

## WESTERN KANSAS WEATHER MODIFICATION PROGRAM

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### WEEKLY NEWSLETTER

No. 2013-8

For the period June 1 – June 7, 2013

#### **General Interest:** County rainfall averages for May

County precipitation averages for May indicate a substantial moisture deficit for all target area counties except Lane County. Although May totals this year were significantly higher for all counties, the totals were still below normal. Interestingly, Lane County recorded a precipitation average which exceeded the monthly May average for that area. However, even Lane County had over fifty percent of the county area receiving less than 50% of normal rainfall. A wet swath of land in Lane exists from Pendennis southwest to near Dry Lake in Scott County where rainfall totals were running from 125% to as much as 200% above normal for May. The wet area helped to push the county average into the surplus category. Rain reports from the Community Collaborative Rain, Hail and Snow Network (CoCoRaHS), [www.cocorahs.org](http://www.cocorahs.org), indicate the highest 2013 May county precipitation average was in Lane County with 3.53 inches or 6% above normal for Lane. Following Lane, Scott County reported 2.28 inches (24% below normal for Scott), Wichita County with 1.61 inches (45% below), Kearny County recording 1.36 inches (55% below), and Hamilton County with only 0.88 inches (64% below).

**Weather:** The week started out mostly sunny with mild daytime highs in the 70's to lower 80's and cool nights. By Monday, temperatures climbed into the lower 90's under mostly sunny skies turning partly to mostly cloud by middle afternoon. A few weak thunderstorms broke out around peak heating Monday primarily along and south of a Garden City to Syracuse line. On Tuesday, several severe storms developed over eastern Colorado during the late afternoon traveling east. However, by middle evening, severe storms rapidly developed over western Kansas ahead of the Colorado storms. Tranquil but cool conditions prevailed Wednesday and Thursday except for a small area of thundershower which occurred during the evening hours Wednesday over mainly Kearny County.

**Operations:** There were three operational day this week. Seeding for rain optimization occurred one day while hail suppression seeding only occurred one day. Lastly, hail suppression seeding and rain optimization seeding occurred the last day.

#### **June 3<sup>rd</sup>, Program Operations Day #10**

One plane was launched at 2:24 p.m. to investigate an area of high-based developing thunderstorm south of Kendall. Elsewhere, a broken line of storms had been ongoing for nearly an hour over Stanton and Grant traveling east. The plane patrolled Kearny County for a few minutes before conducting rain optimization seeding from 3:14 to 3:25 southwest of Lakin. The plane resumed patrol of additional small cells before turning for base at 4:06.

#### **June 4<sup>th</sup>, Program Operations Day #11**

Two aircraft were launched at 8:10 p.m. to investigate a developing line of storms stretching from Tribune south into Hamilton. Seeding for hail suppression began at 8:31 over northern Hamilton. Hail suppression

seeding began at 8:34 over western Wichita. By 8:40, radar indicated nearly every storm cell within this line was severe as it moved east through Wichita and Hamilton counties. Seeding continued through 9:20 over Wichita, Scott, and Kearny counties. Several areas along the line remained severe through 9:30 with the strongest storm located southwest of Lakin where a tornado touched down. Seeding stopped at 9:40 over southeastern Kearny as this portion of the line exited the target area. Seeding transitioned to rain optimization at 10:08 over the remainder of the line over eastern Scott and western Lane. Seeding was terminated at 10:44 over eastern Lane as the storm line was exiting the target area. The aircraft turned for base at 10:49.

#### June 7<sup>th</sup>, Program Operations Day #12

Two planes were launched at 2:54 p.m. to investigate a small line of thunderstorms traveling out of Colorado and into Kansas over Hamilton County. Seeding for rain optimization began 3:16 over extreme southwestern Hamilton County. Seeding transitioned to hail suppression at 3:20 over southwestern Hamilton as this cloud intensified to a level capable of small hail. By 3:44, hail suppression continued along the storm line extending from west of Syracuse south to along the highway in extreme southern Hamilton. The storm neared Kendall at 4:50. Seeding stopped at 4:58 over western Kearny as this storm was entering the dissipation stage with the loss of updrafts. One plane returned to base while the other aircraft moved to investigate a stationary line of developing storms. Seeding for hail suppression began at 5:34 over and near Dry Lake in Scott County and continued there until the storm lost updrafts and hail intensity at 6:13.

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**Walter Geiger, Meteorologist**  
**Western Kansas Weather Modification Program**