

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - PLEASANTON, TEXAS

SEEDING REPORT - June 11, 2024

SYNOPTIC/MESOSCALE CONDITIONS:

As of 20Z, satellite images reveal a clearly defined outflow boundary just ahead of the showers and thunderstorms over central Texas. Convergence along the western segment of this boundary likely triggered the formation of a robust thunderstorm in Schleicher County, Texas. The airmass downstream of this outflow is moist, with dewpoints in the upper 60s to low 70s. However, warm temperatures aloft are reducing the overall buoyancy. Recent mesoanalysis estimates show MLCAPE values ranging from 1000 to 1500 J/kg. Vertical shear is also modest, with effective bulk shear estimated at around 30 kt. Despite this, persistent low-level convergence along the outflow boundary, especially its western part, is expected to generate additional thunderstorms. HRRR model runs have been consistent in showing a line of showers and thunderstorms forming north of the target area and tracking southward into the northern counties.

LIFTING MECHANISM:

THERMODYNAMIC INDICES -12Z KDRT SOUNDING Not Working Using KCRP

Freezing Level (m)	5341	-15°C Height (m)	8100
Precipitable Water (inches)	1.68	CAPE (J/Kg)	656
LCL	13	CINH (J/Kg)	39
CCL (m)	1284	LI (°C)	-1.96
DRT ICA	-	PB	-
Cloud Base (meters)	2164	CRP ICA	-
Warm Cloud Depth (meters)	3177	Cloud Base Temp (°C)	24

DISCUSSION:

Pilot launched at 2121Z and headed to Bandera County where a line of thunderstorms developed along an east-west oriented line as seen on Radar just to the north of the county line. Upon arrival, pilot reported 500-800 ft/sec inflows. The first cell was seeded with both glaciogenic and hygroscopic flares. Another cell to the west of cell 644 was then seeded with both glaciogenic and hygroscopic flares. Pilot then RTB at 2225Z due to a medical issue. The cells held together and continued tracking south into Bandera, Medina, Uvalde and Atascosa Counties for at least another 3-3.5 hours.

WATCHES/WARNINGS:NONE

SEEDED CELL ID'S:

644	1070										
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
2100	47P	In Air	
2140	47P	29.47x99.23	Bandera
2145	47P	29.43x99.31	Bandera
2150	47P	29.43x99.34	Bandera
2225	47P	RTB	

Seeding operations were conducted over Bandera County (6G+2H).6 glaciogenic flare and 2 hygroscopic flare were burned within 2 clouds. This is the 1st day for seeding in June and the 2nd day for seeding during the season. EAA Flares, 6 Glaciogenic, 2 Hygro, 33 AgI.

Note - changes to this season reporting - 1 hygroscopic flare = 500g, not 1kg



Flight #1