TRANS-PECOS WEATHER MODIFICATION ASSOCIATION - PECOS, TEXAS

SEEDING REPORT - May 22, 2023

SYNOPTIC/MESOSCALE CONDITIONS:

A southwesterly flow aloft is in place across the region today with shortwave activity becoming more abundant this afternoon and evening. Showers and storms are expected to fire up over the higher terrain of the Trans-Pecos region early this afternoon spreading northeast over the adjacent plains into the Permian Basin region of Texas. Storms should become more widespread and may impact western portions of the Concho Valley and Rolling Plains around sunset. Will keep likely rain chances in place for the Trans-Pecos with slight chances for western zones of the Concho Valley and Rolling Plains.

LIFTING MECHANISM:

Shortwave Trough Aloft

THERMODYNAMIC INDICES (12Z KMAF)

Freezing Level (m)	4023	-15°C Height (m)	6100
Precipitable Water (inches)	1.01	CAPE (J/Kg)	
LCL	1009	CINH (J/Kg)	
CCL	3076	LI(°C)	-2.2
MAF ICA	2.04	PB	2
Cloud Base (meters)	3165	DRT ICA	_
Warm Cloud Depth (meters) 8		Cloud Base Temp (°C)	9

DISCUSSION:

A shortwave trough was spreading over the higher terrain of the Trans-Pecos from near Alpine northwest towards Van Horn. A few showers have fired up with one storm just ENE of Fort Davis. Some of this activity may slide over the adjacent plains by 19Z, but based on SPC mesoanalysis, surface parameters are not yet in place to sustain convection. We'll be a bit more patient today compared to yesterday since development had a hard time maturing yesterday. The pilot will be put on standby with a potential launch time around 19-20Z. Storms finally began to fire up around 19Z SSE of Fort Stockton. Pilot will launch and head that way with arrival at the cells around 1935 expected. The pilot arrived at the cell right at 1945Z and began working this first area from west to east along the northern side. Inflow was found in patches, and we were able to begin seeding right away. Overall, the cells stayed rather marginal through 1955Z. Further west, marginal development was ongoing close to the front range of the higher terrain. When done here in eastern Pecos County, we'll work back west and target those cells as they move over the plains. Cells here developed nicely by 2005Z. With a good dosage here, we'll now work back west to just SSW of Fort Stockton. With this cell seeded, we'll now go back to the northwest into Reeves County. First seeded cell is doing well in far eastern Pecos County. The second cell is doing well, but within Brewster County. The seeded area has not really responded. The rest of the targets are now very marginal. Anvil scatter is dominating the region now disrupting our heating. We'll work this last cell near Verhalen and RTB for a potential second flight. We seeded this last cell despite limited inflow just SSW of Pecos. With all targets taken care of, we'll RTB for now.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

131	111	175									
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
1925	26P	IN AIR	
1945	26P	128° @ 59 nm	PECOS
1949	26P	128° @ 61 nm	PECOS
1950	26P	126° @ 65 nm	PECOS
1945	26P	128° @ 63 nm	PECOS
1957	26P	134° @ 59 nm	PECOS
2005	26P	132° @ 62 nm	PECOS
2015	26P	151° @ 54 nm	PECOS
2016	26P	150° @ 53 nm	PECOS
2020	26P	151° @ 52 nm	PECOS
2022	26P	153° @ 50 nm	PECOS
2025	26P	153° @ 50 nm	PECOS
2045	26P	219° @ 15 nm	REEVES
2047	26P	232° @ 12 nm	REEVES
2050	26P	RTB	

Seeding operations were conducted over Pecos (20G+2H) and Reeves (4G) Counties. 24 glaciogenic flares and 2 hygroscopic flares were burned within 3 clouds. This is the $3^{\rm rd}$ day for seeding in May and the $3^{\rm rd}$ day for seeding during the season.