

**SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION – PLEASANTON,  
TEXAS**

**SEEDING REPORT – May 28, 2017**

**SYNOPTIC/MESOSCALE CONDITIONS:**

Partly cloudy this morning, with patchy fog, especially over hill country and across extreme south TX. Fog should be gone by early to mid morning hours. A strong cold front currently over northern TX will move south throughout the day, producing showers and thunderstorms across south TX this afternoon. Storms look to begin in central TX this afternoon, then move south. Severe weather is likely with large hail and damaging straight line winds. Another cluster of showers and storms is possible over the Rio Grande plains in the late afternoon as storms move east from the mountains. Most of south TX will still see very hot and humid conditions today before the front arrives, with high Heat index values. High temperatures in the mid to upper 90's with parts of the Rio Grande plains reaching the lower 100's. Areas north of San Antonio might be slightly cooler. Scattered to widespread showers and thunderstorms are likely tonight as the front stalls across south TX, and a weak upper level low pressure moves over the region. Severe thunderstorms are possible through the overnight hours, in addition to heavy rain and localized flooding. Storms look to continue until the late overnight hours until about 3 am, then mostly cloudy with isolated drizzle. Overnight low temps in the upper 60's, lower 70's with warmer temps across extreme south TX.

**LIFTING MECHANISM:**

Cold front, outflow boundaries, and limited daytime heating

**THERMODYNAMIC INDICES (12Z KDRT)**

KCRP Freezing Level (m)	5095.83	KDRT Freezing Level (m)	4774.78
Precipitable Water (Inches)	1.43	CAPE (J/Kg)	2871.45
LCL (m)	604.55	CINH (J/Kg)	449.56
CCL (m)	3129.66	LI (degrees C)	-7.29
Cloud Base (m)	1138	PB	4.5
Warm Cloud Depth (m)	3636.78	Cloud Base Temp (°C)	23
CRP ICA	-10	DRT ICA	-2.7

**DISCUSSION:** The front stalled north of the region in the morning, with capped air throughout most of the early afternoon. By 19Z cumulus clouds started developing north of Uvalde outside the operational area. Storms then developed in Real and Edwards counties by 19:30Z, but these storms were moving very slowly to the northeast, away from the operational area. Pilot approached the storm in Real county but could not get close due to low clouds and high terrain in Hill country. Pilot went all the way to the northern edge of Bandera but could not find inflow and visibility was poor. Storms started moving to the east into Bandera county after 22Z but Severe Thunderstorm warnings prevented us from cloud seeding. Pilot began seeding storm in Bandera county after 23Z and continued seeding until about 23:30Z. At that point the storm was moving out of the operational area, so sent pilot to developing storms in southern Uvalde county. This storm at first looked like a supercell but then became a massive storm right on the 4 corners of Uvalde, Medina, Zavala, and Frio counties. A few flares were burned within that a large

storm in Frio county but another Severe Thunderstorm warning had us stop. Pilot then proceeded back towards storms in Bandera county. Pilot had to turn away from storms as turbulence was too severe.

**Warnings:** Severe Thunderstorm Warning over Bandera and Frio counties. Multiple other severe thunderstorm and flash flood warnings which did not affect seeding.

**Seeded cell ID's:** 38, 44

**Flight Information:**

Time (UTC)	Plane	Flare Location	County
19:35	160P	In air	
23:07	160P	310° @ 56 NM	Bandera
23:09	160P	310 @ 56 NM	Bandera
23:10	160P	314 @ 56 NM	Bandera
23:12	160P	316 @ 55 NM	Bandera
23:13	160P	318 @ 53 NM	Bandera
23:17	160P	322 @ 51 NM	Bandera
23:18	160P	325 @ 51 NM	Bandera
23:20	160P	328 @ 52 NM	Bandera
23:21	160P	330 @ 53 NM	Bandera
23:23	160P	332 @ 55 NM	Kerr
23:57	160P	264 @ 47 NM	Frio
23:58	160P	267 @ 48 NM	Frio
0:44	160P	Landed	

Seeding operations were conducted over Bandera (18 + 2H), Frio (4 + 1H), and Kerr (2 + 0H) counties. 24 flares plus 3 hygroscopic flares were burned within 2 clouds. This is the 3<sup>rd</sup> day for seeding in May and the 4<sup>th</sup> day for seeding during the season.