

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - August 29, 2018

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows mainly a flight ridge of high pressure across the parts of the South and Southwest and more amplified across the East with a trough of low pressure across the Northern Mississippi Valley and Central Great Lakes and a weak disturbance centered across northeast Mexico. At the surface, mainly ridging with a low trough axis across New Mexico and far west Texas with front extending across northern Texas from a low pressure system across the northern part of the country. The flow at upper levels is from the east southeast and light and variable at the surface. The current dew point temperature is in the low 70's and the environmental temperature in the mid to upper 70's with broken low clouds passing clouds across our area. For today, mainly quiet weather to much of the target zones mainly western and central counties as we are still under a ridge with possible afternoon isolated thunderstorms making that way across the eastern counties of target zone. The precipitable water is forecast to be 2 inches and above mainly across the eastern counties. The latest HRRR brings in a few cells in across the eastern target area after 20UTC while the WRF keeps storms east of the eastern county of the target zone and the southern edge of the Bee County. Since confidence level is not high I will keep a slight chance to low chance for precipitation mainly for the eastern counties for today. The dew point temperature is forecast to be in the 60's across much of the western and central target zone with it in the low 70's for the eastern county; thus, the heat index values are expected to be on the high side later in the day. Expect the feel like temperature to be a several degrees warmer than the actual temperature by this afternoon. Also, the highs for today should be several degrees warmer than the normal for this time of the year especially for the inland areas. The highs for the rest of the forecast period is expected to be still above the average for much of the target zone. For the Thursday through Saturday, a flat ridge will dominate our weather with a few cells developing during the afternoon hours. However, this may or may not occur and with any luck at least the southeastern counties may get a shot at this. Otherwise, mainly dry and hot conditions are expected through the end of the forecast period.

LIFTING MECHANISM:

Weak Upper Level Ridge, Low Level Moisture Advection, Sea-Breeze

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4933.62	CAPE (J/Kg)	1747.7
Precipitable Water (inches)	1.91	CINH (J/Kg)	80.68
LCL	876.84	LI (°C)	-4.58
CCL	1393.07	PB	-4.58
CRP ICA	-20.28	Cloud Base Temp (°C)	18
Cloud Base (meters)	1443.99		
Warm Cloud Depth (meters)	3488.63		

DISCUSSION:

Showers and thunderstorms developed during the afternoon hours. The cells were associated with a sea-breeze activity. The cells did not last too long and the seeding period was short compared to some previous events. There were some moisture moving in from off the coast and with day time heating cells developed with isolated storms mainly to parts of the eastern and

central counties. As the atmosphere became active, aircraft 160P was launched across the Karnes County first where it was able to seed a few cells. Keep in mind, that the cells were weak and few; thus, 160P was not able to release the entire amount of dosages with each cloud. It returned to base as conditions became a little more settled. After some time, I noticed two cells trying to develop and stand out long enough therefore, I relaunched 160P to head to the Atascosa County. There the cell did not last that long but 160P was able to seed it once. After flying around that little cell while it was dying, 160P headed to the McMullen County where a cell held out long enough for it to get there. However, when 160P got to it there was no inflow with good reflectivity values. After 160P was unable to get any good inflow, it was sent back to base for the evening.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

1181	1187	1233	1282						
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
20:08	160P		
21:17	160P	98° @ 47 nm	Karnes
21:17	160P	97° @ 45 nm	Karnes
21:19	160P	96° @ 42 nm	Karnes
21:20	160P	93° @ 40 nm	Karnes
22:22	160P	91° @ 40 nm	Karnes
22:08	160P	97° @ 26 nm	Karnes
22:09	160P	100° @ 26 nm	Karnes
22:37	160P	Recon	
23:03	160P	In Air	
23:17	160P	140° @ 16 nm	Atascosa
24:25	160P	Landed	

Seeding operations were conducted in Atascosa (2+0H) and Karnes (14+0H) Counties. 16 flares plus 0 hygroscopic flare were burned within 4 clouds. This is the 8th day for seeding in August and the 26th day for seeding during the season.