

**WEST TEXAS WEATHER MODIFICATION ASSOCIATION - SAN ANGELO, TEXAS**

**SEEDING REPORT - August 7, 2017**

**SYNOPTIC/MESOSCALE CONDITIONS:**

A large cluster of showers and embedded t-storms is now east of the target area with rapid building over Concho County. This is in response to continued upper level vort maxes that are spinning within a weak upper level ridge. With abundant moisture available, heavy showers and a few storms are going to be likely over the next few days. A second band of showers is over the Permian Basin, but according to the latest HRRR, both clusters should dissipate through the morning. Atmospheric decoupling and a stalled cold front is the reason for the overnight convection, but we could see additional development this afternoon as heating destabilizes the atmosphere once again along the boundary (near I-10 from Junction to Balmorhea). High-res models are struggling with this system so pinpointing when/where will be tough, but with limited capping we could see new storms developing earlier this afternoon.

**LIFTING MECHANISM:**

Sufficient Surface Heating, Abundant Moisture

**THERMODYNAMIC INDICES (12Z KMAF)**

|                             |       |                      |      |
|-----------------------------|-------|----------------------|------|
| Freezing Level (m)          | 4888  | CAPE (J/Kg)          | 418  |
| Precipitable Water (inches) | 1.78  | CINH (J/Kg)          | 136  |
| LCL                         | 1187  | LI(°C)               | -3.2 |
| CCL                         | 2620  | PB                   | 3    |
| MAF ICA                     | -2.24 | DRT ICA              | 0.64 |
| Cloud Base (meters)         | 1624  | Cloud Base Temp (°C) | 18   |
| Warm Cloud Depth (meters)   | 3264  |                      |      |

**DISCUSSION:**

IFR CONDITIONS THROUGH MUCH OF THE MORNING AND EARLY AFTERNOON, HOWEVER, AS CLOUDS BEGAN TO BREAK UP AT 19Z, RAPID HEATING WAS TAKING PLACE. ON TOP OF THAT, DEW POINTS IN THE UPPER 60'S ACROSS THE AREA WAS PROVIDING PLENTY OF MOISTURE TO FUEL STORMS. A FEW SHOWERS BEGAN TO DEVELOP AROUND 1930Z BUT BECAME MORE INTENSE AS WE GOT NEAR 1945Z. PILOT WAS CALLED AIRBORNE AT 1945Z AND GOT UP AT 2015Z. AS HE GOT AIRBORNE, INITIAL STORM HAD FALLEN APART BUT MUCH BETTER CONVECTION WAS SPOTTED NEAR BARNHART. THIS CELL WAS QUICKLY SEEDED AS IT MOVED SOUTH INTO CROCKETT COUNTY. WE CONTINUED TO SEED THIS CLOUD THROUGH 2110Z AND IT RESPONDED VERY WELL. WE'LL LET THE MATERIAL DO THEIR WORK FOR A BIT AND HEAD FURTHER WEST TOWARDS OTHER CONVECTION. THE OTHER DEVELOPMENT IN SOUTHERN REAGAN COUNTY WAS TOO EMBEDDED TO GET INTO. WE'LL LOOK AT MORE ISOLATED CONVECTION NEAR BIG LAKE. ALL OF THIS CONVECTION WAS HEAVILY EMBEDDED WITH NO WORKABLE BASES. WE SLID BACK TO THE SOUTH TO THE MAIN SYSTEM, HOWEVER, AGAIN, THIS SYSTEM WAS VERY EMBEDDED. WE'LL CONTINUE TO INVESTIGATE UNTIL WE SEE SOME DISSIPATION WITH THE MAIN SYSTEM. WE GOT SOME INFLOW ON THE EAST SIDE OF THE SYSTEM IN SCHLEICHER COUNTY, BUT PILOT HAD BASES AT 4300FT BEFORE DROPPING BELOW 2000FT. WE DECIDED TO PULL OFF THAT AREA DUE TO LOW BASES. PILOT FOUND ANOTHER SWEET SPOT RIGHT AROUND 5000FT. WE'LL WORK THAT UNTIL IT LOWERS. PILOT WAS GETTING IN SOME VERY ROUGH CONDITIONS HERE SO HE HAD TO PULL OFF. WITH THE SOUTHERN EDGES OF THESE CLOUDS AROUND 2000FT AND THE NORTHERN ENDS BECOMING HEAVILY EMBEDDED. WE DECIDED TO RTB AT 2215Z. PILOT GOT REFLARED AND FUELED. AT THE COMPLETION OF THAT, NEW STORMS FIRED NORTH IN CLEAR AIR. WE'LL GO CHECK THESE OUT AS VISUALLY THEY LOOKED VERY PROMISING. TWO STORMS WERE SEEDED THROUGH 2330Z. ONE IN NORTHERN TOM GREEN COUNTY AND ANOTHER IN NORTHEASTERN IRION COUNTY. ALTHOUGH STORMS ARE SMALL, A SMALL RESPONSE APPEARED TO BE TAKING PLACE.

WE'LL DIVE FURTHER SOUTH INTO IRION COUNTY BUT THIS SYSTEM SEEMS TO BE BEYOND ITS PEAK. STILL, WE'LL GIVE IT A SHOT. INFLOW COULD NOT BE FOUND, AND AT THIS TIME IT APPEARED OUR NIGHT WAS OVER. PILOT RTB'D.

**WATCHES/WARNINGS:**

N/A

**SEEDED CELL ID'S:**

|      |      |      |  |  |  |  |  |
|------|------|------|--|--|--|--|--|
| 4104 | 4544 | 4568 |  |  |  |  |  |
|------|------|------|--|--|--|--|--|

**FLIGHT INFORMATION:**

| TIME (Z) | Plane | Flare Location | County     |
|----------|-------|----------------|------------|
| 2015     | 09P   | IN AIR         |            |
| 2038     | 09P   | 238° @ 32 nm   | IRION      |
| 2041     | 09P   | 233° @ 34 nm   | IRION      |
| 2042     | 09P   | 234° @ 34 nm   | IRION      |
| 2043     | 09P   | 233° @ 34 nm   | IRION      |
| 2048     | 09P   | 227° @ 34 nm   | CROCKETT   |
| 2049     | 09P   | 227° @ 34 nm   | CROCKETT   |
| 2028     | 09P   | 231° @ 40 nm   | CROCKETT   |
| 2059     | 09P   | 230° @ 39 nm   | CROCKETT   |
| 2204     | 09P   | 214° @ 28 nm   | SCHLEICHER |
| 2205     | 09P   | 213° @ 27 nm   | SCHLEICHER |
| 2208     | 09P   | 210° @ 27 nm   | SCHLEICHER |
| 2209     | 09P   | 209° @ 27 nm   | SCHLEICHER |
| 2212     | 09P   | 209° @ 27 nm   | SCHLEICHER |
| 2215     | 09P   | RTB            |            |
| 2305     | 09P   | IN AIR         |            |
| 2313     | 09P   | 320° @ 14 nm   | TOM GREEN  |
| 2315     | 09P   | 320° @ 13 nm   | TOM GREEN  |
| 2316     | 09P   | 319° @ 13 nm   | TOM GREEN  |
| 2317     | 09P   | 322° @ 13 nm   | TOM GREEN  |
| 2320     | 09P   | 322° @ 11 nm   | TOM GREEN  |
| 2327     | 09P   | 319° @ 19 nm   | IRION      |
| 2328     | 09P   | 283° @ 19 nm   | IRION      |
| 2329     | 09P   | 282° @ 20 nm   | IRION      |
| 2331     | 09P   | 282° @ 20 nm   | IRION      |
| 2339     | 09P   | RTB            |            |

Seeding operations were conducted in Irion (17), Crockett (6+1H) Tom Green (8+1H) and Schleicher (11) Counties. 42 flares plus 2 hygroscopic flares were burned within 3 clouds. This is the 3<sup>rd</sup> day for seeding in August and the 22<sup>nd</sup> day for seeding during the season.