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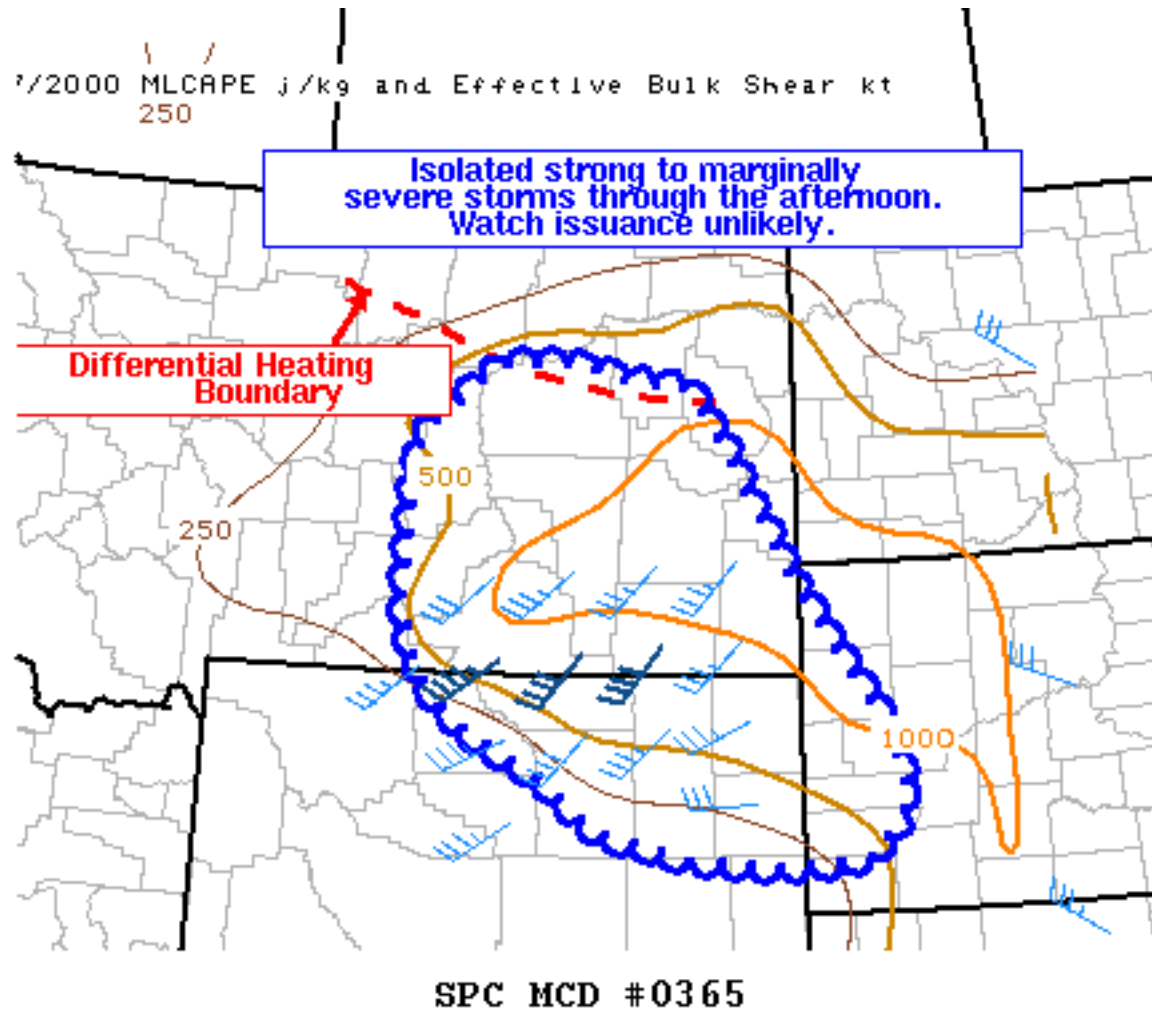
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## Mesoscale Discussion 365

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Mesoscale Discussion 0365

NWS Storm Prediction Center Norman OK

0349 PM CDT Mon May 07 2018

Areas affected...Most of eastern MT...northeast WY...and western SD.

Concerning...Severe potential...Watch unlikely

Valid 072049Z - 072245Z

Probability of Watch Issuance...20 percent

SUMMARY...Isolated strong to marginally severe storms are expected through the afternoon and into the early evening. A watch is unlikely.

DISCUSSION...Isolated storms have developed this afternoon ahead of a low amplitude upper wave in central MT. These storms initiated over the higher terrain, but have recently started to become better rooted in the lower elevations to the northeast of Billings. In addition, a few storms have developed on/near a differential heating

boundary in northern MT. While areas east of these storms still have weak convective inhibition per 20Z RAP mesoanalysis, continued heating should erode the remaining inhibition in the next few hours. This will provide a window for occasional strong updrafts as this environment is characterized by MLCAPE values up to 1000 J/kg. In addition, effective shear of 30 to 40 knots will aid in updraft organization near the MT/WY border. The well-mixed sub-cloud boundary layer will also enhance the wind threat with these storms. Given the marginal nature of both the instability and shear profile, there is a threat for localized large hail and damaging winds, but the isolated nature of stronger storms will likely preclude the need for a watch.

..Bentley/Grams.. 05/07/2018

...Please see [www.spc.noaa.gov](http://www.spc.noaa.gov) for graphic product...

ATTN...WFO...UNR...CYS...BYZ...GGW...RIW...TFX...

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NOAA / National Weather Service  
National Centers for Environmental Prediction  
Storm Prediction Center  
120 David L. Boren Blvd.  
Norman, OK 73072 U.S.A.  
[spc.feedback@noaa.gov](mailto:spc.feedback@noaa.gov)  
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