

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - July 09, 2018

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a broad ridge across much of the country with a weak disturbance across deep Southern Plains and Southeast. At the surface, mainly riding to the East with and to the West with tropical storm Chris off shore of the Carolinas. The flow at upper levels is generally northeasterly with it southeasterly at the surface. The current dew point temperature is in the mid 70's with broken to overcast skies across our area. There are some showers and thunderstorms over the northern counties that should continue through the morning hours. For today, expect another round of showers and thunderstorms with deep mid-level moisture in place and daytime heating. Much of the northern, parts of western and eastern counties are in the range for showers and thunderstorms. With mainly an easterly flow aloft will continue to bring similar conditions as yesterday. The flow will leave the atmosphere uncapped but will weaken the vertical wind shear. Showers and thunderstorms will taper off by late afternoon and early evening hours. For Tuesday, active weather continues mainly for the southeastern counties with afternoon showers and thunderstorms. For the rest of the forecast period, conditions should become quieter each and every day as the ridge amplifies and strengthens across overhead. The highs are forecast to be in low to mid 90's today while increasing to the mid and upper 90's by the Thursday. The forecast calls for the dew point temperature to be in the upper 60's to low 70's; thus' the heat index will be on the rise. The feel like temperature should be at least 5 to 6 degrees warmer than the actual temperature through the end of the forecast period.

LIFTING MECHANISM:

Low Level Moisture, Warm Air Advection, Weak Mid-Level Disturbance

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4570.56	CAPE (J/Kg)	1789.2
Precipitable Water (inches)	1.81	CINH (J/Kg)	31.03
LCL	704.65	LI(°C)	-5.45
CCL	1054.53	PB	-5.45
CRP ICA	-22.77	Cloud Base Temp (°C)	20.8
Cloud Base (meters)	1288.35		
Warm Cloud Depth (meters)	3282.21		

DISCUSSION:

Another weak mid-level disturbance impacted our weather today bringing showers and thunderstorms to the area by early morning through mid afternoon hours. Showers and thunderstorms developed mainly across the northern counties of the target zone earlier in the morning before moving slight south across the middle part of the zone by afternoon. Due to active conditions, aircrafts 57AA and 160P were launched to the central and western counties. 160P was first launched across the Medina and Frio Counties for possible seeding opportunities. 57AA was then launched across the Uvalde County as a cell developed and tried to stand out long enough for the aircraft to reach it. The cells were aggressive like to the day before so not a tremendous amount of seeding took place on this day. Aircraft 57AA successfully seeded

across the Uvalde County while 160P seeded across the Atascosa County. After seeding the Atascosa County, 160P headed for the Wilson County as there were weak cells across that area. While on its way there the cells continued to die out; thus, 160P was not able to perform operations across that county. While 57AA was on its way back to Pleasanton, there were a few cells that developed and so 57AA was able to hit it with a several dosages of seeding materials. Aircraft 160P was also able to seed a two split cells across the Atascosa County while 57AA was seeding across the Frio and Atascosa County. Cells began to dissipate earlier than usual with the series of disturbances that pass through our area for the pass several days. Aircraft 57AA returned to base while 160P continued on to a storm across the Wilson/Karnes County where it did some seeding. Final 160P returned to base as there were no signs of other significant cell development. Overall, another great day of operations where several cells were seeded across a several counties.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

1142	1573	2154	2077	2151	2428	2418	2079	1739	
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
18:23	160P	In Air	
18:30	57AA	In Air	
19:01	160P	277° @ 27 nm	Medina
19:02	160P	275° @ 27 nm	Frio
19:04	160P	273° @ 25 nm	Frio
19:04	160P	270° @ 30 nm	Frio
19:08	160P	270° @ 30 nm	Frio
19:25	160P	277° @ 4 nm	Atascosa
19:26	160P	291° @ 4 nm	Atascosa
19:27	160P	334° @ 4 nm	Atascosa
19:28	160P	346° @ 4 nm	Atascosa
19:29	160P	348° @ 8 nm	Atascosa
19:32	57AA	094° @ 86.5 nm	Uvalde
19:34	57AA	094° @ 86.5 nm	Uvalde
20:05	160P	54° @ 5 nm	Atascosa
20:05	57AA	273° @ 34 nm	Frio
20:06	160P	49° @ 3 nm	Atascosa
20:07	160P	34° @ 2 nm	Atascosa
20:08	160P	298° @ 1 nm	Atascosa
20:18	57AA	251° @ 34 nm	Frio
20:21	57AA	255° @ 10 nm	Frio
20:43	57AA	243° @ 10 nm	Atascosa
20:47	57AA	226 ° @ 11 nm	Frio
20:49	160P	66° @ 43 nm	Karnes
20:50	160P	65° @ 44 nm	Karnes
20:51	160P	64° @ 46 nm	Karnes
20:52	160P	64° @ 47 nm	Karnes
20:54	160P	64° @ 45 nm	Karnes
20:59	57AA	Landed	
21:30	160P	Landed	

Seeding operations were conducted in Atascosa (20+0H), Frio (16+1H), Karnes (10+0H), Medina (2+0H) and Uvalde (4+0H) Counties. 52 flares plus 1 hygroscopic flare were burned within 9 clouds. This is the 6th day for seeding in July and the 16th day for seeding during the season.