

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

**SEEDING REPORT - August 10, 2018**

**SYNOPTIC/MESOSCALE CONDITIONS:**

Upper air analysis shows two disturbance across near Texas, one across the Southern Mississippi Valley and the other one across the Southern Plains with an amplified ridge West and flatten ridge across the Southeast. At the surface, mainly riding with two front extending across the Southern Plains one north-central Texas and the Kansas. The flow at upper levels is from the north northwest and mainly calm at the surface. The current dew point temperature is in the low 70's and the environmental temperature in the low 70's as well with broken clouds moving through our area. For today, the upper disturbance across the Southern Mississippi Valley exits across the east with a trough to the northern parts of the Southern Plains strengthening slightly and sliding south across parts of Texas. The combination of the exiting low and the incoming one will bring a chance for showers and thunderstorms during the day to day and overnight beginning with the northern counties first parts of the central counties of the target zone mainly overnight. With daytime heating, low level moisture and frontal boundary close to the area, isolated to scattered showers are expected through the end of today with enough left over for overnight. The trough lingers in Saturday bringing another round of precipitation across much of the target zone as the 300mb jet stream will be located across Central Texas. This upper low becomes cut off from the main flow by Saturday evening which will enhance lift that will also bring active conditions to our area overnight Saturday through the end of the period. By Monday the low will begin to eject into an upper level trough across the far north. Unsettled conditions are expected today through the beginning of next week with much needed rainfall for many areas across the south. The forecast calls for the dew point temperature to be in the upper 60's; thus, the heat index value is expected to be on the high side. The feel like temperature will be at least 3 to 5 degrees warmer than the actual temperatures. On Saturday, the dew point temperature is even expected to be higher mainly into the low to mid 70's across much of the target zone with very warm feel like temperatures.

**LIFTING MECHANISM:**

Upper Level Disturbance, Stationary Front, Low Level Moisture

**THERMODYNAMIC INDICES (12Z KCRP)**

Freezing Level (m)	4803.90	CAPE (J/Kg)	2336.6
Precipitable Water (inches)	1.81	CINH (J/Kg)	36.93
LCL	663.30	LI(°C)	-5.05
CCL	969.20	PB	-5.05
CRP ICA	-23.08	Cloud Base Temp (°C)	14.9
Cloud Base (meters)	2447.11		
Warm Cloud Depth (meters)	2356.79		

**DISCUSSION:**

A trough of low pressure across the northern half of Texas brought showers and thunderstorms to our area late this afternoon into the early evening hours. Much of the precipitation was held to the west of Uvalde and northwest of the Bandera County during the day. There was a delay in active weather during the day as cells slowly made their way from Central Texas towards to south across the west and northern counties of the target zone.

There were not a lot of seeding done with this storm as the cells came in late in the afternoon and evening hours. When cells at least began to touch across the northern edge of the Bandera County, aircraft 47P was launched across that county first from Uvalde airport. 47p was able to hit one cell across that county and then flew back down to the Uvalde County where it seeded another cell. After the cells started to really develop while over the Uvalde County, 47P went back up to the Medina and Bandera Counties for possible seeding. 47P seeded a cell across the Medina County even though multiple cells developed. Some of the cells were unreachable and some were just not seedable. After it tried to make it to Bandera County, 47P returned to the south across the northern edge of the Frio County and just the tip of the southern edge of the Uvalde County where it seeded two cells. However, the cell across the Frio County did not get the full dosages of seeding materials in it as the cell was very weak. All in all, even though the storm came in very late we were able to seed some cells across to the west.

**WATCHES/WARNINGS:**

N/A

**SEEDED CELL ID'S:**

1698	2803	2878	3037						
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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
22:55	47P	In Air	
23:21	47P	322° @ 74.0 nm	Bandera
23:24	47P	318° @ 74.0 nm	Bandera
23:27	47P	318° @ 74.0 nm	Bandera
23:47	47P	282° @ 77.0 nm	Uvalde
23:50	47P	282° @ 77.0 nm	Uvalde
23:53	47P	282° @ 77.0 nm	Uvalde
23:55	47P	282° @ 77.0 nm	Uvalde
24:12	47P	311° @ 64.0 nm	Medina
24:18	47P	322° @ 67.0 nm	Medina
24:20	47P	322° @ 67.0 nm	Medina
24:22	47P	322° @ 67.0 nm	Medina
24:47	47P	269° @ 39 nm	Frio
24:54	47P	98° @ 74.0 nm	Uvalde
24:56	47P	98° @ 74.0 nm	Uvalde
01:18	47P	Landed	

Seeding operations were conducted in Bandera (6+12H), Frio (2+4H), Medina (8+16H) and Uvalde (12+24H) Counties. 28 flares plus 56 hygroscopic flares were burned within 4 clouds. This is the 5<sup>th</sup> day for seeding in August and the 23<sup>rd</sup> day for seeding during the season.