DECEMBER 2002
LOCAL CLIMATOLOGICAL DATA
NOAA, National Climatic Data Center

HOUSTON, TX
INTERCONTINENTAL AIRPORT (IAH)
Lat: 29°59' N Long: 95°21' W Elev (Ground): 118 Feet
Time Zone: CENTRAL WBAN: 12960 ISSN #:0198−5094

	TEMPERATURE °F						DEG DAYS BASE 65 °			SNOW/ICE ON GND(IN)		PRECIPITATION (INCHES)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES							
										0600 LST	1200 LST	2400 LST	2400 LST						MAXIMUM 5−SEC		MAXIMUM 2−MIN		
DATE	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING	WEATHER	DEPTH	WATER EQUIV	SNOW−FALL	WATER EQUIV	AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT SPEED	RES DIR	AVERAGE SPEED	SPEED	DIR	SPEED	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	59	42	51	−6	34	43	14	0		0		0.0	0.00	30.15	30.27	2.8	08	5.5	16	12	13	11	01
02	72	43	58	2	53	56	7	0	RA HZ	0		0.0	T	29.97	30.09	4.0	13	5.2	16	14	14	15	02
03	72	63	68	12	66	67	0	3	TSRA RA BR	0		0.0	0.51	29.88	29.99	4.4	11	6.0	17	17	14	17	03
04	72	42	57	1	50	51	8	0	TS RA BR	0		0.0	0.38	29.94	30.06	9.4	33	12.5	31	31	26	31	04
05	42	35	39*	−17	36	38	26	0		0		0.0	0.00	30.21	30.33	11.3	34	11.3	26	36	21	36	05
06	55	33	44	−11	34	39	21	0	BR	0		0.0	0.00	30.30	30.41	3.1	36	3.8	13	01	10	02	06
07	60	35	48	−7	42	45	17	0	MIFG	0		0.0	0.00	30.20	30.31	4.5	13	4.8	14	13	13	14	07
08	60	50	55	0	48	51	10	0	RA	0		0.0	0.06	30.11	30.23	7.8	08	8.3	20	09	16	09	08
09	50	42	46	−9	44	45	19	0	RA BR	0		0.0	0.75	30.08	30.19	9.3	03	11.2	25	06	23	05	09
10	56	42	49	−6	43	46	16	0	BR	0		0.0	0.00	30.01	30.13	5.7	33	6.1	16	34	12	34	10
11	56	39	48	−6	44	47	17	0	BR	0		0.0	0.00	29.99	30.11	4.9	10	5.5	17	12	14	12	11
12	55	51	53	−1	52	52	12	0	TSRA RA BR	0		0.0	2.57	29.83	29.95	5.9	02	9.9	30	08	26	08	12
13	61	46	54	0	43	47	11	0		0		0.0	0.00	29.93	30.04	9.5	29	10.2	29	30	23	31	13
14	64	36	50	−4	38	44	15	0		0		0.0	0.00	30.08	30.19	2.2	15	3.2	12	15	12	15	14
15	71	42	57	3	51	54	8	0		0		0.0	0.00	29.98	30.10	5.7	16	5.8	20	15	16	16	15
16	76	55	66	13	60	62	0	1		0		0.0	0.00	29.85	29.96	7.8	19	8.1	22	20	18	22	16
17	77	62	70	17	63	65	0	5		0		0.0	0.00	29.73	29.85	11.1	17	11.4	25	19	22	18	17
18	78*	68	73*	20	67	69	0	8	RA	0		0.0	T	29.64	29.75	12.2	17	12.5	28	19	20	18	18
19	72	53	63	10	44	53	2	0	RA BR	0		0.0	0.06	29.81	29.92	9.1	29	10.5	32	32	25	32	19
20	65	42	54	1	35	45	11	0		0		0.0	0.00	30.08	30.20	3.9	26	5.4	15	30	12	28	20
21	71	43	57	4	52	55	8	0	RA	0		0.0	T	29.90	30.02	6.0	18	6.2	26	19	18	19	21
22	71	49	60	7	53	56	5	0	FG+ MIFG BR	0		0.0	0.00	29.93	30.04	5.8	08	6.9	16	11	14	08	22
23	74	51	63	10	64	65	2	0	TSRA RA BR	0		0.0	0.62	29.68	29.79	6.8	15	12.7	46	29	39	29	23
24	51	38	45	−7	38	41	20	0	RA	0		0.0	0.01	29.87	29.99	13.5	32	13.9	32	30	24	31	24
25	50	32*	41	−11	32	37	24	0		0		0.0	0.00	30.15	30.27	2.9	32	3.8	17	36	13	36	25
26	50	39	45	−7	35	41	20	0	RA	0		0.0	T	30.22	30.34	5.5	08	6.4	16	12	13	10	26
27	67	42	55	3	40	47	10	0		0		0.0	0.00	30.24	30.36	1.6	02	2.9	14	29	12	32	27
28	68	37	53	1	42	47	12	0	MIFG BR	0		0.0	0.00	30.23	30.35	3.2	15	3.6	13	13	12	13	28
29	73	48	61	9	61	62	4	0	RA FG+ BR	0		0.0	0.01	29.99	30.10	10.0	16	10.1	28	16	22	17	29
30	71	57	64	12	63	64	1	0	TS TSRA RA BR	0		0.0	0.66	29.70	29.82	12.2	16	14.9	52*	13	46*	14	30
31	61	45	53	1	42	49	12	0	RA	0		0.0	0.02	29.74	29.85	9.7	29	10.7	30	29	23	29	31
	63.9	45.2	54.6		47.4	51.1	10.7	0.5	< MONTHLY AVERAGES	TOTALS−>		0.0	5.65	29.98	30.10	0.6	14	8.1	<− MONTHLY AVERAGES				
	−.7	2.4	0.9		<−−−−−−−−−−−−−DEPARTURE FROM NORMAL−−−−−−−−−−−−−>								1.96	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3									

DEGREE DAYS

	MONTHLY TOTAL	MONTHLY DEPARTURE	SEASON TO DATE TOTAL	SEASON TO DATE DEPARTURE
HEATING:	332	−35	546	−48
COOLING:	17	−8	3174	281

GREATEST 24−HR PRECIPITATION: 2.57 DATE :12
GREATEST 24−HR SNOWFALL: 0.0 DATE :
GREATEST SNOW DEPTH: 0 DATE :

SEA LEVEL PRESSURE		DATE	TIME
MAXIMUM	30.49	06	0953
MINIMUM	29.62	23	1953

NUMBER OF DAYS WITH →

MAXIMUM TEMP ≥ 90:	0	MINIMUM TEMP ≤ 32 :	1
MAXIMUM TEMP ≤ 32 :	0	MINIMUM TEMP ≤ 0 :	0
THUNDERSTORMS :	5	HEAVY FOG :	2

PRECIPITATION ≥ 0.01 INCH :	11
PRECIPITATION ≥ 0.10 INCH :	6
SNOWFALL ≥ 1.0 INCH :	0

DECEMBER 2002
HOUSTON, TX

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

HOUSTON, TX

DECEMBER 2002 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											T		02		T
03			0.01					T	T				03	T	0.16	0.31	0.02	0.01		T	T		T	T		03		0.51
04		T		0.01	0.04	0.04	0.03	T	0.01	0.08	0.01	0.01	04	0.01	0.02	0.07	0.01	0.04	T							04		0.38
05													05													05		0.00
06													06													06		0.00
07													07													07		0.00
08													08									0.04	0.01	0.01	T	08		0.06
09		T	0.02	0.03	0.01	0.02	0.01	0.02	T	0.06	0.16	0.13	09	0.05	0.05	0.02	0.04	0.11	0.02	T	T					09		0.75
10													10													10		0.00
11													11													11		0.00
12									0.01	0.12	0.25	0.47	12	0.52	0.62	.47	0.11									12		2.57
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								T	T		T	T	18		T
19		T	0.02	0.04	T								19													19		0.06
20													20													20		0.00
21													21			T	T								21		T
22													22													22		0.00
23					T		0.01	0.09	T	0.01	T		23	T	0.02	T			T	T	0.01	T	0.40	0.08	T	23		0.62
24		0.01	T										24													24		0.01
25													25													25		0.00
26													26				T	T	T							26		T
27													27													27		0.00
28													28													28		0.00
29										T		0.01	29		T											29		0.01
30	T	T	T					T	T	0.02	0.05	T	30		T	T		0.01	T			0.35	0.08	0.11	0.04	30		0.66
31					T	T	0.02	T					31													31		0.02

MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	.31	.37	.38	.39	.47	.63	.77	.93	1.06	1.25	1.60	1.83
Ending Date	23	23	23	23	12	12	12	12	12	12	12	12
Ending Time (Hour/Min)	2147	2150	2154	2154	1348	1410	1411	1438	1445	1411	1413	1442

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 2002

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							5.00	10.00	
03							.25	10.00	
04							2.50	10.00	
05							7.00	10.00	
06							6.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							2.50	10.00	
10							3.00	10.00	
11							6.00	10.00	
12							.50	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							10.00	10.00	
16							7.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							5.00	10.00	
20							10.00	10.00	
21							8.00	10.00	
22							.25	10.00	
23							.75	10.00	
24							10.00	10.00	
25							10.00	10.00	
26							10.00	10.00	
27							10.00	10.00	
28							5.00	10.00	
29							.25	10.00	
30							1.75	10.00	
31							10.00	10.00	
MONTHLY AVGS							6.53	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	9	17

OBSERVATIONS AT 3–HOURLY INTERVALS

HOUSTON, TX

DECEMBER 2002 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: 0660		**DEC 01**		**SUNSET: 1721**					
03	FEW	NC			10.00		47	30	40	52	8	01	30.16	30.28
06	OVC	250			10.00		43	32	38	65	5	02	30.18	30.30
09	BKN	250			10.00		46	30	39	54	9	05	30.23	30.35
12	BKN	250			10.00		53	29	43	40	5	VR	30.20	30.32
15	OVC	250			10.00		58	33	47	39	6	05	30.12	30.24
18	OVC	250			10.00		53	40	47	61	6	16	30.10	30.22
21	BKN	250			10.00		49	41	45	74	3	16	30.09	30.21
24	SCT	NC			10.00		44	42	43	93	0	00	30.07	30.19
					SUNRISE: 0700		**DEC 02**		**SUNSET: 1721**					
03	FEW	NC			10.00		43	41	42	93	0	00	30.02	30.14
06	CLR	NC			10.00		46	44	45	93	5	08	29.99	30.11
09	BKN	038			5.00	HZ	55	50	52	83	6	10	30.01	30.14
12	SCT	NC			10.00		70	57	62	64	12	15	29.98	30.10
15	OVC	037			10.00		71	59	64	66	3	17	29.92	30.04
18	BKN	250			10.00		64	60	62	87	6	15	29.90	30.03
21	OVC	032			10.00		64	60	62	87	5	VR	29.94	30.06
24	OVC	018			10.00		64	61	62	90	6	10	29.93	30.05
					SUNRISE: 0701		**DEC 03**		**SUNSET: 1721**					
03	OVC	012			7.00		64	63	63	96	6	09	29.91	30.02
06	OVC	005			9.00		65	64	64	97	0	00	29.89	30.01
09	OVC	005			0.25	BR	67	66	66	97	5	08	29.94	30.05
12	OVC	003			1.00	BR	69	68	68	96	7	08	29.91	30.03
15	OVC	038			1.00	-RA	67	67	67	100	6	09	29.84	29.96
18	OVC	003			0.50	BR	66	66	66	100	8	11	29.83	29.95
21	OVC	012			10.00		71	70	70	96	8	17	29.83	29.95
24	OVC	023			10.00		71	70	70	96	10	18	29.81	29.92
					SUNRISE: 0702		**DEC 04**		**SUNSET: 1721**					
03	OVC	010			10.00		72	71	71	97	9	19	29.76	29.88
06	OVC	011			10.00	-RA	56	55	55	97	15	33	29.82	29.94
09	OVC	010			10.00	-RA	51	49	50	92	14	33	29.91	30.03
12	OVC	015			3.00	-RA	48	47	47	96	10	32	29.99	30.11
15	OVC	011			3.00	-RA	46	45	46	96	13	34	29.94	30.06
18	OVC	014			3.00		45	43	44	93	15	33	30.02	30.14
21	OVC	019			10.00		44	40	42	85	13	33	30.09	30.21
24	OVC	018			10.00		43	38	41	82	15	34	30.12	30.24
					SUNRISE: 0703		**DEC 05**		**SUNSET: 1722**					
03	OVC	016			10.00		41	37	39	86	15	34	30.14	30.26
06	OVC	016			10.00		40	35	38	83	18	34	30.15	30.27
09	OVC	014			10.00		39	34	37	82	14	36	30.23	30.35
12	OVC	016			10.00		41	36	39	82	13	35	30.21	30.33
15	OVC	016			10.00		42	36	39	79	15	34	30.19	30.31
18	BKN	018			10.00		41	36	39	82	12	01	30.23	30.35
21	CLR	NC			10.00		37	36	37	96	3	01	30.28	30.40
24	CLR	NC			7.00		35	34	35	96	5	33	30.30	30.42
					SUNRISE: 0704		**DEC 06**		**SUNSET: 1722**					
03	CLR	NC			7.00		34	34	34	100	5	31	30.30	30.42
06	CLR	NC			10.00		33	30	32	89	6	34	30.34	30.46
09	CLR	NC			10.00		38	31	35	76	10	01	30.35	30.47
12	CLR	NC			10.00		50	32	42	50	8	03	30.34	30.46
15	CLR	NC			10.00		54	32	44	43	0	00	30.26	30.37
18	CLR	NC			10.00		48	40	44	74	3	30	30.23	30.35
21	CLR	NC			10.00		44	40	42	85	0	00	30.26	30.38
24	SCT	NC			10.00		39	38	39	96	0	00	30.24	30.36
					SUNRISE: 0704		**DEC 07**		**SUNSET: 1722**					
03	BKN	250			10.00		38	37	38	97	0	00	30.23	30.35
06	FEW	NC			10.00		36	36	36	100	0	00	30.23	30.35
09	BKN	250			10.00		45	41	43	86	3	11	30.26	30.38
12	OVC	250			10.00		56	41	49	57	7	14	30.22	30.34
15	OVC	250			10.00		59	44	51	58	9	10	30.14	30.26
18	OVC	070			10.00		55	45	50	69	7	16	30.14	30.26
21	OVC	070			10.00		52	48	50	86	8	12	30.16	30.28
24	OVC	070			10.00		52	49	50	89	5	09	30.14	30.27
					SUNRISE: 0705		**DEC 08**		**SUNSET: 1722**					
03	OVC	075			10.00		53	50	51	89	7	08	30.11	30.23
06	OVC	060			10.00		52	49	50	89	8	07	30.10	30.22
09	OVC	060			10.00		54	49	51	83	10	10	30.14	30.26
12	OVC	060			10.00		58	49	53	72	9	12	30.13	30.25
15	OVC	050			10.00		60	50	55	70	8	10	30.07	30.19
18	OVC	060			10.00		57	46	51	67	13	08	30.08	30.20
21	OVC	060			10.00	-RA	52	48	50	86	7	03	30.12	30.24
24	BKN	120			10.00		50	44	47	80	10	08	30.07	30.19
					SUNRISE: 0706		**DEC 09**		**SUNSET: 1722**					
03	OVC	075			10.00	-RA	48	45	47	89	9	03	30.07	30.19
06	OVC	060			10.00		46	44	45	93	14	02	30.10	30.22
09	OVC	100			10.00	-RA	47	45	46	93	16	02	30.11	30.23
12	OVC	031			2.50	-RA BR	46	45	46	96	16	05	30.07	30.19
15	OVC	080			10.00	-RA	46	43	45	89	12	01	30.03	30.15
18	OVC	060			10.00	-RA	44	42	43	93	12	04	30.01	30.13
21	OVC	034			10.00		45	43	44	93	7	35	30.07	30.19
24	OVC	060			10.00		43	42	43	97	3	32	30.06	30.19
					SUNRISE: 0706		**DEC 10**		**SUNSET: 1722**					
03	OVC	055			9.00		45	44	45	97	7	31	30.02	30.14
06	OVC	028			7.00		45	44	45	97	7	31	30.01	30.13
09	OVC	016			3.00		46	44	45	93	8	33	30.05	30.17
12	OVC	045			10.00		52	43	48	72	9	34	30.04	30.16
15	BKN	250			10.00		56	43	50	62	9	33	29.96	30.08
18	SCT	NC			10.00		50	45	48	83	6	33	29.96	30.08
21	FEW	NC			10.00		47	44	46	90	5	VR	30.00	30.12
24	FEW	NC			10.00		42	41	42	96	0	00	30.01	30.13
					SUNRISE: 0707		**DEC 11**		**SUNSET: 1722**					
03	FEW	NC			9.00		39	39	39	100	0	00	29.98	30.10
06	FEW	NC			8.00		40	39	40	97	0	00	29.99	30.11
09	BKN	034			6.00	BR	44	42	43	93	5	05	30.04	30.16
12	OVC	033			10.00		51	44	48	77	6	11	30.00	30.13
15	OVC	120			10.00		56	46	51	70	8	11	29.94	30.06
18	OVC	025			10.00		55	48	51	77	8	12	29.96	30.08
21	OVC	017			10.00		54	49	51	83	7	11	29.98	30.10
24	OVC	017			10.00		52	50	51	93	9	09	29.96	30.08
					SUNRISE: 0708		**DEC 12**		**SUNSET: 1723**					
03	OVC	015			10.00		52	49	50	89	7	06	29.92	30.04
06	OVC	011			10.00		53	50	51	89	7	06	29.89	30.01
09	OVC	006			1.50	-RA BR	54	53	53	97	8	01	29.85	29.97
12	OVC	005			1.00	+TSRA BR	54	54	54	100	10	05	29.81	29.93
15	OVC	006			5.00	RA BR	54	54	54	100	10	34	29.76	
18	SCT	NC			10.00		51	51	51	100	7	29	29.78	29.90
21	OVC	013			10.00		53	52	52	96	10	30	29.82	29.94
24	OVC	009			10.00		52	51	52	97	10	27	29.83	29.96

OBSERVATIONS AT 3–HOURLY INTERVALS

HOUSTON, TX

DECEMBER 2002 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: 0708	**DEC 13**			**SUNSET: 1723**					
03	FEW	NC			10.00		49	47	48	93	5	25	29.84	29.96
06	CLR	NC			10.00		46	44	45	93	8	27	29.85	29.97
09	CLR	NC			10.00		50	39	45	66	13	28	29.92	30.04
12	CLR	NC			10.00		57	39	48	51	16	30	29.93	30.05
15	SCT	NC			10.00		61	41	51	48	18	32	29.89	30.01
18	FEW	NC			10.00		53	43	48	69	5	30	29.96	30.08
21	CLR	NC			10.00		47	43	45	86	6	24	30.03	30.15
24	CLR	NC			10.00		47	40	44	77	7	26	30.05	30.17
					SUNRISE: 0709	**DEC 14**			**SUNSET: 1723**					
03	CLR	NC			10.00		39	38	39	96	0	00	30.06	30.18
06	CLR	NC			10.00		37	36	37	96	0	00	30.07	30.19
09	CLR	NC			10.00		46	38	42	73	5	04	30.13	30.25
12	CLR	NC			10.00		59	34	47	39	5	12	30.12	30.24
15	FEW	NC			10.00		64	32	49	30	6	VR	30.03	30.15
18	FEW	NC			10.00		55	40	48	57	6	14	30.04	30.16
21	BKN	130			10.00		50	40	45	68	6	18	30.06	30.18
24	SCT	NC			10.00		46	42	44	86	0	00	30.07	30.19
					SUNRISE: 0710	**DEC 15**			**SUNSET: 1724**					
03	FEW	NC			10.00		43	42	43	97	0	00	30.04	30.16
06	SCT	NC			10.00		43	41	42	93	0	00	30.01	30.13
09	SCT	NC			10.00		50	48	49	93	0	00	30.04	30.16
12	SCT	NC			10.00		68	54	60	61	10	18	30.00	30.12
15	BKN	040			10.00		71	56	62	59	13	17	29.92	30.04
18	SCT	NC			10.00		65	57	60	76	8	15	29.93	30.05
21	OVC	036			10.00		60	56	58	86	6	16	29.94	30.06
24	SCT	NC			10.00		61	57	59	87	7	17	29.92	30.03
					SUNRISE: 0710	**DEC 16**			**SUNSET: 1724**					
03	BKN	050			10.00		58	57	57	97	3	16	29.89	30.01
06	SCT	NC			8.00		57	57	57	100	0	00	29.88	30.00
09	BKN	250			10.00		65	62	63	90	7	18	29.91	30.03
12	OVC	026			10.00		72	63	66	73	14	20	29.87	29.98
15	BKN	250			10.00		75	58	65	55	10	21	29.79	29.91
18	BKN	250			10.00		72	58	64	61	9	20	29.77	29.89
21	FEW	NC			10.00		67	63	64	87	7	18	29.80	29.92
24	FEW	NC			10.00		65	63	64	93	9	19	29.79	29.91
					SUNRISE: 0711	**DEC 17**			**SUNSET: 1724**					
03	SCT	NC			10.00		64	62	63	93	7	18	29.76	29.88
06	BKN	042			10.00		63	62	62	97	5	17	29.77	29.88
09	BKN	250			10.00		68	64	66	87	7	17	29.80	29.92
12	BKN	042			10.00		75	63	67	66	14	19	29.75	29.87
15	BKN	055			10.00		76	61	67	60	16	18	29.67	29.79
18	SCT	NC			10.00		71	63	66	76	12	17	29.66	29.78
21	BKN	035			10.00		68	65	66	90	14	17	29.68	29.80
24	OVC	015			10.00		68	65	66	90	12	17	29.68	29.79
					SUNRISE: 0711	**DEC 18**			**SUNSET: 1725**					
03	OVC	015			10.00		69	65	66	87	10	18	29.65	29.76
06	OVC	016			10.00		69	66	67	90	12	17	29.63	29.75
09	OVC	017			10.00		71	67	68	87	13	18	29.67	29.79
12	OVC	040			10.00		76	66	70	72	10	19	29.66	29.78
15	OVC	060			10.00		76	67	70	74	12	18	29.58	29.70
18	OVC	025			10.00		73	68	70	84	16	16	29.58	29.70
21	OVC	060			10.00		71	68	69	90	13	16	29.62	29.74
24	OVC	014			10.00		71	69	70	94	9	16	29.63	29.75

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: 0712	**DEC 19**			**SUNSET: 1725**					
03	OVC	008			5.00	RA BR	70	69	69	97	6	18	29.63	29.75
06	OVC	050			10.00		58	50	54	75	7	30	29.69	29.81
09	BKN	075			10.00		60	49	54	67	6	28	29.78	29.90
12	CLR	NC			10.00		65	35	50	33	15	27	29.79	29.91
15	CLR	NC			10.00		67	33	51	29	16	29	29.78	29.89
18	CLR	NC			10.00		62	36	50	38	15	28	29.87	29.99
21	CLR	NC			10.00		56	40	48	55	6	28	29.98	30.10
24	CLR	NC			10.00		53	39	46	59	9	30	30.06	30.17
					SUNRISE: 0713	**DEC 20**			**SUNSET: 1726**					
03	CLR	NC			10.00		47	36	42	66	6	29	30.08	30.20
06	CLR	NC			10.00		44	35	40	71	6	27	30.09	30.21
09	CLR	NC			10.00		48	36	43	63	7	25	30.15	30.27
12	CLR	NC			10.00		59	29	46	32	6	28	30.14	30.26
15	CLR	NC			10.00		64	27	48	25	6	27	30.06	30.18
18	CLR	NC			10.00		55	36	46	49	3	21	30.04	30.16
21	CLR	NC			10.00		52	40	46	64	7	17	30.04	30.16
24	CLR	NC			10.00		48	42	45	80	5	16	30.03	30.15
					SUNRISE: 0713	**DEC 21**			**SUNSET: 1726**					
03	CLR	NC			10.00		45	42	44	90	3	16	29.96	30.08
06	SCT	NC			10.00		45	42	44	90	6	14	29.92	30.03
09	BKN	042			10.00		53	50	51	89	3	14	29.94	30.06
12	OVC	040			10.00		68	56	61	66	14	17	29.87	29.99
15	OVC	043			10.00	-RA	70	57	62	64	9	20	29.83	29.94
18	SCT	NC			10.00		67	59	62	76	7	19	29.83	29.95
21	CLR	NC			10.00		62	58	60	86	5	18	29.87	29.99
24	CLR	NC			8.00		54	54	54	100	0	00	29.90	30.02
					SUNRISE: 0714	**DEC 22**			**SUNSET: 1727**					
03	FEW	NC			6.00	BR	54	54	54	100	0	00	29.93	30.04
06	BKN	001			1.00	BR	50	50	50	100	3	36	29.92	30.04
09	SCT	NC			10.00		51	48	50	89	6	04	29.99	30.11
12	SCT	NC			10.00		65	46	55	51	8	09	29.97	30.09
15	BKN	250			10.00		70	52	60	53	12	10	29.89	30.01
18	OVC	041			10.00		69	56	61	63	12	08	29.90	30.01
21	BKN	032			10.00		64	58	60	81	9	10	29.91	30.02
24	OVC	028			10.00		63	60	61	90	9	08	29.90	30.02
					SUNRISE: 0714	**DEC 23**			**SUNSET: 1727**					
03	OVC	031			10.00		62	58	60	86	9	08	29.83	29.95
06	OVC	007			10.00		62	60	61	93	14	10	29.78	29.90
09	OVC	006			8.00	-RA	67	66	66	97	22	14	29.73	29.85
12	OVC	019			10.00		73	68	70	84	16	17	29.66	29.78
15	OVC	017			10.00		73	70	71	90	13	17	29.56	29.68
18	BKN	250			10.00	-RA	73	70	71	90	10	18	29.53	29.65
21	OVC	016			10.00		73	70	71	90	5	20	29.53	29.64
24	SCT	NC			10.00		51	49	50	92	14	34	29.63	29.75
					SUNRISE: 0714	**DEC 24**			**SUNSET: 1728**					
03	OVC	100			10.00		49	48	48	97	9	02	29.65	29.77
06	OVC	008			10.00		46	43	45	89	14	29	29.75	29.87
09	OVC	012			10.00		43	40	42	89	15	32	29.85	29.96
12	OVC	020			10.00		44	37	41	76	17	32	29.87	29.99
15	OVC	026			10.00		44	33	39	65	22	32	29.87	29.99
18	OVC	030			10.00		42	33	38	71	14	31	29.95	30.07
21	SCT	NC			10.00		40	32	37	73	10	31	30.05	30.17
24	SCT	NC			10.00		38	32	36	79	6	30	30.09	30.21

OBSERVATIONS AT 3−HOURLY INTERVALS

HOUSTON, TX

DECEMBER 2002 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: 1728									
03	CLR	NC			10.00		36	31	34	82	6	29	30.11	30.23
06	SCT	NC			10.00		34	29	32	82	5	35	30.11	30.24
09	BKN	250			10.00		37	30	34	76	6	33	30.20	30.32
12	BKN	250			10.00		44	32	39	63	0	00	30.19	30.31
15	BKN	250			10.00		49	29	41	46	3	VR	30.13	30.25
18	BKN	250			10.00		44	35	40	71	0	00	30.14	30.26
21	BKN	250			10.00		43	37	40	80	3	03	30.17	30.29
24	BKN	250			10.00		40	37	39	89	3	35	30.17	30.29
					SUNRISE: 0715 DEC 26 SUNSET: 1729									
03	BKN	250			10.00		40	36	38	86	5	03	30.16	30.28
06	OVC	090			10.00		39	35	37	86	5	03	30.19	30.31
09	OVC	075			10.00		43	34	39	71	6	06	30.26	30.38
12	OVC	075			10.00		48	28	40	46	9	10	30.23	30.35
15	OVC	060			10.00		50	37	44	61	6	VR	30.20	30.32
18	OVC	055			10.00		49	39	44	69	8	09	30.21	30.33
21	OVC	050			10.00		47	40	44	77	6	04	30.24	30.36
24	OVC	045			10.00		47	36	42	66	6	10	30.23	30.35
					SUNRISE: 0716 DEC 27 SUNSET: 1730									
03	OVC	045			10.00		46	39	43	77	0	00	30.21	30.34
06	OVC	045			10.00		45	40	43	83	0	00	30.23	30.35
09	BKN	050			10.00		47	42	45	83	6	01	30.28	30.40
12	FEW	NC			10.00		61	45	53	56	3	VR	30.26	30.38
15	CLR	NC			10.00		67	38	52	35	5	02	30.18	30.30
18	FEW	NC			10.00		57	41	49	55	6	32	30.22	30.34
21	CLR	NC			10.00		50	40	45	68	3	14	30.26	30.38
24	CLR	NC			10.00		42	41	42	96	3	36	30.26	30.39
					SUNRISE: 0716 DEC 28 SUNSET: 1730									
03	CLR	NC			10.00		41	39	40	93	0	00	30.25	30.37
06	CLR	NC			9.00	MIFG	39	37	38	93	0	00	30.25	30.37
09	FEW	NC			7.00		44	40	42	85	0	00	30.29	30.42
12	CLR	NC			10.00		63	43	53	48	5	16	30.27	30.39
15	CLR	NC			10.00		67	36	52	32	8	17	30.18	30.30
18	CLR	NC			10.00		59	47	53	64	9	13	30.18	30.30
21	CLR	NC			10.00		52	49	50	89	5	17	30.18	30.30
24	CLR	NC			6.00	BR	50	49	49	96	3	18	30.15	30.27
					SUNRISE: 0716 DEC 29 SUNSET: 1731									
03	OVC	002			0.50	FG	54	54	54	100	7	16	30.09	30.21
06	VV	001			0.25	FG	57	57	57	100	3	14	30.06	30.18
09	VV	001			0.25	FG	61	61	61	100	5	13	30.06	30.19
12	OVC	012			10.00		71	66	68	84	8	18	30.01	30.13
15	OVC	035			10.00		73	63	67	71	14	18	29.90	30.02
18	OVC	090			10.00		70	63	66	79	13	16	29.89	30.01
21	OVC	041			10.00		68	64	66	87	14	17	29.89	30.00
24	OVC	020			10.00		68	64	66	87	15	16	29.87	29.98
					SUNRISE: 0717 DEC 30 SUNSET: 1731									
03	OVC	047			10.00		68	63	65	84	14	16	29.82	29.94
06	OVC	043			10.00		67	61	63	81	13	16	29.78	29.90
09	BKN	033			3.00		67	62	64	84	15	17	29.80	29.92
12	OVC	100			3.00		68	65	66	90	24	16	29.66	29.78
15	OVC	042			3.00		70	63	66	79	13	16	29.63	29.75
18	OVC	018			3.00		69	65	66	87	16	16	29.56	29.68
21	OVC	015			7.00	TSRA	60	59	59	96	9	29	29.63	29.75
24	SCT	NC			10.00		57	55	56	93	16	04	29.63	29.75

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: 1732									
03	OVC	033			10.00		56	53	54	90	7	28	29.69	29.81
06	OVC	009			10.00	-RA	55	54	54	96	10	30	29.68	29.80
09	OVC	020			10.00		51	47	49	86	16	31	29.77	29.89
12	BKN	038			10.00		55	43	49	64	15	29	29.78	29.90
15	FEW	NC			10.00		59	36	48	42	18	28	29.73	29.85
18	CLR	NC			10.00		57	32	46	39	7	29	29.74	29.86
21	CLR	NC			10.00		50	34	43	54	5	31	29.75	29.87
24	CLR	NC			10.00		46	35	41	66	5	28	29.79	29.91

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			51	48	50	87	29.98	30.10	9.42	6	1	12
02			51	47	49	88	29.98	30.10	9.39	6	1	14
03			51	48	49	90	29.98	30.10	9.15	5	0	0
04			50	47	48	90	29.98	30.09	8.85	6	1	34
05			49	46	48	90	29.97	30.09	9.24	6	1	34
06			49	46	47	90	29.98	30.10	9.10	6	2	35
07			49	46	47	89	29.99	30.11	9.07	7	2	34
08			49	46	48	89	30.01	30.13	8.34	6	1	36
09			52	47	49	84	30.02	30.14	8.19	9	2	2
10			55	47	51	77	30.04	30.15	8.09	9	1	12
11			58	48	53	70	30.01	30.13	8.31	11	3	14
12			59	47	53	66	30.00	30.12	8.73	10	2	17
13			60	47	54	63	29.96	30.08	8.76	10	1	21
14			61	47	54	62	29.94	30.06	8.90	11	1	24
15			62	46	54	61	29.94	30.06	9.10	10	1	25
16			62	47	54	62	29.93	30.05	9.21	11	1	18
17			60	48	54	66	29.94	30.06	9.11	10	2	14
18			58	48	53	73	29.94	30.06	9.24	9	2	15
19			57	49	53	76	29.96	30.08	9.69	7	2	16
20			56	49	52	78	29.97	30.09	9.73	7	2	16
21			55	49	52	83	29.98	30.10	9.90	7	2	18
22			53	49	51	85	29.99	30.11	9.48	7	2	20
23			52	48	50	87	29.99	30.11	9.58	7	1	18
24			52	48	50	88	29.98	30.10	9.71	7	1	11

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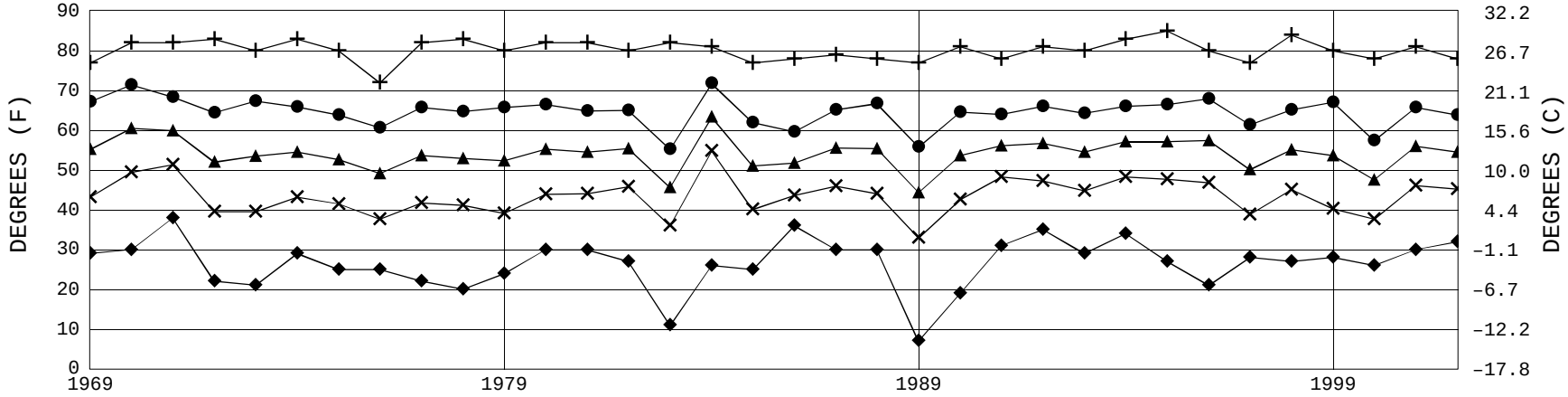
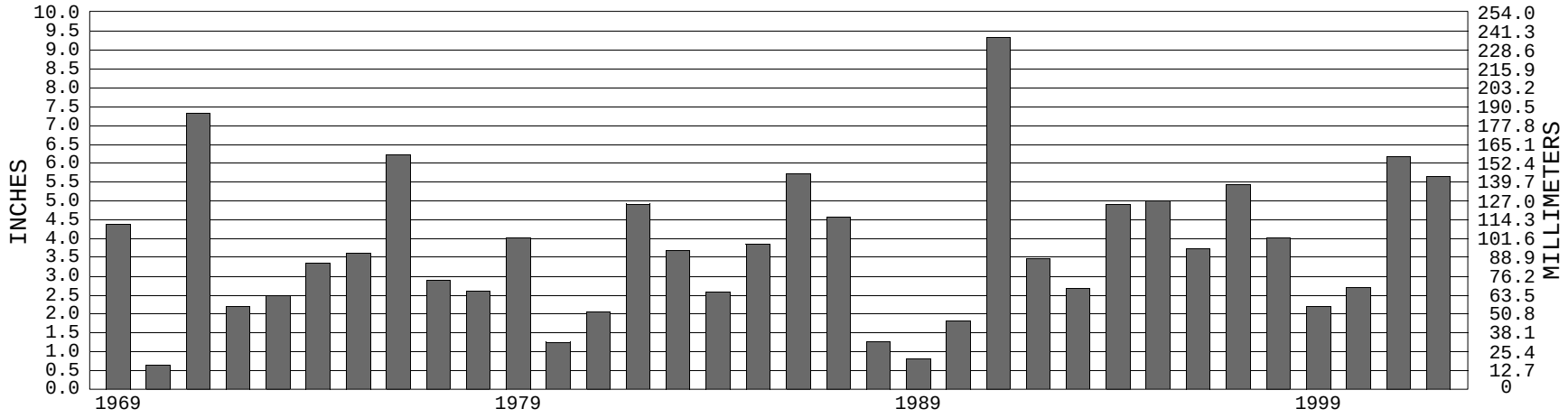
HOUSTON, TX DECEMBER TEMPERATURES



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

Long–Term (1969–2002) Mean: 54.1 1961–1990 Normal: 53.7

HOUSTON, TX DECEMBER PRECIPITATION



Long–Term (1969–2002) Mean Monthly Total: 3.75 1961–1990 Normal: 3.69

DECEMBER 2002

HOUSTON, TX

LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

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