

WEST TEXAS WEATHER MODIFICATION ASSOCIATION - SAN ANGELO, TEXAS

SEEDING REPORT - May 16, 2018

**SYNOPTIC/MESOSCALE CONDITIONS:**

Weak upper level ridging has taken over for the day which will make storm development just a bit harder. However, the dryline will remain in place over the Permian Basin and may make it into the target area during the later afternoon hours. Ahead of the dryline will be a very warm and moist atmosphere which will have plenty of energy to sustain storms if they are able to develop. Outflow boundaries left over from storms yesterday should provide enhanced instability with CAPE values upwards to 3.5k J/Kg. Latest HRRR and WRF models do suggests a few storms firing up over the Big County and Northern Concho Valley by 3PM. The scenario is basically a repeat of yesterday, with best storm chances in Sterling/Irion/Tom Green counties. However, we'll also have to keep an eye on western Crockett County where storms firing up along the mountains will drift east. Likely rain chances will remain in place today.

**LIFTING MECHANISM:**

Dryline

**THERMODYNAMIC INDICES (12Z KMAF)**

Freezing Level (m)	4422	-15°C Height (m)	6500
Precipitable Water (inches)	0.91	CAPE (J/Kg)	542
LCL	1634	CINH (J/Kg)	349
CCL	3281	LI(°C)	-1.9
MAF ICA	4.04	PB	2
Cloud Base (meters)	3254	DRT ICA	0.92
Warm Cloud Depth (meters)	1167	Cloud Base Temp (°C)	6

**DISCUSSION:**

19Z analysis shows the target area continuing to remain under a capped atmosphere. However, instability remains in place but is much less than what we have seen the last several days. With the dryline making marginal eastward progression, storms will have to rely on sufficient surface heating to fire up. For this to happen, the cap will have to first erode meaning storm initiation may be a few hours later than the last two days. Now targeting storm initiation at 4PM which is on par with the latest HRRR. No action until just after 22Z where cu was beginning to build across parts of Glasscock and Upton Counties. We'll launch with pilot expected up by 2230Z and head into southwestern Sterling County where the first storm was threatening the target area. Overall, convection was marginal, but we'll give it all a shot today especially with the present conditions. As pilot got airborne and halfway to the clouds, they began to flourish with dbz surpassing 60. We may have something to work with here in Sterling County. Overall expectation is to work the south edge first and work our way north where storms are developing and moving towards Sterling County. First cell produced some inflow but quickly dissipated. Therefore, we pushed further north to intercept a much larger cell that was sliding into Sterling County. Although intense, this cell was disorganized. We did find plenty of inflow in cell #1010 as it became merged with all surrounding storms. Cell #1010 developed into a large MCS as it pushed to the ESE into Sterling County. One cell did develop on the south edge of this system, we'll head there next and see what we can get brewing. If inflow becomes hard to find, we'll move into Reagan County where a few weaker showers/storms were developing. With nothing developing on the south end, we decided to head west into Reagan County. These cells have been pulsating and are so far only marginal. However, if inflow is present we'll seed sufficiently. Meanwhile, storm #1010 became severe warned with a very

strong core. We may have to revisit that cell when finished in Reagan County. First cell in Reagan County was seeded before it became outflow dominate. However, a second one formed just behind it. We will investigate quickly as Sterling County needs some support again soon. Second storm in Reagan did not produce inflow, so we will head back to Sterling. The dryline was certainly in retreat, but this cell was well fueled and sustaining well. There is also an area of concern over the northwestern corner of Irion County. We may investigate that as well.

**WATCHES/WARNINGS:**

T-Storm Warning - STERLING

**SEEDED CELL ID'S:**

1019	1010	1070							
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**FLIGHT INFORMATION:**

TIME (Z)	Plane	Flare Location	County
2230	24P	IN AIR	
2252	24P	286° @ 36 nm	STERLING
2255	24P	284° @ 36 nm	STERLING
2309	24P	307° @ 56 nm	STERLING
2311	24P	308° @ 55 nm	STERLING
2312	24P	307° @ 55 nm	STERLING
2315	24P	307° @ 55 nm	STERLING
2318	24P	305° @ 53 nm	STERLING
2319	24P	305° @ 55 nm	STERLING
2331	24P	294° @ 49 nm	STERLING
2332	24P	296° @ 47 nm	STERLING
2334	24P	294° @ 44 nm	STERLING
2334	24P	295° @ 43 nm	STERLING
2354	24P	271° @ 53 nm	REAGAN
2354	24P	269° @ 52 nm	REAGAN
2358	24P	269° @ 51 nm	REAGAN
0020	24P	275° @ 35 nm	IRION
0021	24P	277° @ 33 nm	IRION
0025	24P	RTB	

Seeding operations were conducted over Sterling (21+3H), Irion (4) and Reagan (6) Counties. 31 flares plus 3 hygroscopic flares were burned within 3 clouds. This is the 4<sup>th</sup> day for seeding in May and the 4<sup>th</sup> day for seeding during the season.