

Fort Collins Weather Station Monthly Summary

July 2023



Photo Credit:
Jason Huitt



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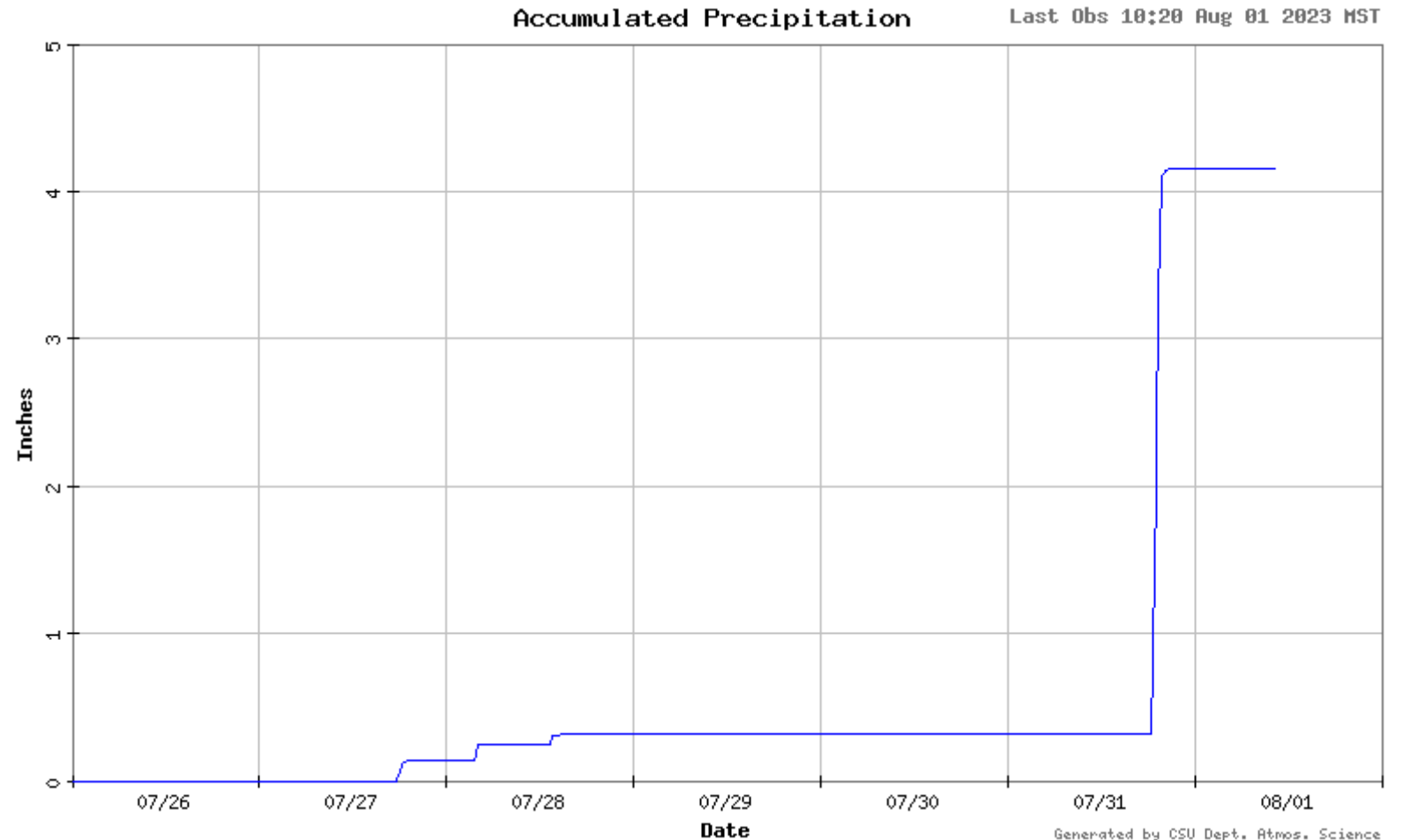
Feature Story: July 31st Flooding On Campus

Fort Collins experienced a flooding event last night. The automated gauge measurement of 3.83" has already drawn media attention.

This gauge tends to overestimate

The official measurement is under review and subject to change. This storm occurred during the official observation time of 8:00 PM, leaving our intrepid weather observer, Ann Casey, exposed to driving sheets of rain, nickel-sized hail, and nearly constant lightning strikes. Cheers to Ann Casey for her efforts!

Not only will this rain event be split between two days, 8:00 PM closed the books on our July 2023 observations, so the total will be split between two months! The majority of the total from yesterday's rainfall will be counted on August 1st.

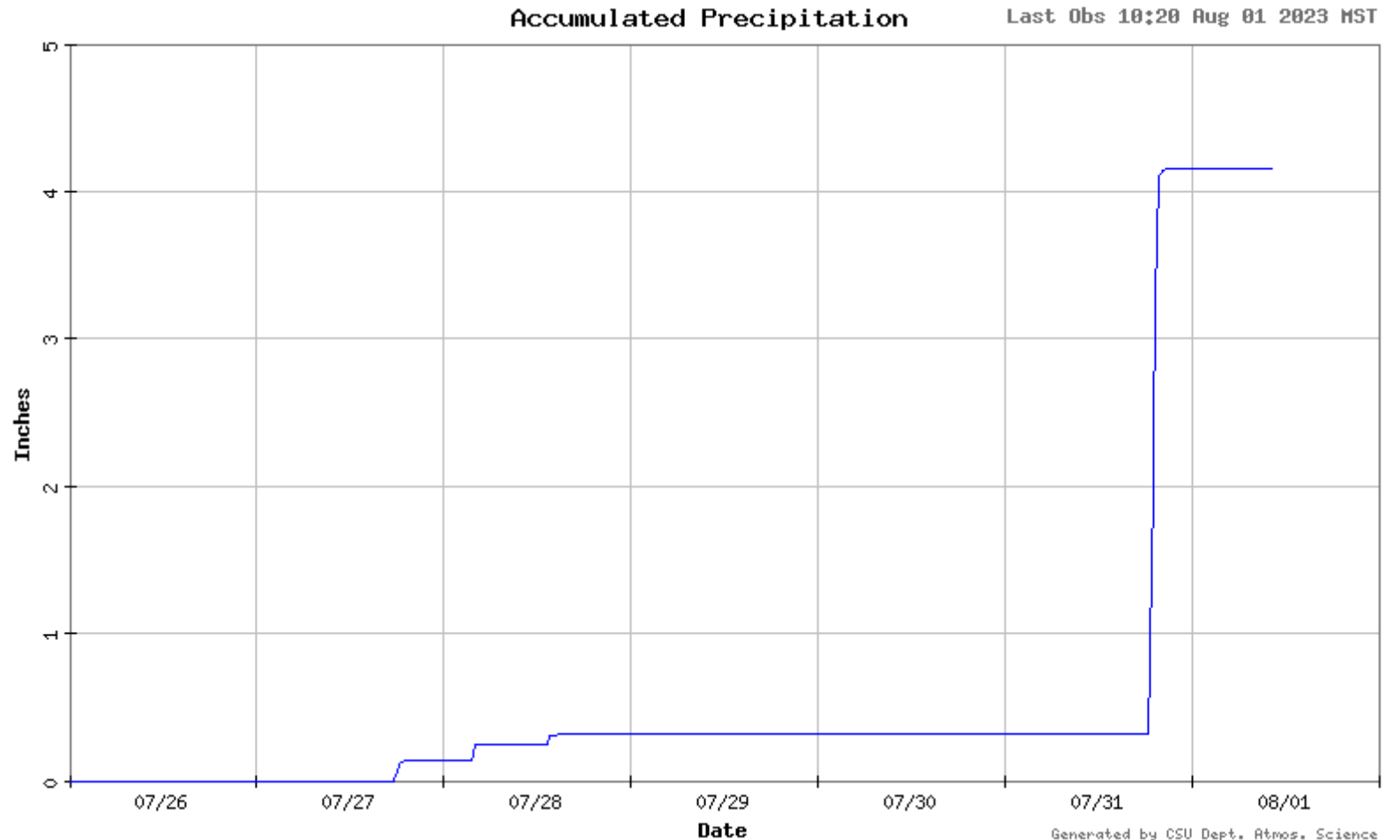


Feature Story: July 31st Flooding On Campus

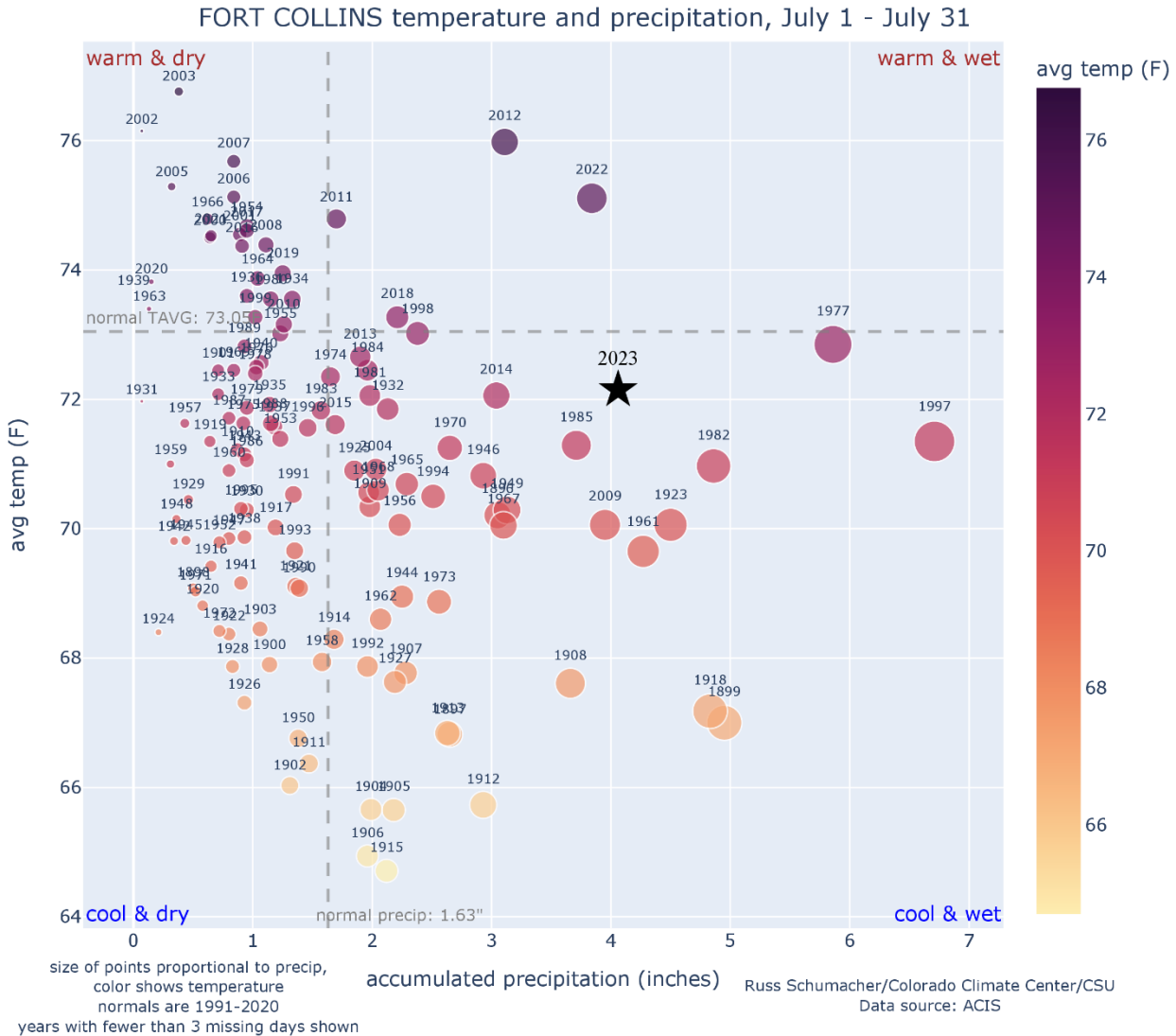
Now for the really confusing part! Our official NWS 8" rain gauge reported 1.32" yesterday before the 8:00 PM observation, and 0.71" after. The value after 8:00 PM is erroneous; it does not line up with any of the other gauges. The cause of this erroneous reading is under investigation.

In the meantime, we are using data from the tipping bucket gauge as our official measurement placeholder: 1.38" before 8:00 PM, and 2.45" after for a storm total of 3.83". That means the Fort Collins weather station is already at 171% of normal precipitation for August.

There is a good chance these numbers will be adjusted downward as much as 5-10% before being etched in stone



Average July Temperature and Precipitation



The average air temperature for July 2023 was 72.2 °F, 0.9 °F below our 1991-2020 July normal (73.1 °F)

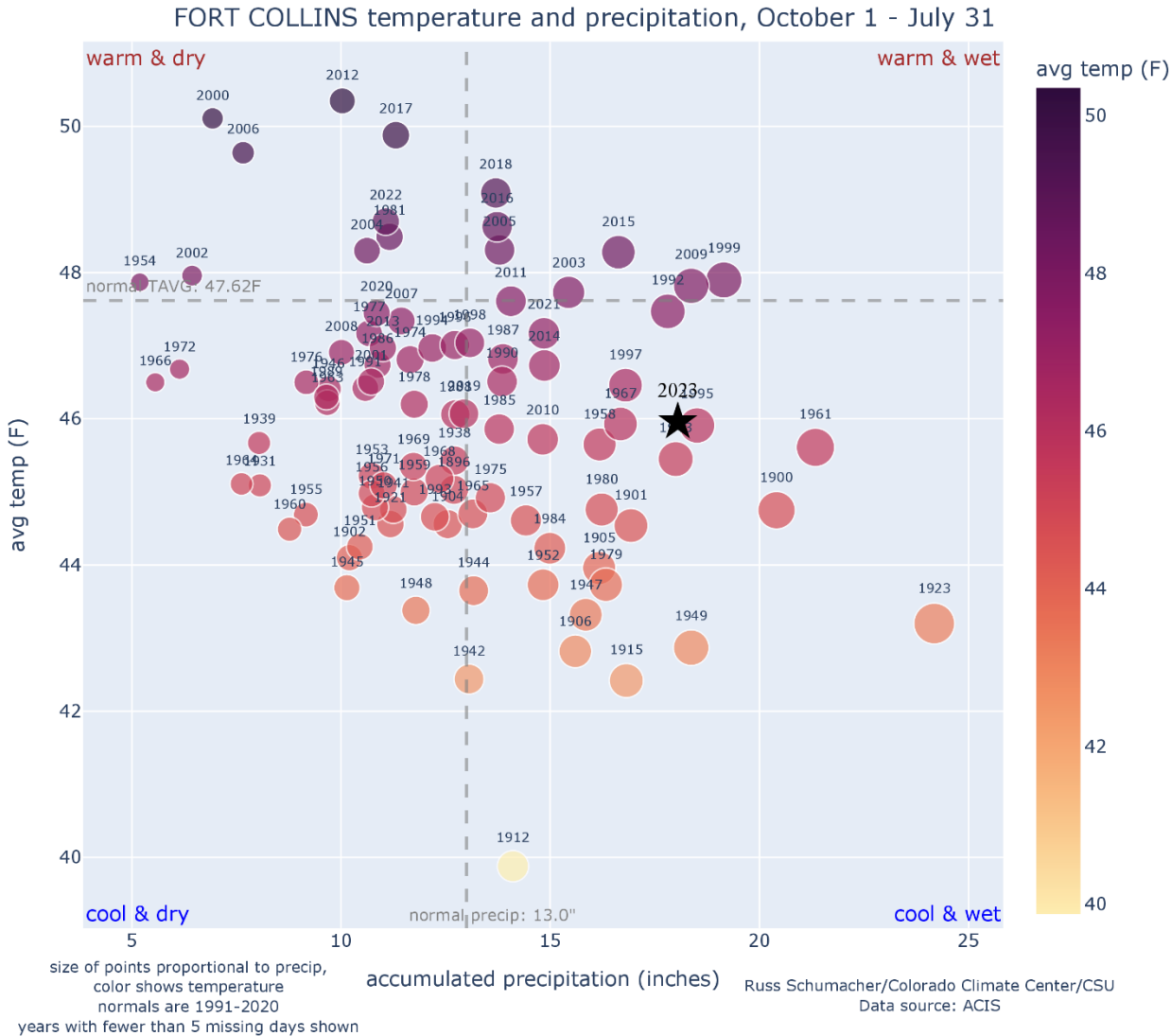
The last cooler July was 2015 (71.6 °F)

We received 4.06" of precipitation in July 2023, 249% of our 1991-2020 July normal (1.63")

The last wetter July was 1997 (6.71")



Average Water Year Temperature and Precipitation



The average air temperature for our 2023 Water Year to date (since October 1st) is 46.0 °F. This is 1.6 °F below our 1991-2020 normal of 47.6 °F

The last cooler October-July was 2010 (45.7 °F)

We have received 18.05" of precipitation this Water Year to date, 139% of our 1991-2020 normal (12.95")

The last Water Year this wet through July was 2009 (18.37")



Records Broken

We set a new record for lowest maximum daily temperature on July 5th, 2023 (62 °F), breaking the previous record of 66 °F set in 1958

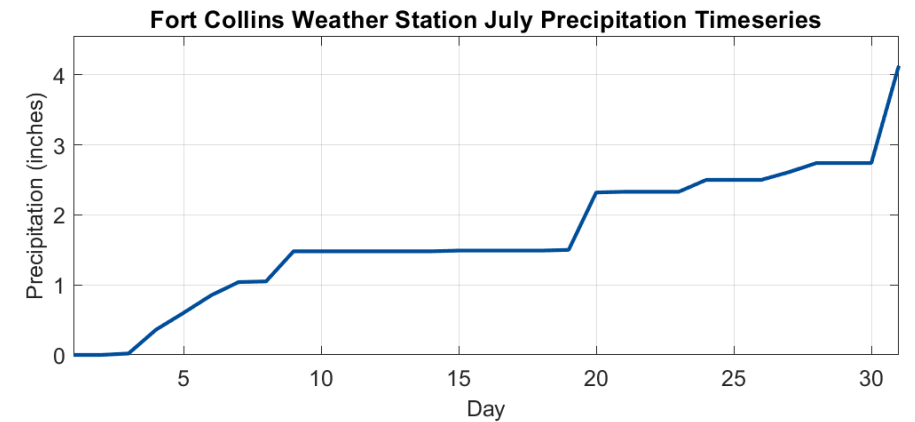
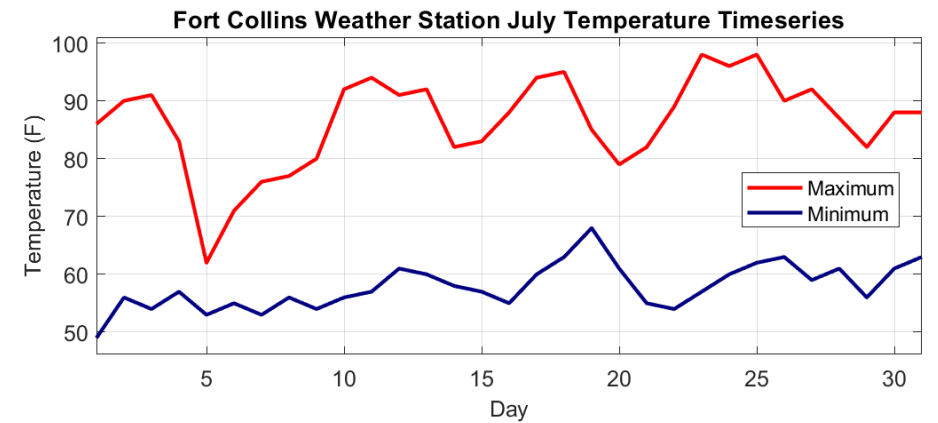
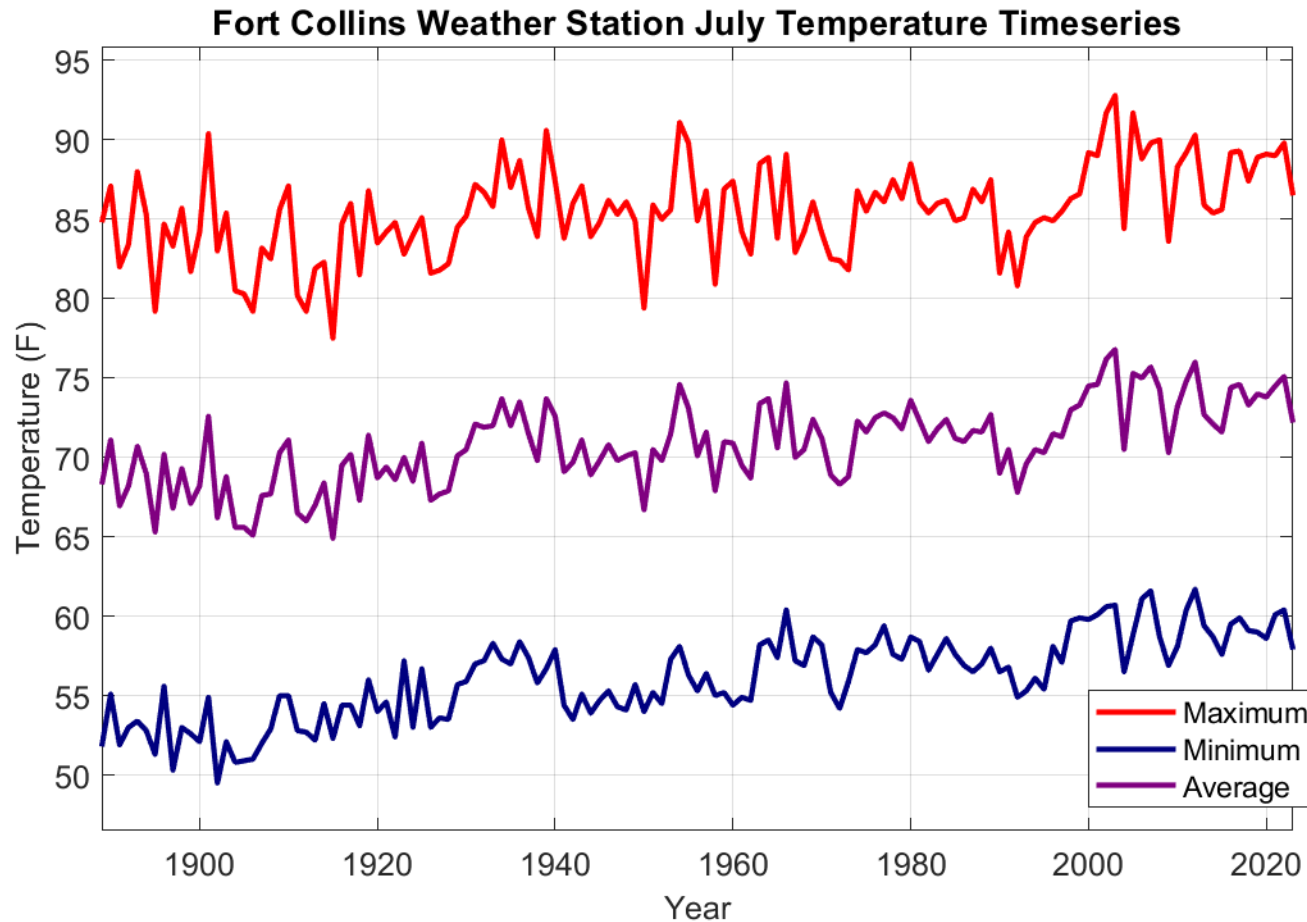
We tied the record for highest maximum daily temperature on July 25th, 2023 (98 °F) first set in 1978.

We set a new record precipitation accumulation on July 31st, 2023 (1.39"), breaking the previous record of 1.02".

The record precipitation accumulation for August 1st of 0.87" in 1945 has already been broken (2.45" + whatever falls between 8:00 AM and 8:00 PM on August 1st).



July 2023 Time Series Graphics



Highest Daily T_{max} : 98 °F on July 25th

Lowest Daily T_{min} : 49 °F on July 1st

Highest Daily Precipitation: 1.39" on July 31st

Highest Daily Pan Evaporation: 0.37" on July 16th

Total Pan Evaporation: 6.03" (77% of normal)



Additional July 2023 Statistics

	Observed	1991-2020 Normal	POR Average	Depart from Normal	Depart from POR Average	Last Above	Last Below
T_{mean} °F	72.2	73.1	70.8	-0.8	1.4	2022	2015
Mean(T_{max}) °F	86.5	87.4	85.5	-0.9	1.0	2022	2015
Mean(T_{min}) °F	57.9	58.7	56.1	-0.8	1.8	2022	2015
Precipitation “	4.06	1.63	1.61	2.45	2.47	1997	2022
Snowfall “	0	0	0	0	0	N/A	N/A
Water Year Precip “	18.05	12.95	12.43	5.10	5.62	2009	2022
Seasonal Snowfall “	47.7	50.7	48.4	-3.0	-0.7	2021	2022
POR = period of record (since 1894)							

	Value	Date
Max(T_{max}) °F	98	27 th
Min(T_{max}) °F	62	5 th
Max(T_{min}) °F	68	19 th
Min(T_{min}) °F	49	1 st
Max(Daily Precip)”	1.39	31 st
Max(Daily Snowfall)“	0	N/A
Peak Wind Gust (mph)	30.9	31 st

Days Precip > 0	20
Days Snowfall > 0	0
Days Precip > Trace	12
Days Snowfall > Trace	0
Days Wind Gust > 20mph	8
Peak Wind Gust Direction	003
Peak Wind Gust Time (MST)	1843 MST

The strongest gust of the month occurred during the July 31st storm within one hour of the month ending

POR = period of record (1889-2023)



CONTACT US!

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