

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - June 2, 2020

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a broad ridge over the central parts of the country, a low over northern Texas, and a trough across the East and West. At the surface, high pressure is across the Northeast and Northwest through the Rockies with low pressure across Southwest and Central Plains. The flow at upper levels is mainly southerly with it generally light and variable at the surface. The current dew point temperature is in the middle 60s and lower 70s and the environmental temperature more or less the same with overcast skies and a few showers across the area. For today, the upper-level low across northern Texas will continue its slow trek northeast with a ridge farther west. The conditionally unstable atmosphere across south-central Texas could bring another chance for showers and thunderstorms. These storms are forecast to be non-severe as conditions do not warrant it. The precipitable water values are expected to be above 1.5 in and moderate rainfall is possible from strong storms. Storms will be diurnally driven and will wane as we begin to lose heat especially around sunset. As the upper-level system moves farther away, there will still be a slight chance for another round of storm mainly near or along the coast on Wednesday. The temperature will be a couple of degrees warmer today than yesterday with it being at or closer to the normal on Wednesday due to less cloudy coverage and limited convection. The upper-level ridge across New Mexico will gradually shift eastward across western Texas the rest of the period that will bring dry air subsidence across our area. This will bring a cap of warm air in the mid-levels to inhibit convection development as well as aid in increasing surface temperature causing the highs to be a couple of degrees above the normal by end of the week. The highs are progged to be in the lower 80s and middle 90s with the lows in the upper 60s and lower 70s through the end of the forecast period.

LIFTING MECHANISM:

Upper-Level Low, Cold Air Aloft, Sea Breeze

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4537.28	CAPE (J/Kg)	1102.44
Precipitable Water (inches)	1.98	CINH (J/Kg)	11.33
LCL	658.20	LI (°C)	-3.39
CCL	931.07	PB	-3.39
CRP ICA	-18.23	Cloud Base Temp (°C)	22.9
Cloud Base (meters)	704.30		
Warm Cloud Depth (meters)	3832.98		

DISCUSSION:

A few scattered weak showers and thunderstorms mid-morning give way to better storms this afternoon. Cells that developed before noon had low tops and did not last long so there was no point in having an aircraft fly out there even this early in the day. When cells looked more favorable, I had 47P go and investigate them. 47P was first launched across the Bee County for possible seeding opportunity. 47P was able to seed a cell across that county. From there, I had 47P head to the McMullen county as some cells were developing and moving in the southern side of that county. The pilot did seed one cell as multiple cells had no good vil and tops. 47P then headed to the Wilson County as a cell developed along its eastern border. Before I had 47P head that way,

I had it instead to try and target a cell moving into the southern Karnes County. There were also cells developing and moving into the Bear non-seeding zone that 47P was not allowed to target. 57AA was called out to assist 47P from Uvalde. 47P did seed the cell that I had its original head to plus it was able to hit a cell just to its west across the northern Wilson county. 47P was then sent to the southeastern side of Atascosa County while I had 57AA head to the eastern side of the Bee County. 47P was sent back to base to rest while 57AA took over. 57AA was unable to getting anything form a pocket of small cells across the eastern side of Bee County. While 57AA was on its way to the Wilson county a cell merged with a cell that was already seeded across the southern Karnes county and became one; there, I had 57AA only released one set of seeding materials in that cell. 57AA then headed to the AT/BX/WI county as a couple of cells were in the Bexar county. Some of the cells merged to form a single cell and 57AA was able to seed it. After 57AA was done, it landed in Hondo. Conditions began to settle somewhat except for some pockets of cells across the southern half of the area. The majority of the cells were either in the non-seeding zone or outside of the target area; thus, they were not seeded. Eventually, 57AA returned to the skies after refueling. Some cells were no the western side of the Bexar county seeding zone as well as the eastern side of the Medina and Bandera where I had that pilot investigate. One of them was already seeded across the southeastern Atascosa County; thus, I had 57AA only release a single dose of seeding material in that cell. The other cells were very weak and that pilot observed them dying. 57AA returned to base in Uvalde for the evening as the rest of the cells were non-seedable.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

143	166	259	240	366	580					
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
18:13	47P	In Air	
18:36	47P	306, 48.6	Bee
18:37	47P	305, 47.3	Bee
18:39	47P	307, 48.5	Bee
18:59	47p	170° @ 46 nm	McMullen
19:00	47P	172° @ 46 nm	McMullen
19:02	47P	169° @ 45 nm	McMullen
19:28	47P	100° @ 32 nm	McMullen
19:29	47p	100° @ 35 nm	Karnes
19:30	47P	97° @ 36 nm	Karnes
19:31	47P	96° @ 37 nm	Karnes
19:50	57AA	In Air	
19:51	47p	217, 41.5	Wilson
19:53	47P	218, 44.5	Wilson
19:55	47P	217, 42.6	Wilson
19:57	47P	217, 40.8	Wilson
20:04	47P	25° @ 31 nm	Wilson
20:05	47P	26° @ 30 nm	Wilson
20:06	47P	26° @ 30 nm	Wilson
20:23	47P	86° @ 13 nm	Atascosa
20:24	47P	87° @ 10 nm	Atascosa
20:26	47P	83° @ 13 nm	Atascosa
20:27	47P	82° @ 14 nm	Wilson
20:40	47P	Landed	
21:29	57AA	51° @ 24 nm	Wilson

21:36	57AA	27° @ 38 nm	Wilson
21:36	57AA	23° @ 19 nm	Wilson
21:39	57AA	17° @ 19 nm	Bexar
21:40	57AA	20° @ 20 nm	Bexar
21:43	57AA	22° @ 21 nm	Bexar
22:18	57AA	Recon	
22:48	57AA	In Air	
23:02	57AA	316° @ 35 nm	Medina
23:47	57AA	Landed	

Seeding operations were conducted in Atascosa (6+0H), Bee (6+0H), Bexar (6+0H), Karnes (8+0H), McMullen (6+0H), Medina (2+0H), and Wilson (22+0H) Counties. 56 flares plus 0 hygroscopic flares were burned within 6 clouds. This is the 1st day for seeding in June and the 10th day for seeding during the season.