

June 2011 Operations Report

June 15, 2011 – Seeding operations were conducted over Sterling County. A total of 11 flares were burned within 3 cells. A dryline bulge and weak impulse moving east during the morning allowed for marginally seedable clouds.

June 18, 2011 - Seeding operations were conducted over Irion (2), Glasscock (6), Reagan (12), Sterling (7), and Tom Green Counties (2). 29 flares were burned within 6 small cells. A dryline and sufficient surface heating allowed for seedable thunderstorms.

June 19, 2011 - Seeding operations were conducted over Crockett (10) and Reagan (6) Counties. 16 flares were burned within 1 small cell. A dryline and sufficient surface heating allowed for seedable thunderstorms.

June 21, 2011 - Seeding operations were conducted over Glasscock (41), Irion (3), Reagan (17), Sterling (26), and Tom Green (5) Counties. 92 flares were burned within numerous cells along a frontal boundary moving southward through the target area. This is the fourth day for seeding in June and 8th day for seeding during the season.

The month of June contained # days of operations

| Date | Flares | Counties seeded |
|--------------------------|---------------|---|
| 15 | 11 | Sterling |
| 18 | 29 | Glasscock, Irion, Reagan, Sterling, Tom Green |
| 19 | 16 | Crockett, Reagan |
| 21 | 92 | Glasscock, Irion, Reagan, Sterling, Tom Green |
| Total Flares: 148 | | |

The general weather pattern for June began with temps some 10-15 degrees above normal with two subtropical ridges across the lower half of North America, one over the Mid-Atlantic with another over NWRN MX. The latter feature kept W TX hot, dry, and windy through the first week, however, the 2nd week saw one seedable day as the combination of deeply mixed boundary layer and steep lapse rates led to scattered late afternoon showers and storms from the TX Panhandle SWRD into the Trans-Pecos. Due to the well-mixed boundary layer and meager moisture, these storms were really high based. Some of the bases were right near 14,000 ft. Obviously, this made seeding operations a challenge. During the third weekend of the month a large trough developed across the western US suppressing the subtropical ridge into Mexico. This led to a pair of active dryline days for seeding. A few days later a cold front dropped southward and stalled out right through the target area and was the focus for a slow-moving broken squall line of storms later that afternoon. This proved to be the most successful operational day of the year to date. The big winner in precip totals on this day was Paint Creek at 2.09 inches. With the passage of the squall line and cold front, the atmosphere was scoured of moisture leaving the rest of the month hot and dry.

June held below average rainfall and above average temperatures. Totals at San Angelo, Midland, and Abilene are below the monthly normal for June. San Angelo received 0.46 inches and was 2.06 inches below normal for June. Abilene received 0.93 inches and was -2.13 inches below normal. Midland received no rain in June and was 1.71 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 7.26, 4.59, and 5.60 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.

NWS

0.46 Mathis Field

0.93 Abilene

0.52 Junction

0.00 Midland

0.00 Big Spring

Utah Mesonet/HADS

0.27 Barnhart

0.80 Sonora

0.49 Cox Ranch

0.27 Ozona (15mi SSW)

DNA Sterling City

CocoRahs

0.51 Eldorado

0.96 Knickerbocker

0.00 Ozona (26.8 SW)

DNA Vancourt

Wunderground

1.60 Mertzon

Other

1.02 San Angelo (7NW)

0.25 St. Lawrence