

May 2011 Operations Report

May 11, 2011 - Seeding operations were conducted over Sutton (12) County. 12 flares were burned within 2 small cells. A dryline and upper level system moving east during the morning allowed for marginally seeable conditions.

May 22, 2011 - Seeding operations were conducted over Crockett (12) and Glasscock (14) County. 26 flares were burned within 2 storms. A dryline and sufficient surface heating allowed for seedable thunderstorms. This is the second day for seeding in May and 4th day for seeding during the season.

The month of May contained 2 days of operations

Date	Flares	Counties seeded
11	12	Sutton
22	26	Crockett, Glasscock, Sterling
Total Flares: 38		

The general weather pattern for May began with significantly cooler temperatures following a deep trough and strong surface cold front. Temperatures rose back above 80° by the 3rd and near 90° by the 6th of the month. Mostly zonal flows aloft persisted through the first week while a shortwave trough attempted to bring thunderstorms to parts of West Texas late afternoon May 6. Ridging returned to West Texas for the following week. An omega structured synoptic pattern developed mid-month with a ridge over Texas through the 17th but a closed low deepened over the Rockies and moved slowly eastward bringing thunderstorms to West Texas early morning May 20. An upper level trough built up across the Pacific Northwest and shifted over the Desert Southwest while a mid-level low moved across the Plains. Limited upper level forcing was available over West Texas during the next several days; however, during late afternoon of the 23rd a surface low and associated dryline developed seedable thunderstorms over the western target. Hot, Dry, and windy conditions prevailed for the better part of the last week of May as a mild ridge over Texas expanded east and northward, then retrograded westward over Texas. Several 100° degree days occurred bringing the total seasonal days above the century mark to 10. An upper level ridge built in over the Mid-Atlantic and Southeast end of the month backing up over east-central Texas.

May held below average rainfall and above average temperatures. Totals at San Angelo, Midland, and Abilene are below the monthly normal for May. San Angelo received 1.36 inches and was 1.73 inches below normal for May. Abilene received 1.11 inches and was 1.72 inches below normal. Midland received .05 inches in May and was 1.74 inches below normal. All three sites are below normal for annual precipitation. San Angelo recorded 2.48 inches, Abilene 5.55, and Midland 0.16 inches for year-to-date. Respectively, each site was below normal by 5.20, 2.46, and 3.89 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>	0.21	Cox Ranch		
1.36	Mathis Field	0.20	Ozona	<u>Wunderground</u>
1.11	Abilene	0.15	Sterling City	0.19
0.78	Junction			0.37
0.05	Midland	<u>CocoRahs</u>		<u>Other</u>
0.15	Big Spring	0.46	Eldorado	1.06
<u>Utah Mesonet/HADS</u>		1.40	Knickerbocker	0.34
0.38	Barnhart	0.08	Ozona (15mi SSW)	
0.10	Sonora	1.68	Vancourt	