

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - August 6, 2018

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a positively tilted trough across the north with a ridge of high pressure across the Southwest and Southeast and inverted trough located across Northeastern Mexico. At the surface, mainly ridging with a low/trough axis located across Southwest and another axis off shore Texas. The flow at upper levels is mainly from the southeast with it light and from the east southeast at the surface. The current dew point temperature is low 70's and the environmental temperature in the mid 70's with a few clouds in the area. For today, an inverted trough at mid to upper levels across Northeastern Mexico will continue to gradually propagate westward while sending showers and thunderstorms to our region. Much of the precipitation will be towards the coast with a few cells possibly making their way further inland. The CAPE values are forecast to be above 2000 J/kg with very little to no CIN by this afternoon. Precipitation should taper off by early evening hours. For Tuesday, a weak upper level low may drop in off shore southeastern Texas and southwestern Louisiana that may produce a slight chance for sea-breeze activity across mainly across the coast as an upper level ridge across the Southwest amplifies. The ridge may also strengthen across Texas causing temperatures to begin to rise and lower the chances for showers and thunderstorms near the coast. Wednesday looks to be the driest day as a broad ridge across the west impacts our weather. Can't rule out shower and thunderstorm along the Coastal Plains on Wednesday but less active than today. One Thursday, a trough to the north begins to slide south across the Southern Great Plains that may bring a slight chance for active weather mainly along the northern counties as early as overnight Thursday. The dew point temperature is forecast to be in the upper 60's to low 70's this afternoon and possibly on Tuesday with the feel like temperature between 5 and 6 degrees warmer than the actual temperature.

LIFTING MECHANISM:

Low Level Moisture, Low Level Warm Advection, Sea-Breeze

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4858.34	CAPE (J/Kg)	1514.6
Precipitable Water (inches)	2.14	CINH (J/Kg)	55.04
LCL	710.92	LI(°C)	-4.96
CCL	832.61	PB	-4.96
CRP ICA	-21.93	Cloud Base Temp (°C)	21.2
Cloud Base (meters)	1516.68		
Warm Cloud Depth (meters)	3341.66		

DISCUSSION:

A mid-level inverted trough centered across northeast Mexico with its axis offshore brought showers and thunderstorms to the region this morning through the late afternoon hours in the form of sea-breeze. Cells developed early but not that strong enough to hold on until an aircraft to seed them. Conditions settled slightly during the early afternoon hours with a few isolated showers here and there but then cells began to fire up later in the day. As cells strengthened, aircraft 47P was launched across the Wilson County where it performed seeding on a cell. Also, aircraft 160P was launched across the McMullen County. 160P hit many cells but some of the cells were pretty weak;

thus, only a few cells were seeable. There was more hope across the northeastern counties as multiple cells would form and 47P was able to at least release several dosages of seeding materials into the several of them. After the cells across the McMullen County had dissipated, 160P was ordered to return to base but on its way back a cell developed across the Atascosa County. 160P was then sent to the east/central Atascosa County where it intercepted the cell and released a few dosages of seeding materials. Seeing that the cell was not huge and the inflow was not that impressive, 160P headed home as cells continued to diminish. After 47P seeded across the Wilson and Karnes Counties, it headed back to base before 160P as cells were weakening and the older ones were already seeded. In all, despite several weak cells across the south and marginally good cells across the northeastern counties of the target zone, seeding was a success as we were able to seed several thunderstorms.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

1274	753	755	842	889	894	911	895	962	
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
21:16	47P	In Air	
21:28	160P	In Air	
21:38	47P	58° @ 22 nm	Wilson
21:40	47P	57° @ 23 nm	Wilson
21:53	160P	167° @ 37 nm	McMullen
21:54	160P	166° @ 37 nm	McMullen
21:58	160P	170° @ 31 nm	McMullen
22:00	160P	172° @ 31 nm	McMullen
22:02	47P	248° @ 45 nm	Wilson
22:08	47P	64° @ 38 nm	Karnes
22:09	47P	66° @ 34 nm	Karnes
22:14	47P	64° @ 38 nm	Karnes
22:17	47P	66° @ 34 nm	Karnes
22:30	47P	70° @ 33 nm	Karnes
22:33	47P	75° @ 40 nm	Karnes
22:34	47P	73° @ 42 nm	Karnes
22:35	47P	74° @ 40 nm	Karnes
22:40	160P	173° @ 18 nm	McMullen
22:41	160P	172° @ 19 nm	McMullen
22:44	47P	72° @ 33 nm	Karnes
22:47	47P	73° @ 34 nm	Karnes
22:52	47P	71° @ 35 nm	Karnes
23:03	47P	63° @ 16 nm	Wilson
23:06	47P	62° @ 16 nm	Wilson
23:12	47P	64° @ 17 nm	Wilson
23:21	160P	61° @ 9 nm	Atascosa
23:22	160P	54° @ 9 nm	Atascosa
23:23	160P	59° @ 8 nm	Atascosa
23:44	47P	Landed	
23:53	160P	Landed	

Seeding operations were conducted in Atascosa (6+0H), Karnes (22+44H), McMullen (12+0H) and Wilson (10+20H) Counties. 50 flares plus 64 hygroscopic flares were burned within 9 clouds. This is the 3rd day for seeding in August and the 21st day for seeding during the season.