

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

**SEEDING REPORT - July 17, 2020**

**SYNOPTIC/MESOSCALE CONDITIONS:**

Upper air analysis shows a broad flat ridge over the southern half of the country with an inverted trough over the Upper Texas coast and trough across much of the northern half of the country. At the surface, high is across the Southern Rockies and Eastern half of the country with low pressure across the Northern Rockies and the West. The flow at upper levels is mainly easterly with it generally light and southeasterly at the surface. The current dew point temperature is in the lower 70s to middle 70s and the environmental temperature in the middle 70 and upper 70s with broken clouds to overcast skies and some fog across our area. For today, expect some morning stratus clouds as the flow at low levels is from the south southeasterly allowing for moisture to move in from off the Gulf of Mexico. The low clouds and fog should burn off this morning leaving the rest of the day under mostly sunny to partly cloudy skies as an inverted trough over the northwest Gulf of Mexico continues to move westward that will bring increasing cloud coverage across the eastern target area near the coastal plains. This feature could also bring a chance that is on the low side for showers and thunderstorms to parts of the target region. There is an inverted v-shaped forecast sounding with DCAPE values around 1200 J/kg across the southeastern areas; however, I can't rule out a strong downburst produced by a strong wind gust. Also, the temperature will be a few degrees cooler than yesterday as the upper-level ridge continues to weaken coupled with increasing cloud coverage. Conditions begin to settle as we lose daytime heating near sunset. Overnight, I'm not expecting much in way of precipitation with lows a few degrees warmer than the average as increased moisture. On Saturday, in the inverted trough moves into Mexico but weak low-level convergence across mid-Texas coast could cause a few showers isolated showers and thunderstorms to develop in the afternoon after possible streamer showers in the morning. The temperature on Saturday will drop a couple of degrees from today which, will be such a relief from what we endured throughout much of this week. As of now, Sunday and Monday look to be relatively dry, however, shower weak impulses move in over near the coast, there could be a chance each day for afternoon and evening showers and thunderstorms. Due to low confidence and uncertainty, I have opted out in not mentioning any active weather for the same time frame. The highs are progged to be in the lower to upper 90s with the lows in the lower to middle 70s through the end of the forecast period.

**LIFTING MECHANISM:**

Inverted Trough, Low-Level Moisture Advection, Sea Breeze

**THERMODYNAMIC INDICES (12Z KCRP)**

Freezing Level (m)	4649.8	CAPE (J/Kg)	2229.9
Precipitable Water (inches)	2.00	CINH (J/Kg)	31.79
LCL	723.31	LI (°C)	-6.16
CCL	1245.76	PB	-6.16
CRP ICA	-17.84	Cloud Base Temp (°C)	17.2
Cloud Base (meters)	1889.76		
Warm Cloud Depth (meters)	2760.04		

**DISCUSSION:**

Quiet weather across the entire target areas this morning transitioned to a fairly active weather pattern mainly across the southeastern counties as sea-

breeze storms developed and moved in. 60P was launched across the Bee County; however, by the time 60P got to the cell/s, it had encountered a technical issue as the flares would not burn. 60P had to return to the base to try and diagnose and fix the problem. 57AA was launched from Uvalde to take over for 60P. 57AA was sent to the Bee County as cells were pushing in from the east northeast. 57AA was able to seed a good cell across that county. There was another cell that into the southern Live Oak County that was trying to make it across the southeastern edge of the McMullen County that I had 57AA go and check out but by the time it got to that cell it was still south and east of the target county while heading southwest so I did not allow 57AA to seed it as it would not have benefitted the McMullen county but the non-seeding counties. 57AA returned to base at Pleasanton to refuel after conditions settled.

**WATCHES/WARNINGS:**

N/A

**SEEDED CELL ID'S:**

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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
19:28	60P	In Air	
20:09	60P	Recon	
20:36	57AA	In Air	
21:29	57AA	121° @ 34 nm	Bee
21:31	57AA	122° @ 35 nm	Bee
21:32	57AA	119° @ 33 nm	Bee
21:33	57AA	121° @ 34 nm	Bee
21:34	57AA	120° @ 34 nm	Bee
22:22	57AA	Landed	

Seeding operations were conducted in Bee (10+0H) County. 10 flares plus 0 hygroscopic flares were burned within 1 cloud. This is the 1<sup>st</sup> day for seeding in July and the 17<sup>th</sup> day for seeding during the season.