

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - May 26, 2020

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a longwave trough of low pressure over the Great Plains, a ridge over the East and the far West. At the surface, low pressure across the deep Southwest and centered across OK/KA/AR/MO with high pressure across the eastern seaboard. The flow at upper levels is mainly westerly with it generally light and variable at the surface. The current dew point temperature is in the lower to upper 60s and the environmental temperature in the middle to upper 60s with clear skies to overcast skies and a few showers across the area. For today, showers and thunderstorms continue this morning with the cold front already to the south and the axis of the trough running directly north to south through the region. Isolated showers and thunderstorms will be possible through the day as per hi-res model solutions especially across the northern half of the target area after last evening's storms clear out. Drier air will gradually make its way in as the trough slowly nudges eastward. A cut-off low will rotate across northeast Texas and then drift northeastward on Wednesday. Much of Wednesday looks to be dry; however, a 500mb jet may rotate across areas north of San Antonio combined with deep layer shear and CAPE values ranging between 2000 and 4000 J/kg, there exist the potential for strong to severe thunderstorms with large hail and damaging winds. Due to this I went ahead and introduced a slight chance for afternoon storms for the northern half of the target area by then. The upper-level trough across the eastern Southern Plains will move into the Southern Mississippi Valley on Wednesday evening with the return flow from the Gulf. The temperature will begin to warm up as the dew point temperature will be in the 60s by the evening. A cluster of thunderstorms will push to the southeast and away from the area Wednesday night and through the overnight hours. Much of the Thursday appears to be dry; however, a weak frontal boundary will push through by late afternoon into the evening hours that could trigger some showers and thunderstorms. A Mesoscale Convective Vortex (MCV) could be formed along the tail end of the front that may move into the southeast and affect the eastern half region overnight Thursday into Friday morning. The MCV should linger across the region throughout the day to bring a slight chance for showers and thunderstorms on Friday. The highs are progged to be in the upper 70s and lower 90s with the lows in the lower 60s to upper 60s through the end of the forecast period.

LIFTING MECHANISM:

Upper-level Low, Cold Air Aloft, Moisture Advection

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4197.67	CAPE (J/Kg)	108.43
Precipitable Water (inches)	1.70	CINH (J/Kg)	162.08
LCL	1243.42	LI (°C)	-2.12
CCL	1892.49	PB	-2.12
CRP ICA	-15.05	Cloud Base Temp (°C)	21.6
Cloud Base (meters)	1158.24		
Warm Cloud Depth (meters)	3039.43		

DISCUSSION:

A single isolated cell developed across the Bexar county that was in the non-seeding zone. It was due to moisture in the atmosphere and good enough instability from surface heating combined with a low across the Southern Plains.

As the cell moved out of the Bexar County and into the Wilson County, I had 47P go and seeded that it. 47P successfully seeded that cell, then return to base for the rest of the evening as there was no more activity out there.

WATCHES/WARNINGS:

Severe Thunderstorm, and Hail

SEEDED CELL ID'S:

2852							
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
21:57	47P	In Air	
22:12	47P	45° @ 25 nm	Wilson
22:13	47P	43° @ 23 nm	Wilson
22:13	47P	38° @ 21 nm	Wilson
22:16	47P	43° @ 21 nm	Wilson
22:21	47P	46° @ 21 nm	Wilson
22:36	47P	Landed	

Seeding operations were conducted in Wilson (10 + 0H) County. 10 flares plus 0 hygroscopic flares were burned within 1 cloud. This is the 6th day for seeding in May and the 7th day for seeding during the season.