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°10'
LONGITUDE 110°24'
ELEV. (GROUND) 5515 Feet

CLIMATOGRAPHY OF THE UNITED STATES 20 - 42

MEANS AND EXTREMES FOR PERIOD OF RECORD 1926 - 1955

STATION

DUCHESNE, 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)	30	30	30	30		30		##	30	30		30	30		30		30	30	30	30	30	
Jan.	30.2	2.3	16.3	57	1943	-43	1937	1510	0.54	2.00	1937	6.6	28.0	1949	15.0	1937	2	0	18	31	13	Jan.
Feb.	37.2	9.6	23.4	63	1954	-40	1933	1165	0.61	1.00	1927	7.3	24.0	1927	10.0	1927	2	0	9	28	7	Feb.
Mar.	49.0	21.4	35.2	73	1953+	- 7	1948	924	0.78	0.96	1939	5.3	23.0	1936	10.0	1930	2	0	1	29	1	Mar.
Apr.	62.1	29.9	46.0	83	1949+	4	1945	570	0.62	0.65	1931	1.0	15.0	1931	7.0	1931	2	0	*	19	0	Apr.
May	71.3	37.4	54.4	91	1947	17	1950	340	0.80	1.72	1937	0.2	5.5	1950	5.0	1950	2	*	0	7	0	May
June	80.1	43.4	61.8	98	1954	25	1929	160	0.78	1.28	1941	T	T	1949	T	1949	2	3	0	1	0	June
July	86.9	50.8	68.9	99	1954+	36	1945+	25	1.01	0.98	1938	0	0		0		3	11	0	0	0	July
Aug.	84.6	49.1	66.9	98	1940	29	1932	30	1.33	1.30	1937	0	0		0		4	5	0	*	0	Aug.
Sept.	77.1	40.1	58.6	93	1955	16	1926	205	0.97	1.20	1929	T	T	1949	T	1949+	3	1	0	4	0	Sept.
Oct.	64.5	30.3	47.4	85	1947	8	1935	546	0.93	1.65	1928	0.2	2.5	1953	1.5	1953+	3	0	0	20	0	Oct.
Nov.	46.8	18.0	32.4	72	1926	-17	1931	980	0.44	1.80	1930	2.7	10.0	1946+	8.0	1930	2	0	3	29	1	Nov.
Dec.	34.6	8.6	21.6	60	1938	-38	1932	1345	0.62	1.67	1951	6.7	34.5	1951	19.5	1951	2	0	12	31	8	Dec.
Year	60.4	28.4	44.4	99	July 1954	-43	Jan. 1937	7800	9.43	2.00	Jan. 1937	30.0	34.5	Dec. 1951	19.5	Dec. 1951	29	20	43	199	30	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.

Duchesne is located in a rather broad valley near the western end of the Uinta Basin in northeastern Utah. At an elevation of 5,515 feet above sea level, the station is situated on river bottom land near the junction of the Strawberry and Duchesne Rivers. Low mesas rising 100 to 200 feet above the valley floor are located about one mile to the south and north.

The Uinta Basin is completely surrounded by high mountains. To the north the highest range in Utah, the lofty Uintas, rise to over 13,000 feet above sea level. On the west is the Wasatch Range which extends to over 10,000 feet; and to the south the Tavaputs Plateaus rise to above 9,000 feet. Thus, Duchesne is located in a bowl-like basin which has a marked influence on the climate of the area. On clear or partly cloudy nights the coldest air usually accumulates by radiation and drainage in this Basin, resulting in comparatively low daily minimum temperatures at Duchesne.

The climate of Duchesne is of the semi-arid (steppe) type, the most striking features being abundant sunshine, low relative humidity, and large daily ranges in temperature.

Winters are characterized by cold dry weather. In January, the average daily minimum temperature is near zero, one of the coldest in the state. In every winter season temperatures below zero can be expected to occur, and in three of every five years temperatures colder than 20 degrees below zero are reported. Conditions are favorable at times for the formation of radiation-type fog, particularly during the colder portion of the year. The entire basin is occasionally covered for several days by a shallow layer of fog.

Summers are delightfully pleasant. Daily maximum temperatures during this season are generally in the 80's and night-time minima in the 40's or low 50's. Even after the hottest days when temperatures climb into the 90's, the nights are usually cool.

Precipitation is light, averaging less than 10 inches annually. The primary rainfall season is in July, August and September. Most of the precipitation occurring during these months is the result of thunderstorm activity associated with moisture-laden air masses moving in from the Gulf of Mexico. Snowfall is light, averaging only 30 inches annually; but as much as 53 inches has been reported in a single winter season. Winds are generally light and damaging wind storms quite rare. The extremely strong winds that do occur are usually associated with local thunderstorms. Hail storms occasionally cause some damage uring the spring and summer, although the hail is usually small.

The growing season, or freeze-free period, averages about four months in length and extends from late May to late September. The principal crops in the area are alfalfa for hay and seed, and grains.

Merle J. Brown, State Climatologist
WBAS, 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 28	September 20	115
28°	May 15	September 29	137
24°	April 27	October 10	166
20°	April 15	October 25	193
16°	April 1	November 3	216

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

Maximum Temperature:
74° in March 1913
92° in May 1910

Minimum Temperature:
-16° in March 1922
35° in July 1912+
26° in August 1908
4° in October 1917
-39° in December 1919

Greatest Daily Precipitation
1.08 inches in April 1920
1.69 inches in September 1909

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	0.35	2.55	1937	0	1919
February	0.53	2.35	1927	0	1924
March	0.70	2.45	1922	0	1934
April	0.51	1.95	1915	T	1927+
May	0.73	2.89	1917	T	1927+
June	0.52	2.50	1925	0	1942+
July	0.96	2.44	1925	T	1928
August	1.28	3.21	1953	T	1950
September	0.43	4.60	1940	T	1951+
October	0.75	3.41	1916	0	1952
November	0.45	2.31	1906	T	1939+
December	0.43	2.81	1951	T	1930
Annual	8.98	15.70	1937	4.60	1942

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1926	14.7	28.6	38.0	48.6	55.6	64.2	66.2	65.7	54.8	47.4	35.1	16.3	44.6
1927	15.0	26.0	35.0	44.0	52.2	60.8	67.7	63.5	56.4	46.4	38.6	19.8	43.8
1928	21.0	27.9	40.0	42.0	56.4	58.6	66.4	64.0	58.2	46.8	34.1	17.4	44.4
1929	15.8	16.8	36.4	41.2	52.2	59.3	68.8	68.2	56.0	46.4	27.7	25.4	42.8
1930	08.5	29.6	36.0	50.1	50.8	61.1	67.8	66.4	57.0	43.4	24.4	06.4	41.8
1931	08.2	28.4	33.8	45.4	51.6	63.7	70.4	67.4	58.8	47.6	26.2	08.9	42.5
1932	07.4	19.6	32.0	45.2	53.4	59.6	67.0	65.5	57.9	44.4	33.4	08.6	41.2
1933	12.0	08.8	35.6	40.4	47.9	64.0	70.0	65.0	59.2	50.4	33.6	27.8	42.9
1934	24.8	35.0	44.0	50.2	59.2	60.0	69.8	69.4	56.6	48.5	35.5	25.4	48.2
1935	23.4	27.7	33.4	42.6	50.1	63.3	69.4	66.6	59.6	44.4	30.5	20.8	44.3
1936	23.1	28.2	35.2	46.7	56.5	64.6	68.8	67.4	56.0	44.6	28.7	18.9	44.9
1937	-02.8	15.2	31.4	44.2	57.4	61.9	70.0	69.2	60.8	48.8	36.1	27.6	43.3
1938	24.8	29.1	37.0	47.8	53.4	63.9	68.4	68.6	60.8	47.8	28.6	27.4	46.5
1939	20.2	12.5	34.8	49.4	56.6	61.9	70.4	69.1	59.4	47.2	35.8	28.4	45.5
1940	18.2	23.5	40.0	46.8	59.0	67.2	72.2	70.2	58.4	48.3	29.0	22.0	46.3
1941	14.8	24.6	37.9	42.8	56.0	59.6	68.0	67.6	54.8	45.4	34.7	26.5	44.4
1942	16.6	21.4	32.7	46.6	51.4	62.1	68.7	67.0	57.2	49.2	35.6	27.6	44.7
1943	24.6	29.8	35.8	52.2	53.4	59.3	68.8	67.1	60.0	48.0	32.7	23.0	46.2
1944	09.0	15.6	32.0	43.2	56.9	59.9	68.1	67.6	59.3	48.0	34.0	23.9	43.1
1945	26.6	30.3	35.3	41.6	54.8	58.8	68.0	67.0	56.5	48.8	33.4	21.8	45.2
1946	21.4	27.7	39.8	51.2	53.2	64.7	70.8	66.9	59.2	44.0	31.6	27.8	46.6
1947	14.2	30.2	40.2	45.0	58.2	58.4	68.4	66.0	61.4	50.6	26.9	15.6	44.6
1948	12.8	16.6	27.9	46.0#	55.4	62.9	67.9	65.8	61.0	47.2	29.6	21.2	42.9
1949	03.9	11.0	32.8	48.7	54.1	60.5	67.6	66.2	60.0	45.1	38.8	18.7	42.3
1950	12.5	21.0	33.3	45.4	51.0	60.7	66.8	66.0	57.7	51.2	35.8	28.0	44.1
1951	19.9	29.3	33.9	47.0	55.4	---	---	65.5	57.9	46.1	30.2	19.0	---
1952	08.8	14.9	24.3	45.9	55.9	62.0	68.2	67.3	61.4	---	29.2	22.2	---
1953	25.9	26.1	40.0	44.6	49.7	64.1	71.7	66.1	61.5	46.9	35.3	25.2	46.5
1954	25.8	35.7	36.3	50.5	58.2	62.5	71.6	65.5	59.5	48.2	37.2	18.2	47.4
1955	15.6	10.0	30.2	43.5	54.3	60.8	68.7	68.1	59.3	49.0	30.4	28.2	43.2
1956	27.4	19.0	38.0	45.7	57.1	65.7	69.2	64.4	60.7	47.8	29.1	---	---
1957	11.4	21.6	38.9	45.3	53.8	64.8	71.2	68.3	58.5	48.9	30.7	27.7	45.1

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1926	0.02	0.56	1.00	0.84	0.15	0.22	1.17	2.39	0.60	T	0.58	1.07	8.60
1927	0.35	2.35	0.62	T	T	2.45	1.79	1.88	3.96	0.55	0.34	0.40	14.69
1928	0.20	1.20	0.88	0.16	1.11	0.22	T	1.32	0.34	2.53	0.76	0.20	8.92
1929	0.35	0.30	0.80	1.39	0.25	0.10	1.88	1.26	1.96	0.43	T	0.18	8.90
1930	0.67	0.35	1.78	0.79	0.53	0.15	1.35	1.23	1.31	0.15	0.95	T	9.26
1931	0.15	0.10	0.95	1.35	0.67	0.93	0.75	1.33	0.26	1.06	0.55	0.85	8.95
1932	0.45	1.35	0.65	0.94	0.56	0.60	1.71	1.57	0.15	0.66	T	0.40	9.04
1933	0.70	0.10	0.40	1.02	0.95	0.00	1.16	0.36	0.37	0.38	0.69	0.40	6.53
1934	0.25	0.89	0.00	0.17	0.36	0.32	0.56	1.87	0.10	0.12	0.95	0.44	6.03
1935	0.40	0.82	0.78	1.38	1.33	T	0.41	1.22	T	0.25	T	0.35	6.94
1936	0.10	0.83	1.77	0.05	0.65	0.83	2.20	2.54	1.05	1.25	0.17	1.15	12.59
1937	2.55	0.95	0.74	0.17	2.53	0.74	2.05	2.99	1.01	0.58	0.05	1.34	15.70
1938	0.46	0.69	1.12	0.15	1.12	1.54	1.41	1.33	1.55	1.16	0.33	0.36	11.22
1939	0.60	0.78	1.44	0.12	1.00	0.27	0.23	1.01	2.57	0.35	T	0.06	8.43
1940	0.64	0.80	0.97	0.69	0.52	0.36	0.30	0.65	4.60	0.82	0.61	0.53	11.49
1941	0.61	0.16	1.09	1.75	1.43	2.17	1.15	1.28	1.40	2.99	0.53	0.42	14.98
1942	0.30	0.14	0.27	0.80	0.04	0.00	0.90	0.40	0.43	0.67	0.29	0.36	4.60
1943	0.31	0.52	0.57	0.62	1.04	1.19	0.60	1.78	0.12	1.55	0.47	0.56	9.33
1944	1.34	0.53	0.62	1.53	0.58	1.06	0.27	0.20	0.09	1.46	0.43	0.11	8.22
1945	0.11	0.86	0.58	0.37	0.73	1.46	0.70	0.83	0.43	0.91	0.26	0.21	7.45
1946	T	0.04	1.20	0.95	0.33	0.08	1.25	1.83	0.12	1.94	1.46	0.65	9.85
1947	0.80	0.17	0.27	0.45	0.97	2.03	0.49	1.80	0.21	0.44	0.68	1.00	9.31
1948	0.10	0.78	0.83	0.24	0.10	1.39	0.45	0.37	0.31	1.33	0.23	1.14	7.27
1949	2.31	0.29	0.65	0.15	1.92	1.21	1.90	0.42	0.69	0.94	0.09	1.33	11.90
1950	0.81	0.19	0.30	0.40	0.83	0.09	1.45	T	1.23	0.01	0.47	0.62	6.40
1951	0.29	0.37	0.44	0.57	1.29	1.44	1.01	1.41	T	2.42	0.66	2.81	12.71
1952	0.47	0.09	1.62	0.68	0.72	1.32	1.60	3.21	0.31	0.00	0.11	0.74	10.87
1953	0.14	0.35	0.13	0.40	0.82	0.44	0.84	0.68	0.05	1.04	0.59	0.09	5.57
1954	0.29	0.06	0.62	0.27	0.74	0.30	0.44	0.92	3.03	1.75	0.31	0.27	9.00
1955	0.29	1.68	0.27	0.09	0.64	0.36	0.41	1.86	0.90	0.07	0.61	0.60	7.78
1956	0.87	0.58	T	1.34	0.82	0.07	0.21	0.13	0.51	0.81	0.00	0.61#	5.95
1957	0.90	0.27	0.38	1.08	2.45	0.82	0.68	2.16	0.04	1.20	2.25	0.23	12.46

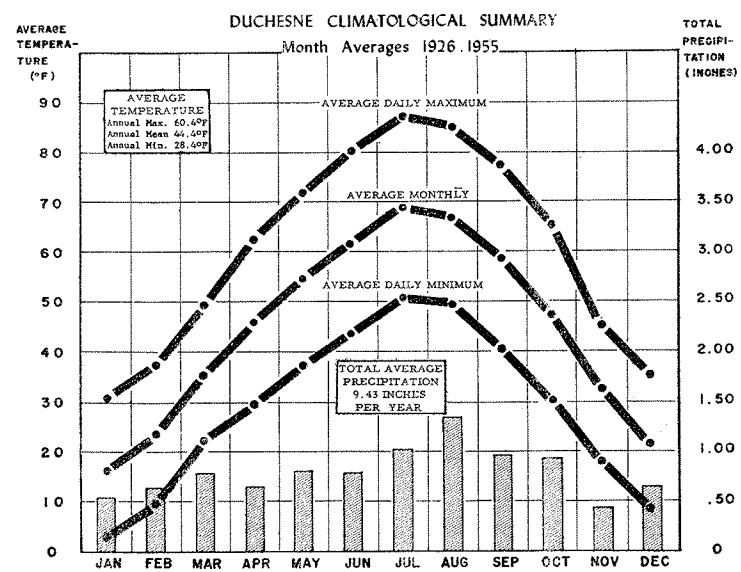
Interpolated

STATION HISTORY - DUCHESNE, UTAH

The earliest weather observations at Duchesne date back to 1906. Precipitation amounts and maximum and minimum temperatures have been recorded from the beginning of record.* The station has been moved four times during its history but the climatological records obtained at the various locations are compatible.

From April 1906 to February 1920 the instruments were located 0.8 mile northwest of the Post Office with Mr. M. M. Smith the observer. In March 1920 the station was moved 0.5 mile west of the Post Office and Mr. E. S. Winslow took over the observing duties. In April 1937 the equipment was relocated 1500 feet northeast of the previous location.

In January 1942 Mr. L. C. Winslow, brother of the former observer, began recording the observations. In September 1946 the station was moved across the street 250 feet south, but Mr. L. C. Winslow continued as the observer until his death in December 1956. After Mr. Winslow's death, his wife recorded the observations for a few months.

In March 1957 the instruments were relocated to the rear of the City and County Building (500 feet south of the Post Office), and Mr. Harold Thomas became the official observer. Mr. Thomas has done an excellent job of keeping the weather records to the present time.

* From Feb. 15, 1937 to June 30, 1939 "off airways" 6-hourly weather reports were also made at the station.