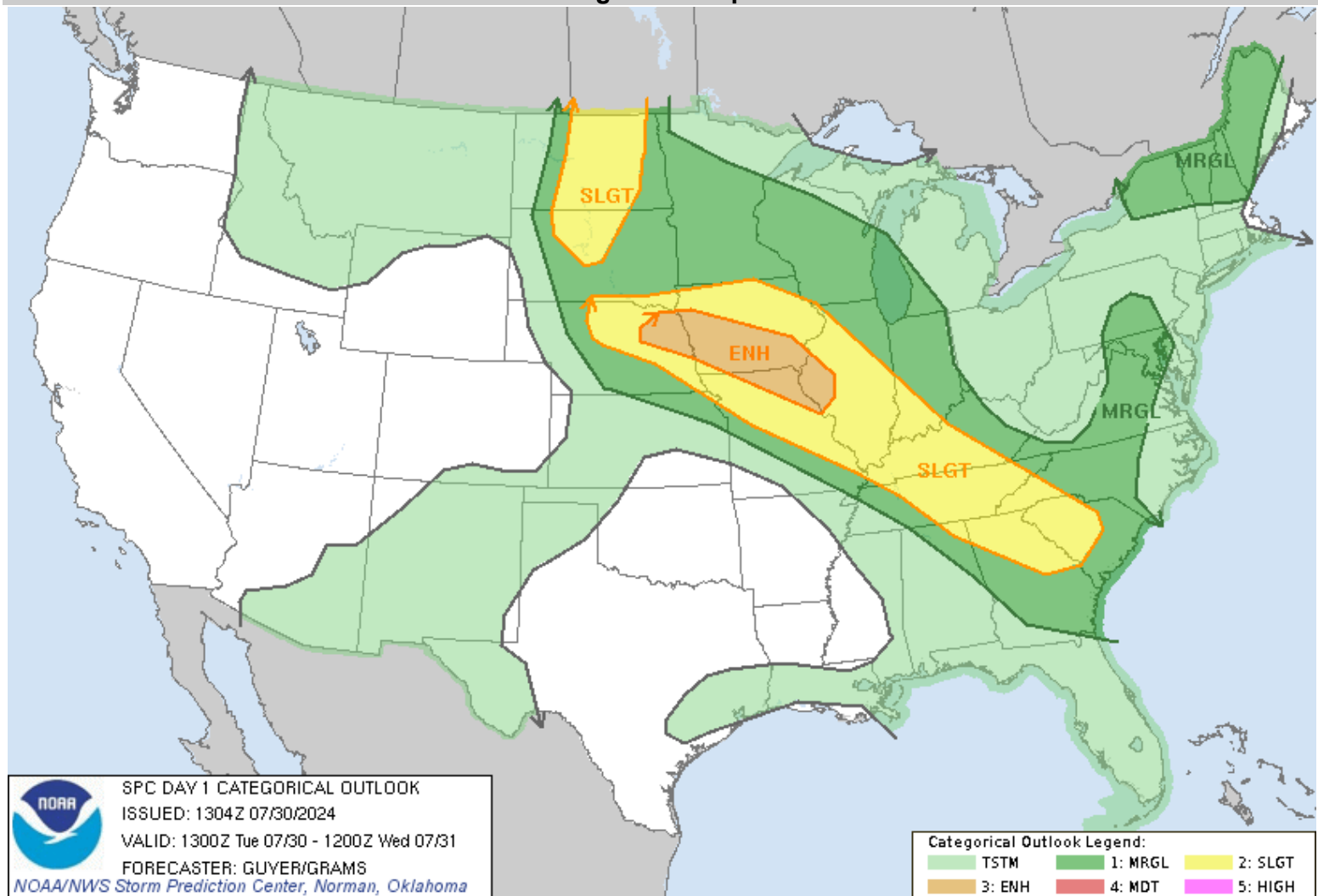


Jul 30, 2024 1300 UTC Day 1 Convective Outlook

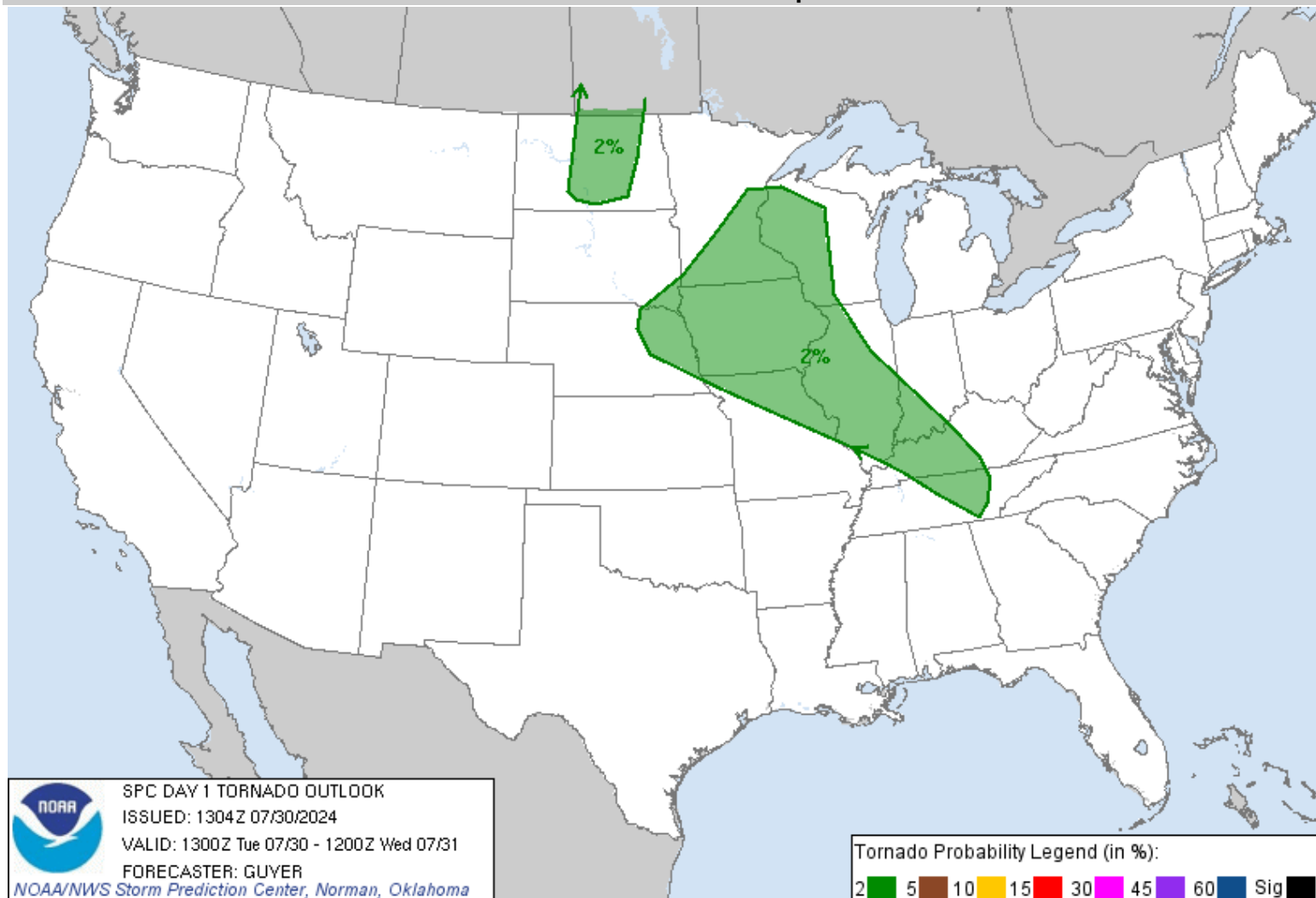
Updated: Tue Jul 30 13:04:58 UTC 2024 (📡 | 🌐)
[Probabilistic to Categorical Outlook Conversion Table](#)

Categorical Graphic



Day 1 Risk	Area (sq. mi.)	Area Pop.	Some Larger Population Centers in Risk Area
ENHANCED	48,275	2,642,458	Omaha, NE...Des Moines, IA...Sioux City, IA...Council Bluffs, IA...Ames, IA...
SLIGHT	269,958	25,761,220	Nashville, TN...Atlanta, GA...St. Louis, MO...Louisville, KY...Lincoln, NE...
MARGINAL	479,345	64,047,955	Chicago, IL...Indianapolis, IN...Baltimore, MD...Charlotte, NC...Milwaukee, WI...

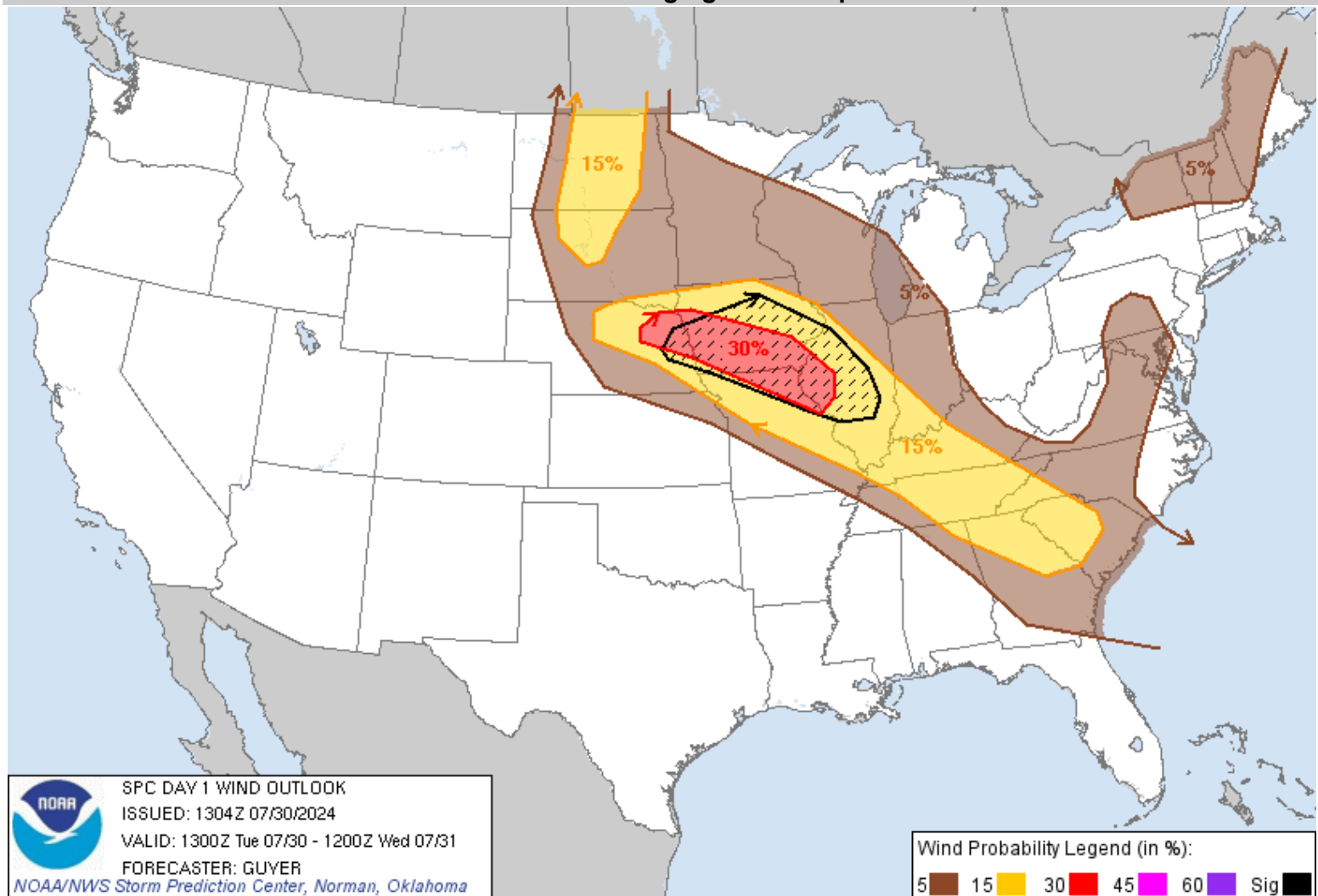
Probabilistic Tornado Graphic



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 %	251,980	19,383,539	Omaha, NE...Minneapolis, MN...St. Louis, MO...St. Paul, MN...Louisville, KY...

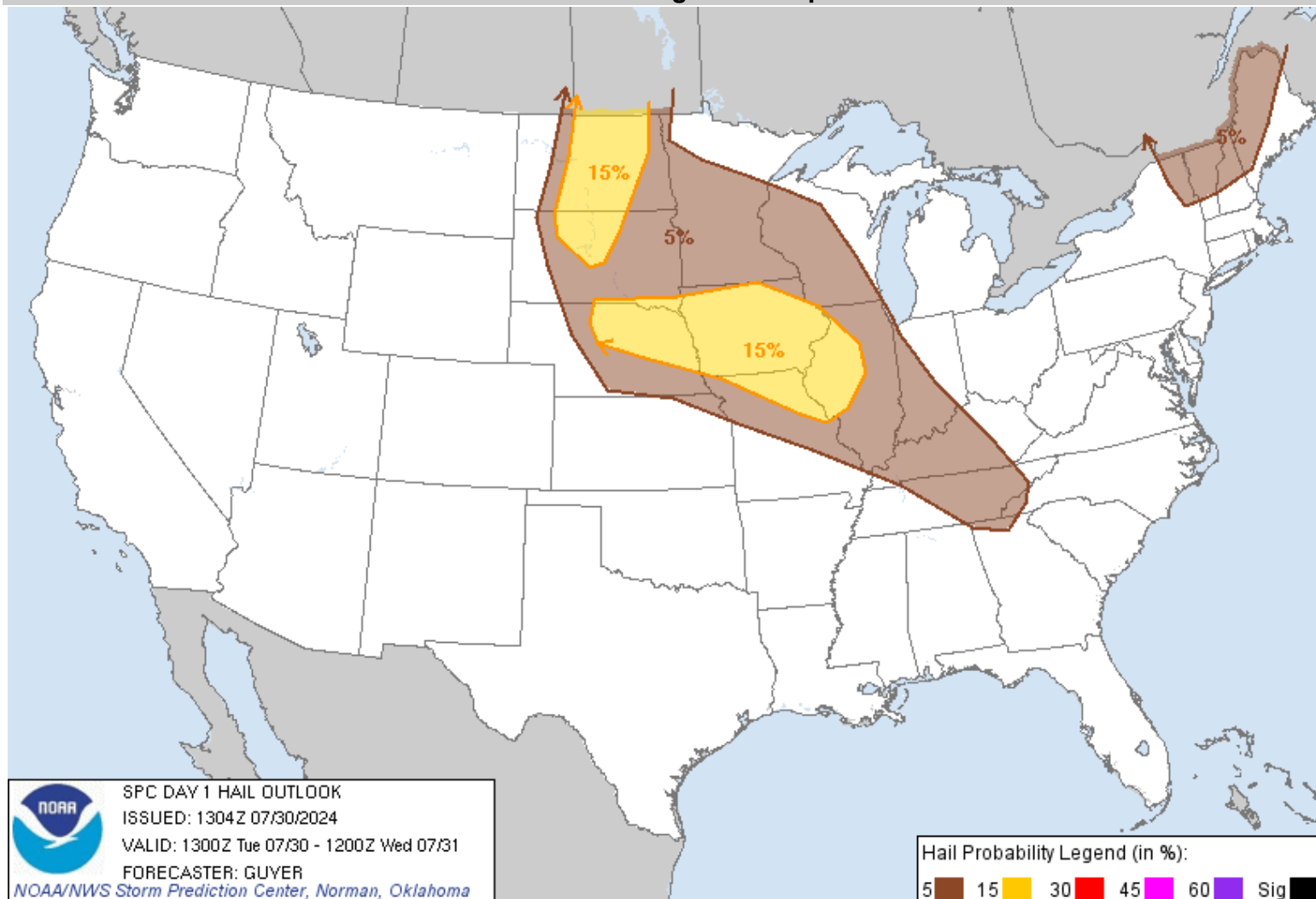
Probabilistic Damaging Wind Graphic



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
SIG SEVERE	76,914	5,398,235	Omaha, NE...Des Moines, IA...Cedar Rapids, IA...Springfield, IL...Peoria, IL...
30 %	48,275	2,642,458	Omaha, NE...Des Moines, IA...Sioux City, IA...Council Bluffs, IA...Ames, IA...
15 %	265,033	25,740,714	Nashville, TN...Atlanta, GA...St. Louis, MO...Louisville, KY...Lincoln, NE...
5 %	484,382	64,044,854	Chicago, IL...Indianapolis, IN...Baltimore, MD...Charlotte, NC...Milwaukee, WI...

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 %	161,132	6,201,631	Omaha, NE...Des Moines, IA...Cedar Rapids, IA...Springfield, IL...Peoria, IL...
5 %	356,598	36,320,881	Chicago, IL...Indianapolis, IN...Nashville, TN...Kansas City, MO...Minneapolis, MN...

SPC AC 301304

Day 1 Convective Outlook
NWS Storm Prediction Center Norman OK
0804 AM CDT Tue Jul 30 2024

Valid 301300Z - 311200Z

...THERE IS AN ENHANCED RISK OF SEVERE THUNDERSTORMS ACROSS THE MIDDLE MISSOURI VALLEY/MIDWEST...

...THERE IS A SLIGHT RISK OF SEVERE THUNDERSTORMS ACROSS THE NORTHERN/CENTRAL PLAINS TO THE SOUTHEAST...

...SUMMARY...

Severe storms are expected today into tonight across a broad area from eastern Nebraska and Iowa into parts of the Midwest, Tennessee Valley and southern Appalachians, with swaths of damaging winds possible within this corridor. Severe storms are also possible across parts of the northern Plains.

...Central Plains/Upper Midwest to OH/TN Valleys...

Very challenging meteorological scenario with highly variable guidance as far as MCS development/disposition today. However, a rather favorable set of ingredients will generally coincide, spanning east/northeast Nebraska into Iowa, northern Missouri and western Illinois, and to some extent even farther southeastward into the Tennessee Valley. Very strong buoyancy will exist within this MCS/outflow-reinforced corridor, with a strong elevated mixed layer -- yet not overly warm aloft for the season -- atop a moist boundary layer. Seasonally strong west-northwesterly winds aloft will also reside in this general corridor, with potential for multiple east/southeastward-moving MCSs today and tonight. Swath of damaging wind gusts (potentially in excess of 75 mph) are plausible.

With a remnant thunderstorm cluster across Illinois, some re-intensification of this convection may occur across the lower Ohio Valley toward the Tennessee Valley, with a modestly strong northwesterly flow regime and ample downstream instability. Isolated to scattered damaging wind should be the primary threat.

Meanwhile, multiple thunderstorm clusters across Siouxland this morning from southeast South Dakota into northwest/western Iowa may continue to pose a severe risk, with some potential that these storms could merge/organize later today along the instability gradient. There is also potential that additional storm development may occur by late afternoon/early evening across northern Nebraska/far southern South Dakota near a surface low/troughs, with these storms potentially increasing and evolving into an MCS tonight, aided by a nocturnally strengthening low-level jet.

...Northern Plains...

Weak height falls amid moderate to strong instability may lead to widely scattered thunderstorm development along a surface trough/dryline across the Dakotas this afternoon. Moderate westerlies should support moderate deep-layer vertical shear around 30-35 kt, sufficient for a few organized storms capable of both large hail and damaging gusts.

...Northern New York to northern New England...

Moderate buoyancy may develop this afternoon from northern New York into northern New England. While storm coverage remains somewhat uncertain, deep-layer shear and relatively cool temperatures aloft could support a couple modestly organized storms capable of locally damaging wind, and possibly some hail.

...Mid-Atlantic vicinity...

A mid/upper-level trough and possibly an MCV will move across the Mid Atlantic vicinity later today. Scattered thunderstorm development is expected by afternoon from northern Virginia into parts of Pennsylvania. While there is some uncertainty regarding the extent of heating and destabilization, a couple stronger cells/clusters may become capable of producing isolated damaging winds.

..Guyer/Grams.. 07/30/2024

NOTE: THE NEXT DAY 1 OUTLOOK IS SCHEDULED BY 1630Z
CURRENT UTC TIME: **1315Z (6:15AM)**, RELOAD THIS PAGE TO UPDATE THE TIME