

Colorado State University, Fort Collins, CO Weather Station Monthly Summary Report

Month: September
Year: 2012



Temperature:

Mean T_{\max} was 80.1 which is 4.2 degrees above the normal for the month. This ranks as the 8th warmest in the 124 year record (1889-2012) tied with 1895, 1897, 1922, and 1953. The last September this warm or warmer was 2010 with 81.9 degrees.

Mean T_{\min} was 49.2 degrees which is 1.7 degrees above the normal for the month. This ranks as the 8th warmest in the 124 year record (1889-2012) tied with 1977. The last September this warm or warmer was 2007 with 49.8 degrees.

Mean T_{mean} was 64.7 degrees which is 3.0 degrees above the normal for the month. This ranks as the 3rd warmest in the 124 year record (1889-2012) tied with 1990. The last September this warm or warmer was 2010 with 64.8 degrees.

The calendar year mean temperature (Jan-Sep) is 57.8 degrees which is 4.0 degrees above the normal for the period. This ranks as the warmest calendar year through September in the 124 year record (1889-2012).

The maximum daily temperature was 92 and occurred on 4 September 2012. The minimum daily temperature was 42 and occurred on 18 September 2012.

A time series of temperatures for Fort Collins, CO is shown in Figure 1 below.

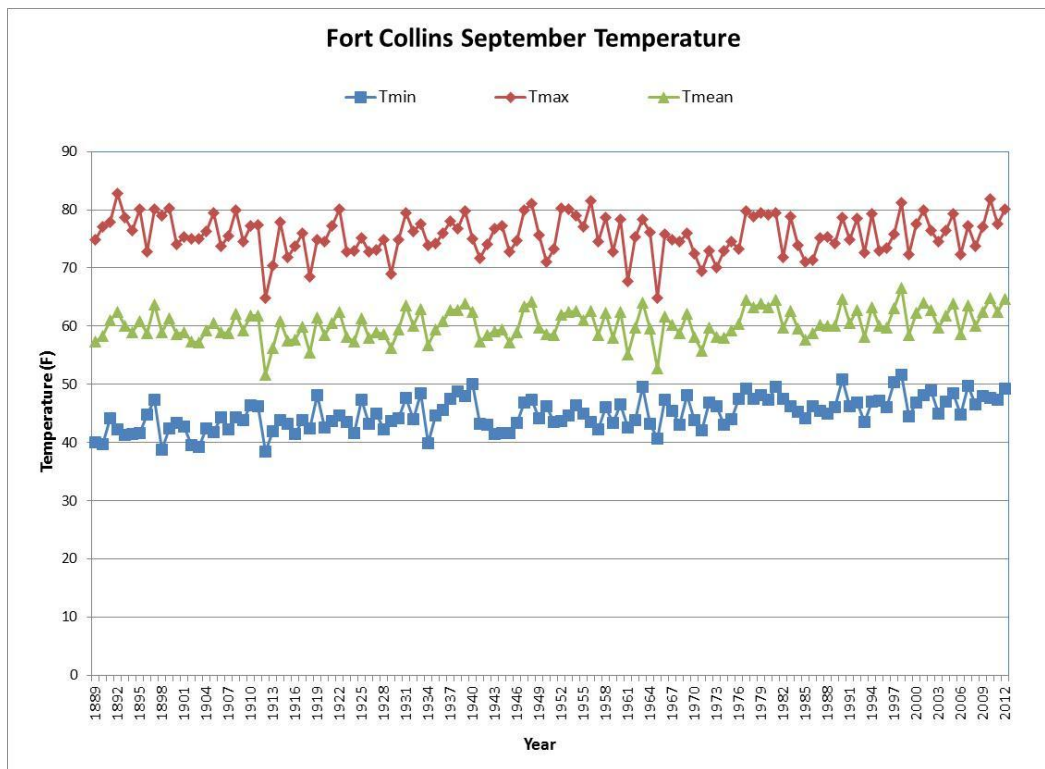


Figure 1: September temperature time series

Misc. Temperature (record status, days above/below thresholds):

90 Degree Days

As of the end of September, we have beaten the record number of days greater than or equal to 90 degrees in any year. The previous record was 45 days set in 1960. As of the end of September the total is 57 days.

Highest Minimum Temperature

2 September 2012: Minimum temperature of 65 ties the old record set in 1995.

24 September 2012: Minimum temperature of 60 breaks the old record of 57 set in 1947.

Precipitation and Snowfall:

Total monthly precipitation was 2.93” and was 1.60” above the normal (220% of normal). This ranks as the 11th wettest September in the 124 year record (1889-2012). The last September this wet or wetter was 1982 with 4.06”.

Calendar year precipitation was 9.56” which is 4.13” below the normal (70% of normal). This ranks as the 22nd driest calendar year through September in the 124 year record (1889 – 2012). The last calendar year this dry or drier was 2006 with 5.55”.

Water year 2012 precipitation ended with 12.99” and was 3.11” below the normal (81% of normal). This ranks as the 37th driest water year in the 123 year data record (1890-2012) tied with 1976. The last water year this dry was 2006 with 9.07” (2002 had 8.54”).

Time series of September and water year precipitation are shown in Figure 2.

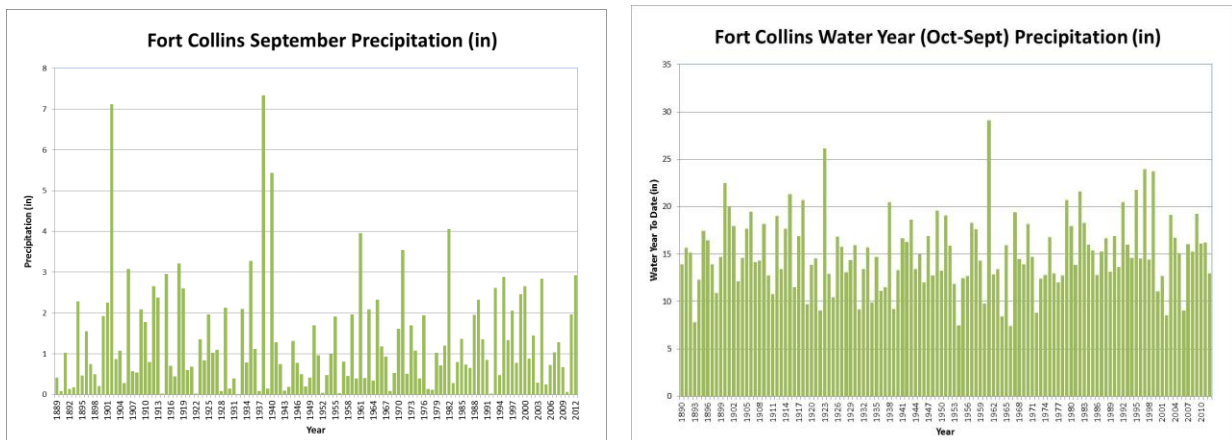


Figure 2: September (left) and water year (right) precipitation time series.

Misc. Precipitation (predominant type, record status, etc.):

26 September 2012: Daily precipitation of 1.92” breaks the daily maximum for the date of 0.57” set in 1933

Wind:

In September 2012 there were 7 days with maximum wind gusts ≥ 20 mph and 1 day ≥ 30 mph.

The maximum daily wind gust for the month was 44 mph and occurred on 1 September 2012 at 18:00 MST from 190°.

Evaporation:

September 2012 pan evaporation was 5.33” and is 0.42” above the normal for the month (109%).

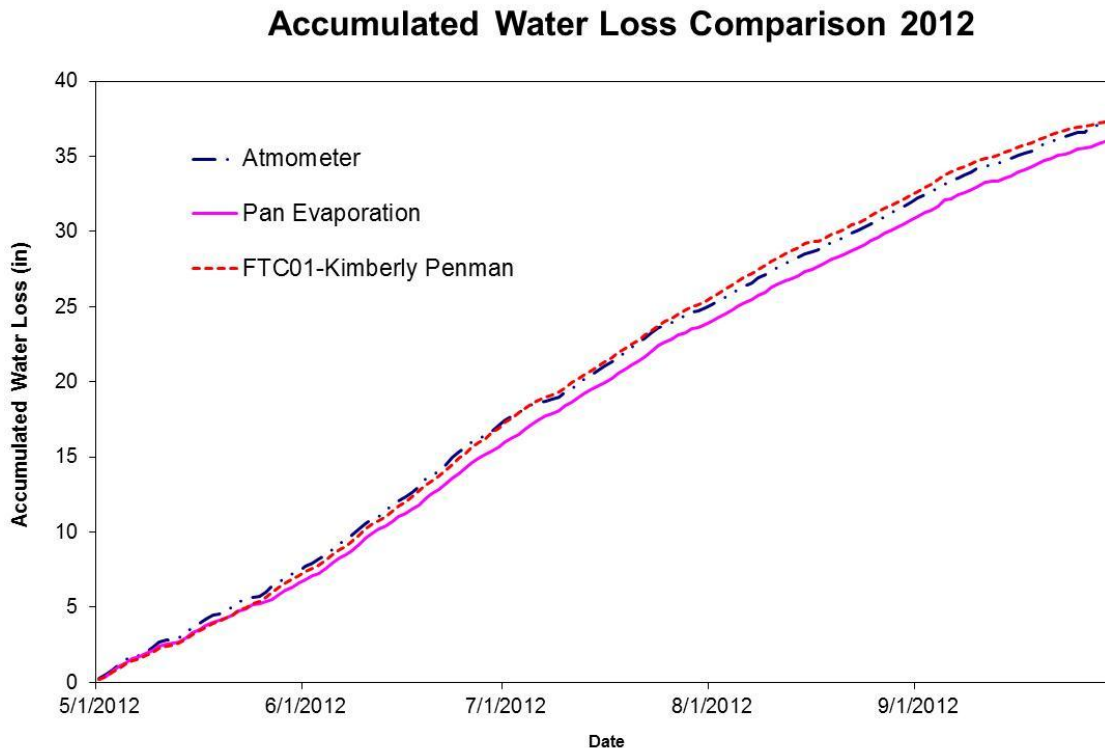


Figure 3: Water loss comparison of Fort Collins Weather Station instruments (atmometer and class A pan) and nearby FTC01 CoAgMet (ccc.atmos.colostate.edu/~coagmet) station.