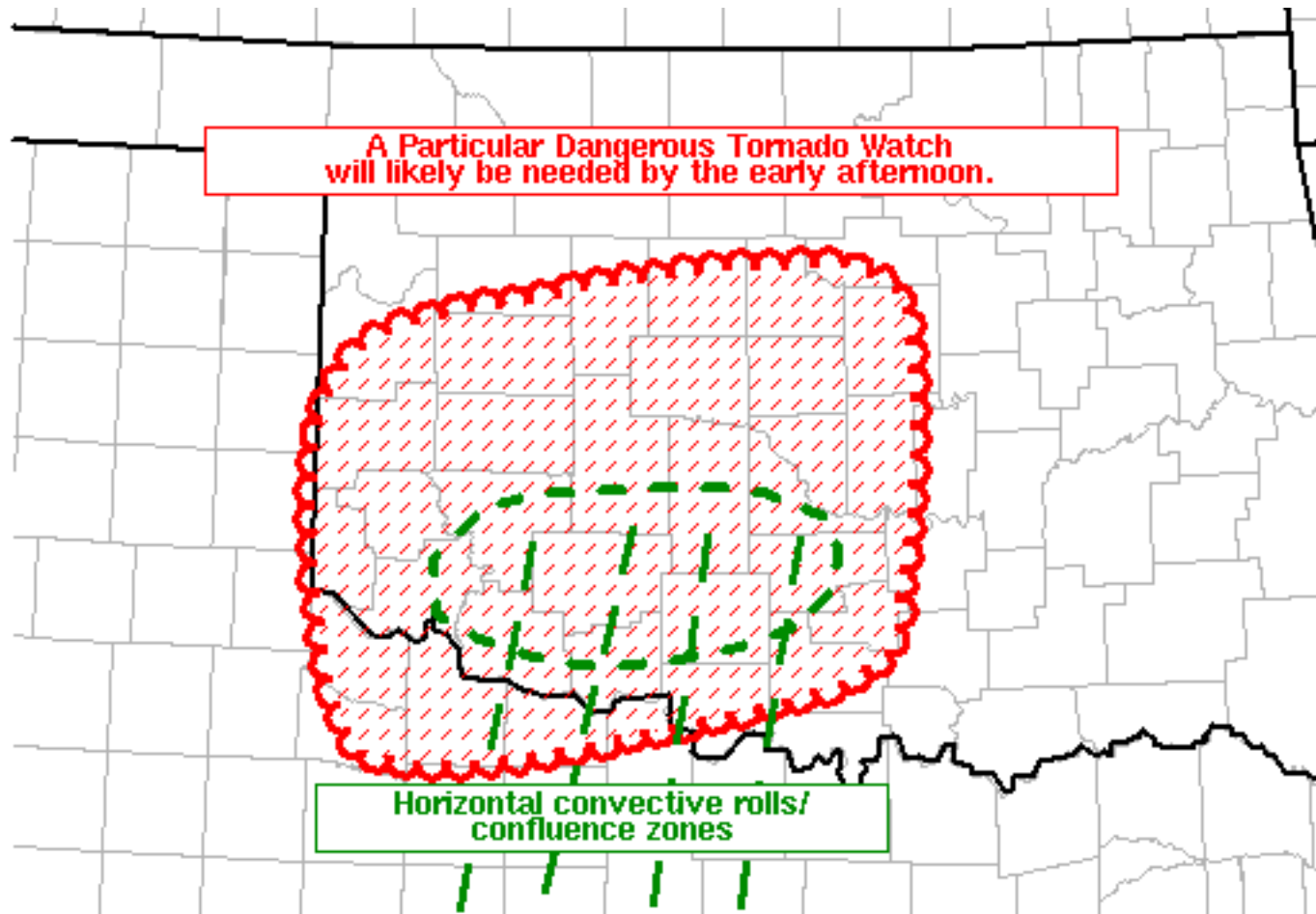


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Mesoscale Discussion 699

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SPC MCD #0699

Mesoscale Discussion 0699

NWS Storm Prediction Center Norman OK

1117 AM CDT Mon May 20 2019

Areas affected...southwest into central OK...western north-central TX

Concerning...Severe potential...Tornado Watch likely

Valid 201617Z - 201845Z

Probability of Watch Issuance...95 percent

SUMMARY...A Particularly Dangerous Situation Tornado Watch will likely be needed for portions of central and western OK. Observational trends and short-term model guidance suggest a watch being issued during the 1pm-2pm period.

DISCUSSION...Visible satellite imagery shows a bubbling cumulus field over western north-central TX into southwest and south-central OK. Rapid moisture advection is occurring late this morning with



surface dewpoints rising into the lower 70s over southern OK. Upwards of 4000 J/kg MLCAPE is expected by early to mid afternoon across western and central OK with intensifying wind profiles.

Short-term model guidance appears to have a reasonable depiction of free warm sector initiation occurring over southwest and south-central OK during the 2-3pm period. The observational trend in visible satellite imagery showing more pronounced bands of low cloud cover ---perhaps indicative of horizontal convective rolls and/or low-level confluence zones is supportive evidence for this model-based depiction. The expectation is for storms to develop on the northern half of these cloud features with explosive supercell development likely thereafter. Forecast soundings show a very rare combination of intense low-level SRH, very moist boundary, and extreme buoyancy. As such, the risk for strong to violent tornadoes appears to be increasing later this afternoon into the early evening.

..Smith.. 05/20/2019

...Please see www.spc.noaa.gov for graphic product...

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