

U. S. DEPARTMENT OF COMMERCE
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
ENVIRONMENTAL DATA SERVICE
IN COOPERATION WITH EMPLOYMENT DEVELOPMENT DIVISION
UTAH DEPARTMENT OF EMPLOYMENT SECURITY
CLIMATOGRAPHY OF THE UNITED STATES NO. 20-42
CLIMATOLOGICAL SUMMARY

LATITUDE 38° 55'
LONGITUDE 111° 15'
ELEV. (GROUND) 6210 Ft.

STATION
EMERY, UTAH

MEANS AND EXTREMES FOR PERIOD 1941-1970

Month	Temperature (°F)								** Mean degree days	Precipitation Totals (Inches)							Mean number of days					Month			
	Means			Extremes						Mean	Greatest daily	Year	Snow, Sleet				Precip. 10 inch or more 90° and above	Temperatures							
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year	Mean					Maximum monthly	Year	Greatest daily	Year		Precip. 10 inch or more 90° and above	32° and below	32° and below	0° and below				
																							Max.	Min.	
(a)	30	30	30	30		30		#	30	30		30	30	30	30	30	30	30	30						
Jan.	37.4	11.3	24.1	59	1970+	-20	1963+	1265	.47	.65	1949	5.6	21.7	1957	7.0	1967	2	0	9	31	4	Jan.			
Feb.	41.1	16.0	28.5	63	1954	-12	1951	1022	.42	.72	1955	5.3	15.5	1960	9.0	1955	1	0	5	28	2	Feb.			
Mar.	48.7	21.9	35.3	70	1960	0	1948	880	.46	.64	1961	3.5	14.5	1952	6.0	1943	1	0	1	30	*	Mar.			
Apr.	59.3	30.2	44.7	80	1943	10	1945	585	.43	1.00	1941	.9	5.0	1945	4.0	1943	2	0	*	16	0	Apr.			
May	68.8	38.0	53.4	88	1947	12	1967	357	.62	1.00	1965	.2	5.8	1946	5.8	1946	2	0	0	6	0	May			
June	76.9	45.3	61.1	98	1970	28	1968	153	.71	1.40	1947	0	0	--	0	--	2	*	0	*	0	June			
July	84.0	52.3	68.1	98	1969+	28	1968	22	.73	2.13	1969	0	0	--	0	--	2	4	0	*	0	July			
Aug.	81.5	50.6	66.0	98	1961	30	1968	34	1.17	2.16	1947	0	T	1953	0	--	3	3	0	*	0	Aug.			
Sept.	74.7	42.4	58.5	89	1959+	23	1968	186	.79	1.08	1958	.2	5.0	1965	5.0	1965	2	*	0	2	0	Sept.			
Oct.	64.0	32.9	48.4	85	1963	13	1970	508	.86	1.38	1960	.6	7.0	1970	4.0	1970	2	0	0	14	0	Oct.			
Nov.	49.3	21.0	35.1	73	1941	-1	1952	888	.41	1.02	1957	2.4	13.1	1957	10.0	1957	1	0	2	27	*	Nov.			
Dec.	39.1	14.0	26.5	63	1958	-12	1962	1166	.57	.68	1949	5.2	27.0	1967	9.0	1967	2	0	8	31	2	Dec.			
Year	60.4	31.3	45.8	98+	Aug. 1961	-20	Jan. 1963	7066	7.64	2.16	Aug. 1947	23.9	27.0	Dec. 1937	10.0	Nov. 1957	22	T	25	185	8	Year			

(a) Average length of record, years.

+ Also on earlier dates, months, or years.

T Trace, an amount too small to measure.

* Less than one half.

** Base 65°F

CLIMATE OF EMERY, UTAH

Emery is located in southeastern Utah on the western edge of Castle Valley. This broad valley is oriented northeast to southwest and extends 20 to 25 miles east of the city, ending abruptly at the San Rafael Knob, which rises above 7900 feet MSL.

Emery is nearly surrounded by mountains. The Wasatch Plateau, (about 10 miles to the northwest), has several peaks rising to more than 11,000 feet above sea level and extends from west to north of Emery. To the southwest is the Sevier Plateau and to the south lies the Aquarius Plateau. About 60 miles to the northeast is the West Tavaputs Plateau, which has several peaks extending to above 10,000 feet MSL. Thus, these mountain ranges provide a protecting influence from storms approaching from every direction except the southeast.

The climate is of the semi-arid (steppe) type, the most striking features being abundant sunshine, meager precipitation, dry air, and relatively light winds. There are four well-defined seasons. Winters are characterized by cold and dry weather. Temperatures below zero occur in nearly every winter season and in about one of every 3 years temperatures 10 degrees below zero, or colder, can be expected. The annual snowfall is light, averaging only 24 inches and rarely does the yearly snowfall exceed 40 inches. Less than 5 inches of snow was recorded in 1934 and again in 1950.

Primarily because of the elevation of Emery, summers are delightfully cool. Maxima during the hottest summer months, July and August, are usually in the low 80's, with night-time minima generally in the low 50's. Since the beginning of record in 1901, the temperature has never reached 100° at Emery.

The principal rainfall season is in summer, when moisture-laden air masses occasionally move into the area from the Gulf of Mexico. Precipitation during this season is usually associated with thunderstorms, and the mountain ranges to the east and north are a contributing factor to the development of these storms. August is the only month of the year that has an average precipitation greater than 1 inch.

Winds are generally light to moderate in all seasons, although relatively strong southerly winds may blow for several days at a time during the spring season, when low pressure storms occasionally move through the region. The extremely strong winds that rarely occur are usually associated with thunderstorms.

The freeze-free period, or growing season, averages about 4-1/2 months, usually extending from mid-May to late September. Livestock and livestock products account for most of the farm income in the area. Wheat and hay are the most important agricultural crops grown.

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

Average Dates of Occurrence of Various Temperature Values:			
Temperature Equal to or Lower than:	Average Dates of Occurrence		
	Last in Spring	First in Fall	Period, Days
32°	May 21	September 30	132
28°	April 30	October 13	166
24°	April 21	October 25	187
20°	April 6	November 4	212
16°	March 22	November 13	235

Extremes of Temperature and Precipitation which have occurred prior to 1941 and exceed those appearing in the table include:

Maximum Temperatures	Greatest Daily Precipitation
60° in January 1918	.83 in January 1906
67° in February 1904	1.22 in March 1918
72° in March 1908	1.25 in April 1917
82° in April 1910	2.60 in May 1923
89° in May 1920	1.69 in September 1940
91° in September 1920	2.07 in October 1916
75° in November 1916	1.03 in November 1915
	.70 in December 1921

Minimum Temperatures
-20 in February 1905
-5 in March 1922
9 in April 1917
22 in September 1907
8 in October 1935
-2 in November 1931
-19 in December 1924

Greatest and least monthly precipitation totals for the full period of record, 1901-1955, are as follows:

Month	Greatest	Year	Least	Year
January	2.50	1916	0	1919
February	3.01	1905	0	1954+
March	1.97	1918	0	1955+
April	2.60	1917	0	1955+
May	4.00	1928	0	1932+
June	3.34	1969	0	1950+
July	4.26	1969	0	1928
August	5.47	1947	T	1903
September	3.48	1909	0	1953+
October	3.87	1916	0	1955+
November	2.00	1916	0	1944+
December	1.80	1913	0	1942+
Annual	16.84	1941	0.94	1902

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1941	25.0	31.0	36.6	40.2	54.4	57.8	65.8	64.8	54.0	44.5	36.6	27.5	44.8
1942	23.7	23.1	34.1	48.8	50.5	60.2	67.2	65.4	56.8	49.0	36.8	31.8	45.4
1943	28.6	32.9	36.9	50.2	52.0	58.7	66.9	65.2	59.8	48.0	35.4	26.6	46.8
1944	21.0	24.0	33.5	40.8	51.8	57.2	65.4	65.0	58.6	49.0	33.4	29.4	44.1
1945	28.5	31.3	33.2	38.0	53.8	55.6	66.1	64.8	55.6	48.4	34.3	23.2	44.4
1946	22.4	29.6	38.8	51.4	51.1	63.5	68.6	66.6	58.5	42.8	31.6	31.2	46.3
1947	25.1	33.9	40.0	44.0	56.8	57.0	67.0	64.1	61.2	49.8	30.0	25.6	46.2
1948	26.0	25.6	29.5	45.1	54.0	60.6	66.6	65.4	61.2	47.7	31.1	25.3	44.8
1949	15.8	18.4	36.5	48.8	52.6	60.0	67.5	65.8	60.3	45.7	43.8	23.5	44.9
1950	20.6	31.7	37.5	47.4	52.0	51.6	66.3	65.4	57.4	54.5	40.1	34.4	47.4
1951	27.2	29.8	36.2	47.3	53.6	59.3	70.3	64.7	59.4	46.1	31.7	21.8	45.6
1952	21.9	26.3	30.5	46.2	55.5	62.5	68.1	67.1	60.6	54.0	32.1	24.8	45.8
1953	30.5	30.9	39.2	43.7	48.9	63.2	70.2	64.4	61.4	48.5	38.5	25.8	47.1
1954	28.0	39.3	36.3	50.3	57.4	60.9	70.8	65.8	60.3	51.0	40.7	24.3	48.8
1955	20.9	18.9	34.4	42.9	53.7	60.7	68.9	67.8	61.3	50.6	34.2	30.4	43.4
1956	31.2	25.4	39.9	46.1	55.8	65.5	68.2	64.5	62.0	49.1	--	--	--
1957	20.9	32.6	38.7	43.4	50.0	62.1	67.8	65.2	57.8	46.4	31.8	29.7	45.5
1958	27.7	34.8	33.3	42.3	58.0	64.5	68.3	69.3	59.7	50.0	37.1	35.3	48.4
1959	27.6	30.8	37.5	46.5	52.2	66.6	70.4	67.0	67.0	47.5	28.0	28.0	47.5
1960	18.9	23.8	38.7	46.4	52.9	64.2	70.0	67.8	61.3	47.7	35.4	27.4	46.2
1961	26.1	32.0	36.0	44.4	53.6	66.6	69.8	67.7	52.8	47.2	33.2	21.9	45.9
1962	25.0	32.7	31.9	48.6	52.0	61.1	67.3	66.1	58.4	49.1	38.9	28.4	46.6
1963	17.6	30.9	32.9	40.5	56.4	59.0	68.8	66.2	59.7	51.6	34.2	24.1	45.4
1964	21.5	25.6	31.1	43.7	52.1	60.1	71.5	66.2	57.4	51.0	32.1	25.5	45.5
1965	30.4	28.7	33.6	44.1	50.3	58.2	67.7	65.1	53.5	51.8	39.6	25.5	45.5
1966	21.2	23.3											
1967	24.5												
1968	18.3	31.8	39.1	40.5	50.5	62.9	65.7	61.0	56.1	49.1	35.0	21.0	44.3
1969	27.8	24.0	30.4	45.9	58.5	59.6	69.4	70.2	61.4	42.4	34.7	30.5	46.2
1970	26.5		34.8	40.0	54.3	62.2	69.5	69.8	56.0	42.8	34.3	25.6	46.2

STATION HISTORY - EMERY, UTAH

Observations of precipitation and maximum and minimum temperatures date back to 1901 at Emery. The station has been moved only four times during its history, and data from the various locations appear compatible. From January 1901 to June 1921, the station was located four blocks NE of the Post Office, with H. C. Wickman as the observer. In November 1921, after a short break in the record, the instruments were moved to the Joseph J. Jensen residence located three blocks NW of the Post Office, and Mr. and Mrs. Jensen began recording the weather data. Mr. Jensen died in 1951, but Mrs. Jensen continued as the observer until 1959.

During the time the station was located at the Jensen residence, a total of about 38 years, there were only two minor moves involving the station instruments. In May 1931 the equipment was moved 100 yards east of the former location; and in July 1952 the rain gage was again relocated a short distance to the east.

In May 1959 the station was moved to a location 0.3 mile SSW of the Post Office, and R. G. Crook became the official observer. In January 1960 Mr. Crook was forced to give up the station because of illness and the equipment was moved 0.2 mile SE to the residence of Merlin H. Christensen. Mr. Christensen with the help of his family is continuing the excellent climatological records for the community.

E. Arlo Richardson, Climatologist
Logan, Utah

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1941	0.92	0.70	0.92	2.10	1.78	1.40	0.49	2.63	1.44	3.56	0.88	16.84	
1942	0.11	0.30	0.24	0.36	0.03	0.00	0.74	0.33	0.67	1.23	T	0.00	4.01
1943	0.46	T	0.92	0.49	0.20	0.70	0.35	0.90	0.53	0.69	0.21	0.59	5.95
1944	1.01	0.32	0.55	0.62	T	1.30	0.20	0.12	0.00	0.37	0.03	T	4.49
1945	0.30	0.30	1.00	0.61	0.03	0.62	0.55	0.78	0.35	1.32	0.17	0.70	6.73
1946	0.37	0.00	0.63	0.17	0.81	0.00	0.13	0.74	T	0.90	1.48	0.20	5.43
1947	T	0.10	T	0.46	0.97	1.90	0.58	5.47	0.07	0.79	3.50	1.14	11.91
1948	T	0.85	0.50	T	T	0.42	0.29	0.80	0.07	1.47	T	0.80	5.20
1949	1.70	0.96	0.55	0.11	0.36	1.08	1.03	0.79	0.47	0.71	T	1.58	9.14
1950	0.20	0.03	T	T	0.21	0.03	1.94	0.78	0.30	0.00	0.59	0.52	4.57
1951	0.22	0.17	0.34	0.16	1.95	0.14	0.10	2.54	0.36	0.97	1.04	1.08	9.07
1952	0.78	0.05	1.37	0.16	0.05	1.25	0.20	0.62	1.41	0.00	0.48	0.73	7.10
1953	0.22	0.06	0.35	0.27	0.14	0.46	0.87	1.49	0.00	1.29	0.47	0.48	6.10
1954	0.47	0.00	0.65	0.59	1.03	0.83	0.45	0.51	1.91	0.14	0.35	0.67	7.60
1955	0.61	1.12	0.00	0.00	0.20	0.47	0.31	2.18	0.47	0.00	0.16	0.61	6.13
1956	1.11	0.21	0.00	0.53	0.21	0.03	0.20	0.12	0.39	0.10	0.00	0.62	3.52
1957	1.47	0.27	0.11	1.56	2.56	0.47	0.83	1.34	0.00	3.17	1.50	0.28	13.56
1958	0.25	0.45	0.93	0.31	0.57	0.08	0.47	0.42	1.43	0.16	0.77	0.00	5.84
1959	0.10	1.22	0.00	0.26	0.15	0.25	0.30	1.41	0.78	0.46	0.59	0.55	6.07
1960	0.67	1.11	0.70	0.18	0.28	0.11	0.33	0.05	1.52	2.64	0.58	0.00	7.67
1961	0.14	0.09	1.50	0.66	0.33	0.00	0.37	1.92	2.81	1.16	0.09	0.54	9.61
1962	0.18	1.42	0.12	0.00	0.81	0.12	0.20	0.04	0.78	1.02	0.09	0.07	4.85
1963	0.50	0.00	0.34	0.54	0.16	0.47	0.27	2.47	2.06	0.23	0.20	0.00	7.51
1964	0.00	0.00	0.40	0.65	1.37	0.36	0.68	0.53	0.00	0.00	0.25	1.04	1.59
1965	0.06	0.49	0.51	0.65	1.37	0.36	0.68	1.17	1.15	0.03	1.10	0.68	9.72
1966	0.79	0.79	0.19	0.24	0.82	1.45	0.20	0.90	0.50	0.01	0.34	1.59	6.67
1967	0.38	0.05	0.60	0.24	0.48	0.78	1.74	2.07	1.91	0.18	0.68	0.00	8.53
1968	0.29	0.60	0.24	0.48	0.78	1.02	3.34	4.26	0.91	2.25	0.21	0.04	7.45
1969	1.19	0.36	0.28	0.16	1.02	0.72	2.10	0.46	0.56	1.36	0.26	0.89	7.96
1970	0.47	0.11	0.62	0.41									

EMERY CLIMATOLOGICAL SUMMARY
Monthly Averages 1941 - 1970

