

U. S. DEPARTMENT OF COMMERCE
Environmental Science Services Administration
in cooperation with
Cotton Economic Research and
Bureau of Business Research of
The University of Texas at Austin

CLIMATOGRAPHY OF THE UNITED STATES NO. 20-41

LATITUDE 31° 7' N
LONGITUDE 97° 28' W
ELV. (GROUND) 664 ft.

CLIMATOLOGICAL SUMMARY

STATION BELTON RESERVOIR, TEXAS

MEANS AND EXTREMES FOR PERIOD 1952-1967

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 Depth		Year	90° and above	32° and below	Max.		Min.		
																				32° and below		0° and below	32° and below	0° and below
(a)	14	14	14	14		14			12	16	14		16	16		12		12	12	12	12			
Jan	57.2	34.2	45.7	86	1956	7	1962	610	1.75	3.38	1965	0	0		0	3	0	1	14	0	Jan			
Feb	61.5	38.4	50.0	92	1954	20	1967+	442	2.43	3.63	1958	0.1	0.8	1956	0	5	*	*	7	0	Feb			
Mar	69.0	45.2	57.1	95	1967+	21	1962	272	1.51	1.90	1961	T	T	1965	0	3	*	0	3	0	Mar			
Apr	78.4	57.4	67.9	99	1963	34	1957	65	3.65	2.79	1957	0	0	0	0	5	1	0	0	0	Apr			
May	84.2	64.1	74.2	98	1958	44	1954	8	4.05	5.47	1965	0	0	0	0	4	7	0	0	0	May			
Jun	91.5	69.8	80.7	104	1960+	55	1964+	*	2.67	8.89	1964	0	0	0	0	4	21	0	0	0	Jun			
Jul	96.3	72.6	84.5	108	1957+	59	1967	0	1.26	1.66	1963	0	0	0	0	2	29	0	0	0	Jul			
Aug	96.4	72.0	84.2	108	1962	60	1967	0	1.51	1.96	1955	0	0	0	0	3	28	0	0	0	Aug			
Sep	89.9	67.5	78.7	105	1954	45	1962	1	3.67	4.80	1964	0	0	0	0	5	17	0	0	0	Sep			
Oct	80.3	57.0	68.7	100	1956	31	1957	49	2.85	5.37	1959	0	0	0	0	4	3	0	*	0	Oct			
Nov	69.0	46.4	57.7	91	1955	24	1959	238	2.98	2.34	1963	0	0	0	0	5	0	0	2	0	Nov			
Dec	60.6	37.7	49.2	91	1955	17	1963	497	2.16	2.87	1959	0	0	0	0	4	0	*	9	0	Dec			
Year	77.9	55.2	66.6	108	Aug. 1962+	7	Jan. 1962	2182	30.49	8.89	Jun. 1964	0.1	0.8	Feb. 1956	0	47	106	1	35	0	Year			

(a) Average length of record, years.

T Trace, an amount too small to measure.

** Base 65°F

+ Also on earlier dates, months, or years.

* Less than one half.

THE CLIMATE OF BELTON RESERVOIR, TEXAS

Belton Reservoir, on the Leon River, in northern Bell County, spreads over 37,340 surface acres, and has a storage capacity of 1,876,700 acre-feet. Located only a few miles from either Belton or Temple, the lake offers lakeside resorts, water sports, and good fishing on both the lake and Leon River.

The climate surrounding Belton Reservoir is humid subtropical with hot summers. There is a wide range between annual temperature extremes, a characteristic of continental climates. Tropical maritime air controls the climate of the region during the spring, summer, and fall. During the winter and early spring, frequent surges of polar and arctic air cause sudden drops in temperature and add considerable variety to the daily weather. Total annual precipitation averages 30.49 inches and is fairly evenly distributed throughout the year, except for a short dry season in July and August. Prevailing winds are southerly the year round. The strongest winds are the peak gusts and squalls associated with thunderstorms. The strongest persistent winds occur in March and April in association with intense low pressure centers that move eastward from the Texas Panhandle, and with vigorous, fast moving cold fronts. Relative humidity is fairly uniform throughout the year but varies considerably during the day. Average annual relative humidity is 81 percent at 6:00 a.m., 55 percent at noon, and 50 percent at 6:00 p.m., Central Standard Time. Mean annual sunshine is about 62 percent of the total possible. Mean lake evaporation is estimated at 56 inches annually.

Winter: Temperatures are mild and periods of cold weather usually not last longer than about 48 hours. There is often considerable diness in the morning with the overcast breaking up about noon and followed by sunshine and warmer temperatures during the afternoon. Prolonged periods of overcast skies and persistent light precipitation can be expected about once or twice a month. Precipitation may occur as rain, freezing rain, sleet, or snow. Snow

is usually of little consequence, often melting as rapidly as it falls with no accumulation on the ground. Measurable amounts are rare.

Spring: The spring season is a period of rapid and pronounced weather changes. This is especially true of March. Warm and cool spells of short duration follow each other in rapid succession. The drizzle and light rain of winter decrease and shower or thunder-shower activity increase. The frequency of thunderstorms increases to an average of about six days per month in April, and to an average of seven days in May, the peak month. Except for an occasional windy day in March and April, spring is a very enjoyable season.

Summer: Daytime temperatures in summer are hot. There is little variety in the day-to-day weather. Thundershowers occur on an average of five days each month which help to break the hot weather pattern. Mid-day temperatures are generally too hot for much outdoor activity except for water sports. However, early morning and evening temperatures are normally pleasant. Refrigerated-type air-conditioning is recommended for maximum comfort indoors.

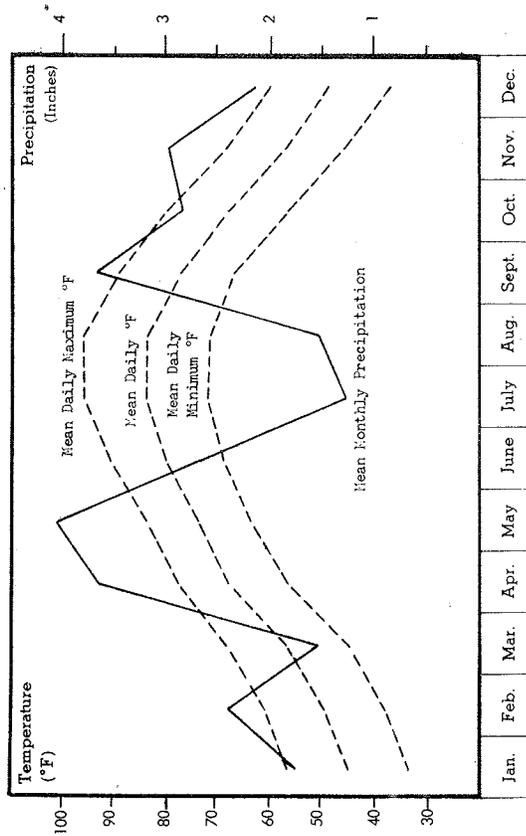
Fall: Temperatures continue rather warm in September, with the daily maximum 90°F or above about 57 percent of the time. Precipitation increases during September, but is still mostly of the shower type. Cold fronts are more frequent after mid-October and the variety of weather increases. Thundershowers become less frequent as the fall season progresses. The combination of moderate temperatures, relatively low wind velocities, and the frequent intrusions of mild, dry polar air masses make the fall season the most delightful period of the year. It is ideally suited for all types of outdoor activities except swimming.

About 46 thunderstorms occur each year, a few of these are likely to be accompanied by wind or hailstorms, or excessive precipitation.

BELTON RESERVOIR, TEXAS
Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1952	0.59	2.07	2.87	6.08	5.42	0.34	0.79	0.28	0.45	0	5.27	5.29	29.45
1953	0.70	0.99	1.53	2.87	6.53	0.28	2.28	2.42	5.85	0.67	6.52	1.84	32.48
1954	1.44	0.32	0.73	2.26	3.35	0.12	0.26	0.79	0.57	1.54	2.25	0.12	13.75
1955	2.05	2.65	1.05	1.82	7.47	3.93	2.14	4.70	2.98	0.16	2.26	1.35	30.56
1956	2.36	2.10	0.10	0.50	2.58	1.09	0.12	0.45	0.03	0.98	2.50	2.04	14.85
1957	1.38	2.40	4.08	13.57	3.47	1.02	0.46	0.08	5.93	8.86	4.19	0.61	46.05
1958	1.62	7.14	1.28	6.16	2.41	2.29	0.08	1.19	3.21	2.55	1.02	1.37	30.32
1959	0.48	3.02	0.19	2.93	3.39	5.49	3.33	2.73	3.11	8.33	2.27	3.96	32.80
1960	2.79	1.99	1.40	1.44	0.88	3.21	2.17	1.93	1.48	6.60	2.69	6.08	32.05
1961	4.25	4.36	2.17	0.38	1.73	4.35	4.31	0.74	5.82	1.73	2.17	1.54	33.05
1962	0.88	1.88	0.73	5.74	2.80	2.77	0.48	0.82	1.84	5.16	2.61	1.46	26.87
1963	0.18	1.10	0.45	3.54	0.76	3.49	2.21	0.11	1.43	0.35	5.26	1.44	20.32
1964	3.18	1.82	3.55	2.37	2.98	10.56	0	3.27	11.29	1.50	3.16	1.22	44.90
1965	4.45	3.70	2.14	1.43	14.24	2.08	0.39	5.22	3.73	2.07	4.14	3.33	42.22
1966	1.49	2.73	0.90	5.20	1.40	1.69	0.64	1.96	4.56	0.21	0.13	0.85	21.76
1967	0.23	0.55	0.97	1.90	5.39	0.01	0.49	2.09	6.65	4.84	3.24	2.70	29.06

Monthly Temperatures and Precipitation



BELTON RESERVOIR, TEXAS
Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1952	48.9	57.0	56.7	71.7	71.4	82.9	84.6	83.5	77.0	69.9	54.4	46.1	-
1953	48.9	57.0	56.7	71.7	71.4	82.9	84.6	83.5	77.0	69.9	54.4	46.1	68.7
1954	47.2	50.0	60.2	70.4	76.1	78.0	83.7	82.0	81.6	70.9	57.8	49.8	67.2
1955	48.3	51.4	59.4	67.3	78.3	83.9	87.0	86.5	81.5	73.4	55.8	53.5	68.9
1956	47.5	57.0	56.2	63.2	72.3	80.2	86.1	86.3	78.6	63.9	54.5	53.9	66.3
1957	46.5	45.7	52.5	64.3	74.2	82.2	84.8	85.1	78.8	67.0	59.4	46.3	65.6
1958	43.8	49.0	57.4	63.8	75.9	80.9	82.7	82.8	79.0	68.0	50.8	51.5	65.4
1959	46.7	45.4	51.2	68.8	71.6	82.1	83.8	82.5	79.0	70.0	58.5	45.5	65.4
1960	42.4	51.5	60.6	65.6	74.1	78.2	80.0	81.3	76.8	67.0	54.2	48.5	65.0
1961	41.1	57.6	54.9	65.2	75.6	78.3	83.9	86.5	78.5	71.2	57.7	49.0	66.6
1962	39.3	47.9	61.4	71.6	75.3	82.5	84.4	86.1	80.3	73.2	59.7	41.4	66.9
1963	45.6	45.6	57.2	68.5	75.2	80.3	85.0	85.2	78.2	66.1	60.7	48.7	66.4
1964	50.1	46.2	50.4	69.8	73.4	79.7	84.1	83.6	78.7	66.4	63.8	52.4	66.7
1965	43.1	47.0	58.0	67.2	72.7	78.6	84.7	82.1	77.1	67.1	61.9	48.3	65.7
1966	48.0	48.2	63.9	73.4	72.6	81.9	84.2	82.8	74.3	67.3	57.4	47.6	66.8

STATION HISTORY

Both a recording and a nonrecording rain gage were installed at the Belton Dam site on July 30, 1951. A cotton region shelter, maximum and minimum thermometers, and a standard four-foot, Class A evaporation pan were installed on June 17, 1953. Temperature, 24-hour precipitation, and evaporation data are published monthly in CLIMATOLOGICAL DATA-TEXAS under the name, Belton Dam, station index number, 41-0665-03. Hourly precipitation data are published monthly in HOURLY PRECIPITATION DATA-TEXAS.

Weather Bureau State Climatologist
Environmental Science Services Administration
3600 Manor Road, Austin, Texas 78722
August 1968

Single copies of this summary are available without charge from the Bureau of Business Research, The University of Texas, Austin, Texas 78712. Quantity rates upon request.