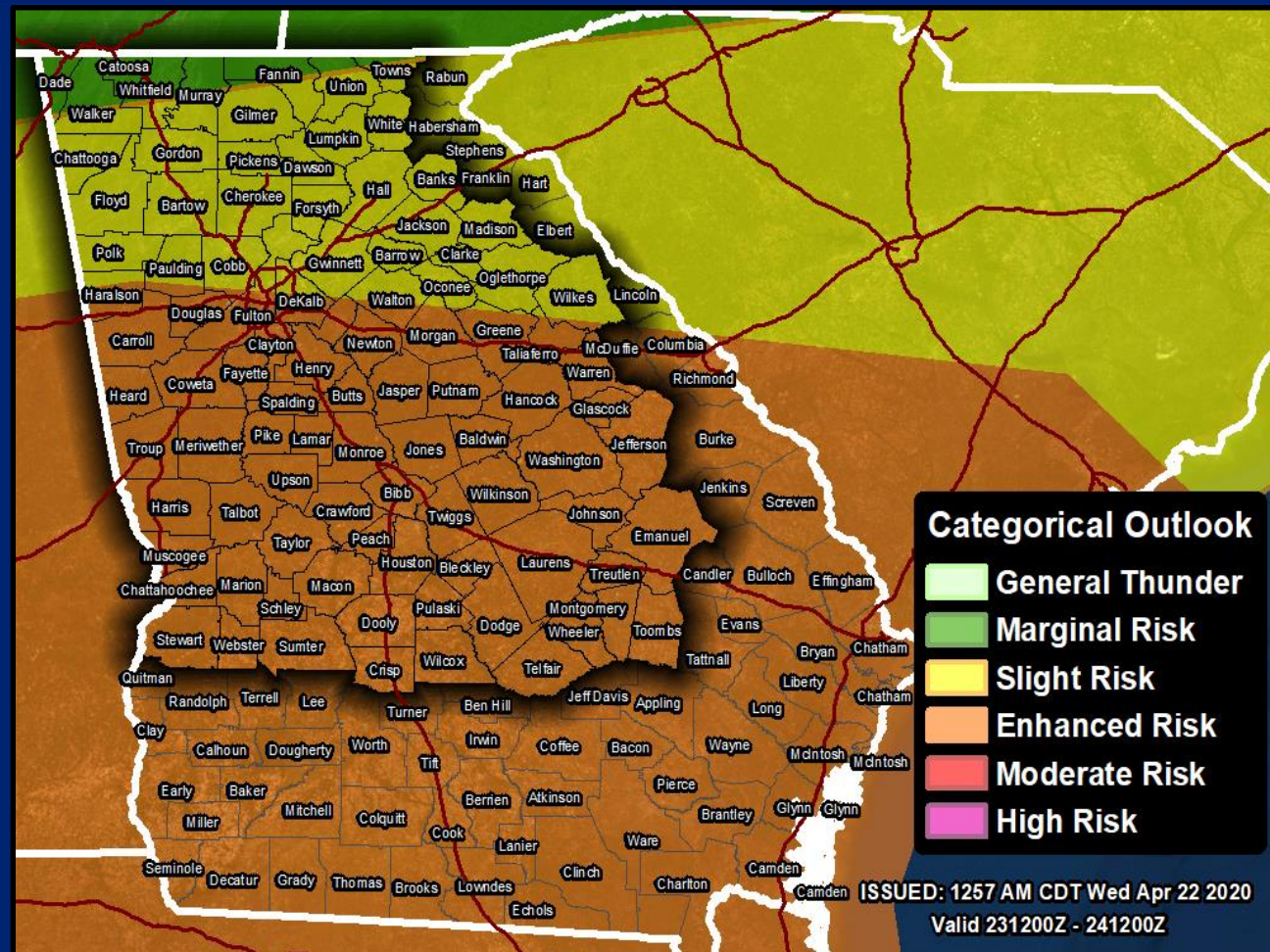
- Potential for severe weather throughout the day on Thursday.
- Highest severe risk is along and south of I-20
- Two possible rounds of severe thunderstorms
  - Line of strong to severe thunderstorms with potential to produce widespread damaging winds expected in the morning and early afternoon.
  - Second round of severe storms capable of producing tornadoes, hail, and damaging wind expected in the late afternoon and night.
- Primary Impacts:
  - Tornadoes (a few strong, long-track possible)
  - Damaging Wind Gusts (could down trees/powerlines)
  - Hail (primarily in west Georgia)
- Heavy rainfall will lead to flash flooding and river flooding concerns.

# SPC Outlook - Thursday



Subject to change with later forecasts

- **Enhanced Risk (level 3) along and south of I-20**
- **Slight Risk (level 2) over much of far north Georgia**
- **Timing:**
  - Round 1 (morning/early afternoon)
  - Round 2 (late afternoon/night)
- **Main Threats:**
  - Tornadoes
  - Damaging Winds
  - Hail
  - Flash Flooding



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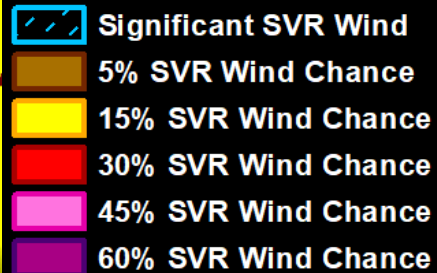


# Damaging Wind Risk

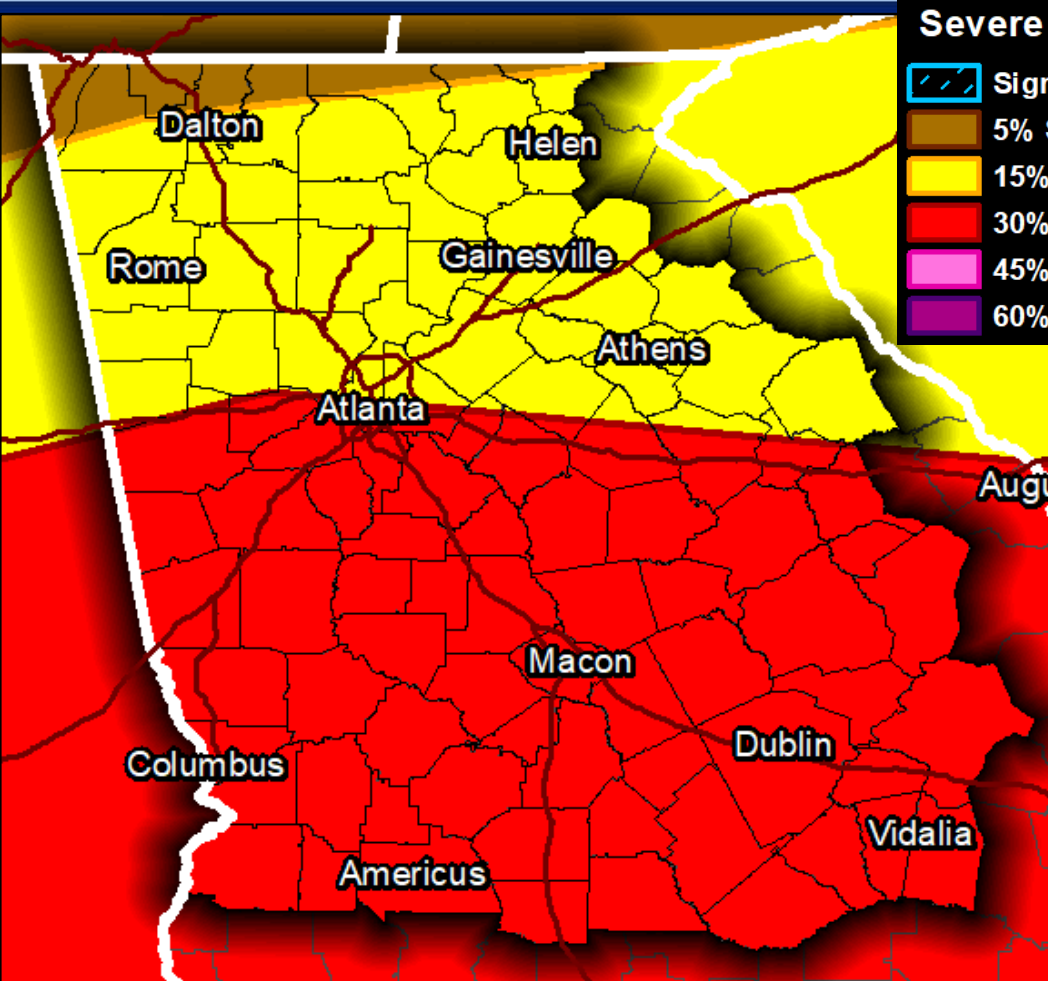


Likely to change w/ later forecasts

## Severe Wind Probability



- Highest Probability along and south of I-20
- Wind gusts up to 60-70 mph possible
  - Damaging wind gusts could bring down trees and power lines



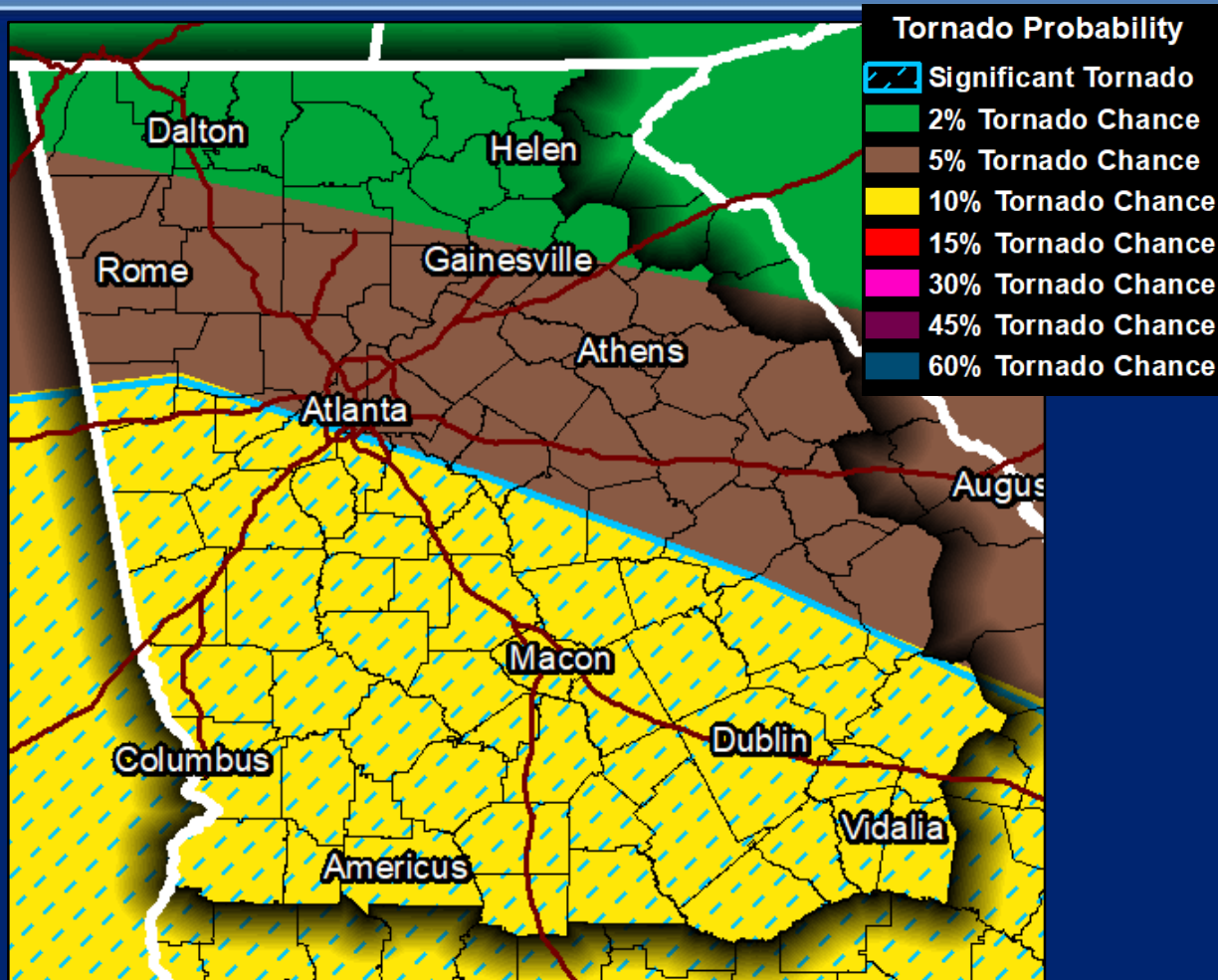
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# Tornado Risk



Likely to change w/ later forecasts



- **Highest Probability Over Central Georgia**

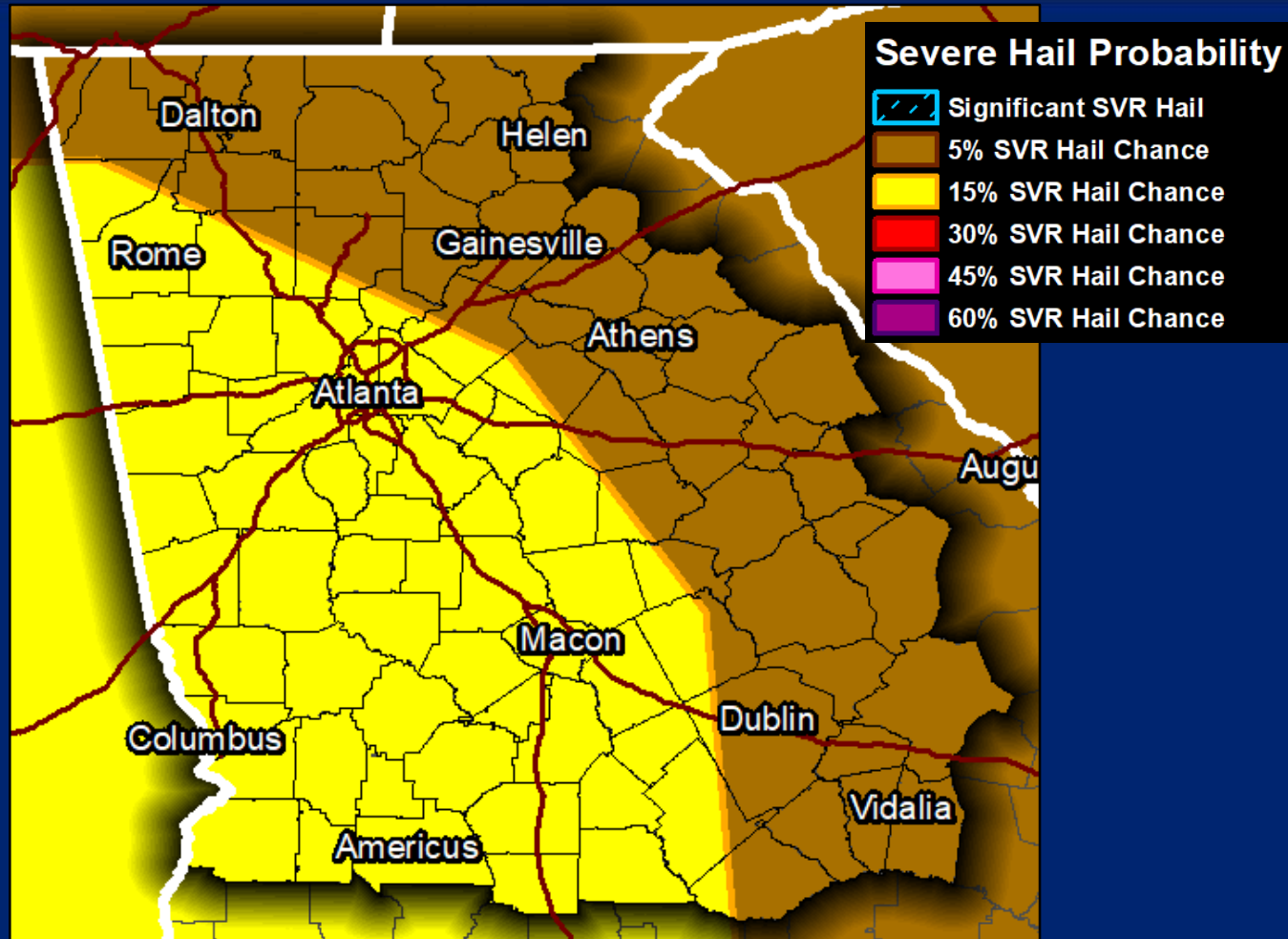
Hatched area is for "significant tornado event"

- A few strong, long-track tornadoes possible in this area

# Hail Risk



Likely to change w/ later forecasts



- Highest Probability over portions of west and central Georgia
- Large hail over 1" in diameter possible, especially western portion of the area.



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# Thunderstorm Timing

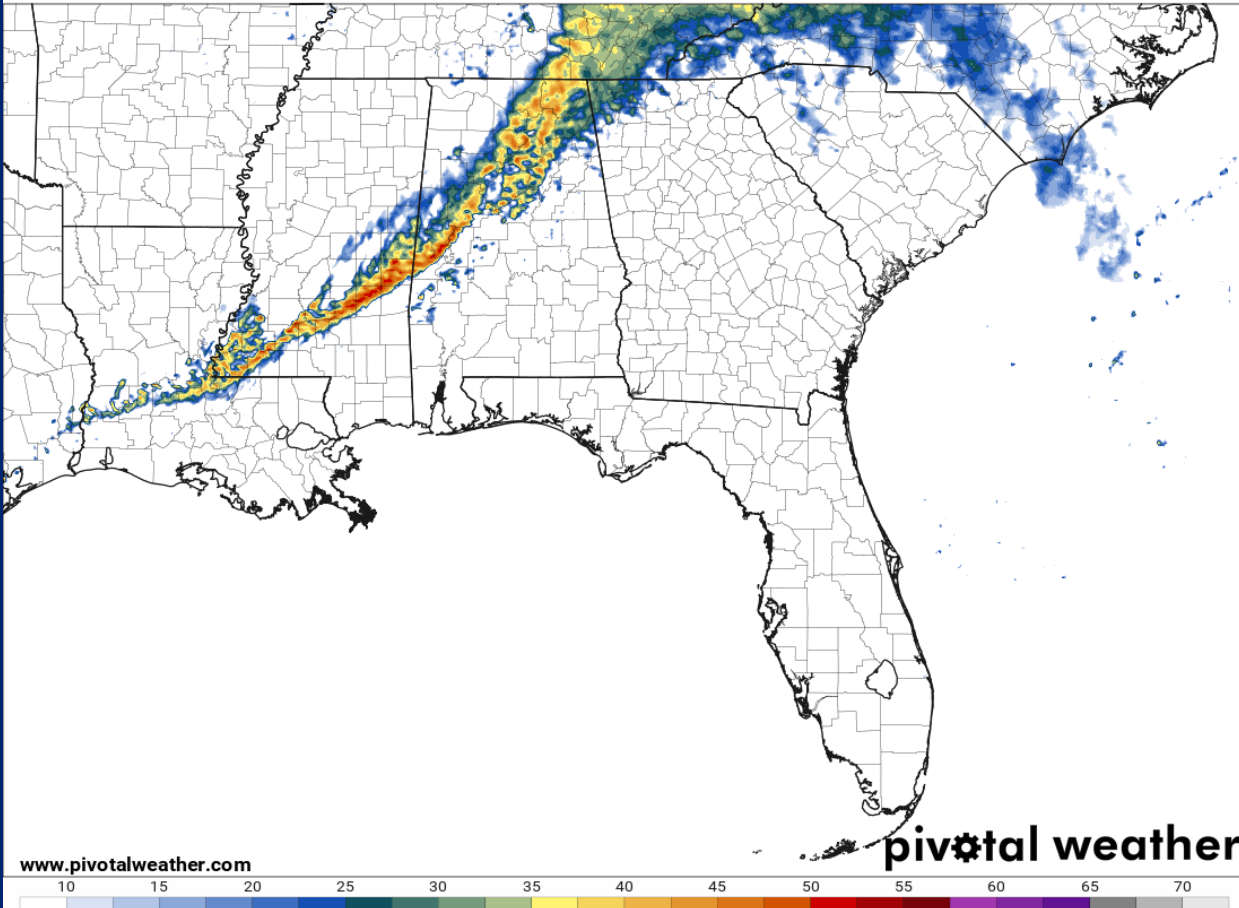


Don't focus on exact timing/location or one model solution.

1 km AGL Reflectivity (dBZ)  
F024 Valid: Thu 2020-04-23 12z

Thursday 8 AM

Init: Wed 2020-04-22 12z NAM 3km CONUS



- Morning/Early Afternoon: An initial line of strong to severe thunderstorms will push through the area.
  - Damaging winds will be the primary concern with the line.
  - Tornado threat will be low in morning, but “non-zero”

# Thunderstorm Timing

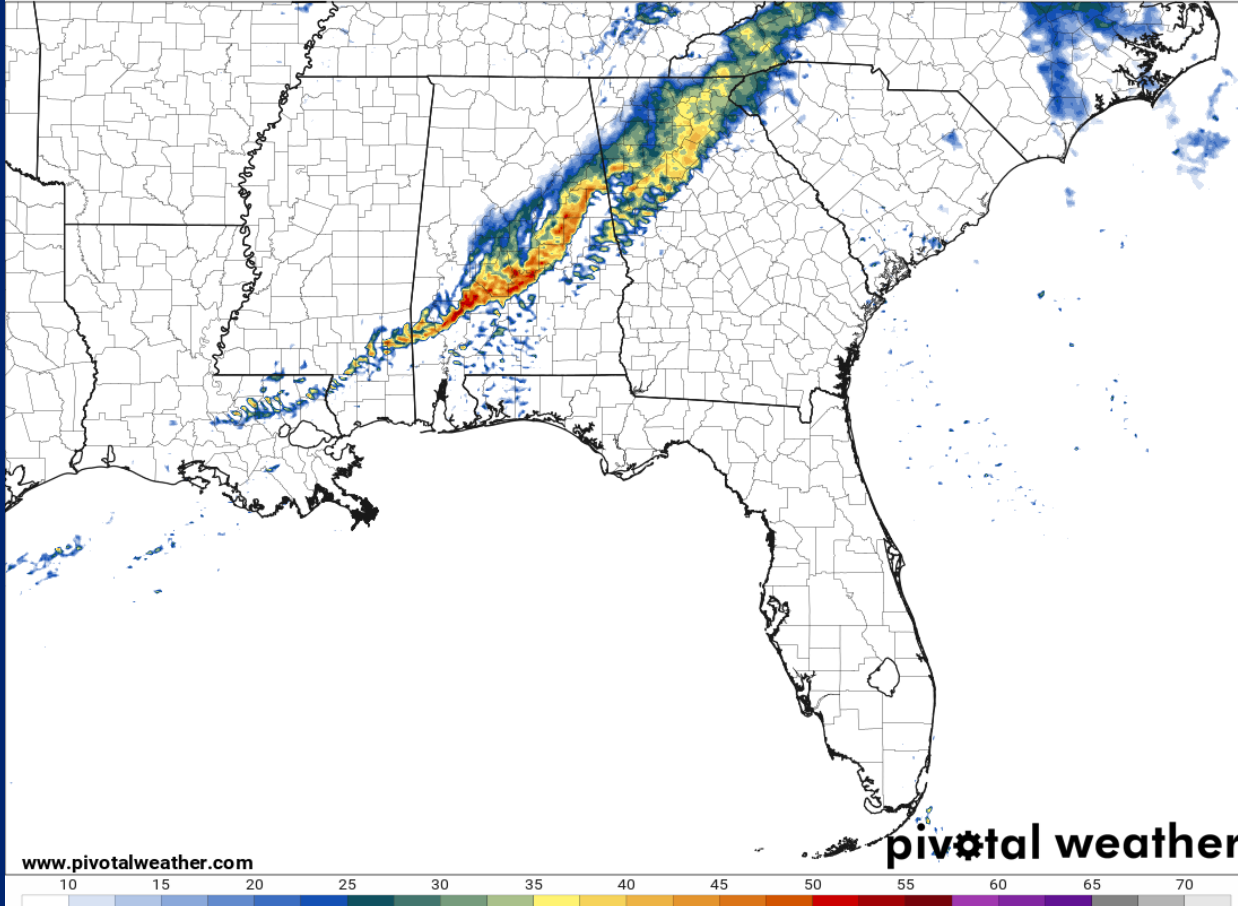


Don't focus on exact timing/location or one model solution.

Thursday 11 AM

1 km AGL Reflectivity (dBZ)  
F027 Valid: Thu 2020-04-23 15z

Init: Wed 2020-04-22 12z NAM 3km CONUS



www.pivotalweather.com

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  - Damaging winds will be the primary concern with the line.
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# Thunderstorm Timing

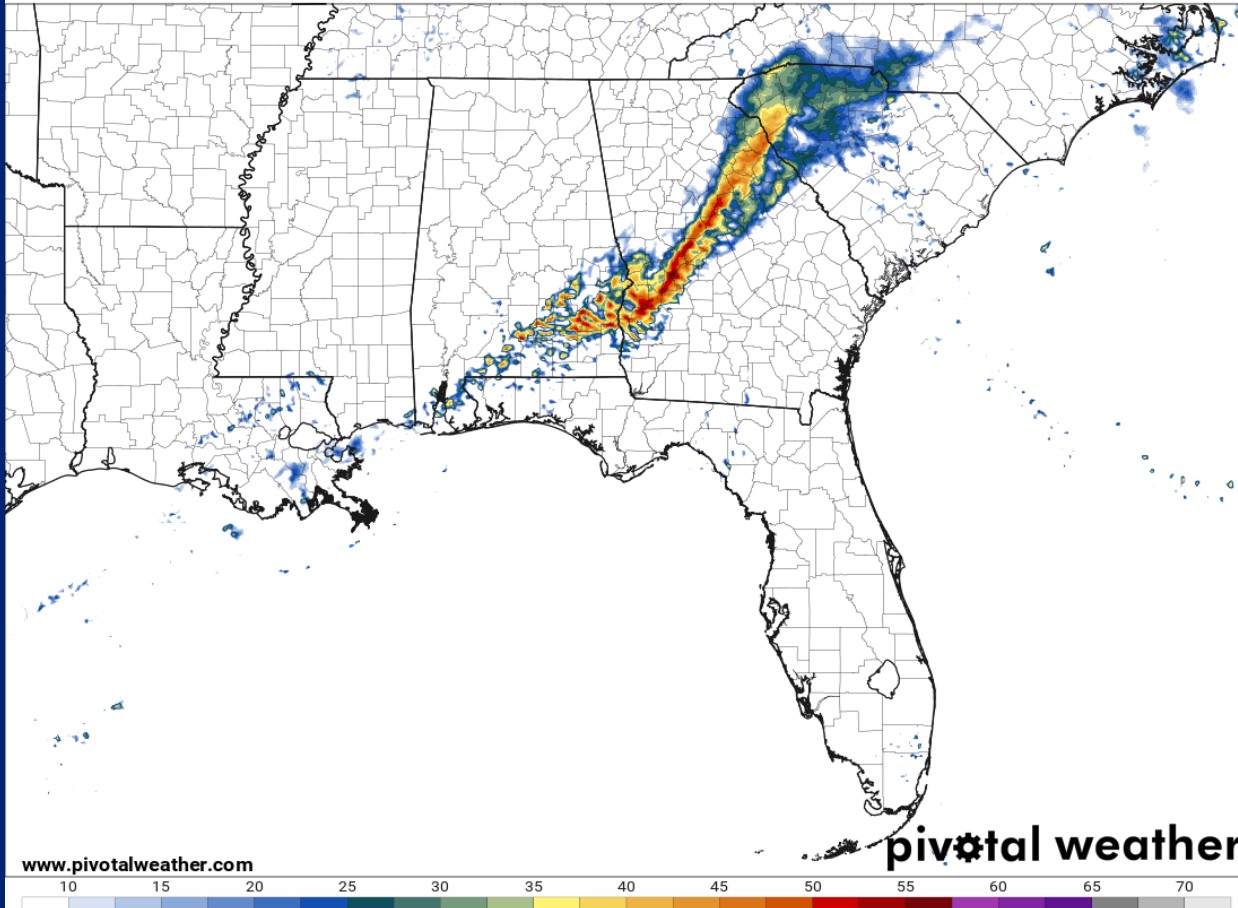
Don't focus on exact timing/location or one model solution.



1 km AGL Reflectivity (dBZ)  
F030 Valid: Thu 2020-04-23 18z

Thursday 2 PM

Init: Wed 2020-04-22 12z NAM 3km CONUS



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- **Mid-Afternoon:** Line of storms will quickly push into east-central Georgia before exiting our area.
  - Damaging winds/heavy rain still possible
  - Clearing behind the line could lead to warming and destabilization.
  - May only take a few hours for “worked over” airmass to recover



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# Thunderstorm Timing

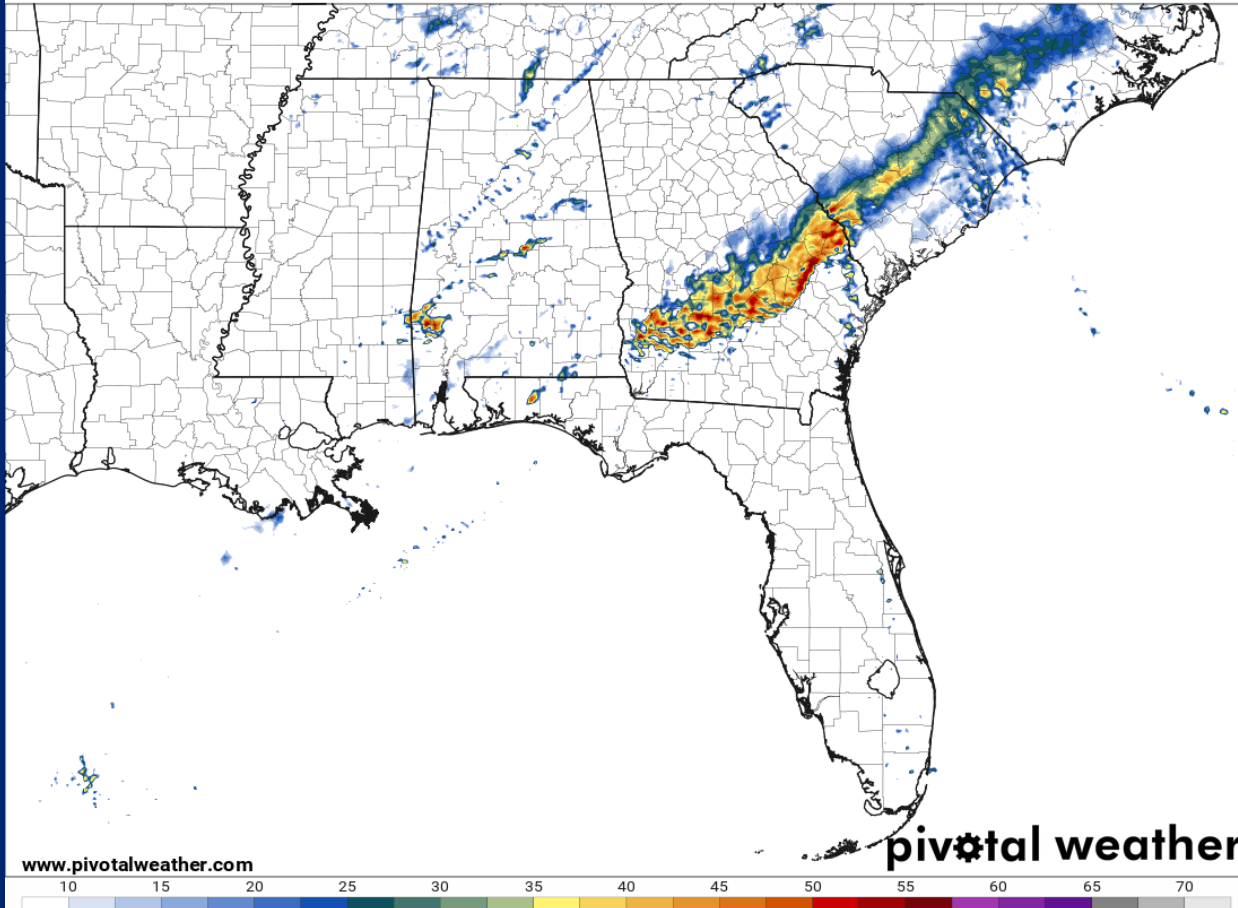


Don't focus on exact timing/location or one model solution.

Thursday 5 PM

1 km AGL Reflectivity (dBZ)  
F033 Valid: Thu 2020-04-23 21z

Init: Wed 2020-04-22 12z NAM 3km CONUS



- Late Afternoon: First round of storms should clear the area, with warming and destabilization ongoing across north and central Georgia.
- Redevelopment of storms beginning across south/central Alabama, and approaching Georgia

# Thunderstorm Timing

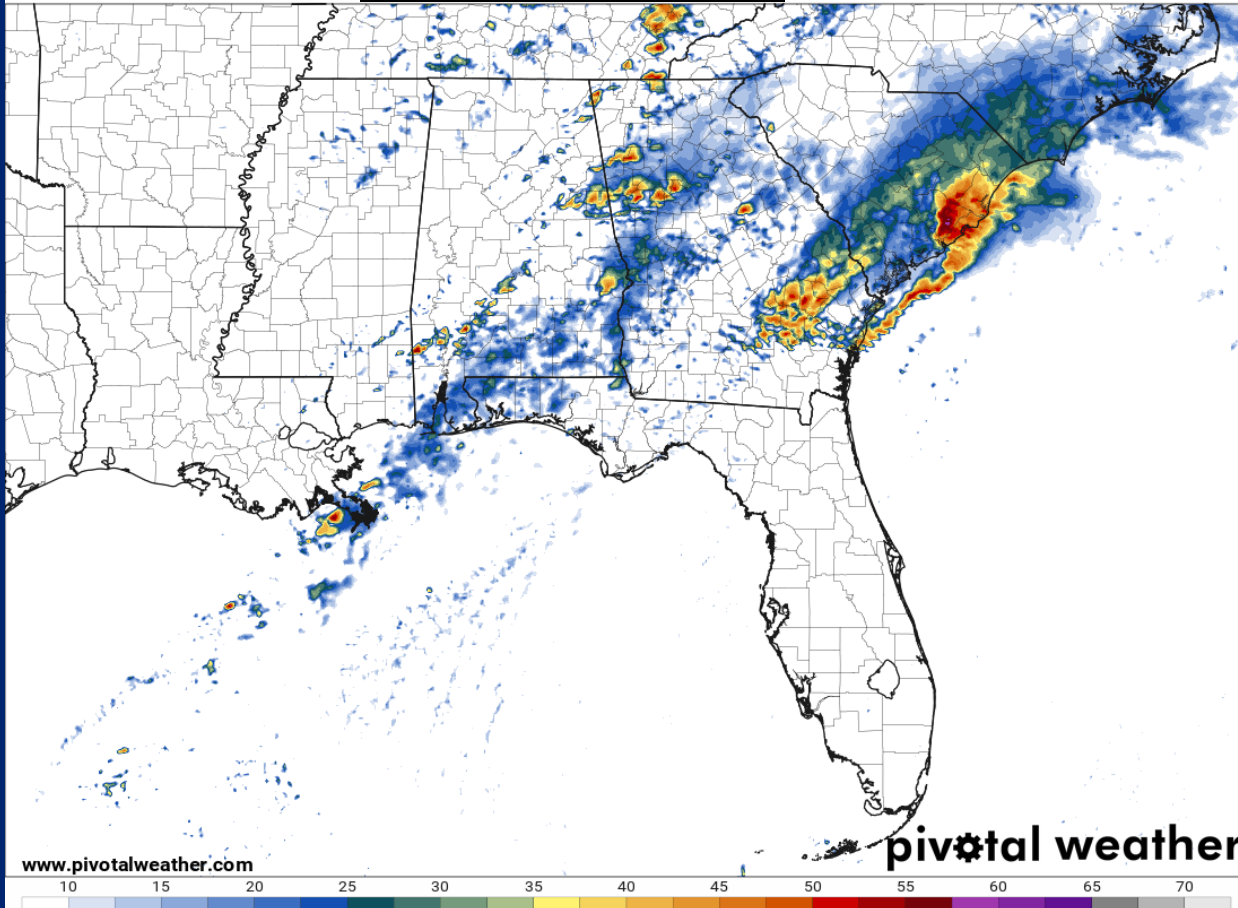
Don't focus on exact timing/location or one model solution.



Composite Reflectivity (dBZ)  
F036 Valid: Fri 2020-04-24 00z

Thursday 8 PM

Init: Wed 2020-04-22 12z NAM 3km CONUS



- Late Thursday Afternoon/Thursday Night: Second round of thunderstorms arrives in the area ahead of the cold front between 5-8 PM.
  - Supercells capable of producing tornadoes, hail, and damaging winds will be a higher possibility.
  - Will be dependent upon afternoon heating.

# Thunderstorm Timing

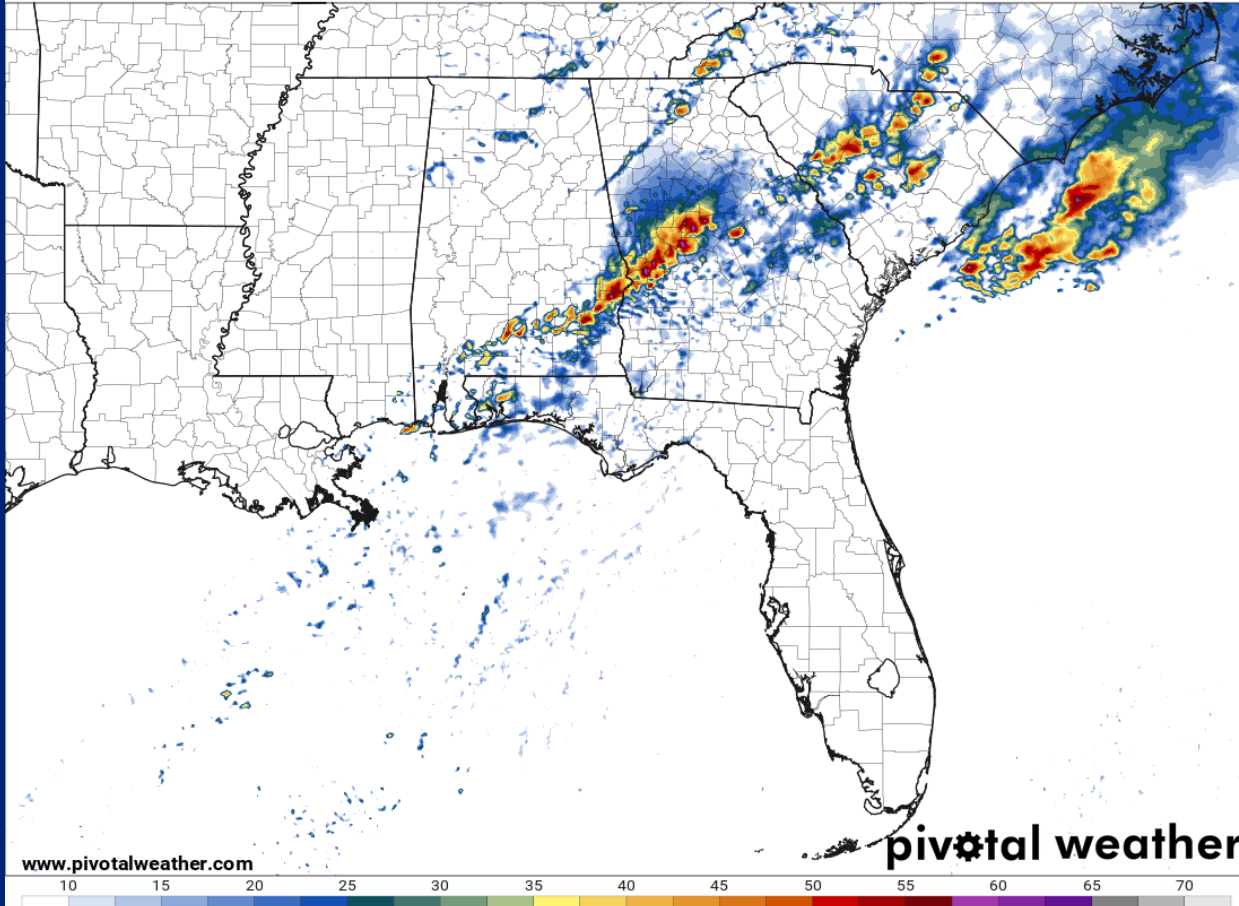
Don't focus on exact timing/location or one model solution.



Composite Reflectivity (dBZ)  
F039 Valid: Fri 2020-04-24 03z

Thursday 11 PM

Init: Wed 2020-04-22 12z NAM 3km CONUS



- Late Thursday Night:  
The second round of thunderstorms pushes into central Georgia.
  - Supercells capable of producing tornadoes, hail, and damaging winds will still be a higher possibility.

# Thunderstorm Timing

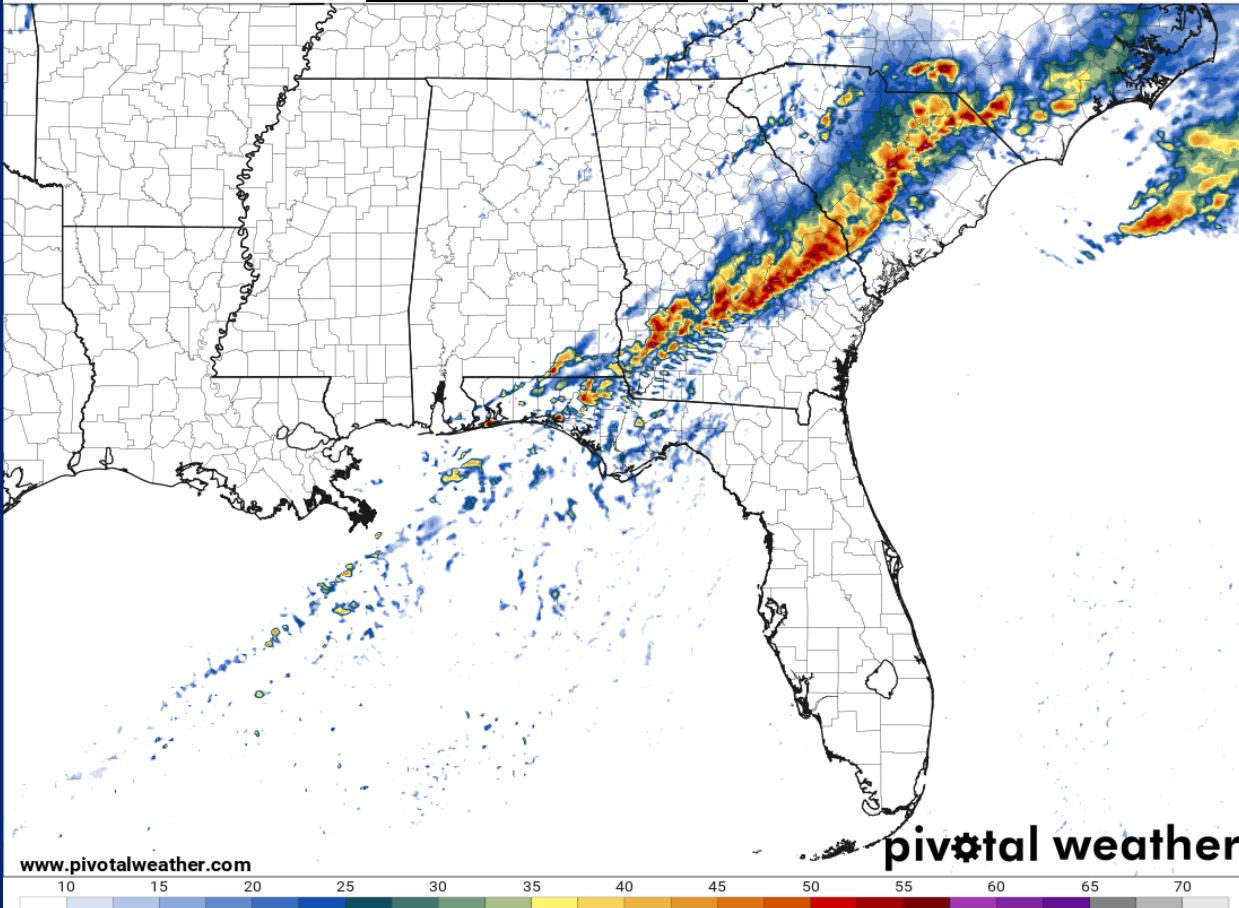


Don't focus on exact timing/location or one model solution.

Composite Reflectivity (dBZ)  
F042 Valid: Fri 2020-04-24 06z

Friday 2 AM

Init: Wed 2020-04-22 12z NAM 3km CONUS



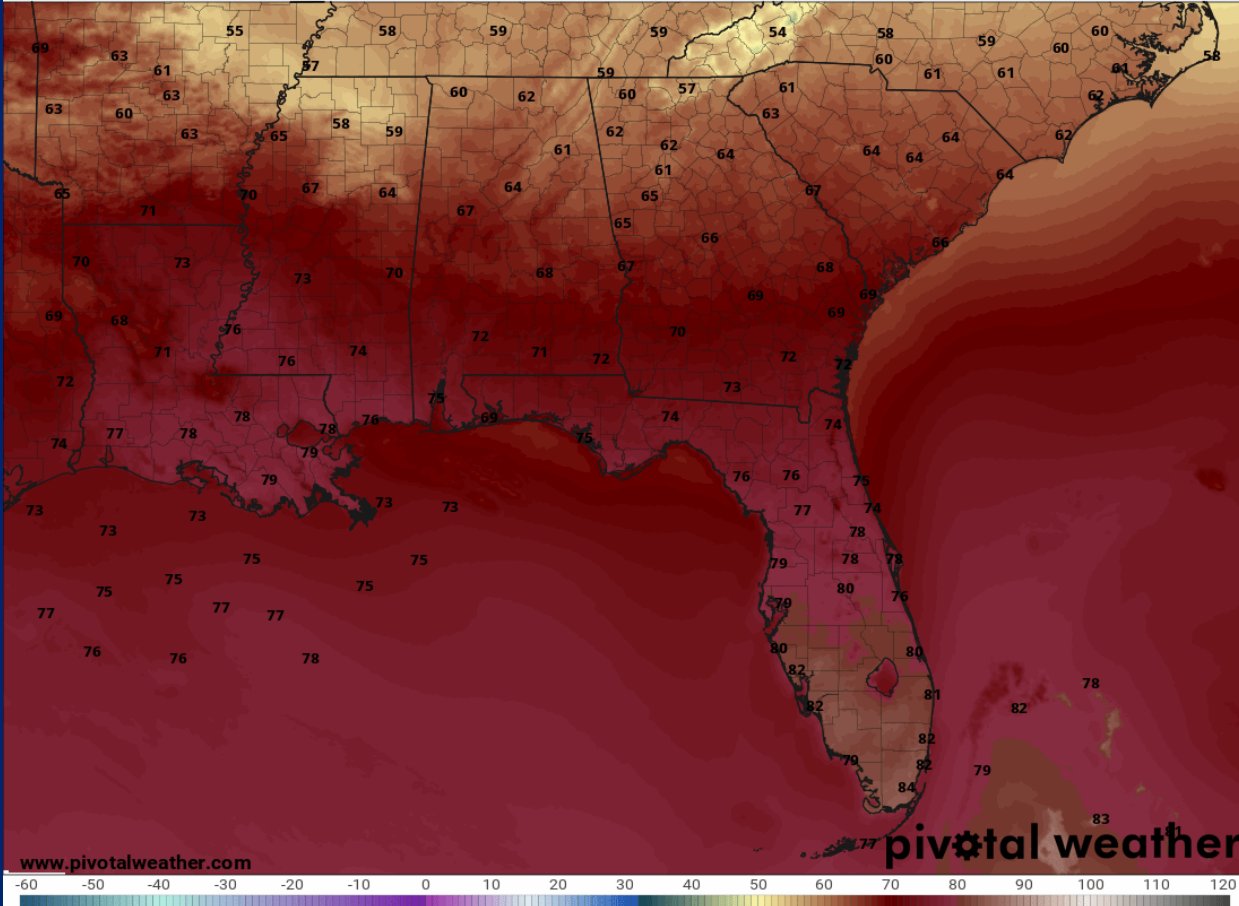
- Early Friday Morning: Severe threat is expected to come to an end after midnight as storms push out of our area.
- Note: This representation is just one model solution, and timing could certainly change.

# Biggest Uncertainty – Afternoon Warming



2 m AGL Temperature (°F)  
F003 Valid: Wed 2020-04-22 15z

Init: Wed 2020-04-22 12z NAM 3km CONUS



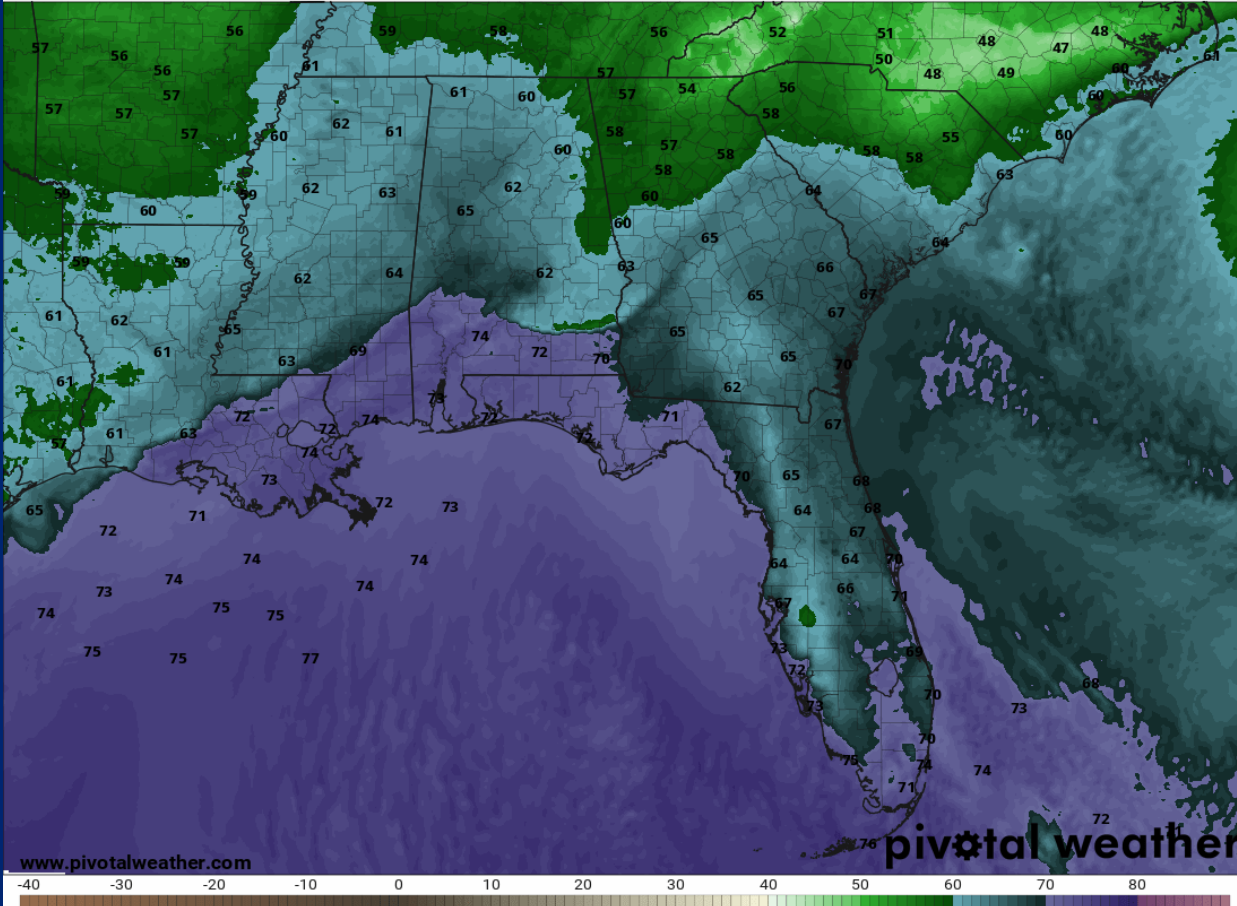
- Uncertainty remains regarding how much temps/dewpoints could climb between the two rounds
  - Will help determine severe potential of second round
  - Higher severe threat where most warming occurs
- Central Georgia:  
Favored location for supercell thunderstorms

# Biggest Uncertainty – Afternoon Warming



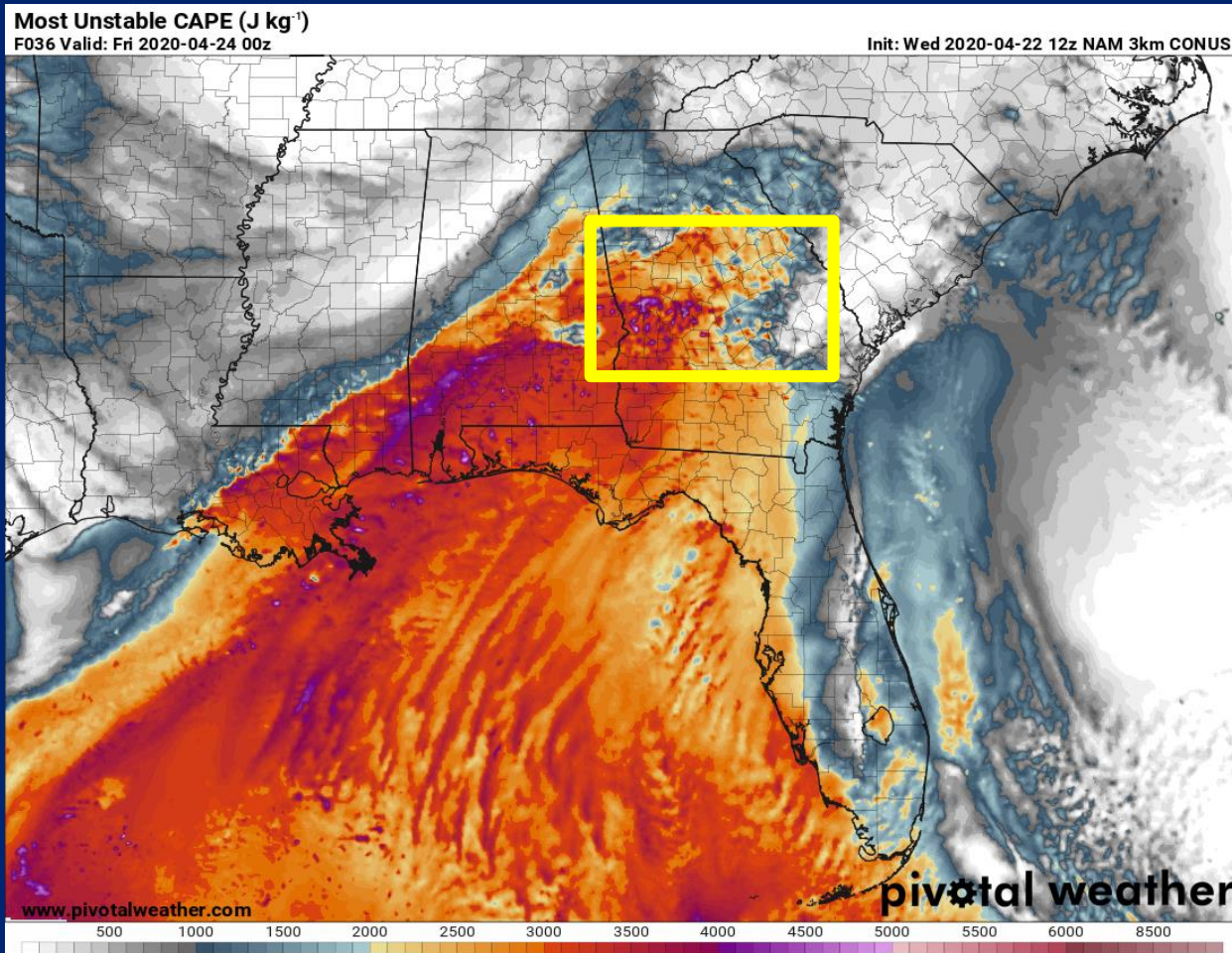
2 m AGL Dew Point (°F)  
F030 Valid: Thu 2020-04-23 18z

Init: Wed 2020-04-22 12z NAM 3km CONUS



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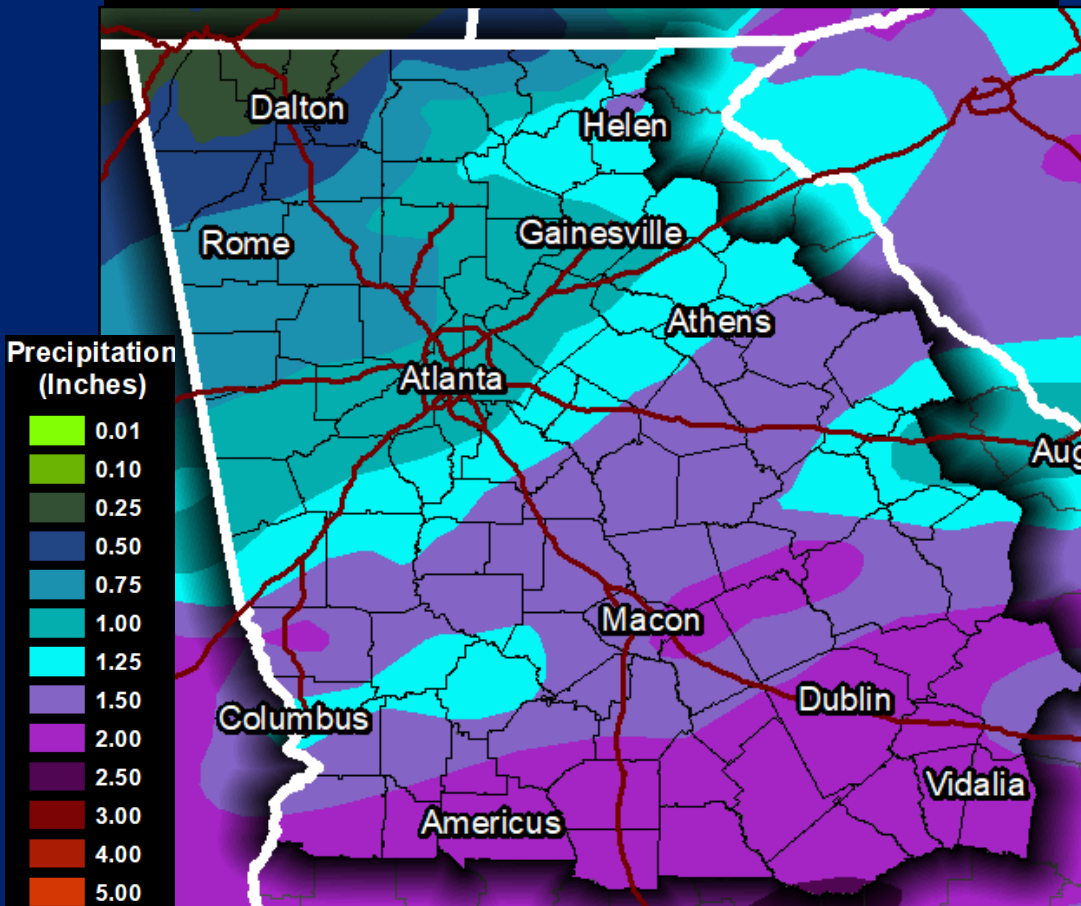


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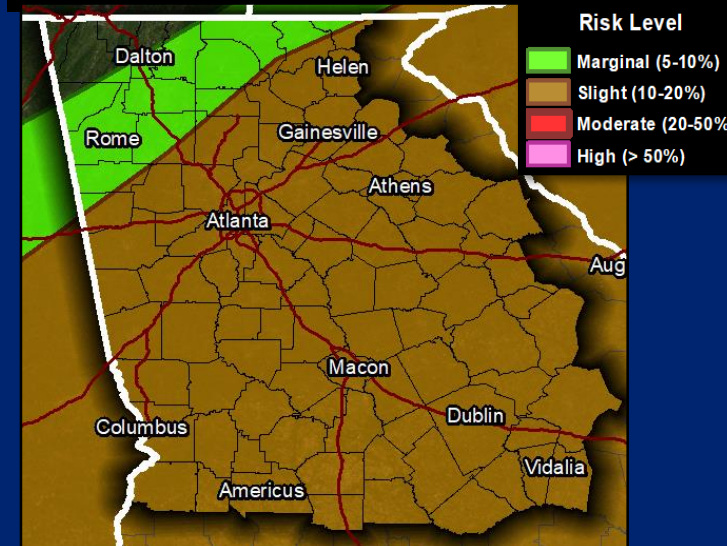
# Heavy Rainfall & Flooding Threat

## Wednesday PM and Thursday Rainfall Totals



- Potential **Flash Flood Watch** in central Georgia for Thursday.
- 1- 2" with locally higher amounts possible where strong storms occur
- Rainfall forecast is subject to change, so don't focus on exact area.

## Day 2 Excessive Rainfall Risk



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# Threat Levels & Confidence

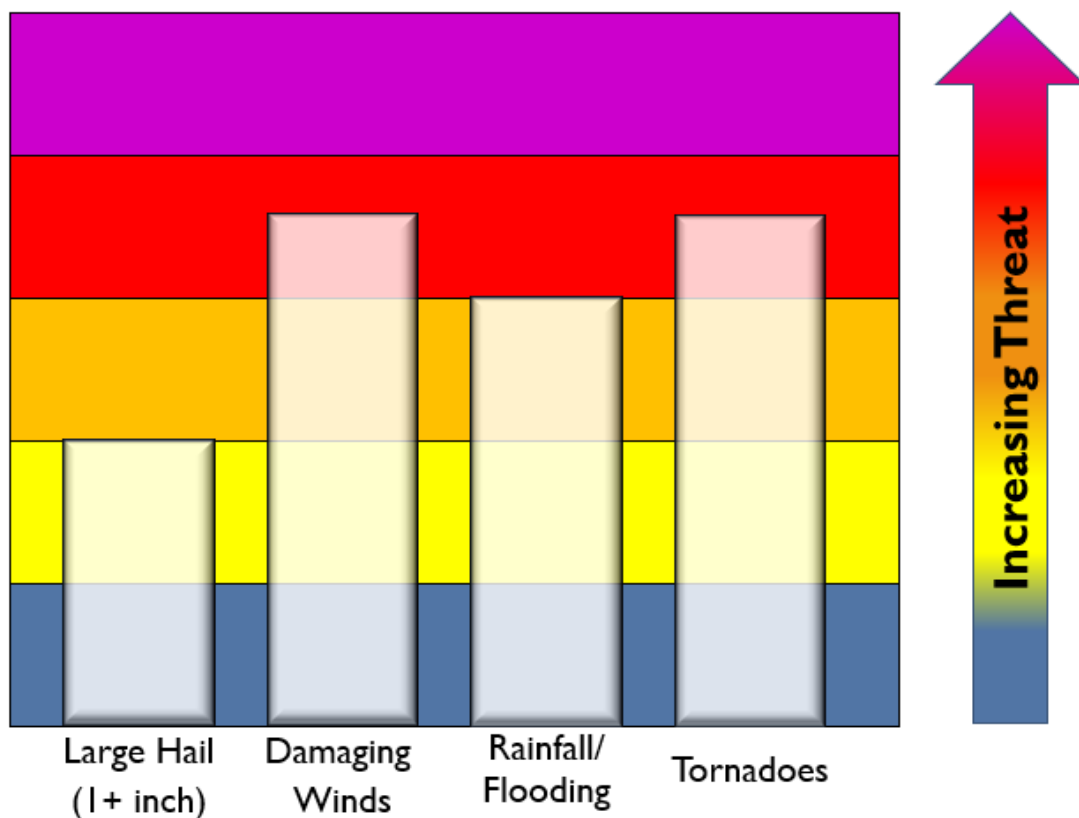
## Threat Levels & Confidence

Thursday Severe Weather

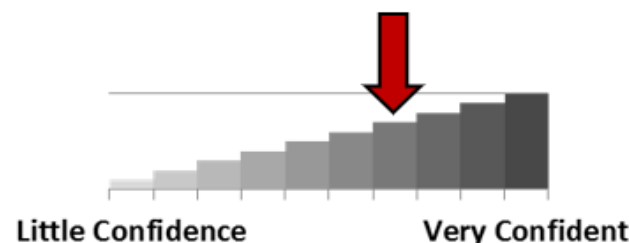


Atlanta/Peachtree City

WEATHER FORECAST OFFICE



### Forecast Confidence



\* Higher confidence on impacts, but lower confidence on timing and location of the storms as the system evolves throughout the day.

### Primary Threats:

(Highest risk is currently anticipated during the afternoon and early evening hours)

- Tornadoes (a few strong/long-track)
- Damaging Winds
- Heavy Rainfall/Flooding
- Hail

4/22/2020 11:28 AM

[www.weather.gov/Atlanta](http://www.weather.gov/Atlanta)



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# Summary



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