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

LATITUDE 28° 40' N
LONGITUDE 97° 24' W
ELEV. (GROUND) 160 ft.

STATION GOLIAD, TEXAS

MEANS AND EXTREMES FOR PERIOD 1942-1971

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	Max. 32° and below	Min. 32° and below	Min. 0° and below	Month
(a)	30	30	30	30		30		16	30	30		30	30		16		16	16	16	16	16	
Jan	66.6	44.1	55.4	90	1971+	7	1962	346	1.85	3.00	1958	0.1	1.0	1949	T	1961	3	*	*	6	0	Jan
Feb	69.8	47.8	58.8	95	1962	13	1957	230	2.58	3.27	1958	0.2	6.0	1958	4	1958	5	*	0	3	0	Feb
Mar	75.6	52.8	64.2	97	1971	23	1943	129	1.70	3.14	1957	T	T	1968+	0		3	*	0	1	0	Mar
Apr	81.9	61.3	71.6	105	1963	34	1961	17	2.50	3.80	1957	0	0		0		4	2	0	0	0	Apr
May	87.5	67.0	77.3	102	1950	45	1970+	1	4.29	6.07	1968	0	0		0		4	10	0	0	0	May
Jun	92.6	72.2	82.4	103	1967+	55	1970	0	3.08	4.19	1960	0	0		0		4	24	0	0	0	Jun
Jul	95.9	73.8	84.9	107	1964+	64	1967	0	2.49	7.06	1942	0	0		0		3	30	0	0	0	Jul
Aug	96.6	73.6	85.1	112	1962	59	1967	0	3.00	4.32	1966	0	0		0		4	29	0	0	0	Aug
Sep	91.7	70.1	80.9	103	1963+	44	1942	*	4.70	9.16	1967	0	0		0		7	21	0	0	0	Sep
Oct	85.2	61.3	73.3	100	1962	36	1970	13	3.55	8.03	1960	0	0		0		5	7	0	0	0	Oct
Nov	76.0	52.4	64.2	96	1963	25	1959+	117	2.14	2.22	1952	T	T	1957	0		4	1	0	1	0	Nov
Dec	69.2	46.7	58.0	88	1964+	20	1950	255	1.97	3.09	1956	0	0		0		4	0	0	3	0	Dec
Year	82.4	60.1	71.3	112	Aug. 1962	7	Jan. 1962	1108	33.85	9.16	Aug. 1967	0.3	6.0	Feb. 1958	4	Feb. 1958	50	124	*	14	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 GOLIAD, TEXAS

Located on the Gulf coastal plain 25 miles southwest of Victoria, Goliad is one of Texas' oldest municipalities. The area was inhabited long before recorded history, and early Spanish explorers found an Aranama Indian village at the site, which was called Santa Dorotea by those Spaniards. In 1749 Spain established a mission and, as was custom, a nearby presidio (fort) to protect mission endeavor. Presidio Santa Maria del Loreto de la Bahia grew into one of the more important forts on the Spanish frontier. It was in this presidio that Col. James W. Fannin and his men were massacred during the 1836 Texas Revolution, and "Remember Goliad" became a famed battle cry at the Battle of San Jacinto. Both restored Mission Espiritu Santo and Presidio La Bahia are in Goliad State Park, two miles south of Goliad, off U.S. 183.

Besides its many historical sites, Goliad is today, a center of oil and agribusiness enterprises, tourism, and also the county seat of Goliad County. The agricultural income of Goliad county is derived from livestock, poultry, grains and flaxseed.

The climate of Goliad is humid subtropical with hot summers. Rainfall averages 33.85 inches annually with peak monthly totals in the May - June and September - October periods. In most years March is the driest month. The climate is essentially continental, characterized by a considerable range in annual extremes of temperature; however, air masses of continental origin play a minor role in determining the weather in the Goliad area. The prevailing winds are southeasterly throughout the spring, summer and fall months. Tropical Maritime air masses from the Gulf of Mexico predominate throughout the above seasons. Polar air masses, greatly modified by a long trajectory across southern latitudes, and by the warm water surface of the Gulf, are responsible for mild winter temperatures. Rainfall, most often in the form of thundershowers, may vary considerably from month to month and from year to year. Torrential rains during both the spring and all seasons resulted in a total of 51.52 inches at Goliad in 1957, the wettest year of record. Oddly enough, only 0.03 inches fell during the month of July of that year. A meager total of 9.73 inches fell in 1917, the driest year of record. Annually, Goliad receives about 62 percent of the total possible sunshine. Seasonally, sunshine varies from about 49 percent of the total possible in winter to 75 percent in summer. Mean relative humidity, at noon, c.s.t., is estimated at 64 percent in January, 63 percent in April, 54 percent in July and 55 percent in October.

Winter. The winter season is one in which mild, sunny, less humid days alternate with those with cool, cloudy, drizzly weather. Temperatures drop to 32°F or below on only 14 days during an average year. These freezing temperatures are confined to a few hours just before sunrise. The lowest temperature of record at Goliad is 7°F, and occurred January 12, 1962.

Summer. The summers at Goliad are most often hot and humid. Showers occur on about three or four days each month, otherwise there is little variety in the day - to - day weather, especially during mid-season. Refrigerated-type air conditioning is recommended for maximum comfort indoors and while traveling. The highest temperature of record at Goliad is 112°F, and occurred twice; on July 9, 1939 and again on August 13, 1962.

Spring and Fall. Spring and fall are most delightful seasons at Goliad. Temperatures are moderate, and the weather has greater variety than in summer. Considerable morning cloudiness is present in early spring. Tropical storms that visit the Texas coast occasionally during late summer and early fall may bring heavy rains to the Goliad area, but this is an infrequent occurrence. October and November are ideal months, with long periods of clear days of mild temperatures and cool nights.

The warm season (freeze free period) at Goliad is 285 days. The mean dates of the last occurrence of 32°F or below in the spring and the first occurrence of 32°F or below in the fall, are February 24 and December 6, respectively. Mean annual lake (free water) evaporation is 55 inches, and in an average year, evaporation exceeds precipitation by 24 inches.

GOLIAD, TEXAS

Average Temperature (°F)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1942	53.1	56.6	63.2	70.2	76.8	84.2	82.2	83.3	78.6	73.2	66.7	60.7	70.7
1943	56.0	62.2	61.6	72.8	78.3	81.2	83.9	86.0	79.8	70.4	61.7	54.7	70.7
1944	54.8	64.0	64.2	71.8	73.7	82.1	85.5	85.8	79.6	70.8	63.4	54.0	70.8
1945	56.2	60.7	71.0	71.2	76.0	82.2	85.3	84.6	80.6	71.4	69.0	56.0	72.0
1946	53.6	60.0	65.6	72.2	78.1	79.3	84.2	83.4	80.4	74.9	64.0	58.6	71.2
1947	52.6	51.8	59.1	70.6	76.0	82.1	84.4	83.6	82.0	77.0	62.5	56.6	69.8
1948	49.2	57.6	64.1	72.7	77.9	84.1	85.1	86.1	79.3	73.2	63.8	62.8	71.4
1949	53.2	61.0	65.6	68.2	78.9	83.4	84.6	83.8	83.1	73.9	65.1	61.4	71.8
1950	64.1	62.3	64.4	71.1	80.1	82.6	84.8	85.3	83.1	77.4	65.2	59.8	73.4
1951	56.4	58.3	66.2	71.2	77.2	83.2	87.2	88.3	82.0	76.1	64.2	61.7	72.7
1952	64.6	62.4	64.2	67.6	74.9	81.9	84.3	86.1	79.5	67.2	62.0	55.5	70.9
1953	59.2	57.7	71.2	71.6	77.5	85.7	87.3	85.3	80.2	73.3	63.1	53.1	72.1
1954	58.9	63.8	65.3	73.9	75.0	82.2	85.5	85.9	84.2	73.5	63.7	61.1	72.9
1955	57.3	59.3	67.0	74.3	79.1	81.5	84.6	84.7	81.9	72.4	64.4	58.5	72.1
1956	57.5	62.2	65.2	72.1	78.7	83.8	86.2	86.9	83.3	76.9	62.4	60.6	73.0
1957	58.4	65.2	64.5	70.3	76.1	81.1	85.6	86.7	79.5	72.3	61.5	59.3	71.7
1958	53.2	54.0	60.1	71.2	76.8	84.0	86.5	88.0	81.3	70.9	64.6	53.4	70.3
1959	52.3	57.0	62.4	67.4	78.8	82.5	84.5	84.5	81.8	73.0	58.6	57.2	70.0
1960	54.1	53.2	59.1	71.3	74.9	84.1	85.5	84.9	79.5	75.1	65.6	53.8	70.1
1961	51.0	58.7	67.4	69.2	77.9	81.4	82.5	82.9	80.9	72.8	61.8	58.3	70.4
1962	50.3	67.3	62.5	71.5	78.1	81.7	86.4	88.9	82.3	78.1	64.4	56.7	72.4
1963	49.1	56.1	68.8	77.2	79.7	84.2	85.4	87.1	82.7	76.3	67.0	50.0	72.0
1964	56.1	53.8	64.3	73.2	79.4	83.3	86.3	87.1	82.5	70.8	68.2	58.4	72.0
1965	59.7	56.8	59.4	72.8	76.0	81.3	84.6	84.3	81.8	69.2	69.7	60.2	71.3
1966	50.2	53.9	63.5	72.4	75.0	80.1	83.7	85.1	80.5	72.1	67.8	57.4	70.1
1967	56.3	57.0	69.4	77.1	79.2	84.4	85.2	82.3	77.9	70.8	65.7	56.0	71.8
1968	53.2	52.3	61.5	71.4	77.1	81.1	82.6	84.0	78.8	75.6	62.3	57.0	69.7
1969	58.5	59.7	58.5	71.1	75.2	81.8	86.0	84.5	80.1	72.3	61.7	59.4	70.7
1970	50.9	58.3	60.4	71.3	73.5	79.4	81.9	83.4	79.7	71.1	61.8	64.1	69.7
1971	61.6	60.2	67.1	69.9	77.2	82.4	85.1	81.8	79.5	74.0	64.9	61.7	72.1

STATION HISTORY

Rainfall observations began at Goliad on September 1, 1912. The rain gage was located at the corner of Garden and Market Streets. On May 1, 1935 it was relocated to a site at the rear of the fire station, 700 feet northeast of the port office. Temperature observations began on April 1, 1937. On January 1, 1945, the station was relocated to a site 300 feet west-southwest of the post office. To improve exposure, the station was relocated several more times, then on June 19, 1969, the station was relocated to its present site, at the home of the observer, 0.8 mile north-northwest of the post office. Mr. J. H. Weber was appointed Cooperative Weather Observer on May 1, 1935, and he was succeeded by his brother, Emil Weber on July 7, 1961. Station equipment consists of a cotton region shelter, maximum and minimum thermometers, and a standard, eight - inch non - recording rain gage. Daily temperature and precipitation data are published monthly in Climatological Data - Texas. Station index number: 41-3618-07.

Climatologist for Texas
National Weather Service
3600 Manor Road, Austin, Texas 78723
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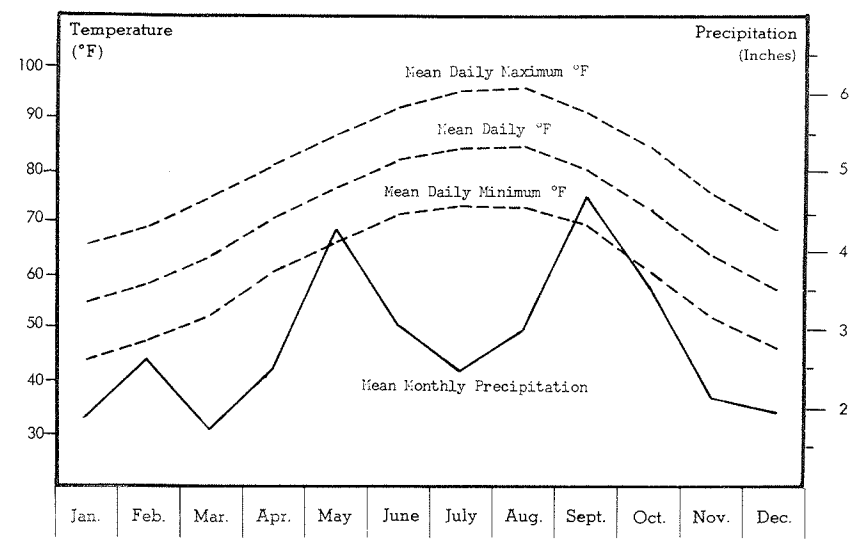
Single copies of this summary are available without charge from the Bureau of Business Research, The University of Texas, Austin, Texas 78712. Quantity rates upon request.

GOLIAD, TEXAS

Total Precipitation (Inches)

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Ann'l
1942	0.61	3.96	1.42	1.72	1.57	1.92	13.14	8.08	4.11	1.80	1.44	1.31	41.08
1943	2.40	1.49	3.04	0.52	6.18	3.88	4.58	0.65	2.44	2.55	3.24	2.52	33.49
1944	3.83	1.01	4.25	0.38	8.17	0.85	0.43	4.47	4.38	0.49	2.38	1.41	32.05
1945	0.76	1.05	3.86	4.53	1.01	4.84	1.97	2.27	1.26	4.91	0.30	2.67	29.43
1946	3.69	3.18	0.87	2.18	6.08	5.86	3.98	2.90	4.31	8.61	3.25	1.07	45.98
1947	2.70	0.18	1.67	3.74	9.01	1.64	1.61	3.40	0.08	1.98	2.57	2.33	30.91
1948	2.10	2.50	1.51	1.91	5.28	1.95	2.49	2.53	4.16	0.73	1.39	0.19	26.74
1949	3.45	2.63	1.40	6.04	2.34	1.66	4.93	0.79	0.88	7.57	0.46	3.29	35.44
1950	0.66	0.91	0.53	3.50	0.71	7.81	1.85	2.08	0.30	0.13	T	0.21	18.69
1951	1.92	1.10	2.75	1.11	8.90	3.43	0.10	0.35	13.16	2.08	2.45	0.17	37.52
1952	0.50	4.00	1.05	3.84	6.08	0.57	5.59	0.16	6.94	0	6.15	2.34	37.22
1953	1.17	2.10	0.22	1.59	3.49	0.67	1.10	8.39	1.91	5.23	0.80	1.83	28.50
1954	0.92	0.15	0.59	3.00	2.43	1.75	1.14	0.85	2.09	1.52	0.87	0.83	16.14
1955	0.98	4.12	0.41	0.41	3.85	1.73	2.15	4.60	2.44	2.27	1.03	1.28	25.27
1956	0.85	0.82	1.12	1.75	3.25	0.85	0.79	0.53	1.04	4.37	0.47	3.65	19.49
1957	0.43	2.74	10.07	8.17	5.78	4.18	0.03	0.65	7.29	4.68	6.05	1.45	51.52
1958	5.48	9.03	1.47	1.77	3.73	1.44	0.55	0.55	9.31	6.52	0.36	2.84	43.05
1959	0.61	7.01	0.19	2.74	2.21	4.01	0.44	3.40	1.33	5.56	2.07	2.78	32.35
1960	1.00	2.82	2.13	1.37	1.44	6.85	1.33	5.46	2.21	14.83	3.26	5.53	48.23
1961	2.12	4.15	0.59	2.31	0.97	3.71	4.45	1.57	4.46	0.24	4.01	0.43	29.01
1962	0.49	0.17	1.07	5.42	2.38	7.69	0	0.41	6.89	2.16	2.69	2.31	31.68
1963	0.73	2.03	0.15	1.53	1.78	3.41	0.77	2.14	2.14	1.84	4.93	2.14	23.59
1964	2.98	1.71	1.72	0.66	2.86	0.80	1.93	2.80	5.58	1.14	0.99	1.99	25.16
1965	3.04	5.41	0.72	1.29	7.70	3.40	2.74	1.64	4.23	5.11	3.82	4.90	44.00
1966	2.88	2.92	0.34	4.16	7.19	4.64	3.57	6.94	1.90	1.38	0.05	1.66	37.63
1967	2.05	0.86	0.43	1.15	2.64	0	3.39	3.74	22.19	5.77	0.71	1.15	44.08
1968	4.10	2.22	1.26	1.34	8.64	5.85	4.37	2.39	3.93	3.70	3.01	1.29	42.10
1969	0.44	4.22	2.62	4.13	2.57	1.66	1.38	6.40	1.58	3.83	4.18	2.43	35.44
1970	2.71	1.58	3.50	0.63	7.43	4.70	2.22	2.79	2.29	1.60	0.08	0.64	30.17
1971	0.05	1.46	0.05	1.99	2.87	0.60	1.63	7.00	16.19	4.02	1.15	2.60	39.61

T - Trace

Monthly Temperatures and Precipitation