

**WESTERN KANSAS WEATHER MODIFICATION PROGRAM**  
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**WEEKLY NEWSLETTER**

**No. 2012-14**

**For the period July 7 – July 13, 2012**

**General Interest:** First half of 2012 the warmest on record for contiguous United States

January through June was indeed warm here in Western Kansas. As it turns out, the rest of the country was roasting away in record warmth also. According to the National Oceanic and Atmospheric Administration (NOAA), the national temperature averaged 52.9 degrees during the period January through June which was 4.5 degrees above the long term average resulting in the warmest January through June on record for the contiguous United States. In an article appearing on NBCNEWS.com, Jon Gottschalack at the Climate Prediction Center indicates the elevated heat will likely remain for the rest of the summer. June also recorded the tenth-driest June on record for the nation. NOAA statewide records date back to 1895. NOAA also states that June was the 304<sup>th</sup> consecutive month with a global temperature above the 20<sup>th</sup> century average. The last month with below-average temperature was February 1985. Also, July 2011 to June 2012 was the warmest 12-month period on record for the contiguous U.S. According to NOAA, during the June 2011 – June 2012 period, each of the 13 months ranked among the warmest third of their historical distribution for the first time in the 1895 – present record. The odds of this occurring randomly are 1 in 1,594,323. The 11 warmest consecutive 12-month periods for the contiguous U.S. have all occurred rather recently in recorded history. The rank is from warmest to least warm: July 2011 – June 2012, June 2011 – May 2012, May 2011 – April 2012, November 1999 – October 2000, October 1999 – September 2000, April 2011 – March 2012, September 2005 – August 2006 tied with September 1999 – August 2000, July 1999 – June 2000, and June 1999 – May 2000 tied with August 1999 – July 2000. Interestingly, according to NASA, nine of the 10 warmest years in modern meteorological record have occurred since the year 2000! 1998 rounded out the list of the top 10. NASA states that the higher temperatures today are largely sustained by increased atmospheric concentrations of greenhouse gases, especially carbon dioxide. The carbon dioxide level in the atmosphere was about 285 parts per million in 1880, when the GISS global temperature records begins. By 1960, the average concentration had risen to about 315 parts per million. Today it exceeds 390 parts per million and continues to rise at an accelerated pace.

Locally, our area also experienced record January through June warmth. According to an article from the National Weather Service (NWS) in Dodge City, the January through June temperature at Dodge averaged 55.5 degrees during the period which was roughly 4.7 degrees above the long term average for Dodge resulting in the warmest start to any year on record.

**Sources:**

www.NOAA.gov  
www.NBCNEWS.com  
www.NASA.gov  
crh.noaa.gov/ddc/ (NWS Dodge City)

**Weather:** Cooler weather finally arrived at the start of the week! A cold front dropped into the area on Saturday bringing with it some rain and temperatures about 20 degrees cooler than the blast furnace conditions of the past two weeks. Temperatures began to rebound back into the 90's by Wednesday and topped out around 100 by the end of the week. A weak upper level disturbance passed north of Kansas Wednesday night and aided in the development of some weak showers and storms that passed through the area during the Wednesday night.

**Operations:** There was one operational day this week. Seeding for rain optimization and hail suppression occurred that day.

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

One aircraft was launched at 3:43 p.m. to investigate an area of small popcorn-type storms over eastern Scott and western Lane counties. Several gust fronts were located in the area helping to aid in the development of new storms as well as prolong the life of already developed storms. Seeding for hail suppression began at 4:16 near Grigston in eastern Scott County. Seeding was terminated at 4:36. The plane moved to sample new storm growth located near Modoc. Seeding for rain optimization began at 4:46 just west of Modoc on a small line of storms oriented north to south. Seeding transitioned to hail suppression at 5:00 as gust front interactions on the storms forced intensification to a level of potential small hail. Seeding for hail suppression was terminated at 5:32 over extreme northern Scott and Wichita counties as that portion of the storm line was moved out of the target area.

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