U.S. DEPARTMENT OF COMMERCE, WEATHER BUREAU IN COOPERATION WITH
UTAH COMMITTEE ON INDUSTRIAL AND EMPLOYMENT PLANNING AND
UNIVERSITY OF UTAH BUREAU OF ECONOMIC AND BUSINESS RESEARCH

CLIMATOGRAPHY OF THE UNITED STATES 20 - 42

LATITUDE 39° 0°
LONGITUDE 110° 9'
ELEV. (GROUND) 4,058

STATION **GREEN RIVER, UTAH**

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WEATHER BUREAU

MEANS AND EXTREMES FOR PERIOD **1931-1960**

Month	Temperature (°F) Means: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	** Mean degree days	Precipitation Totals (Inches): Mean	Greatest daily	Year	Snow, Sleet: Mean	Maximum monthly	Year	Greatest daily	Year	Mean number of days: Precip. .10 inch or more	Temperatures Max.: 90° and above	32° and below	Min.: 32° and below	0° and below	Month
(a)	29	29	29	29		30		##	30	30		28	27		29		29	29	29	29	29	
Jan.	38.0	9.3	23.7	63	1951	-42	1937	1280	0.36	0.45	1952	3.0	12.4	1955	6.0	1937	1	0	8	31	7	Jan.
Feb.	48.1	18.1	33.1	70	1954	-32	1933	893	0.39	0.46	1944	1.8	9.8	1955+	3.2	1939	1	0	2	27	2	Feb.
Mar.	59.6	26.1	42.9	80	1943+	7	1956+	685	0.40	0.47	1954	*	1.0	1945	1.0	1945	1	0	0	25	0	Mar.
Apr.	71.1	36.0	53.6	95	1943	9	1936	350	0.43	0.64	1941	*	1.5	1934	1.5	1934	2	*	0	10	0	Apr.
May	81.5	44.6	63.1	101	1947	24	1953	125	0.38	0.62	1952	*	0.8	1946	0.8	1946	2	6	0	1	0	May
June	91.7	52.1	71.9	110	1940+	33	1934	25	0.44	2.11	1940	0	0		0		1	20	0	0	0	June
July	98.9	60.1	79.5	112	1939+	42	1948	0	0.51	1.13	1936	0	0		0		1	29	0	0	0	July
Aug.	95.9	58.0	77.0	108	1949+	39	1948	0	0.82	1.10	1957	0	0		0		2	27	0	0	0	Aug.
Sept.	87.5	47.7	67.6	107	1948	25	1934	30	0.52	0.84	1939	0	0		0		2	13	0	*	0	Sept.
Oct.	73.0	35.2	54.1	92	1947	10	1935	345	0.70	1.43	1941	0	T	1954+	T	1956+	2	*	0	12	0	Oct.
Nov.	53.8	20.8	37.3	78	1937	- 2	1938+	831	0.38	0.87	1946	0.6	5.0	1947	4.9	1947	1	0	*	27	*	Nov.
Dec.	42.2	14.5	28.4	63	1948	-23	1931	1135	0.45	0.53	1947+	2.5	7.6	1945	5.0	1948	1	0	3	30	2	Dec.
Year	70.1	35.2	52.7	112	July 1939+	-42	Jan. 1937	5699	5.78	2.11	June 1940	7.9	12.4	Jan. 1955	6.0	Jan. 1937	17	95	13	163	11	Year

Estimated from monthly means using Weather Bureau Formula
(a) Average length of record, years.

T Trace, an amount too small to measure.

+ Also on earlier dates, months, or years.

* Less than one half.

CLIMATE OF GREEN RIVER, UTAH

Green River is located in southeastern Utah in the Colorado River Basin. Although the town is situated in a relatively flat valley, the general terrain of the area is broken by numerous mountain ridges, plateaus, and canyons. About 35 miles to the north and northeast are located the East and West Taviputs Plateaus which extend to over 9000 feet above sea level. The massive Wasatch Plateau, which rises to above 11,000 feet, lies 70 miles to the west; and to the south and southeast a distance of 65 to 85 miles are located the Henry, Abajo, and LaSal Mountains, all of which have peaks extending to over 11,000 feet. About 10 miles to the north the Green River, one of the larger streams in the state, emerges from a deep gorge separating the East and West Taviputs Plateaus and flows southward along the eastern edge of the town.

Green River has a semi-arid (steppe) continental climate, the most striking features being meager precipitation, abundant sunshine, relatively dry air, and large annual and daily ranges in temperature. One of the principal climatic controls is the high terrain which virtually surrounds the valley, thus providing a sheltering effect from storms approaching Green River from every direction. On the average, precipitation is rather evenly distributed throughout the year. It is least during the winter season and heaviest in August when moisture-laden air masses occasionally move into the area from the Gulf of Mexico. During the warmer half of the year, precipitation generally occurs in connection with showers or thundershowers. Occasionally these storms produce heavy downpours of rain with local flash flooding resulting.

Snowfall is very light, averaging only 8 inches per year, and is concentrated almost entirely in the months of December, January, and February.

Relatively dry air combined with a valley exposure make Green River a place with large temperature extremes. Some of the hottest and coldest temperatures in Utah have been recorded here with extreme readings ranging from 42° below zero to 112°F. The annual variation of mean monthly temperature is also quite large, ranging from 23.7°F. in January to 79.5°F. in July. Thus, winters are cold and summers are hot although both seasons are relatively short. Subzero temperatures occur in nearly every winter season and temperatures 20° below zero, or lower, occur one winter in six on the average.

Temperatures 100°F., or higher, occur every summer and may occur any time from May to September. Daily maximum temperatures above 100°F. are common from late June to mid-August. Although summer days are hot the nights are usually cool due to strong nocturnal radiation (night-time loss of heat from earth) and drainage of cooler air into the valley on most nights.

Winds are generally light in all seasons. The strong winds that occur at times rarely cause any damage and are usually associated with local thundershowers or the movement of low pressure storm systems through the area. Blowing dust occurs at times, particularly during the spring when storms are more intense than at the other seasons of the year.

The growing season, or freeze-free period, averages about 5 months in length and extends from early May to early October. Because of the extremely light precipitation, irrigation is essential for the economic production of crops. The principal crop grown in the area is alfalfa hay. Garden crops, corn, and small grains are produced in limited amounts.

Merle J. Brown, State Climatologist
Weather Bureau Airport Station
Salt Lake City, Utah

Following are tables of miscellaneous phenomena, not included in the climatological summary table:

Average Dates of Occurrences of Various Temperature Values:

Temperature Equal to or Lower Than:	Average Dates of Occurrence: Last in Spring	First in Fall	Length of Period, Days
32°	May 3	October 8	158
28°	April 22	October 17	178
24°	April 6	October 28	205
20°	March 29	November 4	220
16°	March 17	November 14	212

Extremes of Temperature and Precipitation which have occurred prior to 1931 and which exceed those appearing in the table include:

Maximum Temperature:
83° in March 1910
110° in August 1902
79° in November 1906

Minimum Temperature:
4° in March 1923
30° in June 1923
41° in July 1912

Greatest Daily Precipitation:
0.75 inches in January 1921
0.65 inches in February 1926
0.75 inches in March 1910
1.00 inch in April 1905
1.15 inches in May 1905
2.00 inches in August 1919
1.90 inches in September 1927
1.78 inches in November 1902
0.80 inches in December 1926

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Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	24.0	39.8	40.8	54.7	61.6	75.2	83.0	79.0	69.8	55.4	35.8	15.8	52.9
1932	11.6	35.0	42.9	53.4	62.4	71.8	80.0	77.6	66.5	51.4	36.9	21.1	50.9
1933	15.6	14.2	43.6	48.5	57.7	75.4	82.6	77.4	72.0	57.3	38.6	31.8	51.2
1934	32.6	41.1	49.8	57.4	68.4	69.7	82.0	80.3	65.8	55.6	40.8	31.2	56.2
1935	30.7	35.9	41.6	52.4	59.0	74.0	80.2	78.3	68.5	51.8	35.9	25.6	52.8
1936	18.0	35.7	44.2	54.6	66.4	76.4	81.0	79.0	66.8	53.0	35.2	28.4	53.2
1937	06.7	29.0	44.2	53.2	67.0	72.6	82.0	79.3	70.2	55.4	41.0	32.0	52.7
1938	26.3	37.3	--	54.6	62.3	74.8	78.0	78.4	69.4	54.6	31.6	25.7	--
1939	16.5	15.9	44.2	56.8	66.2	72.4	81.0	78.5	68.4	52.4	40.1	32.0	52.0
1940	28.8	37.2	46.4	55.0	67.4	77.4	81.4	78.5	67.9	54.6	34.6	27.0	54.7
1941	24.3	34.6	44.9	51.1	65.2	69.6	78.3	76.2	64.4	53.0	40.2	34.4	53.0
1942	27.8	31.0	39.4	55.2	60.4	72.6	80.5	78.0	66.4	55.4	40.6	32.2	53.3
1943	30.0	36.3	43.3	59.4	63.8	71.0	81.2	78.4	70.0	56.0	38.5	33.6	55.1
1944	22.8	34.7	42.2	50.9	64.3	69.0	79.2	77.6	69.8	57.6	40.3	29.6	53.2
1945	31.2	39.0	42.4	49.4	64.4	68.9	81.4	79.7	67.1	56.4	37.0	21.5	53.2
1946	18.4	31.2	45.7	59.3	62.0	75.5	82.6	79.4	68.4	49.7	39.8	34.6	53.9
1947	25.5	37.2	46.3	53.4	67.6	69.2	80.1	78.2	71.8	58.6	36.0	29.2	54.4
1948	26.7	32.2	39.2	54.4	64.4	72.0	78.3	73.4	71.4	54.8	34.3	28.1	52.4
1949	18.1	21.6	45.5	57.6	63.9	71.8	80.8	78.5	67.4#	52.0	40.7	26.1	52.0
1950	24.0	34.4	41.2	52.5	59.2	69.0	75.9	72.0	63.7	56.0	38.6	31.7	51.5
1951	24.8	30.1	41.3	53.1	61.8	68.1	79.2	74.4	64.5	50.8	35.0	25.5	50.7
1952	20.8	32.8	38.3	53.7	62.8	69.9	77.1	77.4	67.1	54.0	35.2	27.3	51.4
1953	26.7	33.4	42.7	50.1	56.1	71.3	79.0	73.1	66.6	53.0	40.2	23.1	51.3
1954	28.6	38.9	40.8	57.0	64.8	69.9	80.6	73.9	67.9	53.2	40.8	26.1	53.5
1955	12.4	--	38.1	49.4	60.5	68.0	76.0	77.5	65.7	53.5	33.9	31.7	--
1956	32.9	31.1	41.4	52.4	63.3	72.1	75.5	70.9	67.2	52.8	31.9	24.3	51.3
1957	26.8	35.2	45.2	50.7	59.1	70.0	76.7	74.6	64.3	53.6	36.7	30.5	52.0
1958	27.5	39.6	41.4	50.8	65.3	72.2	75.1	79.1	67.7	54.3	38.3	30.8	53.5
1959	27.9	35.3	42.4	53.3	62.6	74.0	78.0	74.8	64.1	--	36.5	30.9	--
1960	21.0	31.9	44.2	52.6	61.3	73.1	78.6	74.4	68.2	53.2	39.7	28.4	52.2

STATION HISTORY - GREEN RIVER, UTAH*

Weather observations at Green River date back to February 1893. The station has been moved frequently, and there have been numerous breaks in the record but data from the various locations are considered compatible.

Observers and the dates of service prior to August 1919 are as follows: J. D. Smith, Feb. 1893-Nov. 1893; T. H. Fike, Feb. 1894-Aug. 1895; A. D. Farnsworth, Oct. 1899-July 1900**; John T. Farrer, Aug. 1900-June 1905; Louis C. Farrer, July 1905-July 1906; F. P. Fullmer, Feb. (only) 1907; J. H. Fritz, Nov. 1907-June 1909; B. F. Miller, Aug. 1909-Nov. 1910; Edgar E. Adams, Jan. 1911-April 1916; S. J. Neer, Oct. 1916-Oct. 1918; and A. D. Hinricksen, Nov. 1918-July 1919. In August 1919, R. J. Dinning took over the observing duties (station located one block west of the post office). Records were continued at this site until February 1937 when the instruments were moved to Mr. Dinning's residence two blocks northwest of the post office. At this time the station was designated as a 6-hourly synoptic station and the following equipment added: Anemometer, psychrometer, barometer, and barograph. A recording rain gage was installed in November 1940. The 6-hourly synoptic observations were discontinued in May 1946 but daily observations of temperatures and precipitation were observed at this location until April 1953. Evaporation measurements were recorded at the Dinning residence from April 1948 to September 1950. Recording rain gage measurements were discontinued in November 1949.

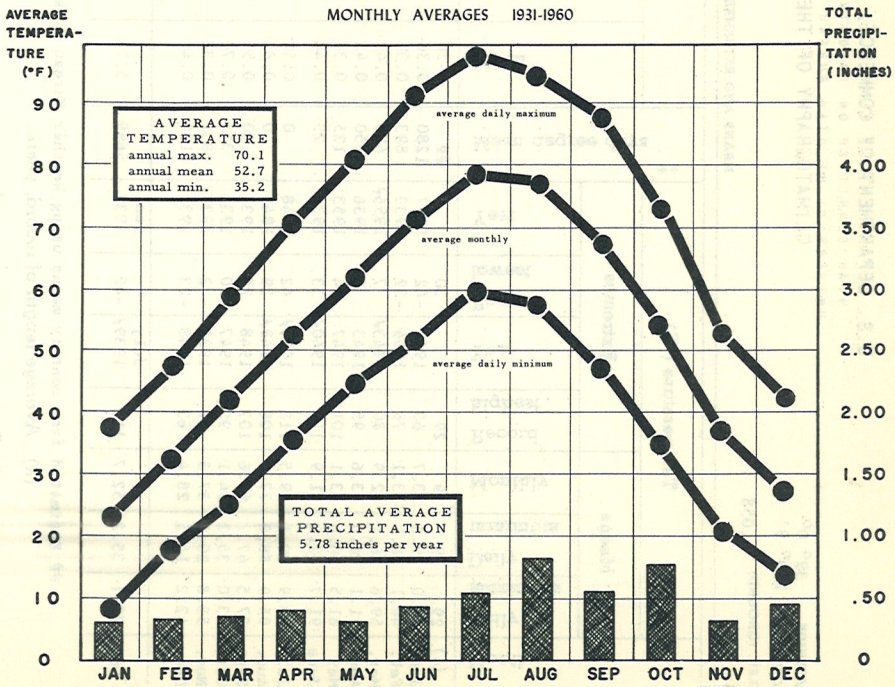
In December 1946, airway observations were begun at Green River by Mrs. Sylvia Hunt whose residence was located 4 blocks east of the post office.# The instrumental equipment included a standard rain gage, maximum and minimum thermometers, anemometer, barometer, barograph and psychrometer. A recording rain gage was added in November 1949 (moved from Dinning residence), and in May 1951 evaporation equipment was also installed. In December 1954, all of the equipment was moved to the Bedier residence located about 0.7 mile east of the post office. Mrs. Emma Bedier became the official observer at that time and she has done an excellent job of recording the weather data for the community of Green River.

* Prior to Nov. 1957 the station was known as Greenriver during most of its history.

** During this period the station was known as Elgin and was located 1.5 miles east of Green River.

Daily maxima, minima and precipitation were recorded at two locations at Green River from December 1946 to April 1953, one at the Hunt residence four blocks east of the post office and the other at the Dinning residence two blocks northwest of the post office. Because of considerable missing data from the Dinning observation station after June 1950, the airways station data are considered the official climatological record after that date.

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	0.09	0.61	0.24	0.52	0.10	0.20	0.55	0.15	0.18	0.60	1.06	0.66	4.96
1932	0.14	0.50	0.00	0.21	0.36	0.19	1.51	1.47	0.00	0.26	0.00	0.51	5.15
1933	0.60	0.07	0.06	0.68	0.91	0.03	1.52	0.09	0.68	0.48	0.48	0.32	5.92
1934	0.22	0.66	0.00	0.14	0.53	0.20	0.10	0.13	0.08	0.00	0.54	0.51	3.11
1935	0.31	0.61	0.89	0.85	0.49	0.00	0.19	0.57	0.82	0.02	0.00	0.59	5.34
1936	0.05	0.54	0.34	0.18	0.17	0.10	1.86	0.50	0.17	0.91	0.06	0.72	5.60
1937	0.47	0.37	0.76	0.02	0.15	0.06	0.93	0.40	0.38	0.20	0.15	0.38	4.27
1938	0.39	0.53	1.85#	0.08	0.46	1.52	0.03	0.43	0.72	0.87	0.07	0.75	7.70
1939	0.82	0.35	0.95	0.39	0.07	0.05	0.04	0.42	1.95	0.37	0.04	0.00	5.45
1940	0.44	0.81	0.16	0.39	0.02	2.11	0.09	0.31	1.77	0.51	0.30	0.70	7.61
1941	0.74	0.69	0.92	1.59	0.44	2.05	0.58	1.51	0.64	2.42	0.08	0.46	12.12
1942	0.11	T	0.33	1.02	0.02	T	0.36	0.92	0.60	1.15	0.18	0.10	4.79
1943	0.07	0.08	0.52	0.37	0.18	0.87	0.16	1.60	0.29	0.51	0.45	0.14	5.24
1944	1.04	0.66	0.24	1.35	0.21	1.06	0.75	0.12	0.00	0.76	0.13	0.08	6.40
1945	0.34	0.17	0.65	0.31	0.03	0.79	0.58	0.80	0.22	1.05	0.10	0.52	5.56
1946	0.03	0.01	0.44	0.22	0.70	T	0.06	1.96	0.11	0.51	1.63	0.47	6.14
1947	0.08	0.18	0.11	0.15	0.45	0.89	0.08	1.14	0.01	1.19	0.94	1.37	6.59
1948	T	0.78	0.34	0.23	0.01	0.89	0.39	1.13	0.33	0.72	0.18	0.49	5.49
1949	0.77	0.09	0.57	0.23	1.13	0.64	0.67	0.54	1.06#	1.50	T #	0.44#	7.64
1950	0.06	0.23	0.17	0.16	0.15	T	1.11	0.06	0.21	0.04	0.05	0.12	2.36
1951	0.09	0.48	0.26	0.36	0.77	0.16	0.47	2.68	0.12	0.73	0.71	0.68	7.51
1952	1.03	0.01	0.57	0.69	0.75	0.53	0.04	1.00	0.87	0.00	0.21	0.68	6.38
1953	0.14	0.43	0.23	0.74	0.23	0.05	1.04	1.09	T	1.53	0.88	0.31	6.67
1954	0.20	T	0.54	0.07	0.41	0.23	0.14	0.25	1.47	0.50	0.31	0.65	4.77
1955	0.92	0.65	0.02	T	0.24	0.15	0.08	0.63	0.54	0.03	0.30	0.14	3.70
1956	0.43	0.05	0.00	0.22	0.03	0.02	0.67	0.24	0.10	0.46	T	0.11	2.33
1957	0.74	0.08	0.20	0.95	1.24	0.33	0.99	2.82	0.18	2.12	1.97	0.31	11.93
1958	0.02	1.00	0.30	0.36	0.24	T	0.02	0.50	0.64	0.16	0.15	0.00	3.39
1959	0.11	0.55	0.08	0.33	0.07	0.06	0.05	1.13	0.87	0.52#	0.18	1.13	5.08
1960	0.36	0.62	0.20	0.06	0.93	0.13	0.23	0.06	0.46	0.97	0.37	0.08	4.47

GREEN RIVER CLIMATOLOGICAL SUMMARY