Factual Report – Attachment 14

Day 1 Convective Outlook text, graphic categorical outlooks and graphic probabilistic damaging wind outlooks, and Watch Status and Watch Outline Update Messages regarding Severe Thunderstorm Watch #283 issued by the SPC on July 19, 2018, prior to the accident time.

METEOROLOGY

DCA18MM028

Submitted by: Mike Richards NTSB, AS-30

Convective Outlooks

SPC AC 190537

Day 1 Convective Outlook NWS Storm Prediction Center Norman OK 1237 AM CDT Thu Jul 19 2018

Valid 191200Z - 201200Z

...THERE IS A SLIGHT RISK OF SEVERE THUNDERSTORMS ACROSS THE MID MS VALLEY...

...SUMMARY...

Severe thunderstorms will be possible later today across parts of the Mississippi Valley and central Plains. A few strong storms may also be noted near the Canadian border of the northern Plains and over the southwestern US.

...Discussion...

Early-morning water-vapor imagery depicts a well-defined mid-level circulation over SD. This feature is forecast to shift into southwest MN as associated 500mb speed max digs into southwest IA by mid afternoon. Large-scale high-level diffluence downstream across the Mid-MS Valley will encourage deep convection along the eastern edge of Plains steep lapse-rate plume.

While the large-scale pattern favors a focused corridor of potential severe, especially across portions of IA into northeast MO, pre-dawn convection across this region may prove disruptive regarding timing/placement of potentially more significant thunderstorm development later in the day. Will maintain higher severe probs for the more synoptically favorable portion of the upper trough but meso-scale features will undoubtedly influence severe development.

Latest NAM guidance suggests strong heating will develop ahead of a surface front from KS into southwest IA. If this boundary is the dominant low-level feature, and forecast buoyancy is as expected, then thunderstorms should develop immediately downstream of the surface low position, potentially arcing southwest into portions of KS. There is some concern for supercell development across IA/northern MO and if discrete storms develop then large hail and damaging winds can be expected. While a tornado can not be ruled out, low-level shear is not forecast to be particularly strong. This activity will propagate southeast during the evening as the mid-level jet translates toward southern MO.

...Northern Plains...

Attachment 14 2 DCA18MM028

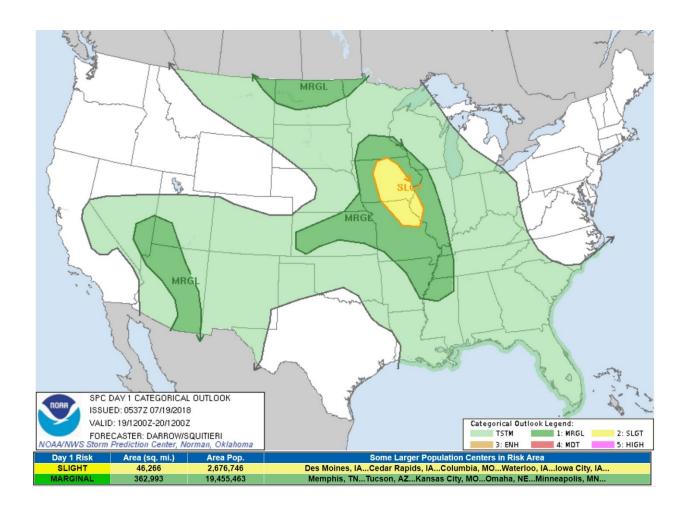
Strong surface heating is forecast across eastern MT into ND ahead of a surface front that will sag south of the international border during the afternoon. While instability is not forecast to be that significant, steep lapse rates and adequate deep-layer flow should support a few marginally severe thunderstorms capable of generating gusty winds and some hail. This activity will be strongly diurnal in nature.

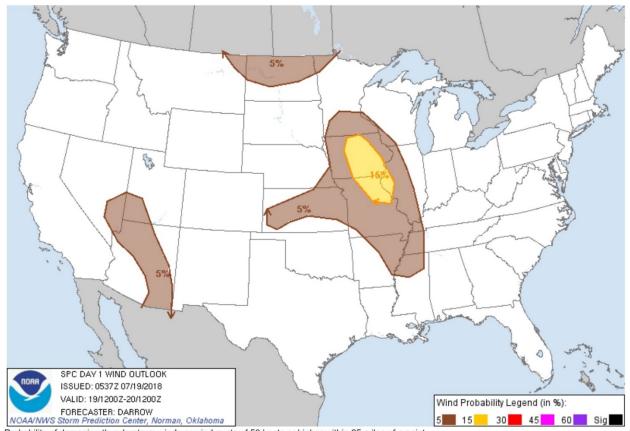
...Southwest...

Seasonally high-PW air mass will be maintained across northwest Mexico into the lower CO River Valley through the dayl period as the center of a mid-level high begins to drift toward the southern Rockies. While mid-level temperatures are forecast to be somewhat warm across AZ, strong surface heating and adequate buoyancy may prove sufficient for gusty winds with the strongest convection. ..Darrow/Squitieri.. 07/19/2018

CLICK TO GET WUUS01 PTSDY1 PRODUCT

NOTE: THE NEXT DAY 1 OUTLOOK IS SCHEDULED BY 1300Z





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 %	46,129	2,761,297	Des Moines, IACedar Rapids, IAColumbia, MOWaterloo, IAlowa City, IA	
5 %	363,870	19,902,297	Memphis, TNTucson, AZKansas City, MOOmaha, NEMinneapolis, MN	

SPC AC 191259

Day 1 Convective Outlook
NWS Storm Prediction Center Norman OK
0759 AM CDT Thu Jul 19 2018

Valid 191300Z - 201200Z

...THERE IS A SLIGHT RISK OF SEVERE THUNDERSTORMS THIS AFTERNOON INTO EARLY TONIGHT OVER PARTS OF IOWA...MISSOURI...EASTERN KANSAS AND ILLINOIS....

...SUMMARY...

The greatest threat for organized severe thunderstorms will be this afternoon into early tonight over parts of Iowa, Missouri, eastern Kansas, and Illinois.

...Synopsis...

In mid/upper levels, a persistent and strong high will shift slowly eastward over the southeastern Great Basin and Four Corners regions through the period, its eastward-extending ridging contributing to an expanding area of hot surface conditions over the southern Plains. As this occurs, a strong, negatively tilted shortwave trough -- with embedded/compact cyclone evident over the eastern Dakotas -- will amplify somewhat and shift east-southeastward across the upper Mississippi Valley. By 00Z the 500-mb low should reside over southern MN, with troughing southeastward across eastern IA/northern IL and northward over northern MN. By 12Z, that trough should extend from northeastern MN to northern KY, with embedded low over south-central/southwestern WI.

At the surface, 11Z analysis showed a frontal-wave low between ATY-RWF, with cold front southwestward across northwestern KS, and warm front southeastward over central portions of IA/MO into the Mid-South. The warm front is expected to move east-northeastward across eastern IA/MO and portions of IL through 06Z as the low shifts east-southeastward across southern MN, and the cold front crosses IA, northwestern MO, and portions of northern/central KS. The western frontal segment over the High Plains of KS/CO will weaken and stall late in the period.

...IA/MO/IL and vicinity...

Scattered thunderstorms are expected to develop along both fronts from midday through evening across the slight-risk area, as well as on residual warm-sector boundaries over MO. All severe modes will be possible, including the potential for very large/damaging hail from supercells over parts of IA/MO.

Given the strong directional shear, favorable deep shear (e.g., effective-shear magnitudes $45-60~\rm{kt}$), and strong buoyancy, supercells will be possible. Within a warm sector that narrows with northward extent, moisture from eastern KS northeastward and

eastward will be very rich, with surface dew points commonly upper 60s to mid 70s F, PW 1.5-2 inches, and mean mixing rations commonly 16-17 G/kg (locally approaching 19 g/kg). When diabatic surface heating is factored in, this yields MLCAPE 3500-5000 J/kg in modified RAOBs and forecast soundings.

Relatively sustained/discrete supercells with substantial residence time in the warm sector will have the greatest potential for very large/damaging hail, given the high inflow-layer water content, sufficiently steep low/middle-level lapse rates, and storm-scale hail-nucleus residence time inferred by both the ambient-flow geometry and very deep buoyant layers. Forecast soundings and hail model suggest highest LIs and 1/3-1/4 of CAPE will reside in favorable hail-growth areas aloft. Some tornado potential also exists, but very conditional and dependent on localized boundary/storm-scale/vorticity-processing considerations, given rather modest ambient near-surface flow.

Clustered or QLCS modes may develop and move southeastward along and southwest of the warm front this evening, offering a lowering threat for hail but better-organized wind potential. At this time, specific foci/location/timing for upscale growth appears too uncertain to highlight a smaller corridor of greater wind probabilities, but one may be justifiable in subsequent updates as influential mesoscale factors become more apparent.

...Southwest...

Widely scattered to scattered thunderstorms are expected to form again this afternoon, this process being primarily tied to areas of strong heating of higher terrain. Damaging, isolated severe gusts appear to be the primary concern. Related weakening of CINH and steepening of low-level lapse rates, amidst high moisture content, will offset relatively warm midlevel temperatures. This should yield deep buoyancy (MLCAPE 500-1500 J/kg), atop well-mixed subcloud layers that will deepen with underlying dropoffs in elevation. A deeper layer of mid/upper easterlies is expected with southward extent, and distance from the ridge aloft, likely leading to greater potential for propagation into lower deserts over southeastern AZ, where greater buoyancy (MLCAPE 1500-2500 J/kg) may be encountered.

...Northern Plains...

Broken to locally overcast cloud cover and isolated, elevated, non-severe thunderstorms are expected through the remainder of the morning. Additional, widely scattered thunderstorms are possible primarily this afternoon, in a broad zone of favorable residual moisture (surface dew points 50s to 60s F) characterizing the air mass ahead of a weak/secondary cold front. Destabilization will arise largely from the juxtaposition of

- 1. Seasonally cool midlevel temps under northwest flow aloft, with
- 2. Boundary-layer lapse rates steepened by insolation, following the breakup of most of the morning clouds/precip, as the mid/upper

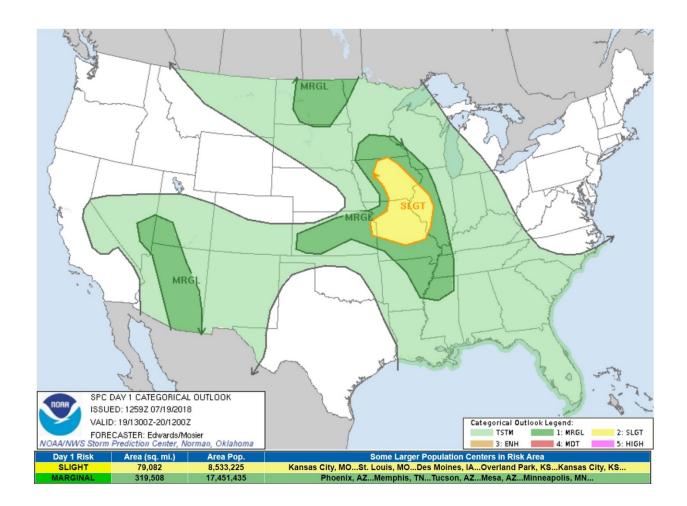
cyclone moves away from the area.

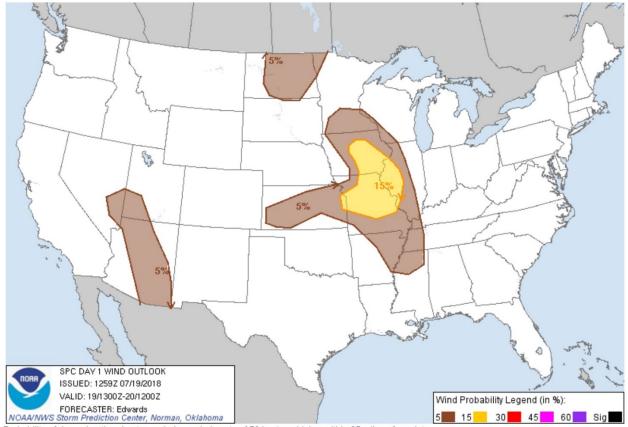
Although low-level forcing will be weak, so will capping, contributing to MLCAPE generally 1000-1500 J/kg in modified forecast soundings. This buoyancy, atop a well-mixed subcloud layer, should support sporadic strong pulse/multicell convection with isolated, marginally severe hail and/or gusts. Convective density should be greatest near the front, and activity should diminish considerably after about 03Z, in the absence of more robust deep lift.

..Edwards/Mosier.. 07/19/2018

CLICK TO GET WUUS01 PTSDY1 PRODUCT

NOTE: THE NEXT DAY 1 OUTLOOK IS SCHEDULED BY 1630Z





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 %	72,715	8,213,794	Kansas City, MOSt. Louis, MODes Moines, IAOverland Park, KSKansas City, KS	
5 %	326,583	17,962,338	Phoenix, AZMemphis, TNTucson, AZMesa, AZMinneapolis, MN	

SPC AC 191658

Day 1 Convective Outlook NWS Storm Prediction Center Norman OK 1158 AM CDT Thu Jul 19 2018

Valid 191630Z - 201200Z

...THERE IS A SLIGHT RISK OF SEVERE THUNDERSTORMS ACROSS PORTIONS OF THE MIDWEST...LOWER MO VALLEY/OZARKS...AND SOUTH-CENTRAL PLAINS...

...SUMMARY...

Scattered severe thunderstorms are expected through the afternoon and evening across portions of Iowa, Missouri, Kansas, western Illinois, and Arkansas.

...Central/southern MO to Mid-South...

Have expanded the Slight Risk southward across the region to account for increasing concerns that an increasingly well-organized complex of storms in central MO will continue southward across the region through the afternoon and evening. Additional storms should occur along outflow on the western flank of the early-day storm complex, while additional storms may move into MO late in the afternoon or evening out of KS. Ample moisture and buoyancy (2000+ J/kg MLCAPE) along with seasonably strong mid/high-level northwesterly winds will contribute to the potential for corridors of wind damage and large hail.

... KS into northern OK...

Storms continue to develop/intensify across northern KS at late morning. It seems likely that this trend will continue east/southeastward through the afternoon/early evening with the strongest storms being capable of large hail/damaging winds. Reference Mesoscale Discussion 1083 for early-day details.

...IA/northern MO into western IL...

While multi-level clouds have persisted much of the morning to the north of storms across north-central MO, gradual clearing from the west/southwest should occur through the afternoon. The main potential for surface-based severe storms (including some supercells) later today should be focused near the surface triple point across east-central/southeast IA. Large hail, damaging winds, and a couple of tornadoes will all be possible where sufficient destabilization occurs this afternoon.

...Northern Plains...

Widely scattered thunderstorms are possible primarily this afternoon, in a broad zone of favorable residual moisture (surface dew points 50s to 60s F) characterizing the air mass ahead of a weak/secondary cold front. Destabilization will arise largely from the juxtaposition of

1. Seasonally cool midlevel temps under northwest flow aloft, with

2. Boundary-layer lapse rates steepened by insolation, following the breakup of most of the morning clouds/precip, as the mid/upper cyclone moves away from the area.

Although low-level forcing will be weak, so will capping, contributing to MLCAPE generally 1000-1500 J/kg in modified forecast soundings. This buoyancy, atop a well-mixed subcloud layer, should support sporadic strong pulse/multicell convection with isolated, marginally severe hail and/or gusts. Convective density should be greatest near the front, and activity should diminish considerably after about 03Z, in the absence of more robust deep lift.

...AZ/Southwest States...

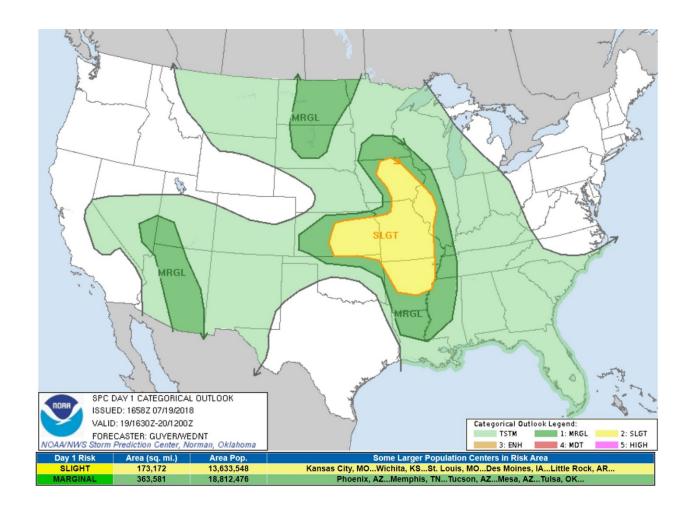
Widely scattered to scattered thunderstorms are expected to form again this afternoon, this process being primarily tied to areas of strong heating of higher terrain. Damaging, isolated severe gusts appear to be the primary concern. Related weakening of CINH and steepening of low-level lapse rates, amidst high moisture content, will offset relatively warm midlevel temperatures. This should yield deep buoyancy (MLCAPE 500-1500 J/kg), atop well-mixed subcloud layers that will deepen with underlying dropoffs in elevation. A deeper layer of mid/upper easterlies is expected with southward extent, and distance from the ridge aloft, likely leading to greater potential for propagation into lower deserts over southeastern AZ, where greater buoyancy (MLCAPE 1500-2500 J/kg) may be encountered.

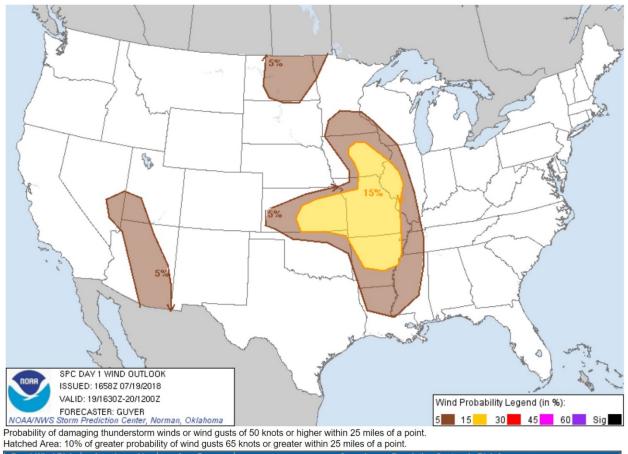
..Guyer/Wednt.. 07/19/2018

CLICK TO GET WUUS01 PTSDY1 PRODUCT

NOTE: THE NEXT DAY 1 OUTLOOK IS SCHEDULED BY 2000Z

Attachment 14 10 DCA18MM028





Day 1 Wind Risk	Area (sq. mi.)	Area Pop.	Some Larger Population Centers in Risk Area	
15 %	163,536	13,284,333	Kansas City, MOWichita, KSSt. Louis, MODes Moines, IALittle Rock, AR	
5 %	336,874	19,042,925	Phoenix, AZMemphis, TNTucson, AZMesa, AZTulsa, OK	

SPC AC 192005

Day 1 Convective Outlook
NWS Storm Prediction Center Norman OK
0305 PM CDT Thu Jul 19 2018

Valid 192000Z - 201200Z

...THERE IS AN ENHANCED RISK OF SEVERE THUNDERSTORMS FOR PORTIONS OF NORTHEAST KS AND WESTERN MO...

...SUMMARY...

A corridor of wind damage is expected through late afternoon for portions of northeast Kansas and northwest Missouri. Elsewhere, scattered severe thunderstorms are expected through the afternoon and evening across portions of Iowa, Missouri, Kansas, western Illinois, and Arkansas.

...Northeast KS/Western MO...

An Enhanced Risk has been added for portions of northeast KS into west-central MO. The thunderstorm cluster approaching Topeka as of 20Z has a history of producing wind damage, and is moving into a hot and strongly unstable environment, with a continued threat for potentially significant wind damage. A threat for significant hail will also continue in this area with more discrete supercells noted across western MO and developing south of TOP.

...Central/Eastern IA...

A 5% tornado area has been added across portions of central/eastern IA. A few supercells may develop along an eastward moving surface trough in this region, and cells that traverse along and just north of the old outflow/effective warm front will pose a threat for a couple of tornadoes, in addition to large hail and locally damaging wind.

- ..Dean/Dial.. 07/19/2018
- .PREV DISCUSSION... /ISSUED 1158 AM CDT Thu Jul 19 2018/
- ...Central/southern MO to Mid-South...

Have expanded the Slight Risk southward across the region to account for increasing concerns that an increasingly well-organized complex of storms in central MO will continue southward across the region through the afternoon and evening. Additional storms should occur along outflow on the western flank of the early-day storm complex, while additional storms may move into MO late in the afternoon or evening out of KS. Ample moisture and buoyancy (2000+ J/kg MLCAPE) along with seasonably strong mid/high-level northwesterly winds will contribute to the potential for corridors of wind damage and large hail.

... KS into northern OK...

Storms continue to develop/intensify across northern KS at late morning. It seems likely that this trend will continue east/southeastward through the afternoon/early evening with the strongest storms being capable of large hail/damaging winds. Reference Mesoscale Discussion 1083 for early-day details.

...IA/northern MO into western IL...

While multi-level clouds have persisted much of the morning to the north of storms across north-central MO, gradual clearing from the west/southwest should occur through the afternoon. The main potential for surface-based severe storms (including some supercells) later today should be focused near the surface triple point across east-central/southeast IA. Large hail, damaging winds, and a couple of tornadoes will all be possible where sufficient destabilization occurs this afternoon.

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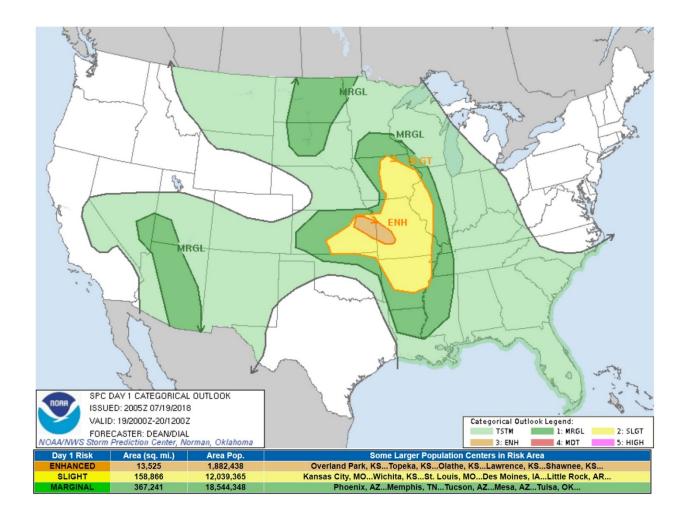
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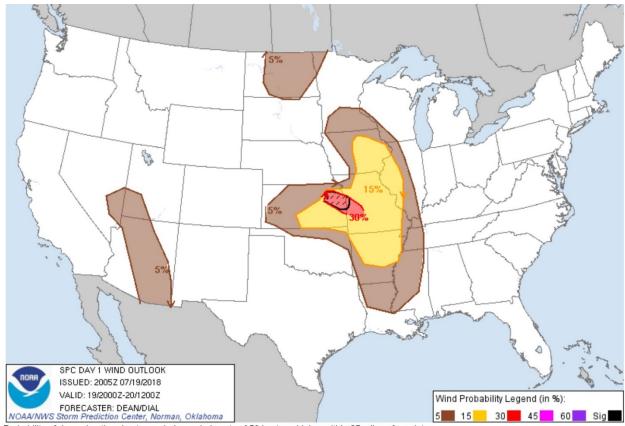
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...AZ/Southwest States...

Widely scattered to scattered thunderstorms are expected to form again this afternoon, this process being primarily tied to areas of strong heating of higher terrain. Damaging, isolated severe gusts appear to be the primary concern. Related weakening of CINH and steepening of low-level lapse rates, amidst high moisture content, will offset relatively warm midlevel temperatures. This should yield deep buoyancy (MLCAPE 500-1500 J/kg), atop well-mixed subcloud layers that will deepen with underlying dropoffs in elevation. A deeper layer of mid/upper easterlies is expected with southward extent, and distance from the ridge aloft, likely leading to greater potential for propagation into lower deserts over southeastern AZ, where greater buoyancy (MLCAPE 1500-2500 J/kg) may be encountered.

CLICK TO GET WUUS01 PTSDY1 PRODUCT





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	7,250	1,681,768	Overland Park, KSTopeka, KSOlathe, KSLawrence, KSShawnee, KS
30 %	13,525	1,882,438	Overland Park, KSTopeka, KSOlathe, KSLawrence, KSShawnee, KS
15 %	155,285	11,697,516	Kansas City, MOWichita, KSSt. Louis, MODes Moines, IALittle Rock, AR
5 %	339,707	18,783,609	Phoenix, AZMemphis, TNTucson, AZMesa, AZTulsa, OK

Watch Status Messages

WOUS20 KWNS 191733 WWASPC SPC WW-A 191735 MOZ000-191840-

STATUS REPORT ON WW 283

SEVERE WEATHER THREAT CONTINUES RIGHT OF A LINE FROM 15 ENE CDJ TO 30 WSW JEF TO 45 SW STL.

..PICCA..07/19/18

ATTN...WFO...SGF...EAX...LSX...

&&

STATUS REPORT FOR WS 283

SEVERE WEATHER THREAT CONTINUES FOR THE FOLLOWING AREAS

 $\begin{array}{l} \texttt{MOC}009-011-013-015-025-029-037-039-043-047-049-055-057-059-065-067-077-083-085-091-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-185-203-209-213-215-217-225-229-191840- \end{array}$

MO

\$\$

. MISSOURI COUNTIES INCLUDED ARE

BARRY BARTON BATES BENTON CALDWELL CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON CRAWFORD DADE DALLAS DENT DOUGLAS GREENE HENRY HICKORY HOWELL JACKSON JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN OZARK NEWTON OREGON PETTIS PHELPS POLK PULASKI RAY ST. CLAIR STONE SHANNON TANEY WEBSTER TEXAS VERNON WRIGHT

THE WATCH STATUS MESSAGE IS FOR GUIDANCE PURPOSES ONLY. PLEASE

REFER TO WATCH COUNTY NOTIFICATION STATEMENTS FOR OFFICIAL INFORMATION ON COUNTIES...INDEPENDENT CITIES AND MARINE ZONES CLEARED FROM SEVERE THUNDERSTORM AND TORNADO WATCHES. \$\$

WOUS20 KWNS 191950 WWASPC SPC WW-A 191950 MOZ000-192040-

STATUS REPORT ON WW 283

THE SEVERE WEATHER THREAT CONTINUES ACROSS THE ENTIRE WATCH AREA.

..PICCA..07/19/18

ATTN...WFO...SGF...EAX...LSX...

&&

STATUS REPORT FOR WS 283

SEVERE WEATHER THREAT CONTINUES FOR THE FOLLOWING AREAS

 $\begin{array}{l} \texttt{MOC}009-011-013-015-025-029-037-039-043-047-049-057-059-065-067-077-083-085-091-093-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-179-185-203-209-213-215-217-225-229-192040- \end{array}$

MO

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. MISSOURI COUNTIES INCLUDED ARE

BARRY	BARTON	BATES
BENTON	CALDWELL	CAMDEN
CASS	CEDAR	CHRISTIAN
CLAY	CLINTON	DADE
DALLAS	DENT	DOUGLAS
GREENE	HENRY	HICKORY
HOWELL	IRON	JACKSON
JASPER	JOHNSON	LACLEDE
LAFAYETTE	LAWRENCE	MCDONALD
MARIES	MILLER	MORGAN
NEWTON	OREGON	OZARK
PETTIS	PHELPS	POLK
PULASKI	RAY	REYNOLDS
ST. CLAIR	SHANNON	STONE
TANEY	TEXAS	VERNON
WEBSTER	WRIGHT	

THE WATCH STATUS MESSAGE IS FOR GUIDANCE PURPOSES ONLY. PLEASE REFER TO WATCH COUNTY NOTIFICATION STATEMENTS FOR OFFICIAL INFORMATION ON COUNTIES...INDEPENDENT CITIES AND MARINE ZONES CLEARED FROM SEVERE THUNDERSTORM AND TORNADO WATCHES. \$\$

Attachment 14 19 DCA18MM028

WOUS20 KWNS 192025 WWASPC SPC WW-A 192025 MOZ000-192140-

STATUS REPORT ON WW 283

SEVERE WEATHER THREAT CONTINUES RIGHT OF A LINE FROM 20 SSE CDJ TO $40~{\rm E}$ SGF TO $30~{\rm NNE}$ POF.

..PICCA..07/19/18

ATTN...WFO...SGF...EAX...LSX...

&&

STATUS REPORT FOR WS 283

SEVERE WEATHER THREAT CONTINUES FOR THE FOLLOWING AREAS

 $\begin{array}{l} \texttt{MOC009-011-013-015-025-037-039-043-047-049-057-059-067-077-083-085-091-095-097-101-107-109-119-145-149-153-159-167-177-185-203-209-213-217-225-229-192140- \end{array}$

MO

. MISSOURI COUNTIES INCLUDED ARE

BARRY	BARTON	BATES
BENTON	CALDWELL	CASS
CEDAR	CHRISTIAN	CLAY
CLINTON	DADE	DALLAS
DOUGLAS	GREENE	HENRY
HICKORY	HOWELL	JACKSON
JASPER	JOHNSON	LAFAYETTE
LAWRENCE	MCDONALD	NEWTON
OREGON	OZARK	PETTIS
POLK	RAY	ST. CLAIR
SHANNON	STONE	TANEY
VERNON	WEBSTER	WRIGHT
\$\$		

THE WATCH STATUS MESSAGE IS FOR GUIDANCE PURPOSES ONLY. PLEASE REFER TO WATCH COUNTY NOTIFICATION STATEMENTS FOR OFFICIAL INFORMATION ON COUNTIES...INDEPENDENT CITIES AND MARINE ZONES CLEARED FROM SEVERE THUNDERSTORM AND TORNADO WATCHES. \$\$

WOUS20 KWNS 192208 WWASPC SPC WW-A 192205 MOZ000-192340-

STATUS REPORT ON WW 283

SEVERE WEATHER THREAT CONTINUES RIGHT OF A LINE FROM 5 E OJC TO 30 WNW SZL TO 10 SSW SZL TO 45 SSE SZL TO 40 W TBN TO 40 E SGF TO 30 NNW UNO TO 30 NNW POF.

..JEWELL..07/19/18

ATTN...WFO...SGF...EAX...LSX...

&&

STATUS REPORT FOR WS 283

SEVERE WEATHER THREAT CONTINUES FOR THE FOLLOWING AREAS

 $\begin{array}{l} \texttt{MOC009-011-013-015-037-039-043-057-059-067-077-083-085-091-097-101-109-119-145-149-153-167-185-203-209-213-217-225-229-192340-} \end{array}$

MO

. MISSOURI COUNTIES INCLUDED ARE

BARRY BARTON BATES BENTON CASS CEDAR CHRISTIAN DADE DALLAS GREENE DOUGLAS HENRY HOWELL JASPER HICKORY JOHNSON LAWRENCE MCDONALD NEWTON OREGON OZARK POLK ST. CLAIR SHANNON STONE TANEY VERNON WEBSTER WRIGHT

\$\$

THE WATCH STATUS MESSAGE IS FOR GUIDANCE PURPOSES ONLY. PLEASE REFER TO WATCH COUNTY NOTIFICATION STATEMENTS FOR OFFICIAL INFORMATION ON COUNTIES...INDEPENDENT CITIES AND MARINE ZONES CLEARED FROM SEVERE THUNDERSTORM AND TORNADO WATCHES. \$\$

WOUS20 KWNS 192311 WWASPC SPC WW-A 192315 MOZ000-200040-

STATUS REPORT ON WW 283

SEVERE WEATHER THREAT CONTINUES RIGHT OF A LINE FROM 15 SW JLN TO 20 ENE JLN TO 40 NW SGF TO 40 NNW SGF TO 45 NNE SGF TO 40 W TBN TO 40 E SGF TO 35 NW POF.

..JEWELL..07/19/18

ATTN...WFO...SGF...EAX...LSX...

&&

STATUS REPORT FOR WS 283

SEVERE WEATHER THREAT CONTINUES FOR THE FOLLOWING AREAS

MOC009-043-057-059-067-077-091-097-109-119-145-149-153-167-203-209-213-225-229-200040-

MO

. MISSOURI COUNTIES INCLUDED ARE

BARRY CHRISTIAN DADE DALLAS DOUGLAS GREENE HOWELL JASPER LAWRENCE MCDONALD NEWTON OREGON OZARK POLK SHANNON STONE TANEY WEBSTER

WRIGHT \$\$

THE WATCH STATUS MESSAGE IS FOR GUIDANCE PURPOSES ONLY. PLEASE REFER TO WATCH COUNTY NOTIFICATION STATEMENTS FOR OFFICIAL INFORMATION ON COUNTIES...INDEPENDENT CITIES AND MARINE ZONES CLEARED FROM SEVERE THUNDERSTORM AND TORNADO WATCHES. \$\$

Watch Outline Update Messages

WOUS64 KWNS 191620 WOU3

BULLETIN - IMMEDIATE BROADCAST REQUESTED SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 1120 AM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 IS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

MOC009-011-013-015-025-027-029-037-039-043-047-049-051-055-057-059-065-067-073-077-083-085-091-095-097-101-105-107-109-119-125-131-135-141-145-149-151-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200/O.NEW.KWNS.SV.A.0283.180719T1620Z-180720T0200Z/

MO

. MISSOURI COUNTIES INCLUDED ARE

BARRY BARTON BATES CALDWELL CALLAWAY BENTON CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON COLE CRAWFORD DADE DALLAS DENT DOUGLAS GASCONADE GREENE HENRY HICKORY HOWELL **JACKSON** JASPER LACLEDE JOHNSON LAFAYETTE LAWRENCE MARIES MCDONALD MILLER MONITEAU MORGAN NEWTON OREGON OSAGE OZARK PETTIS PHELPS POLK PULASKI RAY SHANNON ST. CLAIR STONE TANEY TEXAS VERNON WEBSTER WRIGHT \$\$

WOUS64 KWNS 191643 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 1143 AM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC009-011-013-015-025-027-029-037-039-043-047-049-051-055-057-059-065-067-073-077-083-085-091-095-097-101-105-107-109-119-125-131-135-141-145-149-151-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

MO

. MISSOURI COUNTIES INCLUDED ARE

BARRY BARTON BATES CALDWELL CALLAWAY BENTON CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON COLE CRAWFORD DADE DALLAS DENT DOUGLAS GASCONADE GREENE HENRY HICKORY HOWELL **JACKSON** JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MONITEAU MORGAN NEWTON OREGON OSAGE OZARK PETTIS POLK PULASKI PHELPS ST. CLAIR RAY SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT

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WOUS64 KWNS 191713 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 1213 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC}009-011-013-015-025-027-029-037-039-043-047-049-051-055-057-059-065-067-073-077-083-085-091-095-097-101-105-107-109-119-125-131-135-141-145-149-151-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

MO

. MISSOURI COUNTIES INCLUDED ARE

BARRY BARTON BATES CALDWELL CALLAWAY BENTON CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON COLE CRAWFORD DADE DALLAS DENT DOUGLAS GASCONADE GREENE HENRY HICKORY HOWELL **JACKSON** JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MONITEAU MORGAN NEWTON OREGON OSAGE OZARK PETTIS POLK PULASKI PHELPS ST. CLAIR RAY SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT

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WOUS64 KWNS 191743 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 1243 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC}009-011-013-015-025-027-029-037-039-043-047-049-051-055-057-059-065-067-073-077-083-085-091-095-097-101-105-107-109-119-125-131-135-141-145-149-151-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

MO

. MISSOURI COUNTIES INCLUDED ARE

BARRY BARTON BATES CALLAWAY BENTON CALDWELL CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON COLE CRAWFORD DADE DALLAS DENT DOUGLAS GASCONADE GREENE HENRY HICKORY HOWELL **JACKSON** JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MONITEAU MORGAN NEWTON OREGON OSAGE OZARK PETTIS POLK PULASKI PHELPS ST. CLAIR RAY SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT

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WOUS64 KWNS 191753 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 1253 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC}009-011-013-015-025-029-037-039-043-047-049-055-057-059-065-067-073-077-083-085-091-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

MO

. MISSOURI COUNTIES INCLUDED ARE

BARTON BARRY BATES CALDWELL BENTON CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON CRAWFORD DADE DALLAS DENT DOUGLAS GASCONADE GREENE HENRY HICKORY HOWELL JACKSON JASPER **JOHNSON** LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS PHELPS POLK PULASKI RAY ST. CLAIR SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT \$\$

WOUS64 KWNS 191823 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 123 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC}009-011-013-015-025-029-037-039-043-047-049-055-057-059-065-067-073-077-083-085-091-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

MO

. MISSOURI COUNTIES INCLUDED ARE

BARTON BARRY BATES BENTON CALDWELL CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON CRAWFORD DADE DALLAS DENT DOUGLAS GASCONADE GREENE HENRY HICKORY HOWELL JACKSON JASPER **JOHNSON** LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS PHELPS POLK PULASKI RAY ST. CLAIR STONE SHANNON TANEY TEXAS VERNON WEBSTER WRIGHT \$\$

WOUS64 KWNS 191853 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 153 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC}009-011-013-015-025-029-037-039-043-047-049-055-057-059-065-067-073-077-083-085-091-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

MO

. MISSOURI COUNTIES INCLUDED ARE

BARTON BARRY BATES BENTON CALDWELL CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON CRAWFORD DADE DALLAS DENT DOUGLAS GASCONADE GREENE HENRY HICKORY HOWELL JACKSON JASPER **JOHNSON** LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS PHELPS POLK PULASKI RAY ST. CLAIR SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT \$\$

WOUS64 KWNS 191913 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 213 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC} \texttt{009-011-013-015-025-029-037-039-043-047-049-057-059-065-067-077-083-085-091-093-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-179-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

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. MISSOURI COUNTIES INCLUDED ARE

BARTON BARRY BATES CALDWELL BENTON CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON DADE DALLAS DENT DOUGLAS GREENE HENRY HICKORY HOWELL IRON **JACKSON JASPER** JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PHELPS PETTIS POLK PULASKI RAY REYNOLDS ST. CLAIR STONE SHANNON TANEY TEXAS VERNON WEBSTER WRIGHT

WOUS64 KWNS 191943 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 243 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC} \texttt{009-011-013-015-025-029-037-039-043-047-049-057-059-065-067-077-083-085-091-093-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-179-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

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. MISSOURI COUNTIES INCLUDED ARE

BARTON BARRY BATES BENTON CALDWELL CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON DADE DALLAS DENT DOUGLAS GREENE HENRY HICKORY HOWELL IRON **JACKSON** JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS PHELPS POLK PULASKI RAY REYNOLDS ST. CLAIR SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT

WOUS64 KWNS 192013 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 313 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC} \texttt{009-011-013-015-025-029-037-039-043-047-049-057-059-065-067-077-083-085-091-093-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-179-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

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. MISSOURI COUNTIES INCLUDED ARE

BARTON BARRY BATES BENTON CALDWELL CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON DADE DALLAS DENT DOUGLAS GREENE HENRY HICKORY HOWELL IRON **JACKSON** JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS PHELPS POLK PULASKI RAY REYNOLDS ST. CLAIR SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT

WOUS64 KWNS 192034 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 333 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC}009-011-013-015-025-029-037-039-043-047-049-057-059-065-067-077-083-085-091-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

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. MISSOURI COUNTIES INCLUDED ARE

BARTON BARRY BATES BENTON CALDWELL CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON DADE DALLAS DENT DOUGLAS GREENE HENRY HICKORY JACKSON HOWELL JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS PHELPS POIKPULASKI RAY ST. CLAIR SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT \$\$

WOUS64 KWNS 192104 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 403 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC}009-011-013-015-025-029-037-039-043-047-049-057-059-065-067-077-083-085-091-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

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. MISSOURI COUNTIES INCLUDED ARE

BARTON BARRY BATES BENTON CALDWELL CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON DADE DALLAS DENT DOUGLAS GREENE HENRY HICKORY JACKSON HOWELL JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS POIKPHELPS PULASKI RAY ST. CLAIR SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT \$\$

WOUS64 KWNS 192133 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 433 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC} \texttt{009-011-013-015-025-029-037-039-043-047-049-057-059-065-067-077-083-085-091-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200- \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

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. MISSOURI COUNTIES INCLUDED ARE

BARTON BARRY BATES BENTON CALDWELL CAMDEN CASS CEDAR CHRISTIAN CLAY CLINTON DADE DALLAS DENT DOUGLAS GREENE HENRY HICKORY JACKSON HOWELL JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS PHELPS POIKPULASKI RAY ST. CLAIR SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT \$\$

WOUS64 KWNS 192143 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 443 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

MOC009-011-013-015-029-037-039-043-047-057-059-065-067-077-083-085-091-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200-/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

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. MISSOURI COUNTIES INCLUDED ARE

BARRY BARTON BATES BENTON CAMDEN CASS CEDAR CHRISTIAN CLAY DADE DALLAS DENT DOUGLAS GREENE HENRY HICKORY HOWELL **JACKSON** JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS PHELPS POLK PULASKI RAY ST. CLAIR SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT

WOUS64 KWNS 192213 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 513 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

MOC009-011-013-015-029-037-039-043-047-057-059-065-067-077-083-085-091-095-097-101-105-107-109-119-125-131-141-145-149-153-159-161-167-169-177-185-203-209-213-215-217-225-229-200200-/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

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. MISSOURI COUNTIES INCLUDED ARE

BARRY BARTON BATES BENTON CAMDEN CASS CEDAR CHRISTIAN CLAY DADE DALLAS DENT DOUGLAS GREENE HENRY HICKORY HOWELL **JACKSON** JASPER JOHNSON LACLEDE LAFAYETTE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS PHELPS POLK PULASKI RAY ST. CLAIR SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT

WOUS64 KWNS 192233 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 533 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

MOC009-011-013-015-029-037-039-043-057-059-065-067-077-083-085-091-097-101-105-109-119-125-131-141-145-149-153-159-161-167-169-185-203-209-213-215-217-225-229-200200-/O.CON.KWNS.SV.A.0283.00000T0000Z-180720T0200Z/

MO

. MISSOURI COUNTIES INCLUDED ARE

BARRY BARTON BATES BENTON CASS CAMDEN CEDAR CHRISTIAN DADE DENT DALLAS DOUGLAS GREENE HENRY HICKORY HOWELL JASPER **JOHNSON** LACLEDE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON OREGON OZARK PETTIS PHELPS POLK ST. CLAIR PULASKI SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT \$\$

WOUS64 KWNS 192253 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 553 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

 $\begin{array}{l} \texttt{MOC}009 - 011 - 015 - 029 - 039 - 043 - 057 - 059 - 065 - 067 - 077 - 085 - 091 - 097 - 105 - \\ 109 - 119 - 125 - 131 - 141 - 145 - 149 - 153 - 161 - 167 - 169 - 185 - 203 - 209 - 213 - 215 - \\ 217 - 225 - 229 - 200200 - \end{array}$

/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

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. MISSOURI COUNTIES INCLUDED ARE

BARRY BARTON BENTON CAMDEN CEDAR CHRISTIAN DADE DALLAS DENT DOUGLAS GREENE HICKORY HOWELL JASPER LACLEDE LAWRENCE MCDONALD MARIES MILLER MORGAN NEWTON PHELPS OREGON OZARK ST. CLAIR POLK PULASKI SHANNON STONE TANEY TEXAS VERNON WEBSTER WRIGHT

ATTN...WFO...SGF...

WOUS64 KWNS 192313 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 613 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

MOC009-043-057-059-067-077-091-097-109-119-145-149-153-167-203-209-213-215-225-229-200200-/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

MO

. MISSOURI COUNTIES INCLUDED ARE

BARRY CHRISTIAN DADE DALLAS DOUGLAS GREENE HOWELL JASPER LAWRENCE MCDONALD NEWTON OREGON OZARK POLK SHANNON STONE TANEY TEXAS

WEBSTER WRIGHT

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ATTN...WFO...SGF...

WOUS64 KWNS 192343 WOU3

SEVERE THUNDERSTORM WATCH OUTLINE UPDATE FOR WS 283 NWS STORM PREDICTION CENTER NORMAN OK 643 PM CDT THU JUL 19 2018

SEVERE THUNDERSTORM WATCH 283 REMAINS IN EFFECT UNTIL 900 PM CDT FOR THE FOLLOWING LOCATIONS

MOC009-043-057-059-067-077-091-097-109-119-145-149-153-167-203-209-213-215-225-229-200200-/O.CON.KWNS.SV.A.0283.000000T0000Z-180720T0200Z/

MO

. MISSOURI COUNTIES INCLUDED ARE

BARRY CHRISTIAN DADE DALLAS DOUGLAS GREENE HOWELL JASPER LAWRENCE MCDONALD NEWTON OREGON OZARK POLK SHANNON STONE TANEY TEXAS

WEBSTER WRIGHT

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ATTN...WFO...SGF...