JULY 2004
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 MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	DEG DAYS BASE 65° HEATING	COOLING	WEATHER	SNOW/ICE ON GND(IN) 0600 LST DEPTH	1200 LST WATER EQUIV	PRECIPITATION (INCHES) 2400 LST SNOW–FALL	2400 LST WATER EQUIV	PRESSURE (INCHES OF HG) AVERAGE STATION	AVERAGE SEA LEVEL	WIND SPEED = MPH DIR = TENS OF DEGREES RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM 5–SEC SPEED	5–SEC DIR	MAXIMUM 2–MIN SPEED	2–MIN DIR	DATE
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
01	91	76	84	1	74	77	0	19	RA	0		0.0	0.01	29.91	30.03	4.5	18	5.5	20	12	16	12	01
02	93	78	86	3	74	77	0	21		0		0.0	0.00	29.88	29.99	4.4	18	6.4	20	22	14	10	02
03	93	77	85	2	73	77	0	20		0		0.0	0.00	29.83	29.94	5.3	20	6.3	15	18	13	17	03
04	94	76	85	2	73	77	0	20		0		0.0	0.00	29.84	29.95	5.2	17	6.5	17	16	15	12	04
05	93	77	85	2	74	77	0	20	TS TSRA RA	0		0.0	T	29.89	30.00	7.4	16	8.1	22	15	18	14	05
06	94	77	86	3	73	76	0	21	TS	0		0.0	0.00	29.91	30.02	4.2	18	4.8	29*	16	24*	16	06
07	94	77	86	3	74	77	0	21	TS RA	0		0.0	T	29.85	29.96	5.6	18	6.6	18	15	16	15	07
08	91	78	85	2	73	77	0	20	TS RA	0		0.0	0.08	29.82	29.93	6.7	16	8.4	20	13	16	13	08
09	89	75	82	-1	72	75	0	17		0		0.0	0.00	29.89	30.01	6.0	13	7.4	21	15	17	13	09
10	93	73	83	0	72	74	0	18	TS RA	0		0.0	T	29.97	30.08	1.0	14	3.8	23	17	18	17	10
11	86	74	80*	-3	73	75	0	15	TS RA	0		0.0	T	30.00	30.11	0.8	16	3.5	20	14	18	16	11
12	96	72	84	1	71	75	0	19	MIFG BR	0		0.0	0.00	29.97	30.09	1.6	19	3.9	16	13	15	15	12
13	97	76	87	4	70	75	0	22		0		0.0	0.00	29.94	30.05	1.6	27	4.1	13	02	10	28	13
14	98	76	87	4	72	76	0	22		0		0.0	0.00	29.86	29.98	1.8	29	5.5	14	04	12	03	14
15	99*	78	89*	5	72	77	0	24		0		0.0	0.00	29.81	29.92	2.1	21	5.5	14	10	12	16	15
16	95	78	87	3	72	77	0	22		0		0.0	0.00	29.81	29.92	3.7	23	5.4	14	21	12	17	16
17	96	77	87	3	74	78	0	22		0		0.0	0.00	29.79	29.90	6.5	24	6.7	20	24	17	25	17
18	95	79	87	3	72	77	0	22		0		0.0	0.00	29.78	29.89	5.2	31	7.4	23	03	17	01	18
19	93	76	85	1	71	75	0	20		0		0.0	0.00	29.80	29.91	3.2	06	5.6	17	03	13	03	19
20	93	75	84	0	71	75	0	19	BR	0		0.0	0.00	29.82	29.93	3.6	10	5.0	16	06	14	05	20
21	94	74	84	0	74	76	0	19	TS TSRA RA BR	0		0.0	0.12	29.83	29.94	2.7	15	4.8	18	19	15	19	21
22	91	76	84	0	74	77	0	19	TS RA	0		0.0	T	29.85	29.96	3.8	14	4.9	13	13	10	13	22
23	98	74	86	2	73	76	0	21		0		0.0	0.00	29.86	29.97	1.3	19	3.8	18	15	16	15	23
24	97	74	86	2	73	77	0	21		0		0.0	0.00	29.91	30.02	0.5	35	3.5	14	12	10	12	24
25	95	75	85	1	74	76	0	20	TS TSRA RA	0		0.0	0.19	29.93	30.04	3.0	36	5.6	22	34	18	34	25
26	91	73	82	-2	70	73	0	17		0		0.0	0.00	29.93	30.04	7.3	35	7.5	16	36	14	36	26
27	92	71*	82	-2	70	73	0	17	BR	0		0.0	0.00	29.89	30.00	6.4	05	7.4	14	06	12	06	27
28	91	72	82	-2	73	75	0	17	TS TSRA BR HZ	0		0.0	0.29	29.81	29.92	6.4	11	8.0	25	20	20	19	28
29	91	76	84	0	75	78	0	19	RA	0		0.0	T	29.74	29.85	6.1	17	6.9	21	14	18	14	29
30	93	77	85	1	76	78	0	20	RA	0		0.0	0.10	29.75	29.86	2.0	18	4.6	17	26	14	15	30
31	97	77	87	3	75	78	0	22		0		0.0	0.00	29.80	29.91	2.2	02	4.3	15	05	12	03	31
	93.6	75.6	84.6		72.8	76.2	0.0	19.9	< MONTHLY AVERAGES	TOTALS–>		0.0	0.79	29.86	29.97	1.0	09	5.7					<– MONTHLY AVERAGES
	0.0	2.1	1.0		<–––––––––––DEPARTURE FROM NORMAL––––––––––––>								-2.39	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING:	0	0	0	0
COOLING:	616	43	1788	156

GREATEST 24–HR PRECIPITATION: 0.29 DATE :28
GREATEST 24–HR SNOWFALL: 0.0 DATE :
GREATEST SNOW DEPTH: 0 DATE :

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM	30.15	11	0953
MINIMUM	29.78	29	1753

NUMBER OF DAYS WITH →

MAXIMUM TEMP ≥ 90:	29	MINIMUM TEMP ≤ 32 :	0
MAXIMUM TEMP ≤ 32 :	0	MINIMUM TEMP ≤ 0 :	0
THUNDERSTORMS :	10	HEAVY FOG :	0
PRECIPITATION ≥ 0.01 INCH :	6		
PRECIPITATION ≥ 0.10 INCH :	4		
SNOWFALL ≥ 1.0 INCH :	0		

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

HOUSTON, TX

JULY 2004 IAH WBAN # 12960

DATE	FOR HOUR (LST) ENDING AT												DATE	FOR HOUR (LST) ENDING AT												DATE	Sum if Different (See Note)	2400 LST Water Equiv.
	1	2	3	4	5	6	7	8	9	10	11	12		13	14	15	16	17	18	19	20	21	22	23	24			
01		T	0.01										01													01		0.01
02													02													02		0.00
03													03													03		0.00
04													04													04		0.00
05													05		T	T										05		T
06													06													06		0.00
07											T	T	07													07		T
08													08	T			0.05									08	0.05	0.08
09													09													09		0.00
10													10				T	T								10		T
11												T	11	T	T											11		T
12													12													12		0.00
13													13													13		0.00
14													14													14		0.00
15													15													15		0.00
16													16													16		0.00
17													17													17		0.00
18													18													18		0.00
19													19													19		0.00
20													20													20		0.00
21													21	0.12							T	T				21		0.12
22													22	T	T											22		T
23													23													23		0.00
24													24													24		0.00
25													25	0.02	T		T	0.13	0.04						25		0.19
26													26													26		0.00
27													27													27		0.00
28													28		0.29											28		0.29
29												T	29													29		T
30									0.01	0.06		T	30	T		T	0.03									30		0.10
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)	.17	.28	.29	.29	.29	.29	.29	.29	.29	.29	.29	.29
Ending Date	28	28	28	28	28	28	28	28	28	28	28	28
Ending Time (Hour/Min)	1308	1310	1310	1310	1310	1310	1310	1310	1310	1310	1310	1310

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 occurence 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		
DESCRIPTOR	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 2004

Ceilometer (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
			SR−SS		MN−MN				
	TOTAL MINUTES	PERCENT POSSIBLE	CEILOMETER	SATELLITE	CEILOMETER	SATELLITE	MINIMUM	MAXIMUM	
01							8.00	10.00	
02							9.00	10.00	
03							10.00	10.00	
04							8.00	10.00	
05							8.00	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							10.00	10.00	
10							10.00	10.00	
11							7.00	10.00	
12							6.00	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							8.00	10.00	
20							5.00	10.00	
21							6.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							10.00	10.00	
25							5.00	10.00	
26							8.00	10.00	
27							6.00	10.00	
28							2.00	10.00	
29							9.00	10.00	
30							4.00	10.00	
31							9.00	10.00	
MONTHLY AVGS							8.45	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	0	24

OBSERVATIONS AT 3–HOURLY INTERVALS

HOUSTON, TX

JULY 2004 IAH WBAN # 12960

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0524	**JUL 01**			**SUNSET: 1926**					
03	OVC	120			8.00		76	75	75	97	3	05	29.91	30.03
06	BKN	120			8.00		76	75	75	97	0	00	29.92	30.04
09	OVC	020			10.00		83	77	79	82	6	19	29.94	30.06
12	BKN	038			10.00		87	72	77	61	6	22	29.93	30.04
15	BKN	045			10.00		89	71	77	55	10	22	29.90	30.01
18	BKN	050			10.00		83	72	75	70	14	11	29.89	30.01
21	BKN	250			10.00		80	75	77	85	5	16	29.89	30.01
24	SCT	NC			10.00		79	75	76	88	5	16	29.93	30.04
					SUNRISE: 0525	**JUL 02**			**SUNSET: 1926**					
03	BKN	130			10.00		79	76	77	90	0	00	29.90	30.02
06	SCT	NC			9.00		78	75	76	90	6	19	29.90	30.01
09	BKN	024			10.00		85	73	77	68	8	25	29.93	30.04
12	SCT	NC			10.00		90	70	76	52	10	20	29.89	30.01
15	BKN	046			10.00		91	73	78	56	3	VR	29.85	29.96
18	BKN	050			10.00		86	76	79	72	8	08	29.82	29.93
21	CLR	NC			10.00		83	73	76	72	6	17	29.83	29.94
24	CLR	NC			10.00		79	75	76	88	5	17	29.84	29.96
					SUNRISE: 0525	**JUL 03**			**SUNSET: 1926**					
03	FEW	NC			10.00		78	74	75	87	6	19	29.81	29.93
06	SCT	NC			10.00		77	74	75	90	0	00	29.85	29.97
09	BKN	250			10.00		83	74	77	74	8	24	29.88	29.99
12	BKN	250			10.00		89	71	77	55	8	26	29.85	29.96
15	SCT	NC			10.00		93	71	78	49	8	21	29.78	29.90
18	SCT	NC			10.00		91	72	78	54	8	21	29.78	29.89
21	CLR	NC			10.00		84	74	77	72	7	19	29.80	29.92
24	FEW	NC			10.00		80	74	76	82	7	19	29.82	29.93
					SUNRISE: 0525	**JUL 04**			**SUNSET: 1926**					
03	CLR	NC			10.00		77	74	75	90	0	00	29.81	29.93
06	SCT	NC			9.00		76	74	75	94	0	00	29.84	29.96
09	SCT	NC			10.00		84	73	76	70	9	20	29.87	29.98
12	SCT	NC			10.00		89	71	77	55	7	VR	29.86	29.97
15	SCT	NC			10.00		93	69	76	46	10	16	29.82	29.93
18	FEW	NC			10.00		90	75	79	62	13	12	29.79	29.91
21	CLR	NC			10.00		83	74	77	74	8	17	29.83	29.94
24	CLR	NC			8.00		80	75	77	85	3	19	29.87	29.98
					SUNRISE: 0526	**JUL 05**			**SUNSET: 1926**					
03	CLR	NC			10.00		78	75	76	90	6	16	29.85	29.97
06	SCT	NC			10.00		77	74	75	90	0	00	29.88	30.00
09	SCT	NC			10.00		85	73	77	68	9	21	29.93	30.04
12	BKN	050			10.00		92	72	78	52	9	20	29.91	30.03
15	BKN	070			10.00	TS	90	76	80	63	15	12	29.88	30.00
18	SCT	NC			10.00		88	74	78	63	14	13	29.86	29.98
21	FEW	NC			10.00		83	74	77	74	12	17	29.89	30.00
24	SCT	NC			10.00		80	76	77	87	3	18	29.92	30.04
					SUNRISE: 0526	**JUL 06**			**SUNSET: 1926**					
03	SCT	NC			10.00		79	75	76	88	0	00	29.91	30.02
06	SCT	NC			10.00		77	75	76	94	0	00	29.92	30.04
09	SCT	NC			10.00		85	75	78	72	7	18	29.95	30.07
12	BKN	250			10.00		91	72	78	54	0	00	29.95	30.06
15	BKN	055			10.00		91	70	76	50	9	15	29.88	30.00
18	BKN	130			10.00		83	68	73	61	8	19	29.87	29.99
21	SCT	NC			10.00		80	74	76	82	6	16	29.87	29.99
24	FEW	NC			10.00		79	76	77	90	3	17	29.87	29.99

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0527	**JUL 07**			**SUNSET: 1926**					
03	SCT	NC			10.00		78	76	77	93	0	00	29.89	30.01
06	BKN	250			10.00		78	76	77	93	0	00	29.90	30.01
09	BKN	023			10.00		84	76	78	77	6	24	29.90	30.02
12	BKN	250			10.00	TS	90	71	77	54	8	18	29.90	30.01
15	SCT	NC			10.00		93	67	75	42	10	17	29.81	29.92
18	SCT	NC			10.00		90	74	79	59	14	16	29.75	29.87
21	SCT	NC			10.00		84	75	78	74	10	16	29.79	29.91
24	SCT	NC			10.00		81	76	77	85	5	17	29.82	29.93
					SUNRISE: 0527	**JUL 08**			**SUNSET: 1926**					
03	OVC	130			10.00		81	76	77	85	6	19	29.80	29.91
06	BKN	250			10.00		79	76	77	90	0	00	29.83	29.94
09	BKN	025			10.00		85	75	78	72	8	18	29.84	29.96
12	BKN	0			10.00	TS	85	67	73	55	17	24	29.84	29.96
15	BKN	130			10.00		89	74	78	61	14	14	29.79	29.91
18	SCT	NC			10.00		89	71	77	55	13	15	29.79	29.90
21	SCT	NC			10.00		82	72	75	72	8	16	29.81	29.92
24	SCT	NC			10.00		78	73	75	85	6	12	29.85	29.97
					SUNRISE: 0528	**JUL 09**			**SUNSET: 1926**					
03	FEW	NC			10.00		76	73	74	91	3	32	29.83	29.95
06	BKN	250			10.00		76	73	74	91	6	02	29.86	29.97
09	BKN	250			10.00		84	74	77	72	7	11	29.90	30.01
12	BKN	130			10.00		87	71	76	59	12	11	29.92	30.03
15	BKN	130			10.00		88	70	76	55	13	15	29.90	30.01
18	BKN	250			10.00		87	68	74	53	9	15	29.88	29.99
21	SCT	NC			10.00		79	71	74	77	9	13	29.91	30.03
24	FEW	NC			10.00		76	70	72	82	0	00	29.93	30.05
					SUNRISE: 0528	**JUL 10**			**SUNSET: 1925**					
03	SCT	NC			10.00		74	71	72	91	0	00	29.91	30.02
06	BKN	130			10.00		75	71	72	88	7	03	29.97	30.09
09	SCT	NC			10.00		83	74	77	74	7	13	30.00	30.11
12	BKN	250			10.00		90	70	76	52	7	17	29.99	30.10
15	BKN	100			10.00	TS	83	71	75	67	16	19	29.97	30.09
18	BKN	250			10.00		81	72	75	74	0	00	29.97	30.09
21	BKN	031			10.00		79	73	75	82	0	00	29.96	30.08
24	SCT	NC			10.00		76	72	73	88	0	00	29.97	30.08
					SUNRISE: 0529	**JUL 11**			**SUNSET: 1925**					
03	SCT	NC			10.00		75	73	74	94	0	00	29.97	30.09
06	SCT	NC			7.00		76	73	74	91	3	33	29.99	30.11
09	OVC	110			10.00		84	75	78	74	6	VR	30.03	30.15
12	OVC	100			10.00	TS	83	69	74	63	7	16	30.02	30.14
15	OVC	250			10.00		80	70	73	71	7	21	29.98	30.10
18	SCT	NC			10.00		83	71	75	67	3	36	29.97	30.09
21	BKN	250			10.00		78	73	75	85	0	00	29.97	30.09
24	BKN	250			10.00		76	72	73	88	3	02	30.00	30.11
					SUNRISE: 0529	**JUL 12**			**SUNSET: 1925**					
03	SCT	NC			10.00		75	72	73	90	0	00	29.98	30.09
06	SCT	NC			6.00	BR	73	71	72	94	0	00	29.99	30.11
09	BKN	250			10.00		84	73	76	70	6	22	30.01	30.13
12	BKN	250			10.00		90	70	76	52	5	VR	29.99	30.11
15	SCT	NC			10.00		95	68	76	41	6	VR	29.96	30.08
18	SCT	NC			10.00		91	67	75	45	5	20	29.92	30.03
21	SCT	NC			10.00		84	74	77	72	7	16	29.95	30.06
24	FEW	NC			10.00		80	74	76	82	3	22	29.94	30.05

OBSERVATIONS AT 3–HOURLY INTERVALS

HOUSTON, TX

JULY 2004 IAH WBAN # 12960

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0530	JUL 13			SUNSET: 1925					
03	CLR	NC			10.00		78	74	75	87	5	23	29.93	30.05
06	BKN	130			10.00		77	74	75	90	0	00	29.99	30.10
09	SCT	NC			10.00		85	73	77	68	7	29	29.99	30.11
12	FEW	NC			10.00		91	65	74	42	5	VR	29.97	30.09
15	FEW	NC			10.00		96	65	75	36	7	01	29.92	30.03
18	FEW	NC			10.00		95	63	74	35	5	VR	29.88	29.99
21	CLR	NC			10.00		85	71	75	63	0	00	29.90	30.01
24	CLR	NC			10.00		82	74	76	77	7	22	29.91	30.02
					SUNRISE: 0530	JUL 14			SUNSET: 1924					
03	CLR	NC			10.00		78	73	75	85	5	25	29.88	29.99
06	CLR	NC			10.00		77	73	74	88	7	25	29.88	30.00
09	CLR	NC			10.00		86	70	75	59	7	29	29.92	30.04
12	SCT	NC			10.00		92	71	77	51	3	VR	29.90	30.01
15	BKN	250			10.00		95	69	77	43	0	00	29.83	29.94
18	BKN	250			10.00		94	69	77	44	8	02	29.79	29.91
21	BKN	250			10.00		86	73	77	65	5	16	29.81	29.92
24	BKN	250			10.00		83	75	77	77	6	19	29.83	29.94
					SUNRISE: 0531	JUL 15			SUNSET: 1924					
03	BKN	250			10.00		81	73	75	77	8	25	29.81	29.93
06	SCT	NC			10.00		79	71	74	77	5	26	29.84	29.95
09	SCT	NC			10.00		88	71	76	57	6	34	29.86	29.98
12	BKN	050			10.00		94	71	78	48	5	VR	29.84	29.96
15	SCT	NC			10.00		97	69	77	40	6	12	29.79	29.91
18	BKN	250			10.00		95	71	78	46	7	11	29.75	29.86
21	SCT	NC			10.00		86	75	78	70	5	21	29.78	29.89
24	FEW	NC			10.00		83	74	77	74	5	23	29.79	29.91
					SUNRISE: 0531	JUL 16			SUNSET: 1924					
03	BKN	250			10.00		81	73	75	77	3	25	29.79	29.91
06	SCT	NC			10.00		78	73	75	85	3	23	29.82	29.93
09	SCT	NC			10.00		86	73	77	65	8	25	29.85	29.96
12	BKN	250			10.00		92	70	77	49	5	VR	29.85	29.97
15	BKN	250			10.00		94	70	77	46	5	VR	29.78	29.89
18	BKN	050			10.00		93	71	78	49	7	23	29.75	29.86
21	BKN	250			10.00		86	74	77	67	7	20	29.78	29.90
24	SCT	NC			10.00		82	74	76	77	6	22	29.79	29.91
					SUNRISE: 0532	JUL 17			SUNSET: 1923					
03	SCT	NC			10.00		80	75	77	85	6	23	29.79	29.90
06	SCT	NC			10.00		78	75	76	90	0	00	29.80	29.91
09	SCT	NC			10.00		86	74	77	67	12	24	29.83	29.95
12	SCT	NC			10.00		91	73	78	56	9	26	29.83	29.94
15	SCT	NC			10.00		95	71	78	46	8	27	29.77	29.89
18	SCT	NC			10.00		93	72	78	50	7	23	29.73	29.84
21	SCT	NC			10.00		86	75	78	70	0	00	29.75	29.87
24	SCT	NC			10.00		83	76	78	79	8	23	29.76	29.87
					SUNRISE: 0533	JUL 18			SUNSET: 1923					
03	BKN	080			10.00		82	77	78	85	6	25	29.78	29.90
06	BKN	060			10.00		81	76	77	85	7	25	29.79	29.90
09	BKN	023			10.00		84	76	78	77	10	27	29.80	29.91
12	BKN	060			10.00		92	69	76	47	12	33	29.80	29.91
15	BKN	250			10.00		94	65	74	38	12	02	29.76	29.87
18	BKN	250			10.00		91	67	75	45	7	35	29.74	29.86
21	BKN	250			10.00		82	73	76	74	5	33	29.76	29.88
24	BKN	250			10.00		80	72	75	76	0	00	29.79	29.91

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0533	JUL 19			SUNSET: 1922					
03	BKN	250			10.00		77	72	74	85	3	35	29.78	29.89
06	SCT	NC			10.00		77	73	74	88	6	04	29.81	29.92
09	BKN	250			10.00		85	71	75	63	7	15	29.82	29.94
12	BKN	250			10.00		89	70	76	53	7	VR	29.82	29.93
15	SCT	NC			10.00		92	68	75	46	9	06	29.78	29.89
18	BKN	250			10.00		89	69	75	52	10	04	29.75	29.87
21	BKN	250			9.00		84	74	77	72	6	12	29.78	29.90
24	SCT	NC			8.00		80	74	76	82	0	00	29.80	29.92
					SUNRISE: 0534	JUL 20			SUNSET: 1922					
03	OVC	070			7.00		78	74	75	87	0	00	29.79	29.91
06	BKN	250			5.00	BR	76	73	74	91	5	01	29.82	29.94
09	SCT	NC			8.00		84	72	76	67	3	14	29.85	29.97
12	BKN	250			10.00		91	68	75	47	10	11	29.84	29.96
15	BKN	250			8.00		92	66	74	43	8	12	29.80	29.92
18	SCT	NC			7.00		90	68	75	49	10	04	29.79	29.90
21	SCT	NC			9.00		83	72	75	70	7	13	29.80	29.92
24	SCT	NC			8.00		78	72	74	82	0	00	29.83	29.94
					SUNRISE: 0534	JUL 21			SUNSET: 1922					
03	SCT	NC			8.00		75	72	73	90	0	00	29.82	29.93
06	BKN	025			6.00	BR	76	73	74	91	3	06	29.85	29.96
09	SCT	NC			10.00		86	73	77	65	0	00	29.86	29.98
12	BKN	055			10.00	TS	90	73	78	58	8	13	29.85	29.96
15	BKN	250			10.00		94	73	79	51	12	18	29.81	29.92
18	BKN	250			10.00		82	72	75	72	3	23	29.79	29.91
21	SCT	NC			10.00		83	77	79	82	13	15	29.81	29.93
24	SCT	NC			10.00		80	76	77	87	5	16	29.85	29.96
					SUNRISE: 0535	JUL 22			SUNSET: 1921					
03	SCT	NC			10.00		78	76	77	93	0	00	29.84	29.95
06	SCT	NC			10.00		77	75	76	94	3	03	29.86	29.98
09	BKN	250			10.00		88	75	79	66	8	16	29.87	29.98
12	BKN	044			10.00	TS	86	74	78	67	8	18	29.86	29.97
15	BKN	250			10.00		81	71	74	72	8	07	29.85	29.97
18	BKN	130			10.00		85	74	77	70	9	17	29.82	29.93
21	FEW	NC			10.00		79	75	76	88	6	14	29.81	
24	FEW	NC			10.00		79	73	75	82	3	21	29.86	29.97
					SUNRISE: 0535	JUL 23			SUNSET: 1921					
03	CLR	NC			10.00		74	73	73	97	0	00	29.84	29.96
06	FEW	NC			10.00		74	73	73	97	3	05	29.87	29.98
09	SCT	NC			10.00		87	76	79	70	9	17	29.89	30.01
12	SCT	NC			10.00		92	71	77	51	7	31	29.88	29.99
15	SCT	NC			10.00		96	71	78	44	5	13	29.81	29.93
18	BKN	070			10.00		89	73	78	59	7	18	29.82	29.94
21	BKN	250			10.00		81	72	75	74	3	20	29.85	29.97
24	SCT	NC			10.00		77	71	73	82	0	00	29.89	30.00
					SUNRISE: 0536	JUL 24			SUNSET: 1920					
03	BKN	250			10.00		75	72	73	90	0	00	29.88	30.00
06	SCT	NC			10.00		74	72	73	94	0	00	29.92	30.03
09	SCT	NC			10.00		87	76	79	70	9	31	29.96	30.07
12	SCT	NC			10.00		93	73	79	52	5	32	29.94	30.06
15	SCT	NC			10.00		96	71	78	44	3	VR	29.88	29.99
18	BKN	095			10.00		91	71	77	52	8	12	29.85	29.96
21	SCT	NC			10.00		83	76	78	79	0	00	29.90	30.02
24	SCT	NC			10.00		81	76	77	85	0	00	29.92	30.04

OBSERVATIONS AT 3–HOURLY INTERVALS

HOUSTON, TX

JULY 2004 IAH WBAN # 12960

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0537	JUL 25			SUNSET: 1919					
03	SCT	NC			10.00		81	76	77	85	3	27	29.91	30.03
06	FEW	NC			10.00		79	74	75	85	0	00	29.91	30.03
09	CLR	NC			10.00		89	74	78	61	5	25	29.94	30.06
12	BKN	065			10.00		95	74	80	51	7	01	29.92	30.03
15	BKN	1			10.00	TS	83	71	75	67	12	13	29.91	30.02
18	BKN	090			10.00		77	74	75	90	8	06	29.94	30.06
21	OVC	250			10.00		77	73	74	88	6	03	29.95	30.06
24	BKN	250			9.00		75	72	73	90	8	35	29.93	30.04
					SUNRISE: 0537	JUL 26			SUNSET: 1919					
03	BKN	250			10.00		74	71	72	91	8	33	29.91	30.03
06	OVC	006			10.00		74	71	72	91	10	35	29.95	30.07
09	OVC	008			10.00		74	69	71	85	8	34	29.98	30.10
12	BKN	250			10.00		83	71	75	67	0	00	29.96	30.08
15	BKN	250			10.00		91	72	78	54	8	34	29.91	30.03
18	SCT	NC			10.00		86	72	76	63	12	36	29.87	29.99
21	SCT	NC			10.00		78	68	71	71	8	36	29.91	30.02
24	SCT	NC			9.00		74	68	70	82	6	35	29.92	30.03
					SUNRISE: 0538	JUL 27			SUNSET: 1918					
03	SCT	NC			7.00		72	68	69	87	7	01	29.90	30.02
06	BKN	019			6.00	BR	72	69	70	91	9	03	29.92	30.04
09	BKN	250			10.00		79	70	73	74	7	07	29.95	30.07
12	BKN	031			10.00		85	70	75	61	5	VR	29.90	30.02
15	BKN	250			10.00		90	68	75	49	6	02	29.85	29.97
18	BKN	250			10.00		86	70	75	59	8	07	29.82	29.94
21	BKN	250			10.00		82	71	75	69	9	05	29.85	29.97
24	BKN	250			10.00		78	71	73	79	6	10	29.86	29.98
					SUNRISE: 0538	JUL 28			SUNSET: 1918					
03	BKN	250			10.00		75	70	72	84	9	09	29.84	29.96
06	SCT	NC			6.00	HZ	73	68	70	84	9	10	29.84	29.96
09	BKN	250			8.00		81	72	75	74	9	11	29.85	29.97
12	BKN	033			10.00		88	74	78	63	10	06	29.82	29.93
15	BKN	250			10.00		84	77	79	80	7	12	29.78	29.90
18	BKN	250			8.00		84	76	78	77	9	11	29.73	29.85
21	SCT	NC			10.00		80	75	77	85	8	16	29.75	29.86
24	SCT	NC			10.00		77	75	76	94	0	00	29.76	29.87
					SUNRISE: 0539	JUL 29			SUNSET: 1917					
03	BKN	250			10.00		77	75	76	94	0	00	29.76	29.87
06	BKN	250			9.00		76	75	75	97	5	16	29.75	29.87
09	BKN	130			10.00		84	76	78	77	9	20	29.77	29.88
12	BKN	250			10.00		90	74	79	59	8	23	29.76	29.87
15	BKN	250			10.00		89	77	80	68	9	15	29.70	29.82
18	BKN	250			10.00		89	77	80	68	14	13	29.67	29.78
21	SCT	NC			10.00		83	76	78	79	5	18	29.73	29.84
24	SCT	NC			10.00		82	76	78	82	7	17	29.73	29.84
					SUNRISE: 0540	JUL 30			SUNSET: 1916					
03	BKN	250			10.00		78	76	77	93	0	00	29.73	29.84
06	SCT	NC			10.00		78	76	77	93	0	00	29.75	29.86
09	BKN	029			4.00	+RA	85	76	79	75	13	27	29.77	29.88
12	BKN	034			10.00	-RA	87	75	78	67	8	26	29.76	29.88
15	BKN	110			10.00	-RA	84	78	80	82	13	15	29.72	29.83
18	BKN	200			10.00		89	77	80	68	8	12	29.70	29.82
21	SCT	NC			10.00		83	76	78	79	5	16	29.75	29.86
24	SCT	NC			10.00		81	76	77	85	5	19	29.78	29.90

HOUR (LST)	SKY COVER	CEILING 100'S OF FT	SATELLITE: OBSERVATION TIME (LST)	SATELLITE: EFF CLD AMT Oktas	VISIBILITY (MILES)	WEATHER	TEMPERATURE ℉: DRY BULB	TEMPERATURE ℉: DEW POINT	TEMPERATURE ℉: WET BULB	RELATIVE HUMIDITY (PCT)	WIND: SPEED (MPH)	WIND: DIRECTION TENS OF DEG	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL
					SUNRISE: 0540	JUL 31			SUNSET: 1916					
03	SCT	NC			10.00		78	76	77	93	3	33	29.78	29.90
06	BKN	250			9.00		78	76	77	93	0	00	29.81	29.92
09	BKN	020			10.00		86	76	79	72	7	27	29.83	29.94
12	BKN	085			10.00		92	74	79	56	7	35	29.82	29.93
15	SCT	NC			10.00		94	73	79	51	0	00	29.76	29.87
18	SCT	NC			10.00		93	74	79	54	7	04	29.75	29.87
21	SCT	NC			10.00		84	77	79	80	0	00	29.80	29.91
24	SCT	NC			10.00		84	77	79	80	5	VR	29.82	29.94

3–HOURLY OBSERVATION NOTES

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 Visibilty = 8/8.
Ceiling is reported in hundreds of feet above ground level for clouds at or below 12,000 feet. NC= No ceiling detected.
& = Original observation contained additional weather elements.
See page 3 for additional notes.

SUMMARY BY HOUR

HOUR (LST)	AVERAGES: CEILOMETER	AVERAGES: EFF CLD AMT	AVERAGES: DRY BULB	AVERAGES: DEW POINT	AVERAGES: WET BULB	AVERAGES: RELATIVE HUMIDITY	AVERAGES: PRESSURE (INCHES,HG): STATION	AVERAGES: PRESSURE (INCHES,HG): SEA LEVEL	AVERAGES: VISIBILITY (MILES)	AVERAGES: WIND SPEED (MPH)	RESULTANT WIND (MPH): SPEED	RESULTANT WIND (MPH): DIRECTION
01			78	74	75	86	29.85	29.97	9.68	3	1	21
02			78	74	75	87	29.85	29.96	9.68	3	1	21
03			77	74	75	89	29.85	29.97	9.68	3	1	26
04			77	74	75	89	29.85	29.97	9.58	3	0	0
05			77	74	75	90	29.86	29.98	9.48	3	1	34
06			77	73	74	91	29.87	29.99	9.03	3	1	2
07			79	74	76	86	29.88	30.00	9.39	4	0	0
08			82	74	77	78	29.89	30.01	9.71	6	1	21
09			84	74	77	70	29.90	30.01	9.68	7	4	22
10			87	73	77	65	29.90	30.01	9.94	5	2	21
11			89	72	77	59	29.89	30.01	9.94	6	2	20
12			90	71	77	55	29.88	30.00	10.00	6	2	21
13			90	70	76	54	29.87	29.98	9.94	5	2	18
14			90	70	76	54	29.85	29.97	9.94	7	2	15
15			91	71	77	53	29.84	29.95	9.94	8	4	15
16			90	71	77	54	29.82	29.94	9.87	7	3	15
17			90	71	77	55	29.82	29.93	9.65	8	3	13
18			88	72	77	59	29.81	29.93	9.84	8	4	12
19			86	73	77	65	29.82	29.93	9.84	8	4	12
20			84	73	77	72	29.82	29.94	9.94	7	4	14
21			82	74	76	76	29.84	29.95	9.94	6	4	15
22			81	74	76	79	29.85	29.97	9.90	5	3	17
23			80	74	76	81	29.86	29.97	9.81	4	3	17
24			79	74	76	83	29.86	29.97	9.74	4	2	19

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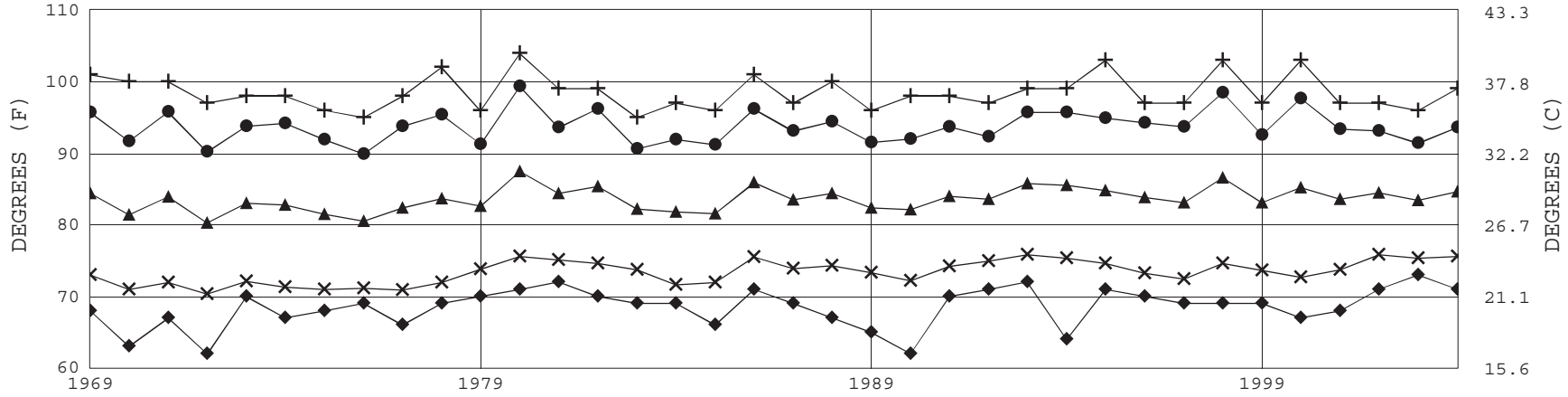
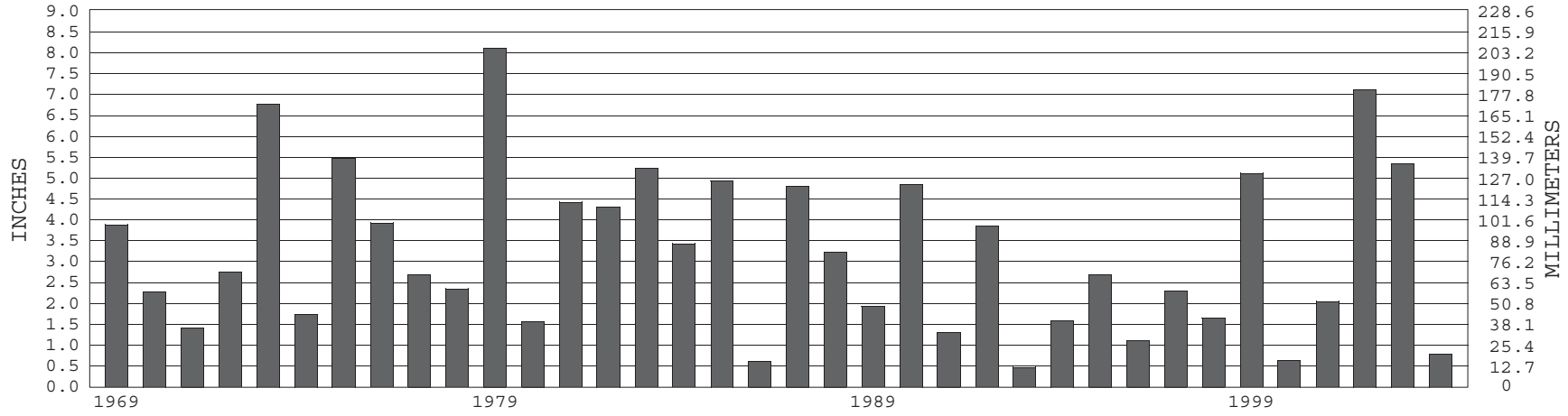
HOUSTON, TX JULY TEMPERATURES



Long-Term (1969-2004) Mean: 83.6 1971-2000 Normal: 83.6

HOUSTON, TX JULY PRECIPITATION



Long-Term (1969-2004) Mean Monthly Total: 3.24 1971-2000 Normal: 3.18

JULY 2004

HOUSTON, TX

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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