



JULY 2005

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

HOUSTON, TX

G BUSH INTCNTL APT/HOU APT (IAH)
 Lat: 29°59' N Long: 95°21' W Elev (Ground): 118 Feet
 Time Zone: CENTRAL WBAN: 12960 ISSN #:0198-5094

DATE	TEMPERATURE °F						DEG DAYS BASE 65°		WEATHER	SNOW/ICE ON GND(IN)		PRECIPITATION (INCHES)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES						DATE	
	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING		0600 LST	1200 LST	2400 LST	2400 LST	AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM				
																			5-SEC		2-MIN		
1	2	3	4	5	6	7	8	9	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
01	101	79	90	7	73	77	0	25			0.0	0.00	29.77	29.88	5.8	18	7.4	20	16	16	16	01	
02	100	80	90	7	72	77	0	25			0.0	0.00	29.75	29.86	6.0	21	7.3	22	16	18	14	02	
03	97	76	87	4	72	76	0	22			0.0	0.00	29.77	29.89	7.1	16	10.0	26	15	22	15	03	
04	98	80	89	6	72	77	0	24			0.0	0.00	29.83	29.94	8.7	17	9.2	23	14	18	14	04	
05	99	76	88	5	72	76	0	23			0.0	0.00	29.84	29.95	3.6	12	5.8	23	13	21	13	05	
06	101*	79	90*	7	71	76	0	25	TS RA		0.0	0.01	29.79	29.90	2.9	23	6.3	22	11	18	11	06	
07	97	72	85	2	72	75	0	20	TS TSRA RA BR		0.0	1.30	29.82	29.93	2.3	18	6.7	31	32	26	04	07	
08	90	73	82	-1	70	73	0	17			0.0	0.00	29.83	29.94	5.0	04	6.9	15	12	14	06	08	
09	92	75	84	1	71	74	0	19	RA		0.0	0.02	29.80	29.91	4.9	08	6.7	33	06	29	06	09	
10	97	74	86	3	71	75	0	21	TS RA		0.0	T	29.72	29.83	4.3	03	6.2	32	31	26	31	10	
11	95	75	85	2	73	75	0	20	TS TSRA RA FG+ BR		0.0	1.57	29.78	29.89	0.3	01	3.7	47*	03	39*	03	11	
12	94	74	84	1	74	76	0	19	TS TSRA		0.0	T	29.89	30.01	2.9	16	3.8	17	16	17	16	12	
13	94	77	86	3	75	77	0	21	TS TSRA		0.0	0.06	29.87	29.98	3.0	18	4.8	21	14	17	15	13	
14	93	75	84	1	74	76	0	19	TS TSRA RA BR		0.0	0.18	29.78	29.90	2.2	19	6.5	28	33	23	33	14	
15	82	73	78*	-6	73	74	0	13	TS TSRA RA BR		0.0	1.02	29.81	29.92	3.0	12	5.2	14	11	10	13	15	
16	86	74	80	-4	74	76	0	15	TS TSRA RA BR		0.0	T	29.87	29.98	4.2	14	5.5	20	21	15	22	16	
17	87	75	81	-3	74	76	0	16	TS RA BR		0.0	0.08	29.89	30.01	5.2	14	6.1	26	15	21	17	17	
18	90	75	83	-1	75	76	0	18	TS TSRA RA		0.0	T	29.89	30.00	3.0	14	4.8	21	19	15	17	18	
19	92	75	84	0	75	78	0	19			0.0	0.00	29.87	29.98	7.2	10	8.6	22	10	18	13	19	
20	91	75	83	-1	76	77	0	18	TS TSRA RA BR		0.0	0.80	29.90	30.01	7.0	07	7.5	39	13	32	13	20	
21	90	76	83	-1	76	78	0	18	TS RA BR		0.0	0.11	29.95	30.07	0.7	14	2.7	20	13	17	13	21	
22	94	73	84	0	74	76	0	19	TS TSRA RA FG BR		0.0	0.15	29.96	30.07	0.8	05	3.8	39	06	32	06	22	
23	91	74	83	-1	74	76	0	18			0.0	0.00	29.95	30.06	2.9	13	5.1	16	12	13	14	23	
24	93	75	84	0	74	77	0	19			0.0	0.00	29.93	30.04	2.6	15	3.9	20	13	17	15	24	
25	94	75	85	1	73	77	0	20			0.0	0.00	29.89	30.00	3.3	16	4.7	18	12	14	13	25	
26	94	75	85	1	72	76	0	20			0.0	0.00	29.85	29.96	3.9	17	5.1	18	14	16	12	26	
27	94	73	84	0	72	76	0	19			0.0	0.00	29.87	29.98	2.2	21	3.7	16	15	14	14	27	
28	95	77	86	2	72	76	0	21	TS		0.0	0.00	29.90	30.02	2.2	32	5.0	14	01	10	03	28	
29	95	75	85	1	73	76	0	20			0.0	0.00	29.95	30.07	2.8	04	5.6	23	30	18	29	29	
30	93	74	84	0	66	72	0	19			0.0	0.00	29.95	30.06	4.2	03	5.1	21	04	17	01	30	
31	95	72*	84	0	68	73	0	19	TSRA		0.0	T	29.90	30.01	2.0	02	4.0	17	36	15	36	31	

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93.7	75.2	84.5	■ ■	72.7	75.8	0.0	19.7	< MONTHLY AVERAGES TOTALS->		0.0	5.30	29.86	29.97	0.9	06	5.7	<- MONTHLY AVERAGES				
0.1	1.7	0.9	■ ■	->-----DEPARTURE FROM NORMAL-----<						2.12	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
DEGREE DAYS								GREATEST 24-HR PRECIPITATION: 1.57 DATE :11				SEA LEVEL PRESSURE				DATE TIME					
MONTHLY TOTAL DEPARTURE								GREATEST 24-HR SNOWFALL: 0.0 DATE :				MAXIMUM				: 30.13 29 0953					
SEASON TO DATE TOTAL DEPARTURE								GREATEST SNOW DEPTH: 0 DATE :				MINIMUM				: 29.77 10 1853					
HEATING: 0		0		0		0		NUMBER OF DAYS WITH =>		MAXIMUM TEMP ≥ 90: 28		MINIMUM TEMP ≤ 32: 0		PRECIPITATION ≥ 0.01 INCH : 11							
COOLING: 611		38		1741		109				MAXIMUM TEMP ≤ 32 : 0		MINIMUM TEMP ≤ 0 : 0		PRECIPITATION ≥ 0.10 INCH : 7							
										THUNDERSTORMS : 16		HEAVY FOG : 1		SNOWFALL ≥ 1.0 INCH : 0							

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

HOUSTON, TX

JULY 2005

IAH

WBAN # 12960

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note)	2400 LST	
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24			Water	Equiv.
01													01												01		0.00		
02													02												02		0.00		
03													03												03		0.00		
04													04												04		0.00		
05													05												05		0.00		
06													06						0.01	T	T			T	06		0.01		
07													07					T	0.97	0.33	T			T	07		1.30		
08													08								T			T	08		0.00		
09													09												09		0.02		
10													10												10		0.02		
11													11												11		0.02		
12													12												12		T		
13													13												13		0.06		
14													14												14		0.01		
15													15												15		0.06		
16													16												16		0.02		
17													17												17		T		
18													18												18		T		
19													19												19		T		
20													20												20		T		
21													21												21		0.00		
22													22												22		0.00		
23													23												23		0.00		
24													24												24		0.00		
25													25												25		0.00		
26													26												26		0.00		
27													27												27		0.00		
28													28												28		0.00		
29													29												29		0.00		
30													30												30		0.00		
31													31												31		0.00		

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.42	.63	.87	1.21	1.50	1.55	1.56	1.56	1.56	1.57	1.57	1.57
Ending Date	11	11	11	11	11	11	11	11	11	11	11	11
Ending Time (Hour/Min)	1401	1406	1411	1416	1424	1438	1442	1442	1442	1546	1546	1546

Date and time are not entered for TRACE amounts.

Note : The sum of the hourly totals is given when it differs from the daily total. NWS does not edit ASOS hourly values but may edit daily and monthly totals. Hourly, daily, and monthly totals are printed as reported by the ASOS site.

REFERENCE NOTES & SUPPLEMENTAL SUMMARIES

* = Extreme for the month (last occurrence if more than one)

T = Trace precipitation amount

+ = also occurs on earlier date

FG+ = Heavy fog, visibility .25 miles or less
BLANK entries denote missing or unreported data

Resultant wind is the vector sum of the wind speeds and directions divided by the number of observations.

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Precipitation is for the 24-hour period ending at the time indicated in the column heading.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

NORMALS ARE FOR THE YEARS 1971–2000

WEATHER NOTATIONS

QUALIFIER	WEATHER PHENOMENA		
	PRECIPITATION	OBSCURATION	OTHER
BC Patches	DZ Drizzle	BR Mist	DS Duststorm
BL Blowing	GR Hail	DU Widespread Dust	FC Funnel Cloud
DR Low Drifting	GS Small Hail and/or Snow Pellets	FG Fog	+FC Tornado Waterspout
FZ Freezing	IC Ice Crystals	FU Smoke	PO Well-Developed Dust/Sand Whirls
MI Shallow	PL Ice Pellets	HZ Haze	SQ Squalls
PR Partial	RA Rain	PY Spray	SS Sandstorm
SH Shower(s)	SG Snow Grains	SA Sand	GL Glaze
TS Thunderstorm	SN Snow	VA Volcanic Ash	
VC In the Vicinity	UP Unknown Precipitation		

Intensity (as indicated on pages 4 to 6):
'+' = Heavy ' ' = Moderate '-' = Light

HOUSTON, TX JULY 2005

Ceilorometer (30-second) data are used to derive cloudiness at or below 12,000 feet. This cloudiness is the mean cloud cover detected during sunrise to sunset (SR–SS), or midnight to midnight (MN–MN).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet. Both ceilometer and satellite data must be present to compute Sky Condition. Clear = 0–2 oktas, Partly Cloudy = 3–6 oktas, Cloudy = 7–8 oktas.

A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled to saturation at constant pressure by evaporation of water into it.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

ADDITIONAL NOTES:

DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR–SS		MN–MN		MINIMUM	MAXIMUM	
			CEILOMETER	SATELLITE	CEILOMETER	SATELLITE			
01							9.00	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							10.00	10.00	
05							9.00	10.00	
06							10.00	10.00	
07							1.00	10.00	
08							10.00	10.00	
09							8.00	10.00	
10							8.00	10.00	
11							1.50	10.00	
12							9.00	10.00	
13							8.00	10.00	
14							4.00	10.00	
15							1.00	10.00	
16							3.00	10.00	
17							10.00	10.00	
18							7.00	10.00	
19							9.00	10.00	
20							3.00	10.00	
21							6.00	10.00	
22							3.00	10.00	
23							10.00	10.00	
24							7.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							10.00	10.00	
29							8.00	10.00	
30							8.00	10.00	
31							7.00	10.00	
MONTHLY AVGS							7.40	10.00	
SUNSHINE (MINUTES)									
Total: Possible: Percent Possible:									
NUMBER OF DAYS WITH:									
SKY CONDITION									
CLR PTLY CLDY CLOUDY MISSING									
31									
MINIMUM VISIBILITY (MILES)									
<=0.25 <=3.0 >=7.0									
0 6 23									

OBSERVATIONS AT 3-HOURLY INTERVALS

HOUSTON, TX

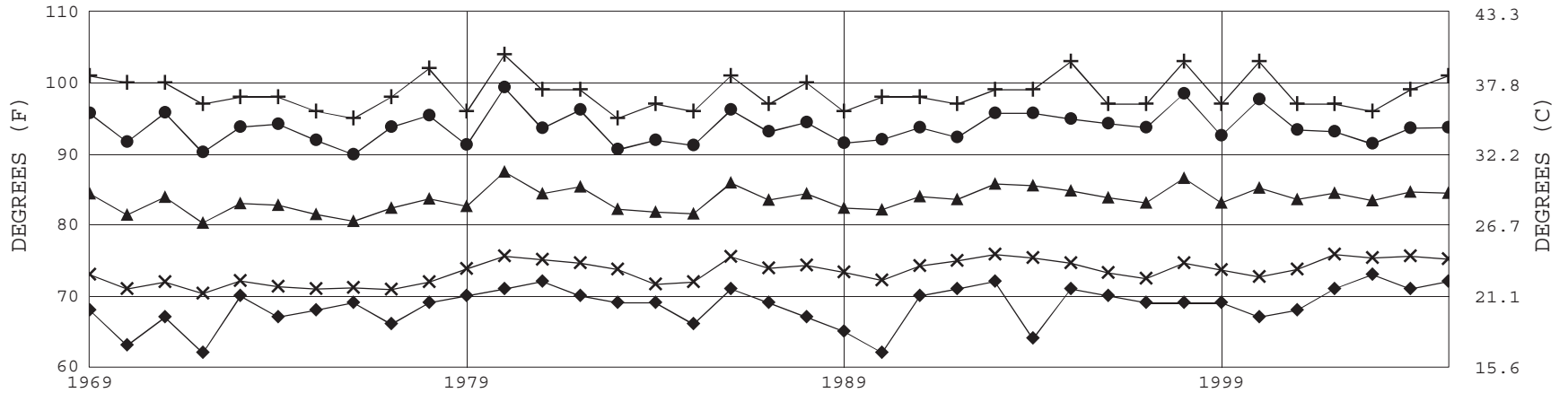
JULY 2005

IAH

WBAN # 12960

HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SATELLITE		WEATHER	TEMPERATURE °F				WIND		PRESSURE (INCHES, HG)														
	SKY COVER	CEILING 100'S OF FT		OBSERVATION TIME (LST)	EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)		DIRECTION TENS OF DEG	STATION		SEA LEVEL	OBSERVATION TIME (LST)	EFF CLD AMT Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION TENS OF DEG	STATION	SEA LEVEL									
SUNRISE: 0536 JUL 25 SUNSET: 1920												SUNRISE: 0540 JUL 31 SUNSET: 1916																								
03	BKN	250		10.00	77	74	75	90	0	00	29.89	30.01	03	SCT	NC		10.00	73	65	68	76	6	34	29.92	30.03											
06	SCT	NC		10.00	76	74	75	94	0	00	29.91	30.02	06	CLR	NC		10.00	74	64	68	71	0	00	29.94	30.05											
09	SCT	NC		10.00	85	74	77	70	3	VR	29.94	30.05	09	SCT	NC		10.00	84	70	74	63	5	06	29.95	30.06											
12	SCT	NC		10.00	90	71	77	54	3	VR	29.92	30.03	12	FEW	NC		10.00	92	66	74	43	6	VR	29.92	30.04											
15	BKN	250		10.00	92	71	77	51	6	VR	29.86	29.98	15	FEW	NC		10.00	94	66	75	40	7	09	29.86	29.98											
18	BKN	250		10.00	90	75	79	62	9	13	29.82	29.94	18	FEW	NC		10.00	92	68	75	46	6	07	29.83	29.94											
21	SCT	NC		10.00	85	73	77	68	10	18	29.85	29.97	21	SCT	NC		10.00	81	72	75	74	0	00	29.86	29.97											
24	SCT	NC		10.00	81	73	75	77	5	20	29.86	29.98	24	OVC	070		10.00	78	73	75	85	6	36	29.88	29.99											
SUNRISE: 0537 JUL 26 SUNSET: 1919												3-HOURLY OBSERVATION NOTES																								
03	SCT	NC		10.00	77	73	74	88	3	24	29.84	29.96	Sky Cover is the amount of the sky obscured. CLR or SKC = 0, FEW = 1/8-2/8, SCT = 3/8-4/8, BKN = 5/8-7/8, OVC = 8/8, VV = Vertical Visibility = 8/8.																							
06	SCT	NC		10.00	75	72	73	90	0	00	29.85	29.97	Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet.																							
09	BKN	250		10.00	83	74	77	74	5	VR	29.88	30.00	NC= No ceiling detected.																							
12	BKN	250		10.00	90	70	76	52	6	16	29.87	29.98	& = Original observation contained additional weather elements.																							
15	BKN	250		10.00	94	69	77	44	7	17	29.81	29.93	See page 3 for additional notes.																							
18	BKN	250		10.00	88	74	78	63	14	12	29.80	29.91																								
21	SCT	NC		10.00	84	72	76	67	7	18	29.81	29.93																								
24	SCT	NC		10.00	79	72	74	79	0	00	29.85	29.97																								
SUNRISE: 0538 JUL 27 SUNSET: 1918												SUMMARY BY HOUR																								
03	FEW	NC		10.00	75	72	73	90	3	19	29.85	29.97	AVERAGES																							
06	SCT	NC		10.00	74	72	73	94	3	30	29.90	30.01	HOUR (LST)	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES, HG)		VISIBILITY (MILES)	WIND SPEED (MPH)	RESULTANT WIND (MPH)												
09	BKN	250		10.00	84	74	77	72	7	23	29.91	30.02								STATION	SEA LEVEL			SPEED	DIRECTION											
12	BKN	250		10.00	89	73	78	59	5	VR	29.88	30.00	01			78	74	75	86	29.85	29.96	9.94	3	2	15											
15	SCT	NC		10.00	93	70	77	47	3	VR	29.83	29.95	02			78	74	75	88	29.84	29.96	9.90	3	1	13											
18	SCT	NC		10.00	93	66	75	41	5	25	29.80	29.92	03			77	73	75	88	29.84	29.96	9.68	3	0	0											
21	FEW	NC		10.00	85	74	77	70	8	17	29.85	29.97	04			77	73	74	89	29.84	29.96	9.48	3	1	2											
24	SCT	NC		10.00	82	74	76	77	6	24	29.89	30.00	05			77	73	74	90	29.85	29.97	9.39	3	1	3											
SUNRISE: 0538 JUL 28 SUNSET: 1918												HOUR (LST)																								
03	BKN	250		10.00	80	74	76	82	5	25	29.88	30.00	06			76	73	74	89	29.86	29.98	9.06	3	1	1											
06	BKN	250		10.00	78	74	75	87	6	35	29.92	30.03	07			79	74	75	85	29.88	29.99	9.47	4	1	5											
09	SCT	NC		10.00	83	72	75	70	6	28	29.94	30.05	08			82	74	76	79	29.89	30.01	9.45	5	1	15											
12	SCT	NC		10.00	90	73	78	58	7	32	29.92	30.03	09			84	74	77	72	29.90	30.01	9.90	6	1	17											
15	BKN	050		10.00	93	72	78	50	5	VR	29.87	29.99	10			86	73	77	66	29.90	30.01	10.00	5	1	18											
18	BKN	250		10.00	91	71	77	52	8	04	29.86	29.98	11			88	72	77	61	29.89	30.01	9.77	5	1	17											
21	SCT	NC	TS	10.00	84	70	74	63	3	18	29.91	30.02	12			89	72	77	58	29.88	30.00	9.94	5	0	0											
24	BKN	250		10.00	82	74	76	77	0	00	29.92	30.03	13			90	72	77	57	29.86	29.98	9.90	6	1	12											
SUNRISE: 0539 JUL 29 SUNSET: 1917												01																								
03	BKN	250		10.00	79	73	75	82	5	34	29.91	30.03	02			89	71	77	57	29.85	29.97	9.73	8	4	11											
06	BKN	250		8.00	77	72	74	85	9	04	29.95	30.07	03			89	72	77	58	29.88	30.00	9.94	5	0	0											
09	SCT	NC		10.00	82	73	76	74	9	05	30.00	30.12	04			90	72	77	57	29.86	29.98	9.90	6	1	12											
12	SCT	NC		10.00	88	73	77	61	7	VR	29.99	30.10	05			89	71	77	57	29.85	29.97	9.73	8	4	11											
15	BKN	060		10.00	93	72	78	50	9	03	29.92	30.03	06			88	71	76	59	29.84	29.95	9.71	9	5	12											
18	OVC	055		10.00	83	72	75	70	8	28	29.93	30.05	07			89	70	76	57	29.82	29.94	9.71	7	4	13											
21	SCT	NC		10.00	77	71	73	82	0	00	29.94	30.06	08			88	71	76	60	29.81	29.93	9.58	9	5	10											
24	SCT	NC		10.00	77	72	74	85	0	00	29.96	30.07	09			86	72	76	65	29.81	29.93	9.58	8	5	14											
SUNRISE: 0539 JUL 30 SUNSET: 1916												010																								
03	SCT	NC		10.00	76	72	73	88	0	00	29.95	30.06	10			84	72	76	69	29.82	29.94	9.58	8	6	15											
06	SCT	NC		8.00	74	69	71	85	5	33	29.97	30.09	11			82	73	76	76	29.83	29.94	9.81	6	5	15											
09	CLR	NC		10.00	83	71	75	67	7	VR	30.00	30.12	12			81	73	75	78	29.84	29.95	10.00	6	4	15											
12	SCT	NC		10.00	90	68	75	49	6	33	29.98	30.10	13			80	73	75	78	29.85	29.97	10.00	6	3	15											
15	FEW	NC		10.00	92	59	71	33	8	02	29.92	30.03	14			79	73	75	82	29.86	29.97	10.00	4	3	15											
18	FEW	NC		10.00	90	59	70	35	13	06	29.89	30.00	15			79	73	75	82	29.86	29.97	10.00	4	3	15											
21	CLR	NC		10.00	77	62	68	60	0	00	29.91	30.03	16			79	73	75	85	29.86	29.97	9.90	3	2	15											
24	CLR	NC		10.00	75	64	68	69	0	00	29.93	30.05	17																							

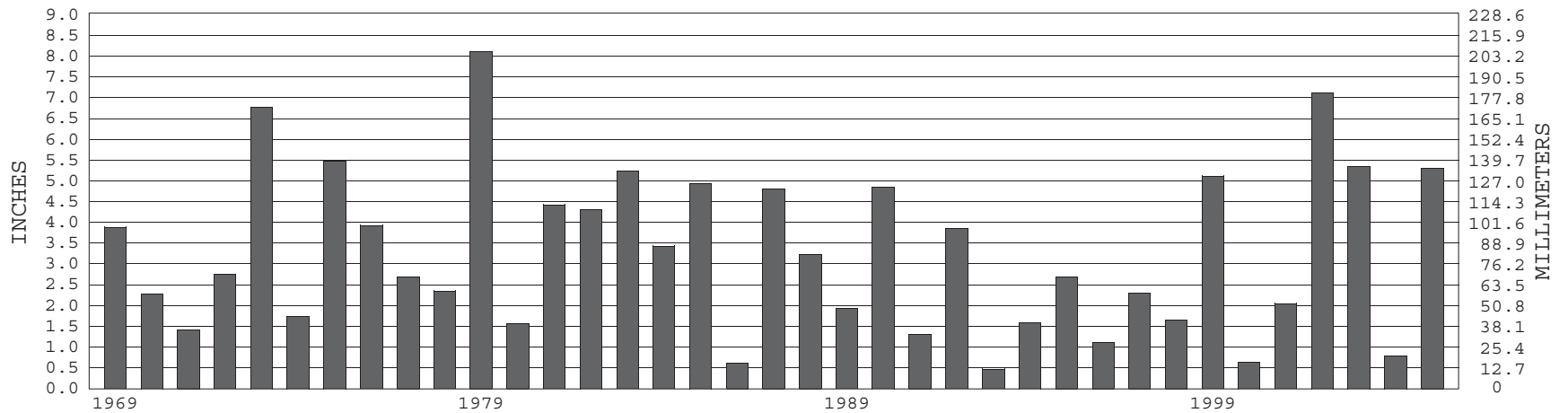
HOUSTON, TX JULY TEMPERATURES



+ Extreme Max. ● Mean Max. ▲ Mean × Mean Min. ◆ Extreme Min.

Long-Term (1969-2005) Mean: 83.6 1971-2000 Normal: 83.6

HOUSTON, TX JULY PRECIPITATION



Long-Term (1969-2005) Mean Monthly Total: 3.30

1971-2000 Normal: 3.18



JULY 2005

HOUSTON, TX

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

I certify that this is an official publication of the National Oceanic and Atmospheric Administration (NOAA). It is compiled using information from weather observing sites operated by NOAA – National Weather Service / Department Of Transportation – Federal Aviation Administration and received at the National Climatic Data Center (NCDC), Asheville, North Carolina 28801.

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