

July 2011 Operations Report

July 01, 2011 – Seeding operations were conducted over Schleicher (4) and Tom Green (1) counties. 5 flares were burned within 1 small cell. Added moisture from remnants of T.S. Arlene combined with hot well-mixed atmosphere allowed for seedable thunderstorms.

July 02, 2011 - Seeding operations were conducted over Schleicher (22) and Sutton (18) Counties. 40 flares were burned within numerous small cells. A hot and well mixed atmosphere with remnant moisture from T.S. Arlene allowed for seedable thunderstorms.

July 07, 2011 - Seeding operations were conducted over Sutton (23) County. A shortwave embedded within the upper ridge helped initiate thunderstorm activity across southern TA. 22 flares were burned within 5 cells.

July 16, 2011 - Seeding operations were conducted over Glasscock (15), Reagan (18), and Sterling (17) Counties. A shortwave embedded within the upper level ridge helped initiate marginal clouds. 50 flares were burned within 10 cells.

July 18, 2011 - Seeding operations were conducted over Schleicher (30) and Sutton (2) Counties. A shortwave embedded within the upper level ridge helped initiate marginal clouds. 32 flares were burned within 10 small cells.

July 19, 2011 - Seeding operations were conducted over Crockett (17), Irion (7), Schleicher (26), Sterling (4), and Sutton (19) Counties. A shortwave embedded within the upper level ridge helped develop good clouds. 73 flares were burned within 14 clouds.

July 20, 2011 - Seeding operations were conducted over Irion (7), Schleicher (26), and Sutton (19) Counties. A shortwave embedded within the upper level ridge helped develop marginal clouds. 54 flares were burned within 10 small clouds.

July 29, 2011 - Seeding operations were conducted over Glasscock (14), Reagan (14), Schleicher (2) and Sutton (16) Counties. An upper level low over northern Mexico allowed for marginally seedable clouds. 46 flares were burned within 17 small clouds.

July 30, 2011 - Seeding operations were conducted over Crockett (17) County. An upper level low over north-central Mexico allowed for marginally seedable clouds. 17 flares were burned within 5 small clouds. This is the ninth day for seeding in July and 17th day for seeding during the season.

The month of July contained 9 days of operations

Date	Flares	Counties seeded
01	5	Schleicher, Tom Green
02	40	Schleicher, Sutton
07	22 +1H	Sutton
16	50	Glasscock, Reagan, Sterling
18	32	Schleicher, Sutton
19	73 +1H	Crockett, Irion, Schleicher, Sterling, Sutton
20	54 +2H	Irion, Schleicher, Sutton
29	46	Glasscock, Reagan, Schleicher, Sutton
30	17	Crockett
Total Flares: 339 + 4H		

July started off with T.S. Arlene making landfall across central Mexico. While not making a direct impact into the Northwestern Gulf, Arlene did throw some Gulf moisture toward west Texas, which helped ignite a couple of seeding days early on in the month. Once the moisture decreased the upper ridge built back in and left the region high and dry for another week. An upper level ridge centered over Texas for the first half of the month shifted over the central Plains allowing for easterly flow along the southern periphery of the ridge to set over central Texas. Impulse shortwaves pushing through easterly flow, increased moisture and record heating allow for an active pattern to set up. Temperatures above 100° persisted throughout the month except for the 1st and 30th. While temperatures were hot and moisture was available mid month, clouds remained very low profile, marginally seedable.

July held below average rainfall and above average temperatures. Totals at San Angelo, Midland, and Abilene are below the monthly normal for July. San Angelo received a trace of rain and was 1.1 inches below normal for July. Abilene received only a trace of rain and was -1.87 inches below normal. Midland received a trace of rain in July and was 1.89 inches below normal. All three sites are below normal for annual precipitation. San Angelo recorded 2.94 inches, Abilene 6.48, and Midland 0.16 inches for year-to-date. Respectively, each site was below normal by 8.36, 6.48, and 7.49 inches for the year.

Monthly rain gauge measurements from nearest locations inside and out of the target area recorded either by the National Weather Service, Weatherbug Sites, Wunderground or Mesowest sites are provided.

<u>NWS</u>	0.06	Cox Ranch	0.00	San Angelo (10.4E)
T Mathis Field	0.13	Ozona (15mi SSW)		
T Abilene	0.07	Sterling City	<u>Wunderground</u>	
0.55 Junction	0.15	Sheffield	0.00	Mertzton
T Midland			<u>Other</u>	
0.22 Big Spring	<u>CocoRahs</u>		0.00	San Angelo (7NW)
<u>Utah Mesonet/HADS</u>	0.13	Eldorado	0.11	St. Lawrence
0.00 Barnhart	0.71	Knickerbocker	0.00	Big Lake
0.63 Sonora	0.88	Ozona (26.8 SW)	0.00	Wall