

## WESTERN KANSAS WEATHER MODIFICATION PROGRAM

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### WEEKLY NEWSLETTER

No. 2016-16

For the period July 30 – August 5, 2016

**General Interest:** The precipitation accumulation so far this month is certainly much higher than normal with late evening and overnight broad area rain systems either forming or passing through frequently. These systems are generally the main source of beneficial rains to the area as their longevity and coverage account for most of our precipitation during the growing season. During drought years when high pressure is dominant and the atmospheric moisture is lacking, these rain systems are generally absent leaving the area with only the small chance for spotty rain episodes which typically don't account for much. Over the past three years, we have been experiencing a relatively higher frequency of widespread events during the growing season which we lacked for roughly ten years going back to 2005. Precipitation accumulation maps for the month show that most locations are already nearing rainfall totals expected for the entire month of August. It is anticipated that nearly the entire area may end up receiving the entire monthly rainfall normal before August 15 while some locations may receive perhaps double the monthly rainfall normal before the end of the month.

The 7-day forecast precipitation map valid for the period August 7 – 13 indicate that area stands to receive an additional 0.25 – 0.50 inches across the entire area while portions of west-central Kansas may receive up to 0.75 inches. Larger accumulations are anticipated on the eastern side of Kansas this week where 1.00 to 2.00 inches may fall. Temperatures are expected to climb back up into the middle 90's by Tuesday and remain there until another cool down from another cold front occurs at the end of the week.

**Weather:** The week started out with mostly sunny skies and seasonal temperatures Saturday and Sunday. A few small non-severe storms were noted during the early morning Saturday. More widespread storms, mostly non-severe, occurred across the region again Sunday. Tranquil but very hot conditions prevailed Monday. Widespread storms, mostly non-severe, occurred across the region again Tuesday primarily driven by extreme daytime heating and gust front activity. Unsettled weather returned Thursday as a cold front moved south into western Kansas. This front, along with a disturbance aloft, allowed for storm formation by the early afternoon hours across portions of southwestern Kansas before becoming more widespread to eventually encompass most of western Kansas by Thursday evening and night. Another moderate rain storm cluster pushed through southeastern Colorado and into southwestern Kansas again Friday evening and overnight.

**Operations:** There were two operational days this week. One observation flight occurred August 4<sup>th</sup>.

#### August 2, Program Operations Day #16

One plane launched at 5:07 p.m. to investigate a small cluster of storms wobbling around central Lane. Radar indicated that very brief episodes of small hail were possible within some of compact storms. All storms had subsided from the small hail-bearing state by 5:35. Seeding for rain optimization began at 5:54 over western Lane and eastern Scott. Seeding was terminated at 6:25 over northern Scott. The plane turned for base at 6:34.

#### August 4, Program Operations Day #17

One plane was launched at 5:05 p.m. to Scott County. Radar indicated storm formation was likely along a cold front bisecting the county. Further, two gust fronts were moving into the area may aid in additional storm development. A second plane was dispatched to Lane County at 5:14 to investigate small gust front storms. A brief period of hail suppression began at 5:54 over eastern Dighton where boundaries converged to temporarily enhance storm growth before promptly fading to a heavy rainstorm. Planes then heading to Dry Lake in southeastern Scott where new storms were rapidly developing. However, these storms ended up dying quickly due to becoming detached from the cold front. Planes patrolled the cold front over extreme northern Finney County before turning for base at 8:01.

**Walter Geiger, Meteorologist**  
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