## *SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION – Pleasanton, TEXAS*

**SEEDING REPORT – June 13, 2018**

## SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a ridge of high pressure across Mexico and western Texas with the jet located across the northern interior of the country. At the surface, high pressure is located across Texas and much of the Southeast with weak low over the Southern Rockies. The flow at upper levels is from the north northwest and light from the southeast at the surface. The current dew point temperature is in the upper 70's with low level broken clouds pushing in the off the Gulf. For today, expect the ridge to flatten out across the north giving room for the return of the sea-breeze showers and thunderstorms across the southeastern target areas. The precipitation chances will be slight and the isolated today with a little more promising and scattered on Thursday. The high temperatures are forecast to be slightly cooler than the beginning of the week but will still remain above the normal. Also, the dew point temperature is forecast to stay in the 70's today; thus, increasing the heat index value. The feel like temperature will be between 2 and 4 degrees warmer than the actual temperature both for today and tomorrow. Overnight Thursday, this flat ridge will begin to amplify across the Lower Mississippi Valley which will cause an area of disturbed weather to impact us by the end of forecast period. The low will eventually into southwestern Texas as the blocking ridge will be to our east. Come Saturday, our attention begins to turn toward the tropics as current system across the western Caribbean Sea is forecast to move into the Gulf of Mexico this weekend. Energy from the outskirts of this system will begin to roll in on Saturday morning along the Coastal Plains and then making its way inland. The precipitation probability will be on the increase while the high temperatures be on decrease.

**LIFTING MECHANISM:**

Low Level Moisture Advection, Low Level Warm Air Advection, Sea-Breeze

**THERMODYNAMIC INDICES (12Z KCRP)**

| | | | |
|---|---|---|---|
| Freezing Level (m) | 3534.8 | CAPE (J/Kg) | 1569.8 |
| Precipitable Water (inches) | 1.76 | CINH (J/Kg) | 21.54 |
| LCL | 789.69 | LI(°C) | -6.14 |
| CCL | 1157.9 | PB | -6.14 |
| CRP ICA | -21.96 | Cloud Base Temp (°C) | 18.4 |
| Cloud Base (meters) | 1560.02 | | |
| Warm Cloud Depth (meters) | 1974.78 | | |

**DISCUSSION:**

Showers and thunderstorms developed early in the morning mainly across the central counties, but they were very weak and did not last long. The afternoon hours, storms began firing up and holding out a little longer across much of the target areas. This was due to sea-breeze along with low level moisture and warm air advection with a weak subtropical ridge to the north. Aircraft 160P was launched after 18UTC to the Atascosa County but when it arrived the cell was already dying, so 160p headed up to the Bexar County but upon its arrival the cloud did not have enough inflow and where much of the cell was located, it was over a non-seeding zone. Aircraft 160P was then launched to the Uvalde County where successful seeding was done. After that, it headed to the south along the Uvalde and Zavala County where there too operations were successfully carried out. Aircraft was then launched over the Medina County where it seeded a cell. When 160P was unable

to get further good inflow, it then headed to the Pleasanton Airport to give an update on what took place at Uvalde County as communication via the radio was very poor. While on the way to the airport, 160P was diverted across eastern Frio County but that too was unsuccessful as the cell did not last long enough for the aircraft to get there. Final it made a stop at Pleasanton, TX before heading to Kennedy Airport.

**WATCHES/WARNINGS:**
N/A
**SEEDED CELL ID'S:**

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 521 | 381 | 671 | | | | | | | |

**FLIGHT INFORMATION:**

| TIME (Z) | Plane | Flare Location | County |
|---|---|---|---|
| **18:22** | **160P** | **In Air** | |
| **19:35** | **160P** | **108º @ 68.2 nm** | **Uvalde** |
| **19:36** | **160P** | **109º @ 68.2 nm** | **Uvalde** |
| **19:38** | **160P** | **109º @ 69.3 nm** | **Uvalde** |
| **19:39** | **160P** | **110º @ 70.9 nm** | **Uvalde** |
| **19:41** | **160P** | **111º @ 70.9 nm** | **Uvalde** |
| **20:03** | **160P** | **094º @ 76.8 nm** | **Uvalde** |
| **20:05** | **160P** | **093º @ 80.1 nm** | **Uvalde** |
| **20:06** | **160P** | **093º @ 78.9 nm** | **Uvalde** |
| **20:07** | **160P** | **094º @ 76.6 nm** | **Uvalde** |
| **20:35** | **160P** | **272º @ 32 nm** | **Medina** |
| **20:36** | **160P** | **297º @ 31 nm** | **Medina** |
| | | | |
| | | | |

Seeding operations were conducted in Medina (4+2H) and Uvalde (18+0H) Counties. 22 flares plus 2 hygroscopic flares were burned within 3 clouds. This is the 3rd day for seeding in June and the 6th day for seeding during the season.