

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - June 21, 2020

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a low over the East, a ridge over the Southern Plains, and a trough extending from the Southwest into the Northern Great Plains. At the surface, low pressure is across the Southwest and Southern Rockies with high pressure across the Northern Rockies and Southern Mississippi Valley. The flow in the upper level is mainly light and variable with it generally southeasterly at the surface. The current dew point temperature is in the upper 60s and middle 70s and the environmental temperature in the lower to middle 70s with broken clouds to overcast skies across our area. For today, expect the chance for streamer showers now through mid-morning with the flow from of the Gulf of Mexico and more robust showers and a few thunderstorms by late morning into this afternoon due to weakens in the upper-level ridge. With daytime heating and precipitable water values ranging between 1.7 and 2.0in in areas east of I-35, showers and thunderstorms are possible mainly to areas near the coastal plains. However, a few storms could reach as far as the Bexar county and even the Uvalde county. There could also be heavy downpours from strong isolated thunderstorms at times. As we begin to lose heat around sunset, showers and thunderstorms will begin to diminish. Expect the temperature to be slightly below the climatological normal for this time of the year due to increasing cloudy skies and rain cool air in the vicinity. Overnight, conditions settle with the low on Saturday morning above the normal with mostly cloudy skies and the high humidity. For Saturday, most areas will be mainly dry as the atmosphere will be somewhat drier. I will go with a very slight chance for showers and possibly a thunderstorm across mainly across the far eastern counties. The temperature by then will increase a few degrees to right around the average due to a lack of cloud coverage. A mid-level shear axis lingers overhead Sunday into Monday. The low-level flow will be off the Gulf of Mexico and combined with some influence of a subtropical ridge, storms that do develop will be diurnal heating and minimal assistance of the mid-level shear axis. The temperatures by then may fluctuate slightly depending on cloud cover and the amount of precipitation. The highs are progged to be in the lower to middle 90s with the lows in the lower to middle 70s through the end of the forecast period.

LIFTING MECHANISM:

Low-Level Warm Air Advection, Low-Level Moisture Advection, Sea Breeze

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4701.12	CAPE (J/Kg)	1334.34
Precipitable Water (inches)	1.90	CINH (J/Kg)	70.83
LCL	917.07	LI (°C)	-4.24
CCL	1370.30	PB	-4.24
CRP ICA	-18.69	Cloud Base Temp (°C)	32.2
Cloud Base (meters)	1280.16		
Warm Cloud Depth (meters)	3420.96		

DISCUSSION:

A mostly quiet day with a few spotty weak cells over to the east and south of the target area. However, this evening two strong cells developed, one over the eastern Kinney County and the other over southwestern Uvalde County. This was due to the development of a narrow zone of MUCAPes near 4000J/kg due to hot afternoon temperatures and southeasterly flow helping to maintain low-level

moisture. By the time 57AA was launched, both cells merged becoming a single cell across southwestern Uvalde County. 57AA successfully released the full dosage of seeding material in that cell before returning to base for the evening because there was only that cell out there at the time.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

906									
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
24:12	57AA	In Air	
24:21	57AA	276° @ 72 nm	Uvalde
24:21	57AA	275° @ 73 nm	Uvalde
24:22	57AA	275° @ 76 nm	Uvalde
24:23	57AA	276° @ 76 nm	Uvalde
24:25	57AA	276° @ 78 nm	Uvalde
24:32	57AA	Landed	

Seeding operations were conducted in Uvalde (10+0H) County. 10 flares plus 0 hygroscopic flares were burned within 1 cloud. This is the 6th day for seeding in June and the 15th day for seeding during the season.