

WEST TEXAS WEATHER MODIFICATION ASSOCIATION - SAN ANGELO, TEXAS

SEEDING REPORT - June 2, 2018

SYNOPTIC/MESOSCALE CONDITIONS:

A weak upper level shortwave will aid the passage of a cold front throughout the afternoon and evening. This boundary should make it through the northern third of the target area without concern but as it stalls near I-10 and the cap weakens, we could see storms fire. Ahead of the boundary, compressional heating will mix with strong H85 thermal ridging to produce temperatures in the 105+°F range. This should be enough energy to support at least isolated storms along the boundary this evening. HRRR and WRF high-res models agree with this thinking, although their solutions may be a bit extreme.

LIFTING MECHANISM:

Cold Front

THERMODYNAMIC INDICES (12Z KMAF)

Freezing Level (m)	5150	-15°C Height (m)	7150
Precipitable Water (inches)	0.64	CAPE (J/Kg)	161
LCL	1907	CINH (J/Kg)	574
CCL	4845	LI(°C)	0
MAF ICA	4.6	PB	0
Cloud Base (meters)	3469	DRT ICA	-0.8
Warm Cloud Depth (meters)	1680	Cloud Base Temp (°C)	18

DISCUSSION:

A cold front has made its way through the central portions of the target area as of 21Z. This boundary will stall out near or just north of I-10. With temperatures well into the triple digits, any convergence along with a weakening cap could spark showers and storms along the boundary. By 2210Z, a cluster of towering cu were taking place over NE Crockett County into western portions of Schleicher County. Pilot was called airborne at this time as heating was strong enough to support at least isolated storms. Pilot got airborne and headed into the area of interest. Although reflectivity was present, no rain shafts were visible to the pilot. However, seeding took place in parts of Schleicher and Crockett Counties into the 23Z hour. We did get a hygro and a few glaciogenic flares in an area of strong, consistent inflow. This area seemed to respond very well with dbz getting over 60. By 2320Z, cell #53 seemed to really respond. Meanwhile, a second storm was firing just north of Ozona. We may head that way and try to work both storms together. We did head over there and seeded a shelf cloud that sat between the two storms. We pushed further west into Crockett County for more direct seeding of cell #65 at 2340Z. This cell was showing signs of large hail, so we'll try to remain aggressive given that inflow is available. Meanwhile, cloud bases continued to rise throughout the flight as the cold front was sagging south and storms were in a drier air mass. We'll limit our time above 12kft. Storm north of Ozona lost all inflow as it became stationary. We'll take a quick look at a cell just west of this one before we move further east back into Schleicher County where weak echoes were trying to develop on radar. Meanwhile, the area we seeded between cells #53 and #65 have linked up. This is likely due to our efforts. The far west cell never developed, so we'll get back onto the main cluster of storms and get those worked as they continue their southward progression. The eastern half of this cluster became outflow dominate and began to weaken a lot. The western half remained stronger but was embedded with a lot of heavy rain/virga. We'll try to wrap around it and see if we can find any workable areas. Pilot did find a few last spots of inflow but bases became ragged and development was becoming disorganized. At 0020Z, we decided to ahead and RTB.

WATCHES/WARNINGS:

None

SEEDED CELL ID'S:

57	53	65							
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
2240	49P	IN AIR	
2305	49P	213° @ 35 nm	SCHLEICHER
2306	49P	214° @ 36 nm	SCHLEICHER
2307	49P	215° @ 38 nm	CROCKETT
2309	49P	212° @ 40 nm	CROCKETT
2317	49P	205° @ 37 nm	SCHLEICHER
2318	49P	206° @ 38 nm	SCHLEICHER
2322	49P	209° @ 39 nm	SCHLEICHER
2325	49P	212° @ 38 nm	CROCKETT
2325	49P	214° @ 38 nm	CROCKETT
2326	49P	214° @ 36 nm	CROCKETT
2328	49P	213° @ 35 nm	SCHLEICHER
2332	49P	216° @ 37 nm	CROCKETT
2334	49P	219° @ 39 nm	CROCKETT
2335	49P	217° @ 39 nm	CROCKETT
2338	49P	219° @ 40 nm	CROCKETT
0011	49P	218° @ 51 nm	CROCKETT
0012	49P	219° @ 50 nm	CROCKETT
0020	49P	RTB	

Seeding operations were conducted over Schleicher (12) and Crockett (22+2H) Counties. 34 flares plus 2 hygroscopic flares were burned within 3 clouds. This is the 1st day for seeding in June and the 5th day for seeding during the season.