SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION – Pleasanton, TEXAS

SEEDING REPORT – August 5, 2018

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows deep trough of low pressure across the East and a ridge of high pressure across the Central Plains and the Southern Rockies with another trough across the Northwest. At the surface, mainly ridging across much of the country with a low across the Northern Rockies. The flow at upper levels is from the north-northeast and calm to light and variable winds at the surface. The current dew point temperature is in the mid 60's with the temperature in the low 70's and under mostly clear/sunny skies. For today, expect a replica of yesterday's weather condition as we remain upwind of the trough of low pressure to our far east. The upper level ridge will influence our weather today then weaken early Saturday morning. This weakening will set up sea-breeze activities Saturday through the end of the forecast period with Sunday looking to be a little more active. Low chance for showers and thunderstorms Saturday through Sunday with a slight chance on Monday as inverted troughs moves further west Mexico. The high temperatures are not forecast to be extreme as it was a few weeks ago but still slightly above the average at least today and tomorrow. The temperature is expected to be at or slightly below the normal for this time of the year due to a less of an influence of the upper ridge and more of an influence of mid-level disturbances cooling of temperatures somewhat for the latter half of the weekend and early next week. Not expecting widespread showers with these events, but a few hit or miss is possible. Active weather may enter the inland areas on Sunday and possibly on Monday. Today, the dew point is forecast to be in the mid to upper 50's across much of the target zone this afternoon with the southeastern counties in mid 60's; thus, the feel like temperature is expected to be at or near the actual temperature across the much target zone except the for southeastern counties where the temperature may feel a few degrees higher than the actual temperature. Nevertheless, the forecast calls for settled conditions today with a few passing clouds at times and early morning fog near the coast before conditions transit to semi active this weekend.

LIFTING MECHANISM:

Low Level Moisture, Low Leve Warm Air Advection, Inverted Trough

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4560.02	CAPE (J/Kg)	1825.8
Precipitable Water (inches)	2.02	CINH (J/Kg)	23.77
LCL	806.64	LI(°C)	-3.66
CCL	1265.4	PB	-3.66
CRP ICA	-18.68	Cloud Base Temp (°C)	19.7
Cloud Base (meters)	1360.84		
Warm Cloud Depth (meters)	3199.18		

DISCUSSION:

Showers and thunderstorms developed early this morning due to increasing tropical moisture associated with an inverted trough. Showers moved northward from off the coast and headed towards the northern counties of the target zone. Morning storms were very week and the cells did not last a at

least an hour long with marginal instability. Mainly showers took place on this day with a few isolated thunderstorms during the morning and afternoon hours. During the afternoon hours, I had aircraft 160P fly to the Frio County where cells looked a little more impressive. However, when 160P arrived it reported mainly clouds with minimal showers and very weak inflow. After this 160P headed to the Bandera and Uvalde Counties where new cells developed from the outflow from older cells. When 160P arrived, the cells were still to weak; thus, they were unseedable. While on the way back to the central counties, 160P was able to seed a cell entering the southern parts of the Uvalde County. Later hours of the afternoon 160P seeded a cell back across the Uvalde County before heading to the Wilson County. There were a few cells across the Wilson County that 160P seeded but was not able to put the full dosages due to the size of the cells and the inflow rates. While across the Wilson County a cell had already developed across the Bee County so 160P departed when done over the Wilson County. As 160P got closer to the Bee County cell it was dying and not point at seeded it whatsoever. Aircraft 160P headed back to base as conditions settled.

WATCHES/WARNINGS:
N/A

SEEDED CELL ID'S:

1113	1514	1740	1788						

FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
17:53	160P	In Air	
19:29	160P	086° @ 63.3 nm	Uvalde
19;30	160P	085° @ 64.1 nm	Uvalde
19:32	160P	086° @ 64.0 nm	Uvalde
19:33	160P	087° @ 64.7 nm	Uvalde
19:35	160P	087° @ 64.7 nm	Uvalde
21:21	160P	272° @ 57 nm	Uvalde
21:22	160P	272° @ 58 nm	Uvalde
21:23	160P	271° @ 56 nm	Uvalde
21:24	160P	273° @ 58 nm	Uvalde
21:25	160P	272° @ 61 nm	Uvalde
22:11	160P	41° @ 24 nm	Wilson
22:12	160P	40° @ 24 nm	Wilson
22:13	160P	42° @ 23 nm	Wilson
22:20	160P	44° @ 35 nm	Wilson
22:21	160P	45° @ 35 nm	Wilson
22:22	160P	43° @ 35 nm	Wilson
22:23	160P	42° @ 34 nm	Wilson
23:53	160P	Landed	

Seeding operations were conducted in Uvalde (20+1H) and Wilson (14+0H) Counties. 34 flares plus 1 hygroscopic flare were burned within 4 clouds. This is the 2nd day for seeding in August and the 20th day for seeding during the season.