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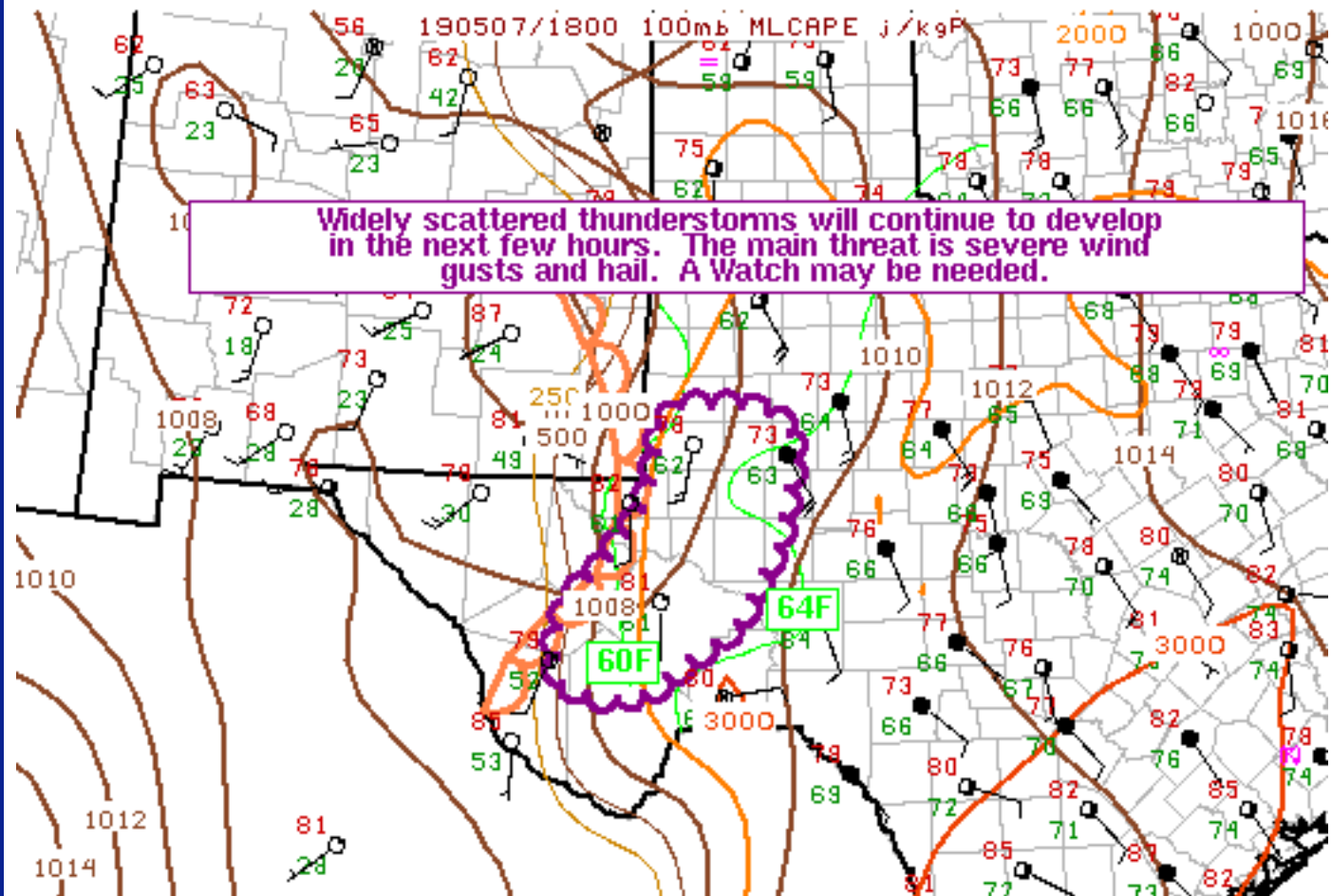
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- SPC Products
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- Tstm. Outlooks
- Fire Wx Outlooks
- RSS Feeds
- E-Mail Alerts
- Weather Information
- Storm Reports
- Storm Reports Dev.
- NWS Hazards Map
- National RADAR
- Product Archive
- NOAA Weather Radio

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- Non-op. Products
- Forecast Tools
- Svr. Tstm. Events
- SPC Publications
- SPC-NSSL HWT
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- About the SPC
- SPC FAQ
- About Tornadoes
- About Derechos
- Video Lecture Series
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- Enh. Fujita Page
- Our History
- Public Tours

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- Staff
- Contact Us
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Mesoscale Discussion 569

< Previous MD Next MD >



SPC MCD #0569

Mesoscale Discussion 0569
 NWS Storm Prediction Center Norman OK
 0139 PM CDT Tue May 07 2019

Areas affected...Portions of southwest and west Texas

Concerning...Severe potential...Watch possible

Valid 071839Z - 072045Z

Probability of Watch Issuance...60 percent

SUMMARY...Isolated to widely-scattered thunderstorms are expected to increase in coverage by 19-20z. Despite the expected isolated nature of the storms, a Watch may be needed.

DISCUSSION...Strong heating and large-scale forcing for ascent associated with an upper jet approaching the area is contributing to thunderstorm development over the Davis Mountains, as well as an increase in boundary-layer cumulus north-eastward to the Permian Basin. The southern part of the dryline has mixed east to Winkler



and Ward counties and the northern part should mix east to near the NM/TX border by 19-20z.

The continued approach of larger-scale forcing, the increase in convergence along and east of the dryline, and further strong diurnal heating should contribute to additional widely-scattered thunderstorms in the next 1-2 hours. Given that the stronger mid-upper forcing for ascent is north of the area, the thunderstorms are expected to be isolated to widely scattered throughout the afternoon. However, deep-layer shear increasing to 35-40 kt, boundary-layer dewpoints in the upper 50s to low 60s, and steep low-to-mid level lapse rates will be supportive of supercells capable of severe hail, with isolated significantly severe hail in the more strongly-rotating storms (the straight-line nature of the hodographs should support both cyclonic and anticyclonic rotating storms, as suggested in recent HRRR guidance). Although the relatively high boundary-layer dewpoints will limit sub-cloud evaporation-induced downdrafts, relatively dry air in mid levels is contributing to DCAPE 1000-1200 J/kg, and thus severe wind gusts also are possible. In the next few hours, the tornado threat should remain rather low given a relatively well-mixed south-southeasterly flow of 10-20 kt in the lowest 1 km, thus limiting low-level shear.

..Coniglio/Guyer.. 05/07/2019

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

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