

WEST TEXAS WEATHER MODIFICATION ASSOCIATION - SAN ANGELO, TEXAS

SEEDING REPORT - August 20, 2018

SYNOPTIC/MESOSCALE CONDITIONS:

A low-pressure system remains over parts of northern Texas which extends a cold front to the west southwest. This boundary will slide south through the area this morning resulting winds out of the north. However, we won't see much in terms of cold air advection. What we may see, however, is shower and thunderstorm activity this afternoon as a result of surface heating and the boundary. As usual, the HRRR is much more aggressive with convection than the WRF. The HRRR fires up storms within both the Concho Valley and Trans-Pecos around 2-3PM this afternoon with more widespread coverage by 5PM. Storms will be confined to the southern half of the Concho Valley while storms will be scattered enough over the Trans-Pecos to threaten much of the area.

LIFTING MECHANISM:

Cold Front

THERMODYNAMIC INDICES (12Z KMAF)

Freezing Level (m)	4631	-15°C Height (m)	7350
Precipitable Water (inches)	1.34	CAPE (J/Kg)	145
LCL	1511	CINH (J/Kg)	116
CCL	3102	LI(°C)	-0.9
MAF ICA	-0.68	PB	1
Cloud Base (meters)	2529	DRT ICA	-3.96
Warm Cloud Depth (meters)	2102	Cloud Base Temp (°C)	12.3

DISCUSSION:

Cold front was moving through a line from Eldorado to Barnhart to Rankin at 18Z. An extensive cu field has developed along and ahead of the boundary but was struggling to get anything going. However, a few echoes were trying to pop up on radar imagery despite lack of heating still. I'll watch the trends here over the next several scans and work with either research or operational pilot to get things going. Initial echoes provided nothing heating simply was not beyond the convective temperature. However, a little at 1830Z, a few echoes were beginning to develop across parts of Sutton, Schleicher and Crockett Counties. Pilots are already in route and will launch as soon as possible. We'll send both an operational plane up and the research aircraft. Much of these developed into nothing, however we still launched hoping to get ahead of the system. First cell was seeded in northern Crockett County but quickly dissipated. With research aircraft handling storms near Ozona, we moved into Reagan County where sat imagery was looking favorable. Seeding did take place on a storm not ID'd by TITAN prior to 20Z. Will continue to investigate this area. This cell never ended up becoming storm #1605. We'll now try to provide maintenance seeding to the research aircraft storms to see how the two techniques work together. However, much of that development was dissipating. Will continue to look in an area along a line from Barnhart to Ozona with some interesting features in Sutton and Schleicher. Unfortunately, per SPC meso analysis, convergence along the tail end of the front is very weak, if not non-existent. Storm #1604 was aggressively seed in eastern Crockett County upon arrival. Storm exploded on us, but inflow was tough to find after the initial few dosages. We'll continue to work this one. We were able to get a few more flares in before we lost inflow. We pushed north but convection over here was all falling apart now. We'll now focus on eastern targets where a very small shower was near Eldorado with a few more very small, weak showers in southern Sutton County. Targets in Schleicher County could not sustain; therefore, we dove into Sutton County. However, similar issue here. Targets could not sustain but we made it to one cell that did

show some promise. This was seeded in the early part of the 21Z hour but pilot lost inflow after a few dosages. We'll RTB for fuel but won't rule out a relaunch. At this time, showers were very marginal, and everything was on a downward trend. The best convection remained in NE Crockett County which was seeded earlier but now blew off an outflow boundary. The rest of the evening does not look promising per sat/rad trends and HRRR model output.

WATCHES/WARNINGS:

None

SEEDED CELL ID'S:

1519	1605	1604	1757						
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
1900	24P	In Air	
1934	24P	229° @ 37 nm	Crockett
1953	24P	245° @ 53 nm	Reagan
1954	24P	246° @ 56 nm	Reagan
1956	24P	247° @ 54 nm	Reagan
2018	24P	219° @ 40 nm	Crockett
2021	24P	219° @ 39 nm	Crockett
2025	24P	221° @ 42 nm	Crockett
2028	24P	222° @ 42 nm	Crockett
2030	24P	223° @ 42 nm	Crockett
2107	24P	170° @ 55 nm	Sutton
2108	24P	170° @ 55 nm	Sutton
2111	24P	170° @ 56 nm	Sutton
2116	24P	RTB	

Seeding operations were conducted over Crockett (16), Reagan (6) and Sutton (6) Counties. 28 flares were burned within 4 clouds. This is the 3rd day for seeding in August and the 20th day for seeding during the season.