

**SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS**

**SEEDING REPORT - July 28, 2020**

**SYNOPTIC/MESOSCALE CONDITIONS:**

Upper air analysis shows a ridge over much of the South with embedded shortwaves, a low over the Texas coast, and a trough over the Northeast. At the surface, high pressure is across the Rockies through the Southeast with low pressure across the Northwest and the Northeast. The flow at upper levels is mainly easterly with is generally calm at the surface. The current dew point temperature is in the lower to upper 70s and the environmental temperature more or less the same with broken clouds to overcast skies across our area. For today, an upper level low over the Texas coast will keep conditions unsettled across south-central Texas through Wednesday. Deep moisture will be in place with precipitable water values ranging between 1.7 inland to around 2.0in near the coast. Daytime convection is expected mainly east of I-35 today and Wednesday. The best chance for showers will be today before the upper level low begins to weaken and a subtropical ridge reestablishes across our region. The temperature should be around or a few degrees warmer than Monday. There may also be a slight uptick in the temperature on Wednesday with limited precipitation and fewer cloud coverage, especially for the inland areas. Thursday should be mostly rain-free as the atmosphere dries out as a result of the subtropical ridge taking a toll on our weather. A trough axis is expected to move into central Texas sending a weak frontal boundary into the Hill Country mid to late Friday afternoon. Some storms could develop along the boundary and move into parts of the northern target area by evening and overnight hours on Friday night. The highs are progged to be in the lower to upper 90s with the lows in the lower to middle 70s through the end of the forecast period.

**LIFTING MECHANISM:**

Upper-Level Low, Low-Level Moisture Advection, Warm Air Advection

**THERMODYNAMIC INDICES (12Z KCRP)**

Freezing Level (m)	4694.54	CAPE (J/Kg)	2154.22
Precipitable Water (inches)	1.96	CINH (J/Kg)	25.94
LCL	745.97	LI (°C)	-5.76
CCL	1175.36	PB	-5.76
CRP ICA	-24.31	Cloud Base Temp (°C)	23.7
Cloud Base (meters)	932.18		
Warm Cloud Depth (meters)	3762.36		

**DISCUSSION:**

A relatively quiet morning turned active early afternoon near the Coastal Plains. A few showers began to roll in across the Bee county with possible thunderstorms. The cells develop a bit early and need a little more heating before 60P could have been launched. However, by the time 60p was called out, it began to weaken across the Bee county but not the non-seeding county to the east of it. 60P tried to get something all out of it across the target area but was unsuccessful. 60P still fire a few east of Karnes to see if it would move over the eastern Karnes county but it did not. I began weakening and moving further and further away from the target area. 60P returned to base as there were no other cells out here at the time. 60P was relaunched across the Bee county first and then the McMullen as there were good cells present later day. 60P successfully seed the cell across the Bee County but was unsuccessful with the cell across the McMullen county. By the time it reached McMullen

county cell weaken significantly. While the 60P was heading back to base a cell developed across western Atascosa and eastern Frio counties where had it make a U-turn to try and target that cell. It was able to see that cell by releasing the full dosage of seeding material in that cell. I should also mention that while 60P was on its way to that cell and while seeding that cell, another cell developed across the Frio county that merged with the cell that 60P was working on. The merged cells were seeded. 60P finally returned to base for the evening as conditions began to settle.

**WATCHES/WARNINGS:**

N/A

**SEEDED CELL ID'S:**

1420	1559	2691	2605						
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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
1850	60P	In Air	
1934	60P	70° @ 49	Karnes
1935	60P	71° @ 50 nm	Karnes
20:02	60P	Recon	
21:29	60P	In Air	
21:44	60P	125° @ 48 nm	Bee
21:45	60P	126° @ 48 nm	Bee
21:46	60P	125° @ 48 nm	Bee
21:47	60P	123° @ 49 nm	Bee
21:48	60P	122° @ 50 nm	Bee
22:53	60P	233° @ 21 nm	Frio
22:54	60P	239° @ 21 nm	Frio
22:55	60P	236° @ 21 nm	Frio
22:56	60P	231° @ 20 nm	Frio
22:57	60P	238° @ 21 nm	Frio
23:43	60P	Landed	

Seeding operations were conducted in Bee (10+0H), Karnes (4+0H), and Frio (10+0H) Counties. 24 flares plus 0 hygroscopic flares were burned within 4 clouds. This is the 5<sup>th</sup> day for seeding in July and the 21<sup>st</sup> day for seeding during the season.