



West Texas Weather Modification Association

Monthly Operations Report

August 2018 Operations Report

The month of August contained 3 days of operations.

Date	Flares	Counties seeded
9	50+3H	Schleicher, Crockett
10	12+2H	Irion, Crockett
20	28	Crockett, Reagan, Sutton
TOTAL	90+5H	

The first week of August remained dry as a high-pressure system dominated the region. However, by the second week an easterly wave moved into Texas which interacted with a stalled cold front. This resulted in numerous showers and storms on the 9th and 10th which resulted in seeding. On the 9th, storms were seeded in western Schleicher and northern Crockett County. The storms seeded later converged together as a squall line and pushed south into southern Crockett County and parts of Sutton County. Additionally, research seeding took place across eastern Schleicher County which proved useful as well. On the 10th, conditions were very favorable for precipitation. Seeding did take place in a small portion of Irion and Crockett Counties, but bases fell too low to continue. The following days had similar conditions with rain showers ongoing, but limited convection due to cooler temperatures and overcast skies. A secondary cold front pushed through the region on the 20th but did not spark any showers/storms until it pushed south of highway 67. Clouds were seeded in Crockett, Reagan and Sutton Counties. One storm in Crockett County seemed to respond very well, but once the boundary became too mixed with the atmosphere to the south, convection rapidly just prior to sunset. Dry conditions continued to end the month, but Labor Day weekend was looking promising with showers and storms likely during the first week of September.

Precipitation totals for the month were above the average for both San Angelo and Midland. A total of 3.60" fell at Mathis Field which is 1.34" above the average of 2.26". Meanwhile, in Midland, plenty of showers/storms trained over the airport during consecutive days. This, as well as other rainfall during the month, totaled up to 3.24". This total is 1.40" above the average of 1.84 for the month. Precipitation totals were not as impressive, but a total of 1.67" still was recorded. This was below the monthly average of 2.59" by 0.92". All three stations did record temperatures above average, with Midland at 84.2F, Abilene at 84.1F and San Angelo at 84F. These were 3.0F, 1.3F and 1.3F above average, respectively.

Despite the wetter conditions for the month in San Angelo and Midland, year-to-date rainfall was still below the average for both locations. San Angelo is now at 13.53" for the year while Midland is now at 8.50". San Angelo's year-to-date average is 14.07" while Midland's is 9.72". The deficit in Abilene grew as the month was drier than average. The total for the year is now at 12.16" but is far behind average pace with is 16.96" (-4.8"). There is hope in sight, however, as the first 10 days of September produced regional-wide heavy rainfall thanks to a easterly tropical wave interacting with a cold front. Rainfall totals were impressive which may just help erase the deficits in some locations.



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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.

August 2018 (Normal's of 1.84" from Midland to 2.26 in San Angelo)

Crockett County		Reagan County		Tom Green	
Ozona 32SW	0.85	Big Lake (TTU)	0.65	Wall	6.41
Ozona 20.9SSW	2.26	Big Lake (NWS)	0.98	San Angelo 7NW	1.88
Ozona 19.6S	2.17	Cope Ranch	3.39	Knickerbocker	1.66
Ozona 15SSW	1.50	Sterling County		Carlsbad	2.28
Ozona Airport	1.21	Sterling City (MES)	2.54	Miles 6.5SSE	3.47
Irion County		Sterling City (TTU)	2.89	San Angelo (NWS)	3.60
Mertzon (TTU)	3.09	Sterling City 0.7NW	3.81	Out of Target Area	
Mertzon (S)		Sutton County		Junction (Kimble)	1.85
Barnhart	2.45	Sonora Average	3.87	Midland (Midland)	3.24
Schleicher County		Sonora Airport	2.87	Abilene (Taylor)	1.67
Eldorado 0.2	4.13	AREA AVERAGE		St. Lawrence (Glasscock)	1.24
Eldorado 22.6ENE	0.75	2.43		Lees (Glasscock)	-

Year to Date (Normal's of 9.72" from Midland to 14.07" in San Angelo)

Crockett County		Reagan County		Tom Green	
Ozona 32SW	8.24	Big Lake (TTU)	5.28	Wall	15.08
Ozona 20.9SSW	8.60	Big Lake (NWS)	6.08	San Angelo 7NW	14.44
Ozona 19.6S	11.63	Cope Ranch	9.03	Knickerbocker	8.80
Ozona 15SSW	8.16	Sterling County		Carlsbad	12.50
Ozona Airport	4.65	Sterling City (MES)	8.28	Miles 6.5SSE	12.57
Irion County		Sterling City (TTU)	10.41	San Angelo (NWS)	13.53
Mertzon (TTU)	10.02	Sterling City 0.7NW	11.04	Out of Target Area	
Mertzon (S)		Sutton County		Junction (Kimble)	9.11
Barnhart	6.85	Sonora Average	13.16	Midland (Midland)	8.50
Schleicher County		Sonora Airport	12.32	Abilene (Taylor)	12.16
Eldorado 0.2	10.62	AREA AVERAGE		St. Lawrence (Glasscock)	5.64
Eldorado 22.6ENE	8.35	9.71		Lees (Glasscock)	-