

WEST TEXAS WEATHER MODIFICATION ASSOCIATION - SAN ANGELO, TEXAS

SEEDING REPORT - August 12, 2017

SYNOPTIC/MESOSCALE CONDITIONS:

A washed out cold front remains stationary near the I-20 corridor this morning. Showers and storms along this boundary are moving through parts of Sterling County but are not of the seedable nature. However, later this afternoon, outflow boundaries from this morning convection could cause issues. Latest HRRR suggest showers and storms from the 4PM-7PM hours. However, dynamics aloft are not real favorable, so unless we get some sufficient surface heating, development may be isolated.

LIFTING MECHANISM:

Cold Front, Sufficient Surface Heating, Abundant Moisture

THERMODYNAMIC INDICES (12Z KMAF)

Freezing Level (m)	4938	CAPE (J/Kg)	267
Precipitable Water (inches)	1.75	CINH (J/Kg)	148
LCL	1305	LI(°C)	-2.1
CCL	2955	PB	3
MAF ICA	-1.24	DRT ICA	-3.24
Cloud Base (meters)	2438	Cloud Base Temp (°C)	15.5
Warm Cloud Depth (meters)	2500		

DISCUSSION:

BY 2030Z, EARLY SHOWERS/STORMS HAVE MOVED OFF TO THE NE OF THE TARGET AREA. HOWEVER, SPC MESO ANALYSIS INDICATED AN AREA OF SURFACE CONVERGENCE FROM NEAR BIG LAKE NW TOWARDS STERLING CITY. SAT IMAGERY WAS CLEAR, BUT AFTER A LONG UPDATE, IT WAS APPARENT STORMS WERE RAPIDLY DEVELOPING. SAT IMAGERY DID NOT UPDATE UNTIL 21Z, SO WE ARE A BIT BEHIND. PILOT GOT AIRBORNE AT 2130Z AND HEADED NW TOWARDS STERLING CITY WHERE STORMS RAPIDLY FIRED UP WITH GREAT INTENSITY. WE'LL MAKE IT THERE AS QUICKLY AS POSSIBLE AND BEGIN SEEDING. PILOT MADE GREAT TIME TO THE STORM AND BEGAN SEEDING RIGHT AT 2146Z. INFLOW WAS WIDESPREAD AND WE GOT SEVERAL FLARES INTO THE CLOUDS EAST OF STERLING CITY. WE BEGAN BACK TRACKING TO THE WEST DEEPER INTO STERLING COUNTY. PILOT OBSERVED VERY DARK BASES, PLENTIFUL LIGHTNING, AND A LOT OF LOW LYING LINGERING CLOUDS. WE SEEDED THIS AREA BEFORE PUSHING BACK TO THE SOUTH AND WEST WHERE ADDITIONAL SEEDING TOOK PLACE. PILOT GOT IN A NOTCH WITH MANY SHOWERS/STORMS AROUND HIM SO WE FIRED UP A HYGRO WITH HOPES TO GET EVERYTHING TO LINK UP. LATEST RADAR SUGGESTS THAT THIS MAY BE TAKING PLACE BY 2225Z. PREVIOUSLY SEEDED STORM WSW OF STERLING COUNTY SHOWED SIGNS OF GETTING SEVERE AT 2230Z. WE'LL HEAD JUST AHEAD OF THE AREA OF POTENTIAL HAIL AND TRY TO GET SOME MORE GLACIOGENIC MATERIAL WITHIN THIS CELL. CELL BEGAN TO CALM DOWN ON THE WEST SIDE WITH THE ADDITION OF 8-10 FLARES. WE'LL HEAD BACK TOWARDS STERLING CITY TO SEE WHAT'S GOING ON. HOWEVER, THE MAIN SYSTEM WAS BECOMING HEAVILY EMBEDDED WITH THE ONLY SEEDABLE PORTION OUT IN COKE COUNTY NOW. WE'LL DIVE SOUTH AND HEAD FURTHER WEST. WE BEGAN SEEDING A CELL IN REAGAN COUNTY THAT APPEARED TO RESPOND WELL BY 2305Z. WE'LL HANG ON THIS STORM BUT IT WAS BEGINNING TO BECOME EMBEDDED AND RAIN OUT SOME. PILOT IS GETTING LOW ON FLARES, SO WE MAY HAVE TO RTB BEFORE TOO LONG. THE WESTERN CONVECTION LOOKED GREAT, BUT WAS SIMPLY TOO EMBEDDED TO WORK. PILOT REPORTED PLENTY OF VIRGA WRAPPING AROUND THE BASES OF THE STORM. WE'LL HEAD BACK EAST INTO STERLING COUNTY AND SEE IF CONDITIONS IMPROVED. NOT MUCH WAS GOING ON HERE, SO WE DECIDED TO TAKE A LOOK AT AN ISOLATED CELL IN REAGAN COUNTY. ONLY 6 FLARES LEFT ON AIRCRAFT SO WE'LL UTILIZE THESE IF NEEDED AND THEN RTB. AS PILOT APPROACHED THESE CELLS, HE REPORTED A LOT OF VIRGA STILL SURROUNDING THE STORMS. RADAR LOOKS GREAT, BUT SAT IMAGERY AND PILOT OBSERVATION IS NOT AS

PROMISING. BY 2345Z, WE FINALLY DECIDED TO RTB AS INFLOW COULD NOT BE FOUND AND NO GOOD BASES COULD BE OBSERVED.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

4462	4582	4661	4712					
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
2130	09P	IN AIR	
2146	09P	314° @ 36 nm	STERLING
2147	09P	315° @ 36 nm	STERLING
2149	09P	315° @ 36 nm	STERLING
2151	09P	313° @ 37 nm	STERLING
2154	09P	308° @ 39 nm	STERLING
2156	09P	306° @ 39 nm	STERLING
2157	09P	308° @ 39 nm	STERLING
2209	09P	298° @ 37 nm	STERLING
2210	09P	298° @ 37 nm	STERLING
2213	09P	300° @ 40 nm	STERLING
2215	09P	301° @ 41 nm	STERLING
2226	09P	290° @ 38 nm	STERLING
2230	09P	299° @ 41 nm	STERLING
2231	09P	299° @ 41 nm	STERLING
2233	09P	300° @ 41 nm	STERLING
2234	09P	302° @ 40 nm	STERLING
2255	09P	281° @ 47 nm	REAGAN
2258	09P	280° @ 48 nm	REAGAN
2259	09P	280° @ 49 nm	REAGAN
2302	09P	279° @ 48 nm	REAGAN
2307	09P	280° @ 53 nm	REAGAN
2320	09P	297° @ 33 nm	STERLING
2321	09P	297° @ 33 nm	STERLING
2339	09P	274° @ 54 nm	REAGAN
2345	09P	RTB	

Seeding operations were conducted in Sterling (36+2H) and Reagan (13) Counties. 49 flares plus 2 hygroscopic flares were burned within 4 clouds. This is the 4th day for seeding in August and the 23nd day for seeding during the season.