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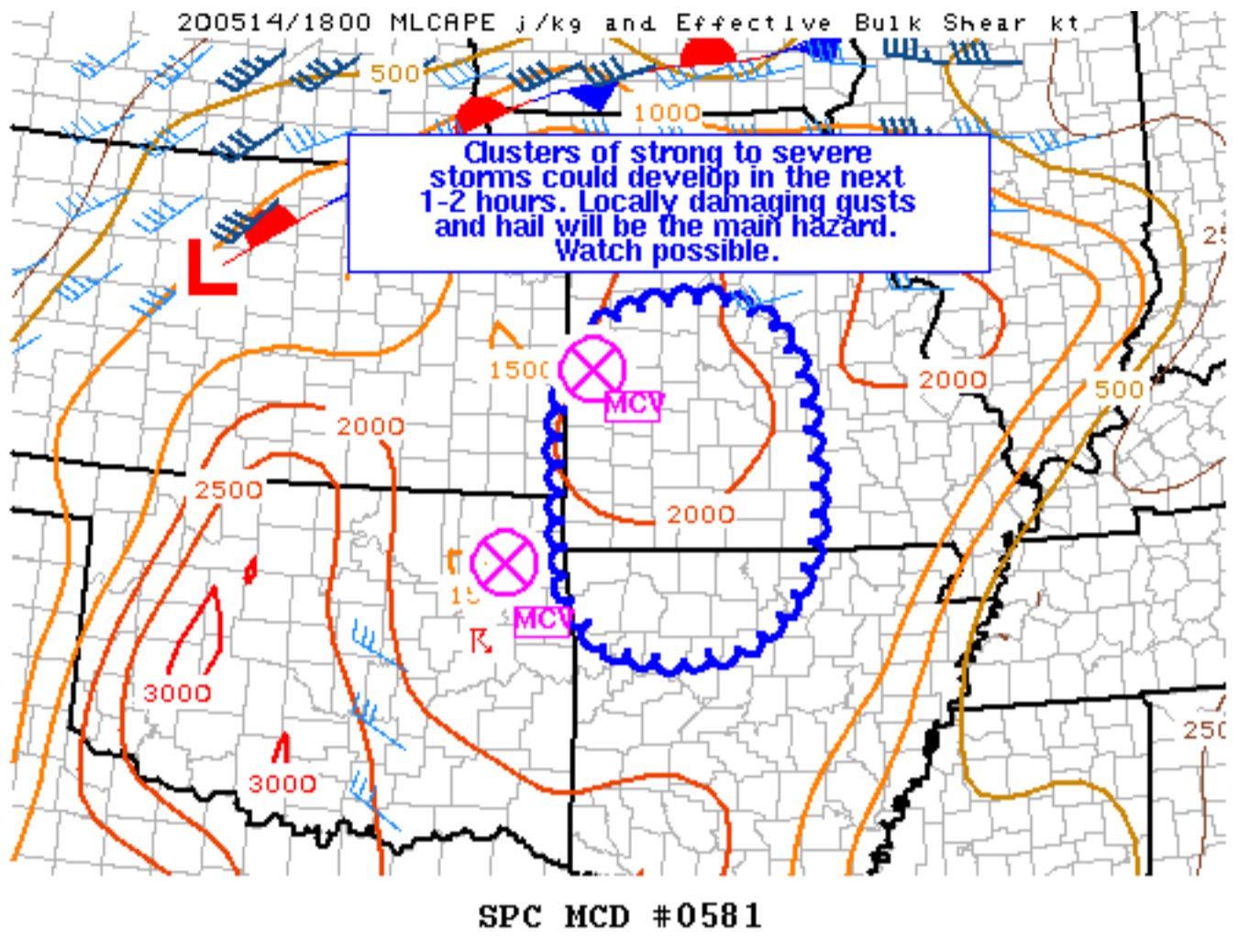
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Mesoscale Discussion 581

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200514/1800 MLCAPE J/kg and Effective Bulk Shear kt



SPC MCD #0581

Mesoscale Discussion 0581
NWS Storm Prediction Center Norman OK
0141 PM CDT Thu May 14 2020

Areas affected...portions of western MO...far eastern KS/northeast OK and northwest AR

Concerning...Severe potential...Watch possible

Valid 141841Z - 142045Z

Probability of Watch Issuance...40 percent

SUMMARY...A few strong to severe thunderstorms are possible this afternoon. The most intense cells could produce large hail and locally damaging wind gusts.

DISCUSSION...A deepening CU field is evident across the region beneath scattered midlevel cloudiness associated with a couple of MCVs migrating across western MO and northeast OK. Surface dewpoints have increased to the mid to upper 60s F across most of the discussion area beneath a plume of steep midlevel lapse rates (7-7.5 C/km). This has resulted in moderate MLCAPE around 1500-2000 J/kg per 17z Mesoanalysis and 18z TOP RAOB. As temperatures continue to warm into the upper 70s F, weak MLCIN will rapidly erode. Forcing across the region is modest, however, the aforementioned MCVs could aid in otherwise diurnally-driven convective initiation in the next couple of hours. Thunderstorm clusters will be the preferred storm mode given marginal effective shear (25-35 kt), but moderate instability and steep lapse rates should compensate somewhat, allowing for at least a few briefly strong to severe thunderstorms capable of large hail and locally damaging gusts. Trends will be monitored for possible watch issuance this afternoon.

..Leitman/Thompson.. 05/14/2020

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

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