

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - July 29, 2020

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a ridge the Southwest and Southeast and an inverted trough over northeastern Mexico with a shortwave trough over the Rockies. At the surface, high pressure is across parts of the Rockies and the East with low pressure across the far Northeast and the West. The flow at upper levels is mainly variable with it generally calm to light and variable at the surface. The current dew point temperature is in the lower to middle 70s and the environmental temperature more or less the same with clear skies to broken clouds across our area. For today, an inverted trough continues to move into northeastern Mexico while weakening bring a chance for afternoon and possibly early evening showers and thunderstorms to areas mainly east of the I-35. Much of the activity will be towards the coast with just a slight chance reaching parts of the EAA counties. The precipitable water values will range between 1.5 and 2.0in where some isolated areas could receive a brief moderate to heavy downpour, occasional lightning, and wind gust associated with strong activity. Due to the sparse cloud coverage and limited precipitation, the temperature will be slightly above the climatological normal for this time of the year. Any storms during the day will dissipate around sunset as we begin to lose daytime heat. Overnight, conditions are forecast to be settled with Thursday morning's lows above the average with increase moisture. Thursday is expected to be dry as a short-wave ridge builds in a dominate our weather. Any shower will be isolated and along the coastal plains. The temperature will remain on the high side with the afternoon heat index values in the triple digits especially east of the I-35 corridor. A broad upper-level trough will dig into Central Plains and northeastern Texas Thursday night through Saturday sending an unusual weak summertime cold front across northern Texas on Friday. How far south will this front make its way is yet to be seen? However, it looks like to will be able to reach the northern border before stalling and dissipating. A moist southeasterly flow will be in place in the low level ahead of the front and as it moves southward it will bring chances for showers and thunderstorms across the Hill Country beginning Friday afternoon and continuing through the target areas through Saturday night. The best chance for precipitation will be across the northern target area on Friday night and Saturday. The highs are progged to be in the middle 90s and lower 100s with the lows in the lower to middle 70s through the end of the forecast period.

LIFTING MECHANISM:

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

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4606.63	CAPE (J/Kg)	714.28
Precipitable Water (inches)	2.20	CINH (J/Kg)	84.67
LCL	854.71	LI (°C)	-2.67
CCL	1541.00	PB	-2.67
CRP ICA	-16.99	Cloud Base Temp (°C)	27.3
Cloud Base (meters)	912.61		
Warm Cloud Depth (meters)	3694.02		

DISCUSSION:

Somewhat similar conditions as yesterday with very earl showers and thunderstorms developing across the southern target area and moving northward.

The only issue was that the cloud bases mainly across the eastern target area had very low ceilings. However, as the cells began to build and multiplied, 60P was launched to go across the northern McMullen county and the Atascosa County. However, when 60P reached the cell across McMullen county, the ceiling to still too low and the pilot was unable to reach it. 60P tried to get the one across the Atascosa county but had another had time that cell. 60P eventually seeded it not before taking a while to get a safe location to release the seeding materials in the cell. 60P was then sent to Frio county where it released just a few dosages in a cell because cells were weak. 60P that was launched across the northern Atascosa and southern Bexar county but had no luck as it was able to fly through it with very little to no inflow. There were a few other cells that 60P tried to hit but they were non-seedable. 57AA was also launched but was not successful as the seed too were non-seedable and had to return to base as did 60P as no other seedable cell were out there. 57AA was called out to seed one or two cells across the Uvalde area. However, 57AA took some time before being airborne due to unfavorable weather conditions across the Uvalde airport. When the pilot of 57AA got an open window to take off it became airborne and started to seed cells with its vicinity. Even though the cells were marginally seedable with small areas, 57AA still was able to successfully release the full dosages of seeding material in them. There were a few others around the area but they were very weak. 57AA headed back to base for the evening as cells stop developing and started dissipating.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

162	1117	1399	1249						
-----	------	------	------	--	--	--	--	--	--

FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
18:40	60P	In Air	
19:06	60P	199° @ 8 nm	Atascosa
19:07	60P	193° @ 9 nm	Atascosa
19:08	60P	202° @ 8 nm	Atascosa
19:10	60P	196° @ 7 nm	Atascosa
19:11	60P	206° @ 6 nm	Atascosa
19:25	60P	243° @ 25 nm	Frio
19:26	60P	246° @ 26 nm	Frio
20:09	57AA	In Air	
20:26	60P	Landed	
21:00	60P	Recon	
21:28	57AA	In Air	
21:34	57AA	276° @ 72 nm	Uvalde
21:35	57AA	276° @ 71 nm	Uvalde
21:37	57AA	276° @ 70 nm	Uvalde
21:38	57AA	275° @ 69 nm	Uvalde
21:39	57AA	277° @ 71 nm	Uvalde
21:44	57AA	284° @ 70 nm	Uvalde
21:44	57AA	284° @ 71 nm	Uvalde
21:45	57AA	283° @ 71 nm	Uvalde
21:46	57AA	282° @ 71 nm	Uvalde
21:47	57AA	284° @ 71 nm	Uvalde
22:14	57AA	Landed	

Seeding operations were conducted in Atascosa (10+0H), Frio (4+0H), and Uvalde (20+0H) Counties. 34 flares plus 0 hygroscopic flares were

burned within 4 clouds. This is the 6th day for seeding in July and the 22nd day for seeding during the season.