

U. S. DEPARTMENT OF COMMERCE
 ENVIRONMENTAL SCIENCE SERVICES ADMINISTRATION
 IN COOPERATION WITH
 UTAH COMMITTEE ON INDUSTRIAL AND EMPLOYMENT PLANNING
 CLIMATOGRAPHY OF THE UNITED STATES NO. 20 - 42

LATITUDE 38° 34'
 LONGITUDE 109° 33'
 ELEV. (GROUND) 4,000 Feet

CLIMATOLOGICAL SUMMARY

STATION

MOAB, UTAH

MEANS AND EXTREMES FOR PERIOD 1936-1965

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	Temperatures					
	Daily maximum	Daily minimum	Monthly	Record highest	Year	Record lowest	Year	Mean					Maximum monthly	Year	Greatest daily	Year		90° and above	32° and below	32° and below 0° and below	Max.		Min.
(a) Jan.	59.6	18.5	39.0	67	1950	-18	1963	1076	0.53	.40	1957	2.7	18.5	1949	6.0	1949 ⁺	2	0	3	30	1	Jan.	
Feb.	50.4	25.3	37.8	75	1962	-2	1949	787	0.62	.48	1948	0.8	5.0	1948	4.5	1948	2	0	1	24	1	Feb.	
Mar.	60.2	32.0	46.1	85	1953	10	1939	580	0.71	1.30	1945	0.6	9.0	1948	8.0	1958	3	0	*	19	0	Mar.	
Apr.	72.5	41.5	57.0	91	1950 ⁺	20	1936	270	0.79	.69	1961	*	T	1950	0.5	1929	3	4	0	5	0	Apr.	
May	82.4	49.4	65.9	101	1951	30	1955	93	0.57	1.00	1954	*	T	1950	T	1950	2	6	0	*	0	May	
June	92.0	56.4	74.2	113	1936	37	1937	0	0.45	1.25	1962	0	0	--	0	--	2	20	0	0	0	June	
July	99.0	63.1	81.0	111	1953	47	1942	0	0.49	1.28	1937	0	T	1950	0	--	2	30	0	0	0	July	
Aug.	95.3	61.4	78.3	108	1952	46	1955	0	0.87	1.50	1939	0	0	--	0	--	3	27	0	0	0	Aug.	
Sept.	87.1	52.8	70.0	104	1950	33	1937	15	0.83	1.33	1950	0	0	--	0	--	2	11	0	0	0	Sept.	
Oct.	73.8	40.8	57.3	94	1952 ⁺	18	1954	257	1.16	1.86	1965	*	T	1949	T	1949	2	*	0	7	0	Oct.	
Nov.	56.0	28.0	42.0	80	1952	7	1952	699	0.60	.88	1943	0.4	8.0	1955	8.0	1955	2	0	*	24	0	Nov.	
Dec.	45.1	22.0	33.5	68	1958	-11	1945	986	0.64	.58	1962	1.4	6.0	1938	5.0	1938	2	0	1	29	1	Dec.	
Year	72.7	41.0	56.8	113	June 1936	-18	Jan. 1963	4763	8.26	Oct. 1.86	1965	5.9	18.5	1949	1.28	1937	27	94	5	138	3	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.

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
40°	May 15	Sept. 24	132
36°	May 5	Oct. 5	153
32°	April 19	Oct. 18	182
28°	April 4	Oct. 29	208
24°	March 26	Nov. 7	226
20°	March 16	Nov. 10	239

Extremes of Temperature and Precipitation which have occurred prior to 1936 and which exceed those appearing in the table include:

Maximum Temperature:	Greatest Daily Precipitation
68° in December 1929	1.20 inches in January 1905
	1.20 inches in February 1927
Minimum Temperature:	.99 inches in April 1930
-24° in January 1930	1.85 inches in May 1926
-13° in February 1905	2.67 inches in July 1918
8° in March 1917	3.99 inches in September 1896
15° in April 1928	1.95 inches in October 1911
27° in May 1909	1.20 inches in November 1902
36° in June 1923	3.30 inches in December 1915
43° in July 1928	

Extremes from autographic records 1941-1955 (with breaks)
1 hour 0.72 inch in August 1947
2 hours 0.95 inch in August 1947
3 hours 0.98 inch in August 1947
6 hours 0.98 inch in August 1947
12 hours 0.98 inch in August 1947
24 hours 1.35 inches in September 1950

Greatest and least monthly precipitation totals for the full period of record are as follows: The first column

Month	Greatest	Year	Least	Year
January	3.52	1916	0	1919
February	2.50	1927	T	1933
March	2.76	1912	0	1934
April	2.78	1917	0	1955 ⁺
May	2.28	1905	0	1911 ⁺
June	2.35	1927	0	1954 ⁺
July	6.63	1918	0	1954 ⁺
August	2.62	1947	T	1950
September	5.97	1896	0	1953 ⁺
October	4.40	1941	0	1952 ⁺
November	1.98	1928	0	1932
December	5.75	1915	0	1958

CLIMATE OF MOAB, UTAH

Moab, county seat of Grand County, is located in southeastern Utah. At an elevation of 4,000 feet, the city is situated in a gently sloping narrow valley running southeast to northwest. The Colorado River, largest stream in the state and the area, lies two miles to the west. Three to six miles in every direction are low mountain ridges rising one to two thousand feet above the valley floor.

The LaSal Mountains, with several peaks above 12,000 feet, are approximately 20 miles to the southeast. The Abajo Mountains, extending to over 11,000 feet, are located 50 miles to the south and the East Tavaputs Plateau, about the same distance to the north, rises to over 9,000 feet.

The climate is of a desert type with low relative humidity, low annual rainfall and abundant sunshine. Summers are characterized by hot and dry weather. During this season most high readings are in the 90's and lows in the 50's or 60's. With few exceptions, temperatures 100° or higher have occurred in each year. Temperatures 104° or hotter can be expected in about one of every two years.

Winters are dry and cold, but usually not severe. Snowfall is generally very light, averaging only six inches per year, but as much as 74 inches has been reported in one winter season.

There are two separate rainfall seasons even though the annual precipitation averages only a little over eight inches. The first occurs during March and April when storms from the Pacific Ocean are moving through the region more frequently than at other periods of the year. The second rainfall season is in late summer and early fall. During the first part of this period, i. e. in August and September, the area is occasionally subjected to thunderstorms associated with moist air masses moving in from the Gulf of Mexico. In October, the only month with an average precipitation amount greater than one inch, most of the moisture falls in connection with the development of storms over the Southern Plateau region.

Only a very small portion of the land in the area is under cultivation. Ranching is the principal farm activity; peaches, hay crops and wheat are grown to a limited extent.

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1936	0.16	1.07	0.52	0.27	0.21	0.25	1.17	1.62	0.43	0.36	0.10	1.40	7.56
1937	0.25	0.52	1.42	0.05	0.19	0.39	2.35	1.65	0.83	0.48	0.41	0.75	9.29
1938	0.42	0.93	1.01	0.39	1.00	0.56	0.00	0.84	0.91	0.97	0.18	0.97	8.18
1939	0.78	0.61	1.48	0.00	0.73	0.02	0.00	1.59	3.13	1.42	0.44	0.03	10.23
1940	0.82	1.27	0.41	1.06	0.03	0.38	1.17	0.44	3.46	2.18	1.05	1.26	13.53
1941	0.62	0.91	1.64	1.76	0.82	1.22	0.44	0.77	1.12	4.40	1.35	0.37	15.42
1942	0.32	1.02	0.60	1.53	1.17	0.00	0.11	0.37	0.64	0.79	0.08	0.12	6.75
1943	0.50	0.24	1.38	0.55	1.16	0.56	0.61	0.94	0.61	0.87	0.95	0.57	8.55
1944	0.46	0.69	0.53	1.86	0.45	1.33	0.00	0.02	0.00	0.52	0.78	0.22	6.86
1945	0.68	0.42	1.30	0.69	0.13	1.50	0.82	0.02	0.00	1.98	0.25	0.84	9.49
1946	0.23	0.05	0.33	1.39	1.02	0.06	0.13	0.21	0.00	1.12	1.34	0.76	6.64
1947	0.27	0.43	0.29	0.80	0.37	0.84	0.04	2.62	0.37	2.74	0.44	1.50	10.71
1948	0.05	1.21	1.00	0.72	0.08	1.20	0.43	0.74	0.19	0.67	0.56	1.07	7.92
1949	1.59	0.23	1.69	0.42	0.87	1.09	0.49	0.48	0.15	2.34	0.04	0.39	9.78
1950	0.91	0.58	0.30	0.75	1.04	T	0.48	T	1.62	0.00	0.12	T	5.80
1951	0.52	0.40	0.05	1.81	0.55	0.09	0.16	1.26	0.25	1.12	0.87	1.47	8.55
1952	0.97	0.17	0.78	1.21	0.34	0.40	0.43	0.56	1.60	0.00	0.66	0.55	7.67
1953	0.38	0.23	0.68	1.11	0.15	0.01	0.48	1.29	0.00	2.25	0.95	0.87	8.40
1954	0.36	0.11	0.83	0.15	1.00	0.00	0.00	0.25	0.93	0.60	1.28	0.28	5.79
1955	1.56	1.27	0.06	0.14	0.20	0.23	0.11	0.66	0.13	0.01	0.89	0.20	5.46
1956	0.52	0.38	T	0.20	0.12	T	0.52	0.55	0.19	0.30	0.06	0.37	3.02
1957	1.40	0.39	0.41	1.71	0.93	0.27	0.83	2.23	0.19	3.04	1.87	0.31	14.58
1958	0.42	1.37	0.57	0.35	0.34	0.02	0.07	0.85	0.82	0.15	0.12	0.00	5.08
1959	0.28	0.01	0.46	0.05	0.05	0.12	0.99	0.99	0.54	0.70	0.12	2.13	6.62
1960	0.15	0.91	0.62	0.43	0.47	0.03	0.22	0.36	0.81	0.70	0.62	0.36	5.68
1961	0.24	0.08	1.17	1.38	1.33	T	0.17	2.15	2.43	1.45	0.29	0.32	11.04
1962	0.44	1.16	0.15	0.74	0.08	1.35	0.45	0.00	2.24	0.76	0.83	0.83	8.74
1963	0.49	0.45	0.67	0.34	T	0.22	0.92	1.56	0.64	0.57	0.16	0.42	6.01
1964	0.09	0.07	0.62	0.99	0.78	0.53	0.06	0.25	0.36	--	--	0.04	--
1965	0.19	0.25	0.80	1.26	1.22	0.57	2.25	0.88	0.75	1.96	1.14	0.88	12.15

Interpolated

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1936	28.8	41.0	48.0	57.7	67.6	77.6	81.3	78.9	67.8	52.8	37.8	32.4	56.0
1937	20.4	32.8	44.7	55.9	67.8	71.0	79.7	78.0	67.2	54.8	40.7	34.8	54.0
1938	33.0	40.6	47.0	57.6	63.6	75.1	78.6	78.6	69.2	57.2	35.3	31.8	55.6
1939	27.9	25.2	45.8	58.6	66.2	73.4	81.9	77.3	68.4	55.1	42.4	35.3	54.8
1940	31.1	41.7	50.2	57.7	67.3	77.2	80.5	77.2	68.6	55.0	38.6	32.8	56.5
1941	33.2	40.1	45.8	52.2	65.8	69.8	77.6	75.1	65.1	53.4	40.2	35.6	54.5
1942	30.0	33.4	41.4	57.1	61.9	72.4	79.6	77.3	66.8	56.0	45.0	35.0	54.7
1943	34.2	46.4	46.4	62.4	64.2	73.2	79.8	78.2	68.8	56.9	40.3	36.3	56.7
1944	28.4	36.6	44.5	52.3	65.4	71.8	80.0	77.2	70.3	57.3	43.5	32.8	55.0
1945	33.9	42.0	45.0	52.2	67.8	70.4	81.3	78.7	68.0	56.6	39.9	26.8	55.2
1946	25.8	34.8	49.6	60.9	64.5	73.0	81.8	79.2	69.5	53.6	43.4	37.0	56.1
1947	26.6	39.3	49.2	55.7	68.0	71.8	80.4	76.7	70.8	58.1	38.4	31.4	55.5
1948	29.3	35.2	41.6	58.4	67.4	73.7	79.6	76.5	70.9	55.4	37.5	36.1	55.1
1949	25.6	27.5	47.5	57.8	68.3	73.4	80.5	78.3	72.9	54.7	46.0	33.1	55.5
1950	29.0	37.5	46.3	57.6	62.3	73.5	77.6	76.8	69.8	62.8	45.4	36.7	56.3
1951	33.0	35.6	45.5	57.0	65.5	72.7	84.6	78.5	70.5	57.5	40.6	29.6	55.9
1952	30.9	34.7	40.6	58.1	68.5	77.6	81.6	81.9	--	60.6	40.9	32.6	--
1953	35.6	37.7	49.8	55.3	62.1	77.6	84.8	78.9	73.1	57.9	45.4	31.1	57.4
1954	35.7	45.7	46.3	61.0	--	75.7	84.9	78.8	71.5	62.9	--	30.2	--
1955	--	--	--	--	62.5	70.9	80.0	77.5	69.1	56.8	39.8	39.2	--
1956	38.6	34.9	46.8	57.9	69.4	79.5	81.3	78.7	74.2	59.4	38.8	31.4	57.6
1957	33.6	40.2	49.0	54.0	61.3	74.4	80.9	78.5	70.1	60.1	40.9	35.1	56.5
1958	31.9	42.5	45.2	54.8	70.0	78.1	81.4	83.4	72.6	58.4	43.7	37.1	58.3
1959	32.9	41.6	46.9	58.1	66.5	78.1	82.1	78.8	69.1	56.2	41.7	35.1	57.2
1960	28.7	35.6	47.9	57.4	66.4	76.5	82.8	79.1	76.1	56.9	45.4	32.4	56.7
1961	30.3	41.1	47.7	56.6	67.4	78.9	81.8	79.1	64.1	56.1	42.3	28.2	56.1
1962	28.4	43.4	44.1	60.8	65.8	74.3	79.3	79.6	71.3	60.4	46.5	32.8	57.2
1963	18.7	42.9	46.5	56.7	70.0	74.4	82.6	79.5	72.9	63.1	47.2	30.9	57.1
1964	30.9	34.8	42.5	54.9	65.3	73.0	83.7	77.7	69.6	--	--	35.2	--
1965	37.7	37.8	44.9	56.7	64.2	70.6	79.6	77.0	66.7	57.8	49.5	35.5	56.5

Interpolated

STATION HISTORY - MOAB, UTAH

The earliest weather records at Moab date back to 1889. Maximum and minimum temperatures and precipitation amounts have been recorded from the first year of record. The weather station has been at numerous locations during its history, but most of the sites have been within a few blocks of the Post Office, except from April to November 1954 when the station was located one and one-half miles to the southeast and the current location some 4 miles NW.

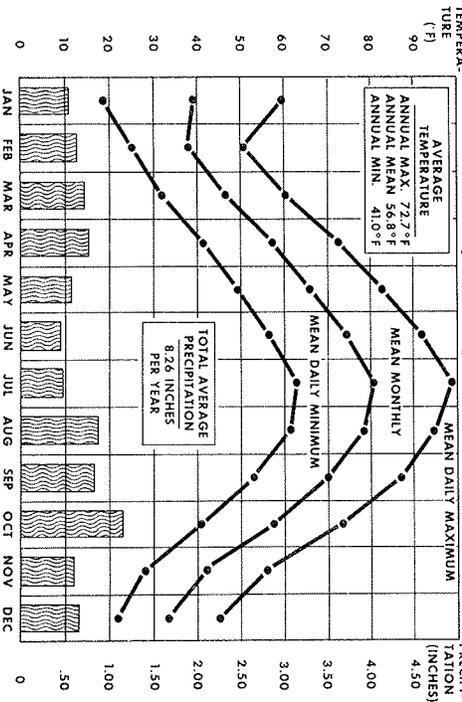
Mr. Henry Crouse, the first observer, recorded the weather data from August 1889 to September 1918. Observers from March 1919 through April 1954 were Ethel Moore, W. R. What, John W. Corbin, and D. J. Tanner in that order. In December 1941 a recording rain gauge was installed and this equipment has continued in operation to the present.

In April 1954 the station was established one and one-half miles southeast of the Post Office at an elevation of 4,125 feet, 125 feet higher than the previous locations. Mrs. Ireta Lance kept the records until November 1954 when the equipment was moved back to a lower elevation (4,000 feet) near the Post Office, and Mrs. Bonnie Johnston took over the observational duties.

In April 1955 Mrs. Loren Roberson became the observer and she continued in this capacity until May 1956 when the station was moved to the Moab Broadcasting Co. located at 1st South and 2nd East. On October 18, 1957 equipment was moved to the plant of the Atlas Minerals Co. located some 4 miles NW of the Moab Post Office. Observations since that time have been taken by employees of the company.

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MOAB CLIMATOLOGICAL SUMMARY
 Monthly Averages 1936 - 1965



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