



JANUARY 2009 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				
																		SPEED 20	DIR 21	SPEED 22	DIR 23				
01	65	39	52	0	47	51	13	0	BR	0		0.0	0.00	29.91	30.05	6.8	12	7.5	17	14	15	14	01		
02	77	64	71	19	63	65	0	6	BR	0		0.0	0.00	29.80	29.91	6.2	20	6.9	20	19	15	17	02		
03	83*	68	76*	24	65	68	0	11	RA	0		0.0	T	29.71	29.82	9.0	19	10.1	25	20	17	21	03		
04	77	47	62	10	57	60	3	0	BR HZ	0		0.0	0.00	29.90	30.02	5.0	33	9.1	23	36	18	36	04		
05	47	41	44	-8	41	43	21	0	RA BR	0		0.0	T	29.92	30.04	8.2	34	9.2	20	01	17	36	05		
06	57	43	50	-2	44	47	15	0	RA BR	0		0.0	0.39	29.67	29.79	3.7	26	5.1	23	32	17	32	06		
07	67	35	51	-1	33	45	14	0		0		0.0	0.00	29.80	29.91	5.0	22	5.5	20	19	15	22	07		
08	77	43	60	9	50	54	5	0		0		0.0	0.00	29.85	29.96	3.4	22	4.2	18	23	13	23	08		
09	78	53	66	15	61	63	0	1		0		0.0	0.00	29.84	29.95	8.9	17	9.1	24	16	20	16	09		
10	72	43	58	7	46	52	7	0	RA BR	0		0.0	T	29.97	30.11	10.0	33	12.5	32	33	23	33	10		
11	59	37	48	-3	30	39	17	0		0		0.0	0.00	30.19	30.29	7.4	35	8.0	21	36	18	36	11		
12	62	32	47	-4	34	41	18	0		0		0.0	0.00	30.10	30.21	2.8	14	3.4	16	17	13	15	12		
13	54	30	42	-9	22	38	23	0		0		0.0	0.00	30.23	30.34	9.7	33	10.8	35*	33	24	33	13		
14	63	29*	46	-5	30	39	19	0		0		0.0	0.00	30.19	30.31	1.1	13	1.7	13	09	12	15	14		
15	66	35	51	0	34	43	14	0	MIFG	0		0.0	0.00	30.35	30.46	5.0	04	5.9	18	05	15	05	15		
16	50	32	41*	-10	26	36	24	0		0		0.0	0.00	30.49	30.59	5.6	08	7.2	18	05	17	05	16		
17	69	42	56	4	47	52	9	0		0		0.0	0.00	30.20	30.32	4.7	17	5.6	23	19	20	16	17		
18	73	50	62	10	39	51	3	0		0		0.0	0.00	30.04	30.16	7.1	30	7.3	24	30	18	30	18		
19	69	46	58	6	29	45	7	0		0		0.0	0.00	29.87	29.99	9.6	30	11.2	32	31	24*	34	19		
20	61	38	50	-2	27	41	15	0		0		0.0	0.00	30.07	30.18	8.1	33	8.7	28	34	22	36	20		
21	66	31	49	-3	31	41	16	0		0		0.0	0.00	30.08	30.20	4.5	18	4.9	17	17	15	16	21		
22	76	38	57	5	42	50	8	0		0		0.0	0.00	29.98	30.11	6.9	20	7.2	21	19	17	21	22		
23	78	54	66	14	56	60	0	1		0		0.0	0.00	29.93	30.05	7.6	19	8.1	25	23	18	21	23		
24	65	44	55	3	43	48	10	0	RA	0		0.0	T	30.09	30.19	9.8	34	10.7	26	33	22	33	24		
25	52	43	48	-4	42	45	17	0	BR HZ	0		0.0	0.00	30.05	30.17	3.7	08	4.5	15	10	10	10	25		
26	73	51	62	10	56	58	3	0	RA BR HZ	0		0.0	T	29.96	30.10	10.5	12	11.0	26	13	22	13	26		
27	80	40	60	8	56	59	5	0	RA BR HZ	0		0.0	0.01	29.93	30.03	3.3	20	12.2	28	31	23	33	27		
28	51	35	43	-10	33	39	22	0	RA	0		0.0	0.09	30.06	30.17	8.7	34	9.0	26	34	21	33	28		
29	60	30	45	-8	29	38	20	0	BR	0		0.0	0.00	30.12	30.22	5.0	01	6.0	17	03	14	36	29		
30	65	34	50	-3	27	39	15	0		0		0.0	0.00	30.27	30.38	2.5	31	3.7	16	33	13	34	30		
31	69	36	53	0	28	43	12	0		0		0.0	0.00	30.12	30.26	5.1	22	6.3	17	16	14	25	31		
										< MONTHLY AVERAGES TOTALS >				0.0	0.49	30.02	30.14	1.0	29	7.5	< MONTHLY AVERAGES				
										<-----DEPARTURE FROM NORMAL----->				-3.19				SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3							
DEGREE DAYS										GREATEST 24-HR PRECIPITATION : 0.39 DATE : 06				SEA LEVEL PRESSURE				DATE TIME							
MONTHLY										GREATEST 24-HR SNOWFALL : 0.0 DATE :				MAXIMUM : 30.71				16 1003							
MONTHLY										GREATEST SNOW DEPTH : 0 DATE :				MINIMUM : 29.67				06 1453							
SEASON TO DATE										NUMBER OF ->				MAXIMUM TEMP >= 90 : 0				MINIMUM TEMP <= 32 : 6				PRECIPITATION >= 0.01 INCH: 3			
TOTAL DEPARTURE										DAYS WITH				MAXIMUM TEMP <= 32 : 0				MINIMUM TEMP <= 0 : 0				PRECIPITATION >= 0.10 INCH: 1			
HEATING : 355 -72 831 -190														THUNDERSTORMS : 0				HEAVY FOG : 0				SNOWFALL >= 1.0 INCH : 0			
COOLING : 19 4 19 4																									

JANUARY 2009
HOUSTON, TX

HOURLY PRECIPITATION

(WATER EQUIVALENT IN INCHES)

HOUSTON, TX (KIAH)
JANUARY 2009

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					T		T	T					03												03	T	T	
04													04												04	0.00	0.00	
05						T						T	05	T		T	T		T	T				T	T	05	T	T
06				T	0.02	0.03	0.08	0.07	0.07	0.07	0.02	0.03	06		T									06	0.39	0.39		
07													07											07	0.00	0.00		
08													08											08	0.00	0.00		
09													09											09	0.00	0.00		
10								T	T				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											14	0.00	0.00		
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	T	T		
25													25											25	0.00	0.00		
26													26											26	T	T		
27													27											27	0.01	0.01		
28	0.05	0.04	T										28										T	0.01	0.09	0.09		
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)	0.02	0.03	0.03	0.04	0.06	0.08	0.10	0.13	0.14	0.16	0.20	0.22
Ending Date	28	28	28	28	28	28	06	06	06	06	06	06
Ending Time (Hr/Min)	0114	0120	0120	0120	0120	0120	0830	0839	0850	0931	0839	1008

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 2009

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							3.00	10.00	
02							1.00	10.00	
03							0.25	10.00	
04							2.00	10.00	
05							2.00	10.00	
06							1.50	10.00	
07							10.00	10.00	
08							9.00	10.00	
09							7.00	10.00	
10							2.50	10.00	
11							7.00	10.00	
12							8.00	10.00	
13							10.00	10.00	
14							10.00	10.00	
15							7.00	10.00	
16							10.00	10.00	
17							8.00	10.00	
18							10.00	10.00	
19							10.00	10.00	
20							10.00	10.00	
21							10.00	10.00	
22							10.00	10.00	
23							10.00	10.00	
24							8.00	10.00	
25							6.00	10.00	
26							1.00	10.00	
27							6.00	10.00	
28							7.00	10.00	
29							4.00	10.00	
30							10.00	10.00	
31							10.00	10.00	
MONTHLY AVGS							6.78	10.00	
SUNSHINE (Minutes)									
Total : 0					Possible : 19489				
Percent Possible : 0									
NUMBER OF DAYS WITH :									
SKY CONDITION									
Clear		Partly CLDY		Cloudy		Missing			
MINIMUM VISIBILITY (MILES)									
<= .25		<= 3.0				>= 7.0			
1		8				20			

OBSERVATIONS AT 3-HOURLY INTERVALS

HOUSTON, TX
JANUARY 2009

KIAH

WBAN # 12960

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			
SUNRISE: 0715						JAN 25						SUNSET: 1752					
03	OVC	012				43	38	41	83	0	00	30.09	30.20				
06	OVC	007				43	39	41	86	5	04	30.06	30.19				
09	OVC	021			HZ	44	39	42	83	0	00	30.11	30.23				
12	OVC	016				47	40	44	77	0	00	30.09	30.20				
15	OVC	016				52	42	47	69	3	VR	30.02	30.13				
18	OVC	050				51	44	48	77	8	11	30.02	30.13				
21	OVC	013				51	44	48	77	8	09	30.03	30.14				
24	OVC	012				51	45	48	80	8	07	30.03	30.15				
SUNRISE: 0715						JAN 26						SUNSET: 1753					
03	OVC	010				52	48	50	86	9	09	29.98	30.10				
06	OVC	009				54	50	52	86	9	09	30.00	30.11				
09	OVC	005			BR	55	53	54	93	10	10	30.03	30.15				
12	OVC	007			HZ	65	60	62	84	14	12	30.01	30.11				
15	BKN	130				73	62	66	69	21	13	29.93	30.04				
18	BKN	055				67	62	64	84	16	14	29.95	30.06				
21	BKN	250			BR	63	61	62	93	9	14	29.97	30.07				
24	OVC	046			BR	64	62	63	93	6	15	29.95	30.05				
SUNRISE: 0714						JAN 27						SUNSET: 1754					
03	OVC	045				69	65	66	87	10	17	29.95	30.05				
06	OVC	032				69	65	66	87	9	17	29.93	30.04				
09	BKN	130			BR	68	65	66	90	6	15	29.97	30.08				
12	BKN	250				77	60	66	56	10	18	29.92	30.03				
15	BKN	250				78	62	68	58	14	19	29.82	29.92				
18	OVC	250				58	47	52	67	13	32	29.86	29.97				
21	OVC	023				47	40	44	77	16	33	29.94	30.05				
24	OVC	009			-RA BR	40	37	39	89	20	34	30.01	30.12				
SUNRISE: 0714						JAN 28						SUNSET: 1755					
03	OVC	045				38	36	37	93	11	34	30.03	30.14				
06	OVC	060				38	34	36	86	10	35	30.06	30.18				
09	OVC	080				38	33	36	82	10	34	30.14	30.25				
12	BKN	250				46	33	40	61	11	31	30.11	30.23				
15	BKN	250				50	30	41	46	8	32	30.03	30.14				
18	FEW	250				46	31	40	56	9	35	30.03	30.14				
21	CLR	NC				38	31	35	76	0	00	30.03	30.15				
24	CLR	NC				35	29	33	79	3	35	30.05	30.16				
SUNRISE: 0713						JAN 29						SUNSET: 1756					
03	CLR	NC				32	29	31	89	0	00	30.05	30.16				
06	CLR	NC				31	28	30	89	3	35	30.06	30.19				
09	FEW	250				36	31	34	82	6	02	30.14	30.25				
12	FEW	250				51	32	43	48	9	05	30.10	30.21				
15	FEW	250				59	29	46	32	9	02	30.05	30.16				
18	SCT	250				53	27	42	37	7	02	30.11	30.22				
21	FEW	250				48	27	39	44	7	34	30.18	30.29				
24	CLR	NC				44	27	37	51	7	34	30.22	30.34				
SUNRISE: 0713						JAN 30						SUNSET: 1757					
03	CLR	NC				38	29	34	70	6	35	30.24	30.36				
06	CLR	NC				35	30	33	82	5	34	30.29	30.41				
09	CLR	NC				42	33	38	71	3	35	30.34	30.45				
12	CLR	NC				56	28	44	34	5	20	30.32	30.44				
15	CLR	NC				65	18	46	16	5	29	30.24	30.36				
18	CLR	NC				58	22	43	25	5	28	30.24	30.36				
21	CLR	NC				48	25	39	41	3	24	30.27	30.38				
24	CLR	NC				41	32	37	70	3	22	30.26	30.37				

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			
SUNRISE: 0712						JAN 31						SUNSET: 1758					
03	CLR	NC				43	30	38	60	5	24	30.24	30.35				
06	CLR	NC				37	30	34	76	3	24	30.22	30.34				
09	CLR	NC				50	27	41	41	8	26	30.24	30.35				
12	CLR	NC				64	22	46	20	8	26	30.21	30.32				
15	FEW	250				69	22	49	17	9	23	30.10	30.21				
18	SCT	250				64	26	47	24	3	19	30.05	30.16				
21	FEW	130				58	32	46	37	7	19	30.05	30.16				
24	SCT	130				52	40	46	64	5	17	30.02	30.13				

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.

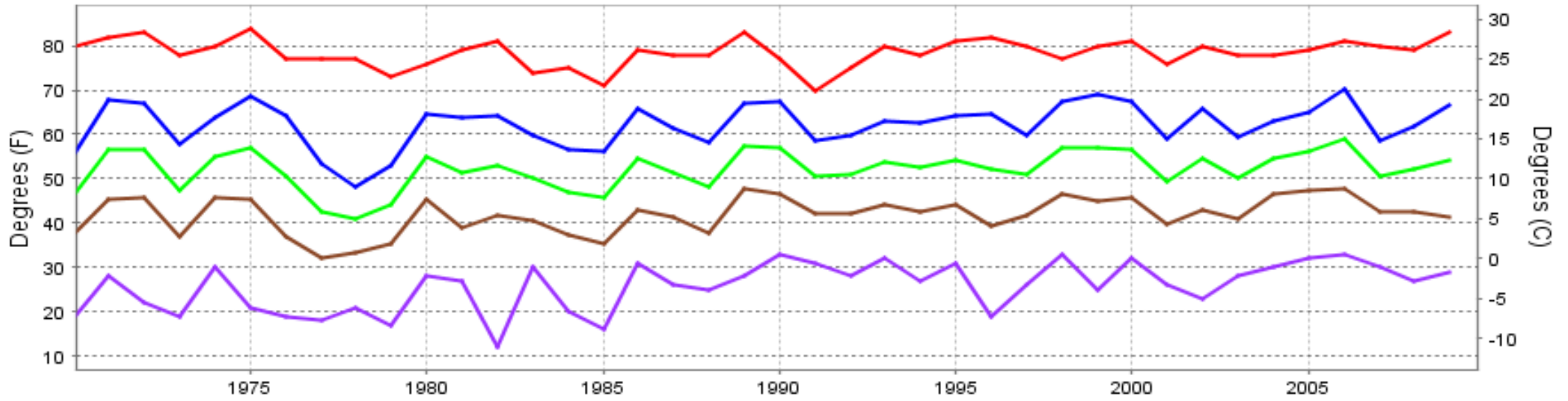
& = Original observation contained additional weather elements.

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			50	42	46	77	30.02	30.13	9.11	5	1	07
02			49	42	46	76	30.03	30.14	9.35	5	1	29
03			49	42	46	78	30.03	30.14	9.29	5	1	29
04			48	42	45	80	30.03	30.13	8.97	5	1	29
05			48	41	45	80	30.02	30.13	8.87	5	1	29
06			47	41	45	81	30.03	30.14	8.77	5	0	30
07			47	41	44	81	30.04	30.15	8.68	5	1	28
08			47	41	45	80	30.06	30.17	8.31	5	1	28
09			51	41	47	72	30.08	30.19	8.52	7	1	28
10			55	41	48	62	30.09	30.20	8.60	9	1	28
11			58	41	50	56	30.08	30.19	8.94	10	3	27
12			61	40	51	51	30.06	30.17	9.21	10	4	27
13			62	40	52	48	30.02	30.13	9.37	10	4	27
14			63	40	52	47	30.00	30.11	9.45	10	3	27
15			64	40	52	46	29.98	30.10	9.68	10	2	28
16			64	39	52	45	29.98	30.09	9.65	11	2	28
17			63	40	52	47	29.98	30.10	9.65	10	1	28
18			59	40	50	53	29.99	30.10	9.65	8	0	34
19			56	41	49	60	30.00	30.11	9.74	8	0	04
20			55	40	49	61	30.01	30.11	9.81	9	0	06
21			54	41	48	65	30.03	30.13	9.58	7	0	30
22			52	42	48	69	30.03	30.14	9.55	7	0	33
23			51	42	47	72	30.04	30.15	9.48	6	1	30
24			51	42	47	74	30.03	30.14	9.29	6	1	29

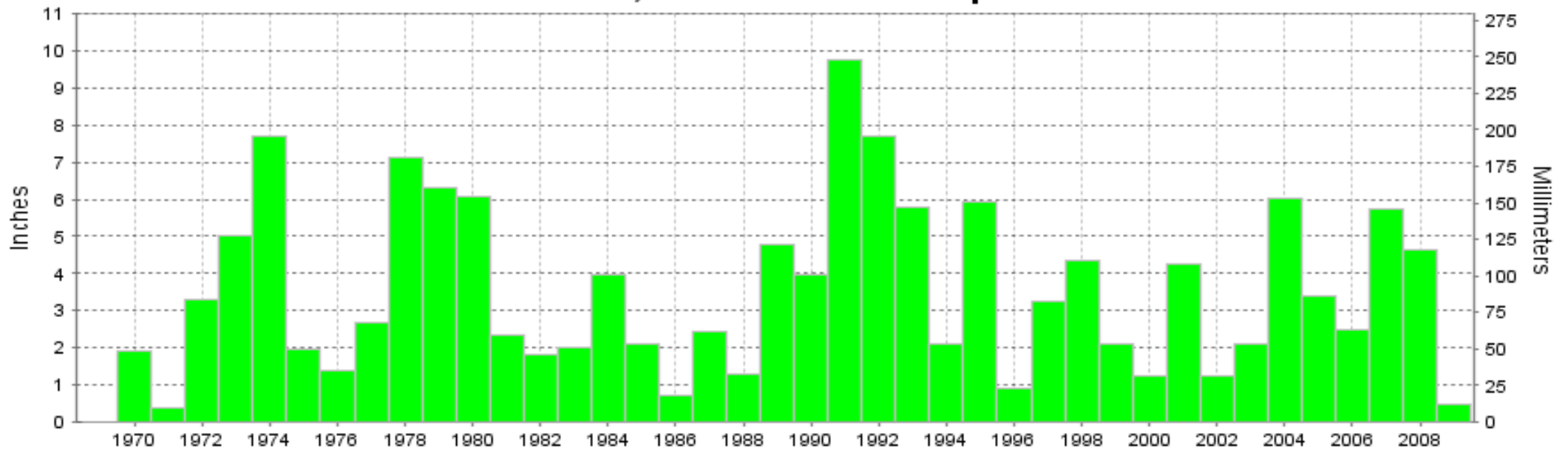
HOUSTON, TX JANUARY Temperatures



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

Long-Term (1970-2009) Mean: 52.1
1971-2000 Normal: 51.8

HOUSTON, TX JANUARY Precipitation



Long-Term (1970-2009) Mean Monthly Total: 3.48

1971-2000 Normal: 3.68



**JANUARY 2009
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.

Thomas R. Karl
DIRECTOR

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