

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - August 4, 2019

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows an amplified ridge centered New Mexico, shortwave over the parts of the Central Plains and trough over the East. At the surface, low/trough axes across the Western, Central and far Eastern parts of the country with a front associated with a low pressure system across Oklahoma. The flow at upper levels is east northeasterly with it calm to light and variable at the surface. The current dew point temperature is in the upper 60s and lower 70s and environmental temperature in the lower to upper 70s with clear skies to a few clouds in our area. For today, expect a replica of yesterday's weather with some clouds this morning giving way to mostly sunny skies in the afternoon. The upper-level ridge will continue to influence our weather bringing mainly hot and dry conditions to south-central Texas. There may still be a few sea-breeze events today along the coast with weak isolated showers and thunderstorms this afternoon. Can't rule out an escaped thunderstorm over the Bee and Karnes County late this afternoon or early evening hours. The dew point temperature is expected to be in the 60s and 70s. With hot environmental temperatures and high dew point temperatures comes heat index values in the triple digits. Overnight, conditions settle similar to last evening. For Saturday, another hot day is in store as the mid to upper-level ridge of high pressure begins to slightly shift westward. This will allow for increasing moisture to hover over our and the temperature to drop a few degrees from today. Can't rule out an isolated shower or thunderstorm across any part of the target area. A disturbance to the Oklahoma and Kansas is forecast to ride downwind of the ridge and push south over northern Texas and then into south-central Texas overnight Saturday into Sunday. There is a front associated with that will move southerly but is not expected to reach that far south over our region. The cold front is expected to weaken as it approaches at least the northern half of the target area. As this system moves south it is expected the weaken; however, will have a shot at some showers and thunderstorms beginning around 00 UTC Sunday suggested by the ARW and the GFS. The precipitable water values should range from 1.5 to 2.0in and in some isolated areas near 2.5in. This will be sufficient active weather through Sunday evening. Also, there will be low to moderate instability with a weak cap as energy from the disturbance progresses south through south-central Texas for some convective development. The high temperatures all through the area are expected to decrease a couple of degrees from this week's highs due to cloud cover and some precipitation. I'm not expecting a total washout as some areas could see a trace to .40in of rainfall before the event ends. Expect more settled conditions on Monday with the highs getting back into the upper 90s and possibly the lower 100s. The highs are progged to be in the low to upper 90s and lower 100s with the lows in the lower to middle 70s through the forecast period.

LIFTING MECHANISM:

Upper-Level Disturbance, Warm Moist Air Advection, Sea-Breeze

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4942.56	CAPE (J/Kg)	1550.4
Precipitable Water (inches)	2.09	CINH (J/Kg)	55.69
LCL	738.31	LI (°C)	-5.11
CCL	1080.17	PB	-5.11

CRP ICA	-22.19	Cloud Base Temp (°C)	19.4
Cloud Base (meters)	1615.44		
Warm Cloud Depth (meters)	3327.12		

DISCUSSION:

Today started off quiet but with low-level moisture moving in from the coast, sufficient heating, front to the north and weakness in the upper level, storms developed first over the Bee County and then tried to make their way over the Live Oaks and Karnes Counties. However, the cells were very small in area and they had very weak inflow rates. 60P was launched mainly over the Bee County were in maneuvered the skies a couple of times for good inflow. Fortunately, it was only able to seed one cell across that county. It had gone better cell just to the east of The Bee County of along its border, but it did not have any luck in finding any inflow. 60P returned to bases as conditions began to settle.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

1605									
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
22:19	60P	In Air	
23:12	60P	132° @ 54 nm	Bee
23:13	60P	132° @ 52 nm	Bee
23:14	60P	133° @ 53 nm	Bee
24:05	60P	Landed	

Seeding operations were conducted in Bee (6+0H) County. 6 flares plus 0 hygroscopic flares were burned within 1 cloud. This is the 1st day for seeding in August and the 21st day for seeding during the season.