

WEST TEXAS WEATHER MODIFICATION ASSOCIATION - SAN ANGELO, TEXAS

SEEDING REPORT - July 31, 2017

SYNOPTIC/MESOSCALE CONDITIONS:

A large complex of showers and storms is hanging around this morning well to our north. This will dissipate through the morning and into the afternoon. Weak ridging does build over the region today which may prohibit any development. The latest WRF and HRRR models seem to agree with this by only producing precipitation over the Permian Basin and Trans-Pecos. However, with dew points in the low to mid 60's area wide, a few stray showers and storms cannot be ruled out. The best chance for storm chances today will be west of a Sterling City to Sonora line.

LIFTING MECHANISM:

Upper Level Dynamics, Cool Air Aloft, Weak Boundaries

THERMODYNAMIC INDICES (12Z KMAF)

Freezing Level (m)	4846	CAPE (J/Kg)	617
Precipitable Water (inches)	1.64	CINH (J/Kg)	151
LCL	1425	LI(°C)	-2.9
CCL	2662	PB	3
MAF ICA	-2.24	DRT ICA	-1.52
Cloud Base (meters)	2808	Cloud Base Temp (°C)	14
Warm Cloud Depth (meters)	2038		

DISCUSSION:

SURPRISING LINE OF SHOWERS AND STORMS FORMED EAST OF THE TARGET AREA THIS MORNING IMPACTED EASTERN TOM GREEN COUNTY AND PARTS OF COKE AND MENARD COUNTIES. THIS FEATURE IS EXPECTED TO DISSIPATE, BUT DECIDED TO LAUNCH A PILOT JUST AFTER 17Z. NOT SURE IF WE'LL DO ANY GOOD WITH TEMPERATURES AT 86F AND DEW POINTS AT 66, BUT WE'LL GIVE IT A FAIR SHOT. PILOT GOT AIRBORNE, AND AS EXPECTED, CAME ACROSS VERY UNORGANIZED DEVELOPMENT WHICH WAS HEAVILY EMBEDDED. WITH THAT SAID, A MORE ISOLATED SHOWER/STORM WAS DEVELOPING NEAR CARLSBAD. THIS LOOKS LIKE A MORE CLASSIC SUMMER TIME T-STORM. WE'LL GO AHEAD AND INVESTIGATE. HOWEVER, BY 18Z, ALL CONVECTION HAD DISSIPATED. THEREFORE, WE'LL RTB AND GET READY FOR HOPEFULLY A ROUND TWO. BETWEEN 18 AND 19Z, THE COLD FRONT WAS BECOMING DEFINED ALONG THE CR/SC COUNTIES. STORMS BEGAN TO POP JUST BEFORE 19Z. PILOT WAS CALLED BACK AIRBORNE AT THIS TIME AND WAS ABLE TO GET BACK AIRBORNE AT 1930Z. BEST COVERAGE SO FAR APPEARED TO BE OVER CROCKETT COUNTY, SO WE'LL HEAD THIS WAY. ALSO, RESEARCH AIRCRAFT IS HERE. SOME STORMS MAY BE SAVED FOR THEM, BUT WE'LL TRY TO KEEP OPS/RESEARCH SEPARATE FROM ONE ANOTHER. WITH LITTLE MOVEMENT ON THESE STORMS, THEY'LL LIKELY BE TOUGH TO WORK. HOWEVER, WE SHOULD SEE MORE ORGANIZED DEVELOPMENT SOON AS WE HEAD INTO PEAK HEATING. PILOT MADE IT TO CROCKETT COUNTY AND BEGAN SEEDING STORM #3580. AT FIRST, INFLOW WAS HARD TO FIND BUT PILOT FOUND A NOTCH IN THE STORM AND GOT CONSISTENT INFLOW. STORM WAS SEEDED INTO 2020Z AND SEEMED TO RESPOND VERY WELL TO OUR EFFORTS. STORMS APPEARED TO BE BACK BUILDING TO THE SOUTH. SO WE WILL MOVE FURTHER SOUTH ALONG THE LINE THAT EXTENDS SOUTH OF OZONA INTO SOUTHERN CROCKETT COUNTY. AS WE OVED FURTHER SOUTH, STORM LOWERED AND BECAME MORE EMBEDDED. HE DID FIND A FEW MORE SPOTS OF INFLOW, BUT ONCE HE LOST INFLOW THIS STORM BECAME STRONGLY OUTFLOW DOMINATE. PILOT EXPLORED A FEW OTHE AREAS, BUT BASES WERE RAINFILLED AND INFLOW NON-EXISTANT. THEREFORE, WITH FUEL LOW, WE DECIDED TO RTB.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

3580	3598								
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
1715	09P	IN AIR	
1800	09P	RTB	
1930	09P	IN AIR	
2002	09P	220° @ 47 nm	CROCKETT
2006	09P	221° @ 41 nm	CROCKETT
2007	09P	222° @ 47 nm	CROCKETT
2009	09P	221° @ 47 nm	CROCKETT
2010	09P	222° @ 47 nm	CROCKETT
2012	09P	220° @ 48 nm	CROCKETT
2013	09P	224° @ 48 nm	CROCKETT
2022	09P	215° @ 51 nm	CROCKETT
2023	09P	215° @ 51 nm	CROCKETT
2027	09P	211° @ 52 nm	CROCKETT
2029	09P	214° @ 52 nm	CROCKETT
2032	09P	211° @ 53 nm	CROCKETT
2034	09P	211° @ 51 nm	CROCKETT
2038	09P	208° @ 53 nm	CROCKETT
2041	09P	206° @ 53 nm	CROCKETT
2136	09P	RTB	

Seeding operations were conducted in Crockett (28+1H) County. 28 flares plus 1 hygroscopic flare were burned within 2 clouds. This is the 9th day for seeding in July and the 19th day for seeding during the season.