SEPTEMBER 2003
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	84	75	80	-2	76	77	0	15	TS TSRA RA BR	0		0.0	1.20	29.85	29.96	4.0	17	5.0	15	16	13	17	01
02	85	76	81	-1	76	77	0	16	TSRA RA BR	0		0.0	0.07	29.88	30.00	0.3	36	1.9	24	20	14	21	02
03	89	76	83	1	75	77	0	18	TS RA	0		0.0	T	29.87	29.98	1.2	29	2.7	20	29	17	29	03
04	92*	74	83*	1	74	76	0	18	TS TSRA RA BR	0		0.0	0.12	29.86	29.97	3.1	36	5.6	29	06	24	05	04
05	89	70	80	-2	69	72	0	15		0		0.0	0.00	29.86	29.97	6.7	03	7.3	22	04	16	01	05
06	88	65	77	-4	63	67	0	12		0		0.0	0.00	29.87	29.99	3.2	02	4.1	17	01	13	01	06
07	88	63	76	-5	62	67	0	11		0		0.0	0.00	29.85	29.97	1.2	03	2.8	14	09	10	05	07
08	88	66	77	-3	65	69	0	12		0		0.0	0.00	29.84	29.95	1.8	12	3.6	16	11	13	13	08
09	90	68	79	-1	71	73	0	14	BR HZ	0		0.0	0.00	29.85	29.97	2.9	11	4.5	20	13	16	13	09
10	88	75	82	2	76	77	0	17	TS TSRA RA FG BR	0		0.0	1.04	29.86	29.98	5.8	12	6.5	24	13	20	13	10
11	90	73	82	2	75	76	0	17	TSRA RA BR	0		0.0	0.80	29.81	29.92	6.0	15	6.9	26	20	22	20	11
12	82	69	76	-4	69	70	0	11	TS TSRA RA BR	0		0.0	2.25	29.72	29.83	2.6	32	6.1	40*	34	28*	01	12
13	90	68	79	0	70	72	0	14		0		0.0	0.00	29.81	29.92	1.9	15	3.7	16	11	13	08	13
14	90	70	80	1	71	74	0	15		0		0.0	0.00	29.96	30.07	4.1	36	6.2	23	24	18	02	14
15	88	70	79	0	69	72	0	14	TSRA	0		0.0	T	29.98	30.10	3.3	06	6.3	17	14	15	13	15
16	88	70	79	0	68	72	0	14		0		0.0	0.00	29.92	30.03	5.7	10	6.8	18	11	15	12	16
17	89	67	78	-1	69	72	0	13		0		0.0	0.00	29.86	29.97	6.8	12	8.1	22	14	20	13	17
18	84	73	79	1	73	75	0	14		0		0.0	0.00	29.84	29.95	5.6	12	6.6	17	14	15	14	18
19	88	71	80	2	72	74	0	15	BR	0		0.0	0.00	29.91	30.02	4.8	01	5.9	16	02	14	01	19
20	82	72	77	-1	71	73	0	12	RA	0		0.0	0.01	29.89	30.01	3.4	06	5.7	16	06	13	14	20
21	75	71	73	-5	71	72	0	8	RA BR	0		0.0	1.26	29.79	29.90	7.1	03	8.1	20	05	17	06	21
22	85	69	77	0	68	71	0	12		0		0.0	0.00	29.89	30.01	6.0	01	6.8	17	02	15	02	22
23	86	64	75	-2	67	70	0	10	BR	0		0.0	0.00	29.93	30.05	2.1	11	4.5	15	12	12	11	23
24	87	70	79	2	70	73	0	14	BR	0		0.0	0.00	29.86	29.97	2.7	12	4.3	17	15	16	15	24
25	88	68	78	1	69	72	0	13	BR	0		0.0	0.00	29.83	29.95	2.7	06	3.7	15	10	13	04	25
26	84	70	77	1	69	71	0	12	RA BR	0		0.0	0.04	29.73	29.84	1.2	36	1.8	10	08	9	08	26
27	89	69	79	3	68	71	0	14	BR	0		0.0	0.00	29.78	29.89	3.5	36	4.1	17	01	14	03	27
28	85	65	75	-1	56	64	0	10		0		0.0	0.00	29.94	30.06	8.9	03	9.4	23	03	20	05	28
29	80	59	70	-6	51	59	0	5		0		0.0	0.00	30.06	30.18	6.3	05	7.3	21	06	16	07	29
30	78	55*	67*	-8	51	58	0	2		0		0.0	0.00	30.08	30.20	6.2	06	7.4	17	06	15	06	30
	86.3	69.0	77.7		68.5	71.4	0.0	12.9	< MONTHLY AVERAGES TOTALS–>			0.0	6.79	29.87	29.99	2.7	06	5.5					<– MONTHLY AVERAGES
	-3.0	0.6	-1.2		<–––––––––––DEPARTURE FROM NORMAL–––––––––––––>								2.46	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING:	0	-1	0	-1
COOLING:	387	-25	2851	244

GREATEST 24–HR PRECIPITATION: 3.04 DATE :11-12
GREATEST 24–HR SNOWFALL: 0.0 DATE :
GREATEST SNOW DEPTH: 0 DATE :

	SEA LEVEL PRESSURE	DATE	TIME
MAXIMUM :	30.26	30	0953
MINIMUM :	29.78	12	1653

NUMBER OF DAYS WITH →

MAXIMUM TEMP ≥ 90:	5	MINIMUM TEMP ≤ 32 :	0
MAXIMUM TEMP ≤ 32 :	0	MINIMUM TEMP ≤ 0 :	0
THUNDERSTORMS :	8	HEAVY FOG :	0

PRECIPITATION ≥ 0.01 INCH :	9
PRECIPITATION ≥ 0.10 INCH :	6
SNOWFALL ≥ 1.0 INCH :	0

SEPTEMBER 2003
HOUSTON, TX

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

HOUSTON, TX

SEPTEMBER 2003 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		0.26	T	T	0.25	0.15	0.17	0.20	0.02	0.02	T	T	01	T							0.13	T				01		1.20
02													02	0.04	0.02	T	T									02	0.06	0.07
03													03		T											03		T
04						T							04					0.06	0.02	0.03	0.01					04		0.12
05													05													05		0.00
06													06													06		0.00
07													07													07		0.00
08													08													08		0.00
09													09													09		0.00
10						T	0.05				T		10	0.82		0.09	0.08									10		1.04
11							0.01					0.29	11	0.07	T	0.31	0.10	0.02								11		0.80
12	0.05	1.47	0.41	0.22	0.06	T	0.01			T	0.03	T	12	T												12		2.25
13													13													13		0.00
14													14													14		0.00
15													15								T					15		T
16													16													16		0.00
17													17													17		0.00
18													18													18		0.00
19													19													19		0.00
20													20					T	0.01	T					T	20		0.01
21	T		0.04	0.11	0.30	0.03	0.10	0.22	0.18	0.17	0.04	T	21				T	0.01	T	T	0.02	0.02	0.01	0.01		21		1.26
22													22													22		0.00
23													23													23		0.00
24													24													24		0.00
25													25													25		0.00
26					T					T	0.02	T	26						T	T	0.02					26		0.04
27													27													27		0.00
28													28													28		0.00
29													29													29		0.00
30													30													30		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)	.41	.64	.79	.93	1.12	1.31	1.62	1.72	1.79	1.92	2.04	2.10
Ending Date	12	12	12	12	12	12	12	12	12	12	12	12
Ending Time (Hour/Min)	0119	0121	0126	0131	0130	0138	0158	0210	0237	0257	0326	0346

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
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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							1.25	10.00	
02							1.00	10.00	
03							10.00	10.00	
04							.25	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							7.00	10.00	
09							<.25	10.00	
10							.50	10.00	
11							2.50	10.00	
12							1.00	10.00	
13							10.00	10.00	
14							9.00	10.00	
15							10.00	10.00	
16							8.00	10.00	
17							8.00	10.00	
18							10.00	10.00	
19							6.00	10.00	
20							7.00	10.00	
21							1.00	10.00	
22							8.00	10.00	
23							3.00	10.00	
24							5.00	10.00	
25							2.00	10.00	
26							6.00	10.00	
27							2.50	10.00	
28							10.00	10.00	
29							10.00	10.00	
30							10.00	10.00	
MONTHLY AVGS							6.43	10.00	

SUNSHINE (MINUTES)

Total: Possible:
Percent Possible:

NUMBER OF DAYS WITH:

SKY CONDITION

CLR	PTLY CLDY	CLOUDY	MISSING
			30

MINIMUM VISIBILITY (MILES)

<=0.25	<=3.0	>=7.0
0	9	16

OBSERVATIONS AT 3–HOURLY INTERVALS

HOUSTON, TX

SEPTEMBER 2003 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: 0558 SEP 01 SUNSET: 1845														
03	OVC	100			10.00		78	77	77	97	10	18	29.79	29.91
06	OVC	029			4.00	+RA BR	75	75	75	100	7	22	29.84	29.96
09	OVC	045			10.00	-RA	77	76	76	96	8	16	29.90	30.02
12	OVC	130			10.00		78	75	76	90	7	23	29.85	29.97
15	OVC	250			10.00		83	76	78	79	7	VR	29.83	29.95
18	OVC	130			10.00		82	77	78	85	3	18	29.82	29.94
21	BKN	130			10.00		77	75	76	94	0	00	29.86	29.98
24	BKN	250			10.00		78	77	77	97	0	00	29.88	30.00
SUNRISE: 0559 SEP 02 SUNSET: 1844														
03	BKN	250			10.00		77	77	77	100	0	00	29.86	29.97
06	OVC	130			10.00		76	76	76	100	0	00	29.88	30.00
09	OVC	006			10.00		78	77	77	97	6	34	29.91	30.03
12	OVC	130			10.00		83	77	79	82	0	00	29.89	30.00
15	OVC	130			10.00	-RA	78	75	76	90	0	00	29.86	29.98
18	BKN	140			10.00		81	75	77	82	0	00	29.84	29.96
21	BKN	250			10.00		78	76	77	93	0	00	29.89	30.01
24	BKN	250			10.00		77	75	76	94	0	00	29.88	30.00
SUNRISE: 0559 SEP 03 SUNSET: 1843														
03	BKN	250			10.00		77	75	76	94	0	00	29.86	29.98
06	BKN	140			10.00		76	75	75	97	0	00	29.88	29.99
09	BKN	140			10.00		82	77	78	85	0	00	29.91	30.03
12	BKN	140			10.00	TS	88	73	77	61	0	00	29.88	30.00
15	BKN	250			10.00		84	76	78	77	7	31	29.84	29.95
18	BKN	250			10.00		82	74	76	77	10	18	29.85	29.96
21	BKN	250			10.00		78	75	76	90	0	00	29.85	29.97
24	SCT	NC			10.00		77	75	76	94	0	00	29.86	29.97
SUNRISE: 0560 SEP 04 SUNSET: 1842														
03	BKN	100			10.00		77	75	76	94	0	00	29.86	29.97
06	BKN	250			10.00		75	73	74	94	6	32	29.88	30.00
09	BKN	070			10.00		82	74	76	77	7	34	29.89	30.01
12	BKN	120			10.00		88	74	78	63	10	35	29.87	29.98
15	BKN	250			10.00		91	72	78	54	6	VR	29.81	29.92
18	OVC	070			10.00	TS	75	74	74	96	6	17	29.85	29.97
21	BKN	250			10.00		75	73	74	94	6	01	29.83	29.95
24	BKN	250			10.00		74	73	73	97	5	33	29.85	29.97
SUNRISE: 0600 SEP 05 SUNSET: 1841														
03	BKN	250			10.00		73	72	72	96	7	32	29.84	29.96
06	BKN	120			10.00		74	72	73	94	6	02	29.86	29.97
09	BKN	250			10.00		79	70	73	74	13	06	29.91	30.02
12	SCT	NC			10.00		84	71	75	65	9	03	29.90	30.01
15	SCT	NC			10.00		89	66	74	47	14	01	29.82	29.94
18	BKN	250			10.00		84	65	71	53	8	01	29.81	29.93
21	FEW	NC			10.00		78	67	71	69	7	06	29.85	29.97
24	SCT	NC			10.00		70	66	67	87	0	00	29.87	29.98
SUNRISE: 0601 SEP 06 SUNSET: 1839														
03	FEW	NC			10.00		69	64	66	84	0	00	29.87	29.99
06	SCT	NC			10.00		65	62	63	90	0	00	29.89	30.01
09	FEW	NC			10.00		75	63	67	66	5	VR	29.92	30.03
12	FEW	NC			10.00		83	61	69	48	6	VR	29.89	30.01
15	FEW	NC			10.00		86	60	69	42	7	03	29.83	29.95
18	CLR	NC			10.00		84	61	69	46	7	03	29.82	29.94
21	CLR	NC			10.00		73	67	69	81	0	00	29.86	29.98
24	CLR	NC			10.00		70	64	66	82	0	00	29.86	29.98
SUNRISE: 0601 SEP 07 SUNSET: 1838														
03	CLR	NC			10.00		65	62	63	90	3	31	29.85	29.96
06	CLR	NC			10.00		64	61	62	90	0	00	29.87	29.98
09	CLR	NC			10.00		77	65	69	66	3	VR	29.90	30.02
12	FEW	NC			10.00		83	61	69	48	3	VR	29.88	30.00
15	FEW	NC			10.00		87	60	70	40	0	00	29.82	29.94
18	SCT	NC			10.00		84	61	69	46	7	VR	29.81	29.93
21	SCT	NC			10.00		75	66	69	74	0	00	29.83	29.94
24	SCT	NC			10.00		70	65	67	84	3	23	29.83	29.95
SUNRISE: 0602 SEP 08 SUNSET: 1837														
03	SCT	NC			10.00		68	64	66	87	0	00	29.82	29.93
06	OVC	250			8.00		68	64	66	87	3	35	29.85	29.97
09	BKN	250			9.00		78	66	70	67	0	00	29.87	29.99
12	BKN	250			10.00		82	66	71	58	5	VR	29.87	29.98
15	BKN	250			10.00		86	60	69	42	8	09	29.80	29.91
18	BKN	250			10.00		83	63	70	51	10	13	29.80	29.91
21	SCT	NC			10.00		76	67	70	74	0	00	29.83	29.95
24	SCT	NC			9.00		70	67	68	90	0	00	29.84	29.96
SUNRISE: 0603 SEP 09 SUNSET: 1836														
03	SCT	NC			9.00		69	66	67	90	0	00	29.83	29.95
06	SCT	NC			6.00	BR	69	67	68	93	3	36	29.86	29.97
09	BKN	250			10.00		80	68	72	67	9	06	29.88	30.00
12	BKN	043			10.00		84	71	75	65	0	00	29.88	29.99
15	BKN	250			10.00		88	70	76	55	8	10	29.81	29.93
18	SCT	NC			10.00		84	74	77	72	12	14	29.81	29.93
21	SCT	NC			10.00		79	75	76	88	7	16	29.86	29.98
24	FEW	NC			10.00		77	75	76	94	0	00	29.84	29.96
SUNRISE: 0603 SEP 10 SUNSET: 1834														
03	SCT	NC			10.00		76	75	75	97	0	00	29.84	29.96
06	BKN	031			8.00	-RA	76	75	75	97	5	06	29.86	29.98
09	SCT	NC			10.00		83	78	79	85	6	12	29.89	30.01
12	BKN	250			10.00	TS	86	76	79	72	13	09	29.87	29.99
15	OVC	065			2.50	+TSRA BR	77	75	76	94	15	16	29.86	29.98
18	OVC	130			10.00		79	75	76	88	9	13	29.83	29.94
21	SCT	NC			10.00		77	75	76	94	7	14	29.87	29.99
24	SCT	NC			10.00		76	75	75	97	7	10	29.85	29.97
SUNRISE: 0604 SEP 11 SUNSET: 1833														
03	BKN	250			10.00		76	76	76	100	3	16	29.83	29.94
06	BKN	130			10.00		77	76	76	96	0	00	29.85	29.97
09	BKN	130			10.00		85	77	79	77	12	17	29.85	29.96
12	OVC	065			3.00	+TSRA BR	75	74	74	96	14	21	29.84	29.96
15	OVC	033			10.00	-TSRA	73	72	72	96	5	19	29.79	29.91
18	OVC	140			10.00		75	73	74	94	8	12	29.73	29.85
21	BKN	130			10.00		74	73	73	97	8	13	29.76	29.88
24	BKN	021			10.00		75	74	74	96	7	09	29.72	29.84
SUNRISE: 0604 SEP 12 SUNSET: 1832														
03	OVC	020			4.00	+TSRA BR	69	69	69	100	6	34	29.73	29.85
06	OVC	013			10.00		70	69	69	97	6	27	29.72	29.84
09	OVC	007			10.00		70	68	69	93	6	36	29.74	29.85
12	OVC	010			10.00		71	69	70	94	12	30	29.74	29.86
15	OVC	030			10.00		79	69	72	72	6	28	29.69	29.81
18	BKN	120			10.00		81	68	72	65	3	VR	29.67	29.79
21	SCT	NC			10.00		75	69	71	82	5	20	29.71	29.83
24	FEW	NC			10.00		71	70	70	96	6	17	29.74	29.86

OBSERVATIONS AT 3–HOURLY INTERVALS

HOUSTON, TX

SEPTEMBER 2003 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: 0605	SEP 13			SUNSET: 1831					
03	CLR	NC			10.00		70	69	69	97	3	19	29.74	29.86
06	FEW	NC			10.00		68	68	68	100	5	16	29.76	29.88
09	FEW	NC			10.00		78	71	73	79	7	22	29.82	29.93
12	FEW	NC			10.00		85	69	74	59	0	00	29.82	29.94
15	FEW	NC			10.00		89	67	74	48	8	11	29.78	29.90
18	SCT	NC			10.00		86	69	74	57	9	11	29.81	29.93
21	FEW	NC			10.00		78	72	74	82	0	00	29.86	29.98
24	CLR	NC			10.00		74	72	73	94	3	01	29.89	30.01
					SUNRISE: 0605	SEP 14			SUNSET: 1830					
03	CLR	NC			10.00		71	70	70	96	5	35	29.91	30.03
06	BKN	031			9.00		71	70	70	96	3	VR	29.92	30.04
09	SCT	NC			10.00		80	75	77	85	7	04	29.97	30.09
12	SCT	NC			10.00		86	73	77	65	7	35	29.96	30.08
15	OVC	250			10.00		89	72	77	57	13	02	29.92	30.04
18	BKN	130			10.00		78	70	73	76	17	24	29.99	30.10
21	BKN	250			10.00		75	71	72	88	7	36	30.00	30.12
24	BKN	250			10.00		74	71	72	91	6	33	29.99	30.11
					SUNRISE: 0606	SEP 15			SUNSET: 1828					
03	BKN	250			10.00		72	69	70	91	6	01	29.99	30.10
06	BKN	250			10.00		70	67	68	90	9	02	30.00	30.11
09	BKN	050			10.00		76	66	70	72	10	05	30.03	30.15
12	BKN	050			10.00		85	68	74	57	6	05	30.01	30.13
15	BKN	250			10.00		87	68	74	53	6	VR	29.95	30.07
18	BKN	080			10.00		83	71	75	67	13	14	29.94	30.06
21	BKN	090			10.00		78	71	73	79	5	14	29.96	30.08
24	SCT	NC			10.00		74	72	73	94	0	00	29.93	30.04
					SUNRISE: 0606	SEP 16			SUNSET: 1827					
03	FEW	NC			10.00		72	71	71	97	0	00	29.92	30.04
06	SCT	NC			10.00		71	69	70	94	7	05	29.93	30.05
09	FEW	NC			10.00		79	66	71	65	9	09	29.97	30.09
12	SCT	NC			10.00		86	68	74	55	13	10	29.95	30.06
15	SCT	NC			10.00		88	66	73	48	14	09	29.88	30.00
18	SCT	NC			10.00		84	66	72	55	9	12	29.87	29.98
21	CLR	NC			10.00		77	69	72	77	7	11	29.89	30.01
24	CLR	NC			10.00		73	68	70	84	0	00	29.88	29.99
					SUNRISE: 0607	SEP 17			SUNSET: 1826					
03	FEW	NC			10.00		69	68	68	96	0	00	29.86	29.98
06	CLR	NC			8.00		67	66	66	97	3	35	29.87	29.98
09	SCT	NC			10.00		79	67	71	67	9	12	29.91	30.03
12	BKN	037			10.00		87	68	74	53	16	13	29.88	30.00
15	BKN	250			10.00		87	68	74	53	13	13	29.82	29.94
18	BKN	250			10.00		82	69	73	65	12	14	29.83	29.94
21	BKN	250			10.00		77	71	73	82	9	12	29.84	29.96
24	BKN	250			10.00		76	71	73	85	5	10	29.84	29.95
					SUNRISE: 0607	SEP 18			SUNSET: 1825					
03	BKN	250			10.00		75	71	72	88	3	10	29.82	29.94
06	OVC	250			10.00		74	71	72	91	6	14	29.84	29.96
09	BKN	130			10.00		80	73	75	79	10	12	29.85	29.97
12	OVC	130			10.00		83	75	77	77	9	12	29.85	29.97
15	OVC	120			10.00		83	73	76	72	9	14	29.80	29.91
18	BKN	250			10.00		81	74	76	79	7	10	29.82	29.94
21	BKN	250			10.00		77	74	75	90	6	10	29.83	29.95
24	SCT	NC			10.00		74	73	73	97	0	00	29.87	29.98

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: 0608	SEP 19			SUNSET: 1823					
03	SCT	NC			8.00		72	71	71	97	0	00	29.87	29.98
06	SCT	NC			10.00		72	71	71	97	3	01	29.91	30.03
09	SCT	NC			10.00		80	72	75	76	12	03	29.93	30.05
12	BKN	045			10.00		85	70	75	61	5	VR	29.93	30.05
15	BKN	250			10.00		87	70	75	57	7	03	29.88	30.00
18	BKN	047			10.00		81	73	75	77	3	31	29.89	30.01
21	OVC	250			10.00		77	72	74	85	5	02	29.94	30.06
24	BKN	250			10.00		74	72	73	94	6	02	29.90	30.02
					SUNRISE: 0608	SEP 20			SUNSET: 1822					
03	BKN	250			8.00		72	71	71	97	5	02	29.89	30.01
06	OVC	130			10.00		72	70	71	94	6	01	29.90	30.01
09	OVC	120			9.00		76	70	72	82	7	VR	29.94	30.05
12	OVC	130			9.00		81	69	73	67	10	06	29.92	30.04
15	OVC	029			7.00		78	71	73	79	6	18	29.87	29.99
18	OVC	090			7.00	-RA	75	73	74	94	0	00	29.85	29.97
21	OVC	120			7.00		74	73	73	97	0	00	29.86	29.98
24	OVC	070			10.00	-RA	74	72	73	94	6	08	29.84	29.96
					SUNRISE: 0609	SEP 21			SUNSET: 1821					
03	OVC	090			4.00	-RA BR	73	72	72	96	8	04	29.80	29.91
06	OVC	006			2.00	RA BR	72	72	72	100	9	06	29.79	29.91
09	OVC	005			1.00	+RA BR	72	72	72	100	14	06	29.80	29.92
12	OVC	007			4.00	BR	72	71	71	97	10	04	29.77	29.89
15	OVC	007			4.00	BR	73	71	72	94	8	35	29.74	29.86
18	OVC	010			4.00	BR	72	71	71	97	7	35	29.73	29.85
21	OVC	010			6.00	-RA BR	71	71	71	100	6	36	29.81	29.93
24	OVC	035			10.00		71	70	70	96	6	35	29.81	29.93
					SUNRISE: 0610	SEP 22			SUNSET: 1820					
03	OVC	012			10.00		71	70	70	96	5	34	29.81	29.93
06	OVC	009			10.00		70	69	69	97	9	36	29.86	29.98
09	OVC	015			10.00		72	68	69	87	12	36	29.91	30.03
12	BKN	250			10.00		80	68	72	67	9	02	29.92	30.03
15	BKN	250			10.00		84	66	72	55	10	36	29.88	30.00
18	BKN	250			10.00		80	68	72	67	8	03	29.89	30.01
21	SCT	NC			10.00		74	70	71	88	5	03	29.93	30.05
24	SCT	NC			8.00		69	67	68	93	0	00	29.93	30.05
					SUNRISE: 0610	SEP 23			SUNSET: 1818					
03	BKN	250			8.00		68	67	67	96	0	00	29.94	30.06
06	SCT	NC			5.00	BR	65	64	64	97	0	00	29.96	30.08
09	BKN	250			9.00		75	68	70	79	3	VR	29.99	30.10
12	BKN	250			10.00		82	66	71	58	7	08	29.96	30.08
15	BKN	140			10.00		85	65	72	51	7	13	29.89	30.01
18	OVC	250			10.00		82	67	72	60	8	11	29.88	30.00
21	BKN	250			10.00		75	71	72	88	5	18	29.91	30.03
24	BKN	250			10.00		74	70	71	88	0	00	29.89	30.01
					SUNRISE: 0611	SEP 24			SUNSET: 1817					
03	BKN	250			10.00		72	70	71	94	0	00	29.86	29.97
06	BKN	250			5.00	BR	70	69	69	97	3	VR	29.87	29.98
09	OVC	130			9.00		77	70	72	79	7	02	29.90	30.02
12	OVC	034			10.00		82	72	75	72	7	11	29.87	29.99
15	BKN	250			10.00		86	70	75	59	9	13	29.80	29.92
18	BKN	130			10.00		82	69	73	65	12	14	29.80	29.91
21	SCT	NC			10.00		76	71	73	85	3	17	29.84	29.96
24	FEW	NC			8.00		72	71	71	97	0	00	29.85	29.97

OBSERVATIONS AT 3−HOURLY INTERVALS

HOUSTON, TX

SEPTEMBER 2003 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: 0611	SEP 25			SUNSET: 1816					
03	FEW	NC			8.00		69	69	69	100	3	35	29.85	29.96
06	SCT	NC			3.00	BR	69	69	69	100	0	00	29.86	29.98
09	FEW	NC			10.00		79	72	74	79	7	VR	29.89	30.01
12	SCT	NC			10.00		84	67	73	57	6	10	29.87	29.99
15	BKN	250			10.00		87	65	72	48	9	10	29.80	29.92
18	BKN	250			10.00		84	68	73	59	7	05	29.76	29.88
21	SCT	NC			10.00		75	70	72	84	0	00	29.79	29.91
24	SCT	NC			10.00		71	70	70	96	0	00	29.77	29.88
					SUNRISE: 0612	SEP 26			SUNSET: 1815					
03	SCT	NC			10.00		72	69	70	91	0	00	29.74	29.86
06	OVC	130			6.00	BR	72	70	71	94	0	00	29.74	29.85
09	OVC	130			7.00		74	70	71	88	5	34	29.76	29.88
12	OVC	130			9.00		77	71	73	82	0	00	29.74	29.86
15	BKN	140			10.00		83	62	70	49	0	00	29.68	29.80
18	BKN	100			10.00		79	67	71	67	5	04	29.68	29.80
21	BKN	090			10.00		73	69	70	87	0	00	29.70	29.82
24	BKN	110			9.00		72	71	71	97	0	00	29.72	29.83
					SUNRISE: 0612	SEP 27			SUNSET: 1813					
03	BKN	110			7.00		71	71	71	100	3	33	29.72	29.84
06	SCT	NC			4.00	BR	69	69	69	100	0	00	29.75	29.86
09	CLR	NC			9.00		78	71	73	79	6	02	29.81	29.93
12	FEW	NC			10.00		86	66	73	51	10	35	29.79	29.91
15	FEW	NC			10.00		89	65	73	45	9	01	29.75	29.87
18	CLR	NC			10.00		84	64	71	51	6	04	29.77	29.88
21	CLR	NC			10.00		74	68	70	82	0	00	29.83	29.94
24	SCT	NC			10.00		74	69	71	85	5	32	29.84	29.95
					SUNRISE: 0613	SEP 28			SUNSET: 1812					
03	CLR	NC			10.00		74	69	71	85	13	01	29.85	29.97
06	BKN	060			10.00		72	54	61	53	9	04	29.92	30.03
09	FEW	NC			10.00		75	56	64	52	12	04	29.98	30.10
12	CLR	NC			10.00		83	52	65	34	13	04	29.96	30.08
15	CLR	NC			10.00		85	48	63	28	13	02	29.93	30.05
18	CLR	NC			10.00		79	51	63	38	7	VR	29.94	30.06
21	CLR	NC			10.00		69	58	62	68	0	00	29.99	30.11
24	CLR	NC			10.00		65	57	60	76	5	36	30.02	30.13
					SUNRISE: 0613	SEP 29			SUNSET: 1811					
03	CLR	NC			10.00		63	54	58	73	3	02	30.02	30.14
06	CLR	NC			10.00		60	52	56	75	6	02	30.07	30.19
09	CLR	NC			10.00		69	47	57	45	12	09	30.11	30.23
12	FEW	NC			10.00		75	45	59	34	12	07	30.09	30.21
15	FEW	NC			10.00		79	48	61	34	9	08	30.03	30.15
18	SCT	NC			10.00		75	50	61	42	7	04	30.04	30.16
21	CLR	NC			10.00		65	56	60	73	5	35	30.08	30.20
24	CLR	NC			10.00		61	54	57	78	5	02	30.08	30.20
					SUNRISE: 0614	SEP 30			SUNSET: 1810					
03	FEW	NC			10.00		58	51	54	78	9	03	30.09	30.21
06	FEW	NC			10.00		56	50	53	81	5	04	30.10	30.22
09	FEW	NC			10.00		67	47	56	49	13	07	30.13	30.25
12	FEW	NC			10.00		75	48	60	39	10	04	30.11	30.22
15	CLR	NC			10.00		77	47	60	35	7	VR	30.03	30.15
18	CLR	NC			10.00		74	51	61	45	8	04	30.02	30.14
21	CLR	NC			10.00		66	56	60	70	0	00	30.07	30.19
24	CLR	NC			10.00		62	56	59	81	3	34	30.07	30.19

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:	SEP 31			SUNSET:					

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	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (INCHES,HG): STATION	PRESSURE (INCHES,HG): SEA LEVEL	VISIBILITY (MILES)	WIND SPEED (MPH)	RESULTANT WIND (MPH): SPEED	RESULTANT WIND (MPH): DIRECTION
01			72	70	71	92	29.86	29.98	9.60	3	2	2
02			72	69	70	92	29.86	29.97	9.10	3	2	2
03			71	69	70	93	29.86	29.97	9.20	3	2	1
04			71	69	69	94	29.86	29.97	9.07	3	2	2
05			70	68	69	94	29.86	29.98	9.00	4	3	2
06			70	68	69	93	29.88	29.99	8.27	4	2	2
07			71	68	69	91	29.89	30.01	8.37	5	3	1
08			74	68	70	85	29.90	30.02	8.44	6	4	5
09			77	69	72	76	29.91	30.03	9.43	7	4	6
10			79	68	72	70	29.91	30.03	9.35	7	4	6
11			81	68	73	67	29.91	30.02	9.63	6	4	6
12			82	68	73	64	29.89	30.01	9.50	7	3	6
13			83	67	73	62	29.87	29.99	9.32	7	4	6
14			84	67	72	59	29.85	29.97	9.73	7	3	7
15			84	66	72	58	29.84	29.96	9.45	7	3	7
16			83	67	72	59	29.83	29.95	9.67	8	4	7
17			82	67	72	62	29.83	29.95	9.47	8	5	8
18			81	68	72	67	29.84	29.96	9.70	7	3	11
19			78	68	72	74	29.84	29.96	9.63	5	3	10
20			76	69	72	80	29.86	29.98	9.73	4	3	13
21			75	70	72	84	29.87	29.99	9.77	3	2	10
22			74	70	71	87	29.88	30.00	9.83	3	1	5
23			73	70	71	89	29.88	29.99	9.93	2	1	7
24			72	69	70	91	29.87	29.99	9.80	3	1	3

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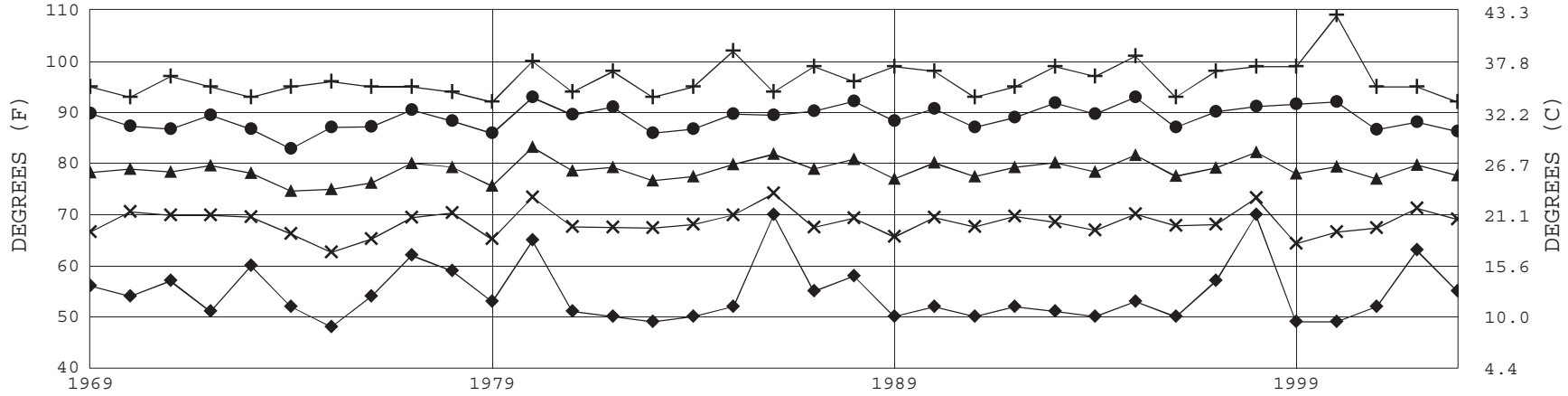
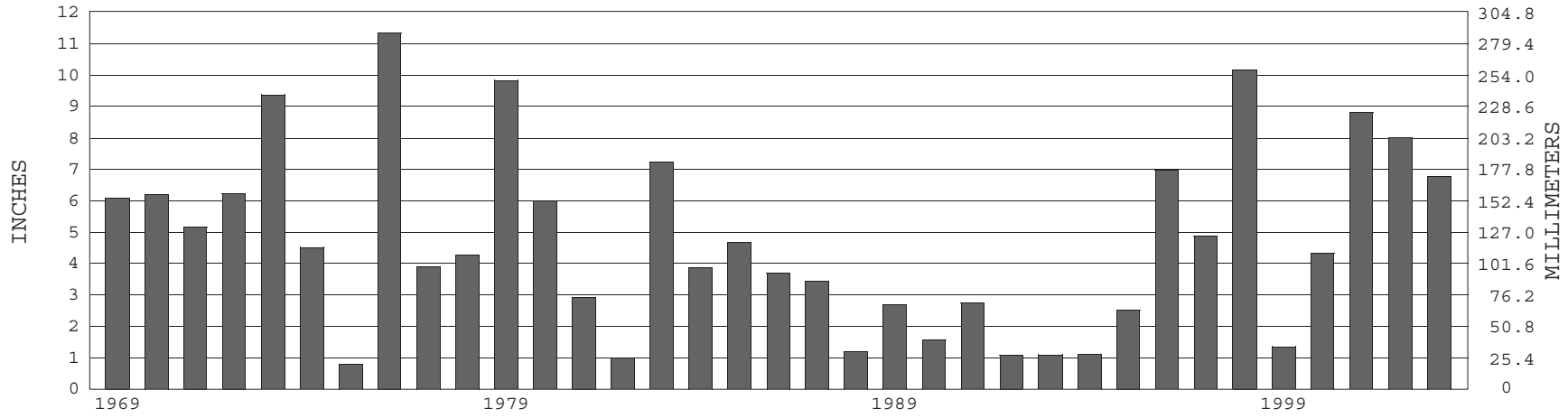
HOUSTON, TX SEPTEMBER TEMPERATURES



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

Long-Term (1969-2003) Mean: 78.7 1961-1990 Normal: 78.9

HOUSTON, TX SEPTEMBER PRECIPITATION



Long-Term (1969-2003) Mean Monthly Total: 4.74 1961-1990 Normal: 4.33

SEPTEMBER 2003

HOUSTON, TX

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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