

June 2010 Operations Report

June 1, 2010 - Seeding operations were attempted over Schleicher (5) County. 5 flares were burned within 1 breathing cloud. Sufficient surface heating developed one marginal cloud.

June 2, 2010 - Seeding operations were conducted on parts of all counties: Crockett (2), Glasscock (8), Irion (28), Reagan (10), Schleicher (15), Sterling (36), Sutton (112) and Tom Green (10). 211 flares were burned within 1 very large track cloud with numerous strong cells. An upper low over West Texas, sufficient surface heating, and dryline fueled strong seedable storms.

June 14, 2010 - Seeding operations were conducted Glasscock (23) County. 23 flares were burned within 1 very large track cloud with numerous strong cells. A dryline to the west and frontal boundary to the northern produced seedable thunderstorms.

June 24, 2010 - Seeding operations were conducted over Crockett (27), Irion (4), Schleicher (22), Sutton (48), and Tom Green (2) Counties. 103 flares were burned within 1 very large track cloud with more than 11 additional cells. An upper low over southeast Texas and sufficient surface heating allowed for very good cloud seeding.

June 25, 2010 - Seeding operations were conducted over Glasscock (29), Irion (32), Reagan (12), Schleicher (7), Sterling (23), Sutton (3), and Tom Green (50) Counties. 156 flares were burned within 1 very large track cloud with more than 22 additional cells. An upper low over central Texas and sufficient surface heating allowed for very good cloud seeding.

June 26, 2010 - Seeding operations were conducted Crockett (50) County. 26 flares were burned within 1 merged cloud with 3 additional cells. A trough over eastern New Mexico and Trans-Pecos and surface heating developed a thunderstorm.

June 27, 2010 - Seeding operations were conducted Crockett (31) County, Glasscock (10) County, Irion (47) County Reagan (28) County, Sterling (8) County, Sutton (10) County, Tom Green (4) County. 138 flares were burned within 1 large merged cloud with more than 11 additional cells. A remnant outflow boundary and MCV over northern target developed seedable thunderstorms.

June 28, 2010 - Seeding operations were conducted Crockett (8) County, Schleicher (6) County, and Sutton (22) County. 36 flares were burned within 3 clouds. A cold front aided to develop seedable clouds.

June 29, 2010 - Seeding operations were attempted over Crockett (3) County, Glasscock (6), Reagan (13) Schleicher (2) County, and Tom Green (2) County. 26 flares were burned within 9 clouds. A weak area of low pressure over West Texas produced marginally seedable conditions.

June 30, 2010 - Seeding operations were attempted over Glasscock (1), Reagan (11) and Sterling (2) County. 14 flares were burned within 5 clouds. Moist easterly upslope and surface heating produced marginal showers. This is the tenth day for seeding in June and 16th day for seeding during the season.

The month of June contained 10 days of operations

Date	Flares	Counties seeded
1	5	Schleicher
2	211	Crockett, Glasscock, Irion, Reagan, Schleicher, Sterling, Sutton, Tom Green

14	23	Glasscock
24	103	Crockett, Irion, Schleicher, Sutton, Tom Green
25	156	Glasscock, Irion, Reagan, Schleicher, Sterling, Sutton, Tom Green
26	26	Crockett
27	138	Crockett, Glasscock, Irion, Reagan, Sterling, Sutton, Tom Green
28	36	Crockett, Schleicher, Sutton
29	26	Crockett, Glasscock, Reagan, Schleicher, Tom Green
30	14	Glasscock, Reagan, Sterling
Total Flares:		738

The general weather pattern for June began with a mostly zonal flow from coast to coast; but with shortwave influence over the Desert Southwest and southern Plains, seedable thunderstorms were possible. A dryline moving into the western target June 2 also made for explosive thunderstorm development; storm bases became higher as the storms matured. Ridging became most prominent over the Southeast through middle of June; although dryline influence over the Permian Basin and frontal boundary over the southern Panhandle allowed for one evening with showers and thunderstorms on the 14th. Hot and dry conditions were prevalent under an upper level ridge while mild surface features also moved away from West Texas mid-month. Upper ridge and dry conditions persisted until the last week of the month. Upper ridge became centered north of Texas with easterly flow dominant over Texas; moist easterly upslope flow allowed for seedable conditions from the 24th from the 28th although conditions became less seedable by the 28th and nearly unseedable on the 29th. Hurricane Alex began to approach the northern Mexico coastline late on June 30. Seeding did occur once again on the 30th, however conditions limited inflow and response was minimal.

April rainfall occurred mainly during one event across the region; the last couple days during the month. Totals at Midland, and Abilene rose above the monthly normal for June. San Angelo received 1.96 inches and was .56 inches below normal. Abilene received 3.32 inches and was .26 inches above normal. Midland received 3.97 inches in June and was 2.26 inches above normal. All three sites remained further above normal for annual precipitation. San Angelo recorded 12.08 inches, Abilene 15.88, and Midland 11.74. Respectively, each site was above normal by 1.88, 4.81, and 5.98 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. *suggests error in dataset*

<u>NWS</u>	1.83*	Ozona	1.91	Vancourt
1.96	Mathis Field	2.68	Iraan	
3.32	Abilene	1.97	Sterling City	<u>Wunderground</u>
1.65	Junction			2.58
3.97	Midland	<u>CocoRahs</u>	1.54	Mertzson
2.04	Big Spring	1.42		<u>Other</u>
		2.25	Knickerbocker	1.79
<u>Utah Mesonet</u>		1.70	Garden City	2.07
1.18	Barnhart	1.43	Ozona (15mi SSW)	2.74
3.45*	Cox Ranch	2.68	Iraan	