NOAA's National Weather Service

Storm Prediction Center





Mesoscale Discussion 0623 NWS Storm Prediction Center Norman OK 0120 PM CDT Wed Apr 26 2023

Areas affected...central TX

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

Valid 261820Z - 262045Z



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Probability of Watch Issuance...95 percent

SUMMARY...Convective initiation is forecast over central TX by mid afternoon coincident with the leading edge of ascent/cirrus nosing into the Big Country. Additional storms may develop near the outflow/warm front intersection.

DISCUSSION...Visible-satellite imagery shows a swelling cumulus field south of an outflow boundary and east of a dryline. Surface temperatures have warmed into the lower 80s deg F with dewpoints in the mid 50s near San Angelo and upper 60s near the warm front. Forecast soundings show minimal convective inhibition remaining across central TX as the boundary layer continues to warm/destabilize. Water-vapor imagery shows the leading edge of cirrus and implied ascent spreading quickly east across the Permian Basin and into the Big Country. As a result, convective initiation is expected in the next hour or so near Abilene. Once the remaining cap is breached, expecting explosive updraft growth with a hail risk quickly developing. Effective shear 40-50 kt and MLCAPE in excess of 3000 J/kg will rapidly promote supercell development. Large to giant hail (diameters 1 to 3+ inches) is expected. A tornado risk will likely focus near the warm front where relatively backed low-level flow augmenting hodograph size, and surface temperature-dewpoint spreads are less than 20 deg will reside. A strong tornado may occur if an established supercell(s) can interact favorably with the warm frontal zone.

..Smith/Gleason.. 04/26/2023

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

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