

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - May 31, 2020

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a ridge of high pressure over the western half of the country with a trough of low pressure over the eastern half. At the surface, high pressure is across the Great Plains and off the East coast with low pressure across the Southwest. The flow at upper levels is mainly northerly with it generally light and variable at the surface. The current dew point temperature is in the upper 60s and middle 70s and the environmental temperature in the middle 60s and middle 70s with clear skies to scattered clouds across the area. For today, the remnants of mid-level outflow clouds linger across south-central Texas while showers and storms continue across deep south Texas. Much quieter weather is anticipated today. Surface high pressure will build in from the north combined with dry air subsidence should keep much of the air rain-free. There may be afternoon few convections across the Rio Grande plains south of Del Rio but they not forecast to reach the target area and will dissipate as we lose daytime heating. The daytime temperature will be below or at the climatological normal with the overnight lows below the average courtesy of dry low-level northerly flow. Saturday will continue to be dry as the surface ridge begins to weaken with pleasant temperatures. The upper-level ridge builds in across the middle of the county this weekend. The flow at low levels with shift slightly to easterly or east northeasterly overnight Saturday into Sunday keeping the weather dry and warm. A weak inverted trough will be park across central Mexico on Sunday that may bring a slight chance for showers and thunderstorms across coastal prairies by then. The inverted trough moves further north into Texas on Monday bringing a slight chance for storms to much of the target area. The good news is that there will not be any severe storm associated with this system as with other systems that pushed through our area for the past couple of weeks. The highs are progged to be in the middle 80s and lower 90s with the lows in the lower to upper 60s through the end of the forecast period.

LIFTING MECHANISM:

Upper-Level Low, Cold Air Aloft, Sea Breeze

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4514.41	CAPE (J/Kg)	1526.8
Precipitable Water (inches)	2.00	CINH (J/Kg)	9.92
LCL	689.53	LI (°C)	-3.46
CCL	853.37	PB	-3.46
CRP ICA	-17.35	Cloud Base Temp (°C)	25.4
Cloud Base (meters)	887.98		
Warm Cloud Depth (meters)	3626.43		

DISCUSSION:

A mid to upper-level low parked over Mexico continues to bring more action to the target area today with more widespread showers storms mid-morning through the early afternoon but non-seedable. The activity started across the coastal plains this morning then began to move inward across much of the target zone. When there appear to be better seedable cells present in the afternoon, I had 47P and 57AA go an investigate the cells. I had 57AA investigate a cell across the southern Frio county where did not look all that impressive but worth a try. 57AA approached but it was too weak while dissipating. At that time 47P

headed to a cell that was moving into McMullen County. The cell merged with a couple of smaller cells across that county and looked good enough to seed; however, 47P carefully went around the cell but reported broken clouds, mist, and very weak inflow. 57AA headed to another cell across the southern Medina county where it released a few dosages of seeding materials in that cell. 47P was sent back to base as conditions across the eastern target area began to settle. 57AA was then sent to a cell across the Bexar and Atascosa county where it successfully seeded a cell. There was a smaller cell just to its west where I had 57AA take a look at. 57AA was also able to seed that cell. There was not much activity out there after 57AA seeded that cell but I did have the pilot head to the Bandera county where there were very small pop-up cells for possible seeding. However, I had 57AA change course and head back to base until later. Both 57AA and 47P returned to the skies as some cells began to develop. 47P was able to successfully seed a cell across the Atascosa county while 57AA took care of cells across parts of the EAA counties. There was a cell other cells across the eastern target area that 47P was sent to investigate but was unsuccessful in seeding them. Because of this 47P was sent to base while 57AA continued seeding that rest of the afternoon and evening across the western target area. There were very few cells that 57AA was not able to seed across the EAA counties but able to target most of them. After conditions began to settled 57AA return to base for the evening.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

1648	1628	2029	2813	2766	3077	3034	3147	3898	3968	3544
4077										

FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
18:32	57AA	In Air	
18:32	47P	In Air	
19:03	57AA	277° @ 30 nm	Medina
19:05	57AA	283° @ 34 nm	Medina
19:27	57AA	351° @ 10 nm	Atascosa
19:28	57AA	349° @ 10 nm	Atascosa
19:30	57AA	349° @ 10 nm	Atascosa
19:31	57AA	348° @ 13 nm	Bexar
19:32	57AA	349° @ 15 nm	Bexar
19:40	57AA	312° @ 19 nm	Atascosa
19:42	57AA	304° @ 17 nm	Atascosa
19:44	57AA	301° @ 18 nm	Atascosa
19:47	47P		
20:27	47P		
21:10	57AA	In Air	
21:22	57AA	273° @ 61 nm	Uvalde
21:23	57AA	274° @ 61 nm	Uvalde
21:24	57AA	275° @ 62 nm	Uvalde
21:25	47P	In Air	
21:29	57AA	273° @ 63 nm	Uvalde
21:44	49P	204° @ 3 nm	Atascosa
21:45	49P	206° @ 3 nm	Atascosa
21:46	57AA	301° @ 66 nm	Bandera
21:46	47P	211° @ 1 nm	Atascosa
21:46	57AA	302° @ 66 nm	Bandera
21:47	57AA	303° @ 66 nm	Bandera
21:48	47P	313° @ 3 nm	Atascosa

21:51	57AA	302° @ 71 nm	Bandera
21:52	57AA	303° @ 72 nm	Bandera
21:55	57AA	301° @ 74 nm	Bandera
21:55	57AA	300° @ 76 nm	Bandera
21:59	57AA	302° @ 73 nm	Bandera
22:10	57AA	289° @ 75 nm	Uvalde
22:12	57AA	290° @ 75 nm	Uvalde
22:14	57AA	290° @ 76 nm	Uvalde
22:16	57AA	291° @ 78 nm	Uvalde
22:33	57AA	Landed	
22:41	47P	Landed	
23:29	57AA	In Air	
23:48	57AA	309° @ 60 nm	Bandera
23:49	57AA	308° @ 61 nm	Bandera
23:51	57AA	307° @ 61 nm	Bandera
23:52	57AA	307° @ 62 nm	Bandera
24:05	57AA	308° @ 43 nm	Medina
24:06	57AA	311° @ 43 nm	Medina
24:07	57AA	310° @ 44 nm	Medina
24:23	57AA	306° @ 62 nm	Bandera
24:27	57AA	304° @ 64 nm	Bandera
24:29	57AA	305° @ 64 nm	Bandera
24:31	57AA	303° @ 65 nm	Bandera
24:41	57AA	309° @ 57 nm	Bandera
24:43	57AA	308° @ 57 nm	Bandera
23:45	57AA	309° @ 58 nm	Bandera
23:49	57AA	308° @ 58 nm	Bandera
01:18	57AA	Landed	

Seeding operations were conducted in Atascosa (20+0H), Bandera (40+0H), Bexar (4+0H), Medina (10+0H), and Uvalde (16+ 0H) Counties. 90 flares plus 0 hygroscopic flares were burned within 12 clouds. This is the 8th day for seeding in May and the 9th day for seeding during the season.