

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - September 17, 2020

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a trough over the Southern Plains with a ridge over the West and far deep Southeast. At the surface, high pressure is across the Northern Great Plains through parts of the Southern Rockies with low pressure over the Southeast. The flow at upper levels is mainly westerly with it light and northerly 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 scattered to broken clouds across our area. For today, an upper-level trough coupled with daytime heating and adequate moisture will generate scattered showers and thunderstorms mainly during the afternoon and evening hours. The precipitable water values will range between 1.5 and 2.0in, where some areas could see locally heavy rainfall from slow-moving storms. The max temperature will be at or slightly below the climatological normal for mid-September. Much of the convective activity should be mainly during the day and a decrease in coverage of showers and storms by mid-evening. The broad upper-level trough will begin to slide east of the region on Friday with drier air infiltrating from the north at mid-levels. Rain chances will end during the day on Friday. However, some hires models suggest a few sprinkles in the afternoon; thus, I introduced a slight chance for showers and thunderstorms. However, I do anticipate much of the day on Friday to be relatively dry as better lift will be east of our area. A weak cold front will move across south-central Texas Friday night, bringing drier and cooler air behind it. The max temperature on Saturday will be a few degrees cooler than Friday with the lows on Sunday will be several degrees lower than Saturday. A subtropical ridge builds in this weekend over Texas that will cause subsidence across our area, suppressing any thunderstorm development. Expect dry (low humidity) and cool conditions this weekend courtesy of the frontal passage and the subtropical ridge. A tropical disturbance located across the western Gulf of Mexico east of the central coast of Mexico that is likely to form into a tropical depression and or a tropical storm as early as today. All eyes will be on this over the next couple of days as we monitor its track. However, I do not expect any impact from this, at least for this weekend. The highs are progged to be in the middle 80s and upper 80s with the lows in the upper 50s and lower 70s through the end of the forecast period.

LIFTING MECHANISM:

Upper-Level Trough, Low-Level Moisture Advection, Sea-Breeze

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4716.41	CAPE (J/Kg)	925.99
Precipitable Water (inches)	2.21	CINH (J/Kg)	57.46
LCL	1051.91	LI (°C)	-3.95
CCL	1431.92	PB	-3.95
CRP ICA	-18.19	Cloud Base Temp (°C)	22.2
Cloud Base (meters)	1086.34		
Warm Cloud Depth (meters)	3630.07		

DISCUSSION:

No data available due to internet issues.

Showers and thunderstorms developed earlier than yesterday while being more scattered than isolated. Much of the cells began to develop across the western target area where 57AA was launched first to go over the Uvalde county. 57AA successfully seed a couple of cells across the Uvalde county before it headed back to base to reflare. 60P was also launched to go over the Atascosa county where it successfully seeded a few cells across that county. 60P was sent to Wilson county for a possible seeding opportunity but when it arrived across that county it was unable to seed a cell. 60P was then ordered to go over the McMullen County thereafter. 57AA was relaunched to first go over the southern Median county as there were a few were cells present; however, by the time 57AA got to the cells, they were unseedable. 57AA then headed to Frio county where it was able to seed a few more good cells. When 60P first arrived over the east McMullen county it was unable to seed a cell close or along the McMullen/Live Oak border but was able to seed a second cell that was located near the center of McMullen County. Meanwhile, 57AA finished up seeded over the Frio county then headed back to the Uvalde county to seed a cell. When 57AA arrived, the cell did not look that impressive on radar and so I had 57AA release just a few dosages of seeding materials into that cell. 60P was sent to Bee county to see a cell that was to the southeast of the county. After both 57AA and 60P were done seeding, they returned to base as much of the seedable cells were outside of the target area and the rest that was already over the target area had already been seed.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
17:35	57AA	In Air	
17:47	57AA	N29.05, W99.37	Uvalde
17:53	57AA	N29.01, W99.37	Uvalde
18:00	60P	In Air	
18:03	57AA	N29.05, W99.57	Uvalde
18:04	57AA	N29.05, W99.57	Uvalde
18:05	57AA	N29.04, W99.59	Uvalde
18:06	57AA	N29.04, W99.58	Uvalde
18:07	57AA	N29.04, W99.56	Uvalde
18:12	57AA	N29.11, W99.53	Uvalde
18:13	57AA	N29.11, W99.52	Uvalde
18:13	57AA	N29.12, W99.52	Uvalde
18:14	57AA	N29.12, W99.51	Uvalde
18:14	60P	329, 15.8	Atascosa
18:15	57AA	N29.12, W99.51	Uvalde
18:15	57AA	334, 18.4	Atascosa
18:16	60P	333, 19.9	Atascosa
18:17	60P	333, 18.0	Atascosa
18:18	60P	330, 16.6	Atascosa
18:24	57AA	Reflare	
18:26	60P	325, 8.5	Atascosa
18:27	60P	318, 9.2	Atascosa
18:28	60P	312, 9.7	Atascosa
18:29	60P	306, 9.1	Atascosa
18:30	60P	302, 10.2	Atascosa
18:47	57AA	In Air	

19:08	60P	349, 44.3	McMullen
19:09	60P	349, 45.1	McMullen
19:10	60P	351, 45.6	McMullen
19:14	57AA	N28.41, W99.07	Frio
19:15	57AA	N28.40, W99.08	Frio
19:16	57AA	N28.40, W99.08	Frio
19:21	57AA	N28.43, W99.07	Frio
19:22	57AA	N28.43, W99.06	Frio
19:23	57AA	N28.44, W99.07	Frio
19:32	57AA	N28.58, W99.14	Frio
19:33	57AA	N28.59, W99.15	Frio
19:51	60P	306, 60.3	Bee
19:52	60P	305, 59.8	Bee
19:53	60P	306, 59.5	Bee
19:54	60P	306, 59.5	Bee
19:55	57AA	N29.13, W99.58	Uvalde
19:55	60P	305, 59.6	Bee
19:56	57AA	29.11, 100.01	Uvalde
20:07	57AA	Landed	
20:17	60P	Landed	

Seeding operations were conducted in Atascosa(18+0H), Bee(10+0H), Frio(16+0H), McMullen(6+0H), and Uvalde(28+0H) Counties. 78 flares plus 0 hygroscopic flares were burned within 11 clouds. This is the 10th day for seeding in September and the 42nd day for seeding during the season.