

WEST TEXAS WEATHER MODIFICATION ASSOCIATION - SAN ANGELO, TEXAS

SEEDING REPORT - July 6, 2018

**SYNOPTIC/MESOSCALE CONDITIONS:**

Upper high remains in place over the four corners region which will bring northeasterly winds aloft to the area. This will advect cooler upper level air and bring any shortwave activity right over our region. Meanwhile, strong easterly to southeasterly surface flow will continue to advect plentiful moisture into both the Concho Valley and Trans-Pecos. Without a surface feature, shower/storms will be dependent upon dynamical forcing only. Therefore, for today, it appears the best shot for showers/storms will be across the Concho Valley where shortwave activity is expected. The latest HRRR is not as aggressive as the WRF with at least isolated to scattered storms. Instead, it brings in a cluster of showers late this morning along with isolated showers and maybe a storm or two. However, the cluster it is showing is not currently developed which means the HRRR did not initiate well. I will stick with the WRF today and keep likely storm chances in the forecast.

**LIFTING MECHANISM:**

Strong Moisture Advection

**THERMODYNAMIC INDICES (12Z KMAF)**

Freezing Level (m)	4851	-15°C Height (m)	7520
Precipitable Water (inches)	1.30	CAPE (J/Kg)	35
LCL	1357	CINH (J/Kg)	44
CCL	2455	LI(°C)	0.7
MAF ICA	-2.68	PB	1
Cloud Base (meters)	2362	DRT ICA	-5.24
Warm Cloud Depth (meters)	2488	Cloud Base Temp (°C)	10

**DISCUSSION:**

Ongoing showers this morning have pushed east of a Carlsbad to Sonora line. These were very marginal through the 16Z hour but by 1715Z they began to grow as overcast skies began to break. Pilot will get airborne and head west where storms were growing this best. This will be around the Big Lake/Barnhart area. Further southwest, storms were still heavily embedded as the clouds have yet to break. We intercepted storm #537 near Barnhart and began seeding the south edge of the storm. We pushed into the central part of the storm and seeded there and finished up on the northern side of the storm. Meanwhile, convection southwest was still heavily embedded and not seedable as it was moving out of the area. This may impact our Trans-Pecos counties later. Additionally, small singlecell storms were firing up in northern Tom Green County and southern Sterling Counties. We may look here but may also leave these for the research aircraft. Cell #537 was seeded efficiently through 1845Z. Pilot was called back to base as no more seedable convection was present. We'll leave the very small marginal stuff for the research aircraft. Pilot will regroup and get ready for relaunch if/when needed. Storms coming in from the east were rather weak. However, they were moving into a more unstable airmass. Therefore, pilot was called back up at 2130Z and will dive south into Sutton and Schleicher Counties. Pilot arrived at storm and began seeding just before 2230Z. He reported ragged bases with different levels but managed to find inflow. A lowering shelf cloud provided better opportunity, so pilot lost some altitude to check that out. Bases were getting very low on us down here, so we decided to get back to the upper level to see if we can get some inflow up there. We found a good spot of inflow on the second level which was heavily seeded with both glaciogenic and hygroscopic material. Storm was expanding in coverage and was now extended from southern Sutton

County to northern Schleicher County. We will continue to work this storm aggressively. We got more flares out before we pushed slightly northwest where new single cell storms were forming. First cell, 3894, was producing plenty of inflow. Note, TITAN imagery was not lining up well with the maps. I was able to correct this using GR2Analysis software. Storms continued to be seeded in Schleicher County through the 2330Z hour. With storms sufficiently seeded in Schleicher, we'll head northeast back towards San Angelo where storms were approaching the northeastern edge of our target area in Tom Green County. We got sidetracked with a few single cell storms in Irion County. These were seeded but did not produce much for us. Meanwhile, storms incoming from eastern Tom Green County were dissipating and becoming more stratiform. We'll go ahead and RTB at 2355Z.

**WATCHES/WARNINGS:**

None

**SEEDED CELL ID'S:**

537	1982	3894	3994	3989	N/A						
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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
1745	24P	IN AIR	
1804	24P	240° @ 37 nm	Irion
1808	24P	240° @ 39 nm	Irion
1820	24P	258° @ 45 nm	Reagan
1824	24P	260° @ 50 nm	Reagan
1827	24P	259° @ 48 nm	Reagan
1835	24P	273° @ 47 nm	Reagan
1838	24P	277° @ 48 nm	Reagan
1939	24P	276° @ 48 nm	Reagan
1844	24P	274° @ 50 nm	Reagan
1845	24P	RTB	
2200	24P	In Air	
2227	24P	181° @ 38 nm	Schleicher
2228	24P	181° @ 38 nm	Schleicher
2234	24P	183° @ 38 nm	Schleicher
2238	24P	186° @ 44 nm	Sutton
2239	24P	187° @ 46 nm	Sutton
2245	24P	188° @ 54 nm	Sutton
2247	24P	189° @ 50 nm	Sutton
2248	24P	189° @ 50 nm	Sutton
2252	24P	191° @ 44 nm	Sutton
2256	24P	197° @ 39 nm	Schleicher
2257	24P	201° @ 38 nm	Schleicher
2258	24P	204° @ 37 nm	Schleicher
2300	24P	203° @ 37 nm	Schleicher
2307	24P	205° @ 33 nm	Schleicher
2308	24P	209° @ 35 nm	Schleicher
2311	24P	209° @ 36 nm	Schleicher
2316	24P	201° @ 32 nm	Schleicher
2320	24P	205° @ 31 nm	Schleicher
2347	24P	270° @ 18 nm	Irion
2348	24P	265° @ 19 nm	Irion
2350	24P	267° @ 17 nm	Irion
2355	24P	RTB	

Seeding operations were conducted over Irion (10), Reagan (14), Schleicher (24) and Sutton (12+1H) Counties. 60 flares plus 1

hygroscopic flare was burned within 6 clouds. This is the 3<sup>rd</sup> day for seeding in July and the 12<sup>th</sup> day for seeding during the season.