

# Texas's Climate

## THE COCORAHS 'STATE CLIMATES' SERIES

### **Texas: When It Rains, We Pour!**

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Texas is the biggest state in the contiguous 48 states, with its land area of 261,914 miles roughly equal in size to all the states bordering the Atlantic Ocean from Maine to North Carolina. Precipitation changes substantially from west to east, as a near-desert climate exists in the Trans-Pecos region of Far West Texas that gradually gives way to a subtropical, humid climate to the East. Precipitation across Texas tends to be either "feast or famine," which has led to the regular occurrence of droughts and flooding episodes over the past century. Because of its size, it is not unusual to see one region of Texas with drought conditions while another region is dealing with excessive rainfall. Alvin, which is located just to the east of Houston, set the 24-hour precipitation record for the continental United States on July 25-26, 1979 with 42" of rainfall. Contrast this with the Trans-Pecos town of Imperial in 1953, which saw only 1.30" of precipitation over the entire year. Because it is possible for the standard rain gauge to fill up several times during a single event, Texas CoCoRAHS observers must be quick on the draw.

In June 2001, Tropical Storm Allison dumped as much as 35" of rain in the Houston area, and the resulting flooding caused over \$5 billion in damages. Hurricane Ike struck Galveston Island on September 13th, 2008, with winds of 110 mph, a storm surge of over 20', 20" of precipitation in some areas, and total damages of over \$20 billion, making it the 3rd costliest US storm. The deadliest US weather disaster was the 1900 Category 4 hurricane that killed an estimated 8,000 people when it struck Galveston Island. The most devastating tornado in Texas history occurred on May 11, 1953, killing 114 and injuring 597 when it struck Waco. But surely the most impressive tornado ever recorded in Texas was the long-track tornado of April 9, 1947, which touched down in the Texas Panhandle and stayed on the ground for an incredible 221 miles, ending up in Kansas.

The one thing that the entire state has in common is that during the summertime, temperatures can get very hot! The record high temperature for Texas is 120° F, set in 1936 and tied in 1984. During unusually warm summers, the temperature occasionally exceeds 110 degrees , as it did for ten consecutive days in Wichita Falls in 1980. The high temperatures mean that normally evaporation exceeds precipitation in all areas of the state. Below-normal precipitation can cause significant environmental stress, and the state is most susceptible to drought during summertime as a result. The most severe drought in Texas history lasted for several years in the 1950s, though some areas of South Central Texas had their historically worst drought in the summer of 2009. Contrary to popular belief, Texas can get bitterly cold during the winter. The coldest day in weather records in Texas was Feb. 12, 1899. On that day, over half of the state reached temperatures below 0°F, and the temperature plummeted to -23°F in Tulia, a record matched in 1933 in Seminole.

For more information on Texas's Climate, please visit the Texas Climate Office website at:  
<http://atmo.tamu.edu/osc>