

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - August 25, 2019

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a trough over the Rockies, shortwave impulses over the Central Plains and an inverted trough over the northwestern Gulf of Mexico. At the surface, low/trough axes across much of the southern and western half of the country with two fronts extending through the middle of the country. The flow at upper levels is mainly light and variable with it light and east southeasterly at the surface. The current dew point temperature is in the lower to middle 70s and environmental temperature in the middle to upper 70s with scattered to broken clouds in our area. For today, expect another uptick in moisture that will lead to afternoon and evening thunderstorms due to an area of disturbed weather off the Gulf coast and an outflow boundary across west-central Texas. With daytime heating, weakness in the upper levels and available moisture along a sea-breeze courtesy of the inverted trough off-shore will provide the necessary ingredients for convection later in the day. I'm not expecting widespread coverage, but a couple isolated to scattered thunderstorms are forecast for areas east of the I-37. A few storms could also make their way south across the southern Hill Country over the Bandera and Uvalde Counties this afternoon from a line of weakness extending all the way from northeastern Mexico to the Texas Panhandle. Any storms from this over our area could produce gusty winds from downdrafts. Overnight, thunderstorms decrease due to the loss of heating. However, there still could be a few storms lingering near the coast and over parts of the Hill Country. For Saturday, active weather to continue as the inverted trough over the Gulf of Mexico shifts eastward and upstream trough slide across West Texas. The moisture level will be high enough and with daytime heating, another round of showers and thunderstorms is expected by then. For Sunday, the axis of the trough moves over our region with much of the moisture to our east. Any storm activities will be confined to the coastal plains and the eastern zone. A subtropical ridge of high pressure begins to build in from the west that will dry us out early next week. Expect Monday to be mainly dry with the highs getting back into the triple digits. The highs are progged to be in the middle 90s and lower 100's with the lows in the middle to upper 70s through the end of the forecast period.

LIFTING MECHANISM:

Outflow boundary, Inverted Trough, Sea-Breeze

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	5068.21	CAPE (J/Kg)	2476.5
Precipitable Water (inches)	2.48	CINH (J/Kg)	70.38
LCL	706.25	LI (°C)	-4.51
CCL	952.20	PB	-4.51
CRP ICA	-22.16	Cloud Base Temp (°C)	27.2
Cloud Base (meters)	1371.6		
Warm Cloud Depth (meters)	3666.61		

DISCUSSION:

The day started off to a quiet event for much of the morning and early afternoon. However, with daytime heating, residual moisture and some

weakness in the upper levels a couple of coastal thunderstorms developed. The much of the storms stated away from the target area with the exceptions of one cell that developed just over the west-central of the Bee County in the vicinity of an outflow boundary. 57AA was launched over that county but cell did not last long enough for the aircraft to get to it. 57AA was able to release a single dosage of seeding material in that cell before it weakened drastically and never strengthen thereafter. There were no other cells over the rest of the target area and so 57AA returned to base with no intentions of returning to skies as conditions settled.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

1110									
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
23:20	57AA	In Air	
23:42	57AA	121° @ 41 nm	Bee
24:58	57AA	Landed	

Seeding operations were conducted in Bee (2+0H) County. 2 flares plus 0 hygroscopic flares were burned within 1 cloud. This is the 8th day for seeding in August and the 28th day for seeding during the season.