

**SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS**

**SEEDING REPORT - May 23, 2020**

**SYNOPTIC/MESOSCALE CONDITIONS:**

Upper air analysis shows a low continuing to be over the East, a shortwave trough over the Central Plains, and a parent longer wave trough over the Northwest. At the surface, low pressure across the Great Plains and the Southwest with high pressure off the east and west coasts. The flow at upper levels is mainly westerly with it generally east southeasterly at the surface. The current dew point temperature is in the upper 60s and upper 70s and the environmental temperature in the lower 70s and lower 80s with broken clouds to overcast skies. For today, low-level southeasterly flow will keep moisture in place across our area. Orographic flow over the northern mountains of Mexico coupled with the convergence of a dryline boundary could develop a few convective cells across to the west of the Mexico/Texas border. With a steering flow, these storms could make their way east of the border and end up in our area overnight. The latest HRRR does not suggest this but the ARW does. Also, both the Texas Tech WRF and latest HRRR do suggest a couple of popup storms this morning with the TT WRF storm continuing into on into the afternoon hours. The rest of the model solution does keep us dry; thus, I went ahead and introduce a slight chance for showers and thunderstorms mainly for this morning. Overnight, should the ARW verify the remnant showers and storms will weaken while dissipating with the strongest of storms across the far western counties? On Saturday, the parent trough across the Northwest will dig in across the Rockies with height field gradually decreasing slightly across south-central Texas especially during the overnight hours. During the day looks to be mainly quiet except for an isolated afternoon storm or two. By evening, an embedded disturbance will bring shower and thunderstorms across from west to east. Some of the storms could be strong at times, which could produce heavy rain. Active weather lingers into Sunday as the wave exits the region. Another shortwave impulse that looks to be somewhat stronger will move in on Sunday evening bringing another round of showers and thunderstorms across our region overnight Sunday into Monday. And the pattern continues thereafter as this upper trough across the Central Plains beginning to be blocked by a ridge to the west and to east. Expect anywhere between .5 to 3in+ of rainfall through the time frame with the cooler temperatures mainly the latter half of the weekend into early next week due to rain cool air and increased cloud coverage. The highs are progged to be in the middle 80s and lower 90s with the lows in the middle 60s and middle 70s through the end of the forecast period.

**LIFTING MECHANISM:**

Longwave Trough, Dry Line, Shortwave

**THERMODYNAMIC INDICES (12Z KCRP)**

Freezing Level (m)	4522.47	CAPE (J/Kg)	2383.3
Precipitable Water (inches)	1.50	CINH (J/Kg)	11.52
LCL	747.85	LI (°C)	-5.98
CCL	944.49	PB	-5.98
CRP ICA	-23.68	Cloud Base Temp (°C)	22.2
Cloud Base (meters)	1645.92		
Warm Cloud Depth (meters)	2876.55		

**DISCUSSION:**

A line of thunderstorms developed across the northern mountains of Mexico due to a dryline boundary couple with mid-level disturbance. The cells tracked east of the Mexico/Texas border with full strength. As a cell drew nigh the Uvalde county, 57AA was launched to the northwestern area of the county where it was able to release the full dosages of seeding materials. While seeding that cell, it split into two but then re-merged after the aircraft was done and, on its way, back to base. The aircraft made it back safely and just ahead of the storm.

**WATCHES/WARNINGS:**

N/A

**SEEDED CELL ID'S:**

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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
24:44	57AA	In Air	
24:55	57AA	284° @ 80 nm	Uvalde
24:56	57AA	286° @ 79 nm	Uvalde
24:57	57AA	287° @ 77 nm	Uvalde
01:21	57AA	Landed	

Seeding operations were conducted in Uvalde (10+20H) County. 10 flares plus 20 hygroscopic flares were burned within 1 cloud. This is the 4<sup>th</sup> day for seeding in May and the 5<sup>th</sup> day for seeding during the season.