## WEST TEXAS WEATHER MODIFICATION ASSOCIATION - SAN ANGELO, TEXAS

### SEEDING REPORT - September 25, 2023

### SYNOPTIC/MESOSCALE CONDITIONS:

Showers and storms are ongoing across southern parts of the area, especially for areas along a line from Mertzon to Sonora and areas east. These will push east and dissipate through the morning allowing for the atmosphere to destabilize this afternoon once again. Overrunning along the boundary could allow for a few more showers and storms to fire up further north, mainly along and south of highway 67. Latest HRRR initiates development around 19/20Z continuing into the evening. Will go with likely rain chances this morning, again after 18Z.

#### LIFTING MECHANISM:

Cold Front

## THERMODYNAMIC INDICES (12Z KMAF)

Freezing Level (m)	4468	-15°C Height (m)	7400
Precipitable Water (inches)	1.29	CAPE (J/Kg)	1173
LCL	1161	CINH (J/Kg)	183
CCL	2879	LI(°C)	-3.7
MAF ICA	0.48	PB	4
Cloud Base (meters)	1968	DRT ICA	-1.8
Warm Cloud Depth (meters) 2		Cloud Base Temp (°C)	17

### DISCUSSION:

Showers and storms were ongoing through the morning back building to the northeast. However, station observations were reporting bases in the 2-2.5kft range, a bit too low for operations. As the could front cleared further south, these conditions continued into Sutton and southern Crockett Counties. Meanwhile, overrunning along the boundary began to show some development in clearer air near highway 67. Storms fired up through 19Z and into 20Z in this area, though pilot availability wasn't favorable until just after 20Z. Despite being late, we'll launch ASAP and head for Barnhart where one good cell was ongoing. The storm was warned, and very strong. Therefore, we'll have to tread carefully here, especially with a new pilot. We'll focus on the NE corner where the DBZ gradient was the tightest. We'll try to work with a bigger dosage. The storm left split from the main system. We'll ride along the northern edge of it until we get a proper dosage, and then work back south. DBZ values began to drop about 10 minutes after seeding, which is a good sign. Hail suppression may have helped here, especially for a left split storm which typically only intensifies. We'll continue to work here while storms along the IR/RG/CR county line are a bit more marginal and no where near vertical. We moved SW into northern Crockett County. The cells here have been marginal, but our next target is starting to look good and did become warned. Visibilities were tough here, but the pilot found he was a bit too high. We'll lower altitude and get along the leading edge. Aggressive seeding took place here as flight conditions were falling part. Also, pilot was running low on flares. We'll exhaust all recourses here and RTB. Pilot got last dosage out just after 2130Z, so we'll RTB.

#### WATCHES/WARNINGS:

T-STORM WARNING - IR/CR/RG

T-STORM WARNING - IR

T-STORM WARNING - CR

# SEEDED CELL ID'S:

	800	889									
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
2020	09P	IN AIR	
2043	09P	253° @ 33 nm	IRION
2047	09P	252° @ 32 nm	IRION
2049	09P	252° @ 32 nm	IRION
2052	09P	254° @ 32 nm	IRION
2054	09P	253° @ 31 nm	IRION
2056	09P	256° @ 31 nm	IRION
2058	09P	258° @ 31 nm	IRION
2100	09P	259° @ 31 nm	IRION
2102	09P	259° @ 31 nm	IRION
2125	09P	237° @ 64 nm	CROCKETT
2126	09P	236° @ 61 nm	CROCKETT
2127	09P	236° @ 63 nm	CROCKETT
2131	09P	236° @ 62 nm	CROCKETT
2035	09P	RTB	

Seeding operations were conducted over Irion (33G+1H) and Crockett (11G+1H) Counties. 44 glaciogenic flares and 4 hygroscopic flares were burned within 2 clouds. This is the  $2^{\rm nd}$  day for seeding in September and the  $23^{\rm rd}$  day for seeding during the season.