

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

**SEEDING REPORT - August 20, 2020**

**SYNOPTIC/MESOSCALE CONDITIONS:**

Upper air analysis shows a ridge centered over Arizona, a deep trough over the Southern Mississippi Valley, and weak shortwave disturbance across northern Texas. At the surface, a mix of high and low pressure across the western United States with high pressure across parts of the Midwest and Northeast. The flow at upper levels is mainly northerly with it light and variable at the surface. The current dew point temperature is in the lower 50s and lower 70s and the environmental temperature in the lower 60s to and lower 70s with clear skies to a few clouds across our area. For today, mainly dry weather is expected across much of the areas except for along the Coastal Blend where the moisture will be deeper. The level flow will be mainly northerly and while the southerly flow will transition from northeasterly to southerly later in the afternoon and overnight night hours. Remnants of the weak short wave to the north along the eastern periphery of the upper-level ridge should move south across our region while dissipating. Any showers from midlevel clouds will be sandwich between dry air above and below. Some models suggest no-zerochance precipitation south-central Texas. Should this verify, it will be brief, shallow, and elevated. However, I do expect it to be mainly dry across the region excluding the coastal plains as aforementioned. Overnight, should be quiet with an activity from the day diminishing by around sunset. There may be a few pockets of stratus clouds by early Friday morning with the humidity level will change by then. The onshore push will cause an increase in the afternoon dew point temperature that will lead to the heat index values a degree or two warmer than the actual environmental temperature. By Friday night, a shortwave pushes south into the Hill Country and linger there through Saturday morning. This could bring a few showers possibly across the far northern target areas by then. Otherwise, dry weather is expected with a few passing clouds and the temperature in the continuing to a few degrees above the average. The upper-level ridge continues to dominate our area with it over the Western Contiguous United States and an upper-level trough dominates the East. Therefore, expect dry and hot conditions across south-central Texas on Sunday. The highs are progged to be in the upper 90s and lower 100s with the lows in the lower to middle 70s through the end of the forecast period.

**LIFTING MECHANISM:**

Weak Shortwave, Low-Level Moisture Advection, Sea-Breeze

**THERMODYNAMIC INDICES (12Z KCRP)**

Freezing Level (m)	4437.40	CAPE (J/Kg)	918.48
Precipitable Water (inches)	1.61	CINH (J/Kg)	126.21
LCL	1545.73	LI (°C)	-2.10
CCL	1993.17	PB	-2.10
CRP ICA	-20.01	Cloud Base Temp (°C)	21.4
Cloud Base (meters)	2222.27		
Warm Cloud Depth (meters)	2215.13		

**DISCUSSION:**

Another quiet morning and early afternoon transitioned to a semi-active mid-afternoon with a few pop-us across parts of the EAA counties and the Bee County. 57AA was first launched across the county but was not able to reach a cell on time to seed it. There were two cells across the Bee county, one on the west along the western border while the other over the east. 60P was nearly to be airborne before the one on the west moved over into the Live Oak county while the one on the east died; thus, 60P canceled taking off. However, a little while after, the one on the east regain strength, and 60P was called out to go and investigate it. More small pop-ups across parts of the EAA counties had led me to relaunched 57AA. Unfortunately, 57AA could not have run out of flares and had no flares at the airport plus the few remaining flares on the aircraft did not want to burn; thus, 57AA had to suspend operations for the evening. 60P was then relaunched first across the southern tip of the Bee county s there was a cell that was mostly across a non-seeding county; however, while on its way there all of the cells were outside of the Bee county so it was unable to seed that cell. 60P was then ordered to do across the southern McMullen county where there was a decent small cell. However, while on its way there, the cell had already moved out of the target area. Another piece of cell tried moved into the eastern Bee county where I had 60P make a U-turn and head back that way to try and see if it was seedable. When 60P got to that cell, it died. 57AA was able to get the flare rack fixed and returned to the skies when it was safe to finish off with the remaining flares.

**WATCHES/WARNINGS:**

N/A

**SEEDED CELL ID'S:**

130	167	139	123	221					
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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
20:00	57AA	In Air	
20:33	57AA	Recon	
20:44	60P	In Air	
20:50	57AA	In Air	
20:57	60P	120° @ 46 nm	Bee
20:59	60P	117° @ 47 nm	Bee
21:01	60P	121° @ 47 nm	Bee
21:02	60P	119° @ 46 nm	Bee
21:05	57AA	280° @ 82 nm	Uvalde
21:06	57AA	282° @ 83 nm	Uvalde
21:07	57AA	282° @ 82 nm	Uvalde
21:12	57AA	282° @ 85 nm	Uvalde
21:13	57AA	287° @ 85 nm	Uvalde
21:15	60P	Landed	
21:21	57AA	289° @ 72 nm	Uvalde
21:21	57AA	283° @ 71 nm	Uvalde
21:22	57AA	288° @ 71 nm	Uvalde
21:22	57AA	287° @ 70 nm	Uvalde
21:31	57AA	285° @ 68 nm	Uvalde
21:40	57AA	274° @ 80 nm	Uvalde
21:48	57AA	In Air	
22:01	57AA	287° @ 45 nm	Uvalde
22:10	57AA	Recon	
22:28	57AA	In Air	
22:38	57AA	297° @ 40 nm	Medina
22:39	57AA	298° @ 40 nm	Medina
22:39	57AA	299° @ 40 nm	Medina

22:40	57AA	299° @ 38 nm	Medina
22:41	57AA	297° @ 38 nm	Medina
23:06	57AA	Landed	

Seeding operations were conducted in Bee (8+0H), Medina (10+0H), and Uvalde (22+0H) Counties. 48 flares plus 0 hygroscopic flares were burned within 5 clouds. This is the 7<sup>th</sup> day for seeding in August and the 30<sup>th</sup> day for seeding during the season.