

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

**SEEDING REPORT - June 15, 2020**

**SYNOPTIC/MESOSCALE CONDITIONS:**

Upper air analysis shows a ridge over the Southern Plains, closed low over the East, and a trough over parts of the Northern Great Plains and Northern Rockies. The flow in the upper level is mainly light and south southeasterly with it generally light and variable at the surface. The current dew point temperature is in the middle 40s and middle 60s and the environmental temperature in the middle 60s to lower 70s with broken clouds to clear skies across our area. For today, expect stratus clouds to develop early this morning as moisture increase from off the Gulf. With increasing moisture and weakness in the mid to upper levels of the lower atmosphere, showers and thunderstorms will develop later in the day when the convective temperature is accomplished. Showers and thunderstorms develop along the coastal plains first and then extend further north and west across much of the target area east of I-35 this afternoon into the early evening hours. The precipitable water will range between 1.5 and 2.0in where some areas could see heavy non-severe downpours at times from strong thunderstorms. The highs for today will be slightly below the normal due to increase cloud coverage and rain cool air. Active weather should diminish around sunset as we begin to lose daytime heating. Another stratus deck is expected Tuesday morning with morning lows near the average. Showers and thunderstorms will develop where the moisture is pooled mainly across the western half of the target area during the afternoon hours. The temperatures will be a few degrees warmer than today across the eastern target area with less cloud coverage. An upper-level ridge will dormmate our weather both Wednesday and Thursday as south-central Texas will be on the eastern periphery of its axis. Expect dry weather and warmer temperatures both days. The highs are progged to be in the upper 80s and middle 90s with the lows in the middle 60s and lower 70s through the end of the forecast period.

**LIFTING MECHANISM:**

Warm Air Advection, Weak Ridge, Sea Breeze

**THERMODYNAMIC INDICES (12Z KCRP)**

Freezing Level (m)	5031.79	CAPE (J/Kg)	768.11
Precipitable Water (inches)	1.72	CINH (J/Kg)	16.75
LCL	854.68	LI (°C)	-2.58
CCL	1185.81	PB	-2.58
CRP ICA	-15.84	Cloud Base Temp (°C)	28.4
Cloud Base (meters)	878.48		
Warm Cloud Depth (meters)	4153.31		

**DISCUSSION:**

A few showers and storms developed this morning through noon. However, they were not convective enough for seeding as the morning still cool and instability was not that great. 57AA was the only aircraft available at the time and was launched from Uvalde to the eastern target area. On its way to Pleasanton airport, 57AA was sent to a cell that developed over the northern Bee County that moved out and into the Atascosa county. 57AA was able to seed that cell. There were a few smaller cells across the Karnes county where I had 57AA go and investigate them. However, those cells were no good and 57AA was not able to get anything out of them. 57AA was then launched across the McMullen county. The pilot was able to seed a few cells across that county

but not all of the cells. 57AA was then sent to Wilson/Karnes county as there were cells across to its east. The pilot did seed a good cell across the Wilson county by releasing several dosages of seeding materials in that cell. 57AA was ordered to come to Pleasanton Airport as the rest of the cells out there were weak, small and had low tops. There was a good cell over the southwestern Atascosa county that looked seedable. When 57AA got to that cell it was able to release a few of the seeding materials in it. There were a few to the northwest so I had the pilot go and check them out but they were non-seedable. There was a chain of small cells from Frio to Bee County, so I had 57AA try to target only the ones with better vil and tops. By the time 57AA got to the cells, there were not impressive and 57AA was barely able to seed any of them. 57AA finally landed at Pleasanton Airport to refuel and take a break. While 57AA was on its way to the airport and landed at the airport, the chain of cells grew stronger and became more seedable but the pilot had to refuel before it could hit the skies again. After 57AA was airborne, I had it go and target two strong cells across the southern Atascosa County. After seeding those cells, 57AA returned to base at Pleasanton to wait a while as there were much smaller weaker pop-up cells across the southeastern target area. I had 57AA fly back into the skies towards the eastern Karnes county after the cell over Pleasanton cleared out. However, while 57AA Was on its way there, the cells began weakening significantly. Due to conditions settling, 57AA return to home base at Uvalde for the evening.

**WATCHES/WARNINGS:**

N/A

**SEEDED CELL ID'S:**

583	661	739	830	894	1043	1012	958			
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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
17:50	57AA	In Air	
18:25	57AA	115° @ 15 nm	Atascosa
18:26	57AA	112° @ 16 nm	Atascosa
18:29	57AA	105° @ 15 nm	Atascosa
18:33	57AA	107° @ 13 nm	Atascosa
19:25	57AA	172° @ 37 nm	McMullen
19:26	57AA	175° @ 36 nm	McMullen
19:27	57AA	176° @ 37 nm	McMullen
19:36	57AA	172° @ 41 nm	McMullen
19:37	57AA	171° @ 43 nm	McMullen
19:38	57AA	172° @ 43 nm	McMullen
19:40	57AA	172° @ 41 nm	McMullen
20:12	57AA	46° @ 27 nm	Wilson
20:13	57AA	44° @ 27 nm	Wilson
20:13	57AA	40° @ 28 nm	Wilson
20:14	57AA	37° @ 29 nm	Wilson
20:40	57AA	220° @ 20 nm	Atascosa
20:42	57AA	224° @ 20 nm	Atascosa
20:45	57AA	226° @ 21 nm	Atascosa
21:19	57AA	168° @ 21 nm	McMullen
21:50	57AA	Recon	
22:16	57AA	In Air	
22:21	57AA	241° @ 7 nm	Atascosa
22:22	57AA	244° @ 8 nm	Atascosa
22:24	57AA	241° @ 9 nm	Atascosa
22:25	57AA	238° @ 8 nm	Atascosa

22:33	57AA	126° @ 5 nm	Atascosa
22:34	57AA	118° @ 6 nm	Atascosa
22:35	57AA	127° @ 5 nm	Atascosa
22:35	57AA	122° @ 5 nm	Atascosa
22:36	57AA	115° @ 5 nm	Atascosa
22:42	57AA	Recon	
23:45	57AA	In Air	
24:45	57AA	Landed	

Seeding operations were conducted in Atascosa (32+0H), McMullen (16+0H), and Wilson (8+0H) Counties. 15 flares plus 0 hygroscopic flares were burned within 8 clouds. This is the 3<sup>rd</sup> day for seeding in June and the 12<sup>th</sup> day for seeding during the season.