A UNITED STATES DEPARTMENT OF COMMERCE PUBLICATION

LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA

HOUSTON, TEXAS

1970

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION ENVIRONMENTAL DATA SERVICE

NARRATIVE CLIMATOLOGICAL SUMMARY

Houston, the largest city in Texas, is located in the flat Coastal Plains, about 50 miles from the Gulf of Mexico and about 25 miles from Galveston Bay. The climate is predominantly marine. The terrain includes numerous small streams and bayous which, together with the nearness to Galveston Bay, favor the development of both ground and advective fogs. Prevailing winds are from the southeast and south, except in January, when frequent passages of high pressure areas bring invasions of polar air and prevailing northerly winds.

Temperatures are moderated by the influence of winds from the Gulf, which results in mild winters and, on the whole, relatively cool summer nights. Another effect of the nearness of the Gulf is abundant rainfall, except for rare extended dry periods. Polar air penetrates the area frequently enough to provide stimulating variability in the weather.

The average number of days with minimum temperatures of 32° or lower is only about 7 per year at the city office, and about 15 at William P. Hobby Airport, which is located in southeast Houston. Most freezing temperatures last only a few hours since they are usually accompanied by clear skies. The extreme persistence of freezing temperatures was in January - February 1951, when the temperature remained 32° or below for 123 consecutive hours.

Monthly rainfall is evenly distributed throughout the year. Annual downtown rainfall has varied from 72.86 inches in 1900 to 17.66 inches in 1917. About 75 percent of the years have total precipitation between 30 and 60 inches. Monthly precipitation at the city office has ranged from 17.64 inches to only a trace. Since thundershowers are the main source of rainfall, precipitation may vary substantially in different sections of the City on a day-to-day basis.

Records of sky cover for daylight hours indicate about one-fourth of the days per year as clear with a maximum of clear days in October. Cloudy days are relatively frequent from November to May and partly cloudy days are the more frequent for June through September. Sunshine averaged near 60 percent of the possible amount for the year at the Federal Building for 1938-1960, ranging from 46 percent for the winter months to 69 percent for the summer. Data from the airport locations since 1961 indicate slightly higher percentages of sunshine. Snow rarely occurs; however, on February 14-15, 1895, 20.0 inches of unmelted snow was measured, but 24-hour amounts were not reported.

Heavy fog occurs on an average of 16 days a year and light fog occurs about 62 days a year in the City, but the frequency of heavy fog is considerably higher at William P. Hobby Airport.

Destructive windstorms are fairly infrequent, but both thundersqualls and tropical storms occasionally pass through the area.

At the city office, the average date of the last temperature 32° or lower in spring is February 5. The average date of the first 32° temperature in fall is December 11. The average period from the last 32° temperature in spring to the first in fall is 309 days. The latest date of 32° temperature in spring is March 27, 1955, and the earliest date in fall is October 25, 1892.

METEOROLOGICAL DATA FOR THE CURRENT YEAR

Station: HOUSTON, TEXAS INTERCONTINENTAL AIRPORT Standard time used: CENTRAL Latitude: 29° 59' N Longitude: 95° 22' W Elevation (ground): 96 feet Year: 1970

Month	Temperature: Averages: Daily maximum	Daily minimum	Monthly	Extremes: Highest	Date	Lowest	Date	Degree days (Base 65°): Heating	Cooling	Precipitation: Total	Greatest in 24 hrs.	Date	Snow, Ice pellets: Total	Greatest in 24 hrs.	Date	Relative humidity (Local time): Hour 00	Hour 06	Hour 12	Hour 18	Wind &: Resultant: Direction	Speed	Average speed	Fastest mile: Speed	Direction	Date	Percent of possible sunshine	Average sky cover sunrise to sunset	Number of days: Sunrise to sunset: Clear	Partly cloudy	Cloudy	Precipitation .01 inch or more	Snow, Ice pellets 1.0 inch or more	Thunderstorms	Heavy fog	Temperatures: Maximum: 90° and above	32° and below	Minimum: 32° and below	0° and below	Average daily solar radiation - langleys
JAN	55.7	37.6	46.7	80	28	19	7	579	18	1.93	0.85	4-5	T	T	19 +	86	88	66	69	06	2.1	7.1	24	35	6	34	7.5	7	2	22	10	0	1	5	0	0	14	0	
FEB	64.8	42.9	53.9	78	18	27	3	309	3	2.52	1.13	31-1	0.0	0.0		82	83	59	60	09	1.9	8.1	26	27	1	49	6.4	6	9	13	8	0	3	1	0	0	4	0	
MAR	67.4	46.4	56.9	78	5	32	22+	252	7	5.08	1.87	6-7	0.0	0.0		86	90	63	64	09	1.4	8.6	25	14	16	49	6.8	6	9	16	14	0	6	5	0	0	2	0	
APR	78.9	59.7	69.3	88	28	35	3	51	188	2.21	1.73	9-10	0.0	0.0		89	90	63	66	15	5.1	9.0	21	13	29+	55	7.3	6	6	18	8	0	3	3	0	0	0	0	
MAY	81.2	62.9	72.1	87	19	46	4	12	238	14.39	4.69	15-16	0.0	0.0		89	91	64	66	12	4.3	7.9	23	14	9	57	6.6	6	7	18	12	0	12	4	0	0	0	0	
JUN	88.9	67.8	78.4	94	30+	52	3	0	409	0.26	0.16	20	0.0	0.0		90	92	56	60	17	3.0	5.9	20	16	11	75	5.8	8	13	9	3	0	3	1	17	0	0	0	
JUL	91.7	71.0	81.4	100	4	63	6	0	513	2.28	0.67	12-13	0.0	0.0		88	92	58	62	14	2.4	5.1	22	09	4	74	6.3	6	14	11	10	0	12	0	22	0	0	0	
AUG	94.0	72.2	83.1	98	23+	62	27	0	567	2.03	0.94	11	0.0	0.0		87	92	55	59	15	1.6	5.1	28	36	11	78	5.1	8	17	6	7	0	7	0	29	0	0	0	
SEP	87.3	70.5	78.9	93	10+	54	30	0	423	6.22	1.53	1	0.0	0.0		90	92	64	73	12	3.1	6.4	30	08	16+	65	6.8	4	11	15	10	0	10	0	15	0	0	0	
OCT	77.8	55.5	66.7	89	4	39	30	72	131	9.09	4.06	22-23	0.0	0.0		91	92	58	75	06	1.4	5.9	26	31	23	65	5.9	8	8	15	10	0	7	4	0	0	0	0	
NOV	69.8	44.0	56.9	81	28	25	16	274	38	1.54	1.03	8-9	0.0	0.0		84	87	52	71	22	0.7	6.9	21	35	23	68	4.5	15	6	9	3	0	1	6	0	0	4	0	
DEC	71.5	49.4	60.5	82	3+	30	26	209	76	0.64	0.53	30	0.0	0.0		81	85	62	71	13	2.2	7.2	25	31	30	47	6.6	8	6	17	5	0	0	6	0	0	3	0	
YEAR	77.4	56.7	67.1	100	JUL. 4	19	JAN. 7	1758	2611	48.19	4.69	MAY 15-16	T	T	JAN. 19 +	87	90	60	66	13	2.0	6.9	30	08	SEP. 16+	61	6.3	88	108	169	100	0	65	35	83	0	27	0	

NORMALS, MEANS, AND EXTREMES[c]

Month	Temperature: Normal: Daily maximum	Daily minimum	Monthly	Extremes[Ø]: Record highest	Year	Record lowest	Year	Normal heating degree days (Base 65°)	Precipitation: Normal total	Maximum monthly	Year	Minimum monthly	Year	Maximum in 24 hrs.	Year	Snow, Ice pellets: Mean total	Maximum monthly	Year	Maximum in 24 hrs.	Year	Relative humidity (Local time): Hour 00	Hour 06	Hour 12	Hour 18	Wind &: Mean speed	Prevailing direction	Fastest mile: Speed	Direction	Year	Pct. of possible sunshine	Mean sky cover sunrise to sunset	Mean number of days: Sunrise to sunset: Clear	Partly cloudy	Cloudy	Precipitation .01 inch or more	Snow, Ice pellets 1.0 inch or more	Thunderstorms	Heavy fog	Temperatures: Max.: 90° and above	32° and below	Min.: 32° and below	0° and below	Average daily solar radiation - langleys
				9		9				36		36		36		36	36		36		8	8	8	8	20	15	6	6		7	20	20	20	20	26	36	30	23	8	8	8	8	
(a)	(b)	(b)	(b)					(b)	(b)																																			
J	63.6	43.6	53.6	83	1967+	17	1963+	384	3.78	10.51	1944	0.86	1952	3.66	1944	0.2	3.1	1949	3.1	1949	81	84	64	67	11.9	NNW	32	33	1964	47	7.0	7	4	20	11	*	2	7	0	*	6	0	
F	55.5	46.0	55.8	87	1962	25	1963	288	3.44	11.33	1959	0.09	1954	5.03	1966	0.2	4.4	1960	4.4	1960	81	84	60	63	12.1	SSE	40	36	1963	56	6.7	7	5	16	10	*	3	6	0	0	3	0	
M	71.7	50.8	61.3	88	1967	28	1965	192	2.67	11.42	1957	0.07	1953	5.00	1957	T	1.0	1968	1.0	1968	82	86	59	62	12.7	SSE	35	30	1968+	57	6.8	6	13	12	8	*	2	6	0	0	1	0	
A	78.0	59.0	68.5	93	1963	38	1962	36	3.24	8.07	1957	0.36	1937	5.18	1966	0.0	0.0		0.0		86	89	63	68	13.0	SSE	38	16	1966+	54	7.0	5	7	18	8	0	4	4	1	0	0	0	
M	85.7	66.2	76.0	94	1967	52	1967	0	4.32	13.24	1968	T	1937	6.35	1968	0.0	0.0		0.0		87	90	61	66	11.7	SSE	41	17	1968	62	6.4	5	13	13	8	0	7	2	6	0	0	0	
J	91.1	72.0	81.6	100	1963	59	1964	0	3.69	14.66	1960	0.08	1934	8.51	1960	0.0	0.0		0.0		88	91	61	65	10.2	SSE	44	17	1965	72	5.6	6	17	7	8	0	7	1	19	0	0	0	
J	92.1	73.8	83.0	101	1964	64	1967	0	4.29	12.38	1942	0.07	1962	6.34	1943	0.0	0.0		0.0		88	91	59	64	8.8	S	40	36	1964	74	5.9	5	17	9	9	0	10	*	26	0	0	0	
A	92.8	73.6	83.2	106	1962	64	1967	0	4.27	18.51	1945	0.38	1956+	15.65	1945	0.0	0.0		0.0		87	91	59	64	8.4	SSE	54	34	1963	70	5.7	8	15	8	9	0	9	*	26	0	0	0	
S	89.1	69.3	79.2	98	1963	50	1967	0	4.26	15.40	1958	0.14	1953	5.62	1944	0.0	0.0		0.0		85	88	60	65	9.1	SSE	31	36	1963	66	5.4	9	12	9	9	0	7	1	15	0	0	0	
O	82.3	60.4	71.4	96	1962	38	1964	6	3.77	22.31	1949	T	1952	10.25	1949	0.0	0.0		0.0		83	86	52	63	9.8	ESE	35	31	1967	73	4.7	12	10	9	7	0	3	4	3	0	0	0	
N	71.1	50.5	60.8	88	1963	32	1968	183	3.86	14.36	1946	0.18	1949	7.89	1943	0.0	0.0		0.0		82	85	60	68	11.2	SSE	30	14	1963	60	5.8	9	8	13	8	0	2	5	0	0	*	0	
D	65.4	45.9	55.7	82	1964	19	1963	307	4.36	9.80	1949	0.78	1958	4.39	1964	T	T	1961+	T	1961+	81	84	64	69	11.3	SSE	35	31	1968+	50	6.7	8	5	18	10	0	2	6	0	0	4	0	
YR	79.0	59.3	69.2	106	AUG. 1962	17	JAN. 1963+	1396	45.95	22.31	OCT. 1949	T	OCT. 1952+	15.65	AUG. 1945	0.4	4.4	FEB. 1960	4.4	FEB. 1960	84	87	60	66	10.8	SSE	54	34	AUG. 1963	62	6.2	87	126	152	103	*	59	42	95	*	13	0	

Ø For record August 1960 through 1968.

Means and extremes above are from existing and comparable exposures. Annual extremes have been exceeded at other sites in the locality as follows: Highest temperature 108 in August 1909; lowest temperature 5 in January 1940 and earlier; fastest mile of wind 84 from Northwest in March 1926.

(a) Length of record, years, based on January data. Other months may be for more or fewer years if there have been breaks in the record.
(b) Climatological standard normals (1931-1960).
* Less than one half.
\+ Also on earlier dates, months, or years.
T Trace, an amount too small to measure.
Below zero temperatures are *preceded by a minus sign.* The prevailing direction for wind in the Normals, Means, and Extremes table is from records through 1963.
‡ ≥ 70° at Alaskan stations.

Unless otherwise indicated, dimensional units used in this bulletin are: *temperature in degrees F.; precipitation, including snowfall,* in inches; wind movement in miles per hour; and relative humidity in percent. Heating degree day totals are the sums of negative departures of average daily temperatures *from 65° F.* Cooling degree day totals are the sums of positive departures of average daily temperatures from 65° F. Sleet was included in snowfall totals beginning with July 1948. *The term "ice pellets"* includes solid grains of ice (sleet) and particles consisting of snow pellets encased in a thin layer of ice. Heavy fog reduces visibility to 1/4 mile or less.

Sky cover is expressed in a range of 0 *for no clouds or obscuring phenomena* to 10 for complete sky cover. The number of clear days is based on average cloudiness 0-3, partly cloudy days 4-7, and cloudy days 8-10 tenths.

Solar radiation data are the averages of direct and diffuse radiation *on a horizontal surface.* The langley denotes one gram calorie per square centimeter.

& Figures instead of letters in a direction column indicate direction in tens of degrees from true North; i.e., 09 - East, 18 - South, 27 - West, 36 - North, and 00 - Calm. *Resultant wind is the vector sum of wind directions and speeds* divided by the number of observations. If figures appear in the direction column under "Fastest mile" the corresponding speeds are fastest observed 1-minute values.

c Data from William P. Hobby Airport through 1968. Summary for the Intercontinental Airport will be published when *sufficient data have been accumulated.* See next page for normals applicable to the observation site at the Intercontinental Airport.

AVERAGE TEMPERATURE

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1933	59.9	55.3	63.8	69.4	78.4	79.0	82.0	82.1	81.2	72.6	63.2	64.0	70.9
1934	55.8	54.3	59.6	69.6	73.9	81.4	82.4	82.4	77.5	73.4	63.8	56.4	69.2
1935	57.6	56.0	67.4	69.4	73.7	79.8	82.5	83.0	76.8	72.5	60.6	53.0	69.4
1936	50.8	51.1	64.9	65.7	74.0	81.4	80.8	82.0	79.4	67.3	57.2	55.1	67.5
1937	56.6	56.4	56.6	65.5	74.0	81.4	82.6	83.2	78.0	68.4	56.3	54.1	67.8
1938	54.4	59.8	66.6	65.4	73.8	79.8	82.2	81.9	77.4	72.1	57.9	55.7	68.9
1939	55.8	55.9	63.4	67.6	75.6	80.6	82.4	82.1	79.5	71.2	57.6	56.6	69.0
#1940	42.1	52.9	61.4	66.3	72.8	78.6	81.7	81.8	76.0	70.0	60.6	57.4	66.8
1941	55.1	52.4	56.7	69.0	74.9	80.8	83.3	83.4	79.7	75.2	58.4	56.1	68.8
1942	50.1	53.0	59.6	67.1	74.9	81.2	81.4	82.4	76.2	71.2	63.5	55.8	68.0
1943	52.4	58.3	58.6	70.2	77.0	81.6	83.0	83.6	76.0	68.6	57.8	53.2	68.4
1944	52.3	61.4	61.7	69.5	73.3	82.0	84.4	83.8	79.4	69.9	61.8	52.2	69.3
1945	52.4	58.6	67.8	68.8	73.1	80.9	83.0	83.0	79.9	68.5	65.5	51.4	69.4
1946	51.6	56.4	64.0	70.6	75.4	79.2	82.2	82.8	78.4	72.1	62.2	57.8	69.4
1947	52.2	48.8	56.0	69.4	75.4	81.6	82.5	82.6	80.0	75.0	59.0	55.0	68.1
1948	46.2	54.8	61.7	71.4	76.7	82.4	84.3	84.5	77.3	69.6	60.5	59.0	69.0
1949	52.5	59.0	62.5	66.1	78.0	82.6	83.2	82.0	80.0	71.9	62.8	58.2	69.9
1950	63.1	61.3	60.5	67.0	78.0	80.3	82.3	82.4	79.3	73.0	60.7	55.1	70.2
1951	53.8	55.2	62.9	67.0	75.0	82.1	84.3	83.8	79.6	72.4	58.2	58.1	69.5
1952	62.0	58.8	60.1	64.9	73.3	81.3	82.7	84.6	78.5	65.9	59.0	53.7	68.7
1953	55.6	55.5	68.5	68.7	76.7	83.9	84.1	82.1	79.4	71.5	60.0	51.4	69.9
1954	56.4	60.6	60.9	71.5	72.4	81.3	84.8	84.5	81.4	73.0	60.0	57.4	70.3
1955	54.1	56.1	64.7	71.2	77.0	79.4	83.1	82.8	80.3	70.7	61.5	56.2	69.8
1956	54.3	59.2	62.6	67.7	77.3	80.8	84.3	83.8	80.2	73.3	59.9	59.0	70.2
1957	57.9	62.9	61.2	68.6	76.5	80.5	85.4	83.8	76.9	67.9	61.3	57.3	70.0
1958	50.3	49.9	57.8	69.2	77.2	83.4	84.8	84.2	79.7	69.6	62.5	52.6	68.4
1959	50.3	56.3	60.3	66.7	76.9	82.3	82.3	82.3	80.1	72.2	55.8	55.0	68.4
#1960	51.8	49.7	57.4	69.8	73.9	82.4	84.7	82.4	79.5	73.2	64.3	52.8	68.5
1961	49.5	57.9	66.8	68.0	77.0	80.4	82.6	82.2	79.7	70.5	59.8	56.3	69.2
1962	49.3	63.9	58.9	68.1	75.7	79.8	84.1	85.9	81.3	74.6	60.1	54.8	69.7
1963	48.3	52.6	64.9	74.5	77.5	82.0	84.3	84.3	80.4	75.0	64.1	47.1	69.6
1964	51.6	49.4	60.4	70.2	75.8	80.4	83.7	84.4	79.3	67.8	65.0	55.9	68.7
1965	56.0	55.1	58.7	73.5	77.1	83.0	85.1	83.5	81.2	69.4	69.1	58.9	70.9
1966	48.4	52.8	61.5	70.6	75.9	80.0	84.3	82.4	79.6	69.7	64.7	54.2	68.7
1967	54.9	54.5	67.6	75.7	75.9	82.6	82.1	81.1	77.6	70.5	64.1	55.4	70.2
1968	52.7	50.4	59.0	71.1	76.3	80.5	82.5	84.0	78.6	73.5	59.7	55.7	68.7
#1969	56.7	56.9	56.1	70.3	75.4	80.0	84.4	83.2	78.2	71.0	58.5	55.2	68.8
1970	46.7	53.9	56.9	69.3	72.1	78.4	81.4	83.1	78.9	66.7	56.9	60.5	67.1
RECORD MEAN	53.4	55.8	61.7	69.1	75.6	81.1	82.9	83.2	79.0	71.2	61.0	55.5	69.1
MAX	62.8	65.3	71.7	79.4	84.9	90.5	91.9	92.7	88.4	81.9	71.4	65.3	78.8
MIN	44.0	46.2	51.7	59.7	66.2	71.7	73.8	73.6	69.6	60.5	50.6	45.6	59.4

TOTAL DEGREE DAYS

HOUSTON, TEXAS

Season	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June	Total
1933-34	0	0	0	3	107	117	284	294	191	11	0	0	1007
1934-35	0	0	0	0	106	290	272	253	56	28	2	0	1007
1935-36	0	0	0	4	184	368	438	411	77	69	0	0	1551
1936-37	0	0	0	39	253	306	294	265	263	105	0	0	1525
1937-38	0	0	0	41	286	337	335	184	57	110	0	0	1350
1938-39	0	0	0	17	269	293	286	256	116	56	0	0	1293
1939-40	0	0	0	19	223	277	707	360	158	69	0	0	1813
#1940-41	0	0	1	11	180	240	264	345	268	6	0	0	1315
1941-42	0	0	0	21	212	274	456	332	201	43	0	0	1539
1942-43	0	0	13	10	135	289	403	190	219	17	0	0	1276
1943-44	0	0	0	41	227	377	400	164	141	26	4	0	1380
1944-45	0	0	0	11	157	395	381	200	37	40	14	0	1235
1945-46	0	0	0	46	93	418	390	243	89	4	0	0	1283
1946-47	0	0	0	12	139	243	416	443	285	29	0	0	1567
1947-48	0	0	0	0	204	323	587	301	188	11	0	0	1614
1948-49	0	0	0	30	177	228	413	192	135	72	0	0	1247
1949-50	0	0	0	33	114	233	149	139	179	45	0	0	892
1950-51	0	0	0	0	193	321	355	299	136	59	0	0	1363
1951-52	0	0	0	3	261	251	163	195	161	50	0	0	1084
1952-53	0	0	0	58	233	352	263	263	28	33	2	0	1232
1953-54	0	0	0	19	162	422	271	138	206	10	14	0	1242
1954-55	0	0	0	36	151	260	347	259	162	15	0	0	1230
1955-56	0	0	0	21	196	290	342	219	141	27	0	0	1236
1956-57	0	0	0	0	204	220	256	129	138	45	3	0	995
1957-58	0	0	0	71	185	245	449	417	234	30	0	0	1631
1958-59	0	0	0	48	145	375	452	254	163	58	0	0	1495
1959-60	0	0	0	7	309	306	416	441	260	8	1	0	1748
#1960-61	0	0	0	17	104	390	473	227	56	61	0	0	1328
1961-62	0	0	0	16	184	287	480	99	209	32	0	0	1307
1962-63	0	0	0	8	157	313	515	351	88	7	0	0	1439
1963-64	0	0	0	0	108	551	413	446	158	19	0	0	1695
1964-65	0	0	0	31	114	315	300	284	250	0	0	0	1294
1965-66	0	0	2	20	23	212	516	334	144	12	0	0	1263
1966-67	0	0	0	27	99	359	342	298	68	0	0	0	1193
1967-68	0	0	3	18	99	312	390	415	229	17	0	0	1483
#1968-69	0	0	0	5	199	297	284	234	281	1	0	2	1303
1969-70	0	0	0	29	238	304	579	309	252	51	12	0	1774
1970-71	0	0	0	72	274	209							

TOTAL PRECIPITATION

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
1933	3.14	3.51	2.36	0.62	2.32	0.63	7.66	5.42	4.66	1.76	2.07	3.45	37.60
1934	9.80	1.88	3.50	5.86	1.33	0.08	2.45	1.04	4.61	0.29	5.37	3.77	39.98
1935	2.02	4.03	2.43	3.63	3.89	2.74	2.58	0.38	6.62	3.25	1.46	9.59	42.62
1936	2.77	2.06	0.85	1.72	12.19	0.13	6.86	3.23	3.68	1.85	2.57	6.05	43.96
1937	2.92	1.82	4.41	0.36	T	4.91	2.82	3.64	4.81	4.73	2.22	5.73	38.37
1938	5.88	1.83	1.03	3.88	7.77	4.12	2.05	3.09	4.42	1.55	2.17	2.08	39.87
1939	3.15	1.98	1.21	1.10	5.86	2.55	8.27	2.39	1.42	3.36	1.98	2.04	35.32
#1940	0.92	2.25	1.89	1.12	1.20	5.80	3.11	0.76	3.67	4.20	9.53	4.58	39.03
1941	1.97	2.57	6.45	6.56	4.51	9.25	5.70	3.24	11.17	11.48	2.41	2.35	67.66
1942	1.29	2.41	2.03	4.94	1.77	3.31	12.38	5.56	2.72	1.57	3.99	3.72	45.69
1943	3.69	1.31	3.98	1.76	3.91	2.43	9.14	1.92	3.19	1.04	12.14	4.79	49.30
1944	10.51	2.15	6.64	1.14	12.44	2.17	0.24	2.61	9.15	0.65	3.71	6.38	57.79
1945	1.97	2.56	2.18	4.33	7.35	5.69	2.29	18.51	3.44	4.44	0.51	7.15	60.44
1946	6.56	2.82	2.48	3.87	9.60	9.77	5.35	4.32	8.84	2.01	14.36	2.88	72.86
1947	4.39	1.09	2.79	2.02	8.54	1.74	2.17	8.86	1.29	1.91	4.58	3.82	43.20
1948	4.44	4.11	1.94	2.19	5.35	3.59	2.74	2.80	2.74	0.92	7.23	1.37	39.42
1949	4.75	5.24	4.43	6.17	1.18	2.55	9.39	3.87	1.31	22.31	0.18	9.80	71.19
1950	4.62	5.00	1.22	4.96	2.49	7.10	3.29	0.72	1.50	0.69	1.17	1.12	33.88
1951	5.37	1.42	4.84	1.28	3.32	3.32	1.06	2.01	5.40	1.18	1.55	2.53	33.28
1952	0.85	7.12	2.16	6.12	3.51	3.74	4.33	1.09	2.62	T	6.58	5.53	43.66
1953	1.57	3.40	0.07	1.27	7.86	3.49	2.06	8.38	0.14	2.62	5.27	7.24	43.37
1954	1.65	0.09	0.89	2.81	2.70	1.24	4.86	3.89	0.49	6.98	1.74	1.42	28.76
1955	5.57	6.03	0.93	3.51	3.54	1.56	2.01	10.10	5.34	0.63	1.06	1.60	41.88
1956	3.95	2.42	0.78	1.84	3.32	4.07	0.38	0.38	1.88	2.66	1.52	5.11	28.32
1957	0.91	2.46	11.42	8.07	1.87	3.96	0.84	3.23	8.29	11.53	6.70	1.83	61.11
1958	4.69	3.59	1.47	2.58	2.40	0.47	6.04	3.16	15.40	2.03	1.32	0.78	43.93
1959	2.72	11.33	1.58	7.76	6.20	2.78	9.67	8.45	4.76	5.76	1.90	5.34	68.23
1960	2.05	3.93	0.38	1.42	0.90	14.66	2.34	7.42	0.61	7.32	3.69	8.97	53.69
1961	4.44	3.88	1.84	2.42	3.59	11.11	10.07	4.17	7.89	0.05	10.20	3.31	62.97
1962	1.73	0.71	0.94	4.81	1.15	7.40	0.07	2.77	3.97	3.12	5.68	4.78	37.13
1963	3.09	2.60	0.55	0.92	0.62	7.79	2.08	1.85	1.94	0.30	5.72	4.83	32.29
1964	2.89	4.97	2.24	1.63	2.25	1.89	1.68	2.61	6.76	2.35	4.28	5.57	39.12
1965	1.87	3.27	0.81	0.95	6.53	3.06	1.57	2.29	3.56	3.09	4.82	6.15	37.97
1966	4.45	7.75	2.20	7.98	11.21	4.42	1.45	7.11	4.01	5.45	1.56	1.53	59.13
1967	2.41	2.17	1.83	4.42	2.54	0.17	7.77	1.60	4.84	3.18	0.50	5.02	36.45
1968	8.02	1.99	2.92	3.02	13.24	11.18	6.49	2.90	3.87	3.91	2.71	1.19	61.44
#1969	2.74	5.31	3.18	3.34	4.73	1.51	3.89	2.67	6.08	3.30	2.13	4.38	43.26
1970	1.93	2.52	5.08	2.21	14.39	0.26	2.28	2.03	6.22	9.09	1.54	0.64	48.19
RECORD MEAN	3.70	3.27	2.49	3.31	4.68	4.30	4.26	4.05	4.47	3.62	4.01	4.26	46.42

MONTHLY NORMALS
HOUSTON INTERCONTINENTAL AIRPORT

Month	Temperature: Normal: Daily maximum	Temperature: Normal: Daily minimum	Temperature: Normal: Monthly	Normal heating degree days (Base 65°)	Precipitation: Normal total
(a)	(b)	(b)	(b)	(b)	(b)
J	63.1	39.5	51.3	453	3.93
F	65.2	42.4	53.8	333	3.65
M	71.8	47.7	59.8	223	2.80
A	78.5	56.4	67.5	45	3.34
M	86.6	63.8	75.2	0	4.28
J	92.3	69.6	81.0	0	3.54
J	93.5	71.2	82.4	0	4.03
A	94.3	70.7	82.5	0	4.01
S	90.5	66.0	78.3	0	4.05
O	83.2	56.6	69.9	25	3.73
N	71.3	46.3	58.8	225	3.90
D	65.1	41.6	53.4	372	4.53
YR	79.6	56.0	67.8	1676	45.79

Record mean values above (not adjusted for instrument location changes listed in the Station Location table) are means for the period 1933 through 1969 (Data from William P. Hobby Airport through May 1969 and from Intercontinental Airport beginning June 1969).

# Indicates a break in the data sequence during the year, or season, due to a station move or relocation of instruments. See Station Location table.

STATION LOCATION

HOUSTON, TEXAS

Location	Occupied from	Occupied to	Airline distance and direction from previous location	Latitude North	Longitude West	Elevation above Sea level: Ground at temperature site	Elevation above Ground: Wind instruments	Extreme thermometers	Psychrometer	Telepsychrometer	Tipping bucket rain gage	Weighing rain gage	8" rain gage	Hygrothermometer	Elevation above Sea level: Pyranometer	Remarks
Cotton station	7-14-81	9-15-09														Location of cotton station not available.
4th Floor, Stewart Bldg. Preston & Fannin Streets	9-16-09	12-13-09		25° 45.7'	95° 21.6'	51	122	111	111		104		104			
8th Floor, Stewart Bldg. Preston & Fannin Streets	12-14-09	2-28-26		29° 45.7'	95° 21.6'	51	122	111	111		104		104			
19th Floor, Shell Bldg. Texas & Fannin Streets	3- 1-26	12-22-32	1/8 mi. SW	29° 45.6'	95° 21.7'	52	314	293	293		287		287			
22nd Floor, Shell Bldg. Texas & Fannin Streets	12-23-32	6-21-35		29° 45.6'	95° 21.7'	52	314	293	293		287		287			
14th Floor, Shell Bldg. Texas & Fannin Streets	6-22-35	8-25-38		29° 45.6'	95° 21.7'	52	314	293	293		287		287			
10th Floor, Federal Bldg Franklin & Fannin Sts.	8-26-38	8-31-67*	1/4 mi. NE	29° 45.8'	95° 21.6'	41	190	162	158		160		159			* - Temperature and precipitation data telemetered to office at airport after 3-31-61.
COOPERATIVE																
Harrisburg, Texas	11- 1-23	2-29-32		29° 42'	95° 17'	38		4					4			Suburb of the City of Houston.
AIRPORT STATION																
Houston Municipal Airport	7-16-30	8- 1-40		29° 39'	95° 17'	50	37	30	30				25			
Houston International Airport	8- 1-40	7-29-60	1000 ft. S	29° 39'	95° 17'	50	87	28	28				21			Known as Houston Municipal Airport until 4-15-55.
Houston International Airport ‡ ‡ William P. Hobby Airport effective 9-1-67	7-29-60	5-31-69		29° 39'	95° 17'	50	20	23	23			a23	22	4		Moved from third to ground floor of same building and hygrothermometer installed 1500 feet E of thermometer site. a - Added 9-1-68.
Trailer, NW corner of Houston Intercontinental Airport	6- 1-69	Present	23 mi. NNW	29° 59'	95° 22'	96	20	5	5				3	b4		b - Commissioned 11-14-69.

Requests for additional information should be directed to the National Weather Service Office for which this summary was issued.

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