DECEMBER 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	56	35	46	-11	37	42	19	0	MIFG	0		0.0	0.00	30.20	30.32	1.6	09	3.0	10	10	9	10	01
02	66	44	55	-1	42	48	10	0		0		0.0	0.00	30.10	30.22	1.3	36	3.2	12	34	8	35	02
03	60	42	51	-5	44	48	14	0	RA	0		0.0	0.02	30.05	30.17	1.8	11	2.9	12	12	10	12	03
04	63	53	58	2	49	53	7	0		0		0.0	0.00	29.97	30.09	4.1	09	5.0	18	13	15	13	04
05	75	58	67	11	64	65	0	2	RA BR	0		0.0	0.02	29.81	29.92	5.4	16	6.8	20	16	16	17	05
06	75	60	68	13	68	69	0	3	TSRA RA BR	0		0.0	0.98	29.75	29.87	3.3	19	6.6	37*	28	26	30	06
07	71	50	61	6	48	54	4	0		0		0.0	0.00	29.90	30.01	3.3	32	4.4	18	36	15	34	07
08	69	49	59	4	55	57	6	0		0		0.0	0.00	29.86	29.98	2.4	08	5.0	17	14	14	15	08
09	79	53	66	11	49	57	0	1		0		0.0	0.00	29.74	29.86	6.4	26	6.8	25	26	17	26	09
10	69	50	60	5	36	49	5	0		0		0.0	0.00	29.96	30.08	8.4	31	9.1	29	33	23	33	10
11	68	45	57	3	35	46	8	0	HZ	0		0.0	0.00	30.02	30.14	1.7	30	4.9	16	36	14	36	11
12	79*	45	62	8	53	57	3	0		0		0.0	0.00	29.88	29.99	5.1	21	5.9	28	21	21	21	12
13	64	46	55	1	35	47	10	0		0		0.0	0.00	30.20	30.32	13.3	36	13.5	29	01	25	36	13
14	54	33	44	-10	23	36	21	0		0		0.0	0.00	30.49	30.61	9.0	36	9.2	28	01	21	36	14
15	55	28	42	-12	32	38	23	0		0		0.0	0.00	30.36	30.48	8.1	10	9.1	18	13	14	09	15
16	51	43	47	-6	44	46	18	0	RA BR	0		0.0	0.46	30.21	30.33	9.6	03	10.5	23	04	21	04	16
17	61	46	54	1	45	49	11	0		0		0.0	0.00	30.22	30.34	6.6	36	7.4	17	01	14	01	17
18	67	39	53	0	38	46	12	0	BR	0		0.0	0.00	30.13	30.25	4.7	29	5.1	18	34	15	33	18
19	65	38	52	-1	32	43	13	0		0		0.0	0.00	30.22	30.34	5.3	35	5.8	22	36	18	01	19
20	71	38	55	2	42	50	10	0		0		0.0	0.00	30.00	30.11	9.2	19	9.5	26	23	20	21	20
21	71	54	63	10	59	60	2	0	RA BR	0		0.0	0.26	29.77	29.88	6.3	15	6.5	18	14	16	13	21
22	61	35	48	-5	46	47	17	0	RA FG+ BR	0		0.0	0.17	29.78	29.89	10.9	33	11.2	30	33	25	34	22
23	43	31	37	-16	24	31	28	0		0		0.0	0.00	30.17	30.28	11.2	36	11.8	32	01	26*	35	23
24	37	31	34*	-18	18	28	31	0	SN	0		T	0.02	30.19	30.31	12.8	36	13.0	24	36	21	01	24
25	49	32	41	-11	21	32	24	0		0		0.0	0.00	30.12	30.24	3.2	33	4.5	14	33	13	32	25
26	59	28*	44	-8	28	36	21	0		0		0.0	0.00	30.23	30.34	1.6	18	2.3	12	14	10	14	26
27	61	30	46	-6	37	42	19	0		0		0.0	0.00	30.34	30.46	4.3	12	5.0	21	15	15	12	27
28	68	41	55	3	49	52	10	0	BR	0		0.0	0.00	30.26	30.37	8.2	13	8.4	23	13	20	14	28
29	72	49	61	9	57	59	4	0	RA BR	0		0.0	T	30.16	30.28	6.1	13	6.4	20	14	17	14	29
30	75	57	66	14	61	63	0	1	RA BR	0		0.0	0.02	30.05	30.16	7.1	14	7.9	21	19	17	17	30
31	76	62	69*	17	63	65	0	4	RA FG BR	0		0.0	T	30.05	30.16	8.6	13	9.0	20	14	17	13	31
	64.2	43.4	53.8		43.0	48.9	11.3	0.4	< MONTHLY AVERAGES TOTALS–>			T	1.95	30.07	30.19	1.4	02	7.1					<– MONTHLY AVERAGES
	-.4	0.6	0.1		<–––––––––––DEPARTURE FROM NORMAL–––––––––––>								-1.74	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING:	350	-17	474	-120
COOLING:	11	-14	3297	404

GREATEST 24–HR PRECIPITATION: 0.98 DATE :06
GREATEST 24–HR SNOWFALL: T DATE :24
GREATEST SNOW DEPTH: 0 DATE :

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM	30.69	14	0953
MINIMUM	29.73	06	1753

NUMBER OF DAYS WITH →

MAXIMUM TEMP ≥ 90:	0	MINIMUM TEMP ≤ 32 :	6
MAXIMUM TEMP ≤ 32 :	0	MINIMUM TEMP ≤ 0 :	0
THUNDERSTORMS :	1	HEAVY FOG :	1
PRECIPITATION ≥ 0.01 INCH :	8		
PRECIPITATION ≥ 0.10 INCH :	4		
SNOWFALL ≥ 1.0 INCH :	0		

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

HOUSTON, TX

DECEMBER 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													01													01		0.00
02													02													02		0.00
03													03						0.02	T						03		0.02
04													04													04		0.00
05				T	T	T	0.01	T	0.01	T			05			T							T	T		05		0.02
06								T			0.01	0.29	06	0.18	0.20	0.14		T	T		T			0.15	0.01	06		0.98
07													07													07		0.00
08													08													08		0.00
09													09													09		0.00
10													10													10		0.00
11													11													11		0.00
12													12													12		0.00
13													13													13		0.00
14													14													14		0.00
15													15													15		0.00
16									T	0.05	0.12	0.11	16	0.18	T											16		0.46
17													17													17		0.00
18													18													18		0.00
19													19													19		0.00
20													20													20		0.00
21											T	0.26	21	T												21		0.26
22						T	0.01	T	T	T	T	T	22	0.11	0.05											22		0.17
23													23													23		0.00
24													24					T	0.02	T	T	T				24		0.02
25													25													25		0.00
26													26													26		0.00
27													27													27		0.00
28													28													28		0.00
29													29	T		T										29		T
30						T	0.01	0.01	T				30													30		0.02
31		T	T										31													31		T

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.21	.26	.26	.27	.30	.36	.42	.47	.57	.64	.68	.80
Ending Date	21	21	21	06	06	06	06	06	06	06	06	06
Ending Time (Hour/Min)	1125	1128	1128	1151	1155	1212	1230	1244	1310	1331	1401	1427

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
DECEMBER 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							10.00	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							10.00	10.00	
05							.13	10.00	
06							.75	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							9.00	10.00	
10							10.00	10.00	
11							6.00	10.00	
12							9.00	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							10.00	10.00	
16							2.00	10.00	
17							8.00	10.00	
18							4.00	10.00	
19							10.00	10.00	
20							10.00	10.00	
21							2.00	10.00	
22							.00	10.00	
23							10.00	10.00	
24							1.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							6.00	10.00	
29							2.00	10.00	
30							2.00	10.00	
31							.25	10.00	
MONTHLY AVGS							7.08	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
3	7	19

OBSERVATIONS AT 3–HOURLY INTERVALS

HOUSTON, TX

DECEMBER 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: 0700	**DEC 01**			**SUNSET: 1721**					
03	FEW	NC			10.00		38	36	37	93	0	00	30.24	30.36
06	CLR	NC			10.00		37	35	36	93	0	00	30.25	30.37
09	BKN	250			10.00		43	38	41	82	3	05	30.28	30.40
12	BKN	250			10.00		52	33	44	49	6	VR	30.24	30.36
15	BKN	250			10.00		55	33	45	44	5	11	30.15	30.27
18	BKN	250			10.00		48	40	44	74	5	17	30.13	30.25
21	SCT	NC			10.00		48	39	44	71	0	00	30.13	30.25
24	BKN	075			10.00		47	42	45	83	0	00	30.12	30.24
					SUNRISE: 0701	**DEC 02**			**SUNSET: 1721**					
03	BKN	250			10.00		47	44	46	90	0	00	30.11	30.23
06	BKN	250			10.00		45	42	44	90	6	04	30.07	30.19
09	BKN	250			10.00		52	42	47	69	5	06	30.13	30.25
12	BKN	250			10.00		61	40	51	46	5	34	30.12	30.24
15	BKN	250			10.00		65	39	52	39	5	29	30.06	30.18
18	BKN	250			10.00		58	40	49	51	6	VR	30.08	30.20
21	BKN	250			10.00		52	42	47	69	0	00	30.10	30.22
24	SCT	NC			10.00		47	42	45	83	0	00	30.10	30.22
					SUNRISE: 0702	**DEC 03**			**SUNSET: 1721**					
03	SCT	NC			10.00		45	42	44	90	0	00	30.07	30.19
06	BKN	250			10.00		45	41	43	86	5	04	30.07	30.19
09	BKN	060			10.00		49	42	46	77	0	00	30.07	30.19
12	OVC	050			10.00		57	42	50	58	0	00	30.06	30.18
15	OVC	055			10.00		59	43	51	56	3	14	30.00	30.12
18	OVC	050			10.00	-RA	53	51	52	93	0	00	30.02	30.14
21	OVC	048			10.00		53	48	50	83	5	13	30.03	30.15
24	OVC	046			10.00		54	50	52	87	0	00	30.01	30.13
					SUNRISE: 0702	**DEC 04**			**SUNSET: 1721**					
03	OVC	046			10.00		54	50	52	87	0	00	30.00	30.12
06	OVC	047			10.00		54	51	52	90	5	36	29.99	30.11
09	BKN	046			10.00		56	49	52	77	0	00	30.03	30.15
12	BKN	055			10.00		61	44	52	54	6	05	30.00	30.11
15	OVC	044			10.00		62	47	54	58	9	11	29.93	30.04
18	BKN	033			10.00		60	50	55	70	8	10	29.93	30.05
21	OVC	020			10.00		58	49	53	72	7	11	29.95	30.06
24	OVC	010			10.00		58	51	54	78	9	10	29.88	30.00
					SUNRISE: 0703	**DEC 05**			**SUNSET: 1722**					
03	OVC	006			10.00		59	54	56	83	7	07	29.85	29.96
06	OVC	004			4.00	BR	60	58	59	93	6	06	29.83	29.95
09	OVC	002			0.13	-RA BR	61	60	60	97	5	14	29.88	29.99
12	OVC	200			7.00		70	65	67	84	9	15	29.80	29.92
15	BKN	050			10.00		75	67	70	76	15	17	29.72	29.84
18	OVC	060			10.00		74	69	71	85	10	18	29.75	29.87
21	OVC	047			10.00		73	69	70	87	6	19	29.77	29.89
24	OVC	026			10.00		73	69	70	87	8	17	29.77	29.89
					SUNRISE: 0704	**DEC 06**			**SUNSET: 1722**					
03	OVC	130			10.00		72	69	70	91	6	18	29.76	29.88
06	OVC	130			8.00		72	69	70	91	6	28	29.78	29.90
09	BKN	130			6.00	BR	73	70	71	90	3	25	29.80	29.92
12	OVC	008			1.00	+RA BR	71	69	70	94	6	VR	29.78	29.90
15	OVC	019			7.00		68	65	66	90	8	03	29.70	29.82
18	BKN	036			10.00		72	69	70	91	12	17	29.62	29.73
21	OVC	070			10.00		75	71	72	88	10	20	29.70	29.82
24	OVC	033			10.00		62	53	57	73	8	30	29.80	29.92
					SUNRISE: 0705	**DEC 07**			**SUNSET: 1722**					
03	SCT	NC			10.00		60	53	56	78	3	23	29.81	29.93
06	FEW	NC			10.00		56	47	51	72	8	30	29.85	29.97
09	SCT	NC			10.00		60	43	51	53	12	32	29.92	30.04
12	FEW	NC			10.00		67	46	56	47	9	36	29.94	30.06
15	FEW	NC			10.00		71	46	57	41	0	00	29.89	30.01
18	FEW	NC			10.00		60	49	54	67	0	00	29.90	30.02
21	CLR	NC			10.00		55	48	51	77	0	00	29.93	30.04
24	CLR	NC			10.00		52	48	50	86	0	00	29.95	30.07
					SUNRISE: 0705	**DEC 08**			**SUNSET: 1722**					
03	SCT	NC			10.00		49	47	48	93	0	00	29.93	30.05
06	SCT	NC			10.00		49	46	47	90	6	04	29.90	30.02
09	OVC	048			10.00		56	50	53	81	8	04	29.94	30.06
12	OVC	090			10.00		65	56	60	73	7	11	29.89	30.01
15	OVC	018			10.00		69	61	64	76	10	14	29.81	29.93
18	BKN	075			10.00		66	62	64	87	6	12	29.77	29.89
21	OVC	005			10.00		66	63	64	90	3	15	29.79	29.91
24	OVC	007			10.00		63	59	61	87	8	30	29.79	29.91
					SUNRISE: 0706	**DEC 09**			**SUNSET: 1722**					
03	BKN	250			10.00		61	58	59	90	5	25	29.76	29.88
06	SCT	NC			10.00		58	54	56	87	7	27	29.75	29.87
09	FEW	NC			10.00		62	52	56	70	6	27	29.79	29.91
12	BKN	250			10.00		74	45	58	36	12	26	29.75	29.87
15	BKN	250			10.00		78	42	59	28	10	24	29.65	29.77
18	FEW	NC			10.00		71	47	58	42	6	25	29.67	29.79
21	CLR	NC			10.00		63	44	53	50	6	28	29.75	29.87
24	CLR	NC			10.00		54	46	50	75	0	00	29.79	29.91
					SUNRISE: 0707	**DEC 10**			**SUNSET: 1722**					
03	CLR	NC			10.00		56	43	49	62	5	28	29.81	29.93
06	CLR	NC			10.00		53	42	48	66	7	28	29.89	30.01
09	CLR	NC			10.00		59	41	50	51	9	32	30.00	30.12
12	CLR	NC			10.00		68	34	52	28	14	33	30.01	30.12
15	CLR	NC			10.00		68	31	51	25	10	32	29.95	30.07
18	CLR	NC			10.00		62	29	47	29	8	31	29.99	30.10
21	CLR	NC			10.00		54	32	44	43	7	28	30.04	30.16
24	CLR	NC			10.00		52	32	43	47	6	27	30.05	30.17
					SUNRISE: 0707	**DEC 11**			**SUNSET: 1723**					
03	CLR	NC			10.00		46	35	41	66	5	27	30.06	30.18
06	CLR	NC			10.00		46	35	41	66	5	30	30.06	30.18
09	CLR	NC			10.00		53	35	45	51	5	34	30.10	30.22
12	CLR	NC			10.00		64	31	49	29	9	35	30.07	30.19
15	CLR	NC			10.00		67	31	50	26	3	VR	29.97	30.09
18	CLR	NC			6.00	HZ	56	38	47	51	0	00	29.95	30.07
21	CLR	NC			10.00		55	38	47	53	6	16	29.95	30.07
24	CLR	NC			10.00		52	43	48	72	5	15	29.94	30.06
					SUNRISE: 0708	**DEC 12**			**SUNSET: 1723**					
03	CLR	NC			10.00		46	43	45	89	0	00	29.90	30.02
06	CLR	NC			10.00		46	45	46	96	5	16	29.88	30.00
09	CLR	NC			10.00		60	55	57	84	6	20	29.90	30.01
12	FEW	NC			10.00		75	58	65	55	15	21	29.86	29.98
15	FEW	NC			10.00		78	55	64	45	14	19	29.81	29.93
18	CLR	NC			10.00		72	55	62	55	5	21	29.83	29.95
21	CLR	NC			10.00		63	58	60	84	0	00	29.89	30.01
24	FEW	NC			10.00		60	58	59	93	0	00	29.93	30.05

OBSERVATIONS AT 3–HOURLY INTERVALS

HOUSTON, TX

DECEMBER 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: 0709	**DEC 13**			**SUNSET: 1723**					
03	OVC	018			10.00		60	58	59	93	0	00	29.97	30.09
06	OVC	065			10.00		58	45	51	62	20	01	30.06	30.17
09	FEW	NC			10.00		56	39	48	53	20	36	30.18	30.30
12	FEW	NC			10.00		60	32	47	35	18	01	30.22	30.34
15	SCT	NC			10.00		63	24	46	23	20	01	30.21	30.33
18	CLR	NC			10.00		56	21	42	26	14	35	30.29	30.41
21	CLR	NC			10.00		50	23	39	35	12	35	30.37	30.49
24	CLR	NC			10.00		46	24	38	42	13	34	30.43	30.55
					SUNRISE: 0709	**DEC 14**			**SUNSET: 1724**					
03	CLR	NC			10.00		43	23	35	45	14	35	30.44	30.56
06	CLR	NC			10.00		39	25	34	57	9	35	30.49	30.61
09	CLR	NC			10.00		42	27	36	55	16	01	30.55	30.67
12	FEW	NC			10.00		50	18	38	28	17	01	30.54	30.66
15	FEW	NC			10.00		53	17	40	24	8	33	30.47	30.59
18	CLR	NC			10.00		46	21	37	37	6	03	30.47	30.59
21	CLR	NC			10.00		41	24	35	51	3	36	30.50	30.62
24	CLR	NC			10.00		35	25	31	67	3	36	30.49	30.61
					SUNRISE: 0710	**DEC 15**			**SUNSET: 1724**					
03	CLR	NC			10.00		32	25	30	75	5	05	30.46	30.58
06	CLR	NC			10.00		30	24	28	79	5	11	30.46	30.58
09	FEW	NC			10.00		39	26	34	60	12	10	30.46	30.58
12	FEW	NC			10.00		50	34	43	54	13	10	30.40	30.52
15	FEW	NC			10.00		55	37	47	51	9	11	30.29	30.41
18	SCT	NC			10.00		49	38	44	66	10	13	30.26	30.38
21	FEW	NC			10.00		45	37	41	74	9	11	30.25	30.37
24	OVC	021			10.00		46	36	42	68	9	08	30.20	30.32
					SUNRISE: 0711	**DEC 16**			**SUNSET: 1724**					
03	OVC	018			10.00		47	39	43	74	8	06	30.18	30.30
06	OVC	015			10.00		48	41	45	77	12	07	30.16	30.28
09	OVC	011			5.00	RA BR	45	41	43	86	9	34	30.22	30.35
12	OVC	008			2.00	+RA BR	45	43	44	93	8	02	30.24	30.36
15	OVC	014			10.00		49	46	48	90	10	02	30.19	30.31
18	OVC	008			10.00		51	47	49	86	10	02	30.21	30.33
21	OVC	010			10.00		50	47	48	89	10	02	30.25	30.37
24	OVC	031			10.00		50	48	49	93	10	01	30.25	30.37
					SUNRISE: 0711	**DEC 17**			**SUNSET: 1725**					
03	OVC	009			10.00		49	46	48	90	12	36	30.23	30.35
06	OVC	008			9.00		49	45	47	86	10	01	30.25	30.37
09	OVC	033			10.00		50	44	47	80	15	36	30.28	30.40
12	SCT	NC			10.00		57	45	51	64	10	01	30.25	30.37
15	SCT	NC			10.00		61	44	52	54	5	VR	30.16	30.28
18	BKN	037			10.00		58	46	52	65	5	31	30.17	30.29
21	SCT	NC			10.00		51	44	48	77	6	33	30.20	30.32
24	SCT	NC			8.00		47	42	45	83	0	00	30.17	30.29
					SUNRISE: 0712	**DEC 18**			**SUNSET: 1725**					
03	SCT	NC			7.00		43	40	42	89	5	33	30.15	30.27
06	SCT	NC			5.00	BR	40	38	39	93	0	00	30.14	30.27
09	FEW	NC			8.00		47	41	44	80	5	26	30.15	30.27
12	FEW	NC			10.00		62	40	51	44	9	29	30.14	30.26
15	FEW	NC			10.00		66	34	51	31	10	31	30.07	30.19
18	FEW	NC			10.00		57	36	47	45	6	25	30.07	30.19
21	FEW	NC			10.00		51	39	45	64	6	28	30.13	30.25
24	FEW	NC			10.00		48	37	43	66	6	31	30.16	30.28
					SUNRISE: 0712	**DEC 19**			**SUNSET: 1726**					
03	CLR	NC			10.00		44	36	41	73	5	30	30.15	30.27
06	CLR	NC			10.00		44	35	40	71	5	32	30.19	30.31
09	SCT	NC			10.00		50	35	43	57	13	36	30.27	30.39
12	FEW	NC			10.00		63	26	47	25	13	03	30.27	30.40
15	FEW	NC			10.00		64	26	47	24	13	36	30.20	30.32
18	FEW	NC			10.00		52	31	43	45	0	00	30.20	30.32
21	FEW	NC			10.00		43	35	40	74	0	00	30.24	30.36
24	CLR	NC			10.00		38	34	36	86	0	00	30.19	30.31
					SUNRISE: 0713	**DEC 20**			**SUNSET: 1726**					
03	CLR	NC			10.00		45	32	39	61	5	15	30.13	30.25
06	CLR	NC			10.00		45	34	40	66	7	16	30.07	30.19
09	FEW	NC			10.00		54	40	47	59	7	18	30.08	30.20
12	FEW	NC			10.00		68	41	54	38	16	20	30.03	30.15
15	SCT	NC			10.00		70	45	57	41	16	20	29.92	30.03
18	SCT	NC			10.00		65	48	56	54	14	19	29.88	30.00
21	FEW	NC			10.00		62	52	56	70	12	18	29.85	29.97
24	BKN	045			10.00		61	52	56	72	8	17	29.85	29.97
					SUNRISE: 0713	**DEC 21**			**SUNSET: 1726**					
03	SCT	NC			10.00		57	52	54	83	0	00	29.81	29.93
06	BKN	050			10.00		57	54	55	90	0	00	29.80	29.92
09	BKN	110			10.00		61	57	59	87	7	15	29.82	29.93
12	BKN	028			10.00	-RA	68	65	66	90	5	16	29.80	29.91
15	BKN	024			10.00		71	64	67	79	13	13	29.70	29.82
18	SCT	NC			10.00		65	61	63	87	8	12	29.69	29.81
21	SCT	NC			9.00		63	61	62	93	7	16	29.71	29.83
24	BKN	032			6.00	BR	60	59	59	96	0	00	29.72	29.83
					SUNRISE: 0714	**DEC 22**			**SUNSET: 1727**					
03	OVC	002			0.00	BR	58	58	58	100	0	00	29.67	29.79
06	OVC	005			0.25	-RA FG	60	60	60	100	0	00	29.64	29.76
09	OVC	005			0.50	-RA BR	56	53	54	90	15	31	29.68	29.79
12	OVC	007			10.00		45	43	44	93	13	34	29.71	29.83
15	OVC	011			10.00		46	42	44	86	15	32	29.73	29.85
18	OVC	009			10.00		43	39	41	86	14	32	29.85	29.97
21	OVC	010			10.00		39	35	37	86	17	32	29.98	30.10
24	OVC	018			10.00		35	28	32	76	21	34	30.05	30.17
					SUNRISE: 0714	**DEC 23**			**SUNSET: 1728**					
03	BKN	019			10.00		34	27	31	76	18	35	30.07	30.19
06	OVC	016			10.00		33	26	31	75	13	34	30.12	30.24
09	OVC	017			10.00		32	25	29	75	7	33	30.21	30.34
12	BKN	021			10.00		34	25	31	70	7	35	30.23	30.35
15	BKN	250			10.00		42	24	35	49	13	36	30.15	30.27
18	BKN	250			10.00		38	22	32	53	12	01	30.15	30.27
21	SCT	NC			10.00		35	23	31	61	7	36	30.20	30.32
24	BKN	250			10.00		34	21	29	59	10	01	30.23	30.35
					SUNRISE: 0715	**DEC 24**			**SUNSET: 1728**					
03	OVC	080			10.00		33	19	28	56	18	01	30.20	30.32
06	OVC	080			10.00		32	18	27	56	15	36	30.22	30.35
09	OVC	090			10.00		32	15	27	50	12	36	30.26	30.38
12	OVC	250			10.00		34	16	28	48	15	36	30.24	30.36
15	OVC	075			10.00		37	15	30	41	13	34	30.13	30.25
18	OVC	011			4.00	-SN	32	22	29	66	13	36	30.15	30.28
21	OVC	060			10.00		34	18	29	52	10	36	30.13	30.25
24	OVC	075			10.00		36	18	30	48	8	34	30.15	30.27

OBSERVATIONS AT 3–HOURLY INTERVALS

HOUSTON, TX

DECEMBER 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: 0715	DEC 25			SUNSET: 1729					
03	OVC	080			10.00		35	19	30	52	7	34	30.11	30.23
06	OVC	250			10.00		34	19	29	54	9	32	30.08	30.21
09	OVC	250			10.00		34	20	29	56	7	32	30.18	30.31
12	BKN	250			10.00		39	19	32	45	3	VR	30.15	30.27
15	SCT	NC			10.00		47	16	36	29	3	VR	30.04	30.16
18	CLR	NC			10.00		40	24	34	53	0	00	30.06	30.18
21	CLR	NC			10.00		34	28	32	79	0	00	30.13	30.25
24	CLR	NC			10.00		33	28	31	82	0	00	30.16	30.28
					SUNRISE: 0716	DEC 26			SUNSET: 1729					
03	CLR	NC			10.00		31	27	29	85	0	00	30.14	30.26
06	CLR	NC			10.00		29	27	28	92	0	00	30.16	30.28
09	CLR	NC			10.00		38	30	35	73	0	00	30.23	30.35
12	CLR	NC			10.00		52	27	42	38	0	00	30.24	30.36
15	CLR	NC			10.00		58	23	43	26	5	VR	30.21	30.33
18	FEW	NC			10.00		50	31	42	48	7	15	30.23	30.35
21	CLR	NC			10.00		45	31	39	58	7	19	30.29	30.41
24	CLR	NC			10.00		37	31	35	79	0	00	30.31	30.43
					SUNRISE: 0716	DEC 27			SUNSET: 1730					
03	CLR	NC			10.00		35	32	34	89	0	00	30.30	30.42
06	FEW	NC			10.00		33	30	32	89	0	00	30.31	30.43
09	FEW	NC			10.00		42	36	39	79	5	04	30.39	30.51
12	FEW	NC			10.00		57	38	48	49	6	11	30.38	30.50
15	FEW	NC			10.00		60	42	51	52	12	13	30.32	30.44
18	SCT	NC			10.00		50	41	46	71	7	13	30.32	30.44
21	SCT	NC			10.00		48	40	44	74	7	13	30.34	30.46
24	SCT	NC			10.00		44	39	42	83	3	12	30.33	30.45
					SUNRISE: 0716	DEC 28			SUNSET: 1730					
03	BKN	250			10.00		43	40	42	89	5	10	30.30	30.42
06	SCT	NC			10.00		44	41	43	89	5	11	30.28	30.40
09	SCT	NC			10.00		52	47	49	83	6	09	30.29	30.41
12	SCT	NC			10.00		65	53	58	66	14	13	30.28	30.40
15	BKN	060			10.00		66	54	59	65	16	14	30.20	30.32
18	BKN	055			10.00		61	55	58	81	9	14	30.20	30.32
21	BKN	037			10.00		57	55	56	93	5	12	30.21	30.34
24	BKN	250			6.00	BR	53	52	52	96	0	00	30.22	30.33
					SUNRISE: 0717	DEC 29			SUNSET: 1731					
03	BKN	030			4.00	BR	51	51	51	100	5	09	30.18	30.29
06	BKN	250			4.00	BR	51	51	51	100	3	05	30.17	30.29
09	OVC	036			2.00	BR	60	59	59	96	5	15	30.21	30.33
12	OVC	060			10.00		69	61	64	76	9	15	30.20	30.32
15	OVC	049			10.00		69	62	65	78	14	15	30.12	30.24
18	BKN	090			10.00		64	60	62	87	8	12	30.11	30.22
21	BKN	250			9.00		61	60	60	97	6	13	30.13	30.25
24	BKN	250			3.00	BR	61	59	60	93	7	14	30.11	30.23
					SUNRISE: 0717	DEC 30			SUNSET: 1732					
03	BKN	090			3.00	BR	60	59	59	96	6	15	30.07	30.19
06	OVC	050			5.00	BR	61	59	60	93	7	13	30.04	30.16
09	OVC	022			2.00	BR	63	61	62	93	10	13	30.09	30.20
12	BKN	250			8.00		70	64	66	82	8	13	30.07	30.19
15	OVC	080			10.00		75	59	65	58	14	18	29.99	30.10
18	OVC	120			10.00		71	62	66	73	8	15	30.00	30.11
21	OVC	250			8.00		65	63	64	93	7	11	30.03	30.14
24	OVC	070			7.00		63	61	62	93	6	10	30.04	30.16

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: 0717	DEC 31			SUNSET: 1733					
03	OVC	090			7.00		63	62	62	97	5	11	30.02	30.14
06	OVC	070			6.00	BR	63	62	62	97	5	10	30.02	30.14
09	OVC	070			1.50	BR	64	63	63	96	8	14	30.07	30.19
12	BKN	080			10.00		74	63	67	69	12	16	30.07	30.19
15	OVC	080			10.00		73	64	67	74	10	11	30.02	30.14
18	SCT	NC			10.00		68	63	65	84	14	13	30.03	30.15
21	OVC	002			0.25	BR	65	64	64	97	9	13	30.05	30.17
24	VV	002			0.25	BR	64	63	63	96	10	10	30.06	30.18

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			49	42	46	79	30.07	30.19	9.19	4	2	2
02			48	42	46	81	30.07	30.18	9.00	4	2	2
03			48	43	46	82	30.06	30.18	9.06	5	2	1
04			48	42	46	82	30.06	30.18	8.94	5	2	1
05			48	42	45	82	30.06	30.17	8.84	5	2	1
06			47	42	45	82	30.06	30.18	8.75	6	3	1
07			47	42	45	82	30.08	30.20	8.42	6	3	36
08			48	42	45	81	30.10	30.22	8.35	6	3	36
09			52	43	48	74	30.11	30.23	8.23	8	3	36
10			55	43	49	67	30.12	30.24	8.56	8	2	2
11			58	43	51	60	30.12	30.24	9.08	10	2	2
12			60	42	51	57	30.10	30.22	9.29	9	2	3
13			61	42	52	54	30.06	30.18	9.19	10	2	4
14			62	42	52	51	30.04	30.16	9.68	8	0	0
15			63	42	53	51	30.02	30.14	9.90	10	1	11
16			62	42	52	52	30.02	30.14	10.00	10	1	5
17			60	43	52	56	30.03	30.15	9.90	9	2	9
18			57	44	51	65	30.03	30.15	9.68	7	2	13
19			55	45	50	69	30.05	30.17	9.84	7	1	12
20			55	45	50	71	30.06	30.18	9.68	7	2	14
21			53	45	49	74	30.07	30.18	9.56	6	1	13
22			53	44	49	75	30.07	30.19	9.36	6	0	0
23			51	44	48	77	30.08	30.20	8.94	6	1	3
24			50	44	47	78	30.07	30.19	9.04	5	1	1

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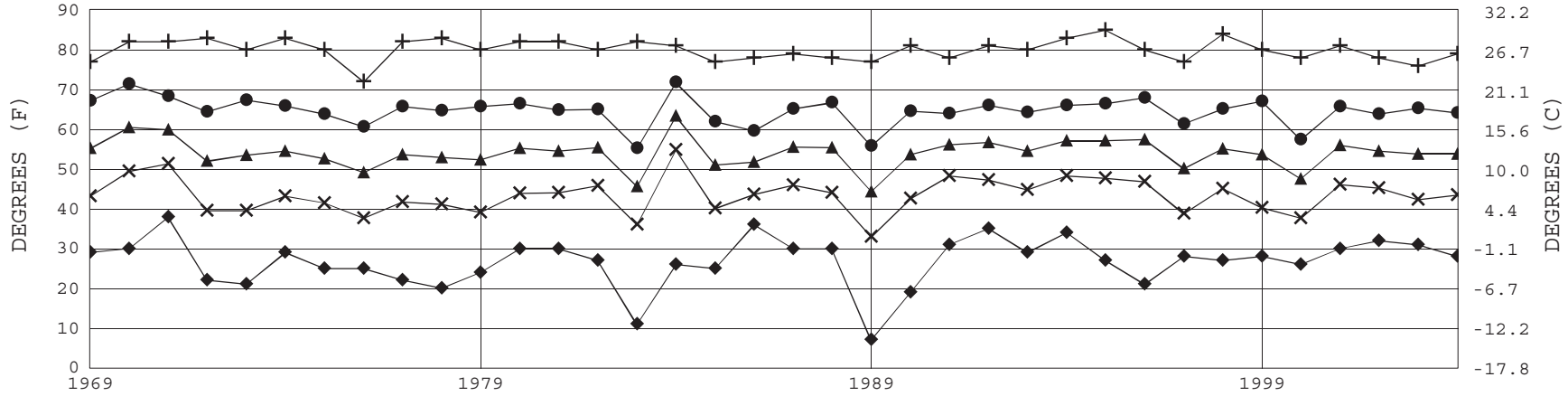
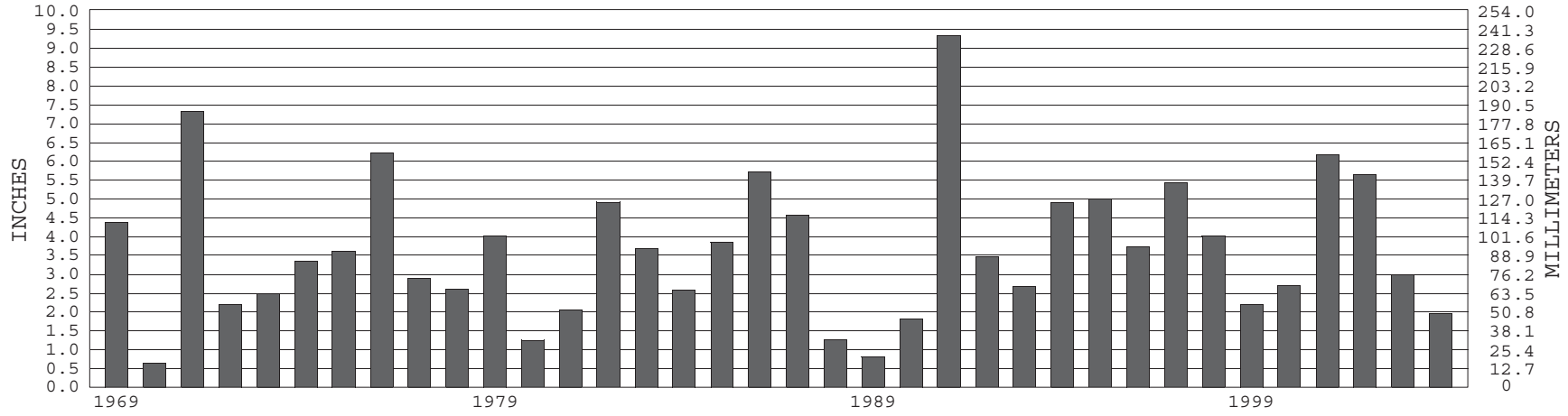
HOUSTON, TX DECEMBER TEMPERATURES



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

Long-Term (1969-2004) Mean: 54.1 1971-2000 Normal: 53.7

HOUSTON, TX DECEMBER PRECIPITATION



Long-Term (1969-2004) Mean Monthly Total: 3.68 1971-2000 Normal: 3.69

DECEMBER 2004

HOUSTON, TX

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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Thomas R Karl

DIRECTOR

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