



AUGUST 2013 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



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			
																		SPEED 20	DIR 21	SPEED 22	DIR 23			
01	98	77	88	4	74	78	0	23		0		0.0	0.00	29.85	29.97	3.5	20	5.6	16	18	14	15	01	
02	95	78	87	3	74	77	0	22		0		0.0	0.00	29.85	29.96	5.4	17	6.9	22	13	17	15	02	
03	98	74	86	2	74	78	0	21		0		0.0	0.00	29.89	29.99	6.9	17	7.8	25	13	20	14	03	
04	97	78	88	4	75	78	0	23		0		0.0	0.00	29.91	30.02	5.6	18	6.1	24	18	20	14	04	
05	99	79	89	5	74	78	0	24		0		0.0	0.00	29.87	29.99	6.6	18	7.7	24	16	18	17	05	
06	99	78	89	5	74	78	0	24		0		0.0	0.00	29.82	29.93	7.3	19	8.2	21	17	16	17	06	
07	100	80	90	6	73	78	0	25		0		0.0	0.00	29.78	29.90	6.8	20	8.1	23	15	18	16	07	
08	99	78	89	5	74	77	0	24		0		0.0	0.00	29.78	29.89	7.2	17	8.3	26	13	21	15	08	
09	99	73	86	2	73	77	0	21	BCFG	0		0.0	0.00	29.81	29.92	3.5	14	4.3	18	12	15	14	09	
10	93	78	86	2	77	78	0	21	TS TSRA RA BR	0		0.0	0.15	29.90	30.00	3.0	12	6.1	31	13	26	14	10	
11	93	77	85	1	75	77	0	20	RA BR	0		0.0	T	29.92	30.03	5.2	13	6.8	22	13	17	12	11	
12	97	76	87	3	74	78	0	22		0		0.0	0.00	29.90	30.02	4.9	18	6.0	23	16	20	15	12	
13	101*	79	90*	6	73	77	0	25		0		0.0	0.00	29.85	29.97	6.0	21	7.5	22	17	20	14	13	
14	100	74	87	3	74	77	0	22	TS TSRA RA BR	0		0.0	0.65	29.83	29.95	0.6	28	6.8	44	01	37	01	14	
15	88	74	81	-3	74	76	0	16	RA	0		0.0	0.01	29.85	29.97	2.2	06	4.1	14	10	10	06	15	
16	96	72	84	1	73	75	0	19	TS TSRA GR RA BR	0		T	1.80	29.85	29.95	1.5	02	3.4	51*	34	43*	34	16	
17	94	71	83	0	66	71	0	18		0		0.0	0.00	29.85	29.97	4.8	02	5.6	21	02	17	02	17	
18	92	69*	81	-2	68	72	0	16		0		0.0	0.00	29.88	29.99	2.5	09	4.1	17	03	13	11	18	
19	93	72	83	0	68	73	0	18		0		0.0	0.00	29.88	29.99	4.6	11	6.0	20	11	15	11	19	
20	90	73	82	-1	72	74	0	17	RA	0		0.0	T	29.88	30.00	2.6	13	4.3	25	15	23	15	20	
21	94	73	84	1	73	76	0	19		0		0.0	0.00	29.91	30.03	3.9	12	5.7	22	16	17	14	21	
22	95	76	86	3	74	77	0	21		0		0.0	0.00	29.89	30.00	4.1	11	5.8	22	15	17	14	22	
23	97	75	86	3	73	77	0	21		0		0.0	0.00	29.83	29.95	2.5	12	4.5	16	13	13	15	23	
24	96	77	87	4	73	77	0	22		0		0.0	0.00	29.87	29.98	6.6	09	8.1	24	11	20	11	24	
25	89	77	83	1	73	76	0	18		0		0.0	0.00	29.94	30.05	11.9	08	12.7	25	08	21	09	25	
26	80	74	77*	-5	74	75	0	12	RA BR	0		0.0	0.72	29.98	30.09	8.2	09	9.5	18	12	15	12	26	
27	92	73	83	1	72	75	0	18		0		0.0	0.00	29.95	30.07	3.2	10	4.8	16	10	12	12	27	
28	95	73	84	2	71	75	0	19		0		0.0	0.00	29.92	30.04	1.7	19	2.3	13	17	10	16	28	
29	98	76	87	5	73	77	0	22		0		0.0	0.00	29.89	30.01	2.1	22	3.9	17	17	12	18	29	
30	98	78	88	6	74	77	0	23		0		0.0	0.00	29.83	29.96	4.6	17	5.3	22	15	20	14	30	
31	95	75	85	3	72	76	0	20		0		0.0	0.00	29.78	29.90	4.1	16	5.3	17	12	14	12	31	
95.2		75.4	85.3	☼	72.9	76.3	0.0	20.5	< MONTHLY AVERAGES TOTALS >				T	3.33	29.87	29.98	3.1	14	6.2	< MONTHLY AVERAGES				
0.7	0.6	0.7	<----- DEPARTURE FROM NORMAL ----->						-0.43	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3														
DEGREE DAYS									GREATEST 24-HR PRECIPITATION : 1.80 DATE : 16				SEA LEVEL PRESSURE				DATE TIME							
MONTHLY				SEASON TO DATE					GREATEST 24-HR SNOWFALL : T DATE : 16				MAXIMUM : 30.13 27 0853											
TOTAL DEPARTURE				TOTAL DEPARTURE					GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.82 07 1813											
HEATING :		0 0		0 0		0 0		NUMBER OF -> DAYS WITH				MAXIMUM TEMP >= 90 : 28		MINIMUM TEMP <= 32 : 0		PRECIPITATION >= 0.01 INCH: 5								
COOLING :		636 27		2393 11						MAXIMUM TEMP <= 32 : 0		MINIMUM TEMP <= 0 : 0		PRECIPITATION >= 0.10 INCH: 4										
										THUNDERSTORMS : 3		HEAVY FOG : 0		SNOWFALL >= 1.0 INCH : 0										

AUGUST 2013
HOUSTON, TX

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

HOUSTON, TX (KIAH)
AUGUST 2013

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											0.13	T	10						0.02	T				10	0.15	0.15		
11													11				T							11	T	T		
12													12											12	0.00	0.00		
13													13											13	0.00	0.00		
14													14			0.10	0.52	0.02	T	0.01	T			14	0.65	0.65		
15												0.01	15	T										15	0.01	0.01		
16													16			1.78	0.02							16	1.80	1.80		
17													17											17	0.00	0.00		
18													18											18	0.00	0.00		
19													19											19	0.00	0.00		
20													20											20	T	T		
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								0.05	0.01	0.01	0.04	0.11	26	0.44	0.06	T				T				26	0.72	0.72		
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)	0.50	0.81	1.18	1.48	1.73	1.74	1.78	1.80	1.80	1.80	1.80	1.80
Ending Date	16	16	16	16	16	16	16	16	16	16	16	16
Ending Time (Hr/Min)	1630	1629	1629	1634	1637	1653	1659	1723	1723	1723	1723	1723

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.

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).

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	
VC In the Vicinity	UP Unkown Precipitation		GL Glaze

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

HOUSTON, TX AUGUST 2013

Sky Condition is based on the sum (not to exceed 8) of the sunrise to sunset cloud cover below and above 12,000 feet.

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.

Snow Depth, Snowfall, and Sunshine data may come from nearby sites that the National Weather Service deems Climatologically representative of this site.

NORMALS ARE FOR THE YEARS 1981-2010

ADDITIONAL NOTES & ERRATA:

Beginning with the January 2013 LCD, monthly mean temperature calculations have changed to the National Data Stewardship Team standard. Monthly maximum and minimum temperature are not rounded until after monthly mean temperature is calculated. This is the most accurate outcome, but may be slightly different from the mean derived from rounded monthly maximum and minimum.

Date	VISIBILITY (MILES)	
	MINIMUM	MAXIMUM
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	9.00	10.00
08	8.00	10.00
09	7.00	10.00
10	7.00	10.00
11	4.00	10.00
12	10.00	10.00
13	10.00	10.00
14	7.00	10.00
15	7.00	10.00
16	5.00	10.00
17	9.00	10.00
18	8.00	10.00
19	7.00	10.00
20	10.00	10.00
21	10.00	10.00
22	10.00	10.00
23	10.00	10.00
24	10.00	10.00
25	10.00	10.00
26	3.00	10.00
27	10.00	10.00
28	10.00	10.00
29	10.00	10.00
30	10.00	10.00
31	10.00	10.00
AVGS	8.74	10.00
MINIMUM VISIBILITY (MILES)		
<= .25	<= 3.0	>= 7.0
0	1	28

OBSERVATIONS AT 3-HOURLY INTERVALS

HOUSTON, TX
AUGUST 2013

KIAH

WBAN # 12960

Table with columns for HOUR (LST), SKY COVER, CEILING, VISIBILITY, WEATHER, TEMPERATURE (DRY BULB, DEW POINT, WET BULB, RELATIVE HUMIDITY), WIND (SPEED, DIRECTION), PRESSURE (STATION, SEA LEVEL), and corresponding data for stations KIAH and WBAN # 12960 from August 13 to August 24.

OBSERVATIONS AT 3-HOURLY INTERVALS

HOUSTON, TX
AUGUST 2013

KIAH

WBAN # 12960

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)			
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL		
SUNRISE: 0554					AUG 25					SUNSET: 1853				
03	SCT	250	10.00		77	73	74	88	10	05	29.91	30.01		
06	OVC	012	10.00		77	73	74	88	8	05	29.93	30.03		
09	OVC	014	10.00		80	74	76	82	11	07	29.96	30.07		
12	BKN	250	10.00		87	74	78	65	16	08	29.96	30.07		
15	OVC	250	10.00		88	73	77	61	17	08	29.93	30.03		
18	BKN	250	10.00		84	73	76	70	14	11	29.92	30.03		
21	BKN	250	10.00		79	74	76	85	13	09	29.97	30.08		
24	SCT	250	10.00		77	74	75	90	11	07	29.98	30.08		
SUNRISE: 0555					AUG 26					SUNSET: 1852				
03	SCT	250	10.00		76	74	75	94	11	07	29.95	30.06		
06	OVC	008	10.00		76	73	74	91	13	05	29.97	30.08		
09	OVC	040	3.00	-RA BR	76	75	75	97	13	06	30.02	30.13		
12	OVC	080	3.00	-RA BR	76	75	75	97	7	14	30.02	30.13		
15	BKN	110	3.00		78	76	77	93	9	11	29.98	30.09		
18	BKN	130	10.00		79	74	76	85	10	12	29.98	30.09		
21	BKN	250	10.00		76	72	73	88	11	11	29.97	30.08		
24	BKN	250	10.00		75	72	73	90	3	02	29.97	30.08		
SUNRISE: 0555					AUG 27					SUNSET: 1851				
03	BKN	250	10.00		74	73	73	97	6	05	29.96	30.07		
06	BKN	250	10.00		73	72	72	96	5	05	29.98	30.09		
09	BKN	250	10.00		81	75	77	82	9	11	30.02	30.13		
12	BKN	250	10.00		89	72	77	57	3	17	29.98	30.09		
15	BKN	250	10.00		92	72	78	52	5	15	29.93	30.04		
18	SCT	250	10.00		87	71	76	59	7	13	29.92	30.03		
21	BKN	250	10.00		80	72	75	76	0	00	29.94	30.05		
24	SCT	250	10.00		76	73	74	91	0	00	29.93	30.03		
SUNRISE: 0556					AUG 28					SUNSET: 1850				
03	FEW	250	10.00		74	73	73	97	0	00	29.92	30.03		
06	SCT	250	10.00		73	72	72	96	0	00	29.95	30.06		
09	SCT	250	10.00		85	73	77	68	0	00	29.98	30.09		
12	BKN	250	10.00		89	71	76	55	0	00	29.97	30.07		
15	SCT	250	10.00		94	67	75	41	0	00	29.90	30.01		
18	SCT	250	10.00		92	67	75	44	3	19	29.87	29.98		
21	BKN	250	10.00		84	68	73	59	5	19	29.89	30.00		
24	SCT	250	10.00		81	71	74	72	5	22	29.91	30.02		
SUNRISE: 0557					AUG 29					SUNSET: 1849				
03	SCT	070	10.00		78	73	75	85	0	00	29.92	30.03		
06	BKN	250	10.00		76	74	75	94	0	00	29.95	30.06		
09	FEW	090	10.00		84	75	78	74	8	28	29.97	30.07		
12	FEW	047	10.00		93	71	78	49	9	29	29.93	30.03		
15	BKN	250	10.00		96	68	77	40	0	00	29.85	29.95		
18	SCT	250	10.00		93	69	76	46	9	15	29.82	29.93		
21	FEW	070	10.00		85	75	78	72	6	18	29.86	29.97		
24	FEW	250	10.00		82	74	76	77	5	18	29.89	29.99		
SUNRISE: 0557					AUG 30					SUNSET: 1848				
03	BKN	085	10.00		80	75	77	85	0	00	29.89	29.99		
06	SCT	085	10.00		78	75	76	90	0	00	29.90	30.01		
09	SCT	250	10.00		85	75	78	72	10	23	29.92	30.02		
12	SCT	065	10.00		91	74	79	57	5	13	29.88	29.98		
15	SCT	075	10.00		95	71	78	46	0	00	29.80	29.91		
18	CLR	NC	10.00		90	72	77	56	13	16	29.78	29.89		
21	CLR	NC	10.00		83	72	75	70	8	17	29.82	29.92		
24	CLR	NC	10.00		80	73	75	79	5	19	29.80	29.91		

HOUR (LST)	SKY COVER	CEILING 100's of FT.	VISIBILITY (MILES)	WEATHER	TEMPERATURE °F			RELATIVE HUMIDITY (PCT)	WIND		PRESSURE (INCHES, HG)			
					DRY BULB	DEW POINT	WET BULB		SPEED (MPH)	DIRECTION Tens of Deg	STATION	SEA LEVEL		
SUNRISE: 0558					AUG 31					SUNSET: 1846				
03	FEW	250	10.00		79	73	75	82	3	19	29.82	29.92		
06	FEW	250	10.00		76	72	73	88	3	19	29.83	29.94		
09	SCT	250	10.00		85	74	77	70	6	22	29.85	29.96		
12	SCT	250	10.00		91	71	77	52	5	09	29.82	29.92		
15	SCT	055	10.00		94	71	78	48	9	13	29.75	29.86		
18	FEW	050	10.00		89	73	78	59	9	13	29.73	29.83		
21	CLR	NC	10.00		83	72	75	70	6	18	29.76	29.87		
24	SCT	250	10.00		80	72	75	76	5	18	29.76	29.87		

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.

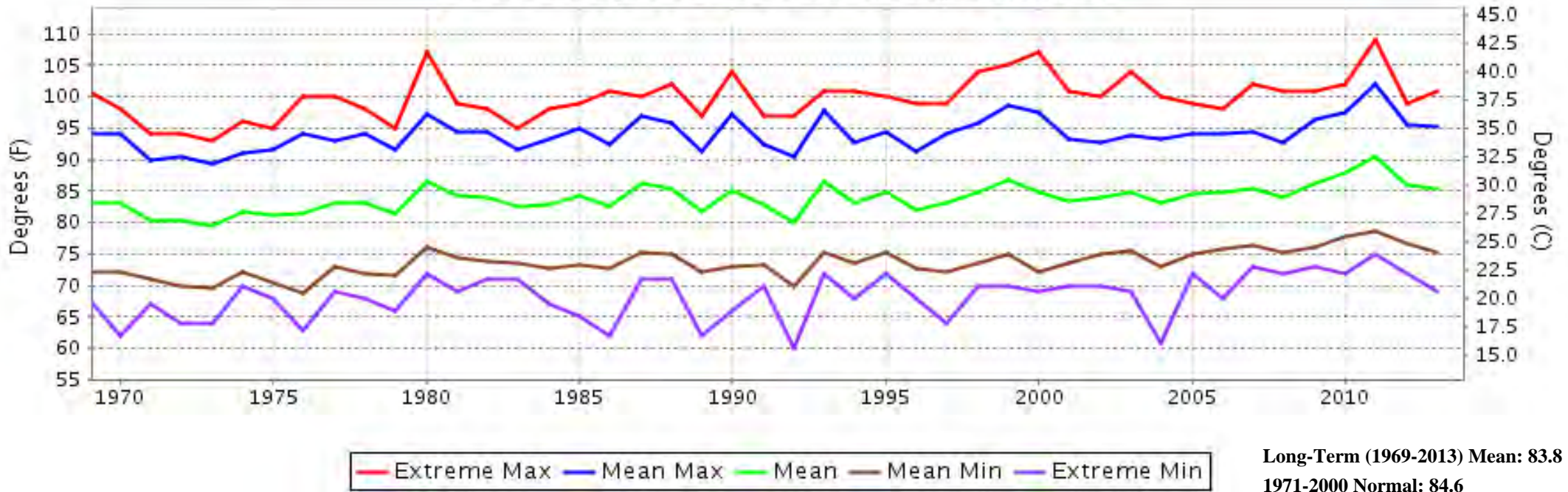
& = Original observation contained additional weather elements.

See page 3 for additional notes.

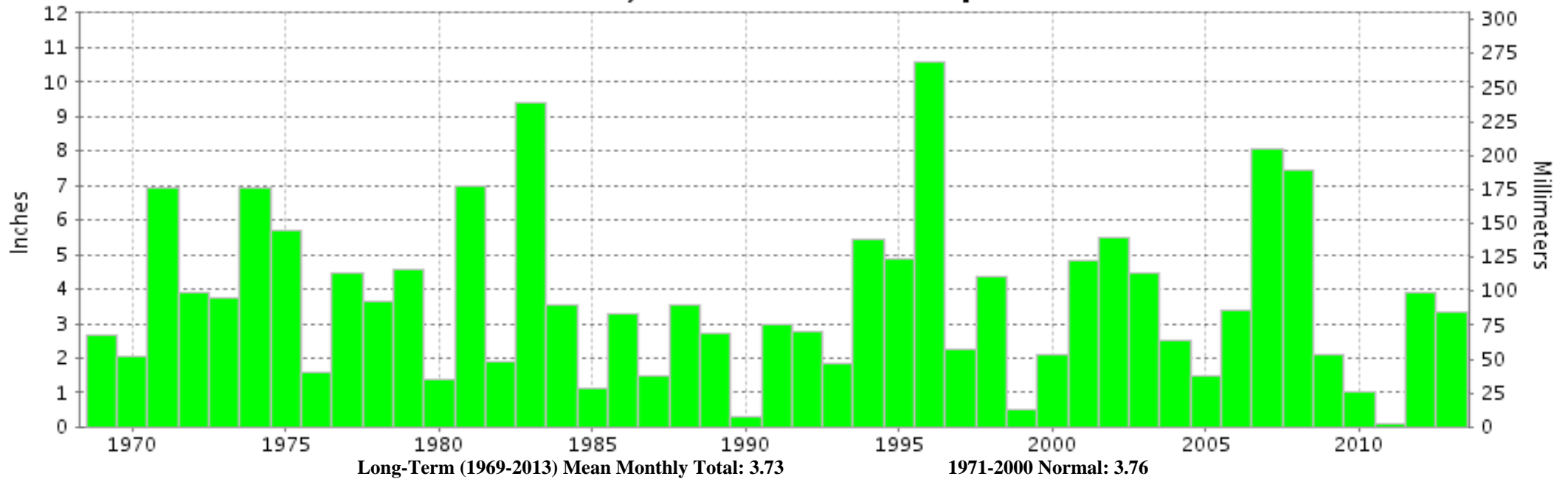
SUMMARY BY HOUR

HOUR (LST)	AVERAGES								RESULTANT WIND (MPH)	
	DRY BULB	DEW POINT	WET BULB	RELATIVE HUMIDITY	PRESSURE (Inches, HG)		VISIBILITY (Miles)	WIND SPEED (MPH)	SPEED	DIRECTION
					STATION	SEA LEVEL				
01	79	74	76	87	29.88	29.99	9.93	4	4	17
02	78	74	76	88	29.87	29.98	9.97	3	3	17
03	77	74	75	91	29.87	29.98	10.00	3	4	17
04	77	74	75	91	29.88	29.98	9.90	4	3	17
05	77	74	75	92	29.88	29.99	9.68	3	3	17
06	76	74	75	92	29.89	30.00	9.61	3	4	17
07	78	75	76	89	29.91	30.01	9.52	4	4	16
08	81	75	77	82	29.92	30.03	9.90	6	2	20
09	84	74	77	73	29.92	30.03	9.74	7	3	20
10	86	73	77	66	29.93	30.03	9.77	7	3	17
11	88	73	77	61	29.92	30.03	9.68	7	3	15
12	90	72	77	56	29.90	30.01	9.77	6	3	15
13	91	71	77	53	29.89	29.99	9.68	7	5	13
14	92	70	77	50	29.86	29.97	9.71	8	6	12
15	93	70	77	48	29.84	29.95	9.77	8	6	12
16	93	70	77	48	29.83	29.93	10.00	9	7	11
17	91	71	77	53	29.83	29.93	9.73	11	6	12
18	89	71	76	57	29.82	29.93	10.00	10	6	11
19	86	72	76	65	29.83	29.94	10.00	10	5	12
20	84	73	76	71	29.85	29.96	10.00	8	4	13
21	82	73	76	75	29.87	29.97	9.90	7	3	14
22	81	74	76	79	29.88	29.98	9.90	6	3	15
23	80	74	76	82	29.88	29.99	9.93	4	3	16
24	79	74	76	85	29.88	29.99	9.94	4	3	16

HOUSTON, TX AUGUST Temperatures



HOUSTON, TX AUGUST Precipitation





**AUGUST 2013
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.

A handwritten signature in black ink, appearing to read "Thomas R. Karl".

DIRECTOR

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