

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - September 9, 2019

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a trough to the West, a flat ridge to the Southeast and a low over the western Gulf of Mexico. At the surface, strong low across the Rockies and a high across the eastern half of the country. The flow at upper levels is mainly northeasterly with it light and variable at the surface. The current dew point temperature is in the lower to middle 70s and environmental temperature in the lower to upper 70s with clear to broken clouds in our area. For today, expect quiet weather this morning transitioning to active weather this afternoon an upper level low begins to move in bringing showers and thunderstorms to our region. Much of the active weather will be across the far eastern zones but a couple of storms could develop across areas east of I-35. Conditions are forecast to settle overnight but still remain warm and humid with the lows slightly above the normal for this time of the year. For Tuesday, a disturbance combined with daytime heating around the low will bring us another shot at showers and thunderstorms mainly in the afternoon that may end up running into the overnight hours. By the middle of the week, a trough across the west moves into the South Plains. This coupled with a front pushing into central Texas will possibly enhance the rainfall across south-central Texas Wednesday into Thursday. Expect the active weather pattern to continue by then. The front diminishes as it retreats north later in the week. The highs are expected to be near the at or near the climatological normal courtesy of cloud coverage and anticipated precipitation. The highs are progged to be in the lower to middle 90s with the lows in the lower to middle 70s through the end of the forecast period.

LIFTING MECHANISM:

Sea Breeze, Upper-Level Low, Warm Air Advection

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4583.42	CAPE (J/Kg)	1688.8
Precipitable Water (inches)	1.71	CINH (J/Kg)	58.12
LCL	872.71	LI(°C)	-7.35
CCL	1160.83	PB	-7.35
CRP ICA	-25.04	Cloud Base Temp (°C)	21.8
Cloud Base (meters)	1760.80		
Warm Cloud Depth (meters)	2822.62		

DISCUSSION:

There were a few non-seedable weak cells that lined up along the western border of the Bee County around noon that dissipated quickly. As decent cell was moving up a county south of Bee when I had 60P go and check it out. 60P was able to release a couple of seeding materials into that cell. A couple of cells develop over the southeastern Atascosa county where I had 60P investigate for possible seeding. However, when 60P reached the cells they were already gone. At that time there were also very weak to near-extinct cells across Atascosa and McMullen counties; thus, 60P returned to base to refuel. While 60P was on his way to refuel the cells began to strengthen. 60P was then relaunched across the Atascosa county to try and target them. 60P was then launched over the Wilson and Karnes counties as there were a few

cells that developed. 60P successfully seeded those cells. At that time there were a couple of cells over the McMullen county where I had 60P check the ones that could be seeded but it was unsuccessful as the cells were disorganized with nothing much to support them. 60P was not able to seed them as they had very weak inflow with some of them being outside of the target area. 57AA was on its way to Pleasanton where I had it target a few cells across the Frio and Atascosa county. However, 57AA was not able to release the full dosages of seeding materials in those cells. 60P refueled as cells began to diminish. 57AA continued on seeding over the Medina and Atascosa counties. Both 57AA and 60P tried to target a couple scattered cells across the target areas. But were a bit unsuccessful as they were non-seedable by the time both aircraft got to them. After 60P refueled, it was relaunched across the Wilson county but while the aircraft was on its way there the cell dissipated. 60P was then ordered to go over southern Atascosa county but that to was non-seedable. While 60P was on its way to base a cell developed across the northeast side of the Wilson county where I had 60P target. Afterward, 60P headed to base for the even as conditions settled. 57AA continued on to Pleasanton after as cells ceased to exist.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

527	669	678	779	793	901	876	937	1026	1113
1224									

FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
19:21	60P	In Air	
19:35	60P	133° @ 46 nm	Bee
19:36	60P	133° @ 45 nm	Bee
19:37	60P	131° @ 44 nm	Bee
19:43	60P	133° @ 49 nm	Bee
20:30	60P	273° @ 2 nm	Atascosa
20:31	60P	271° @ 3 nm	Atascosa
20:32	60P	283° @ 3 nm	Atascosa
20:36	57AA	In Air	
20:46	60P	79° @ 19 nm	Wilson
20:47	60P	77° @ 19 nm	Wilson
20:48	60P	82° @ 18 nm	Wilson
20:49	60P	87° @ 18 nm	Wilson
20:57	60P	88° @ 24 nm	Karnes
20:58	60P	86° @ 24 nm	Karnes
20:59	60P	81° @ 22 nm	Karnes
21:18	57AA	255° @ 19 nm	Frio
21:30	57AA	204° @ 17 nm	Atascosa
21:32	57AA	207° @ 15 nm	Atascosa
21:45	57AA	259° @ 18 nm	Frio
21:46	57AA	258° @ 18 nm	Frio
21:49	57AA	264° @ 17 nm	Frio
21:51	60P	190° @ 28 nm	McMullen
21:51	57AA	263° @ 16 nm	Atascosa
21:52	60P	189° @ 30 nm	McMullen
22:01	57AA	287° @ 31 nm	Medina
22:02	57AA	286° @ 31 nm	Medina
22:03	57AA	289° @ 30 nm	Medina
22:04	57AA	290° @ 29 nm	Medina
22:16	57AA	319° @ 10 nm	Atascosa
22:17	57AA	324° @ 11 nm	Atascosa

22:22	57AA	319° @ 12 nm	Atascosa
22:24	60P	Refueled	
22:25	57AA	318° @ 13 nm	Atascosa
22:48	60P	In Air	
23:15	57AA	311° @ 36 nm	Medina
23:15	57AA	311° @ 36 nm	Medina
23:16	57AA	313° @ 34 nm	Medina
23:17	57AA	312° @ 36 nm	Medina
23:18	57AA	310° @ 36 nm	Medina
23:45	57AA	Landed	
24:08	60P	18° @ 12 nm	Bexar
24:08	60P	19° @ 12 nm	Bexar
24:10	60P	19° @ 14 nm	Bexar
24:42	60P	Landed	

Seeding operations were conducted in Atascosa (20+0H), Bee (8+0H), Bexar (6+0H), Frio (8+0H), Karnes (6+0H), McMullen (4+0H), Medina (18+0H) and Wilson (8+0H) Counties. 78 flares plus 0 hygroscopic flares were burned within 11 clouds. This is the 3rd day for seeding in September and the 31st day for seeding during the season.