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 29° 16' N
LONGITUDE 103° 18' W
ELEV. (GROUND) 5300 ft.

CLIMATOLOGICAL SUMMARY

STATION CHISOS BASIN, TEXAS

MEANS AND EXTREMES FOR PERIOD 1947-1966

Month	Temperature (°F) Means: Daily maximum	Daily minimum	Monthly	Extremes: Record highest	Year	Record lowest	Year	** Mean degree days	Precipitation Totals (Inches): Mean	Greatest daily	Year	Snow, Sleet: Mean	Maximum monthly	Year	Greatest Depth	Year	Mean number of days: Precip. .10 inch or more	Temperatures Max.: 90° and above	32° and below	Min.: 32° and below	0° and below	Month
(a)	20	20	20	20		20		10	20	20		20	20		10		10	10	10	10	10	
Jan	60.4	37.6	49.0	82	1949	-3	1949	523	0.76	1.23	1958	1.1	9.0	1958	9	1958	2	0	*	10	*	Jan
Feb	64.2	39.7	52.0	83	1954	6	1951	384	0.40	0.70	1958	1.1	7.0	1961	3	1966	2	0	*	6	0	Feb
Mar	70.6	44.4	57.5	87	1963	12	1955	266	0.29	0.70	1953	0.2	2.0	1965	T	1965	1	0	*	4	0	Mar
Apr	78.2	51.9	65.1	96	1963	27	1960	74	0.65	1.20	1949	T	T	1959+	0		2	1	0	*	0	Apr
May	84.7	58.1	71.4	99	1953	37	1953	16	1.68	1.73	1963	0	0		0		4	6	0	0	0	May
Jun	88.6	62.9	75.8	100	1959+	45	1955	2	1.96	2.15	1951	0	0		0		4	12	0	0	0	Jun
Jul	86.9	63.1	75.0	102	1958	53	1948	*	3.07	3.26	1959	0	0		0		5	9	0	0	0	Jul
Aug	85.8	62.1	74.0	97	1951	53	1960+	1	2.28	2.02	1950	0	0		0		5	6	0	0	0	Aug
Sep	81.7	58.4	70.2	97	1954	43	1957	14	1.85	1.57	1965	0	0		0		5	3	0	0	0	Sep
Oct	75.6	51.7	63.7	91	1962	29	1948	103	1.26	4.29	1966	T	T	1958+	0		3	*	0	*	0	Oct
Nov	66.6	42.3	54.5	89	1959	16	1950	286	0.46	1.38	1959	0.4	4.0	1957+	1	1962	2	0	*	3	0	Nov
Dec	60.6	38.0	49.3	79	1954	7	1953	481	0.58	0.75	1964	0.9	9.0	1947	0		2	0	0	7	0	Dec
Year	75.3	50.9	63.1	102	July 1958	-3	Jan. 1949	2150	15.24	4.29	Oct. 1966	3.7	9.0	Jan. 1958+	9	Jan. 1958	37	37	*	30	*	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 BIG BEND NATIONAL PARK, TEXAS

A gigantic area of 707,895 acres, Big Bend National Park encloses a wildly weird county of stark desert, lofty peaks and incredible canyons. It is edged on three sides by the "Big Bend" of the Rio Grande. Within the park is a spectacular, almost other-world beauty of the land that is more like that of Mexico, across the river, than that of the rest of the United States. The park is accessible from Marathon via U.S. Highway 385 (79 miles), from Alpine via State Highway 118 (108 miles), and from Marfa/Presidio via U.S. Highway 87 and Farm Road 170 (156 miles). El Camino del Rio, the popular name for Farm Road 170 which stretches from the western edge of Big Bend National Park to Lajitas, Redford, Presidio and beyond, is an excellent, well-traveled highway, and one of the most spectacular drives in the state. Accommodations and routine automobile needs are available in the park. It is advisable to make reservations, which can be obtained by writing to National Park Concessions, Incorporated, Big Bend National Park, Texas, 79834. Gasoline is available at "The Basin," Panther Junction and Castolon, but motorists should check both gasoline and water before leaving U.S. Highway 90.

The climate, vegetation, and wildlife of Big Bend National Park change with the terrain. Elevations within the park vary from less than 2000 feet along the river in the Hot Springs-Boquillas area to 7838 feet atop Emory Peak. The area of the Chisos Mountains in Big Bend National Park, and the Davis Mountains and the Guadalupe Mountains farther north, are the only regions in Texas boasting a mountain climate. Climatic differences of considerable magnitude are found within short distances in mountainous regions. Each hill creates on and around it a variety of climates. The crest has a climate different from the valley, and the windward slope one different from the wind protected slope. Generally, temperatures decrease with altitude and average about 1°F lower for each 300 feet of increased elevation.

Data in this climatological summary are from "The Basin," a natural bowl surrounded by the Chisos Mountains. The station elevation is 5300 feet.

Winter days are pleasantly mild and nights are crisp and cool. Daytime maxima are about 3°F cooler on an average in the Basin in January, the coldest month, than at park headquarters at Panther Junction (elevation 3740 feet). There is an average of 11 days during the winter season when the daily maxima in the Basin does not exceed 50°F. There is little difference in mean January minima in the Basin and at Panther Junction, the minima in the Basin being less than 1°F cooler. Winter precipitation may fall as rain or snow, but seldom does. Measurable precipitation occurs on only four days in both December and January, on an average, and on only two days in February.

Summer temperatures in the desert and river valley may exceed 100°F, but are normally quite pleasant in the Basin. June is the warmest month. Daily maxima in the Basin are about 6°F cooler in June than at Panther Junction. June minima are about 5°F cooler in the Basin. Summer is the "rainy" season in the mountains, but most days are dry. Measurable amounts occur on an average of eight days each month. Precipitation is the convective shower type, typical of mountain regions.

Spring and fall are the most pleasant seasons in the park. Daytime temperatures are not too warm in the desert and nights are not too cool. The weather is ideal for maximum outdoor activity. Spring arrives early. There is a slow succession of bloom beginning in late February and reaching the mountain heights in May. Occasionally, blustery "northers" may sweep through the park in late winter and early spring accompanied by chilling winds and blowing dust. The weather is more settled after mid-April.

Like temperature, relative humidity varies with elevation. Actual measurements are not available in the park, but values may be estimated from isopleths of relative humidity based on data obtained from neighboring regions. Mean annual relative humidity is estimated at 55 to 70 percent at 6:00 a.m., 35 to 45 percent at noon, and 30 to 40 percent at 6:00 p.m., Central Standard Time.

Sunshine is abundant, and sometimes intense in the Big Bend, averaging 70 to 80 percent of the total possible, annually.

Few places offer more exciting possibilities for color photography than Big Bend National Park. The morning and late afternoon are the best times of day to photograph distant scenes. A haze filter is recommended. The brilliant southern sky and the high reflectivity of the light desert sands combine to make over exposure the most common photographic error.

CHISOS BASIN, TEXAS

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1947	-	48.8	56.2	64.2	71.0	76.8	75.0	71.8	69.2	67.4	53.1	45.6	-
1948	44.7	56.0	58.2	68.6	72.1	76.8	74.6	75.8	68.8	61.8	50.1	56.0	63.6
1949	45.5	53.8	60.6	59.3	72.8	75.8	74.6	71.7	68.4	61.3	55.7	49.6	62.4
1950	56.5	54.9	60.0	66.0	72.3	74.2	73.2	72.5	70.7	66.6	56.0	51.5	64.5
1951	50.0	52.0	57.9	63.0	71.9	77.6	76.5	76.7	71.8	66.4	53.3	51.1	64.0
1952	55.1	51.4	53.7	61.4	68.2	74.9	72.5	77.1	70.5	61.2	52.0	47.1	62.1
1953	-	52.0	61.9	64.2	69.9	78.0	75.7	72.3	69.2	62.7	52.7	42.1	-
1954	53.0	55.5	58.3	67.3	70.3	75.8	75.3	73.6	72.0	64.7	-	50.4	-
1955	46.2	49.7	60.1	66.8	72.2	75.8	74.4	73.3	71.0	64.7	55.2	52.4	63.5
1956	50.3	51.6	59.0	64.5	74.1	76.4	75.4	74.1	69.2	65.5	52.3	49.0	63.5
1957	55.3	60.0	56.7	64.6	67.1	75.3	76.5	-	68.5	59.8	51.5	53.3	-
1958	45.2	52.3	52.4	64.0	69.3	77.4	78.3	75.3	70.0	58.8	54.5	47.6	62.1
1959	50.4	52.8	54.3	62.6	72.2	74.4	72.5	74.1	72.6	64.0	51.0	47.9	62.4
1960	47.9	46.3	57.9	65.3	71.8	77.2	73.8	72.5	69.3	66.2	57.7	46.0	62.6
1961	44.3	50.7	59.2	65.5	72.8	72.6	72.5	71.7	71.1	65.4	53.0	52.3	62.6
1962	45.3	59.0	54.8	65.9	74.8	75.2	75.2	75.3	76.4	71.6	66.8	56.5	66.4
1963	47.6	50.2	59.9	67.8	72.0	77.1	76.7	74.0	68.5	63.8	56.2	47.5	63.5
1964	46.0	47.5	57.9	67.1	73.1	74.2	75.4	75.9	70.0	61.7	56.8	50.8	63.0
1965	52.1	48.0	54.3	67.7	70.8	75.9	75.6	72.4	70.6	63.0	60.2	51.3	63.5
1966	44.7	46.3	57.6	65.0	69.5	73.6	76.1	72.9	68.8	61.7	57.0	46.8	61.7

STATION HISTORY

Several weather observational stations have been established in or near Big Bend National Park. Stations at Castalon and Terlingua were closed due to the difficulty of operating the stations seven days per week in such remote areas. Currently, temperature and rainfall observational stations are maintained in Chisos Basin and at the park headqueaters at Panther Junction. Only rainfall measurements are made at Boquillas Ranger Station. Observations at the Basin began on January 1, 1941; records are incomplete prior to February 1947. Observations at Panther Junction began on March 21, 1955; and at Boquillas Ranger Station on February 1, 1952. Data are published monthly in CLIMATOLOGICAL DATA-TEXAS. Station index numbers: Chisos Basin, 41-1715-05; Panther Junction, 41-6792-05; and Boquillas Ranger Station, 41-0950-05.

Weather Bureau State Climatologist
Environmental Science Services Administration
3600 Manor Road, Austin, Texas 78723
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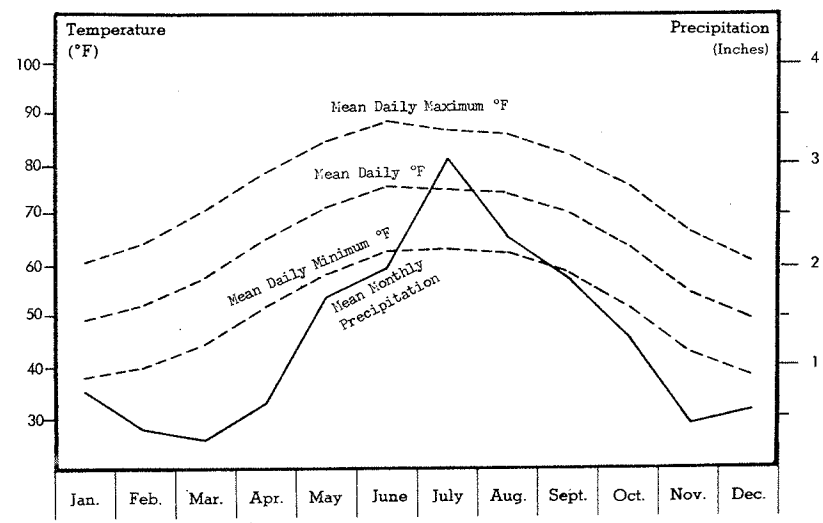
Single copies of this summary are available without charge from the Bureau of Business Research, The University of Texas, Austin, Texas, 78712. Quantity rates upon request.

CHISOS BASIN, TEXAS

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1947	-	0.13	0.41	T	3.03	2.39	0.36	4.65	1.78	0.65	0.38	1.54	-
1948	0.04	0.30	0	0.39	0.35	2.92	4.07	0.62	0.87	-	-	0.39	-
1949	2.16	0.82	0.08	2.61	1.93	2.08	1.67	3.80	3.37	1.61	0	0.79	20.92
1950	1.31	0.33	0.06	0.06	1.07	2.82	6.57	4.02	1.77	0	0	0	18.01
1951	0.16	0.05	1.32	0.02	0.52	3.67	2.57	0.89	0.77	1.09	0.03	0.45	11.54
1952	0.66	0.11	0.24	1.46	1.10	1.10	6.03	0.05	0.02	0	0.07	0.92	11.76
1953	0	0.41	0.99	0.43	0.59	0.05	4.07	1.17	0.60	0.53	0	0.18	9.02
1954	0.36	0.01	T	1.64	1.47	1.26	0.79	4.99	0.44	0.36	0	0.12	11.44
1955	0.40	0	0	0.29	1.30	1.64	1.27	2.71	1.40	0.13	0.83	0.07	10.04
1956	1.23	0.13	0	T	1.41	1.73	1.91	1.06	2.24	0.56	0.09	0.05	10.41
1957	0.31	1.18	0.74	0.58	4.86	0.95	2.79	0.47	1.76	2.18	0.44	0.52	16.78
1958	2.53	1.20	0.51	0.04	1.36	1.02	1.02	1.11	4.34	2.81	0.53	0.35	16.82
1959	0.03	0.39	0	0.83	2.71	3.16	5.62	0.90	0.89	1.77	2.37	0.62	19.29
1960	1.69	0.21	0	1.47	0.26	1.65	5.67	5.28	0.04	0.60	0.72	1.53	19.12
1961	2.15	0.82	0.17	1.11	4.14	2.42	4.07	2.54	0.81	1.17	1.96	0.05	21.41
1962	0.18	0.06	0.14	0.12	0.48	1.57	4.27	0.68	1.90	2.15	0.35	1.06	12.96
1963	0.39	0.58	0.33	1.30	3.95	0.99	3.56	3.14	1.80	1.39	0.58	0.39	18.40
1964	0.11	0	0.39	0.14	1.65	2.42	1.56	1.65	2.35	0.45	0	1.54	12.26
1965	0.37	0.96	0.07	0	1.02	2.65	1.32	3.30	4.16	0	0.36	0.81	15.02
1966	0.45	0.37	0.28	0.46	0.38	2.68	2.29	2.55	5.67	6.47	0	0.16	21.76

T - Trace

Monthly Temperatures and Precipitation