WEST TEXAS WEATHER MODIFICATION ASSOCIATION – SAN ANGELO, TEXAS

SEEDING REPORT – September 27, 2023

SYNOPTIC/MESOSCALE CONDITIONS:

Ridging aloft has taken over but we still have some low-level moisture in place along with sufficient surface heating. This combination should allow for a dense cumulus field to fire up this afternoon across the region with a few isolated showers and storms possible for southern areas where moisture is a bit deeper. This is echoed by the latest HRRR model which provides a window for storms from 2-5PM before too much mixing takes place. Will keep slight rain chances in place as a result.

LIFTING MECHANISM:

Sufficient Surface Heating

THERMODYNAMIC INDICES (12Z KMAF)

Freezing Level (m)	4494	-15°C Height (m)	6710
Precipitable Water (inches)	1.10	CAPE (J/Kg)	813
LCL	1896	CINH (J/Kg)	166
CCL	3178	LI(°C)	-3.8
MAF ICA	5.48	PB	4
Cloud Base (meters)	2798	DRT ICA	0.2
Warm Cloud Depth (meters)	1696	Cloud Base Temp (°C)	6

DISCUSSION:

Pop up showers and storms began around 1730Z east of the target area. Sat imagery showed a few trying to get going in parts of the target area by 1830Z into 19Z. The pilot was called airborne at 19Z and should be up by 1930Z. Area of interest remained across southern zones near Ozona, Eldorado, and Sonora. Our first cell is going to be in Sutton County to the SE of Sonora. We'll work here before wrapping back to the northwest into eastern Crockett County. Seeding began in Sutton County at 2015Z and continued near 2030Z. We'll now move NW into the far NW corner of Sutton County and wrap around the west side of the cell into Crockett County. This initial cell did appear to respond well with the western edge of the cell intensifying some by 2030Z. Second cell had rough bases on the SE corner, so we'll wrap back to the SW corner as pilot identified a few better bases. The pilot couldn't find anything with this cell, and per sat imagery it looked to have blown off an outflow boundary and collapsed. We'll now move into Schleicher County. This cell was seeded as we crossed into 21Z and with a good response per radar, later bringing good rain to Sonora. It became outflow dominate like the previous two. We investigated a few cells in Crockett County but with no favorable conditions, therefore we pushed into Irion County just NE of Barnhart. This cell was seeded into 2130Z, again with a good response but also quickly pushing off an outflow boundary. Sounding data does show a lot of dry air in the mid-levels which is likely the reason for such quick collapses. We'll wrap up the flight with one more target in Reagan County near Big Lake, but as we approached the target it was dissipating some. As the pilot approached, the cloud was fading, and the rain shaft was no more. We'll go ahead and RTB as cells further north were already dissipating too.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

142	207	331								

FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County

1945	**24P**	IN AIR	
2015	**24P**	172° @ 52 nm	**SUTTON**
2018	**24P**	171° @ 55 nm	**SUTTON**
2019	**24P**	172° @ 55 nm	**SUTTON**
2020	**24P**	172° @ 57 nm	**SUTTON**
2021	**24P**	172° @ 59 nm	**SUTTON**
2053	**24P**	197° @ 40 nm	**SCHLEICHER**
2053	**24P**	197° @ 39 nm	**SCHLEICHER**
2057	**24P**	195° @ 37 nm	**SCHLEICHER**
2059	**24P**	195° @ 40 nm	**SCHLEICHER**
2119	**24P**	244° @ 30 nm	**IRION**
2120	**24P**	247° @ 29 nm	**IRION**
2122	**24P**	252° @ 30 nm	**IRION**
2126	**24P**	249° @ 31 nm	**IRION**
2128	**24P**	249° @ 30 nm	**IRION**
2145	**24P**	RTB	

Seeding operations were conducted over Sutton (10G+1H), Schleicher (8G+1H), and Irion (10G+1H) Counties. 28 glaciogenic flares and 3 hygroscopic flares were burned within 3 clouds. This is the 3rd day for seeding in September and the 24th day for seeding during the season.