

July 2017 Operations Report

The month of July contained 9 days of operations.

Date	Flares	Counties seeded
4	74+4H	Sterling, Reagan
5	102+5H	Sterling, Reagan, Irion, Schleicher, Crockett, Sutton
7	81+4H	Tom Green, Sterling, Reagan, Irion
16	54+1H	Sterling, Tom Green, Irion, Crockett, Reagan
17	32+1H	Sutton, Schleicher
23	51+1H	Crockett, Schleicher, Irion, Tom Green
24	10	Tom Green, Irion
30	18	Sterling, Irion
31	28+1H	Crockett
TOTAL	451+17H	

July saw above average rainfall for much of the WTWMA target area. 2.79" of average rainfall was recorded within the areas rain gauges. This is over the average of 1.2-1.82" from San Angelo to Midland. Additionally, July saw above average weather modification operations with 9 total seeding days resulting in 451 glaciogenic flares fired and 17 hygroscopic flares. The month got started on the 4th of July where a cold front slide south in Sterling and Reagan Counties. These storms were heavily seeded as they moved south into Irion and Tom Green Counties and later into the southern counties during the overnight hours. This boundary stalled and lifted back to the north on the 5th resulting in widespread weather modification operations across each county. Busy conditions continued the 7th with more operations in Tom Green, Sterling, Reagan and Irion Counties. A brief lull in activity took place but conditions picked up for operations on the 16th and 17th. Operations took place across the northern 2/3 of the area on the 16th and across our southeastern counties on the 17th. One more busy day took place on the 23rd before conditions slowed down a bit through the end of the month. Still, operations took place on the 24th, 30th and 31st. The main mechanism for storm activity was abundant low-to-mid level moisture and short-wave activity spinning around an upper high placed to our northwest.

The three major reporting stations reported rainfall within 1" of average. San Angelo was the only of the three to report above average rainfall totaling 1.69" (1.20" average). Abilene was 0.82" below average for July with a reporting total of only 1.05". Although Midland was wet for recent standards, the total of 1.48" was below their 30-year average of 1.82". Despite that, Midland remains above normal for the year with 10.34". This total is 2.34" above normal. Meanwhile, San Angelo and Abilene continue to play catch up with San Angelo at 9.69" (-2.12") and Abilene at 10.59" (-3.78"). Temperatures for all three stations were above normal for the month. San Angelo was the warmest at 84.4° (+1.3°) with Midland (84.2°, +2.1°) and Abilene (83.8°, +0.7°) not far behind. So far in San Angelo, 27 days of 100°F+ was recorded. Of these 27 days, 7 days recorded temperatures of 105°F or greater. Two of those days being annual highs of 109°F.

Monthly rain gauge measurements from nearest locations inside and out of the target area recorded either by the National Weather Service, Texas Tech University, Mesowest as well as CoCoRaHS.

July 2017 (Normal's of 1.82" from Midland to 1.20" in San Angelo)

Crockett County		Reagan County		Tom Green	
Ozona 32SW	2.29	Big Lake (TTU)	3.11	Wall	3.44
Ozona 20.9SSW	2.71	Big Lake (NWS)		San Angelo 7NW	2.09
Ozona 19.6S	1.82	Cope Ranch		Knickerbocker	2.26
Ozona 15SSW	3.07	Sterling County		Carlsbad	0.99
Ozona Airport	1.71	Sterling City (MES)	2.69	Miles 6.5SSE	2.40
Irion County		Sterling City (TTU)		San Angelo (NWS)	1.69
Mertzon (TTU)	2.83	Sterling City 0.7NW	4.17	Out of Target Area	
Mertzon (S)	1.75	Sutton County		Junction (Kimble)	2.86
Barnhart	2.59	Sonora Average	5.18	Midland (Midland)	1.48
Schleicher County		Sonora Airport	5.30	Abilene (Taylor)	1.05
Eldorado 0.2	5.22	AREA AVERAGE		St. Lawrence (Glasscock)	1.55
Eldorado 22.6ENE	1.92	2.79		Lees (Glasscock)	

Year to Date (Normal's of 7.88" from Midland to 11.81" in San Angelo)

Crockett County		Reagan County		Tom Green	
Ozona 32SW	11.76	Big Lake (TTU)	11.85	Wall	14.52
Ozona 20.9SSW	13.79	Big Lake (NWS)		San Angelo 7NW	11.56
Ozona 19.6S	11.69	Cope Ranch		Knickerbocker	14.43
Ozona 15SSW	12.50	Sterling County		Carlsbad	11.32
Ozona Airport	6.51	Sterling City (MES)	15.54	Miles 6.5SSE	10.88
Irion County		Sterling City (TTU)		San Angelo (NWS)	9.69
Mertzon (TTU)	13.98	Sterling City 0.7NW	15.92	Out of Target Area	
Mertzon (S)	10.75	Sutton County		Junction (Kimble)	11.68
Barnhart	11.28	Sonora Average	13.91	Midland (Midland)	10.34
Schleicher County		Sonora Airport	12.93	Abilene (Taylor)	10.59
Eldorado 0.2	13.90	AREA AVERAGE		St. Lawrence (Glasscock)	10.06
Eldorado 22.6ENE	12.16	12.22		Lees (Glasscock)	