

Storm Prediction Center (SPC)

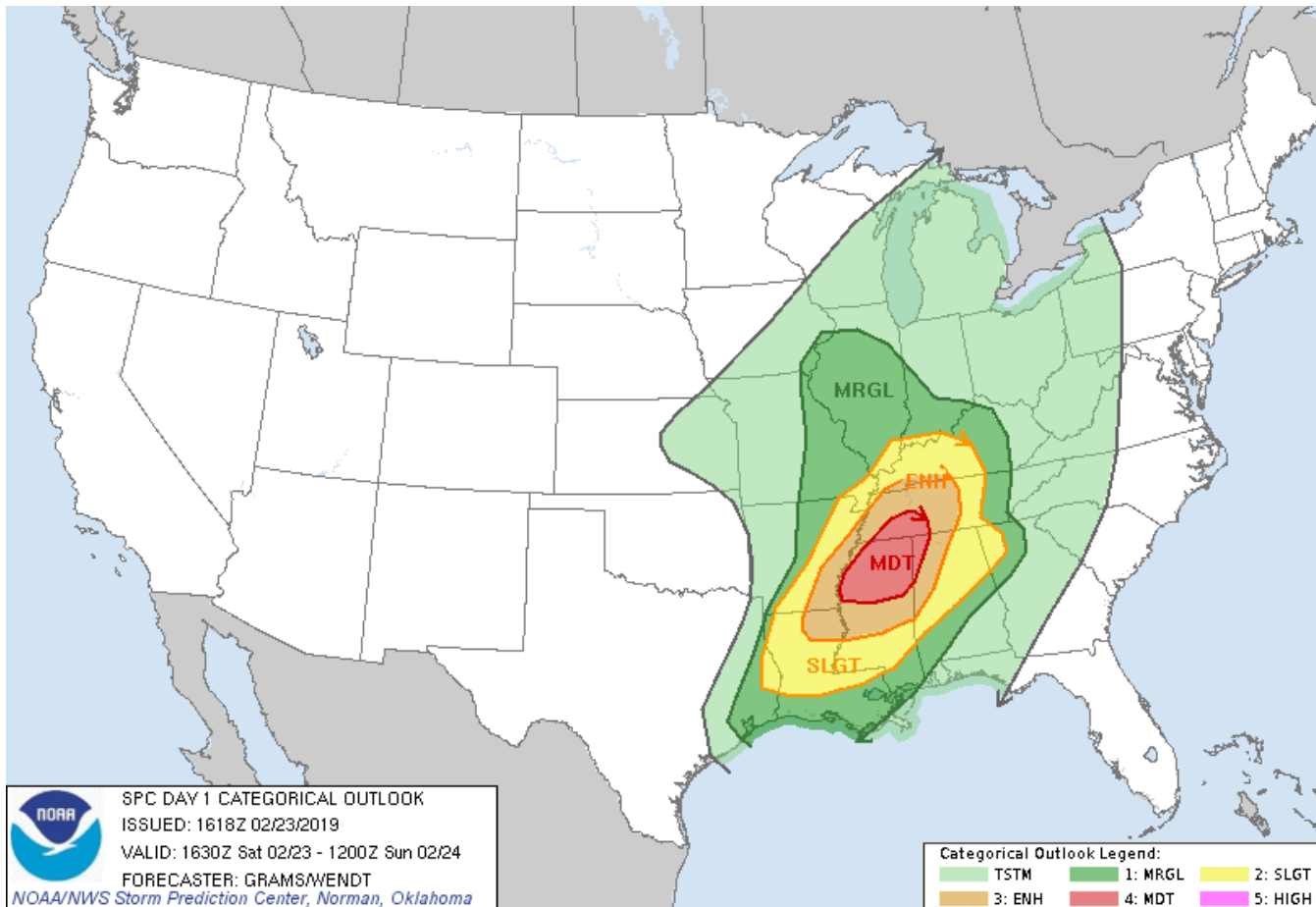
Located in Norman, Oklahoma, SPC is the division of the National Weather Service dedicated to daily forecast risk of severe thunderstorms in the contiguous U.S.

In recent years, SPC also began issuing risk categories for fire weather in the contiguous U.S.

Definition of a Severe Thunderstorm

- Hail size one inch (2.5 cm) diameter or greater
- Wind speeds at least 50 knots (93 km/hr / 58 mph)

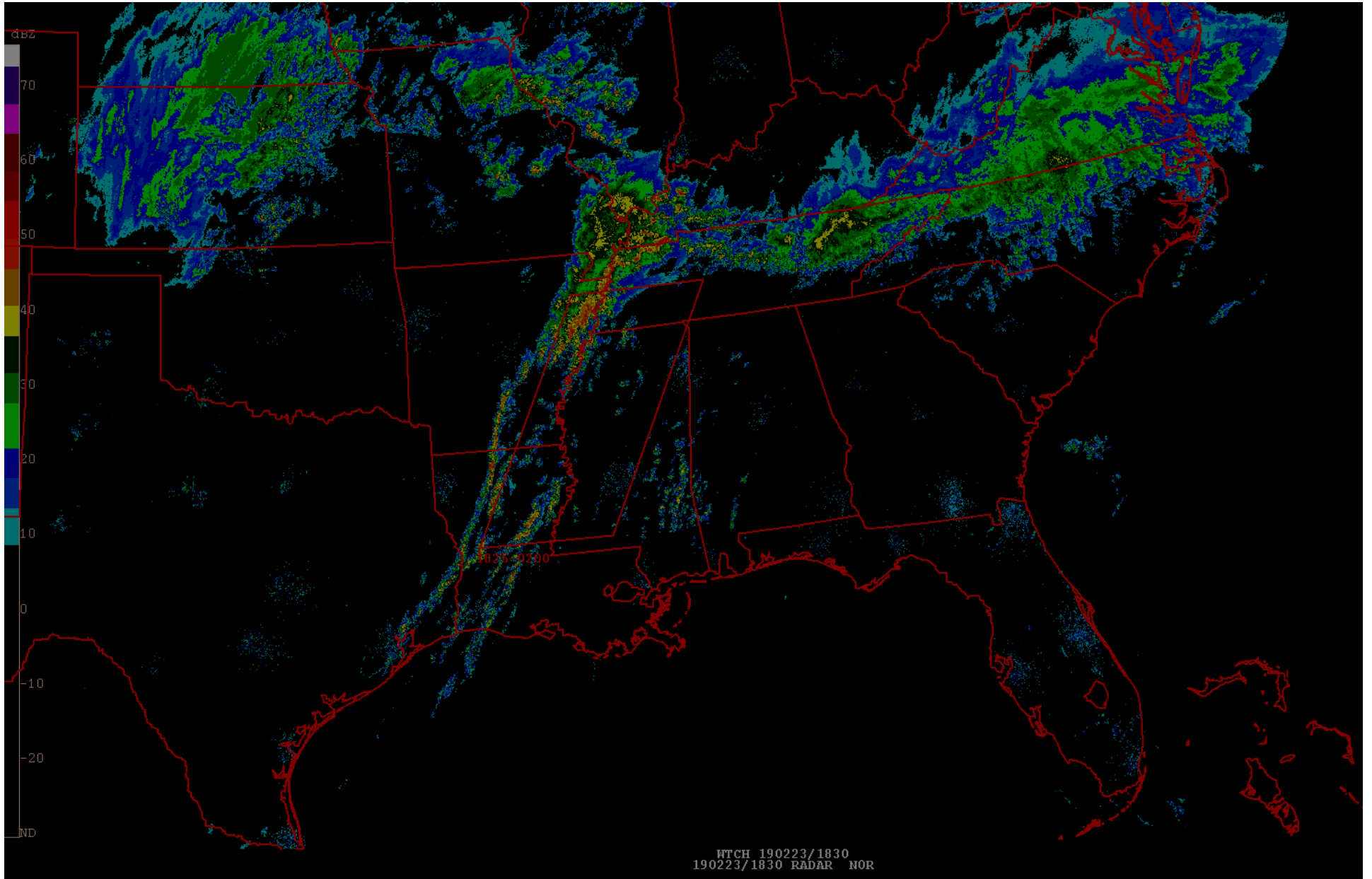
Convective Outlook



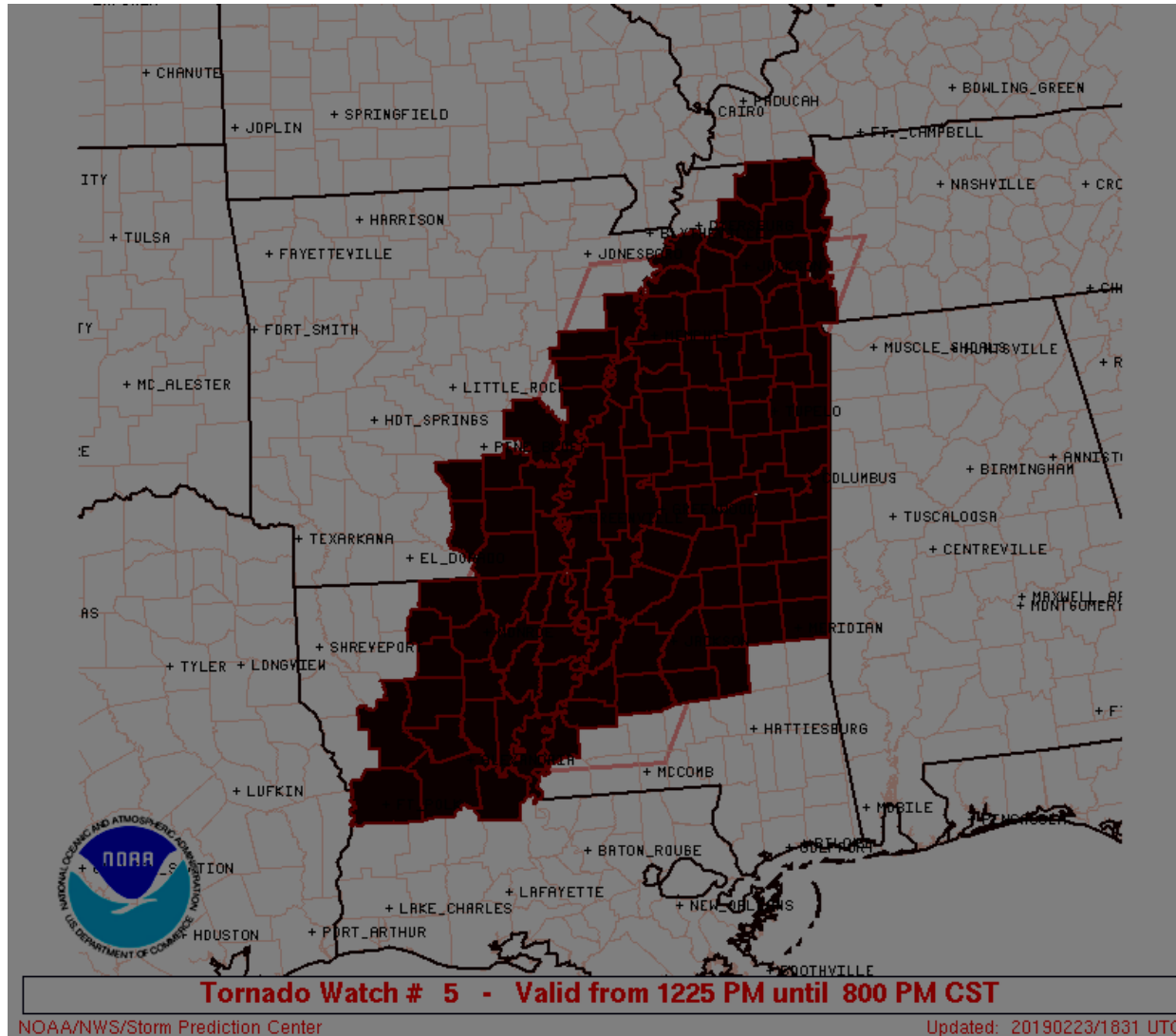
Watch Boxes

- Prior to expected severe thunderstorm activity, SPC will issue either a tornado or severe thunderstorm watch for a given area
- Typical duration of a watch area is 6 – 8 hours, but it can be canceled or extended as necessary
- Tornado or severe thunderstorm warnings are issued by local forecast offices









Watch Boxes








Watch Boxes (detailed)



Categories of Convective Outlook

Understanding Severe Thunderstorm Risk Categories					
THUNDERSTORMS (no label)	1 - MARGINAL (MRGL)	2 - SLIGHT (SLGT)	3 - ENHANCED (ENH)	4 - MODERATE (MDT)	5 - HIGH (HIGH)
No severe* thunderstorms expected	Isolated severe thunderstorms possible	Scattered severe storms possible	Numerous severe storms possible	Widespread severe storms likely	Widespread severe storms expected
Lightning/flooding threats exist with <u>all</u> thunderstorms	Limited in duration and/or coverage and/or intensity	Short-lived and/or not widespread, isolated intense storms possible	More persistent and/or widespread, a few intense	Long-lived, widespread and intense	Long-lived, very widespread and particularly intense
					
<ul style="list-style-type: none"> • Winds to 40 mph • Small hail 	<ul style="list-style-type: none"> • Winds 40-60 mph • Hail up to 1" • Low tornado risk 	<ul style="list-style-type: none"> • One or two tornadoes • Reports of strong winds/wind damage • Hail ~1", isolated 2" 	<ul style="list-style-type: none"> • A few tornadoes • Several reports of wind damage • Damaging hail, 1 - 2" 	<ul style="list-style-type: none"> • Strong tornadoes • Widespread wind damage • Destructive hail, 2" + 	<ul style="list-style-type: none"> • Tornado outbreak • Derecho
<p>* NWS defines a severe thunderstorm as measured wind gusts to at least 58 mph, and/or hail to at least one inch in diameter, and/or a tornado. All thunderstorm categories imply lightning and the potential for flooding. Categories are also tied to the probability of a severe weather event within 25 miles of your location.</p>					
		<p>National Weather Service</p> <p>www.spc.noaa.gov</p>			

Enhanced Fujita Tornado Rating Scale

EF Rating	Wind Speeds	Expected Damage
EF-0	65-85 mph	'Minor' damage: shingles blown off or parts of a roof peeled off, damage to gutters/siding, branches broken off trees, shallow rooted trees toppled. 
EF-1	86-110 mph	'Moderate' damage: more significant roof damage, windows broken, exterior doors damaged or lost, mobile homes overturned or badly damaged. 
EF-2	111-135 mph	'Considerable' damage: roofs torn off well constructed homes, homes shifted off their foundation, mobile homes completely destroyed, large trees snapped or uprooted, cars can be tossed. 
EF-3	136-165 mph	'Severe' damage: entire stories of well constructed homes destroyed, significant damage done to large buildings, homes with weak foundations can be blown away, trees begin to lose their bark. 
EF-4	166-200 mph	'Extreme' damage: Well constructed homes are leveled, cars are thrown significant distances, top story exterior walls of masonry buildings would likely collapse. 
EF-5	> 200 mph	'Massive/incredible' damage: Well constructed homes are swept away, steel-reinforced concrete structures are critically damaged, high-rise buildings sustain severe structural damage, trees are usually completely debarked, stripped of branches and snapped. 