SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION – Pleasanton, TEXAS

SEEDING REPORT – August 24, 2020

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a ridge centered AZ/NM/CO/UT, an inverted trough over south Texas and Tropical Storm Marco just of the Louisiana and Mississippi coast. At the surface, high is across much of the West and low pressure is across the East. The flow at upper levels is mainly easterly with it calm to light and northeasterly at the surface. The current dew point temperature is in the lower 60s and lower 70s and the environmental temperature in the upper 60s to and middle 70s with clear skies to scattered clouds across our area. For today, a few mid-level clouds are expected this morning to cover across portions far northern target area with much of the area during the day. An uptick in humidity across the Southern Edward Plateau and the encampment will lead to showers and thunderstorms mainly in the afternoon. Both the Hi-Res, ARW, and TT WRF agree that convective initiation anywhere after 1 p.m. The forecast sounding suggests an inverted-v shape and a DCAPE between 700 and 1000 J/kg that could result in strong gusty winds in excess of 40 mph. The storms will form and move west southwesterly as the steering flow that is from the east northeast. Also, a few convective active is expected along the sea-breeze near the coast this afternoon with peak heating. Storm activity should diminish by around sunset. Otherwise, most areas should be relatively dry with the temperature around the climatological normal. Tuesday is expected to be quiet as a stable airmass controls the area. However, I can't rule out one or two storms along the coast induced by a sea-breeze. Dues to much drier weather on Tuesday, the temperature will rise a few degrees with it near 100 near the Rio Grande area. Wednesday through Thursday, conditions are dependent on Tropical Storm Laura which is expected to become a hurricane. Tropical Storm Marco, is forecast to make landfall today and then head west across southern coast Louisiana and possibly into southeast Texas while dissipating. We will not be impacted by Marco whatsoever. Also, Laura should make landfall either southeast Texas or southwest Louisiana with its track changing path between now and Wednesday/Thursday. Whether it makes landfall more west or farther east, we will be on the dry side of the storm; however, a few scattered showers and thunderstorms possible from the outer convective bands. The highs are progged to be in the lower 90s 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)	4601.21	CAPE (J/Kg)	1943.53
Precipitable Water (inches)	1.82	CINH (J/Kg)	15.82
LCL	769.07	LI(°C)	-5.90
CCL	1049.68	PB	-5.90
CRP ICA	-22.55	Cloud Base Temp (°C)	22.1
Cloud Base (meters)	1184.36		
Warm Cloud Depth (meters)	3416.85		

DISCUSSION:

Cells developed across the Coastal Plains by late morning and early afternoon. By the afternoon 60P was launched to go across the Bee County as a cell looked very healthy was along the southern side. 60P successfully seeded that cell

with the full dosages of seeding materials. 60P returned to base as there were no other cells to seed at the time. Sometime later, 60P was relaunched to go over the McMullen county as what looks to be new cells developing from the cell already seeded across the Bee County. However, by the time 60P got to it, it did not have any substance and was about to die across the McMullen County. The cell had broken up into smaller cells with most of it outside of the target area. After 60P was unable to seed that cell, it returned to base. There were a few weak small cells across the western target area that was unseedable. There were times when as 57AA would get ready to depart Uvalde airport, that the cells would dissipate and not last long enough for aircraft to get to it. An unexpected cell developed across northern Bee County during the late afternoon and early evening hours where I had 60P do and investigate it. However, 60P was only able to release just a few dosages of seeding materials in that cell as it was weakening over the Bee County with little to no inflow while getting better over the Live Oak County. 60P returned to base for the evening.

WATCHES/WARNINGS:
N/A

SEEDED CELL ID'S:

546	1729									

FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
17:32	60P	In Air	
17:40	60P	117° @ 40 nm	Bee
17:41	60P	119° @ 38 nm	Bee
17:42	60P	121° @ 37 nm	Bee
17:43	60P	124° @ 36 nm	Bee
17:45	60P	126° @ 25 nm	Bee
17:58	60P	Recon	
19:00	60P	In Air	
19:52	60P	Landed	
22:44	60P	In Air	
22:51	60P	120° @ 33 nm	Bee
22:52	60P	123° @ 32 nm	Bee
23:11	60P	Landed	

Seeding operations were conducted in Bee (14+0H) County. 14 flares plus 0 hygroscopic flares were burned within 2 clouds. This is the 9th day for seeding in August and the 32nd day for seeding during the season.