

WEST TEXAS WEATHER MODIFICATION ASSOCIATION - SAN ANGELO, TEXAS

SEEDING REPORT - May 15, 2023

SYNOPTIC/MESOSCALE CONDITIONS:

Showers are ongoing this morning along the I-10 corridor in our southern counties. Much of this should dissipate through the morning but should be redeveloped with some clearing and heating later this afternoon. CINH values are low, so some showers could simply transition from a showery system to a more convective system. The latest HRRR agrees with this thinking showing more convective activity by noon, but we'll have to wait for flight conditions to improve before launching. Will keep rain chances at likely for the day.

LIFTING MECHANISM:

Favorable Dynamics Aloft, Surface Boundary

THERMODYNAMIC INDICES (12Z KMAF)

Freezing Level (m)	3940	-15°C Height (m)	6500
Precipitable Water (inches)	1.02	CAPE (J/Kg)	103
LCL	870	CINH (J/Kg)	53
CCL	2250	LI (°C)	-0.3
MAF ICA	-0.68	PB	0
Cloud Base (meters)	1860	DRT ICA	-4.24
Warm Cloud Depth (meters)	2080	Cloud Base Temp (°C)	13

DISCUSSION:

Challenging flight conditions through the morning and into the afternoon kept the aircraft grounded until just before 18Z. Clearing skies of SJT allowed 49P to get airborne and move south where ongoing showers and a few embedded thunderstorms were within Sutton County. Though this area is not our initial target, sat imagery was showing some additional development trying to fire up near the SC/SU county line. We'll launch and head south to investigate these areas. The pilot arrived at the cell just after 18Z in northern Sutton County. Plenty of downdrafts were reported, but we'll reposition at a different base layer and see if we can have any better luck. The pilot found a good layer with some consistent inflow at 4600ft. We'll stay along the leading edge as these storms are moving NNW. However, development on the back side was looking good in eastern Sutton County. We'll wrap around to the backside and work this area as we near 1830Z. This part of the storm was seeded through 1830Z before we pushed back north. From here, we pushed northwest towards Barnhart where a few smaller isolated storms fired up. The pilot arrived at these cells around 1915 where we'll work in an area just to the south of Barnhart. The inflow in this cell was spotty and short-lived. We still tried to get some material in it. By 1930Z, this cell has responded increasing in both size and intensity. We'll bring 49P back and get 24P airborne as new development is taking place near the SC/CR county line and back east in eastern Schleicher County. With more development taking place in Reagan County, 41P was also called airborne and should be so by 2015/2020Z. 24P arrived at the cell just prior to 20Z. This cell was warned, but the last few scans did not look too bad. We'll work at the east end where dbz gradient was best. The pilot reported a lot of horizontal inflow that didn't have as much vertical speed. This was reported as a strong inflow despite the lack of vertical speed indication. This cell was seeded across the 20Z hour as it continued to grow expanding into much of eastern SC county, into CR and IR counties as well. The eastern side of this cell blew off an outflow boundary, so we'll move to the western edge now. Seeded continued here through 2020Z, but we'll now move back further west into western Crockett County. 24P will handle the last of the convection in Crockett County while 41P handles the

convection in Reagan County. With cell #1702 properly seeded and an outflow coming off the eastern edge, we'll bring 24P back to base. 41P will stay on the development in Reagan County, but convection here was unorganized. 41P fought with these clouds through 2110, but reported limited inflow and rain filled bases. We'll now move southeast towards Mertzon where a previously seeded cell blew off an outflow boundary dragging convection further north along with it. We'll work in this area next. The pilot arrived at the cell and found a small batch of strong inflow. However, bases were much lower, and the shelf cloud was rather ragged. The pilot could not find any areas to work so he'll RTB. With all seedable developed seeded, we'll standby and see what happens with other development as we approach 22Z.

WATCHES/WARNINGS:

T-Storm Warning - Crockett/Schleicher (1945Z)

SEEDED CELL ID'S:

895	1667	1817	1702	1812					
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
1745	49P	IN AIR	
1813	49P	161° @ 41 nm	SUTTON
1814	49P	160° @ 41 nm	SUTTON
1815	49P	156° @ 41 nm	SUTTON
1816	49P	153° @ 41 nm	SCHLEICHER
1830	49P	149° @ 49 nm	SUTTON
1832	49P	150° @ 50 nm	SUTTON
1833	49P	152° @ 52 nm	SUTTON
1835	49P	153° @ 53 nm	SUTTON
1837	49P	154° @ 54 nm	SUTTON
1838	49P	154° @ 56 nm	SUTTON
1915	49P	235° @ 35 nm	IRION
1918	49P	328° @ 39 nm	IRION
1919	49P	236° @ 40 nm	CROCKETT
1921	49P	233° @ 3 nm	CROCKETT
1924	49P	236° @ 35 nm	IRION
1927	49P	241° @ 39 nm	IRION
1930	49P	RTB	
1940	24P	IN AIR	
1955	24P	214° @ 30 nm	SCHLEICHER
1956	24P	213° @ 31 nm	SCHLEICHER
1957	24P	210° @ 33 nm	SCHLEICHER
2000	24P	210° @ 35 nm	SCHLEICHER
2001	24P	211° @ 33 nm	SCHLEICHER
2004	24P	214° @ 28 nm	SCHLEICHER
2006	24P	211° @ 33 nm	SCHLEICHER
2009	24P	209° @ 36 nm	SCHLEICHER
2010	41P	IN AIR	
2012	24P	210° @ 43 nm	CROCKETT
2018	24P	222° @ 35 nm	CROCKETT
2020	24P	227° @ 37 nm	CROCKETT
2035	24P	242° @ 60 nm	CROCKETT
2036	24P	243° @ 62 nm	CROCKETT
2037	41P	250° @ 56 nm	REAGAN
2038	41P	249° @ 56 nm	REAGAN
2042	24P	245° @ 71 nm	CROCKETT
2044	41P	252° @ 56 nm	REAGAN
2050	24P	241° @ 67 nm	CROCKETT

2051	24P	243° @ 65 nm	CROCKETT
2052	24P	244° @ 62 nm	CROCKETT
2053	41P	262° @ 50 nm	
2054	24P	RTB	
2105	41P	272° @ 45 nm	REAGAN
2108	41P	272° @ 44 nm	REAGAN
2125	41P	237° @ 18 nm	IRION
2135	41P	RTB	

Seeding operations were conducted over Sutton (18G+1H), Schleicher (17G+1H), Irion (10G), Crockett (21G+1H) and Reagan (12G) Counties. 78 glaciogenic flares and 4 hygroscopic flares were burned within 5 clouds. This is the 6th day for seeding in May and the 8th day for seeding during the season.