

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

**SEEDING REPORT - May 8, 2019**

**SYNOPTIC/MESOSCALE CONDITIONS:**

Upper air analysis shows a negatively tilted trough across the parts of the Rockies and Central Plains with a ridge across the Southeast. At the surface, a low is centered across the Texas Panhandle with an associated stationary front and a ridge to our east. The flow at upper levels is mainly westerly with it south southeasterly at the surface. The current dew point temperature is in the low 70's and environmental temperature in the low to mid 70's with broken clouds to overcast skies with showers and thunderstorms across the Bandera, Medina and Bexar Counties. For today, the upper level low rides to the northeast of our area leaving us just under the periphery of the trough. Much of the active weather will be to our north and northeast with just a couple of storms making their way across the northern counties of the target area. Can't rule out storms making their way across the southern counties of the target zone today. Currently, the activities that are taking place across the parts of the target zone area associated with the upper level system and should continue at least through the mid-morning and early afternoon hours. For the rest of the counties, I'm not expecting too much active weather this afternoon as rain chances will decrease drastically. Overnight, expect mainly quiet conditions with possible low cloud/ fog stratus by early Thursday morning. Conditions should be quiet on the Thursday morning ahead of a cold front that will proceed out from the north and move down south by early afternoon hours. Associated with this front will be showers and thunderstorms along and behind the front Thursday afternoon into Thursday night. The front is progged to stall a little near the coast with elevated lifting resulting in showers and thunderstorms across much of the area on Friday. The temperatures at this time should be below the normal for this time of the year. The highs are forecast to be in the 60's with some areas in the 50's especially the Hill Country. Widespread showers continue into Saturday as the cold front dissolves and shifts to the east. The Storm Prediction Center (SPC) has us under a marginal chance for strong to severe thunderstorms through the end of the work week excluding today. Any severe storms today will produce heavy rainfall but damaging gusty winds with large hail.

Severe weather threat tomorrow through Saturday will be in the form of heavy rainfall that will produce flash flooding with possible wind damage. Conditions become settled Saturday evening as an upper short-lived ridge builds in.

**LIFTING MECHANISM:**

Upper Level Dynamics, Cool Air Aloft, Dryline

**THERMODYNAMIC INDICES (12Z KCRP)**

Freezing Level (m)	4694	CAPE (J/Kg)	2011.1
Precipitable Water (inches)	1.64	CINH (J/Kg)	63.43
LCL	548.51	LI (°C)	-6.0

CCL	598.81	PB	-6.0
CRP ICA	-23.72	Cloud Base Temp (°C)	28.8
Cloud Base (meters)	883.9		
Warm Cloud Depth (meters)	3810.1		

**DISCUSSION:**

Southwesterly flow continues over our area as an embedded shortwave trough lifts to the north and northeast of south-central Texas. There were not much in the way of strong cells as much of the activities were to the north of the target area. The tail end of this system pushed through the Bexar County where there were reports of flash flooding and hail just north of the county. As the day progressed 57AA was launched across the Frio County first as a cell was moving eastward. However, when the aircraft got to that cell it did not had enough inflow. The aircraft then headed to the Medina County where it was able to seed a cell before going to the Atascosa/Wilson County. The cells as mentioned before were weak with no good inflow rates; thus, 57AA did not released the full dosages of silver materials in the clouds. 160P was launched to the Wilson County as there was a promising long lived cell across that county but when 160P got to that cell it reported strong turbulence with just clouds and with no real inflow neither strong down drafts, which was very weird seeing that I was able a 60+dbz on titan. 106P returned to base as active weather began to diminish. 57AA also returned to base after seeding a cell over the Atascosa County as cells (no matter how weak they were) began to dissipate.

**WATCHES/WARNINGS:**

N/A

**SEEDED CELL ID'S:**

1700	1807						
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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
18:31	57AA	In Air	
19:08	57AA	299° @ 21 nm	Medina
19:13	57AA	295° @ 20 nm	Medina
19:58	57AA	10° @ 10 nm	Atascosa
20:02	57AA	27° @ 13 nm	Wilson
20:05	160P	In Air	
20:18	57AA	345° @ 7 nm	Atascosa
20:23	57AA	331° @ 5 nm	Atascosa
20:40	57AA	Landed	
21:04	160P	Landed	

Seeding operations were conducted in Atascosa (4+0H), Medina (2+0H) and Wilson (1+0H) Counties. 7 flares and 0 hygroscopic were burned in 2 cells. This is the 2<sup>nd</sup> day for seeding in May and the 2<sup>nd</sup> day for seeding during the season.