

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

**SEEDING REPORT - August 22, 2020**

**SYNOPTIC/MESOSCALE CONDITIONS:**

Upper air analysis shows a ridge centered over the deep Southwest with a deep trough over parts of the Southern Mississippi Valley and the Southeast. At the surface, a mix of high and low pressure across the western half of the United States with high pressure across the far East. The flow at upper levels is mainly northerly with it light and variable at the surface. The current dew point temperature is in the lower 60s and middle 70s and the environmental temperature in the middle 60s to and middle 70s with a few to scattered clouds across our area. For today, mainly quiet weather is expected for much of the region with possible a weak mid-level impulse dropping in that could provide showers and thunderstorms this afternoon and evening hours across the northern and eastern areas of the target areas. With day time peak heating there is the potential for a few strong downdrafts and winds gust suggested by an inverted v-shaped forecast sounding. The temperatures today continue to trend above the climatological normal. A Mesoscale Convective System will push into the Hill Country and Edwards Plateau Saturday evening that could last until midnight Saturday night. Some of the storms could be strong with wind gust exceeding 50 mph. The rest of the Saturday night should be quiet with the lows on Sunday around the normal. By Sunday, a mid to upper-level inverted trough will be over east Texas and upper-level ridging across our region will allow for dry weather conditions. Tropical Depression 14 has formed and it is currently located near the Honduras and Nicaragua border coast. It is forecast to strengthen and become a Tropical Storm later today according to the National Hurricane Center. By Sunday, the Tropical System is forecast to enter the Gulf of Mexico and track north by then. If environmental conditions permit, it has the potential to further become a low-end Hurricane across the northwestern Gulf. By Monday, there is uncertainty on the actual track of the storm with much of the areas expected to be dry except to along the coast where the effect of the storm may begin to take place. Due to the cone of uncertainty, the storm could either track more to the west impacting beginning to impact our areas strongly or be more east-southeast Texas/Louisiana where we may not be impacted that much or if at all early next week. More on this in the next forecast discussion on Monday as better details on this system become ironed out. The highs are progged to be in the upper 90s and lower 100s with the lows in the lower to middle 70s through the end of the forecast period.

**LIFTING MECHANISM:**

Shortwave, Low-Level Moisture Advection, Outflow Boundaries

**THERMODYNAMIC INDICES (12Z KCRP)**

Freezing Level (m)	4728.95	CAPE (J/Kg)	1624.53
Precipitable Water (inches)	1.68	CINH (J/Kg)	78.63
LCL	894.41	LI (°C)	-3.03
CCL	1606.58	PB	-3.03
CRP ICA	-17.61	Cloud Base Temp (°C)	20.8
Cloud Base (meters)	1781.91		
Warm Cloud Depth (meters)	2947.04		

**DISCUSSION:**

A busy morning for areas across the Hill Country as a Mesoscale Convective System dropped in from the north. Storms from this began pushing through parts

of the EAA counties as well as over parts of the eastern target area. However, due to that time of the day the cells arrived as well as low ceilings present, seeding did not commence until around noon. 57AA was launched to go across the Atascosa county first where it seeded a cell with several dosages of seeding materials. After targeting that cell, it went over the Frio County where there was a better cell and so 57AA released the full dosages of seeding materials in that cell. While seeding that cell, another one pop-up across the southern McMullen County where I had 57AA to next. Then it got to that cell, it released a few sets of silver iodide into it. 57AA was ordered to come to Pleasanton when there were no other cells left to seed. While 57AA was on its way to Pleasanton, a cell developed across the north-central McMullen county, so I had 57AA investigate it. The pilot reported showers with little to no inflow. However, while the pilot continued to Pleasanton, the cell improved, so I had 57AA head back to the cell; however, when he got to the cell, he was not able to seed ahead of it due to the non-seeding zone as well as the cell did not have a good top at the time. Finally, 57AA was able to land at Pleasanton.

**WATCHES/WARNINGS:**

N/A

**SEEDED CELL ID'S:**

18	1431	1638							
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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
16:35	57AA	In Air	
17:14	57AA	204° @ 16 nm	Atascosa
17:15	57AA	198° @ 16 nm	Atascosa
17:16	57AA	197° @ 15 nm	Atascosa
17:17	57AA	202° @ 15 nm	Atascosa
17:33	57AA	263° @ 36 nm	Frio
17:33	57AA	263° @ 36 nm	Frio
17:34	57AA	262° @ 36 nm	Frio
17:34	57AA	261° @ 36 nm	Frio
17:35	57AA	260° @ 36 nm	Frio
17:35	57AA	260° @ 35 nm	Frio
18:08	57AA	169° @ 55 nm	McMullen
18:08	57AA	170° @ 55 nm	McMullen
18:09	57AA	179° @ 55 nm	McMullen
19:06	57AA	Landed	

Seeding operations were conducted in Atascosa (8+0H), Frio (10+1H), and McMullen (6+0H) Counties. 24 flares plus 1 hygroscopic flare were burned within 3 clouds. This is the 8<sup>th</sup> day for seeding in August and the 31<sup>st</sup> day for seeding during the season.