

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - June 08, 2018

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a subtropical ridge of high pressure extending across Mexico and Texas with a weak trough across eastern Gulf of Mexico. At the surface, high pressure ridging is located across much of the east with low trough axis along the Rockies. The flow at upper levels is mainly from the northwest with it calm to light and variable at the surface. The current dew point temperature is in the mid 70's with passing low base clouds hovering over our area. For today, anti-cyclonic flow will persist across Texas with on-shore flow bringing in some moisture from off the Gulf of Mexico. Moisture along with a sea breeze can produce a slight chance for showers this morning with isolated afternoon thunderstorms especially to counties near or along the coast. Low range models suggest that inner counties may see a shower or two but the chances will be slight. Expect another day of hot high temperatures with high heat index values. The dew point temperature is forecast to be in the upper 60's to mid 70's range. The feel like temperature will be 3 to 6 degrees warmer than the actual temperature. Any storms that forms will diminish by this evening with overnight conditions mainly quiet. For Saturday, similar conditions are expected with the highs a degree or two cooler than today. The upper ridge may weaken and its axis shifting to the west across Mexico allowing deep moisture with sea breeze to bring another slight chance for precipitation to counties closer to the coast. The dew point temperature will remain high; thus, the heat index should be in the low 100's for central and eastern target areas. Come Sunday through Monday, a less than 10% chance for isolated showers is expected for the eastern target areas with the ridge strengthening once again. The temperature may rebound to the low 100's especially for the western and central counties. I should also mention that the low temperatures will be in the low to mid 70's as it has been for the passes few weeks.

LIFTING MECHANISM:

Low Level Moisture Air Advection, Low Level Warm Air Advection, Sea-Breeze
THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4915	CAPE (J/Kg)	1861.4
Precipitable Water (inches)	1.65	CINH (J/Kg)	1.86
LCL	632.3	LI(°C)	-5.33
CCL	752.7	PB	-5.33
CRP ICA	-20.6	Cloud Base Temp (°C)	21.2
Cloud Base (meters)	1747.4		
Warm Cloud Depth (meters)	3167.6		

DISCUSSION:

A sub-tropical ridge of high pressure that weakened slightly and pushed westward allowed for afternoon convection across the southeastern counties near the coast. There was enough instability and with enough warm moist air advection for the cumulus family was able to develop. During the morning hours, some cumulus clouds developed across the counties near the coast and then by the afternoon towering cumulus leading to some isolated cumulonimbus clouds the followed. Keep in mind that the strength of the clouds were weak; thus, not a lot of seeding took place. However, aircraft 160P was dispatched the Karnes County where operations took place. After the first few seedings

the pilot decided to fly around the system to see if he was able to get better inflow. After several minutes the pilot decided to head back to base and fuel up. After the pilot contacted me about his arrival time, cells began to fire-up and so I had to launch a second time. Aircraft 160P flew to northeastern Karnes and southeastern Wilson Counties where conditions were active. However, he was able to only seed a cell that was located across the Karnes County. Many of the clouds had very weak inflow and so the pilot was not able to do a lot. Afterwards, aircraft 160P flew to east Atascosa County where he reported mist with no point of seeding. The aircraft was then sent back to northeastern Karnes County, but that to was unsuccessful due to the lack of inflow. Final on his way back to base, I had him divert to a cell close to the border of the Atascosa and Karnes county for possible seeding, but this system too was pointless to seed. Overall, there was a fair amount of seeding done over the Karnes County.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

75	124								
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
20:51	160P	In Air	
20:56	160P	90° @ 42 nm	Karnes
20:57	160P	89° @ 39 nm	Karnes
21:21	160P	Landed	
22:00	160P	In Air	
22:29	160P	92° @ 25 nm	Karnes
22:29	160P	88° @ 24 nm	Karnes
22:30	160P	91° @ 24 nm	Karnes
22:37	160P	93° @ 23 nm	Karnes
23:55	160P	Landed	

Seeding operations were conducted in Karnes (12+1H) County. 12 flares plus 1 hygroscopic flare were burned within 2 clouds. This is the 1st day for seeding in June and the 4th day for seeding during the season.