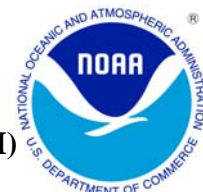




# MARCH 2011 LOCAL CLIMATOLOGICAL DATA

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			
2	3	4	5	6	7	8	9	11	12	13	14	15	16	17	18	19	20	21	22	23	24			
01	76	47	62	3	38	49	3	0		0		0.0	0.00	30.09	30.22	3.4	01	4.2	18	15	14	01	01	
02	77	45	61	2	39	50	4	0		0		0.0	0.00	30.01	30.14	2.5	11	4.2	18	13	15	14	02	
03	76	47	62	2	55	58	3	0	FG+ BR HZ	0		0.0	0.00	29.91	30.04	6.3	13	7.4	24	15	20	14	03	
04	79	63	71	11	61	64	0	6	BR HZ	0		0.0	0.00	29.80	29.93	7.7	15	8.2	22	13	18	14	04	
05	66	48	57	-3	49	53	8	0	RA BR HZ	0		0.0	0.03	29.98	30.07	11.1	33	11.5	38	35	29*	33	05	
06	69	40	55*	-5	37	46	10	0		0		0.0	0.00	30.01	30.14	1.8	08	6.1	15	15	13	15	06	
07	68	44	56	-4	50	54	9	0	RA BR	0		0.0	T	29.79	29.94	12.8	13	13.5	29	13	24	13	07	
08	76	62	69	8	66	67	0	4	RA BR	0		0.0	0.06	29.67	29.79	9.5	16	9.7	25	15	20	16	08	
09	74	52	63	2	47	56	2	0	BR	0		0.0	0.00	29.98	30.06	10.7	34	11.0	32	34	25	36	09	
10	70	45	58	-3	31	46	7	0	HZ FU	0		0.0	0.00	30.23	30.33	7.1	32	7.7	26	33	20	34	10	
11	75	37*	56	-5	39	49	9	0		0		0.0	0.00	30.09	30.22	6.8	16	7.0	26	15	22	15	11	
12	78	56	67	5	54	59	0	2		0		0.0	0.00	29.97	30.10	9.8	17	10.0	32	15	25	15	12	
13	79	59	69	7	60	63	0	4		0		0.0	0.00	29.97	30.08	10.7	15	11.2	30	13	23	14	13	
14	69	52	61	-1	56	59	4	0	TS TSRA RA FG BR	0		0.0	0.47	30.01	30.12	3.2	32	5.6	22	34	17	31	14	
15	73	44	59	-3	44	51	6	0		0		0.0	0.00	30.07	30.18	2.0	10	4.2	15	14	13	14	15	
16	75	56	66	4	58	61	0	1	BR HZ	0		0.0	0.00	30.08	30.19	8.3	13	9.2	23	14	21	14	16	
17	81	67	74	11	61	65	0	9		0		0.0	0.00	30.04	30.16	11.5	17	11.6	24	16	18	15	17	
18	83	67	75	12	64	67	0	10		0		0.0	0.00	30.06	30.17	9.2	17	9.3	25	14	18	15	18	
19	80	65	73	10	62	66	0	8		0		0.0	0.00	30.06	30.17	9.5	15	9.9	23	13	20	14	19	
20	81	60	71	8	60	64	0	6	BR	0		0.0	0.00	30.06	30.17	10.4	15	10.6	32	17	25	15	20	
21	82	65	74	11	61	65	0	9		0		0.0	0.00	30.02	30.15	10.9	16	11.0	31	15	22	15	21	
22	82	68	75	12	61	66	0	10		0		0.0	0.00	29.83	29.96	13.5	17	13.7	38*	16	25	16	22	
23	85	69	77	14	62	67	0	12		0		0.0	0.00	29.77	29.89	7.4	20	7.9	22	22	16	22	23	
24	83	62	73	9	54	62	0	8		0		0.0	0.00	29.85	29.96	6.9	12	9.4	24	16	20	14	24	
25	83	65	74	10	65	68	0	9		0		0.0	0.00	29.70	29.83	7.2	17	7.8	25	15	20	16	25	
26	86*	71	79*	15	66	69	0	14		0		0.0	0.00	29.59	29.72	7.8	18	8.3	23	18	17	15	26	
27	85	64	75	10	65	68	0	10	BR HZ	0		0.0	0.00	29.67	29.77	3.7	05	8.3	21	01	17	01	27	
28	68	58	63	-2	55	58	2	0		0		0.0	0.00	29.80	29.90	6.8	03	7.7	23	01	20	01	28	
29	76	61	69	4	60	63	0	4	RA DZ HZ	0		0.0	T	29.78	29.88	5.8	05	7.9	26	34	21	35	29	
30	69	55	62	-3	50	55	3	0	TS TSRA RA BR	0		0.0	0.22	29.80	29.92	8.8	35	9.6	26	35	20	35	30	
31	79	49	64	-1	50	56	1	0		0		0.0	0.00	29.71	29.84	0.6	34	4.1	17	26	10	17	31	
76.9		56.2	66.6	☼	54.2	59.5	2.3	4.1	< MONTHLY AVERAGES   TOTALS >			0.0	0.78	29.91	30.03	3.6	15	8.6	< MONTHLY AVERAGES					
3.6		4.9	4.3		-----DEPARTURE FROM NORMAL -----							-2.58		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3										
<b>DEGREE DAYS</b>									GREATEST 24-HR PRECIPITATION : 0.47 DATE : 14				SEA LEVEL PRESSURE				DATE		TIME					
MONTHLY									GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.44				10		1045					
SEASON TO DATE									GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.65				26		1753					
TOTAL DEPARTURE			TOTAL DEPARTURE			NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 0		MINIMUM TEMP <= 32 : 0		PRECIPITATION >= 0.01 INCH: 4										
HEATING : 71			-85			1303		-172		MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH: 2										
COOLING : 126			63			187		88		THUNDERSTORMS : 2		HEAVY FOG : 1		SNOWFALL >= 1.0 INCH : 0										

**MARCH 2011  
HOUSTON, TX**

# HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

HOUSTON, TX (KIAH)  
MARCH 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	0.00	0.00	
05				T	0.01	0.01	0.01	T					05		T										05	0.03	0.03	
06													06												06	0.00	0.00	
07													07												07	T	T	
08	T		0.03	T				T	0.02	T	T	0.01	T	08		T								08	0.06	0.06		
09													09												09	0.00	0.00	
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								T	0.14	0.14	0.01	0.18	14											14	0.47	0.47		
15													15												15	0.00	0.00	
16													16												16	0.00	0.00	
17													17												17	0.00	0.00	
18													18												18	0.00	0.00	
19													19												19	0.00	0.00	
20													20												20	0.00	0.00	
21													21												21	0.00	0.00	
22													22												22	0.00	0.00	
23													23												23	0.00	0.00	
24													24												24	0.00	0.00	
25													25												25	0.00	0.00	
26													26												26	0.00	0.00	
27													27												27	0.00	0.00	
28													28												28	0.00	0.00	
29													29												29	T	T	
30	T	0.08	0.14	T									30												30	0.22	0.22	
31													31												31	0.00	0.00	

\* 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)	0.12	0.14	0.15	0.17	0.22	0.27	0.28	0.29	0.29	0.29	0.39	0.47
Ending Date	30	14	14	14	14	14	14	14	14	14	14	14
Ending Time (Hr/Min)	0214	0800	0800	0809	0820	0825	0837	0903	0903	0903	1019	1037

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 MARCH 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							0.25	10.00	
04							0.50	10.00	
05							2.00	10.00	
06							7.00	10.00	
07							6.00	10.00	
08							3.00	10.00	
09							4.00	10.00	
10							3.00	10.00	
11							10.00	10.00	
12							10.00	10.00	
13							8.00	10.00	
14							0.50	10.00	
15							10.00	10.00	
16							1.00	10.00	
17							8.00	10.00	
18							10.00	10.00	
19							8.00	10.00	
20							6.00	10.00	
21							8.00	10.00	
22							10.00	10.00	
23							7.00	10.00	
24							7.00	10.00	
25							7.00	10.00	
26							9.00	10.00	
27							0.00	10.00	
28							7.00	10.00	
29							4.00	10.00	
30							5.00	10.00	
31							5.00	10.00	
MONTHLY AVGS							6.01	10.00	
<b>SUNSHINE (Minutes)</b>									
Total : 0					Possible : 22318				
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		8			17				

# OBSERVATIONS AT 3-HOURLY INTERVALS

**HOUSTON, TX**  
**MARCH 2011**

**KIAH**

**WBAN # 12960**

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)		HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			WIND SPEED (MPH) DIRECTION Tens of Deg	PRESSURE (INCHES, HG)					
			Observation Time (LST)	Eff Cld Amt Oktas			DRY BULB	DEW POINT	WET BULB		RELATIVE HUMIDITY (PCT)	STATION				SEA LEVEL	Observation Time (LST)			Eff Cld Amt Oktas	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL
<b>SUNRISE: 0648 MAR 01 SUNSET: 1820</b>													<b>SUNRISE: 0641 MAR 07 SUNSET: 1824</b>																
03	CLR	NC			10.00		51	42	47	71	7	35	30.11	30.22	03	SCT	250			7.00		46	43	45	89	3	14	29.90	30.01
06	CLR	NC			10.00		48	41	45	77	7	35	30.14	30.25	06	BKN	028			10.00		48	45	47	89	7	07	29.88	29.99
09	CLR	NC			10.00		54	44	49	69	7	04	30.19	30.30	09	SCT	250			10.00		56	47	51	72	10	11	29.88	29.99
12	CLR	NC			10.00		66	39	52	37	7	04	30.16	30.27	12	OVC	250			10.00		65	51	57	61	17	13	29.84	29.95
15	CLR	NC			10.00		75	32	54	21	6	VR	30.06	30.18	15	OVC	049			10.00		67	53	59	61	22	12	29.77	29.88
18	FEW	250			10.00		70	35	53	28	0	00	30.05	30.16	18	BKN	050			10.00		63	55	58	75	18	13	29.74	29.85
21	FEW	250			10.00		55	36	46	49	0	00	30.06	30.17	21	OVC	016			10.00		63	56	59	78	17	13	29.75	29.86
24	FEW	250			10.00		50	40	45	69	0	00	30.05	30.16	24	OVC	008			8.00	-RA	62	59	60	90	14	13	29.72	29.83
<b>SUNRISE: 0646 MAR 02 SUNSET: 1820</b>													<b>SUNRISE: 0640 MAR 08 SUNSET: 1824</b>																
03	CLR	NC			10.00		48	39	44	71	0	00	30.05	30.16	03	OVC	018			6.00	-RA BR	66	63	64	90	11	15	29.68	29.79
06	CLR	NC			10.00		47	38	43	71	5	36	30.05	30.16	06	OVC	009			9.00		68	65	66	90	11	16	29.65	29.76
09	FEW	250			10.00		57	41	49	55	3	05	30.11	30.22	09	OVC	016			5.00	BR	69	66	67	90	8	16	29.72	29.83
12	SCT	250			10.00		73	32	53	22	3	VR	30.09	30.19	12	OVC	060			8.00		72	67	69	84	13	17	29.70	29.81
15	CLR	NC			10.00		76	34	55	22	6	15	29.97	30.07	15	OVC	075			10.00		75	67	70	76	13	17	29.63	29.74
18	CLR	NC			10.00		69	44	56	41	11	13	29.97	30.08	18	OVC	250			9.00		74	67	69	79	9	16	29.64	29.75
21	FEW	250			10.00		56	44	50	64	0	00	30.00	30.11	21	OVC	009			7.00		71	69	70	93	7	17	29.69	29.79
24	CLR	NC			10.00		53	44	49	72	0	00	29.98	30.10	24	OVC	009			7.00		72	68	69	87	5	20	29.70	29.81
<b>SUNRISE: 0645 MAR 03 SUNSET: 1821</b>													<b>SUNRISE: 0639 MAR 09 SUNSET: 1825</b>																
03	CLR	NC			10.00		49	46	48	89	0	00	29.96	30.07	03	OVC	028			6.00	BR	70	67	68	90	5	33	29.73	29.83
06	BKN	005			7.00		47	45	46	93	5	02	29.96	30.07	06	BKN	130			5.00	BR	69	66	67	90	5	30	29.79	29.90
09	VV	001			0.25	FG	58	57	57	97	7	11	29.98	30.09	09	BKN	250			10.00		59	47	53	65	16	35	29.95	30.06
12	BKN	033			10.00		70	58	63	66	7	15	29.97	30.07	12	SCT	250			10.00		68	45	56	44	18	34	29.98	30.09
15	SCT	045			10.00		73	56	63	55	11	14	29.89	30.00	15	FEW	250			10.00		73	40	56	30	17	32	29.96	30.06
18	FEW	025			10.00		68	60	63	76	15	16	29.87	29.98	18	CLR	NC			10.00		69	33	52	26	21	35	30.03	30.14
21	OVC	014			9.00		66	61	63	84	9	14	29.89	30.00	21	CLR	NC			10.00		60	35	48	39	3	33	30.14	30.25
24	OVC	021			9.00		65	61	63	87	7	12	29.86	29.96	24	CLR	NC			10.00		54	34	45	47	3	30	30.18	30.28
<b>SUNRISE: 0644 MAR 04 SUNSET: 1822</b>													<b>SUNRISE: 0637 MAR 10 SUNSET: 1826</b>																
03	OVC	005			5.00	BR	65	64	64	97	8	14	29.81	29.92	03	CLR	NC			10.00		49	34	42	56	5	28	30.21	30.32
06	OVC	003			0.50	BR	66	64	65	93	7	17	29.79	29.90	06	CLR	NC			10.00		46	33	40	61	7	27	30.27	30.37
09	BKN	250			2.00	HZ	70	64	66	81	5	18	29.85	29.96	09	CLR	NC			10.00		56	32	45	40	9	33	30.32	30.44
12	OVC	250			10.00		75	59	65	58	11	15	29.84	29.95	12	CLR	NC			10.00		64	24	47	22	16	31	30.30	30.41
15	OVC	250			10.00		77	62	68	60	7	17	29.78	29.89	15	CLR	NC			10.00		68	25	49	20	10	33	30.22	30.33
18	BKN	250			10.00		72	62	66	71	15	13	29.77	29.88	18	CLR	NC			10.00		66	26	48	22	8	33	30.18	30.29
21	SCT	250			10.00		67	60	63	78	5	16	29.83	29.93	21	CLR	NC			10.00		52	31	43	45	3	34	30.19	30.31
24	BKN	250			8.00		65	62	63	90	8	13	29.82	29.93	24	CLR	NC			10.00		51	29	42	43	0	00	30.19	30.31
<b>SUNRISE: 0643 MAR 05 SUNSET: 1822</b>													<b>SUNRISE: 0636 MAR 11 SUNSET: 1826</b>																
03	OVC	008			8.00		66	63	64	90	0	00	29.81	29.92	03	CLR	NC			10.00		41	32	37	70	0	00	30.18	30.29
06	OVC	032			2.00	BR	65	64	64	97	6	29	29.81	29.92	06	CLR	NC			10.00		39	34	37	82	0	00	30.18	30.29
09	OVC	014			3.00	BR	57	54	55	90	22	33	29.91	30.02	09	CLR	NC			10.00		58	35	47	42	7	14	30.19	30.30
12	OVC	044			3.00	HZ	52	42	47	69	14	33	30.01	30.11	12	CLR	NC			10.00		71	35	53	27	13	18	30.16	30.26
15	SCT	100			10.00		61	43	52	52	21	33	29.98	30.10	15	FEW	100			10.00		74	34	54	23	13	15	30.06	30.16
18	SCT	250			10.00		57	41	49	55	17	36	29.98	30.10	18	FEW	250			10.00		68	43	55	41	11	16	30.03	30.15
21	CLR	NC			10.00		51	39	45	64	9	33	30.08	30.19	21	CLR	NC			10.00		60	48	54	65	6	17	30.05	30.16
24	CLR	NC			10.00		48	36	43	63	7	33	30.14	30.24	24	FEW	250			10.00		59	52	55	78	3	16	30.02	30.13
<b>SUNRISE: 0642 MAR 06 SUNSET: 1823</b>													<b>SUNRISE: 0635 MAR 12 SUNSET: 1827</b>																
03	CLR	NC			10.00		45	34	40	65	7	35	30.11	30.22	03	BKN	250			10.00		60	54	57	81	5	16	29.98	30.10
06	CLR	NC			10.00		41	33	38	73	6	34	30.11	30.22	06	BKN	250			10.00		61	55	58	81	6	17	29.98	30.10
09	FEW	250			10.00		48	35	42	61	8	06	30.14	30.25	09	OVC	033			10.00		68	56	61	66	14	16	30.03	30.14
12	SCT	250			10.00		59	36	48	42	6	VR	30.10	30.21	12	SCT	039			10.00		74	54	62	50	15	17	30.02	30.13
15	BKN	250			10.00		68	29	50	23	6	VR	29.98	30.10	15	FEW	046			10.00		76	54	63	47	16	17	29.94	30.05
18	SCT	250			10.00		63	29	48	28	8	13	29.93	30.04	18	SCT	250			10.00		71	56	62	59	16	15	29.94	30.04
21	SCT	250			10.00		56	42	49	60	6	17	29.95	30.06	21	FEW	030			10.00		66	57	61	73	9	17	29.97	30.08
24	FEW	250			7.00		50	45	48	83	5	18	29.93	30.04	24	SCT	250			10.00		60	57	58	90	6	14	29.96	30.07

# OBSERVATIONS AT 3-HOURLY INTERVALS

**HOUSTON, TX**  
**MARCH 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)		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 Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	RELATIVE HUMIDITY (PCT)				STATION	SEA LEVEL		Observation Time (LST)	Eff Cld Amt Oktas	VISIBILITY (MILES)		DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY (PCT)	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																																																																																																																																																																																									
<b>SUNRISE: 0634</b>						<b>MAR 13</b>						<b>SUNSET: 1828</b>						<b>SUNRISE: 0627</b>						<b>MAR 19</b>						<b>SUNSET: 1831</b>																																																																																																																																																																																																	
03	BKN	031			10.00	64	61	62	90	7	16	29.93	30.04	03	BKN	014			10.00	68	64	66	87	7	18	30.05	30.16	06	BKN	036			10.00	62	60	61	93	6	12	29.96	30.07	06	BKN	014			10.00	67	64	65	90	0	00	30.08	30.19	09	OVC	046			9.00	67	63	65	87	10	14	30.01	30.12	09	BKN	019			10.00	70	61	65	73	8	18	30.10	30.21	12	BKN	049			10.00	74	60	65	62	15	16	30.01	30.11	12	FEW	035			10.00	77	59	66	54	11	15	30.10	30.20	15	BKN	250			10.00	75	58	65	56	18	13	29.95	30.06	15	FEW	037			10.00	78	61	67	56	14	14	30.02	30.13	18	BKN	250			10.00	70	60	64	71	14	13	29.96	30.07	18	FEW	031			10.00	72	62	66	71	14	12	30.02	30.13	21	BKN	250			10.00	67	60	63	78	13	14	29.98	30.09	21	BKN	029			9.00	67	63	65	87	11	14	30.06	30.17	24	BKN	250			10.00	67	62	64	84	8	16	29.98	30.09	24	BKN	025			8.00	66	63	64	90	9	14	30.06	30.16
<b>SUNRISE: 0633</b>						<b>MAR 14</b>						<b>SUNSET: 1828</b>						<b>SUNRISE: 0626</b>						<b>MAR 20</b>						<b>SUNSET: 1832</b>																																																																																																																																																																																																	
03	OVC	013			10.00	67	63	65	87	3	16	29.97	30.08	03	BKN	022			10.00	66	63	64	90	3	17	30.03	30.15	06	OVC	027			10.00	68	64	66	87	5	20	29.96	30.07	06	FEW	016			8.00	64	62	63	93	5	15	30.03	30.15	09	BKN	029			3.00	68	65	66	90	0	00	30.00	30.10	09	BKN	250			10.00	71	62	65	73	13	17	30.10	30.21	12	OVC	065			8.00	61	58	59	90	10	32	30.03	30.14	12	SCT	046			10.00	78	55	64	45	14	15	30.11	30.22	15	BKN	250			10.00	64	54	58	70	6	34	30.00	30.10	15	FEW	050			10.00	80	54	64	41	20	14	30.03	30.15	18	SCT	250			10.00	67	49	57	53	7	31	30.01	30.12	18	SCT	250			10.00	75	56	64	52	17	15	30.03	30.14	21	SCT	250			10.00	58	44	51	60	7	01	30.06	30.17	21	BKN	250			10.00	69	61	64	76	9	16	30.06	30.17	24	FEW	250			10.00	52	42	47	69	0	00	30.06	30.19	24	CLR	NC			10.00	66	61	63	84	7	16	30.06	30.17
<b>SUNRISE: 0632</b>						<b>MAR 15</b>						<b>SUNSET: 1829</b>						<b>SUNRISE: 0624</b>						<b>MAR 21</b>						<b>SUNSET: 1833</b>																																																																																																																																																																																																	
03	CLR	NC			10.00	45	42	44	89	0	00	30.06	30.18	03	BKN	038			10.00	65	62	63	90	7	14	30.05	30.16	06	CLR	NC			10.00	45	40	43	83	5	02	30.08	30.19	06	BKN	040			10.00	66	63	64	90	7	15	30.06	30.17	09	FEW	030			10.00	53	41	47	64	5	11	30.14	30.26	09	SCT	250			10.00	71	63	66	76	7	18	30.10	30.20	12	SCT	130			10.00	64	42	53	45	0	00	30.11	30.22	12	SCT	250			10.00	77	59	66	54	13	17	30.10	30.20	15	FEW	250			10.00	71	40	55	33	0	00	30.02	30.12	15	BKN	250			10.00	80	56	65	44	18	18	30.02	30.13	18	BKN	250			10.00	69	46	57	44	10	13	30.03	30.14	18	SCT	250			10.00	75	57	64	54	16	15	29.98	30.09	21	FEW	250			10.00	61	48	54	63	6	16	30.06	30.18	21	FEW	250			10.00	69	61	64	76	8	16	30.00	30.11	24	FEW	250			10.00	57	47	52	69	3	18	30.09	30.19	24	BKN	014			10.00	69	64	66	84	11	16	29.97	30.08
<b>SUNRISE: 0630</b>						<b>MAR 16</b>						<b>SUNSET: 1830</b>						<b>SUNRISE: 0623</b>						<b>MAR 22</b>						<b>SUNSET: 1833</b>																																																																																																																																																																																																	
03	BKN	250			10.00	59	51	55	75	5	19	30.06	30.17	03	BKN	014			10.00	69	64	66	84	11	17	29.93	30.03	06	OVC	026			10.00	60	56	58	87	5	04	30.08	30.19	06	BKN	018			10.00	68	62	64	81	11	16	29.90	30.01	09	OVC	020			2.00	61	57	59	87	9	11	30.14	30.25	09	BKN	250			10.00	72	62	66	71	16	17	29.93	30.04	12	OVC	022			10.00	70	60	64	71	8	14	30.13	30.24	12	BKN	250			10.00	80	56	65	44	16	19	29.87	29.98	15	BKN	130			10.00	72	60	65	66	16	14	30.06	30.17	15	BKN	250			10.00	80	55	65	42	15	18	29.79	29.90	18	SCT	250			10.00	69	60	64	73	18	14	30.05	30.16	18	SCT	250			10.00	77	58	65	52	14	17	29.76	29.87	21	OVC	023			10.00	67	61	63	81	11	15	30.06	30.18	21	OVC	022			10.00	72	65	68	79	8	17	29.79	29.90	24	OVC	012			10.00	67	62	64	84	9	17	30.08	30.19	24	BKN	028			10.00	72	64	67	76	8	19	29.79	29.90
<b>SUNRISE: 0629</b>						<b>MAR 17</b>						<b>SUNSET: 1830</b>						<b>SUNRISE: 0622</b>						<b>MAR 23</b>						<b>SUNSET: 1834</b>																																																																																																																																																																																																	
03	OVC	022			10.00	68	63	65	84	9	16	30.03	30.14	03	OVC	029			10.00	70	65	67	84	8	18	29.75	29.86	06	BKN	020			10.00	67	63	65	87	10	17	30.03	30.15	06	BKN	026			8.00	69	65	66	87	7	17	29.75	29.86	09	BKN	020			10.00	70	63	66	79	10	18	30.10	30.21	09	SCT	250			10.00	74	65	68	74	8	24	29.82	29.93	12	BKN	038			10.00	78	60	67	54	14	16	30.08	30.19	12	SCT	100			10.00	80	62	69	54	14	21	29.80	29.91	15	BKN	046			10.00	79	59	67	50	15	17	30.02	30.13	15	BKN	070			10.00	85	61	70	45	10	19	29.74	29.84	18	FEW	045			10.00	76	61	67	60	15	16	30.01	30.12	18	SCT	250			10.00	83	60	68	46	7	21	29.73	29.84	21	BKN	014			10.00	69	63	65	81	13	16	30.06	30.17	21	CLR	NC			10.00	75	55	63	50	8	19	29.79	29.89	24	BKN	022			10.00	68	64	66	87	9	17	30.06	30.16	24	CLR	NC			10.00	69	64	66	84	3	20	29.82	29.93
<b>SUNRISE: 0628</b>						<b>MAR 18</b>						<b>SUNSET: 1831</b>						<b>SUNRISE: 0621</b>						<b>MAR 24</b>						<b>SUNSET: 1835</b>																																																																																																																																																																																																	
03	BKN	031			10.00	69	64	66	84	8	18	30.03	30.14	03	OVC	050			10.00	68	65	66	90	5	25	29.84	29.95	06	OVC	024			10.00	69	64	66	84	8	16	30.05	30.16	06	FEW	055			8.00	64	63	63	97	0	00	29.87	29.98	09	OVC	040			10.00	71	65	67	81	9	17	30.10	30.20	09	CLR	NC			10.00	72	43	57	35	18	09	29.92	30.03	12	BKN	250			10.00	78	64	69	62	9	18	30.09	30.20	12	CLR	NC			10.00	78	41	58	27	11	10	29.91	30.02	15	BKN	045			10.00	81	65	71	58	14	16	30.02	30.13	15	SCT	250			10.00	81	47	62	30	10	16	29.83	29.94	18	SCT	250			10.00	77	64	69	64	11	17	30.02	30.13	18	BKN	250			10.00	74	52	61	46	15	14	29.81	29.92	21	FEW	250			10.00	70	63	66	79	10	16	30.06	30.18	21	FEW	250			10.00	68	60	63	76	9	16	29.81	29.92	24	BKN	010			10.00	68	64	66	87	5	16	30.08	30.19	24	BKN	250			10.00	69	62	65	79	7	17	29.82	29.93

# OBSERVATIONS AT 3-HOURLY INTERVALS

HOUSTON, TX  
MARCH 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								
SUNRISE: 0620						MAR 25						SUNSET: 1835									
03	OVC	250				67	63	65	87	7	17	29.75	29.86								
06	OVC	023				67	64	65	90	7	16	29.76	29.87								
09	OVC	028				73	65	68	76	0	00	29.79	29.90								
12	BKN	047				80	65	70	60	7	23	29.75	29.86								
15	BKN	060				82	64	70	55	8	18	29.67	29.78								
18	SCT	250				78	65	70	64	9	17	29.64	29.75								
21	FEW	016				72	66	68	82	10	17	29.66	29.77								
24	BKN	022				72	66	68	82	7	18	29.66	29.77								
SUNRISE: 0618						MAR 26						SUNSET: 1836									
03	BKN	016				71	67	68	87	7	18	29.61	29.72								
06	BKN	015				71	66	68	84	7	19	29.62	29.72								
09	BKN	019				75	66	69	74	8	20	29.66	29.77								
12	SCT	038				83	65	71	55	9	20	29.63	29.74								
15	BKN	250				85	65	72	51	9	19	29.56	29.66								
18	BKN	250				81	67	72	63	16	16	29.54	29.65								
21	SCT	250				74	68	70	82	7	16	29.62	29.73								
24	SCT	250				71	67	68	87	0	00	29.62	29.72								
SUNRISE: 0617						MAR 27						SUNSET: 1836									
03	OVC	022				71	68	69	90	6	03	29.63	29.73								
06	OVC	004			BR	70	69	69	97	0	00	29.62	29.72								
09	OVC	039			HZ	75	70	72	85	7	15	29.67	29.78								
12	BKN	047				83	68	73	61	10	17	29.65	29.76								
15	OVC	065				75	64	68	69	14	02	29.62	29.73								
18	BKN	060				71	62	65	73	9	02	29.65	29.75								
21	OVC	050				67	60	63	78	13	35	29.75	29.85								
24	OVC	015				64	56	59	75	11	01	29.76	29.87								
SUNRISE: 0616						MAR 28						SUNSET: 1837									
03	OVC	022				61	55	58	81	13	04	29.76	29.87								
06	OVC	011				58	53	55	84	8	04	29.80	29.91								
09	OVC	024				61	53	57	75	7	02	29.85	29.96								
12	OVC	017				62	54	58	75	7	01	29.86	29.97								
15	OVC	019				65	55	59	70	7	04	29.80	29.90								
18	BKN	031				67	54	60	63	7	03	29.76	29.87								
21	OVC	039				64	54	58	70	3	02	29.78	29.89								
24	BKN	037				65	55	59	70	6	06	29.78	29.89								
SUNRISE: 0615						MAR 29						SUNSET: 1838									
03	OVC	021				65	54	59	68	8	09	29.75	29.86								
06	OVC	013			HZ	65	55	59	70	9	05	29.77	29.88								
09	OVC	012			HZ	65	57	60	75	9	05	29.81	29.92								
12	OVC	042				70	60	64	71	8	09	29.81	29.92								
15	OVC	050				76	65	69	69	6	13	29.75	29.85								
18	OVC	250				74	66	69	76	6	05	29.74	29.85								
21	OVC	080				72	66	68	82	6	35	29.78	29.88								
24	OVC	014			HZ	61	55	58	81	11	34	29.83	29.93								
SUNRISE: 0614						MAR 30						SUNSET: 1838									
03	OVC	065				56	53	54	90	14	34	29.83	29.94								
06	OVC	080				56	51	53	83	11	34	29.85	29.96								
09	OVC	018				56	49	52	78	14	35	29.91	30.01								
12	OVC	020				58	48	53	70	15	36	29.87	29.98								
15	SCT	250				66	49	57	54	7	36	29.78	29.88								
18	SCT	250				68	48	57	49	3	06	29.72	29.83								
21	OVC	065				64	50	56	61	5	32	29.79	29.89								
24	BKN	070				60	45	52	58	7	35	29.81	29.92								

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								
SUNRISE: 0612						MAR 31						SUNSET: 1839									
03	FEW	045										54	46	50	75	3	32	29.74	29.85		
06	FEW	065										51	46	49	83	5	02	29.75	29.86		
09	SCT	250										58	50	54	75	6	11	29.79	29.90		
12	SCT	250										70	46	57	42	3	31	29.76	29.87		
15	SCT	250										78	46	60	32	5	35	29.66	29.77		
18	BKN	250										77	48	61	36	5	25	29.65	29.76		
21	FEW	250										66	58	61	76	7	19	29.71	29.82		
24	FEW	250										63	57	60	81	6	19	29.72	29.83		

## 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.

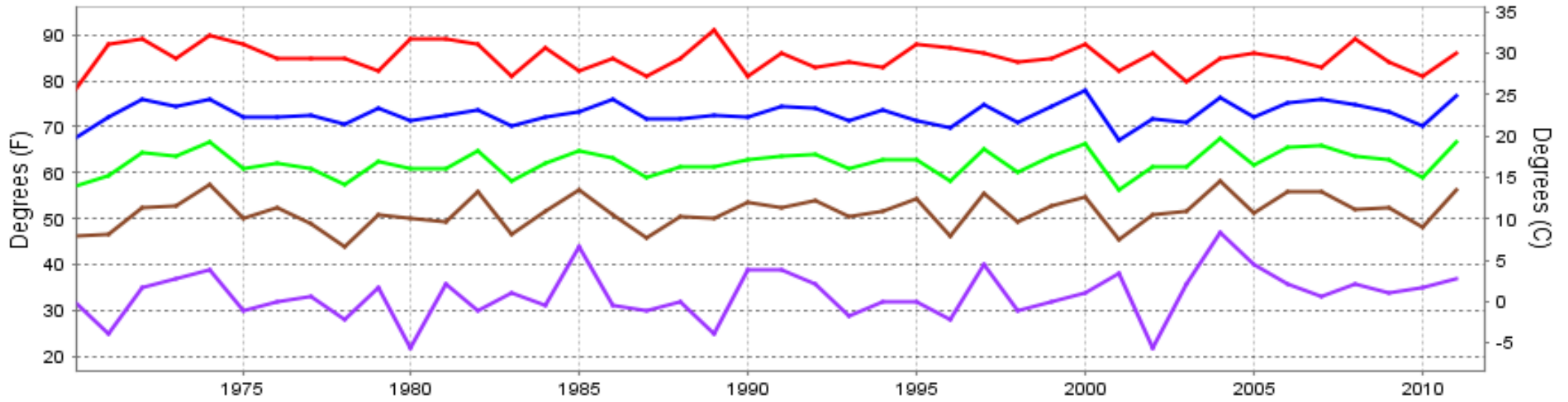
& = Original observation contained additional weather elements.

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)	SPEED	DIRECTION
							STATION	SEA LEVEL				
01			61	55	58	81	29.94	30.05	9.20	6	3	16
02			61	55	58	82	29.92	30.03	9.19	5	4	17
03			61	55	58	83	29.91	30.02	9.16	6	3	16
04			60	55	58	83	29.91	30.02	9.11	6	4	15
05			60	55	58	84	29.91	30.02	8.73	5	3	16
06			60	55	57	85	29.92	30.03	8.37	6	3	16
07			60	55	57	85	29.94	30.05	7.59	7	3	14
08			62	55	58	80	29.96	30.07	7.69	8	4	14
09			64	55	59	73	29.97	30.08	8.10	9	4	14
10			67	54	60	65	29.98	30.09	8.74	10	3	15
11			69	53	60	58	29.98	30.09	9.10	11	3	16
12			71	52	61	54	29.96	30.07	9.61	11	3	16
13			73	52	61	51	29.93	30.04	9.65	11	3	15
14			74	52	62	48	29.91	30.02	9.94	12	4	13
15			75	52	62	48	29.89	30.00	10.00	12	4	14
16			75	52	62	48	29.88	29.99	9.90	13	5	13
17			74	53	62	50	29.88	29.98	9.71	13	6	12
18			71	53	61	55	29.88	29.99	9.90	12	5	12
19			68	54	60	63	29.89	30.00	9.94	9	5	13
20			66	55	60	68	29.90	30.01	9.84	8	4	14
21			65	55	59	71	29.92	30.03	9.81	8	3	15
22			64	55	59	74	29.93	30.04	9.58	7	3	15
23			63	55	59	77	29.93	30.04	9.58	7	3	16
24			62	55	59	78	29.92	30.03	9.32	6	3	15

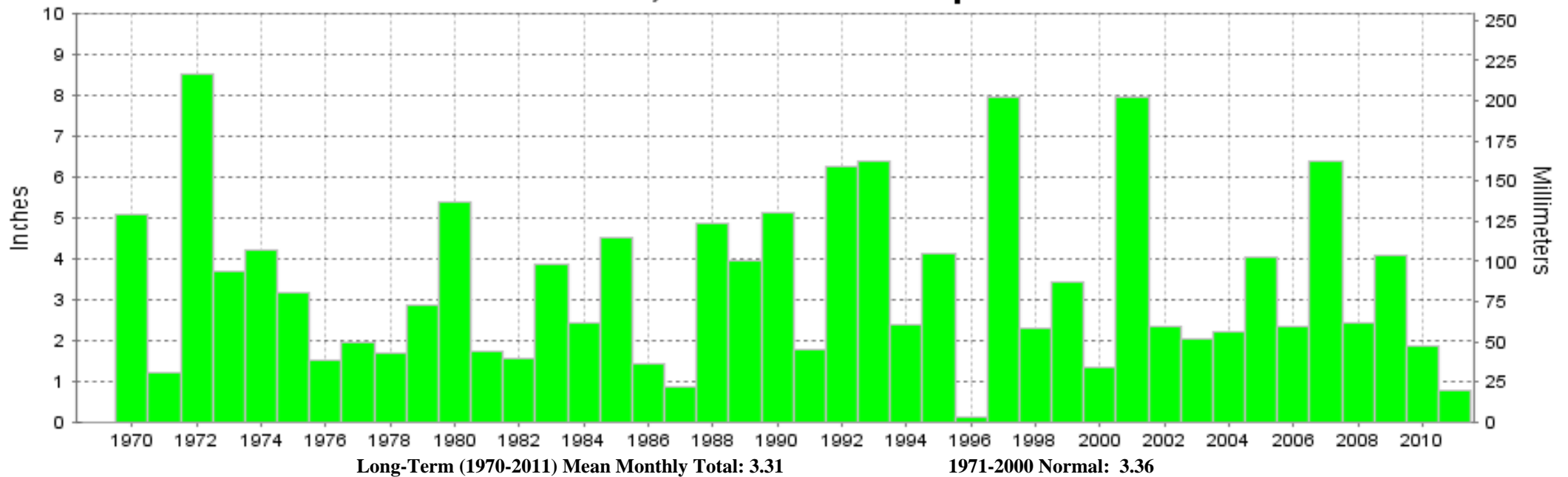
## HOUSTON, TX MARCH Temperatures



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

Long-Term (1970-2011) Mean: 62.2  
1971-2000 Normal: 62.3

## HOUSTON, TX MARCH Precipitation



Long-Term (1970-2011) Mean Monthly Total: 3.31

1971-2000 Normal: 3.36



MARCH 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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