WEST TEXAS WEATHER MODIFICATION ASSOCIATION – SAN ANGELO, TEXAS

SEEDING REPORT – May 12, 2023

SYNOPTIC/MESOSCALE CONDITIONS:
A complex weather pattern will develop later this afternoon and evening as severe storms and some heavy rainfall look to be ahead of us. Shortwave activity will spread into the region from the south providing plenty of support aloft to shower and storms development across the region. Meanwhile, a boundary will be placed across the area providing a focal point for storm development as heating pushes CAPE values well into the 3k J/kg range. Storms are expected to develop rapidly with plentiful moisture to tap into as precipitable water values will be rather high. Main area of storms looks to develop over northern Mexico by 2PM, with some isolated development possible further north between 3 and 4PM. Per the latest HRRR, we should see a squall line set up across the Rolling Plains into the Permian Basin and Trans-Pecos, with more development extending south into northern Mexico. The scenario would result in limited opportunity for the Concho Valley, prior to 7PM at least. Regardless, due to the potential of the atmosphere today, will keep likely rain chances in for both regions.

LIFTING MECHANISM:
Dryline

THERMODYNAMIC INDICES (12Z KMAF)

Freezing Level (m)	4221	-15°C Height (m)	6200
Precipitable Water (inches)	0.41	CAPE (J/Kg)	29
LCL	4056	CINH (J/Kg)	56452
CCL	5165	LI(°C)	4.1
MAF ICA	13.6	PB	0
Cloud Base (meters)	2079	DRT ICA	4.08
Warm Cloud Depth (meters)	2142	Cloud Base Temp (°C)	9

DISCUSSION:
By 20Z sat imagery was favorable enough to warrant a launch. 41P got airborne right at 21Z to investigate a line of storms firing just south of highway 67 from near San Angelo west towards Big Lake. SPC already has an MD out for the area, so a watch is expected. The issue may be widespread coverage and low bases leading towards challenging flight conditions. 49P is also getting airborne and will move southwest towards Barnhart. The visibility was bad to start, with several layers of clouds. Pilots had a tough time navigating to clear air but by 2020Z we were able to get to the favorable part of the first cell moving into TG/IR counties. 41P was in the thick of things near Mertzon, but reported very smooth flight conditions, no inflow, and bad visibilities. NWS did put a warning on this cell near Mertzon, though from our perspective may not be warranted. Regardless, we'll continue to work on it. The pilot did find some inflow, but it was short lived. 49P will move back towards Mertzon and help on the southern side of cell #77 while we await another target. 41P had a bit more luck, though pilot said inflow was very short-lived and spotty. We'll stay aggressive at the moment. Both pilots did begin to find inflow in two different areas of the cell. We'll work it as we near the 21Z hour. 49P dove south to Schleicher County bad had little luck so we'll move even further south to southern Crockett. Meanwhile, 41P was pushed north into Sterling County but indications are the cell has become far too embedded to work. We decided at 2110 to bring 41P back to base as conditions further north were just too challenging for ops. 49P made it south into Crockett County and seeded the severe storms along the northwestern edge. Conditions again were tough down there with bad visibilities. With severe storms, don't want to tread too closely and get into hail. After a proper dosage, we

brought 49P back closer to home at 2140Z, looking for other targets. No more targets, and cloud bases were getting low with still bad visibilities. We'll RTB and let things play out.

WATCHES/WARNINGS:

T-STORM WATCH
T-STORM WARNING – IRION
T-STORM WARNING – STERLING/TOM GREEN
T-STORM WARNING - CROCKETT

SEEDED CELL ID'S:

77	352	65								

FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
2000	**41P**	IN AIR	
2010	**49P**	IN AIR	
2033	**41P**	258° @ 23 nm	**IRION**
2041	**41P**	255° @ 21 nm	**IRION**
2042	**41P**	259° @ 23 nm	**IRION**
2047	**41P**	275° @ 30 nm	**IRION**
2048	**49P**	234° @ 23 nm	**IRION**
2049	**49P**	235° @ 22 nm	**IRION**
2050	**49P**	239° @ 20 nm	**IRION**
2051	**41P**	280° @ 29 nm	**IRION**
2052	**41P**	246° @ 18 nm	**IRION**
2103	**49P**	197° @ 19 nm	**SCHLEICHER**
2107	**41P**	306° @ 30 nm	**STERLING**
2108	**41P**	304° @ 33 nm	**STERLING**
2115	**41P**	RTB	
2126	**49P**	201° @ 56 nm	**CROCKETT**
2127	**49P**	201° @ 56 nm	**CROCKETT**
2129	**49P**	205° @ 59 nm	**CROCKETT**
2130	**49P**	205° @ 60 nm	**CROCKETT**
2131	**49P**	205° @ 62 nm	**CROCKETT**
2132	**49P**	205° @ 63 nm	**CROCKETT**
2135	**49P**	205° @ 64 nm	**CROCKETT**
2145		RTB	

Seeding operations were conducted over Irion (17G+1H), Schleicher (2G) Crockett (14) and Sterling (4G) Counties. 37 glaciogenic flares and 1 hygroscopic flare were burned within 3 clouds. This is the 5th day for seeding in May and the 8th day for seeding during the season.