

**U. S. DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric 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

**CLIMATOLOGICAL SUMMARY**

STATION HARLINGEN, TEXAS

LATITUDE 26° 13' N  
 LONGITUDE 97° 41' W  
 ELEV. (GROUND) 38 ft.

(Revised March 1971)

MEANS AND EXTREMES FOR PERIOD 1931-1969

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	Max.		Min.		
																			32° and below	32° and below	0° and below		0° and below
(a)	39	39	39	39		39		14	39	39						14	14	14	14	14			
Jan	70.9	49.8	60.4	91	1946	14	1962	262	1.43	9.00	1941	T	T	1967+	0	3	*	*	2	0	Jan		
Feb	74.5	52.3	63.4	99	1940	21	1951	160	1.22	3.38	1958	0	0	0	0	3	1	0	1	0	Feb		
Mar	79.0	57.2	68.1	102	1954+	29	1942	91	0.95	1.50	1940	0	0	0	0	2	1	0	*	0	Mar		
Apr	85.9	64.5	75.2	106	1955	37	1938	8	1.47	4.25	1941	0	0	0	0	2	8	0	0	0	Apr		
May	90.0	69.3	79.7	103	1953+	50	1954+	*	3.18	5.10	1948	0	0	0	0	3	17	0	0	0	May		
Jun	93.7	72.9	83.3	106	1956	58	1966	0	2.49	5.01	1939	0	0	0	0	4	26	0	0	0	Jun		
Jul	96.0	73.8	84.9	107	1954+	60	1963	0	1.71	3.00	1945	0	0	0	0	2	30	0	0	0	Jul		
Aug	96.7	73.6	85.2	106	1953+	60	1967	0	3.04	5.55	1936	0	0	0	0	2	29	0	0	0	Aug		
Sep	92.3	71.0	81.7	106	1947	52	1942	*	4.80	4.81	1967	0	0	0	0	6	22	0	0	0	Sep		
Oct	87.1	64.2	75.7	100	1937+	44	1964	12	2.56	3.50	1950	0	0	0	0	5	10	0	0	0	Oct		
Nov	78.9	56.4	67.7	95	1947	32	1959	77	1.43	2.60	1967	0	0	0	0	3	2	0	*	0	Nov		
Dec	73.0	51.2	62.1	93	1942+	26	1966	187	1.57	5.50	1940	0	0	0	0	3	*	0	1	0	Dec		
Year	84.8	63.0	73.9	107	July 1954	14	Jan. 1962	797	25.85	9.00	Jan. 1941	T	T	Jan. 1967+	0	39	146	*	4	0	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.

\*\* Base 65°F

THE CLIMATE OF HARLINGEN, TEXAS

Harlingen, named for a city in Holland, is a marketing and distribution center in west central Cameron County. It is a water port, connected by a channel to the Gulf Intracoastal Canal. Harlingen is the cotton financing, processing and marketing center of the Lower Rio Grande Valley and a major citrus and vegetable marketing and processing center. Harlingen and the surrounding area is a year-round resort, fishing hunting and water sports area. Mexico, with its border towns filled with bargains in pottery and handi-crafts, lies a few miles to the south, while the open water of the Gulf of Mexico is only a short distance to the east.

Harlingen has a warm temperate tropical climate with dry winters and hot humid summers. Although near the Gulf of Mexico and largely dominated by Tropical Maritime air masses from this source region, Harlingen does not possess a truly marine climate. Annual variations in temperature are more characteristic of a continental type of climate. Tropical Maritime air masses control the climate throughout the spring, summer and fall months, while in winter, the area is frequently under the influence of modified polar air masses.

Average annual rainfall is 25.85 inches. Most of the precipitation falls in the form of thundershowers, with the result that amounts are unevenly distributed. Occasional tropical cyclones in the late summer produce heavy rains and cause the monthly rainfall averages to show a September maximum. A secondary rainfall maximum occurs in late May and early June as the result of squall line thunderstorms. The most persistent rains are associated generally with fronts and stationary fronts during the winter, and with local lows during the late summer and early fall. March is usually the driest month.

The moisture-laden air from the Gulf of Mexico has a moderating effect on temperatures. In general, summer maxima are hotter and winter minima cooler as the distance from the Gulf of Mexico increases.

Freezes (32°F or below) do not occur every year at Harlingen. The mean dates of the last occurrence of 32°F or below in the spring, and the first occurrence of 32°F in the fall, are February 4 and December 12, respectively. These dates are adjusted to take into account those years during which no freeze occurs. The mean length of the warm season is 341 days. Severe freezes, resulting in heavy losses to citrus production, as well as to vegetables, occurred on January 29-31, 1949; January 20-February 3, 1951; and on January 9-12, 1962.

Harlingen receives approximately 50 percent of the total possible sunshine in winter, 60 percent in spring, 76 percent in summer and 65 percent in fall. Relative humidity decreases slightly from east to west as the distance from the Gulf increases. At noon, Central Standard Time, relative humidity is estimated at 68 percent in January, 60 percent in April, 53 percent in July, and 62 percent in October. In an average year, free water (lake) evaporation exceeds precipitation by 35 inches. The prevailing winds are southeasterly to south-southeasterly throughout the year except in December when north-northwesterly winds predominate.

The largest and most destructive storms affecting the Harlingen area are tropical cyclones. Those tropical cyclones with sustained wind speeds of 64 knots (74 miles per hour) or greater are known as hurricanes, and are a threat to the area in late summer and early fall, but major storms are rare. Flooding from torrential rains accompanying these tropical storms is the most likely cause of property damage. Prior to Hurricane Beulah, September 18-23, 1967, the last major hurricane to strike Cameron County directly was on September 4-5, 1933.

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	60.2	63.6	69.8	76.2	82.1	84.8	83.6	84.3	81.0	78.7	75.7	73.6	-
1932	63.7	70.4	75.2	77.0	83.4	85.0	85.4	81.0	77.7	74.5	69.2	68.0	73.6
1933	65.2	66.6	72.1	76.8	83.8	82.3	83.3	80.2	78.2	76.4	71.4	65.5	74.1
1934	65.2	68.3	72.8	77.0	83.1	83.6	83.8	80.6	78.4	76.4	69.8	61.6	74.5
1935	67.3	69.5	74.9	79.9	83.6	83.8	84.8	80.6	78.4	76.4	69.8	61.6	74.5
1936	67.3	69.5	74.9	79.9	83.6	83.8	84.8	80.6	78.4	76.4	69.8	61.6	74.5
1937	60.8	63.8	64.6	73.6	79.2	82.8	82.7	86.4	79.8	75.4	74.8	74.8	74.8
1938	63.2	67.2	74.0	73.6	81.0	80.6	85.3	81.5	76.2	76.2	65.5	65.6	74.8
1939	64.4	64.6	71.8	74.2	79.2	84.4	87.7	80.6	75.6	77.4	67.4	63.7	73.8
1940	54.1	65.0	69.0	72.0	82.4	84.4	85.2	84.3	79.4	76.6	66.8	62.3	73.3
1941	63.8	69.8	67.6	76.0	81.2	84.4	85.0	81.0	78.4	70.6	65.4	59.8	74.0
1942	57.0	67.6	70.4	76.4	83.4	87.3	87.4	80.6	72.4	72.4	67.4	60.4	74.0
1943	57.8	68.2	70.4	75.0	83.4	85.0	85.6	81.0	72.4	72.4	67.4	60.4	74.0
1944	59.2	68.2	70.4	75.0	83.4	85.0	85.6	81.0	72.4	72.4	67.4	60.4	74.0
1945	62.6	66.4	76.1	76.6	82.3	87.2	87.2	84.9	81.8	74.1	73.2	60.1	75.8
1946	58.7	64.8	71.3	77.0	82.3	87.2	87.2	84.9	81.8	74.1	73.2	60.1	75.8
1947	56.4	61.4	64.3	70.2	80.7	86.2	86.2	82.9	82.6	78.4	69.2	63.6	75.4
1948	55.0	63.1	67.0	76.2	81.1	85.1	85.9	79.7	74.3	74.3	66.7	66.7	73.9
1949	57.5	64.3	68.0	72.5	81.7	84.8	86.0	85.7	83.2	77.1	68.3	66.2	74.6
1950	69.1	68.5	67.4	77.0	82.8	84.1	86.6	85.8	84.6	78.1	67.6	63.1	76.2
1951	62.0	61.5	69.2	74.6	80.4	84.9	85.2	82.9	77.4	77.4	66.0	64.9	74.5
1952	67.2	67.3	70.6	72.7	82.3	84.4	87.0	81.3	71.1	66.9	60.9	60.9	74.1
1953	63.4	64.5	68.9	76.9	83.3	87.0	87.1	81.5	75.9	67.0	58.5	58.5	75.5
1954	66.0	68.7	76.9	78.0	83.2	83.3	85.1	85.8	83.3	75.7	67.3	64.2	75.3
1955	62.2	63.1	72.1	75.6	83.0	83.0	84.8	80.8	75.1	67.7	63.9	64.8	74.8
1956	63.4	66.7	75.6	75.6	81.1	84.2	86.0	86.9	82.1	77.9	65.4	64.9	-
1957	66.5	69.9	70.6	76.0	81.1	82.8	87.0	87.2	82.1	75.6	66.8	64.4	75.9
1958	58.0	61.4	63.8	70.0	78.7	85.0	86.0	88.1	82.7	72.8	67.9	58.4	73.3
1959	56.8	61.1	64.9	72.2	81.5	82.5	85.6	86.3	85.0	76.7	61.8	61.1	73.0
1960	60.5	58.6	64.3	75.4	78.5	84.6	87.2	85.8	79.1	78.1	68.4	56.8	73.1
1961	53.1	62.3	72.5	73.8	81.6	84.1	84.5	83.0	81.4	74.4	66.2	52.7	73.3
1962	54.7	72.3	66.4	72.9	78.9	83.6	86.4	82.2	78.7	66.0	59.4	52.4	72.9
1963	53.1	59.3	69.8	78.1	78.1	83.6	83.1	86.0	81.5	74.3	68.1	52.2	72.2
1964	-	57.5	66.9	76.8	79.5	80.9	84.5	85.7	81.9	71.2	70.2	59.1	-
1965	61.8	58.7	62.9	76.6	83.1	83.9	83.1	82.6	81.9	69.8	71.8	64.1	73.1
1966	52.9	55.2	65.2	74.7	76.9	80.0	85.1	82.1	82.1	73.0	68.3	60.1	71.4
1967	57.2	60.2	70.9	79.8	82.3	83.9	83.0	81.5	77.5	71.8	68.9	60.0	72.8
1968	54.7	56.0	62.0	74.1	79.4	81.8	82.8	83.5	80.3	76.6	65.9	61.6	71.6
1969	61.6	63.3	61.6	75.3	77.6	82.9	86.4	84.5	80.7	76.3	65.8	63.9	73.3

STATION HISTORY

Rainfall records began at Harlingen on May 1, 1911. Temperature records were started on January 17, 1912. No observations were taken during the period from October 10, 1916 to June 21, 1919. The station, although moved several times, remained within a distance of one mile from the Harlingen Post Office building until February 22, 1964. At that time, the station was relocated to a site at 1621 Rio Hondo Road, 2.5 miles northeast of the post office. Station equipment consists of a cotton region shelter, maximum and minimum thermometers, standard eight-inch rain gage, thermometer, dew board and soil thermometer (February-March). Daily temperature and precipitation data are published monthly in Climatological Data—Texas. Station index number: 41-5943-0.

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National Oceanic and Atmospheric Administration  
Airport Administration Building  
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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.

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1931	5.22	1.00	T	0.60	4.22	5.10	4.10	2.40	1.56	0.45	1.25	0.82	24.92
1932	0.73	1.32	1.20	3.55	1.64	2.75	1.15	2.40	7.85	3.40	2.02	0.48	29.34
1933	1.24	0.07	0.28	0.73	3.64	0.45	6.41	4.94	18.25	4.85	1.45	1.75	43.60
1934	3.61	0.45	1.20	0.45	1.20	0.40	4.55	2.00	6.67	1.40	1.20	4.03	37.94
1935	4.42	1.08	0.87	1.90	3.85	0.30	3.08	7.45	8.72	3.31	0.75	2.15	29.51
1936	1.85	1.11	0.42	0.50	4.42	T	4.08	1.00	1.70	3.35	1.75	2.79	27.77
1937	1.85	1.11	0.42	0.50	4.42	T	4.08	1.00	1.70	3.35	1.75	2.79	27.77
1938	1.85	1.11	0.42	0.50	4.42	T	4.08	1.00	1.70	3.35	1.75	2.79	27.77
1939	1.85	1.11	0.42	0.50	4.42	T	4.08	1.00	1.70	3.35	1.75	2.79	27.77
1940	0.09	0.45	4.13	0.03	5.90	3.78	0.70	0.60	1.35	2.57	1.91	9.11	30.62
1941	9.17	1.01	3.92	5.75	6.95	4.90	1.00	2.05	3.10	5.37	0.20	2.57	45.99
1942	1.82	1.15	0.05	0.10	2.40	6.00	2.82	0.80	0.62	1.10	0.75	2.45	17.07
1943	1.82	1.15	0.05	0.10	2.40	6.00	2.82	0.80	0.62	1.10	0.75	2.45	17.07
1944	0.74	0.40	1.73	T	7.17	1.30	4.30	7.30	6.43	2.85	1.60	1.80	33.60
1945	1.85	1.30	0.20	3.50	0.60	3.60	0.02	1.17	8.60	3.05	0.30	0.20	23.80
1946	0.56	0.82	0.40	2.19	2.75	1.66	0.49	4.57	8.06	6.65	2.42	0.64	20.31
1947	1.14	2.05	0.49	0.15	5.32	0.20	1.98	7.27	8.06	2.24	0.54	0.01	26.75
1948	0.73	2.85	-	-	1.24	0.89	0.81	1.02	5.00	0.96	0.18	1.30	-
1949	0.33	0.17	2.12	0.91	3.73	4.08	3.74	2.52	6.08	2.66	0.45	0.21	19.87
1950	0.12	-	1.59	0.28	2.04	0.69	3.72	2.34	4.30	T	3.41	0.57	18.22
1951	0.54	0.20	0.34	0.82	3.97	3.01	0.92	11.28	0.57	2.62	0.44	1.22	19.61
1952	0.38	0.94	0.47	0.51	0.10	0.16	0.92	1.41	0.21	6.77	1.38	0.09	20.82
1953	0.32	0.01	0.38	0.46	0.46	2.43	0.18	3.41	1.21	6.70	1.85	0.25	27.20
1954	0.75	0.28	1.03	0.36	0.97	0.00	5.70	2.01	12.30	2.70	1.85	0.07	11.39
1955	0.01	1.17	1.00	2.43	0.26	1.98	0.64	0.30	1.66	1.55	0.32	0.33	22.66
1956	0.17	2.42	2.62	4.34	2.32	0.67	0.07	0.34	0.43	0.30	2.95	1.66	41.56
1957	5.12	7.13	0.74	0.08	2.53	2.34	1.45	0	8.05	10.73	1.75	1.66	41.56
1958	1.53	2.39	0.32	1.76	5.38	4.40	0.64	1.14	0.09	5.33	2.73	1.66	41.56
1959	0.22	1.00	1.07	2.28	1.34	1.76	0.42	6.28	7.44	3.58	1.14	0.73	28.11
1960	1.38	0.25	0.00	2.49	0.42	1.79	2.69	4.52	8.30	0.90	1.61	0.81	25.06
1961	0.34	0.13	1.30	0.85	0.69	2.98	0.00	0.88	2.28	1.35	1.95	1.64	14.39
1962	0.20	0.44	0.05	0.39	6.07	1.88	1.92	2.75	4.29	3.75	4.31	2.55	28.60
1963	0.17	1.51	0.08	0.75	2.45	2.96	0.42	0.27	2.76	0.48	0.65	1.69	14.39
1964	0.32	2.70	0.68	0.31	1.11	0.93	0.20	2.78	2.90	1.16	3.76	4.26	21.11
1965	3.52	0.92	0.80	3.51	7.99	5.15	1.48	3.00	2.56	4.19	0.09	0.35	33.56
1966	1.43	1.03	1.12	0.08	1.88	0.86	0.56	5.65	14.36	5.24	3.36	3.65	39.22
1967	3.70	1.57	0.95	0.77	4.83	2.69	2.74	2.71	6.98	1.87	0.49	0.95	30.05
1968	0.39	2.09	0.84	0.13	4.06	0.62	0.19	3.73	5.84	0.44	1.84	0.30	20.47
1969	-	-	-	-	-	-	-	-	-	-	-	-	-

Monthly Temperatures and Precipitation

