

WEST TEXAS WEATHER MODIFICATION ASSOCIATION - SAN ANGELO, TEXAS

SEEDING REPORT - May 14, 2018

SYNOPTIC/MESOSCALE CONDITIONS:

Weak southwesterly flow aloft continues today with what appears to be limited disturbances embedded in the flow aloft. This will not help sharpen the dryline as much as anticipated, especially across the target area. Still, a dryline off to the west will move across the Permian Basin this afternoon and set up just west of the target area, mainly around a Big Spring to McCamey to Fort Stockton line. If storms could fire up, a moist and unstable atmosphere should be able to support storms long enough to see the drift into our far western counties, mainly west of a Sterling City to Ozona line. The latest HRRR is very aggressive with storms chances mainly around 1PM, while the WRF holds off a little longer and develops storms around 3PM. The WRF keeps convection just southwest of Crockett County with a second line just north of Sterling County, keeping the target area mostly dry. The HRRR develops a squall line across the western half of the target area and moves it through throughout the evening. Regardless, both models are hinting at enough CAPE, moisture and upper level support for storm initiation. Therefore, likely rain chances will be added to the forecast today with some severe storms possible.

LIFTING MECHANISM:

Dryline

THERMODYNAMIC INDICES (12Z KMAF)

Freezing Level (m)	4603	-15°C Height (m)	6385
Precipitable Water (inches)	0.85	CAPE (J/Kg)	1138
LCL	1487	CINH (J/Kg)	407
CCL	3446	LI(°C)	-3.7
MAF ICA	4.48	PB	4
Cloud Base (meters)	1996	DRT ICA	-2.52
Warm Cloud Depth (meters)	2606	Cloud Base Temp (°C)	15.5

DISCUSSION:

The cap is beginning to erode across parts of the target area with a very unstable atmosphere in place as of 18Z. CAPE values nearing 3k J/Kg across the area is in place with decent moisture convergence across the eastern Trans-Pecos into parts of Reagan, Irion and Sterling Counties. A weak cu field is in place in these areas but seems to be too far displaced from the dryline for any sustained convection. I will keep an eye on this area for now, but the main issue is how far west the dryline remains. At this point, the best bet is convection brewing over the mountains moving over Pecos County into Terrel County. This convection could move into Crockett County later this afternoon. I'll update pilots, but standby not needed yet. By 1925Z, a small storm was trying to build over NE Irion County. Not impressive, but sat imagery was beginning to look more favorable. A pilot was called airborne at this time to look. At this point, SPC is getting a bit excited and issued a MD for the area which may lead to a t-storm watch. However, convection so far is in 3 clusters, to the NE of the area, to the SW of the area, and then NW of San Angelo. The clusters further north seem best with the one area near San Angelo somewhat marginal. Pilot got into the cell NW of San Angelo and found solid inflow through 2020Z before it became outflow dominate. He noted what looked to be some heavy winds at the surface where possibly a microburst took place. With sufficient flares in this cell, we will now move W into northern Crockett County where a new cell was developing. These cells, as well as a few in Reagan County, never got going. Therefore, pilot will head back east towards Carlsbad where storms were still ongoing. The first seeded cell remained stationary over Carlsbad for some

time, hopefully putting a good amount of water in the North Concho River. A much stronger tornado warned storm was taking place in Robert Lee to end the 20Z hour. We'll stay clear of that if it threatens San Angelo at all with tornado activity. All of the action as of 2110Z within the target area was marginal and not producing any inflow. It seems perhaps the tornado warned storm to the north is utilizing all the moisture and energy. However, I will have to keep an eye on areas north of Sterling County for any development moving in. Pilot RTB'd but will be ready to re-launch if needed. At 2215Z, storms in Coke County blew off an outflow boundary which expanded to the west. This developed some convection in the southeastern edge of Sterling County. We will re-launch and see if we can get anything done here. This target became warned as DBZ spiked over 70dbz. We'll try to get a good of flares in it before it threatens San Angelo. This cell is now skirting the TG/Coke County border. We'll stay on the south edge of this cell whether it moves into TG or not, simply for the fact that it has potential to dive south into San Angelo. Radar was looking suspicious as of 2140Z. Although no tornado warning is yet on it, it is looking like a super cell t-storm with potential for a tornado warning. Storm did not become tornado warned so we were able to get several dosages of flares in. Storm became outflow dominate and very, very low. We wrapped around it to the west but the isolated storms out there were much to high to seed (>12kft). We'll check on the south edge of this cell again before wrapping it up. At 2330Z, we decided to wrap it up as storm was too low to get into. Bases were below 2kft on the south edge and was very severe. Decided to get pilot home before it hit.

WATCHES/WARNINGS:

Tornado Warning - COKE COUNTY (not in target)

T-Storm Warning - COKE COUNTY (not in target)

T-Storm Warning - COKE/TOM GREEN/STERLING

SEEDED CELL ID'S:

783	776								
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
1955	41P	IN AIR	
2005	41P	301° @ 13 nm	IRION
2015	41P	310° @ 12 nm	TOM GREEN
2017	41P	310° @ 11 nm	TOM GREEN
2018	41P	306° @ 12 nm	TOM GREEN
2110	41P	RTB	
2235	41P	In Air	
2242	41P	325° @ 20 nm	TOM GREEN
2248	41P	320° @ 19 nm	TOM GREEN
2249	41P	317° @ 18 nm	TOM GREEN
2256	41P	343° @ 22 nm	TOM GREEN
2320	41P	RTB	

Seeding operations were conducted over Irion (2) and Tom Green (14) Counties. 14 flares plus 2 hygroscopic flares were burned within 2 clouds. This is the 2nd day for seeding in May and the 2nd day for seeding during the season.