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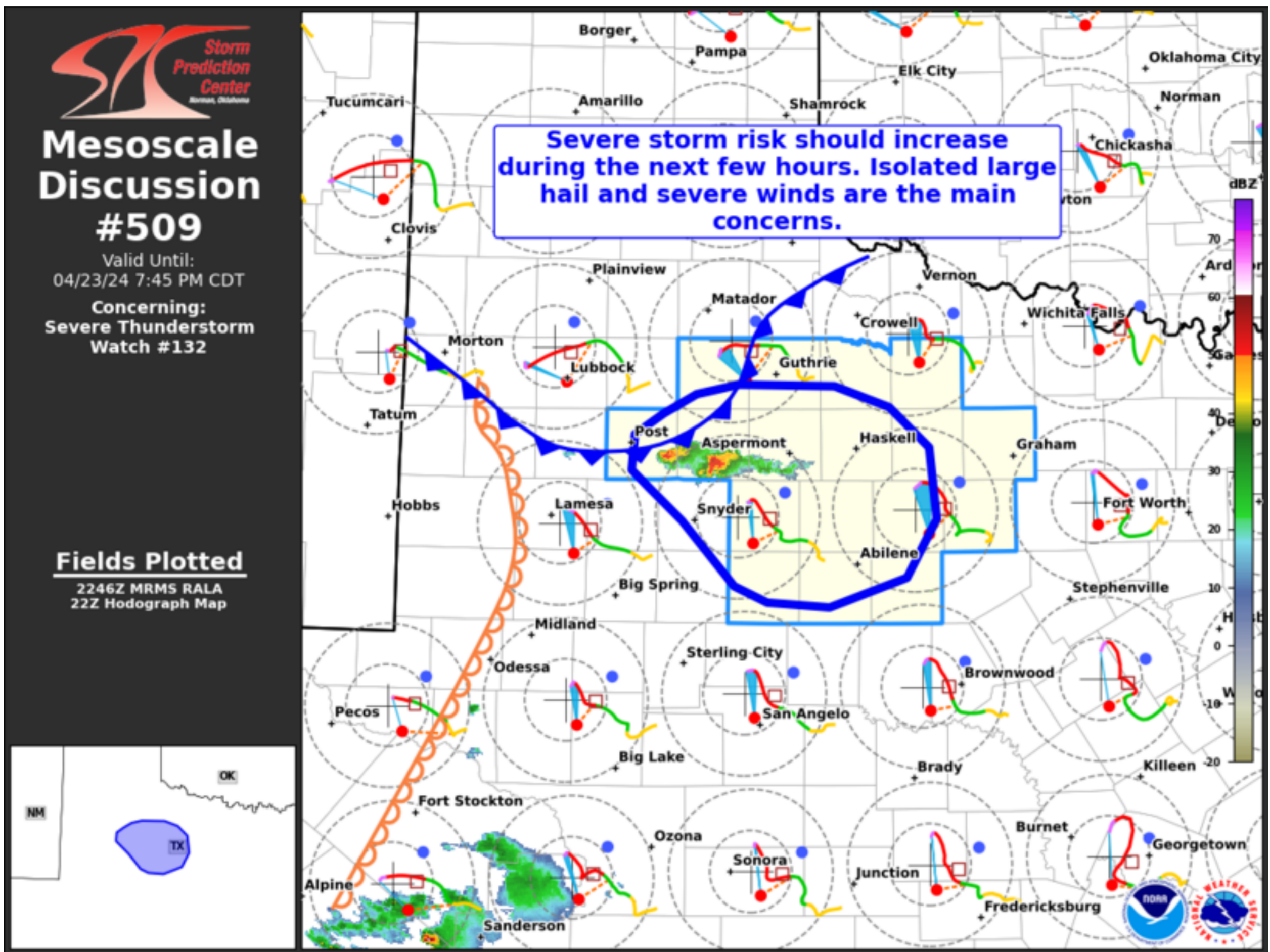
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Mesoscale Discussion 509

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Mesoscale Discussion #509
 Valid Until: 04/23/24 7:45 PM CDT
 Concerning: Severe Thunderstorm Watch #132
Fields Plotted
 2246Z MRMS RALA
 22Z Hodograph Map

Mesoscale Discussion 0509
 NWS Storm Prediction Center Norman OK
 0549 PM CDT Tue Apr 23 2024

Areas affected...Portions of Northwest Texas

Concerning...Severe Thunderstorm Watch 132...

Valid 232249Z - 240045Z

The severe weather threat for Severe Thunderstorm Watch 132 continues.

SUMMARY...The severe storm risk should increase across Severe Thunderstorm Watch 132 during the next few hours. Isolated large hail (some possibly up to 2.5 inches) and severe gusts to 70 mph are the main concerns.

DISCUSSION...A couple of semi-discrete thunderstorms have developed along a cold front draped across The Rolling Plains this afternoon, where surface convergence is maximized. So far, these storms have struggled to maintain organization and intensity as they attempt to get off the boundary. As of 2240Z, these storms are now tracking east-southeastward off the boundary, into an environment with richer boundary-layer moisture (upper 50s/lower 60s dewpoints) beneath steep midlevel lapse rates. Here, a long/mostly straight hodograph (characterized by 30-40 kt of effective shear) should support supercells (with a tendency for splitting). Weak large-scale ascent and warm/dry air at the base of the EML have limited storm intensity/sustenance so far. However, continued storm splits and related merging may allow for a larger storm structure or two to evolve with time. If this convective evolution can occur, isolated large hail (up to 2.5 inches in diameter) and severe gusts up to 70 mph will be an increasing concern during the next few hours.

..Weinman.. 04/23/2024

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

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