

May 2010 Operations Report

May 14, 2010 – Seeding operations were conducted over Glasscock (2), Irion (2), Reagan (8), Sterling (8) and Tom Green (2) Counties. 22 flares were burned within 1 large system. A frontal boundary produced marginally seedable thunderstorms during mid-afternoon.

May 17, 2010 - Seeding operations were conducted over Crockett (21), Glasscock (7), Reagan (8), and Sterling (12) Counties. 48 flares were burned within 2 large clouds, one with multiple cells. An MCS moving south from the Panhandle and storms moving west from Trans-Pecos brought seedable storms.

May 24, 2010 - Seeding operations were conducted over Schleicher (21) and Tom Green (7) counties. 28 flares were burned within 3 small clouds merging into one. Sufficient surface heating and shortwave influence helped to promote marginally seedable clouds.

May 25, 2010 - Seeding operations were conducted over Irion (10), Schleicher (70), Sutton (16), and Tom Green (27) counties. 124 flares were burned within 10 clouds merging mostly into one. Sufficient surface heating and shortwave influence helped to promote seedable clouds. This is the fourth day for seeding in May and 6th day for seeding during the season.

The month of May contained 4 days of operations

Date	Flares	Counties seeded
14	22	Glasscock, Irion, Reagan, Sterling, Tom Green
17	48	Crockett, Glasscock, Reagan, Sterling, Tom Green
24	28	Schleicher, Tom Green
25	124	Irion, Schleicher, Sutton, Tom Green
Total Flares: 222		

The general weather pattern for May began with mostly zonal flow across Texas. Mild shortwave troughs translated across the central Plains but without precipitation for most of Texas. The first week of May saw warmer temperatures reaching the upper 90s but strong capping inversion prohibited thunderstorms. Cold fronts continue to dip through Texas during the first week also without precipitation but dropping temperatures from upper 90s to low 80s. Temperatures in the mid and upper 90s on the 10th of May, a dryline, and moist surface dewpoints were not enough parameters to develop thunderstorms as a shortwave trough passed over Oklahoma and Kansas. Seedable thunderstorms were as close as Abilene. Upper level trough over the Rockies and into Mexico through the 3rd weekend of the month maintained mostly cloudy skies inhibiting seedable conditions. Seeding operations did occur mid month, but conditions were not entirely favorable for seeding given that visibility was poor for pilots. A During the weekend of the 22nd, a blocking ridge set up again over the Great Lakes and south, holding a trough over the Rockies and Desert Southwest. A dryline over New Mexico and Trans-Pecos held firm keeping West Texas out of the thunderstorms contention except on the 24th when upper level trough and shortwave influence aided to produce thunderstorms. Conditions were once again very marginal under mostly cloudy skies. Conditions for seeding were better on the 25th when a similar synoptic setup to the day before and mostly sunny skies promoted thunderstorms. A mild upper level ridge developed over Texas and the Desert Southwest late month ending chances for seedable clouds. Thunderstorms continued to develop over Trans-Pecos and eastern New Mexico but were not able to reach the western target.

May rainfall occurred more sporadically than earlier in the season. Totals at San Angelo and Midland fell below monthly averages, but Abilene maintained above monthly normal for May. San Angelo received 1.42 inches and was 1.67 inches below normal. Abilene received 3.60 inches and was .77 inches above normal. Midland received 1.65 inches in May and was .14 inches below normal. All three sites remained above normal for annual precipitation. San Angelo recorded 10.12 inches, Abilene 12.56, and Midland 7.77. Respectively, each site was above normal by 2.44, 4.55, and 3.72 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 Mesonet sites are provided.

NWS

1.42 Mathis Field
 3.60 Abilene
 2.42 Junction
 0.59 Midland
 1.28 Big Spring

0.71 Ozona
 1.04 Iraan
 1.49 Sterling City

CocoRahs

1.21 Eldorado
 0.45 Knickerbocker
 0.46 Garden City
 0.52 Ozona (15mi SSW)
 1.04 Iraan

2.97 Vancourt

Wunderground

2.33 Sterling City
 0.28 Mertzon

Other

1.35 San Angelo (7NW)
 0.56 St. Lawrence
 0.36 Mertzon

Utah Mesonet

0.48 Barnhart
 0.09 Cox Ranch