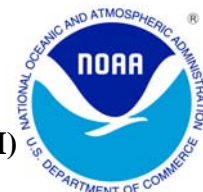




AUGUST 2011 LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

HOUSTON, TX
G BUSH INTERCONTINENTAL AP/HOUSTON AP (KIAH)
Lat:29° 58'N Long: 95° 21'W Elev (Ground) 95 Feet
Time Zone : CENTRAL WBAN: 12960 ISSN#: 0198-5094



AUGUST 2011
HOUSTON, TX

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			
									DEPTH 11	WATER- EQUIV 12	SNOW- FALL 13	WATER EQUIV 14			SPEED 17	DIR 18	AVERAGE SPEED 19	SPEED 20	DIR 21	SPEED 22	DIR 23			
01	100	79	90	6	72	77	0	25		0		0.0	0.00	29.85	29.97	4.2	18	5.8	21	16	17	16	01	
02	100	81	91	7	73	77	0	26		0		0.0	0.00	29.78	29.90	4.8	19	6.7	22	12	15	16	02	
03	101	81	91	7	72	78	0	26		0		0.0	0.00	29.75	29.86	5.2	19	6.8	21	16	17	15	03	
04	101	80	91	7	73	78	0	26		0		0.0	0.00	29.78	29.88	6.0	18	7.7	23	16	18	15	04	
05	101	79	90	6	74	78	0	25		0		0.0	0.00	29.80	29.90	7.0	17	7.9	25	16	22	15	05	
06	101	81	91	7	73	78	0	26		0		0.0	0.00	29.81	29.92	5.2	17	5.9	28	15	22	15	06	
07	101	81	91	7	73	78	0	26		0		0.0	0.00	29.78	29.90	6.0	18	6.9	24	17	20	15	07	
08	102	80	91	7	73	78	0	26		0		0.0	0.00	29.73	29.85	7.4	20	8.4	26	17	20	17	08	
09	102	81	92	8	73	78	0	27		0		0.0	0.00	29.71	29.83	7.6	19	8.0	23	18	16	18	09	
10	102	81	92	8	74	78	0	27	RA	0		0.0	T	29.72	29.83	8.5	18	9.3	26	15	21	15	10	
11	102	79	91	7	75	79	0	26		0		0.0	0.00	29.75	29.85	7.7	16	9.0	25	14	21	13	11	
12	101	81	91	7	74	79	0	26		0		0.0	0.00	29.79	29.90	7.6	16	8.1	26	13	21	13	12	
13	101	77	89	5	74	78	0	24		0		0.0	0.00	29.81	29.92	5.3	18	6.8	29	15	20	17	13	
14	100	80	90	6	75	78	0	25	TS TSRA RA	0		0.0	0.07	29.82	29.93	1.2	18	3.9	29	28	24	33	14	
15	100	79	90	6	72	77	0	25		0		0.0	0.00	29.79	29.91	5.1	18	6.3	24	14	20	14	15	
16	102	77	90	7	71	77	0	25		0		0.0	0.00	29.85	29.95	5.2	18	6.4	24	15	17	15	16	
17	103	78	91	8	71	77	0	26		0		0.0	0.00	29.88	30.00	4.5	18	6.3	24	14	20	13	17	
18	104	81	93	10	70	77	0	28		0		0.0	0.00	29.80	29.93	3.5	22	5.4	17	19	12	19	18	
19	104	79	92	9	70	76	0	27		0		0.0	0.00	29.75	29.86	4.1	19	5.2	21	15	16	17	19	
20	102	81	92	9	73	78	0	27		0		0.0	0.00	29.78	29.89	5.3	16	6.1	23	15	20	14	20	
21	103	75	89	6	72	77	0	24		0		0.0	0.00	29.85	29.96	3.6	18	4.3	22	16	17	17	21	
22	101	77	89	6	72	77	0	24		0		0.0	0.00	29.85	29.96	4.3	16	5.3	23	14	17	15	22	
23	102	79	91	8	72	77	0	26		0		0.0	0.00	29.79	29.91	3.9	16	5.5	22	14	18	13	23	
24	102	78	90	7	72	77	0	25	TS TSRA RA	0		0.0	T	29.78	29.89	3.1	14	5.9	46*	05	39*	05	24	
25	95	76	86*	4	70	75	0	21	RA BR	0		0.0	0.02	29.79	29.90	2.2	14	6.5	41	03	33	04	25	
26	104	76	90	8	69	75	0	25		0		0.0	0.00	29.79	29.91	1.4	18	3.4	17	15	14	15	26	
27	109*	81	95*	13	69	76	0	30		0		0.0	0.00	29.72	29.85	1.4	27	5.8	18	34	14	36	27	
28	107	75	91	9	67	75	0	26		0		0.0	0.00	29.67	29.79	3.3	11	4.6	17	10	13	13	28	
29	107	75	91	9	67	75	0	26		0		0.0	0.00	29.72	29.82	3.0	15	4.3	22	12	17	09	29	
30	102	76	89	7	69	75	0	24		0		0.0	0.00	29.76	29.86	5.9	14	6.3	23	27	18	14	30	
31	101	75*	88	6	68	75	0	23	BR	0		0.0	0.00	29.81	29.92	5.8	14	6.8	24	13	21	13	31	
102.0		78.7	90.4	☼	71.7	77.0	0.0	25.6	< MONTHLY AVERAGES TOTALS >			0.0	0.09	29.78	29.89	4.5	17	6.3	< MONTHLY AVERAGES					
8.5		5.7	7.1		-----DEPARTURE FROM NORMAL -----						-3.74		SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3											
DEGREE DAYS									GREATEST 24-HR PRECIPITATION : 0.07 DATE : 14				SEA LEVEL PRESSURE				DATE TIME							
MONTHLY									GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.07				17 0944							
TOTAL DEPARTURE									GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.73				28 1823							
SEASON TO DATE									NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 31		MINIMUM TEMP <= 32 : 0		PRECIPITATION >= 0.01 INCH : 2							
TOTAL DEPARTURE									HEATING : 0 0		MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH : 0									
TOTAL DEPARTURE									COOLING : 793 230		THUNDERSTORMS : 2		HEAVY FOG : 0		SNOWFALL >= 1.0 INCH : 0									
TOTAL DEPARTURE									0 0		: 0		: 0		: 0									

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

HOUSTON, TX (KIAH)
AUGUST 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													05												05	0.00	0.00	
06													06												06	0.00	0.00	
07													07												07	0.00	0.00	
08													08												08	0.00	0.00	
09													09												09	0.00	0.00	
10													10	T											10	T	T	
11													11												11	0.00	0.00	
12													12												12	0.00	0.00	
13													13												13	0.00	0.00	
14													14	T	0.07	T									14	0.07	0.07	
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						T		T				24	T	T	
25					0.02		T						25												25	0.02	0.02	
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												30	0.00	0.00	
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)	0.03	0.05	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07
Ending Date	14	14	14	14	14	14	14	14	14	14	14	14
Ending Time (Hr/Min)	1426	1431	1431	1431	1431	1431	1431	1431	1431	1431	1431	1431

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 AUGUST 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							10.00	10.00	
05							10.00	10.00	
06							10.00	10.00	
07							10.00	10.00	
08							10.00	10.00	
09							10.00	10.00	
10							8.00	10.00	
11							10.00	10.00	
12							10.00	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							10.00	10.00	
16							10.00	10.00	
17							10.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							9.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							9.00	10.00	
25							5.00	10.00	
26							10.00	10.00	
27							9.00	10.00	
28							10.00	10.00	
29							8.00	10.00	
30							9.00	10.00	
31							6.00	10.00	
MONTHLY AVGS							9.45	10.00	
SUNSHINE (Minutes)									
Total : 0					Possible : 24560				
Percent Possible : 0									
NUMBER OF DAYS WITH : SKY CONDITION									
Clear		Partly CLDY			Cloudy			Missing	
MINIMUM VISIBILITY (MILES)									
<= .25			<= 3.0				>= 7.0		
0			0				29		

OBSERVATIONS AT 3-HOURLY INTERVALS

HOUSTON, TX

AUGUST 2011

KIAH

WBAN # 12960

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)							
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL					
SUNRISE: 0554 AUG 25 SUNSET: 1853						03	BKN	250			10.00	77	74	75	91	13	06	29.79	29.90
06	OVC	250			10.00	-RA	77	74	75	91	8	24	29.77	29.88					
09	SCT	110			10.00	81	76	77	85	7	05	29.84	29.95						
12	BKN	250			10.00	85	71	75	63	6	16	29.85	29.96						
15	SCT	250			10.00	94	67	75	41	9	14	29.79	29.89						
18	SCT	250			10.00	93	65	74	40	7	17	29.75	29.86						
21	FEW	250			10.00	84	67	73	57	3	21	29.77	29.88						
24	SCT	250			10.00	81	69	73	67	5	23	29.81	29.91						
SUNRISE: 0555 AUG 26 SUNSET: 1852						03	SCT	250			10.00	78	70	73	77	0	00	29.80	29.90
06	FEW	250			10.00	76	70	72	82	0	00	29.82	29.93						
09	FEW	250			10.00	89	70	76	54	5	31	29.86	29.97						
12	SCT	250			10.00	98	67	77	36	3	VR	29.84	29.95						
15	SCT	065			10.00	102	64	76	29	0	00	29.77	29.87						
18	SCT	250			10.00	97	66	76	36	8	18	29.74	29.85						
21	CLR	NC			10.00	89	68	75	50	6	19	29.78	29.89						
24	CLR	NC			10.00	85	73	77	67	6	24	29.79	29.89						
SUNRISE: 0555 AUG 27 SUNSET: 1851						03	CLR	NC			10.00	82	76	78	82	3	25	29.77	29.88
06	CLR	NC			10.00	81	75	77	82	3	26	29.80	29.91						
09	SCT	100			10.00	91	69	76	49	8	26	29.82	29.93						
12	FEW	100			10.00	102	67	77	32	11	29	29.77	29.88						
15	SCT	090			10.00	107	63	77	24	7	33	29.68	29.79						
18	FEW	090			10.00	104	59	74	23	8	04	29.65	29.75						
21	FEW	070			10.00	94	71	78	47	5	17	29.69	29.80						
24	CLR	NC			10.00	88	68	74	52	0	00	29.71	29.81						
SUNRISE: 0556 AUG 28 SUNSET: 1850						03	CLR	NC			10.00	79	69	72	72	0	00	29.69	29.80
06	CLR	NC			10.00	80	68	72	67	0	00	29.71	29.82						
09	CLR	NC			10.00	92	67	75	44	7	06	29.74	29.84						
12	CLR	NC			10.00	101	66	77	32	7	05	29.71	29.81						
15	CLR	NC			10.00	105	59	74	22	7	12	29.64	29.75						
18	CLR	NC			10.00	102	56	72	22	9	10	29.62	29.73						
21	CLR	NC			10.00	89	69	75	52	5	18	29.66	29.77						
24	CLR	NC			10.00	85	73	77	67	0	00	29.68	29.78						
SUNRISE: 0557 AUG 29 SUNSET: 1849						03	CLR	NC			10.00	78	72	74	82	0	00	29.69	29.79
06	FEW	250			8.00	75	73	74	94	0	00	29.72	29.83						
09	FEW	250			10.00	91	68	75	47	3	21	29.77	29.88						
12	SCT	250			10.00	100	63	75	30	6	VR	29.77	29.87						
15	BKN	250			10.00	104	59	74	23	11	10	29.69	29.80						
18	SCT	250			10.00	100	65	76	32	10	12	29.67	29.77						
21	FEW	250			10.00	91	67	75	45	9	16	29.71	29.82						
24	SCT	250			10.00	86	69	74	57	3	19	29.75	29.85						
SUNRISE: 0557 AUG 30 SUNSET: 1848						03	SCT	250			10.00	79	71	74	77	0	00	29.75	29.86
06	SCT	250			10.00	77	72	74	85	0	00	29.78	29.88						
09	SCT	250			9.00	90	75	79	61	5	15	29.79	29.90						
12	SCT	250			10.00	99	65	76	33	9	09	29.77	29.87						
15	SCT	250			10.00	101	58	73	24	13	11	29.72	29.83						
18	CLR	NC			10.00	93	67	75	43	14	14	29.72	29.83						
21	CLR	NC			10.00	86	71	76	61	7	16	29.77	29.88						
24	CLR	NC			10.00	83	72	75	70	5	18	29.80	29.90						

HOUR (LST)	SKY COVER	CEILING 100's of FT.	SATELLITE		WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)							
			Observation Time (LST)	Eff Cld Amt Oktas		VISIBILITY (MILES)	DRY BULB	DEW POINT		WET BULB	SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL					
SUNRISE: 0558 AUG 31 SUNSET: 1846						03	CLR	NC			10.00	79	72	74	79	0	00	29.80	29.90
06	CLR	NC			6.00	BR	75	72	73	90	3	36	29.81	29.92					
09	SCT	025			10.00	87	74	78	65	0	00	29.86	29.96						
12	SCT	050			10.00	99	64	75	32	10	14	29.84	29.94						
15	SCT	080			10.00	99	62	74	30	9	15	29.78	29.88						
18	SCT	250			10.00	93	62	73	36	17	15	29.79	29.89						
21	CLR	NC			10.00	86	70	75	59	7	14	29.83	29.94						
24	CLR	NC			10.00	79	72	74	79	0	00	29.84	29.94						

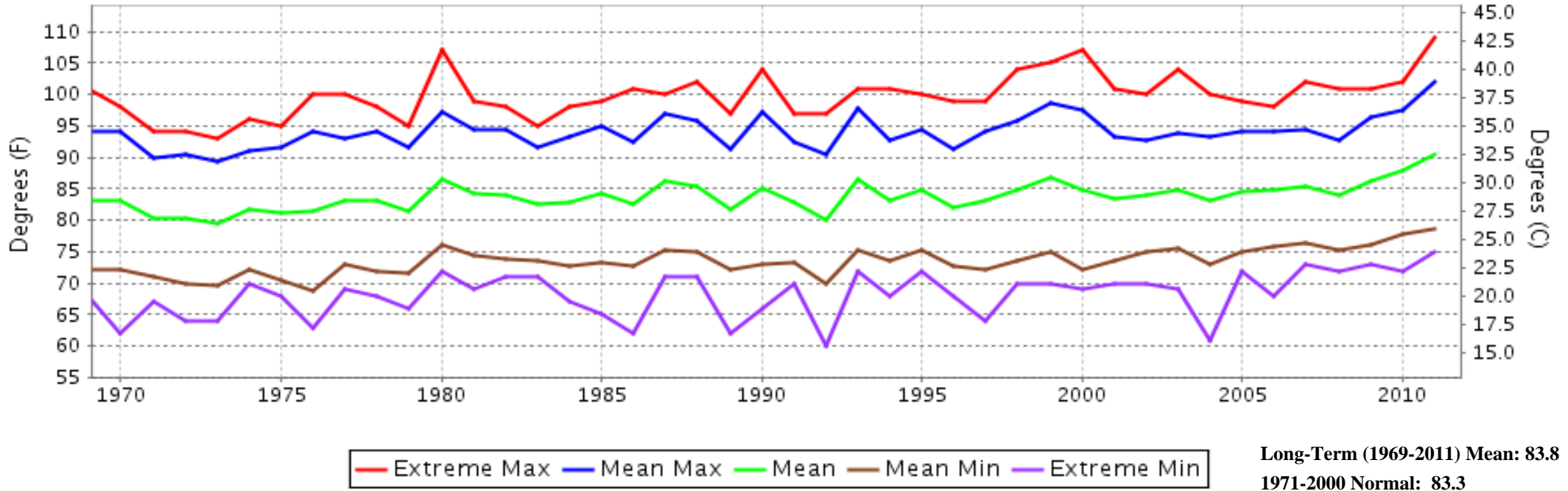
3-HOURLY OBSERVATION NOTES

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.

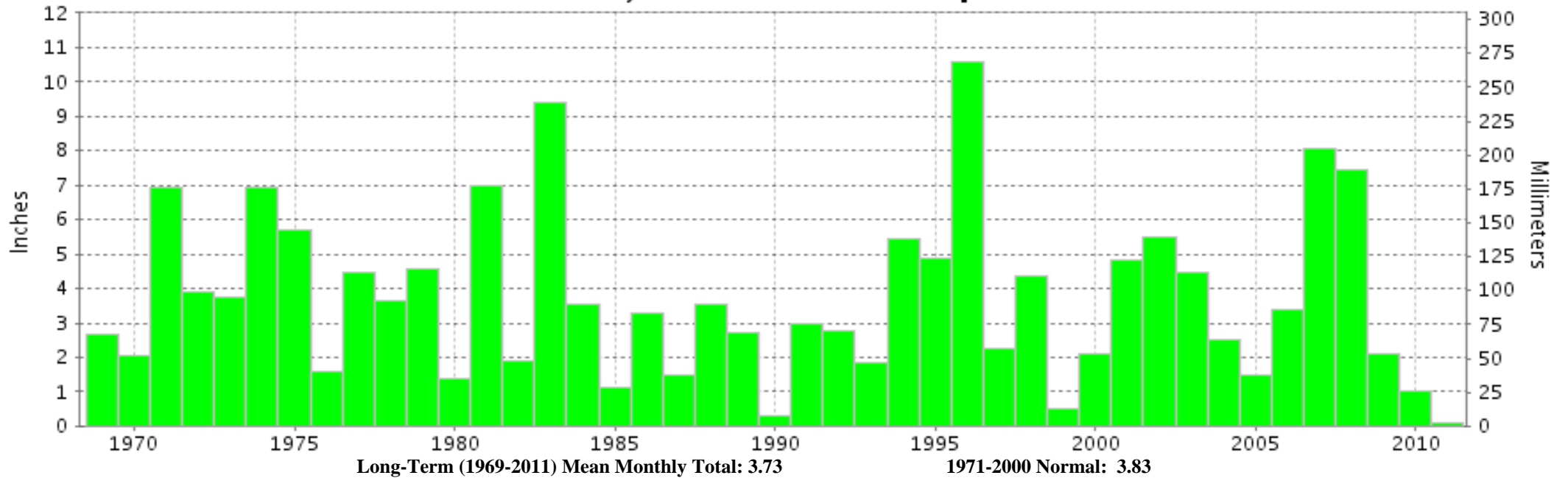
SUMMARY BY HOUR

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			83	74	76	74	29.80	29.90	10.00	4	5	20
02			82	74	76	78	29.79	29.90	10.00	3	5	20
03			81	74	77	80	29.79	29.90	10.00	3	8	19
04			81	75	77	82	29.79	29.90	9.90	2	7	20
05			80	75	76	83	29.80	29.91	9.90	1	11	19
06			79	75	76	86	29.81	29.92	9.58	2	10	19
07			82	76	78	82	29.83	29.93	9.74	3	7	20
08			85	75	78	73	29.84	29.94	9.81	6	7	22
09			88	74	78	63	29.84	29.95	9.97	7	6	22
10			91	72	78	54	29.85	29.95	10.00	6	6	20
11			94	71	78	47	29.84	29.94	10.00	5	7	18
12			96	69	77	41	29.82	29.92	10.00	6	7	17
13			99	68	77	37	29.79	29.90	10.00	7	6	16
14			100	67	77	35	29.77	29.88	10.00	7	6	16
15			100	67	77	35	29.75	29.85	10.00	8	5	14
16			99	68	77	37	29.73	29.84	10.00	10	7	13
17			98	68	77	39	29.73	29.83	10.00	11	7	13
18			96	69	77	42	29.73	29.84	10.00	13	7	13
19			92	70	77	48	29.74	29.85	10.00	11	6	13
20			90	71	76	54	29.76	29.86	9.97	10	4	15
21			88	72	77	60	29.77	29.88	10.00	8	4	17
22			86	73	77	65	29.79	29.89	10.00	7	4	17
23			85	73	76	68	29.79	29.90	10.00	6	4	19
24			84	73	76	71	29.80	29.90	10.00	5	5	19

HOUSTON, TX AUGUST Temperatures



HOUSTON, TX AUGUST Precipitation





AUGUST 2011
HOUSTON, TX

LOCAL CLIMATOLOGICAL DATA NOAA, National Climatic Data Center

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