

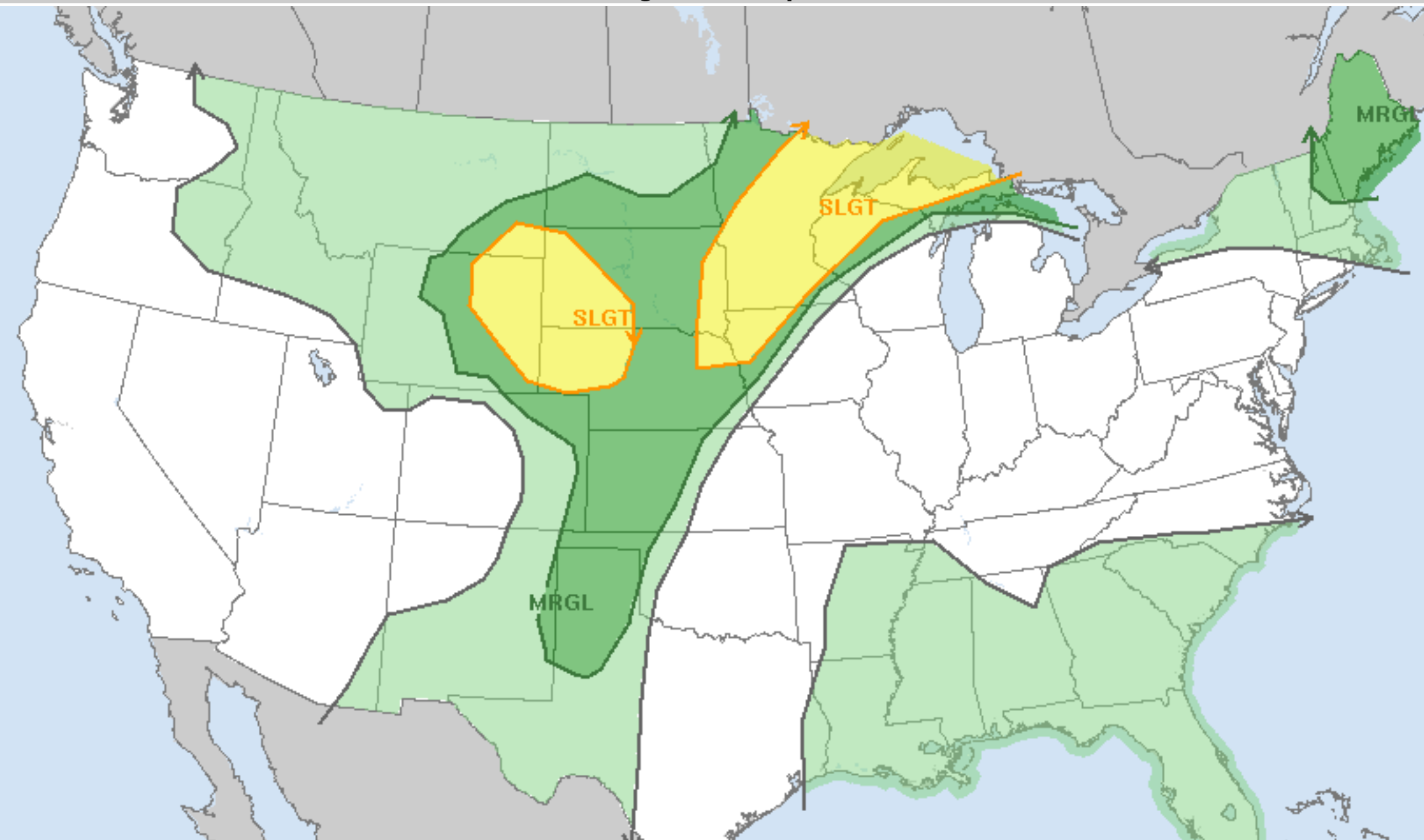



Jun 29, 2018 2000 UTC Day 1 Convective Outlook

Updated: Fri Jun 29 19:58:58 UTC 2018 ( | )
[Probabilistic to Categorical Outlook Conversion Table](#)

Categorical Graphic

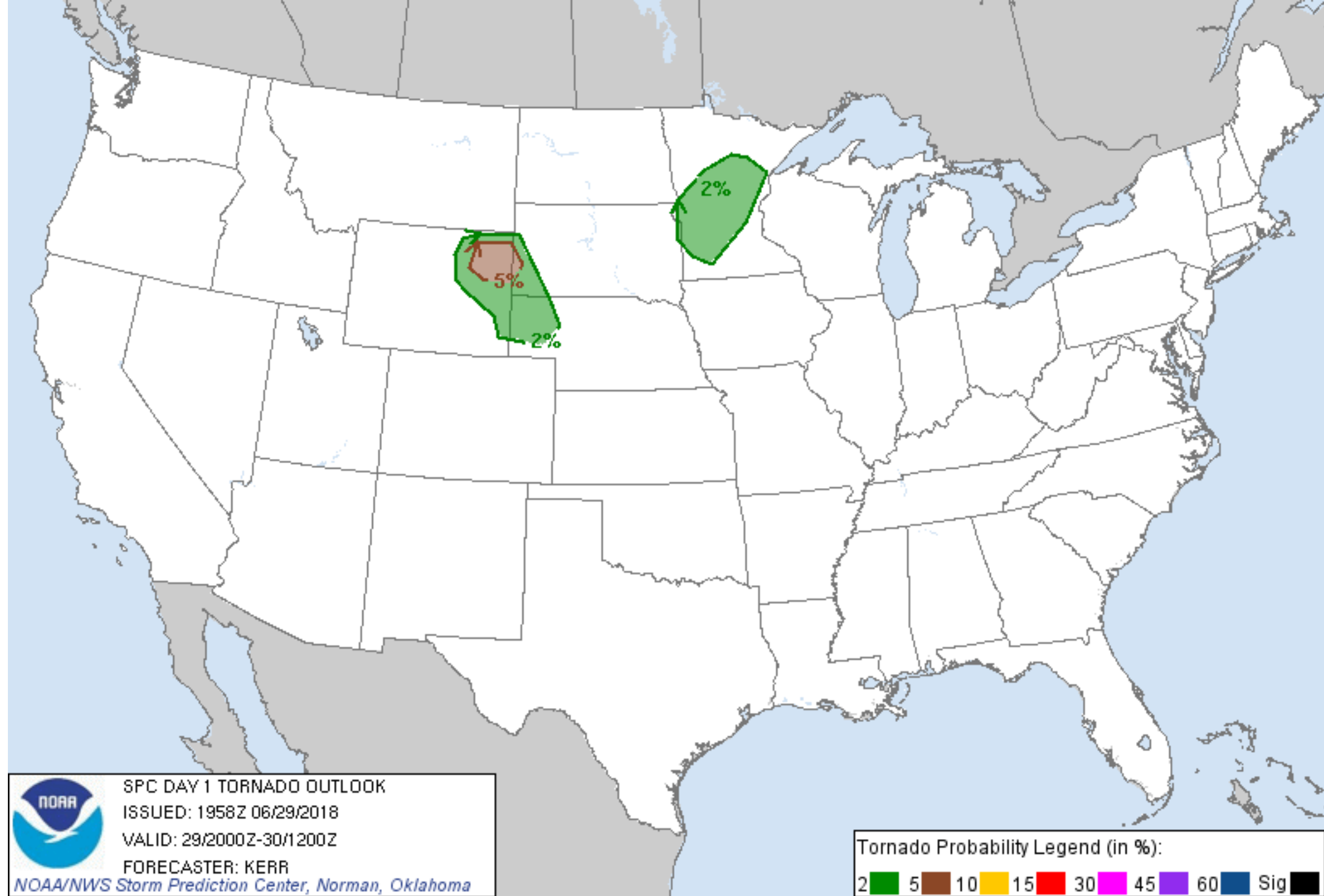


 SPC DAY 1 CATEGORICAL OUTLOOK
 ISSUED: 1958Z 06/29/2018
 VALID: 29/2000Z-30/1200Z
 FORECASTER: KERR
 NOAA/NWS Storm Prediction Center, Norman, Oklahoma

TSTM	1: MRGL	2: SLGT
3: ENH	4: MDT	5: HIGH

Day 1 Risk	Area (sq. mi.)	Area Pop.	Some Larger Population Centers in Risk Area
SLIGHT	213,894	6,672,928	Minneapolis, MN...St. Paul, MN...Sioux Falls, SD...Duluth, MN...Sioux City, IA...
MARGINAL	346,459	6,264,373	Omaha, NE...Lincoln, NE...Lubbock, TX...Amarillo, TX...Rochester, MN...

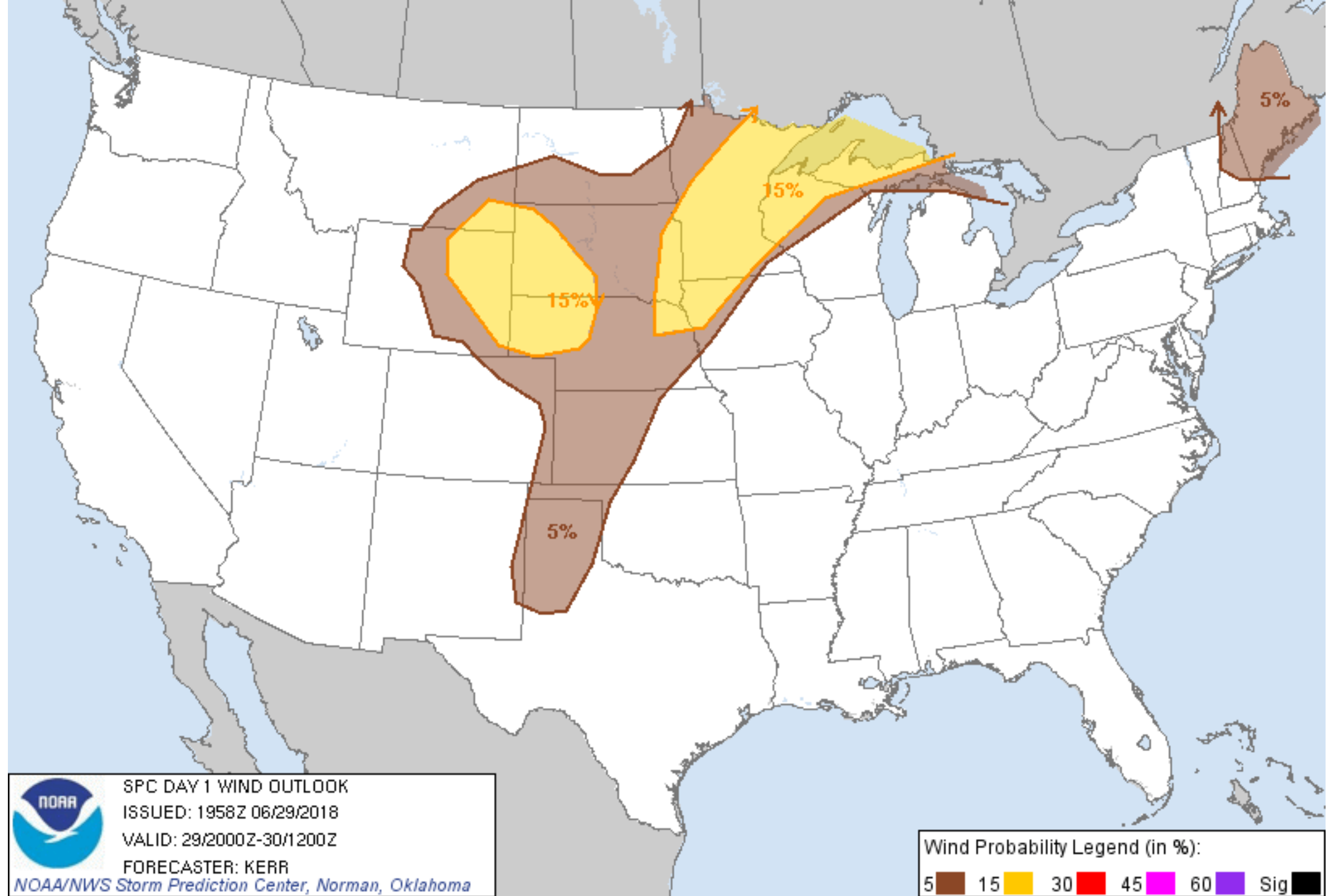
Probabilistic Tornado Graphic




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
5 %	8,100	60,281	Gillette, WY...
2 %	58,051	1,340,057	Rapid City, SD...St. Cloud, MN...Elk River, MN...Willmar, MN...St. Michael, MN...

Probabilistic Damaging Wind Graphic



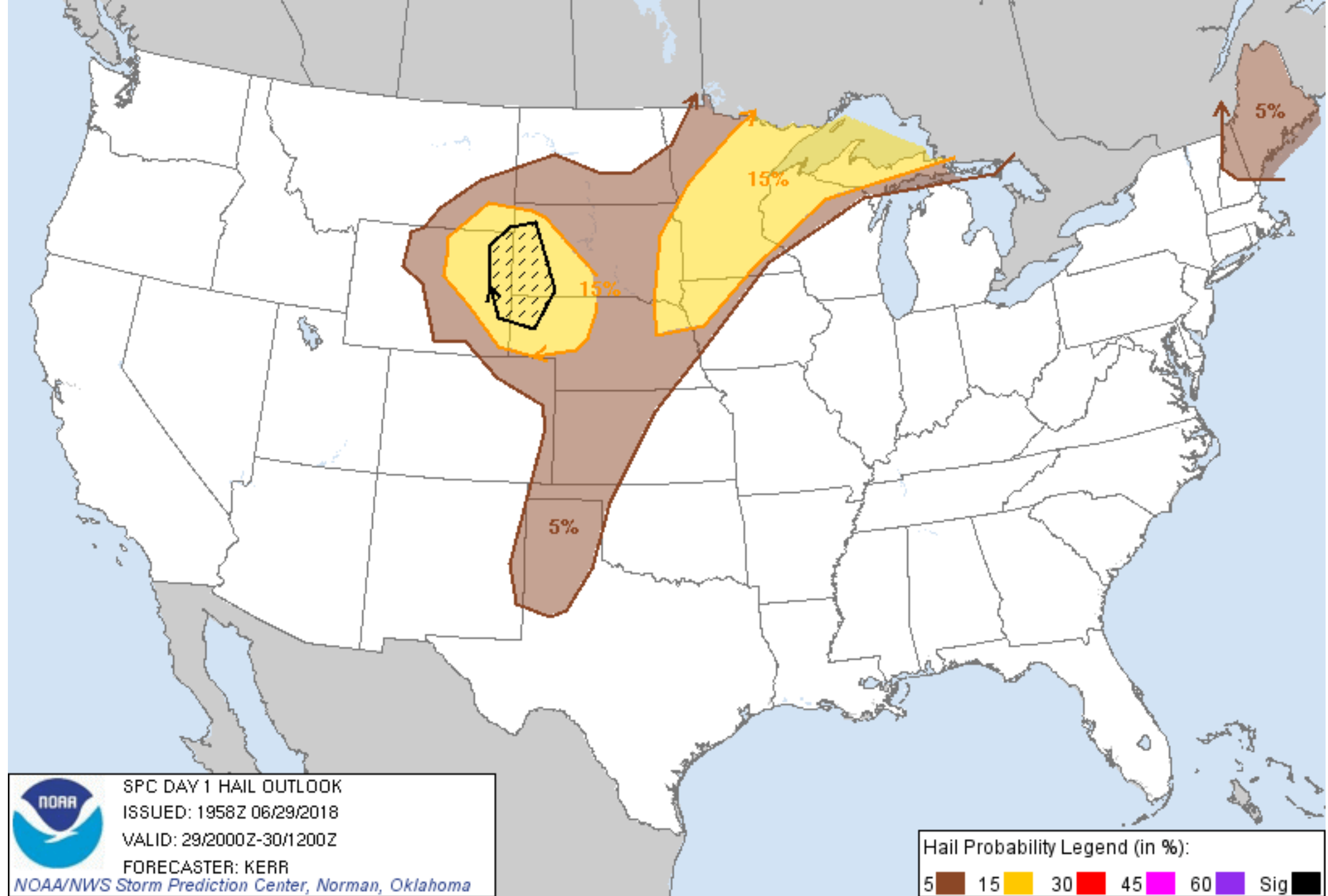

SPC DAY 1 WIND OUTLOOK
 ISSUED: 1958Z 06/29/2018
 VALID: 29/2000Z-30/1200Z
 FORECASTER: KERR
 NOAA/NWS Storm Prediction Center, Norman, Oklahoma

Wind Probability Legend (in %):
 5 15 30 45 60 Sig

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 %	212,791	6,643,286	Minneapolis, MN...St. Paul, MN...Sioux Falls, SD...Duluth, MN...Sioux City, IA...
5 %	344,235	6,255,483	Omaha, NE...Lincoln, NE...Lubbock, TX...Amarillo, TX...Rochester, MN...

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
SIG SEVERE	24,521	225,530	Rapid City, SD...Spearfish, SD...Rapid Valley, SD...Sturgis, SD...Belle Fourche, SD...
15 %	214,663	6,680,989	Minneapolis, MN...St. Paul, MN...Sioux Falls, SD...Duluth, MN...Sioux City, IA...
5 %	339,758	6,200,601	Omaha, NE...Lincoln, NE...Lubbock, TX...Amarillo, TX...Rochester, MN...

SPC AC 291958

Day 1 Convective Outlook
 NWS Storm Prediction Center Norman OK
 0258 PM CDT Fri Jun 29 2018

Valid 292000Z - 301200Z

...THERE IS A SLIGHT RISK OF SEVERE THUNDERSTORMS THIS AFTERNOON AND EVENING ACROSS PARTS OF SOUTHEAST MONTANA AND EASTERN WYOMING INTO WESTERN SOUTH DAKOTA AND NEBRASKA...AND PERHAPS PARTS OF THE UPPER MIDWEST LATER TONIGHT...

...SUMMARY...

A few severe thunderstorms are likely late this afternoon and evening east of the Wyoming Rockies into the Black Hills vicinity and adjacent high plains. Potential exists for additional strong to severe storm development in a corridor across parts of the mid Missouri Valley into the upper Great Lakes region, and perhaps parts of the central Plains.

...20Z Outlook Update...

A number of adjustments have made, generally to better account for uncertainty concerning thunderstorm development and coverage across the Plains, and increasingly apparent negative impact of yesterday's widespread thunderstorm activity on today's severe weather potential across parts of the Southeast.

Convective development remains most certain, and is underway in the post cold-frontal upslope regime across parts of north central/northeast Wyoming into southeastern Montana, as well as near the Black Hills. This is likely being aided by forcing for ascent associated with a short wave now turning east northeastward across the northern Rockies. In the presence of strong deep layer shear, moderately large CAPE (1000-2000 J/kg) is expected to support scattered thunderstorm development, including isolated supercells, southward through much of the remainder of eastern Wyoming into early evening. Modest southwesterly deep layer mean flow may support propagation into western South Dakota and Nebraska, before activity weakens later this evening.

Otherwise, severe weather potential remains largely conditional in the pre-cold frontal environment from the central High Plains into the upper Great Lakes region. Despite large potential instability present across this region, mid-level inhibition appears substantial beneath a broad plume of very warm elevated mixed layer air (including 700 mb temps of +14 to + 18 C). Initiation of sustained thunderstorm development remains rather uncertain, but still is not out of the question, particularly later this evening across parts of the mid Missouri Valley into upper Great Lakes region. This is where large-scale ascent may increase and provide sufficient forcing, near a strengthening southerly 850 mb jet and developing frontal wave.

Across the Southeast, the stabilizing impacts of yesterday's convection and associated outflow have been considerable, and this now appears to preclude an appreciable risk for severe thunderstorm development.

..Kerr.. 06/29/2018

.PREV DISCUSSION... /ISSUED 1114 AM CDT Fri Jun 29 2018/

...Upper MI into NY...

A large upper ridge will remain over the central states today, with the main band of westerlies extending from the northern Rockies, across the northern Plains and Great Lakes, into New England. A long-lived severe MCS continues to track eastward across Upper MI. This feature has intensified along its southwest flank, and appears to be propagating slightly south of east. Have therefore extended the SLGT risk to include much of Upper MI. Given the current motion of these storms, it is possible that it could reach NY around 06z. While this scenario is unlikely, it will need to be watched in later outlooks.

...Northern Plains...

Water vapor loop shows a potent shortwave trough over southern ID. This feature will rotate eastward and affect WY later today, helping to initiate scattered thunderstorms. A relatively moist and unstable air mass is present over eastern WY, where a combination of strong heating and steep lapse rates will result in a favorable environment for rotating storms capable of large hail and damaging winds. These storms will develop/spread eastward into parts of SD/NE during the evening, with damaging winds becoming a more prominent threat.

Farther northeast, the air mass over parts of MN should recover in the wake of overnight storms, with strong instability re-developing.

Scattered strong to severe thunderstorms may re-develop in this area late this afternoon and evening, posing a risk of damaging winds and hail.

...Western KS...

Models are consistent in the development of late afternoon and evening thunderstorms over southwest NE and western KS. These storms will be in an environment of a deeply mixed boundary layer, moderate CAPE, and enough steering flow for multicell structures capable of damaging wind gusts.

...Maine/NH...

Scattered thunderstorms are expected to develop over western ME and NH, spreading eastward through the day. Forecast soundings show moderate CAPE values and favorable effective shear for a few organized/rotating storms capable of hail and gusty winds. Weak low level winds and limited convergence should keep limit the overall severe threat.

...Southeast states...

Widespread deep convection yesterday and overnight has overturned much of the instability that was present over the southeast states. Nevertheless, strong heating and ample low level moisture may result in a few strong thunderstorms later this afternoon, capable of gusty winds. The primary threat will extend from southern MS into the FL Peninsula.

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NOTE: THE NEXT DAY 1 OUTLOOK IS SCHEDULED BY 0100Z