

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - July 15, 2019

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a board subtropical ridges over the Southwest and Southeast and Tropical Depression Barry over parts of the South Plains and Southern Mississippi Valley. At the surface, low/trough axes across the much of the country with high pressure in between. The flow at upper levels is light a and variable with it the same at the surface. The current dew point temperature is in the lower to mid 70s and environmental temperature in the upper 70s and low 80s with scattered to broken clouds with showers and thunderstorms in the vicinity. For today, isolated to scattered showers and thunderstorms continues due to residual surface boundaries, a weak mid-level convergence axis feeding into Tropical Depression Barry, an uncapped atmosphere with precipitable water values ranging from 1.6 to 2.0in. Expect isolated heavy downpours from slow-moving cells at times. There could be brief wind gust from strong thunderstorms with models indicating V sounding. Active weather should taper off by around sunset as we begin to lose daytime heat and the weak mid-level convergence axis moves off to the northeast while trailing Barry. The subtropical ridges more than likely take a toll on our weather Tuesday with moisture level decreasing and a cap is expected to be in place. No rain is expected to be in the forecast but can't rule out an isolated shower or two near the coast. The subtropical ridges finally merge by the middle of the workweek to gain a stronger grip on our weather bringing hot and dry conditions through Thursday. Warm air at mid-levels and suppression will suppress any thunderstorm development with no rain expected. Due to a southeasterly, the dew point temperature is expected to be in the 60s and 70s causing high humidity. The heat indexes are forecast to be in the triple digits at least through Tuesday and may extend throughout the week. The highs are progged to be in the mid 90s and lower 100s with the lows in the mid to upper 70s through the end of the forecast period.

LIFTING MECHANISM:

Weak Outflow Boundaries, Warm Moist Air Advection, Weak Upper-Level Low

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4889.61	CAPE (J/Kg)	1706.3
Precipitable Water (inches)	2.09	CINH (J/Kg)	58.42
LCL	756.89	LI (°C)	-4.62
CCL	1671.10	PB	-4.62
CRP ICA	-22.34	Cloud Base Temp (°C)	17.8
Cloud Base (meters)	1828.8		
Warm Cloud Depth (meters)	3060.81		

DISCUSSION:

The last of the remaining energy filtered through our area and into Tropical depression Barry today mainly this afternoon. Showers and thunderstorms developed earlier in the day north of the target area with some that developed over the northern half of the area, especially during the afternoon hours. Another day of very small cells with not enough cloudy top heights. Due to the fact that 57AA was out of service and grounded for maintained, 60P had to take its place a fly from Karnes County all the way to the Bandera County as cells looked promising and strong enough to hold out until the aircraft arrived. However, the cells did not last that long and 60P was only

able to seed a cell that was okay. Similar to yesterday, mainly popcorn type isolated cells formatted around and partially over the target area. 60P returned to base as the cells weakened to non-existent.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

214								
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
18:49	60P	In Air	
19:41	60P	307° @ 63 nm	Bandera
19:42	60P	305° @ 63 nm	Bandera
19:43	60P	306° @ 63 nm	Bandera
19:54	60P	307° @ 62 nm	Bandera
20:52	60P	Landed	

Seeding operations were conducted in Bandera (8+0H) County. 8 flares plus 0 hygroscopic flares were burned within 1 cloud. This is the 5th day for seeding in July and the 19th day for seeding during the season.