



# JANUARY 2011 LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

HOUSTON, TX  
G BUSH INTERCONTINENTAL AP/HOUSTON AP (KIAH)  
Lat:29° 59'N Long: 95° 21'W Elev (Ground) 94 Feet  
Time Zone : CENTRAL WBAN: 12960 ISSN#: 0198-5094



Date 1	Temperature °F						Deg Days BASE 65°		WEATHER 10	SNOW/ICE ON GND(IN)		PRECIPITATION ON GND(IN)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								Date 24
	MAXIMUM 2	MINIMUM 3	AVERAGE 4	DEP FROM NORMAL 5	AVERAGE DEW PT 6	AVERAGE WET BULB 7	HEATING 8	COOLING 9		0600 LST 11	1200 LST 12	2400 LST 13	2400 LST 14	AVERAGE STATION 15	AVERAGE SEA LEVEL 16	RESULTANT SPEED 17	RES DIR 18	AVERAGE SPEED 19	MAXIMUM					
																			3-SEC		2-MIN			
01	64	43	54	2	23	37	11	0		0		0.0	0.00	30.04		14.0	36	13.2	30	01	22	36	01	
02	58	34	46	-6	23	37	19	0		0		0.0	0.00	30.22	30.32	4.3	02	5.3	16	36	13	35	02	
03	60	34	47	-5	37	43	18	0		0		0.0	0.00	30.08	30.21	6.0	12	6.5	21	13	15	12	03	
04	67	49	58	6	55	57	7	0	TS TSRA RA BR HZ	0		0.0	1.27	29.93	30.07	5.1	10	5.8	20	30	16	31	04	
05	72	52	62	10	50	56	3	0	RA FG+ BR	0		0.0	0.06	29.86	29.98	5.6	30	5.9	22	30	17	31	05	
06	67	42	55	3	35	45	10	0		0		0.0	0.00	29.93	30.05	3.9	30	4.8	16	32	14	31	06	
07	72	40	56	4	37	47	9	0		0		0.0	0.00	29.75	29.88	3.3	25	3.4	21	28	14	27	07	
08	66	42	54	3	32	44	11	0	RA	0		0.0	T	29.77	29.90	6.2	06	7.4	21	04	17	04	08	
09	53	41	47	-4	40	43	18	0	TS TSRA RA DZ BR	0		0.0	0.76	29.72	29.84	8.4	04	11.3	30	05	25	06	09	
10	43	39	41	-10	36	39	24	0		0		0.0	0.00	30.01	30.10	6.6	01	7.4	25	36	21	35	10	
11	49	32	41	-10	24	34	24	0		0		0.0	0.00	30.42	30.50	12.9	35	13.2	31	36	24	35	11	
12	48	26*	37	-14	17	30	28	0		0		0.0	0.00	30.55	30.66	7.3	35	7.8	18	34	14	03	12	
13	39	32	36*	-15	17	30	29	0		0		0.0	0.00	30.45	30.59	4.4	06	5.2	18	04	15	04	13	
14	53	39	46	-5	32	40	19	0	RA	0		0.0	T	30.22	30.37	8.1	10	8.5	20	10	16	11	14	
15	65	46	56	5	47	51	9	0	RA	0		0.0	0.04	30.08	30.22	6.3	11	7.4	21	14	17	14	15	
16	60	53	57	6	55	56	8	0	RA BR	0		0.0	0.89	29.85	29.99	8.5	16	9.4	30	15	22	15	16	
17	57	49	53	1	49	50	12	0	RA BR	0		0.0	T	29.69	29.83	2.8	24	4.7	25	21	12	30	17	
18	61	49	55	3	51	53	10	0	RA FG BR	0		0.0	0.01	29.78	29.87	4.2	34	5.9	23	36	20	35	18	
19	64	40	52	0	45	48	13	0	BR	0		0.0	0.00	29.90	30.01	5.1	12	7.2	21	14	17	14	19	
20	64	33	49	-3	44	47	16	0	RA BR	0		0.0	T	29.94	30.03	8.6	35	12.0	33*	36	26*	35	20	
21	48	32	40	-12	28	34	25	0		0		0.0	0.00	29.98	30.11	4.8	34	6.1	23	34	16	35	21	
22	61	30	46	-6	29	38	19	0		0		0.0	0.00	29.93	30.07	1.6	18	3.0	21	18	16	16	22	
23	64	35	50	-2	44	48	15	0	RA BR	0		0.0	0.02	29.91	30.02	5.8	11	6.7	22	13	16	09	23	
24	53	49	51	-1	48	49	14	0	RA BR	0		0.0	1.94	29.85	29.98	9.2	01	9.6	17	35	15	04	24	
25	58	42	50	-2	40	45	15	0	RA BR	0		0.0	0.03	29.96	30.05	9.6	33	9.9	24	33	20	32	25	
26	61	35	48	-4	32	41	17	0		0		0.0	0.00	30.09	30.20	0.9	25	2.0	16	29	9	16	26	
27	68	40	54	2	34	44	11	0		0		0.0	0.00	30.07	30.20	4.8	26	5.7	20	25	14	29	27	
28	75	45	60	7	35	48	5	0		0		0.0	0.00	29.98	30.11	6.1	24	6.5	18	25	15	27	28	
29	75*	50	63	10	54	58	2	0		0		0.0	0.00	29.93	30.05	6.5	18	6.8	28	21	16	16	29	
30	74	59	67*	14	59	62	0	2	RA	0		0.0	0.02	29.90	30.00	5.5	16	7.3	22	16	17	16	30	
31	74	57	66	13	60	61	0	1	RA FG+ BR HZ	0		0.0	0.01	29.79	29.93	7.9	14	8.9	23	12	21	13	31	

61.1		41.6		51.4		39.6		45.9		13.6		0.1		< MONTHLY AVERAGES   TOTALS >		0.0		5.05		29.98		30.10		1.8		03		7.3		< MONTHLY AVERAGES	
-1.2		0.4		-0.4		<-----		DEPARTURE FROM NORMAL		----->		1.37		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3																	
<b>DEGREE DAYS</b>										<b>GREATEST 24-HR PRECIPITATION :</b> 1.94 <b>DATE :</b> 24										<b>SEA LEVEL PRESSURE</b>											
<b>MONTHLY</b>					<b>SEASON TO DATE</b>					<b>GREATEST 24-HR SNOWFALL :</b> 0.0 <b>DATE :</b>					<b>MAXIMUM :</b> 30.78			<b>DATE TIME</b>													
<b>TOTAL DEPARTURE</b>					<b>TOTAL DEPARTURE</b>					<b>GREATEST SNOW DEPTH :</b> 0 <b>DATE :</b>					<b>MINIMUM :</b> 29.72			<b>12 1033</b>													
<b>HEATING :</b>		421		-6		900		-121		<b>NUMBER OF</b>		<b>MAXIMUM TEMP &gt;= 90 :</b> 0		<b>MINIMUM TEMP &lt;= 32 :</b> 5		<b>PRECIPITATION &gt;= 0.01 INCH:</b> 11															
<b>COOLING :</b>		3		-12		3		-12		<b>DAYS WITH</b>		<b>MAXIMUM TEMP &lt;= 32 :</b> 0		<b>MINIMUM TEMP &lt;= 0 :</b> 0		<b>PRECIPITATION &gt;= 0.10 INCH:</b> 4															
										<b>THUNDERSTORMS</b>		: 2		<b>HEAVY FOG</b>		: 2		<b>SNOWFALL &gt;= 1.0 INCH</b> : 0													

JANUARY 2011  
HOUSTON, TX

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

HOUSTON, TX (KIAH)  
JANUARY 2011

WBAN # 12960

Date	FOR HOUR (LST) ENDING AT												Date	FOR HOUR (LST) ENDING AT												Date	Sum of Hourly Data	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	0.00		
02													02												02	0.00	0.00		
03													03												03	0.00	0.00		
04													04												04	1.27	1.27		
05	0.05		0.01	T		T							05												05	0.06	0.06		
06													06												06	0.00	0.00		
07													07												07	0.00	0.00		
08													08												08	T	T		
09		0.06	0.06	T		0.03	0.21	0.32	0.07	T	T	T	09	T	0.01										09	0.76	0.76		
10													10												10	0.00	0.00		
11													11												11	0.00	0.00		
12													12												12	0.00	0.00		
13													13												13	0.00	0.00		
14													14												14	T	T		
15													15	T											15	0.04	0.04		
16	T	0.02	0.01	T	T	0.02	0.05	0.03	0.05	0.06	T	T	16	0.04	0.04	T	0.12	0.18	0.21	T	T				16	0.89	0.89		
17	T	T	T										17												17	T	T		
18													18												18	0.01	0.01		
19													19												19	0.00	0.00		
20													20	T	T										20	T	T		
21													21												21	0.00	0.00		
22													22												22	0.00	0.00		
23													23												23	0.02	0.02		
24	0.02	0.08	0.20	0.25	0.08	0.15	0.03	0.04	0.05	0.03	0.06	0.03	24	0.06	0.03	0.59	0.04	0.06	0.06	0.01	0.01	0.01	0.01	0.02	0.01	0.01	24	1.94	1.94
25	0.02	0.01											25												25	0.03	0.03		
26													26												26	0.00	0.00		
27													27												27	0.00	0.00		
28													28												28	0.00	0.00		
29													29												29	0.00	0.00		
30													30	T											30	0.02	0.02		
31	0.01												31												31	0.01	0.01		

\* Indicates sum of Hourly and Daily disagree.

### MAXIMUM SHORT DURATION PRECIPITATION (See Note)

Time Period (Minutes)	5	10	15	20	30	45	60	80	100	120	150	180
Precipitation (Inches)	0.21	0.26	0.29	0.31	0.38	0.56	0.60	0.67	0.70	0.72	0.83	0.93
Ending Date	04	04	04	04	24	24	24	04	04	04	04	04
Ending Time (Hr/Min)	2217	2219	2224	2230	1444	1444	1456	2324	2324	2324	2324	2324

Note : The hourly and daily precipitation totals are printed in the last 2 columns and hi-lighted in red when they disagree. 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.

Date and time are not entered for TRACE amounts.

# REFERENCE NOTES & SUPPLEMENTAL SUMMARIES

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

T = Trace precipitation amount.

+ = also occurs on earlier date.

FG+ = Heavy fog, visibility .25 miles or less.

BLANK entries denote missing or unreported data.

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

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

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

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

NORMALS ARE FOR THE YEARS 1971-2000

## WEATHER NOTATIONS

QUALIFIER	WEATHER PHENOMENA		
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	
PR Partial	RA Rain	PY Spray	SQ Squalls
SH Shower(s)	SG Snow Grains	SA Sand	SS Sandstorm
TS Thunderstorm	SN Snow	VA Volcanic Ash	GL Glaze
VC In the Vicinity	UP Unkown Precipitation		

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

# HOUSTON, TX JANUARY 2011

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
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			Sky Cover	Satellite	Sky Cover	Satellite			
01							10.00	10.00	
02							10.00	10.00	
03							10.00	10.00	
04							0.75	10.00	
05							0.12	10.00	
06							7.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							3.00	10.00	
10							10.00	10.00	
11							10.00	10.00	
12							10.00	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							8.00	10.00	
16							0.50	10.00	
17							0.50	10.00	
18							0.50	10.00	
19							6.00	10.00	
20							5.00	10.00	
21							9.00	10.00	
22							9.00	10.00	
23							3.00	10.00	
24							1.50	10.00	
25							3.00	10.00	
26							3.00	10.00	
27							10.00	10.00	
28							10.00	10.00	
29							10.00	10.00	
30							7.00	10.00	
31							0.25	10.00	
MONTHLY AVGS							6.36	10.00	
<b>SUNSHINE (Minutes)</b>									
Total : 0					Possible : 19489				
Percent Possible : 0									
<b>NUMBER OF DAYS WITH :</b>									
SKY CONDITION									
Clear		Partly CLDY			Cloudy			Missing	
<b>MINIMUM VISIBILITY (MILES)</b>									
<= .25			<= 3.0				>= 7.0		
2			11				18		

# OBSERVATIONS AT 3-HOURLY INTERVALS

# HOUSTON, TX JANUARY 2011

## KIAH

## WBAN # 12960

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)		
			Observation Time (LST)	Eff Cld Amt Oktas			DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL	
															Observation Time (LST)
		<b>SUNRISE: 0717</b>		<b>JAN 01</b>		<b>SUNSET: 1733</b>									
03	OVC	034			10.00					13	34				
06	BKN	046			10.00					17	35			29.91	
09	BKN	065			10.00					14	01			29.98	30.09
12	SCT	250			10.00		54	18	40	24	18	35		30.03	30.14
15	CLR	NC			10.00		61	22	45	22	18	35		30.01	30.11
18	FEW	250			10.00		64	26	47	24	18	35		30.06	
21	CLR	NC			10.00		57	27	44	32	9	35		30.14	30.25
24	CLR	NC			10.00		49	29	41	46	10	35		30.14	30.30
		<b>SUNRISE: 0717</b>		<b>JAN 02</b>		<b>SUNSET: 1734</b>									
03	CLR	NC			10.00		43	29	37	58	10	34		30.19	30.30
06	CLR	NC			10.00		39	23	33	53	10	36		30.22	30.33
09	FEW	250			10.00		36	24	32	62	6	03		30.24	30.35
12	FEW	250			10.00		40	18	32	41	7	03		30.30	30.42
15	FEW	250			10.00		51	18	39	27	3	VR		30.27	30.39
18	CLR	NC			10.00		57	20	42	24	8	06		30.19	30.30
21	FEW	250			10.00		49	26	40	41	3	04		30.19	30.30
24	FEW	250			10.00		43	25	36	49	0	00		30.22	30.33
		<b>SUNRISE: 0718</b>		<b>JAN 03</b>		<b>SUNSET: 1734</b>									
03	FEW	250			10.00		39	27	34	62	3	13		30.19	30.31
06	FEW	250			10.00		37	29	34	73	0	00		30.18	30.29
09	BKN	250			10.00		36	29	33	76	3	04		30.16	30.28
12	SCT	250			10.00		43	34	39	71	7	11		30.16	30.27
15	OVC	060			10.00		57	38	48	49	9	12		30.13	30.24
18	OVC	060			10.00		58	38	48	48	11	15		30.03	30.15
21	OVC	060			10.00		55	45	50	69	11	13		30.03	30.14
24	BKN	250			10.00		54	45	49	72	6	13		30.03	30.14
		<b>SUNRISE: 0718</b>		<b>JAN 04</b>		<b>SUNSET: 1735</b>									
03	OVC	004			6.00	BR	50	45	48	83	5	11		30.03	30.14
06	OVC	005			6.00	BR	53	51	52	93	6	10		29.98	30.10
09	OVC	004			3.00	BR	55	52	53	90	5	05		29.98	30.10
12	OVC	004			1.25	BR	57	54	55	90	7	03		30.03	30.15
15	OVC	013			8.00		61	58	59	90	7	11		30.00	30.11
18	OVC	041			2.50	-RA BR	67	59	62	76	8	11		29.92	30.03
21	OVC	038			5.00	RA BR	63	61	62	93	8	13		29.89	30.00
24	OVC	010			9.00	-RA	62	60	61	93	8	10		29.87	29.98
		<b>SUNRISE: 0718</b>		<b>JAN 05</b>		<b>SUNSET: 1736</b>									
03	OVC	003			4.00	-RA BR	62	60	61	93	0	00		29.87	29.98
06	OVC	009			0.25	BR	62	61	62	100	3	29		29.83	29.94
09	OVC	027			7.00		62	62	62	100	3	29		29.84	29.95
12	SCT	250			10.00		64	60	62	87	8	30		29.89	30.00
15	BKN	250			10.00		68	58	62	71	8	30		29.87	29.98
18	BKN	250			10.00		71	43	56	37	11	29		29.82	29.93
21	BKN	250			10.00		64	43	53	47	6	31		29.83	29.94
24	SCT	250			10.00		60	38	49	44	5	31		29.89	30.00
		<b>SUNRISE: 0718</b>		<b>JAN 06</b>		<b>SUNSET: 1737</b>									
03	FEW	250			10.00		53	36	45	53	6	33		29.93	30.04
06	CLR	NC			10.00		47	35	42	63	3	33		29.94	30.05
09	SCT	250			10.00		45	35	41	68	3	31		29.94	30.06
12	BKN	250			10.00		48	37	43	66	0	00		29.98	30.10
15	BKN	250			10.00		62	34	49	35	7	33		29.98	30.10
18	BKN	250			10.00		66	28	49	24	9	30		29.93	30.04
21	FEW	250			10.00		57	32	46	39	5	27		29.90	30.01
24	CLR	NC			10.00		52	33	44	49	6	26		29.92	30.03
		<b>SUNRISE: 0718</b>		<b>JAN 07</b>		<b>SUNSET: 1737</b>									
03	CLR	NC			10.00		47	36	43	63	6	35		29.77	29.88
06	CLR	NC			10.00		46	31	40	56	5	36		29.79	29.90
09	BKN	250			10.00		51	31	42	46	5	03		29.87	29.98
12	BKN	250			10.00		61	26	46	26	10	05		29.84	29.95
15	BKN	250			10.00		63	29	48	28	8	04		29.75	29.86
18	BKN	250			10.00		57	33	46	40	8	06		29.75	29.86
21	BKN	250			10.00		53	43	48	69	8	10		29.78	29.89
24	FEW	250			10.00		53	30	43	41	11	09		29.74	29.85
		<b>SUNRISE: 0718</b>		<b>JAN 08</b>		<b>SUNSET: 1738</b>									
03	FEW	250			10.00		48	36	43	63	6	35		29.77	29.88
06	FEW	250			10.00		46	31	40	56	5	36		29.79	29.90
09	SCT	250			10.00		51	31	42	46	5	03		29.87	29.98
12	SCT	250			10.00		61	26	46	26	10	05		29.84	29.95
15	SCT	250			10.00		63	29	48	28	8	04		29.75	29.86
18	BKN	250			10.00		57	33	46	40	8	06		29.75	29.86
21	BKN	250			10.00		53	43	48	69	8	10		29.78	29.89
24	OVC	120			10.00		53	30	43	41	11	09		29.74	29.85
		<b>SUNRISE: 0718</b>		<b>JAN 09</b>		<b>SUNSET: 1739</b>									
03	OVC	060			9.00		47	41	44	80	14	06		29.68	29.79
06	OVC	060			9.00	RA	45	39	42	80	15	05		29.61	29.72
09	OVC	020			10.00		41	38	40	89	20	06		29.68	29.79
12	OVC	012			10.00		45	40	43	83	7	08		29.70	29.81
15	OVC	008			7.00		46	43	45	89	10	32		29.70	29.81
18	OVC	008			3.00	DZ BR	45	42	44	89	9	34		29.77	29.88
21	OVC	014			10.00		44	40	42	86	8	02		29.85	29.96
24	OVC	010			10.00		41	37	39	86	10	05		29.85	29.96
		<b>SUNRISE: 0718</b>		<b>JAN 10</b>		<b>SUNSET: 1740</b>									
03	OVC	005			10.00		39	37	38	93	7	05		29.87	29.98
06	OVC	005			10.00		40	37	39	89	8	04		29.87	29.98
09	OVC	005			10.00		40	37	39	89	6	06		29.98	30.10
12	OVC	007			10.00		42	37	40	83	0	00		29.98	30.11
15	OVC	009			10.00		43	38	41	83	5	VR		29.98	30.09
18	OVC	009			10.00		41	38	40	89	7	01		30.03	30.14
21	OVC	024			10.00		41	36	39	82	13	35		30.11	30.23
24	OVC	032			10.00		40	32	37	73	18	36		30.18	30.29
		<b>SUNRISE: 0718</b>		<b>JAN 11</b>		<b>SUNSET: 1741</b>									
03	OVC	042			10.00		37	28	34	70	15	35		30.27	30.38
06	OVC	017			10.00		36	28	33	73	16	35		30.34	30.45
09	BKN	022			10.00		38	28	34	67	15	35		30.42	30.54
12	SCT	130			10.00		44	25	37	47	18	34		30.42	30.54
15	FEW	120			10.00		49	22	39	35	14	36		30.38	30.50
18	FEW	250			10.00		43	18	34	37	15	02		30.42	30.54
21	CLR	NC			10.00		38	17	31	43	5	34		30.50	30.61
24	CLR	NC			10.00		32	19	28	59	6	34		30.53	30.64
		<b>SUNRISE: 0718</b>		<b>JAN 12</b>		<b>SUNSET: 1741</b>									
03	CLR	NC			10.00		29	17	25	61	9	01		30.53	30.64
06	CLR	NC			10.00		27	17	24	66	5	34		30.56	30.68
09	FEW	250			10.00		32	17	27	54	8	35		30.66	30.77
12	SCT	250			10.00		44	15	34	31	7	01		30.60	30.72
15	BKN	085			10.00		48	14	36	25	7	34		30.5	

# OBSERVATIONS AT 3-HOURLY INTERVALS

HOUSTON, TX  
JANUARY 2011

KIAH

WBAN # 12960

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND		PRESSURE (INCHES, HG)											
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg				STATION	SEA LEVEL		Observation Time (LST)	Eff Cld Amt Oktas	VISIBILITY (MILES)	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL						
																														WEATHER	WEATHER				
<b>SUNRISE: 0718</b>						<b>JAN 13</b>						<b>SUNSET: 1742</b>						<b>SUNRISE: 0717</b>						<b>JAN 19</b>						<b>SUNSET: 1747</b>					
03	OVC	100			10.00		34	14	28	44	10	04	30.53	30.65	03	CLR	NC			6.00	BR	45	43	44	93	0	00	29.98	30.09						
06	OVC	090			10.00		33	16	28	50	7	05	30.53	30.64	06	CLR	NC			8.00		44	41	43	89	3	03	29.97	30.08						
09	BKN	090			10.00		34	15	28	46	9	05	30.56	30.68	09	FEW	250			10.00		46	41	44	83	8	07	29.96	30.07						
12	OVC	090			10.00		36	15	29	42	6	04	30.51	30.63	12	SCT	250			10.00		56	42	49	60	6	15	29.97	30.09						
15	OVC	070			10.00		39	15	31	38	3	07	30.43	30.55	15	SCT	250			10.00		64	47	55	54	14	15	29.87	29.98						
18	OVC	065			10.00		39	18	32	43	0	00	30.42	30.54	18	BKN	250			9.00		54	48	51	80	9	12	29.85	29.96						
21	OVC	090			10.00		38	22	32	53	3	15	30.40	30.51	21	OVC	023			9.00		54	50	52	86	8	15	29.83	29.94						
24	OVC	060			10.00		39	21	33	48	0	00	30.37	30.48	24	BKN	028			9.00		49	46	48	89	5	12	29.82	29.93						
<b>SUNRISE: 0718</b>						<b>JAN 14</b>						<b>SUNSET: 1743</b>						<b>SUNRISE: 0717</b>						<b>JAN 20</b>						<b>SUNSET: 1748</b>					
03	BKN	060			10.00		40	22	33	49	3	03	30.32	30.44	03	OVC	034			7.00		53	51	52	93	5	08	29.79	29.90						
06	BKN	050			10.00		40	24	34	53	7	10	30.29	30.40	06	OVC	044			8.00		55	52	53	90	6	10	29.78	29.89						
09	OVC	044			10.00		42	26	36	53	8	09	30.29	30.40	09	OVC	017			6.00	-RA BR	57	54	55	90	7	08	29.85	29.96						
12	OVC	042			10.00		49	34	42	56	10	13	30.24	30.37	12	OVC	035			5.00	-RA BR	61	56	58	84	14	31	29.88	29.99						
15	OVC	042			10.00		53	40	47	62	13	09	30.16	30.28	15	OVC	008			7.00		46	42	44	86	23	33	29.94	30.05						
18	OVC	044			10.00		51	40	46	66	13	11	30.19	30.30	18	OVC	017			10.00		42	35	39	76	21	34	30.02	30.13						
21	OVC	090			10.00		48	38	43	68	10	11	30.19	30.31	21	BKN	023			10.00		37	28	34	70	20	34	30.09	30.20						
24	OVC	095			10.00		48	35	42	61	8	11	30.19	30.30	24	FEW	023			10.00		33	25	30	72	13	36	30.11	30.22						
<b>SUNRISE: 0718</b>						<b>JAN 15</b>						<b>SUNSET: 1744</b>						<b>SUNRISE: 0717</b>						<b>JAN 21</b>						<b>SUNSET: 1749</b>					
03	OVC	100			10.00		47	38	43	71	5	04	30.16	30.27	03	OVC	018			10.00		33	25	30	72	11	34	30.08	30.19						
06	OVC	065			10.00	-RA	47	40	44	77	5	05	30.14	30.26	06	OVC	016			10.00		32	26	30	79	8	33	30.03	30.15						
09	OVC	100			10.00	-RA	48	45	47	89	6	05	30.16	30.28	09	OVC	018			10.00		33	27	31	79	9	35	30.06	30.18						
12	OVC	080			10.00		61	50	55	67	8	13	30.13	30.24	12	BKN	250			10.00		39	27	34	62	0	00	30.03	30.14						
15	OVC	055			10.00		63	52	57	68	11	15	30.05	30.16	15	SCT	250			10.00		45	28	38	51	5	26	29.92	30.03						
18	OVC	050			10.00		59	53	56	81	11	13	30.03	30.15	18	SCT	250			10.00		42	27	36	55	5	VR	29.90	30.01						
21	OVC	090			10.00		57	54	55	90	5	11	30.03	30.15	21	CLR	NC			10.00		39	29	35	67	3	27	29.98	30.10						
24	OVC	130			9.00		57	54	55	90	5	13	30.01	30.11	24	CLR	NC			10.00		35	28	32	76	0	00	30.00	30.11						
<b>SUNRISE: 0718</b>						<b>JAN 16</b>						<b>SUNSET: 1745</b>						<b>SUNRISE: 0716</b>						<b>JAN 22</b>						<b>SUNSET: 1750</b>					
03	OVC	085			10.00	-RA	57	54	55	90	8	12	29.95	30.06	03	CLR	NC			10.00		30	27	29	89	0	00	29.98	30.10						
06	OVC	090			8.00	RA	57	55	56	93	7	16	29.95	30.05	06	CLR	NC			10.00		31	26	29	82	3	33	30.01	30.12						
09	OVC	090			5.00	RA BR	58	56	57	93	14	16	29.93	30.04	09	CLR	NC			10.00		39	29	35	67	0	00	30.03	30.14						
12	OVC	095			10.00	-RA	60	56	58	87	15	16	29.88	29.99	12	CLR	NC			10.00		58	26	44	29	6	VR	29.98	30.10						
15	OVC	026			3.00	-RA BR	59	56	57	90	13	16	29.80	29.91	15	CLR	NC			10.00		60	25	45	26	5	07	29.89	30.00						
18	OVC	040			6.00	-RA BR	58	57	57	97	7	11	29.80	29.91	18	CLR	NC			10.00		55	28	43	36	8	17	29.86	29.97						
21	OVC	006			2.50	BR	59	57	58	93	7	15	29.82	29.93	21	FEW	250			10.00		46	33	40	61	5	18	29.90	30.01						
24	OVC	003			0.50	-RA	53	52	52	96	7	28	29.81	29.92	24	FEW	250			10.00		39	35	37	86	0	00	29.89	30.00						
<b>SUNRISE: 0718</b>						<b>JAN 17</b>						<b>SUNSET: 1746</b>						<b>SUNRISE: 0716</b>						<b>JAN 23</b>						<b>SUNSET: 1751</b>					
03	OVC	012			6.00	BR	51	50	50	96	3	29	29.79	29.90	03	FEW	250			9.00		36	34	35	92	0	00	29.88	29.99						
06	OVC	005			4.00	BR	51	49	50	93	5	30	29.77	29.88	06	SCT	250			8.00		41	39	40	93	5	12	29.88	29.98						
09	OVC	003			0.75	BR	50	49	49	96	6	28	29.77	29.88	09	OVC	038			10.00		49	46	48	89	7	10	29.92	30.03						
12	OVC	005			3.00	BR	52	49	50	90	7	25	29.74	29.85	12	OVC	048			10.00		60	47	53	62	11	12	29.93	30.04						
15	BKN	014			10.00		55	49	52	80	0	00	29.65	29.76	15	OVC	060			10.00		61	47	54	60	13	08	29.88	29.99						
18	FEW	250			10.00		52	49	50	90	3	15	29.63	29.74	18	OVC	055			10.00		59	47	53	65	10	12	29.91	30.03						
21	CLR	NC			7.00		51	48	49	90	9	16	29.62	29.73	21	OVC	033			10.00		57	48	52	72	7	11	29.94	30.05						
24	OVC	007			4.00	BR	52	50	51	93	6	19	29.66	29.77	24	OVC	017			3.00	-RA BR	53	51	52	93	6	35	29.96	30.07						
<b>SUNRISE: 0717</b>						<b>JAN 18</b>						<b>SUNSET: 1746</b>						<b>SUNRISE: 0716</b>						<b>JAN 24</b>						<b>SUNSET: 1752</b>					
03	OVC	007			5.00	BR	53	51	52	93	3	15	29.62	29.73	03	OVC	022			1.50	+RA BR	53	52	52	96	10	35	29.92	30.03						
06	OVC	004			5.00	BR	54	52	53	93	5	11	29.63	29.74	06	OVC	026			1.50	-RA BR	51	49	50	93	7	02	29.91	30.02						
09	OVC	004			0.50	FG	56	55	55	96	0	00	29.67	29.78	09	OVC	018			2.00	-RA BR	50	47	48	90	9	02	29.94	30.05						
12	OVC	006			0.75	BR	60	57	58	90	14	33	29.73	29.84	12	OVC	004			2.00	-RA BR	50	48	49	93	9	02	29.90	30.01						
15	OVC	018			10.00		59	52	55	78	16	34	29.78	29.89	15	OVC	024			6.00	RA BR	51	50	50	96	10	03	29.79	29.90						
18	FEW	024			10.00		56	49	52	78	7	32	29.85	29.96	18	OVC	006			4.00	-RA BR	52	50	51	93	11	04	29.79	29.90						
21	CLR	NC			10.00		53	48	50	83	5	34	29.91	30.02	21	OVC	006			6.00	-RA BR	50	48	49	93	10	35	29.84	29.95						
24	CLR	NC			7.00		50	46	48	86	3	29	29.95	30.06	24	OVC	017			4.00	-RA BR	49	47	48	93	9	34	29.84	29.96						

# OBSERVATIONS AT 3-HOURLY INTERVALS

HOUSTON, TX  
JANUARY 2011

KIAH

WBAN # 12960

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)				
			Observation Time (LST)	Eff Clد Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL	
														WEATHER
<b>SUNRISE: 0715      JAN 25      SUNSET: 1752</b>														
03	OVC	005			6.00	BR	48	46	47	93	11	34	29.83	29.94
06	OVC	009			10.00		47	44	46	89	10	35	29.88	29.98
09	OVC	013			10.00		46	42	44	86	9	32	29.96	30.07
12	SCT	250			10.00		52	42	47	69	13	33	29.95	30.06
15	FEW	030			10.00		57	36	47	46	18	34	29.91	30.02
18	FEW	250			10.00		52	34	44	50	8	33	29.96	30.07
21	CLR	NC			10.00		49	35	43	59	5	31	30.02	30.14
24	CLR	NC			10.00		42	35	39	76	3	25	30.06	30.18
<b>SUNRISE: 0715      JAN 26      SUNSET: 1753</b>														
03	CLR	NC			10.00		39	33	37	79	6	32	30.06	30.17
06	CLR	NC			10.00		36	33	35	89	0	00	30.09	30.20
09	CLR	NC			10.00		44	34	40	68	0	00	30.14	30.25
12	SCT	250			10.00		56	28	44	34	3	18	30.14	30.26
15	FEW	250			10.00		58	27	45	31	0	00	30.06	30.17
18	FEW	250			10.00		51	32	43	48	0	00	30.06	30.17
21	FEW	250			10.00		44	34	40	68	0	00	30.11	30.22
24	SCT	250			10.00		45	34	40	65	6	21	30.11	30.23
<b>SUNRISE: 0714      JAN 27      SUNSET: 1754</b>														
03	BKN	250			10.00		44	35	40	71	3	25	30.11	30.22
06	SCT	250			10.00		41	34	38	76	5	27	30.11	30.23
09	SCT	250			10.00		48	35	42	61	6	29	30.16	30.27
12	SCT	250			10.00		62	33	48	34	9	28	30.13	30.24
15	FEW	250			10.00		67	30	50	25	10	28	30.03	30.15
18	FEW	250			10.00		61	31	47	32	5	26	30.02	30.13
21	CLR	NC			10.00		55	34	45	45	5	22	30.03	30.15
24	CLR	NC			10.00		52	36	45	55	8	23	30.05	30.16
<b>SUNRISE: 0714      JAN 28      SUNSET: 1755</b>														
03	CLR	NC			10.00		49	35	43	59	7	23	30.03	30.14
06	CLR	NC			10.00		47	34	41	61	3	25	30.02	30.13
09	FEW	130			10.00		54	35	45	49	8	25	30.05	30.16
12	FEW	250			10.00		68	35	52	30	8	26	30.03	30.13
15	FEW	250			10.00		74	30	53	20	9	25	29.96	30.06
18	FEW	250			10.00		69	33	52	26	5	22	29.94	30.05
21	BKN	250			10.00		62	38	50	41	5	21	29.98	30.09
24	SCT	250			10.00		57	43	50	60	7	22	29.98	30.10
<b>SUNRISE: 0713      JAN 29      SUNSET: 1756</b>														
03	BKN	250			10.00		56	46	51	69	3	20	29.96	30.07
06	BKN	250			10.00		56	50	53	80	5	20	29.96	30.07
09	BKN	250			10.00		60	54	57	81	0	00	29.98	30.10
12	OVC	110			10.00		68	56	61	66	3	20	29.98	30.09
15	BKN	250			10.00		73	57	63	57	9	18	29.89	30.00
18	BKN	250			10.00		68	59	63	73	13	17	29.89	30.00
21	OVC	250			10.00		66	60	62	81	10	18	29.91	30.02
24	SCT	048			10.00		66	61	63	84	9	17	29.90	30.01
<b>SUNRISE: 0713      JAN 30      SUNSET: 1757</b>														
03	BKN	250			10.00		64	60	62	87	10	17	29.88	29.99
06	OVC	014			9.00	-RA	64	61	62	90	0	00	29.91	30.02
09	OVC	250			10.00	-RA	65	62	63	90	14	16	29.92	30.03
12	OVC	012			10.00		68	63	65	84	6	25	29.93	30.03
15	BKN	250			10.00		74	62	67	66	8	20	29.82	29.93
18	SCT	100			10.00		68	59	63	73	8	16	29.83	29.94
21	OVC	095			10.00		61	57	59	87	10	10	29.90	30.01
24	OVC	021			10.00		60	56	58	87	8	07	29.94	30.05

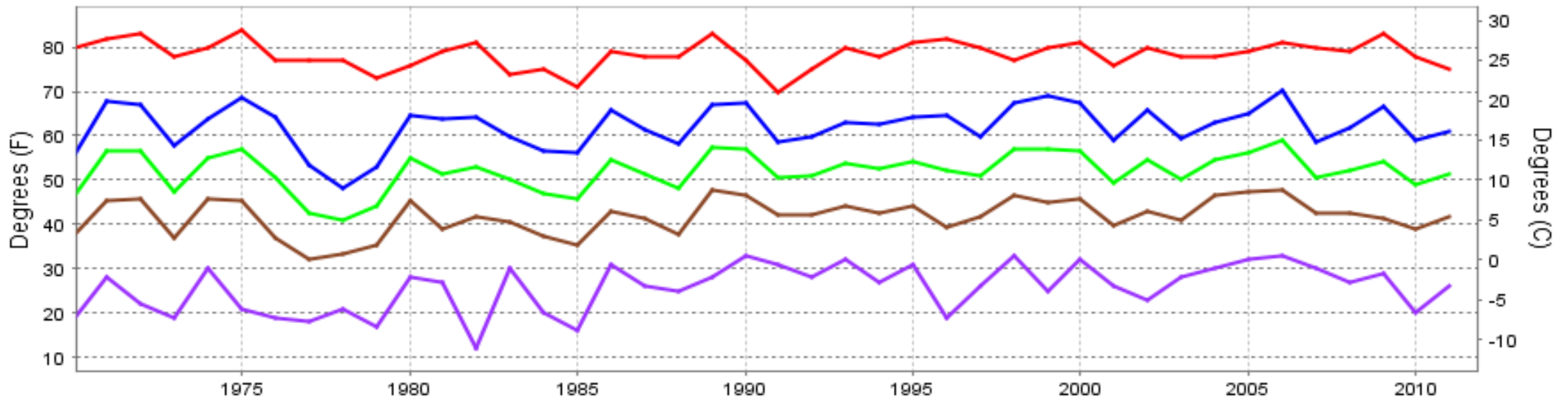
HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)				
			Observation Time (LST)	Eff Clد Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	STATION	SEA LEVEL	
														WEATHER
<b>SUNRISE: 0712      JAN 31      SUNSET: 1758</b>														
03	OVC	100			10.00		59	55	57	87	8	17	29.90	30.01
06	BKN	250			10.00		57	54	55	90	6	17	29.88	29.98
09	OVC	006			2.50	BR	61	59	60	93	5	18	29.92	30.03
12	BKN	022			6.00	HZ	68	62	64	81	10	16	29.88	29.98
15	BKN	250			10.00		73	62	66	69	6	13	29.77	29.88
18	OVC	250			10.00		65	62	63	90	21	13	29.75	29.86
21	OVC	002			0.25	BR	62	61	61	97	9	11	29.73	29.84
24	OVC	002			0.25	BR	63	62	62	97	11	14	29.69	29.80

**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, W = Vertical Visibility = 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								RESULTANT WIND (MPH)			
	CEILOMETER	EFF CLD AMT	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		VISIBILITY (Miles)	WIND SPEED (MPH)	DIRECTION	
							STATION	SEA LEVEL				
01			47	38	43	73	30.00	30.11	8.72	6	1	01
02			47	39	43	76	30.00	30.11	8.69	5	2	03
03			46	39	43	78	30.00	30.11	8.69	6	1	03
04			46	38	43	77	29.99	30.11	8.80	6	1	03
05			45	39	42	79	29.99	30.10	8.96	6	2	05
06			45	39	43	80	29.99	30.11	8.60	6	1	04
07			45	38	42	79	30.01	30.12	8.55	6	1	04
08			46	38	43	77	30.02	30.13	8.40	6	2	05
09			48	39	45	74	30.03	30.15	8.28	7	2	06
10			51	40	46	68	30.05	30.16	8.23	8	2	06
11			54	40	48	63	30.04	30.15	8.53	8	2	05
12			56	40	49	59	30.02	30.13	8.65	8	1	34
13			58	40	50	57	29.99	30.10	8.95	9	1	35
14			59	40	50	54	29.96	30.07	9.18	9	1	32
15			59	39	50	52	29.95	30.06	9.39	10	1	36
16			59	39	50	53	29.95	30.06	9.52	9	2	04
17			58	39	49	55	29.95	30.06	9.29	9	2	05
18			54	40	48	62	29.96	30.07	9.18	8	3	06
19			53	40	47	64	29.97	30.08	9.23	7	2	05
20			52	40	46	67	29.98	30.09	8.81	7	2	05
21			51	40	46	69	29.99	30.11	9.02	7	2	05
22			50	40	45	71	30.00	30.11	8.93	7	2	06
23			49	40	45	73	30.00	30.12	8.77	7	2	05
24			48	40	44	74	30.00	30.11	8.57	6	1	03

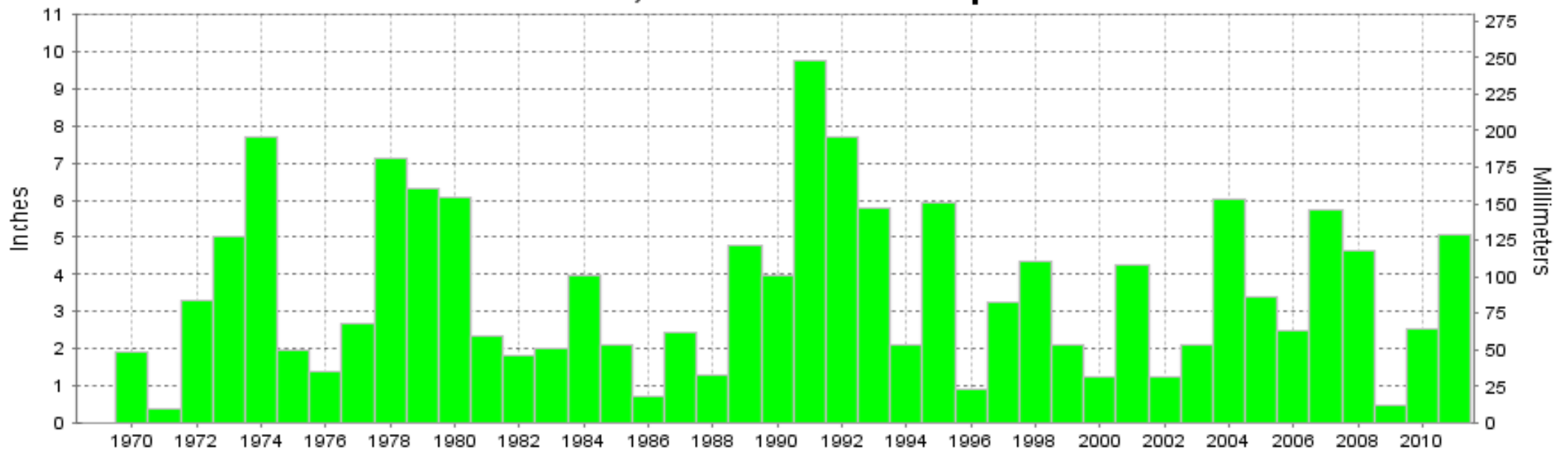
## HOUSTON, TX JANUARY Temperatures



— Extreme Max — Mean Max — Mean — Mean Min — Extreme Min

Long-Term (1970-2011) Mean: 52.0  
1971-2000 Normal: 51.8

## HOUSTON, TX JANUARY Precipitation



Long-Term (1970-2011) Mean Monthly Total: 3.50

1971-2000 Normal: 3.68



JANUARY 2011  
HOUSTON, TX

# LOCAL CLIMATOLOGICAL DATA

## NOAA, National Climatic Data Center

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

  
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