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

LATITUDE 40° 13'
LONGITUDE 111° 40'
ELEV. (GROUND) 4470 FEET

CLIMATOGRAPHY OF THE UNITED STATES 20 - 42

CLIMATOLOGICAL SUMMARY

MEANS AND EXTREMES FOR PERIOD 1926 - 1955

STATION

PROVO, UTAH

Month	Temperature (°F) Means: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	Mean degree days Base 65°	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	Max. 32° and below	Min. 32° and below	Min. 0° and below	Month
(a)	29	29	29	29		29		**	30	30		27			27		30	30	30	30	30	
Jan.	37.2	14.2	25.7	63	1953	-26	1937	1218	1.40	1.10	1934	11.9	28.5	1950+	11.5	1944	5	0	9	30	5	Jan.
Feb.	44.1	20.1	32.1	70	1930	-32	1933	921	1.32	1.31	1941	5.9	20.5	1944	11.0	1926	4	0	3	26	2	Feb.
Mar.	53.1	26.9	40.0	80	1943	5	1955	775	1.29	1.61	1941	5.3	27.5	1952	11.0	1944	4	0	*	24	0	Mar.
Apr.	64.3	34.1	49.2	89	1934	6	1929	474	1.30	1.52	1929	T	4.5	1944	2.5	1944	4	0	0	12	0	Apr.
May	73.4	40.4	56.9	96	1927	24	1935	280	1.17	1.45	1938	T	4.0	1955	4.0	1955	3	1	0	4	0	May
June	82.6	46.6	64.6	104	1940	30	1954+	115	0.79	1.21	1943	0	0.0		0.0		2	8	0	*	0	June
July	92.1	53.8	73.0	108	1931	35	1932+	10	0.68	1.15	1926	0	0.0		0.0		2	22	0	0	0	July
Aug.	89.7	52.1	70.9	105	1940+	31	1932	5	0.96	1.63	1946	0	0.0		0.0		3	17	0	*	0	Aug.
Sept.	81.4	42.8	62.1	98	1948	21	1926	120	0.66	1.00	1955	0	0.0		0.0		2	5	0	2	0	Sept.
Oct.	68.7	34.4	51.6	90	1935	14	1935+	415	1.35	1.84	1946	T	3.5	1949	2.0	1948	3	0	0	13	0	Oct.
Nov.	51.6	24.7	38.2	78	1931	-10	1955	804	1.25	1.74	1946	3.1	14.0	1930	8.0	1955	4	0	1	25	*	Nov.
Dec.	40.6	18.8	29.7	68	1939	-24	1932	1094	1.33	0.99	1951	8.0	33.5	1951	10.0	1927	4	0	6	29	2	Dec.
Year	64.9	34.1	49.5	108	July 1931	-32	Feb. 1933	6231	13.50	1.84	Oct. 1946	34.2	33.5	Dec. 1951	11.5	Jan. 1944	40	53	19	165	9	Year

** Totals estimated from monthly mean temperature 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 PROVO, UTAH

Provo is located in Utah Valley at the foot of the lofty Wasatch Mountain Range. Utah Lake, largest body of fresh water in the State, lies four miles to the west. The Lake is twenty-two miles long and nine miles wide. The Provo River, one of the principal streams in the area, skirts the northwest edge of the City.

At an elevation of 4,470 feet, the station is at the eastern edge of a level to gently sloping valley running north and south. To the east the mountains rise abruptly to more than five thousand feet above the valley floor. Provo Peak, only six miles distant, extends to 11,068 feet MSL. Five other peaks of the Wasatch Range, all above 10,000 feet MSL, are within a distance of twenty-five miles. Fifteen miles to the west are the Lake Mountains, a low range rising to about 8,500 feet MSL. The Oquirrh Mountains, with several peaks above 10,000 feet MSL, are approximately thirty miles to the northwest.

The proximity of the Wasatch Mountains has a marked influence on the weather in the Provo area. Precipitation is substantially heavier along the eastern limits of the City than it is a few miles to the west. (See station history for statement on variation at different locations.)

Two other important physiographic features affecting the climate are: (1) Utah Lake, which has a modifying effect on the temperatures, and (2) the Oquirrh Mountain Range, which shelters the valley somewhat from storms associated with westerly and northwesterly winds.

The climate is temperate and dry. On the average, precipitation is uniformly distributed for the period October through May, when the region is frequented by storms from the Pacific Ocean. Thunderstorms account for most of the precipitation during the remaining months.

Summers are characterized by warm days and cool nights. July is the hottest month with maximum temperatures on most days above ninety degrees. Winters are not extremely cold; and the snowfall is usually light, averaging only 34.2 inches per year. In about one of every two years the temperature can be expected to drop to 10 degrees below zero or lower.

Winds are generally light. Those associated with low pressure storms are occasionally strong, but usually little or no damage results. Gusts to 75 miles per hour have been recorded at the Provo Airport, three miles to the west.

Merle J. Brown, State Climatologist
WBAS, Salt Lake City, Utah

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

Average Dates of Occurence of Various Temperature Values:

Temperatures Equal to or Lower than:	Average Dates of Occurrences: Last in Spring	First in Fall	Length of Period
32°	May 20	September 23	126
28°	April 28	October 10	166
24°	April 6	October 26	204
20°	March 21	November 8	232
16°	March 8	November 19	256

Extreme Temperature and Precipitation which have occurred prior to 1926 and which exceed those appearing in the table include:

Maximum Temperature:

93° in April 1910
101° in May 1910
93° in October 1910
79° in November 1915

Minimum Temperatures:

-5° in March 1923
21° in May 1913
28° in June 1919
32° in July 1921
12° in October 1917+
-35° in December 1924

Greatest Daily Precipitation:

1.70 inches in January 1918
1.70 inches in February 1905
1.70 inches in March 1916
1.25 inches in September 1908
2.45 inches in October 1916
1.10 inches in December 1906

Extremes from autographic records 1941-1955 (with break)

1 hour 1.24 inch in August 1946
2 hours 1.44 inch in August 1946
3 hours 1.50 inch in August 1946
6 hours 1.52 inch in August 1946
12 hours 1.53 inch in August 1946
24 hours 2.11 inch in October 1946

Greatest and least monthly precipitation totals for the full period of record are as follows. The first column contains median precipitation values by months for the 30 year period 1926-1955. The median value is such that more precipitation was recorded half of the time, and less the other half.

Month	Median	Greatest	Year	Least	Year
January	1.32	4.93	1909	0.16	1919
February	0.97	4.13	1915	0.04	1946
March	1.11	3.75	1904	0.05	1900
April	1.24	4.02	1944	0.09	1949
May	1.10	5.47	1898	0.01	1940 +
June	0.58	2.65	1911	0	1953 +
July	0.56	2.43	1896	T	1901
August	0.71	3.04	1946	0	1944 +
September	0.54	2.87	1919	0	1899 +
October	0.86	5.39	1946	0	1952 +
November	1.35	3.50	1900	0	1904 +
December	1.30	4.08	1951	0.12	1900
Annual	12.55	21.82	1920	6.94	1933

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1926	26.0	37.3	42.8	52.9	58.2	66.5	69.4	70.6	58.2	53.2	42.6	26.3	50.3
1927	-	-	41.6	48.8	54.8	66.0	73.2	69.6	61.3	51.8	43.8	21.6	-
1928	23.1	33.9	43.9	46.2	60.2	62.8	71.4	69.6	62.3	51.0	37.8	26.4	49.0
1929	23.6	25.0	39.3	44.5	54.9	62.2	73.0	71.8	59.0	51.0	33.4	32.6	47.5
1930	21.6	38.4	40.8	54.1	53.8	64.0	73.1	69.0	60.4	47.2	29.8	15.8	47.3
1931	19.3	33.9	38.7	49.8	56.0	68.6	75.5	70.4	60.2	52.6	33.5	21.5	48.3
1932	17.9	32.4	38.8	46.6	52.0	59.8	70.1	67.6	59.6	48.5	40.0	20.4	46.1
1933	24.0	19.0	43.6	47.3	52.6	72.8	79.0	70.3	63.5	53.0	39.0	35.8	50.0
1934	33.2	40.6	48.0	55.2	65.2	65.9	74.8	72.6	60.6	52.5	41.6	30.8	53.4
1935	29.4	33.6	35.0	45.4	49.8	65.7	73.7	71.7	64.4	50.2	38.4	30.2	49.0
1936	29.6	34.3	40.9	52.6	60.7	69.2	75.4	72.3	60.0	51.0	35.4	32.2	51.1
1937	13.4	31.8	41.5	47.0	61.2	64.8	74.5	72.6	65.3	52.4	42.5	34.6	50.1
1938	33.8	37.1	40.5	50.0	55.2	66.7	70.6	71.3	64.8	52.5	32.4	32.2	50.6
1939	28.0	23.0	41.4	51.2	58.0	62.9	71.6	69.1	61.2	49.5	41.0	34.8	49.3
1940	30.0	37.0	43.1	49.2	60.6	68.2	74.7	74.6	64.8	55.2	36.9	32.8	52.3
1941	33.4	39.6	43.6	47.1	59.5	64.2	72.1	71.0	57.9	48.0	38.0	34.4	50.7
1942	25.6	28.7	36.2	49.2	52.8	61.1	72.8	67.4	59.0	49.4	38.8	32.0	47.8
1943	29.6	32.6	37.9	-	53.3	60.8	70.7	70.8	62.6	53.0	39.2	32.6	-
1944	20.0	30.4	35.4	44.4	56.2	59.2	69.6	67.7	61.2	53.5	39.4	30.7	47.3
1945	29.8	34.2	37.7	42.0	55.7	59.6	68.9	70.0	-	53.4	39.6	29.6	-
1946	25.5	32.0	43.0	54.3	56.9	67.4	74.6	73.4	62.8	46.7	39.0	36.8	51.0
1947	23.7	35.6	43.8	48.9	61.4	62.6	73.6	72.4	64.4	54.8	34.8	31.6	50.6
1948	29.4	33.0	35.6	50.5	58.6	66.2	73.2	72.0	64.4	51.4	34.9	24.4	49.5
1949	10.0	20.4	41.6	52.8	59.6	64.5	74.0	72.5	64.6	47.5	42.9	28.4	48.2
1950	24.2	34.3	40.4	49.1	53.7	63.1	70.8	70.3	61.9	56.4	41.3	35.0	50.0
1951	28.2	35.3	36.7	49.8	57.1	62.3	73.0	70.6	62.1	49.3	35.8	24.9	48.8
1952	24.4	26.0	32.9	50.6	60.2	67.0	73.5	74.4	66.9	56.3	35.1	31.4	49.9
1953	38.2	35.4	43.0	46.9	52.2	67.4	76.0	73.0	66.2	52.8	43.7	26.0	51.7
1954	31.7	34.9	38.9	52.3	59.6	62.8	74.4	67.4	62.1	50.9	41.0	30.5	50.6
1955	18.9	19.5	34.3	46.6	57.0	63.3	70.5	71.9	59.0	-	34.4	35.8	-

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1926	0.93	3.24	0.85	2.21	2.06	0.12	1.66	2.34	1.08	0.52	1.77	1.93	18.71
1927	#2.25	#2.75	#2.25	1.90	0.60	0.40	0.22	0.51	1.70	1.94	2.29	1.35	18.16
1928	0.62	0.38	1.53	0.50	1.93	0.70	0.29	0.40	0.02	0.85	1.34	0.39	8.95
1929	1.65	1.78	1.76	3.36	0.45	1.27	0.15	1.27	1.45	0.24	0.30	0.65	14.33
1930	1.41	0.91	0.74	0.62	2.00	0.32	0.78	2.72	1.14	1.25	1.68	0.55	14.12
1931	0.70	0.57	0.75	0.46	0.30	T	0.65	1.34	0.50	0.60	1.55	1.22	8.64
1932	1.82	0.82	0.63	1.64	0.42	1.23	0.85	1.73	T	0.67	0.57	1.02	11.40
1933	1.04	0.58	0.64	0.92	1.08	0.03	1.10	0.24	0.22	0.21	0.30	0.58	6.94
1934	1.42	2.10	0.14	0.14	0.01	0.27	0.38	0.77	0.55	0.58	2.30	2.05	10.71
1935	0.34	0.73	1.68	2.62	2.06	0.00	0.33	0.26	0.10	T	1.08	0.57	9.77
1936	2.94	2.65	1.11	0.33	0.45	1.33	2.03	1.23	0.53	1.86	1.26	2.57	18.29
1937	1.39	1.25	1.29	0.64	1.47	0.20	1.71	0.33	0.96	1.91	0.64	1.81	13.60
1938	0.31	1.55	2.03	1.36	2.88	0.19	0.15	0.56	0.26	3.05	1.42	1.63	15.39
1939	1.29	0.81	0.66	0.68	0.84	0.62	0.08	0.40	1.14	2.70	T	0.59	9.81
1940	3.20	2.58	1.06	1.60	0.01	0.92	0.40	0.09	1.47	1.10	1.91	1.13	15.47
1941	1.35	2.46	2.96	2.29	0.72	1.63	1.77	0.65	1.10	3.42	1.45	1.80	21.60
1942	1.40	1.34	0.96	1.26	1.62	0.14	1.18	0.35	0.65	0.49	1.35	0.69	11.43
1943	0.88	2.21	1.12	0.41	0.44	2.23	0.34	0.92	0.03	2.31	0.18	1.54	12.61
1944	2.19	0.88	1.90	4.02	2.11	1.96	0.11	0.00	0.05	1.18	2.18	1.40	17.98
1945	0.73	2.46	2.83	1.21	1.48	1.86	0.32	2.82	#1.09	0.52	1.13	1.70	18.15
1946	0.80	0.04	1.32	1.46	1.75	0.12	0.67	3.04	T	5.39	2.05	1.38	18.02
1947	1.01	0.76	0.80	1.44	1.06	2.27	0.10	1.09	0.35	1.66	1.38	0.52	12.44
1948	0.74	0.47	1.23	0.73	0.03	1.22	0.65	1.16	0.14	0.86	1.17	2.38	10.78
1949	1.87	1.07	1.10	0.09	2.84	0.54	0.43	0.22	0.71	2.61	0.41	1.79	13.68
1950	2.10	0.92	0.96	0.60	1.41	0.19	0.56	0.06	0.85	0.60	2.16	1.48	11.89
1951	1.26	0.65	0.81	2.47	1.63	0.48	0.55	1.03	0.06	1.94	1.54	4.08	16.50
1952	2.64	1.02	3.08	1.36	1.45	0.69	0.57	1.25	0.03	0.00	0.51	0.64	13.24
1953	1.39	0.23	0.96	1.28	0.55	0.19	1.45	1.46	0.14	0.66	0.96	0.77	10.04
1954	1.09	0.37	1.39	0.82	0.43	0.98	0.74	0.19	1.66	0.70	0.88	0.46	9.71
1955	1.22	1.97	0.12	0.50	1.11	1.56	0.22	0.36	1.96	0.57#	1.64	1.25	12.48

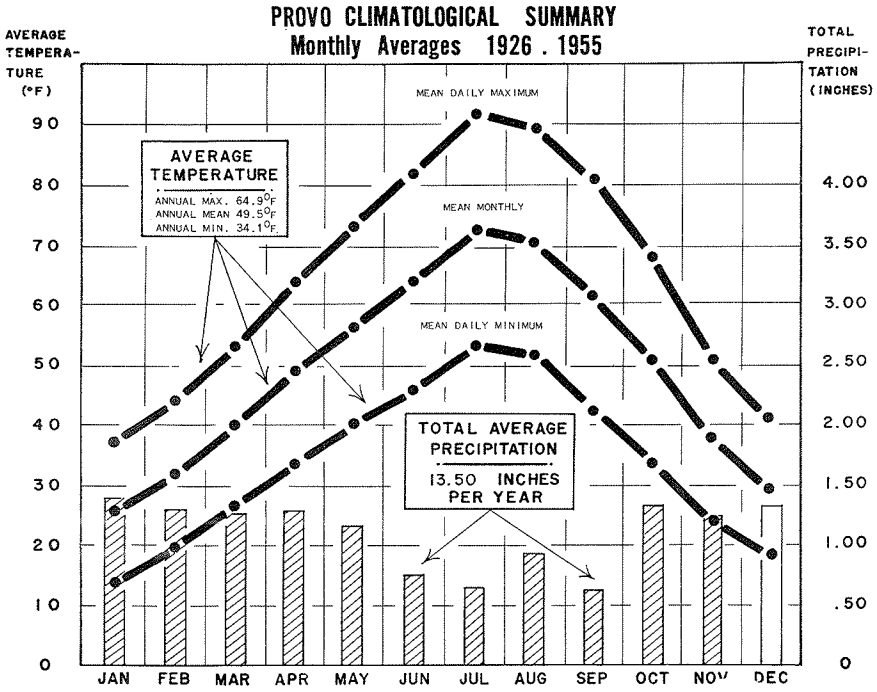
Interpolated

HISTORY OF PROVO, UTAH

The earliest weather observations for Provo date back to 1892. The station has been moved frequently during its history, and has been at fifteen different locations in all. Exact locations of the instruments are not known for some of the early periods, but indications are that the terrain closely surrounding the station has been level ground in all instances. Maximum and minimum temperatures and precipitation amounts have been recorded from the beginning of record.

After several moves during its early history, the station was established in July 1913 at the U. S. Reclamation Service, located at 701 East Center Street. (Evaporation readings from a pan three feet square and 17 inches deep, sunk 15 inches in the ground, are available from this location 1910-1917.) U. S. Weather Bureau Class A evaporation equipment was added in March 1918, and continued in operation until December 1926. In March 1927 the station was moved to the A. M. Anderson residence at 757 South 5th West Street. A recording rain gage was installed in June 1941. Mr. Anderson continued taking the observations until September 1941, when the station was moved two miles north to the Provo City Power Plant. Mr. Roy W. Brown and Mr. Dale H. Price made the readings at this location until May 1943, when the equipment was moved again, this time to the Robert A. Wiley residence, one and one-half miles northwest of the Post Office.

On October 1, 1945 the equipment was moved to the Municipal Airport, three miles west of Provo. Airport employees began taking Airway Weather observations on that date, and these reports have been continued to the present. Class A evaporation equipment was added in April 1948. In March 1952 another station was established at the Provo Radio KOVO transmitter* 1.8 miles south-southwest of the Post Office, and the evaporation and recording rain gage equipment from the Airport was moved to this location. Radio KOVO employees are very capably recording the observations at the present time.

An analysis of the precipitation record since 1910 indicates that the October to April precipitation for the Airport location averages 21 per cent less than for the U. S. Reclamation location at 701 East Center Street and the October to April precipitation for other locations of the station, excepting the KOVO Radio site, averages 16 per cent less. Recent records at KOVO Radio indicate that the precipitation catch is lower than it should be. This may be due, in part, to the open exposure in that vicinity of the gages.

* Due to missing records from Radio KOVO for much of 1952 and 1953, data from the Airport for those years are included in this Climatological Summary.