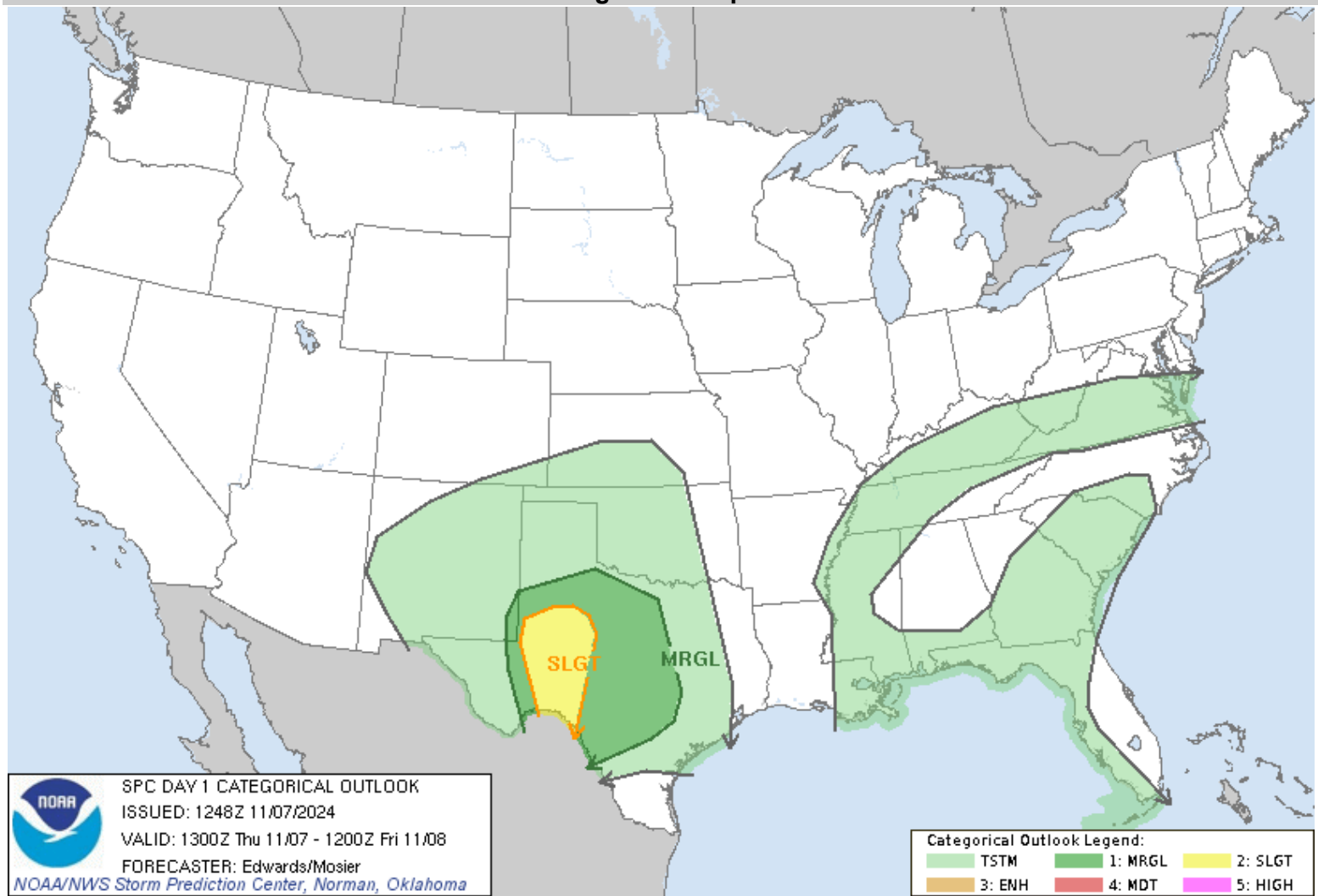


# Nov 7, 2024 1300 UTC Day 1 Convective Outlook

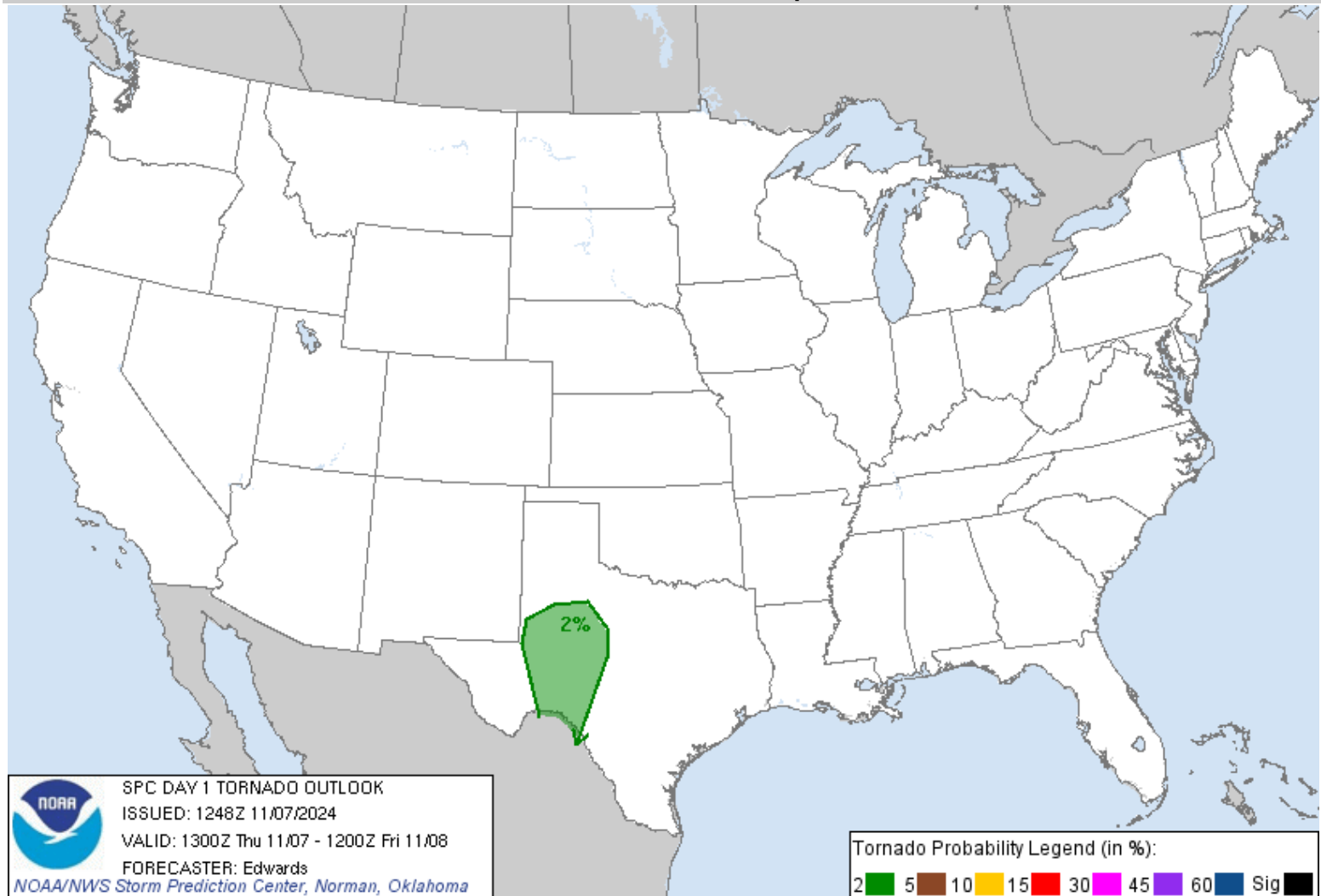
Updated: Thu Nov 7 12:48:37 UTC 2024 ( | )  
[Probabilistic to Categorical Outlook Conversion Table](#)

## Categorical Graphic



| Day 1 Risk | Area (sq. mi.) | Area Pop. | Some Larger Population Centers in Risk Area                                 |
|------------|----------------|-----------|-----------------------------------------------------------------------------|
| SLIGHT     | 31,732         | 591,677   | Midland, TX...Odessa, TX...San Angelo, TX...Del Rio, TX...Eagle Pass, TX... |
| MARGINAL   | 86,453         | 5,967,692 | San Antonio, TX...Austin, TX...Lubbock, TX...Abilene, TX...Killeen, TX...   |

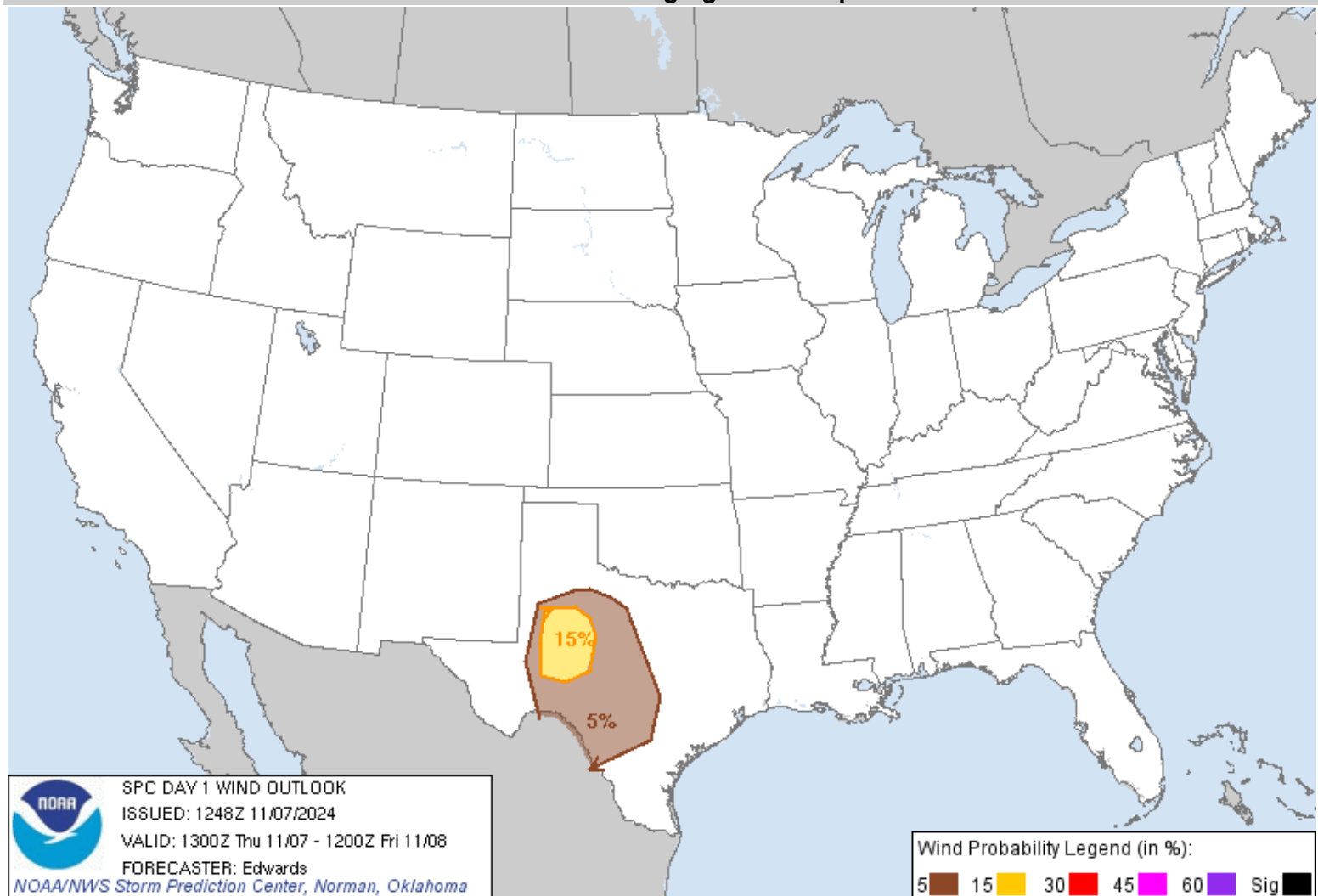
# Probabilistic Tornado Graphic



Probability of a tornado within 25 miles of a point.  
Hatched Area: 10% or greater probability of EF2 - EF5 tornadoes within 25 miles of a point.

| Day 1 Tornado Risk | Area (sq. mi.) | Area Pop. | Some Larger Population Centers in Risk Area                                 |
|--------------------|----------------|-----------|-----------------------------------------------------------------------------|
| 2 %                | 38,866         | 740,169   | Midland, TX...Odessa, TX...San Angelo, TX...Del Rio, TX...Eagle Pass, TX... |

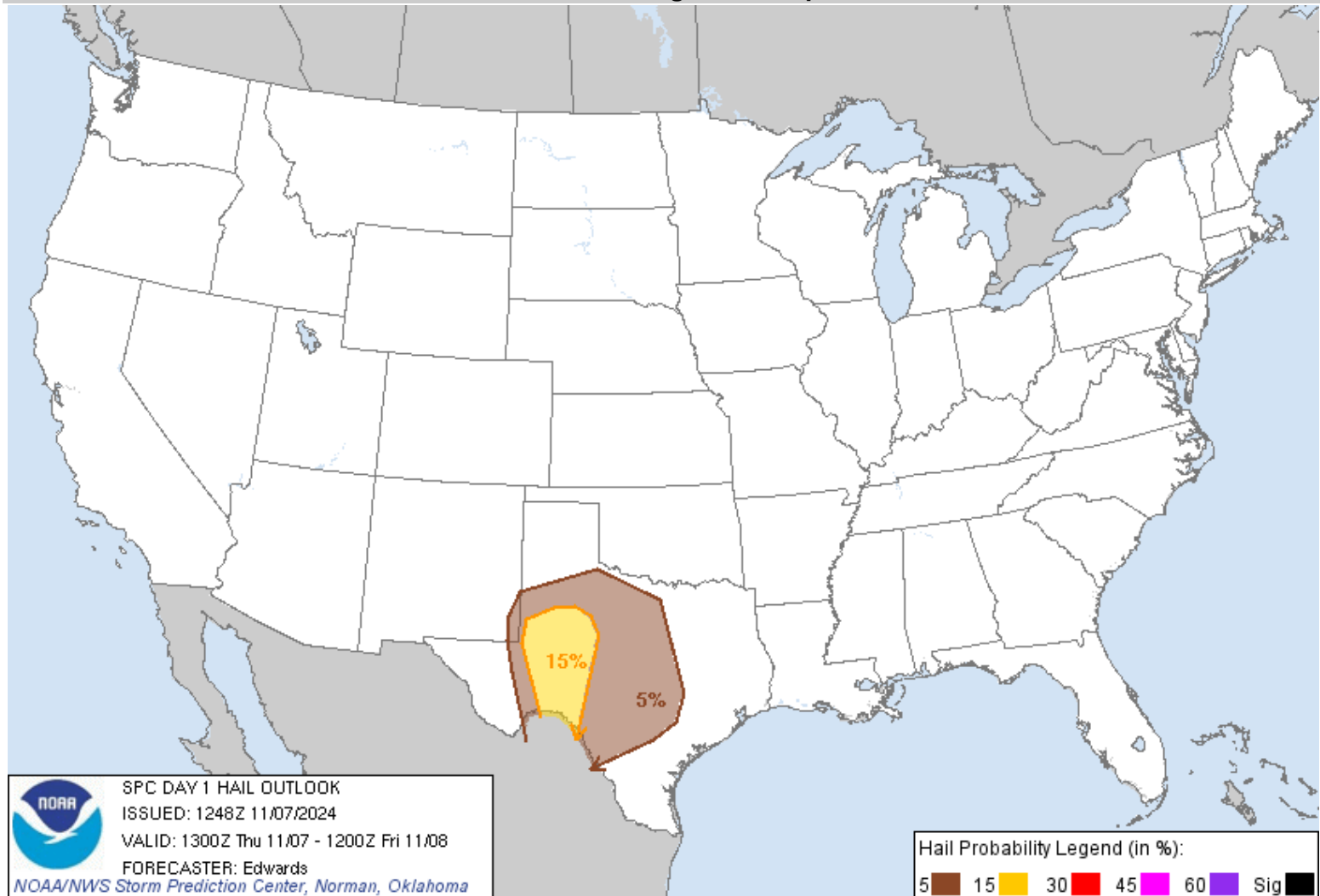
# Probabilistic Damaging Wind Graphic



Probability of damaging thunderstorm winds or wind gusts of 50 knots or higher within 25 miles of a point.  
Hatched Area: 10% of greater probability of wind gusts 65 knots or greater within 25 miles of a point.

| Day 1 Wind Risk | Area (sq. mi.) | Area Pop. | Some Larger Population Centers in Risk Area                                    |
|-----------------|----------------|-----------|--------------------------------------------------------------------------------|
| 15 %            | 16,818         | 351,332   | Midland, TX...San Angelo, TX...Big Spring, TX...Sweetwater, TX...Snyder, TX... |
| 5 %             | 62,506         | 4,058,727 | San Antonio, TX...Austin, TX...Abilene, TX...Odessa, TX...Cedar Park, TX...    |

# Probabilistic Large Hail Graphic



Probability of hail 1" or larger within 25 miles of a point.  
Hatched Area: 10% or greater probability of hail 2" or larger within 25 miles of a point.

| Day 1 Hail Risk | Area (sq. mi.) | Area Pop. | Some Larger Population Centers in Risk Area                                 |
|-----------------|----------------|-----------|-----------------------------------------------------------------------------|
| 15 %            | 31,888         | 591,968   | Midland, TX...Odessa, TX...San Angelo, TX...Del Rio, TX...Eagle Pass, TX... |
| 5 %             | 86,385         | 5,967,405 | San Antonio, TX...Austin, TX...Lubbock, TX...Abilene, TX...Killeen, TX...   |

SPC AC 071248

Day 1 Convective Outlook  
NWS Storm Prediction Center Norman OK  
0648 AM CST Thu Nov 07 2024

Valid 071300Z - 081200Z

...THERE IS A SLIGHT RISK OF SEVERE THUNDERSTORMS ACROSS PARTS OF WEST TEXAS...

...SUMMARY...  
Large hail, isolated severe thunderstorm gusts, and a tornado or two are possible this evening and tonight across parts of west Texas.

...Synopsis...  
A closed and temporarily cut-off, mid/upper-level cyclone was drifting eastward to southeastward over the Desert Southwest and Four Corners regions, and centered near INW. A large, well-developed, baroclinic-leaf formation was apparent in IR and moisture-channel imagery in its eastern semicircle, across much of NM and CO, and extending across the central High Plains. The 500-mb low is forecast to move slowly to central NM through the period, while a shortwave trough now north of the low pivots around the southern/southeaster side of the cyclone tonight. Associated height falls and large-scale ascent will gradually overspread west TX and the southern High Plains, both in the form of DCVA nearer to the cyclone core, and warm advection over much of the southern Plains to its east.

Meanwhile, per latest NHC forecasts, Hurricane Rafael will continue to move westward away from the Keys and Cuba, toward the central/south-central Gulf. This will occur south of an arc of mid/upper ridging extending from the subtropical Atlantic across FL and the north-central to southwestern Gulf.

At the surface, the key feature for today's forecast will be a cold front -- drawn at 11Z from the Ohio Valley across central AR, to near a TXK-ERV line and becoming stationary to warm westward to a low near the Rio Grande, south of 6R6. Another low was drawn between MAF-FST, and warm frontogenesis apparent to its east-southeast likely will persist and result in effective northward displacement of the western segment of the main frontal zone with time today. As the aforementioned shortwave trough pivots toward the region, surface cyclogenesis is expected over the lower Pecos Valley/Permian Basin region of west TX, consolidating the previously elongated, multi-centered low-pressure area. The low should move northward or north-northeastward tonight, toward the Caprock region of northwest TX, with a cold front to its south extending to the Big Bend region. Meanwhile, the warm-frontal segment should advance northward over west-central TX, though considerable mesoscale uncertainty remains as to how far, given:

1. The strength of the ambient continental/polar airmass to its north and
2. Probable reinforcement by convection/precip on the cool side much of today.

...West and central TX...

Predominantly elevated thunderstorms are expected to develop today and gradually increase in coverage while moving northward over central and northwest TX, in a weakly capped plume of strengthening warm advection, moisture transport and ascent to LFC. Isolated severe hail is possible with this activity, though lack of substantial buoyancy should limit overall severe potential to marginal in coverage and intensity.

As that process continues, a diurnally heated slot of return-flow boundary-layer air, containing increasingly unstable, surface-based parcels, will spread from south-central TX, the Rio Grande Valley and the southern Hill Country northwestward toward the frontal and cyclogenetic regimes. Diurnal heating and moist advection are expected to yield favorable warm-sector destabilization. Surface dewpoints increasing into the low 60s F in northern areas and upper 60s to near 70 F over southern parts of the outlook will yield peak/preconvective MLCAPE in the 1500-2000 J/kg range ahead of the cold front and south of about I-20, with sharp reductions across the front toward the upper cyclone, and northward into the ambient rain-cooled airmass.

Meanwhile, large-scale ascent will continue to increase gradually on both sides of the front, peaking late overnight. These processes will support isolated to scattered thunderstorm development from late afternoon into tonight, along the front and over higher terrain in the Big Bend region. Some of this activity may be supercellular for a few hours, with all severe hazards possible. Forecast hodographs indicate some tornado potential, especially near the low and if a discrete storm can interact with a favorably aligned segment of the front while maintaining warm-sector surface inflow. Aforementioned mesoscale uncertainties preclude a more-focused, unconditional 5% tornado area at this time. The delay in the strongest forcing for ascent after the peak buoyancy and the potential for evolution to extensively messy modes also renders tornado potential quite conditional. Convective coverage overall should increase to scattered/numerous, expand to both sides of the front as cooling aloft overspreads the region, and render much messier convective mode. Large hail will be possible on either side of the front, especially with relatively sustained/discrete cells, and damaging gusts will be most probable with convection moving into/through the warm sector.

..Edwards/Mosier.. 11/07/2024

NOTE: THE NEXT DAY 1 OUTLOOK IS SCHEDULED BY 1630Z  
CURRENT UTC TIME: **1255Z (5:55AM)**, RELOAD THIS PAGE TO UPDATE THE TIME