

**SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS**

**SEEDING REPORT - June 24, 2019**

**SYNOPTIC/MESOSCALE CONDITIONS:**

Upper air analysis shows a trough over parts of the Central Plains and the Midwest with a flat ridge over the West. At the surface, low/trough axes are located across parts of the Southwest, Southern Rockies, South Central Plains and the Southern Mississippi Valley with a cold front across northwestern Texas. The flow at upper levels is west southwesterly with it light and east-southeasterly at the surface. The current dew point temperature is in the mid 70's, and environmental temperature in the mid 70's and lower 80's with broken clouds to overcast skies in our area. For today, a complex of showers and thunderstorms way ahead cold front and associated with a trough axis located across Southeast Texas, and a Louisiana continues to move south over the gulf. As the storms move south, there could be a couple from the outflow that may hit our areas mainly over the central and eastern zone based on one latest HRRR model run. However, the ARW suggest that there may be a secondary storm developing across Central Texas by mid-morning and then push south across the Hill Country and then towards parts of the western and central zones. This secondary boundary should be weaker and smaller in area compared this first storm. Much of the precipitation will be to the far east of our area but with daytime heating, a few cells could mid-level lapse rate some thunderstorms could be strong to severe bring torrential downpours, gusty winds with possible hail. Another impulse develops across west Texas this afternoon into the evening hours. The ARW and the Texas Tech WRF suggest that a cluster of thunderstorms across this area moves south into our area by late this evening into the overnight hours while the HRRR has it move eastward; thus, I went ahead and included just a low chance for storms due to uncertainty. Short range models continue to indicate on Tuesday that a weak short-wave trough across deep South Texas along the coast on Tuesday will bring another round of showers and thunderstorms to our area mainly during the afternoon hours. High pressure builds in from the west late Tuesday that will bring the return of weather back into our forecast through the remainder of the period. There may be weak sea breeze events along the coast by then, but chances look to be too low at this time, so it was not mentioned in the forecast. The highs are progged to be in the lower to mid 90's with the lows in the lower to upper 60's and mid 70's through the forecast period.

**LIFTING MECHANISM:**

Short wave trough, Cold front, Outflow Boundary

**THERMODYNAMIC INDICES (12Z KCRP)**

Freezing Level (m)	4960	CAPE (J/Kg)	2735.6
Precipitable Water (inches)	1.98	CINH (J/Kg)	73.97
LCL	687.25	LI (°C)	-7.24
CCL	948.69	PB	-7.24
CRP ICA	-26.85	Cloud Base Temp (°C)	23.3
Cloud Base (meters)	579.12		
Warm Cloud Depth (meters)	4380.88		

**DISCUSSION:**

An upper-level shortwave trough across the Midwest brought with an associated cold front brought showers and thunderstorms to our area beginning early this morning before sunrise mainly over the central and eastern zone. A secondary

cluster of thunderstorms moved in around this afternoon from the north. This storm had a lot of stratus ahead of it with very low cloud bases. One pilot reported ceilings as low as 800ft. Due to due low cloud bases, this storm was not able to be reached across the eastern side of the Bandera County. However, 60P was able to fly to this cell as it pushed south across eastern Medina and northern Atascosa Counties. The pilot was able to release the full dosages of seeding materials in the single big cell. That was to only seedable cell for the entire day as other very weak cells popped up but were not seedable. Much of the precipitation that fell was mainly from stratus clouds. Also, there was a cap lay across much of the central and eastern zone; thus, there was not much else to do. Conditions began to settled done by late afternoon and early evening hours across much of the target area.

**WATCHES/WARNINGS:**

N/A

**SEEDED CELL ID'S:**

1263									
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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
19:30	60P	In Air	
19:56	60P	311° @ 16 nm	Atascosa
19:57	60P	304° @ 17 nm	Atascosa
19:58	60P	302° @ 19 nm	Atascosa
20:00	60P	297° @ 19 nm	Atascosa
20:01	60P	299° @ 16 nm	Atascosa
20:02	60P	305° @ 15 nm	Atascosa
20:41	60P	Landed	

Seeding operations were conducted in Atascosa (12+1H) County. 12 flares plus 1 hygroscopic flare were burned within 1 cloud. This is the 3<sup>rd</sup> day for seeding in June and the 10<sup>th</sup> day for seeding during the season.