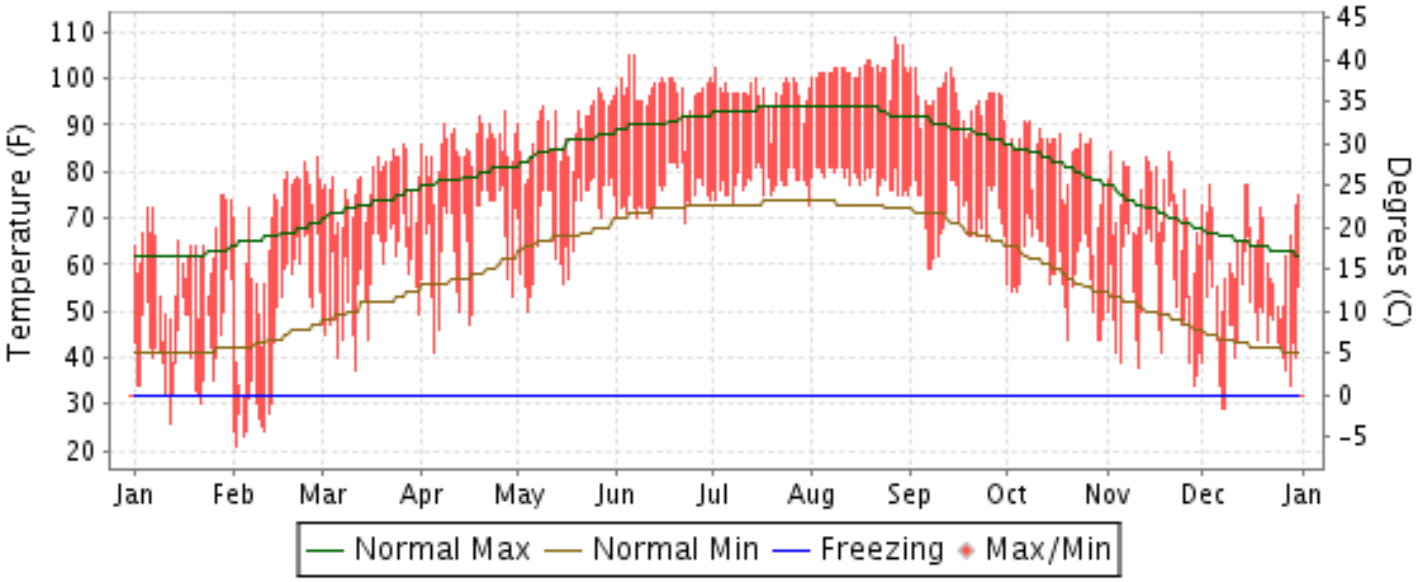
2011
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA

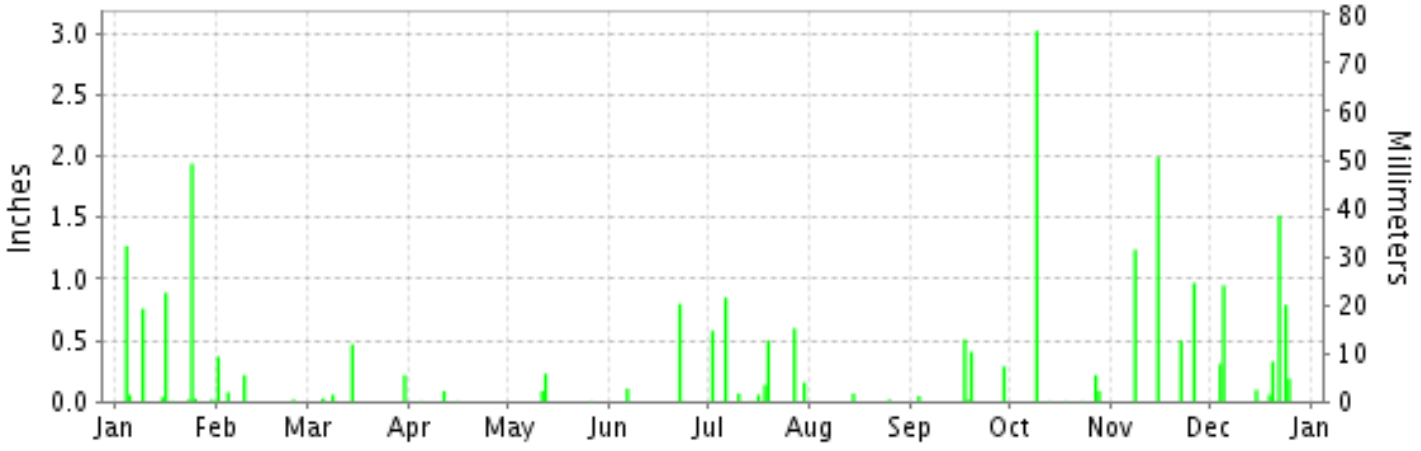
ISSN 0198-5086

HOUSTON,
TEXAS (KIAH)

Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure

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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2011
HOUSTON (KIAH)

LATITUDE: 29° 58'N **LONGITUDE:** -95° 21'W **ELEVATION (FT):** GRND: 95 BARO: 107 **TIME ZONE:** CENTRAL (UTC -6) **WBAN:** 12960

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	61.1	66.5	76.9	85.5	89.1	97.4	96.9	102.0	95.5	83.2	73.2	63.2	82.5
	HIGHEST DAILY MAXIMUM	75	83	86	93	98	105	102	109	102	91	84	77	109
	DATE OF OCCURRENCE	29+	27	26	27	26	06+	02	27	13+	08+	20+	15+	AUG 27
	MEAN DAILY MINIMUM	41.6	43.5	56.2	64.4	68.4	74.9	77.4	78.7	70.2	58.4	53.0	46.0	61.1
	LOWEST DAILY MINIMUM	26	21	37	41	50	69	73	75	59	44	34	29	21
	DATE OF OCCURRENCE	12	02	11	05	04	22	31+	31+	07+	30+	28	08+	FEB 02
	AVERAGE DRY BULB	51.4	55.0	66.6	75.0	78.8	86.2	87.2	90.4	82.9	70.8	63.1	54.6	71.8
	MEAN WET BULB	45.9	49.8	59.5	65.9	68.4	74.7	76.7	77.0	70.1	62.3	56.9	50.2	63.1
	MEAN DEW POINT	39.6	44.1	54.2	59.2	62.6	69.7	72.8	71.7	63.5	56.2	51.2	46.1	57.6
	NUMBER OF DAYS WITH:													
	MAXIMUM >= 90°	0	0	0	5	17	29	30	31	27	3	0	0	142
	MAXIMUM <= 32°	0	1	0	0	0	0	0	0	0	0	0	0	1
	MINIMUM <= 32°	5	12	0	0	0	0	0	0	0	0	0	2	19
	MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	421	332	71	10	1	0	0	0	0	33	156	331	1355
	COOLING DEGREE DAYS	3	58	126	314	432	640	693	793	543	221	103	16	3942
RH	MEAN (PERCENT)	68	70	69	63	63	63	68	60	59	65	69	77	66
	HOUR 00 LST	74	80	78	73	73	75	78	71	71	80	76	83	76
	HOUR 06 LST	80	84	85	82	81	88	88	86	82	86	81	86	84
	HOUR 12 LST	59	57	54	46	46	45	51	41	40	44	55	66	50
	HOUR 18 LST	62	58	55	53	52	48	53	42	43	54	65	71	55
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY <= 1/4 MI)	2	3	1	1	0	0	0	0	0	0	2	2	11
	THUNDERSTORMS	2	0	2	0	1	4	7	2	4	1	3	3	29
CLOUDINESS	SUNRISE-SUNSET: (OKTAS)													
	CEILOMETER (<= 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	MIDNIGHT-MIDNIGHT: (OKTAS)													
	CEILOMETER (<= 12,000 FT.)													
	SATELLITE (> 12,000 FT.)													
	NUMBER OF DAYS WITH:													
	CLEAR													
	PARTLY CLOUDY													
	CLOUDY													
PR	MEAN STATION PRESS. (IN.)	29.98	29.99	29.91	29.78	29.79	29.81	29.82	29.78	29.82	29.92	29.98	30.06	29.89
	MEAN SEA-LEVEL PRESS. (IN.)	30.10	30.11	30.03	29.89	29.91	29.92	29.94	29.89	29.93	30.04	30.09	30.17	30.00
WINDS	RESULTANT SPEED (MPH)	1.8	1.5	3.6	7.7	6.8	6.5	4.2	4.5	0.8	1.9	1.8	2.8	3.1
	RES. DIR. (TENS OF DEGS.)	03	17	15	16	15	16	17	17	08	11	12	07	15
	MEAN SPEED (MPH)	7.3	9.2	8.6	11.3	11.3	8.2	6.0	6.3	7.0	6.5	8.7	8.0	8.2
	PREVAIL.DIR.(TENS OF DEGS.)	34	16	16	16	16	17	17	18	19	17	16	12	16
	MAXIMUM 2-MINUTE WIND													
	SPEED (MPH)	26	38	29	30	43	37	35	39	47	32	30	28	47
	DIR. (TENS OF DEGS.)	35	28	33	32	15	10	05	05	34	33	16	14	34
	DATE OF OCCURRENCE	20	01	05	04	12	06	06	24	29	18	15	19	SEP 29
	MAXIMUM 3-SECOND WIND:													
	SPEED (MPH)	33	53	38	40	52	47	41	46	55	39	39	35	55
	DIR. (TENS OF DEGS.)	36	28	16	15	15	09	05	05	34	33	31	16	34
	DATE OF OCCURRENCE	20	01	22	25	12	06	06	24	29	18	03	03	SEP 29
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	5.05	0.69	0.78	0.11	0.33	0.92	2.98	0.09	1.28	3.36	4.70	4.28	24.57
	GREATEST 24-HOUR (IN.)	1.94	0.37	0.47	0.09	0.32	0.80	0.86	0.07	0.52	3.02	1.99	1.53	3.02
	DATE OF OCCURRENCE	24	01	14	11	11-12	22	05-06	14	17-18	09	15	21-22	OCT 09
	NUMBER OF DAYS WITH:													
	PRECIPITATION 0.01	11	4	4	3	3	3	10	2	5	6	4	11	66
	PRECIPITATION 0.10	4	2	2	0	1	2	6	0	3	2	4	7	33
	PRECIPITATION 1.00	2	0	0	0	0	0	0	0	0	1	2	1	6
SNOWFALL	SNOW,ICE PELLETS,HAIL	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
	TOTAL (IN.)	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
	GREATEST 24-HOUR (IN.)							06						JUL 06
	DATE OF OCCURRENCE	0	0	0	0	0	0	0	0	0	0	0	0	0
	MAXIMUM SNOW DEPTH (IN.)													
	DATE OF OCCURRENCE													
	NUMBER OF DAYS WITH:	0	0	0	0	0	0	0	0	0	0	0	0	0
	SNOWFALL >= 1.0													

NORMALS, MEANS, AND EXTREMES
HOUSTON (KIAH)

LATITUDE: 29° 58'N **LONGITUDE:** -95° 21'W **ELEVATION (FT):** GRND: 95 BARO: 107 **TIME ZONE:** CENTRAL (UTC -6) **WBAN:** 12960

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	62.3	66.5	73.3	79.1	85.5	90.7	93.6	93.5	89.3	82.0	72.0	64.6	79.4
	MEAN DAILY MAXIMUM	42	62.1	66.1	72.9	79.4	85.8	91.2	93.7	94.0	89.3	81.7	72.0	64.7	79.4
	HIGHEST DAILY MAXIMUM	42	84	91	91	95	99	105	104	109	109	96	89	85	109
	YEAR OF OCCURRENCE		1975	1986	1989	1987	1996	2011	1980	2011	2000	1991	2010	1995	AUG 2011
	MEAN OF EXTREME MAXS.	45	78.4	81.0	85.1	88.5	93.1	97.2	98.6	99.7	96.5	91.4	85.0	80.1	89.6
	NORMAL DAILY MINIMUM	30	41.2	44.3	51.3	57.9	66.1	71.8	73.5	73.0	68.4	58.8	49.8	42.8	58.2
	MEAN DAILY MINIMUM	42	41.8	44.7	51.5	58.5	66.2	71.7	73.8	73.5	68.9	59.3	50.2	43.6	58.6
	LOWEST DAILY MINIMUM	42	12	20	22	31	44	52	62	60	48	29	19	7	7
	YEAR OF OCCURRENCE		1982	1997	2002	1987	1978	1970	1990	1992	1975	1993	1976	1989	DEC 1989
	MEAN OF EXTREME MINS.	45	25.5	28.2	33.5	40.8	52.5	63.3	69.0	68.2	55.8	42.7	32.9	27.2	45.0
	NORMAL DRY BULB	30	51.8	55.4	62.3	68.5	75.8	81.3	83.6	83.3	78.9	70.4	60.9	53.7	68.8
	MEAN DRY BULB	45	52.2	55.3	62.1	69.1	76.0	81.6	83.7	83.7	79.1	70.6	61.2	54.2	69.1
	MEAN WET BULB	28	46.8	50.0	55.6	61.8	68.9	73.7	75.3	75.0	70.8	63.3	55.5	48.8	62.1
	MEAN DEW POINT	28	44.2	47.4	53.0	59.4	67.3	72.3	73.6	73.2	68.9	61.4	53.3	46.4	60.0
	NORMAL NO. DAYS WITH:														
	MAXIMUM >= 90	30	0.0	0.1	0.1	0.9	6.4	20.1	27.3	25.7	15.9	3.1	0.0	0.0	99.6
	MAXIMUM <= 32	30	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.5
	MINIMUM <= 32	30	6.3	3.8	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.1	1.3	5.1	18.0
	MINIMUM <= 0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
H/C	NORMAL HEATING DEG. DAYS	30	427	298	156	48	2	0	0	0	1	37	189	367	1525
	NORMAL COOLING DEG. DAYS	30	15	21	63	147	328	485	573	563	412	196	65	25	2893
RH	NORMAL (PERCENT)	30	75	74	73	74	76	76	74	75	76	75	77	76	75
	HOUR 00 LST	30	82	83	83	85	87	88	86	87	88	88	86	84	86
	HOUR 06 LST	30	86	87	88	89	92	93	93	94	93	91	89	87	90
	HOUR 12 LST	30	64	61	59	58	60	60	57	57	59	57	61	62	60
	HOUR 18 LST	30	67	62	60	60	64	64	62	62	66	68	72	71	65
S	PERCENT POSSIBLE SUNSHINE	27	45	50	54	58	62	68	70	68	66	64	52	51	59
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	42	4.1	3.2	2.8	2.0	1.5	0.5	0.3	0.3	1.0	2.4	3.3	3.7	25.1
	THUNDERSTORMS	42	2.0	2.4	3.5	3.7	6.4	8.5	10.5	10.2	6.9	4.0	3.0	2.2	63.3
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	27	5.5	5.3	5.4	5.3	5.2	4.6	4.4	4.4	4.2	4.0	4.6	5.3	4.9
	MIDNIGHT-MIDNIGHT (OKTAS)	26	5.3	5.0	5.1	5.0	4.9	3.9	3.8	3.7	3.6	3.5	4.3	5.0	4.4
	MEAN NO. DAYS WITH:														
	CLEAR	27	7.2	7.0	7.0	7.2	5.6	7.3	6.9	6.1	8.6	11.2	9.0	7.2	90.3
	PARTLY CLOUDY	27	5.4	5.6	6.4	7.1	11.0	13.3	15.9	16.9	11.5	8.9	7.0	5.5	114.5
	CLOUDY	27	18.4	15.6	17.6	15.7	14.3	9.3	8.2	8.0	10.0	10.9	14.0	18.3	160.3
PR	MEAN STATION PRESSURE(IN)	28	30.03	29.98	29.91	29.85	29.82	29.82	29.88	29.86	29.85	29.92	29.98	30.02	29.91
	MEAN SEA-LEVEL PRES. (IN)	28	30.15	30.10	30.02	29.97	29.94	29.94	29.99	29.97	29.97	30.03	30.09	30.14	30.03
WINDS	MEAN SPEED (MPH)	28	8.0	8.4	8.7	8.9	8.2	7.1	6.2	5.9	6.4	7.0	7.5	7.6	7.5
	PREVAIL.DIR(TENS OF DEGS)	39	36	17	17	17	17	17	17	17	13	14	14	36	17
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	15	43	40	35	39	47	45	44	48	47	36	36	46	48
	DIR. (TENS OF DEGS)		34	10	14	14	31	13	05	31	34	35	29	14	31
	YEAR OF OCCURRENCE		2006	2000	2004	2007	2006	2004	2010	2009	2011	2007	2006	2002	AUG 2009
	MAXIMUM 3-SECOND														
	SPEED (MPH)	15	49	53	43	48	58	66	55	70	61	47	47	52	70
	DIR. (TENS OF DEGS)		33	28	34	31	31	15	05	32	34	13	29	13	32
	YEAR OF OCCURRENCE		2006	2011	2008	2009	2006	2000	2010	2009	2005	1998	2006	2002	AUG 2009
PRECIPITATION	NORMAL (IN)	30	3.68	2.98	3.36	3.60	5.15	5.35	3.18	3.83	4.33	4.50	4.19	3.69	47.84
	MAXIMUM MONTHLY (IN)	42	9.78	6.10	8.52	10.92	14.39	19.21	12.92	10.58	12.07	16.05	11.73	9.34	19.21
	YEAR OF OCCURRENCE		1991	2005	1972	1976	1970	2001	2010	1996	2008	1984	2004	1991	JUN 2001
	MINIMUM MONTHLY (IN)	42	0.36	0.38	0.12	0.11	0.04	.08	0.47	0.09	0.80	0.02	0.41	0.64	0.02
	YEAR OF OCCURRENCE		1971	1976	1996	2011	1998	2005	1993	2011	1975	2010	1988	1973	OCT 2010
	MAXIMUM IN 24 HOURS (IN)	42	2.73	2.22	7.47	8.16	10.36	11.02	5.45	6.83	7.98	9.31	6.33	5.64	11.02
	YEAR OF OCCURRENCE		1995	1985	1972	1976	1989	2001	2010	1981	1976	1984	1998	2005	JUN 2001
	NORMAL NO. DAYS WITH:														
	PRECIPITATION >= 0.01	30	10.5	8.5	9.1	7.0	8.2	9.7	8.9	8.9	8.9	7.5	8.6	9.4	105.2
	PRECIPITATION >= 1.00	30	1.1	0.9	0.8	1.2	1.7	1.7	0.9	1.1	1.2	1.5	1.2	1.2	14.5
SNOWFALL	NORMAL (IN)	30	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.*	0.1	0.4
	MAXIMUM MONTHLY (IN)	42	2.0	2.8	T	T	T	T	T	0.0	0.0	0.0	T	1.7	2.8
	YEAR OF OCCURRENCE		1973	1973	2009	1993	1993	1996	2011				1979	1989	FEB 1973
	MAXIMUM IN 24 HOURS (IN)	42	2.0	1.4	T	T	T	T	T	0.0	0.0	0.0	T	1.7	2.0
	YEAR OF OCCURRENCE'		1973	1980	2009	1993	1993	1996	2011				1979	1989	JAN 1973
	MAXIMUM SNOW DEPTH (IN)	41	1	1	0	0	0	0	0	0	0	0	0	0	1
	YEAR OF OCCURRENCE		1973	1973											FEB 1973
	NORMAL NO. DAYS WITH:														
	SNOWFALL >= 1.0	30	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2

PRECIPITATION (inches) 2011 HOUSTON (KIAH)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	1.82	1.59	1.55	2.28	6.87	1.10	4.32	1.90	0.98	6.64	8.91	4.91	42.87
1983	2.00	3.97	3.85	0.43	7.29	5.37	5.23	9.42	7.23	1.56	3.17	3.69	53.21
1984	3.99	4.37	2.41	0.56	3.13	1.99	3.43	3.52	3.87	16.05	2.28	2.59	48.19
1985	2.10	5.38	4.52	4.31	1.57	5.29	4.93	1.14	4.67	6.54	4.84	3.85	49.14
1986	0.71	2.74	1.44	2.63	4.29	6.34	0.61	3.27	3.70	6.83	6.66	5.71	44.93
1987	2.42	4.26	0.88	0.47	5.39	9.31	4.79	1.48	3.46	0.17	3.41	4.56	40.60
1988	1.27	1.29	4.88	1.26	1.32	2.00	3.23	3.52	1.20	1.29	0.41	1.26	22.93
1989	4.80	0.90	3.96	1.48	13.56	16.28	1.92	2.74	2.69	1.76	1.84	0.80	52.73
1990	3.96	4.54	5.11	6.21	2.23	2.98	4.85	0.31	1.57	3.79	3.01	1.81	40.37
1991	9.78	5.79	1.77	8.06	4.02	7.69	1.31	2.97	2.76	2.57	5.03	9.34	61.09
1992	7.70	5.99	6.28	3.74	7.05	3.38	3.85	2.78	1.08	1.03	5.99	3.46	52.33
1993	5.79	2.67	6.41	7.88	8.50	12.08	0.47	1.82	1.10	5.32	3.27	2.68	57.99
1994	2.08	2.79	2.39	2.11	5.02	3.40	1.60	5.45	1.12	10.62	1.67	4.90	43.15
1995	5.95	2.55	4.11	2.59	3.83	4.11	2.68	4.90	2.52	2.77	3.63	4.99	44.63
1996	0.88	1.29	0.12	2.05	0.56	8.37	1.11	10.58	6.96	2.60	4.55	3.74	42.81
1997	3.26	5.35	7.96	7.17	6.69	4.46	2.30	2.26	4.86	7.11	3.38	5.42	60.22
1998	4.35	5.85	2.32	1.21	0.04	2.87	1.65	4.38	10.16	7.79	10.21	4.01	54.84
1999	2.12	0.80	3.44	1.06	4.10	5.26	5.11	0.50	1.36	0.56	1.53	2.20	28.04
2000	1.25	2.32	1.35	5.52	12.35	3.29	0.64	2.11	4.34	3.27	8.50	2.69	47.63
2001	4.25	0.82	7.97	2.00	3.53	19.21	2.05	4.83	8.82	8.95	2.58	6.18	71.19
2002	1.24	0.89	2.36	3.79	1.79	4.54	7.11	5.47	8.02	14.65	4.20	5.65	59.71
2003	2.09	4.08	2.04	1.46	0.06	3.62	5.35	4.47	6.79	4.99	7.80	2.99	45.74
2004	6.01	5.58	2.23	5.56	7.33	18.33	0.79	2.49	1.01	2.05	11.73	1.95	65.06
2005	3.41	6.10	4.05	1.28	6.06	0.08	5.30	1.52	2.63	1.69	2.72	6.37	41.21
2006	2.50	1.46	2.36	2.93	8.78	7.84	7.85	3.40	3.22	14.53	0.92	2.07	57.86
2007	5.72	1.15	6.40	3.86	9.88	3.07	9.94	8.05	3.05	6.85	5.49	2.06	65.52
2008	4.62	4.00	2.41	1.46	4.57	2.06	1.09	7.45	12.07	8.67	2.92	1.68	53.00
2009	0.49	1.52	4.08	10.38	0.38	0.27	2.84	2.11	4.68	13.16	1.66	5.44	47.01
2010	2.53	3.55	1.88	2.81	3.68	3.75	12.92	1.02	4.81	0.02	2.71	3.04	42.72
2011	5.05	0.69	0.78	0.11	0.33	0.92	2.98	0.09	1.28	3.36	4.70	4.28	24.57
POR= 45 YRS	3.63	2.92	3.34	3.48	5.24	5.27	3.87	3.67	4.61	5.19	4.00	3.63	48.85

WBAN : 12960

AVERAGE TEMPERATURE (°F) 2011 HOUSTON (KIAH)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	52.9	52.1	64.9	67.8	75.3	83.0	85.4	84.1	79.3	69.5	60.9	55.4	69.2
1983	50.1	52.5	58.3	64.0	73.4	79.0	82.2	82.6	76.6	70.1	63.1	45.7	66.5
1984	47.0	54.0	61.9	67.8	74.9	78.6	81.8	82.9	77.4	74.2	60.0	63.4	68.7
1985	45.7	49.6	64.7	70.0	75.6	81.0	81.6	84.2	79.8	72.5	67.0	51.0	68.6
1986	54.4	59.9	63.3	71.7	75.8	82.0	85.9	82.6	81.8	68.9	62.0	51.7	70.0
1987	51.4	56.1	58.9	67.2	77.1	81.3	83.5	86.2	78.9	68.7	60.5	55.6	68.8
1988	48.1	54.1	61.3	67.6	73.6	80.5	84.4	85.3	80.8	72.0	65.7	55.4	69.1
1989	57.5	52.7	61.3	69.4	77.8	79.9	82.4	81.7	77.0	70.2	62.9	44.4	68.1
1990	57.0	59.1	62.9	69.4	78.1	84.8	82.1	85.1	80.1	68.7	63.4	53.6	70.4
1991	50.4	57.4	63.5	72.2	78.0	82.0	84.0	83.0	77.4	72.3	56.7	56.2	69.4
1992	51.0	58.5	64.0	68.7	73.7	81.7	83.6	80.1	79.3	71.4	56.8	56.7	68.8
1993	53.6	56.7	61.1	65.9	73.4	81.6	85.8	86.5	80.2	69.5	56.9	54.6	68.8
1994	52.6	55.2	62.7	69.6	76.0	83.5	85.5	83.1	78.3	71.9	65.7	57.2	70.1
1995	54.3	58.7	62.9	68.6	77.9	80.6	84.8	84.9	81.6	70.4	61.4	57.1	70.3
1996	52.0	58.7	58.1	69.4	81.4	80.7	83.8	82.0	77.5	70.6	62.0	57.4	69.5
1997	50.8	55.3	65.3	64.2	73.6	79.2	83.1	83.2	79.1	68.9	55.7	50.1	67.4
1998	57.1	55.1	60.1	65.9	78.7	85.5	86.6	84.7	82.2	72.6	64.3	55.1	70.7
1999	57.1	61.5	63.7	73.0	76.6	81.9	83.1	86.8	78.0	69.0	62.2	53.7	70.6
2000	56.5	61.7	66.4	67.9	78.1	81.4	85.2	84.8	79.4	70.9	57.6	47.6	69.8
2001	49.3	59.3	56.4	71.7	75.9	80.5	83.6	83.5	77.0	66.9	63.4	56.0	68.6
2002	54.6	50.7	61.3	73.5	77.0	81.7	84.5	83.9	79.7	71.6	58.8	54.6	69.3
2003	50.1	53.8	61.4	70.5	80.8	82.7	83.4	84.7	77.7	71.7	65.0	53.8	69.6
2004	54.7	53.5	67.3	69.5	77.0	81.1	84.6	83.2	81.2	77.5	62.0	53.8	70.5
2005	56.3	58.8	61.7	67.7	75.3	83.3	84.5	84.6	83.4	71.1	64.5	53.1	70.4
2006	58.9	55.5	65.6	73.7	76.7	81.4	83.3	84.9	79.4	72.4	62.7	55.7	70.9
2007	50.5	55.2	65.9	66.7	76.4	82.5	82.2	85.4	81.9	73.0	63.7	57.7	70.1
2008	52.2	60.1	63.6	69.4	77.8	84.6	84.9	84.0	78.2	69.6	62.5	55.7	70.2
2009	54.0	61.2	62.9	68.6	78.2	85.7	87.4	86.3	79.0	71.0	62.5	50.2	70.6
2010	49.1	48.5	59.1	69.5	79.5	84.8	84.0	87.8	81.4	73.0	62.2	55.5	69.5
2011	51.4	55.0	66.6	75.0	78.8	86.2	87.2	90.4	82.9	70.8	63.1	54.6	71.8
POR= 45 YRS	52.2	55.3	62.1	69.1	76.0	81.6	83.7	83.7	79.1	70.6	61.2	54.2	69.1

HEATING DEGREE DAYS (base 65°F) 2011 HOUSTON (KIAH)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	0	0	53	175	328	457	346	219	96	0	0	1674
1983-84	0	0	6	27	138	606	549	325	150	45	2	0	1848
1984-85	0	0	6	12	204	144	591	432	91	22	0	0	1502
1985-86	0	0	5	17	76	434	326	209	99	11	0	0	1177
1986-87	0	0	0	28	175	411	421	245	196	82	0	0	1558
1987-88	0	0	0	16	185	301	525	331	171	35	0	0	1564
1988-89	0	0	0	5	120	309	260	379	210	56	0	0	1339
1989-90	0	0	0	47	160	637	264	177	122	34	0	0	1441
1990-91	0	0	0	61	129	395	448	222	115	8	0	0	1378
1991-92	0	0	0	15	289	303	428	197	95	37	4	0	1368
1992-93	0	0	0	1	270	268	351	235	157	62	0	0	1344
1993-94	0	0	0	76	269	343	391	291	136	40	1	0	1547
1994-95	0	0	0	21	75	268	347	192	155	28	0	0	1086
1995-96	0	0	4	8	145	303	408	267	259	54	0	0	1448
1996-97	0	0	1	29	159	280	458	287	77	70	0	0	1361
1997-98	0	0	0	58	282	454	254	276	212	57	0	0	1593
1998-99	0	0	0	8	92	349	276	153	106	25	0	0	1009
1999-00	0	0	0	51	114	355	298	152	72	50	0	0	1092
2000-01	0	0	5	51	267	532	480	207	262	19	0	0	1823
2001-02	0	0	0	57	111	311	343	395	181	11	1	0	1410
2002-03	0	0	0	13	201	332	461	314	135	24	0	0	1480
2003-04	0	0	0	12	105	342	328	328	29	33	0	0	1177
2004-05	0	0	0	3	121	350	303	210	144	19	3	0	1153
2005-06	0	0	0	36	138	375	203	278	90	1	0	0	1121
2006-07	0	0	0	14	132	316	451	288	75	65	0	0	1341
2007-08	0	0	0	23	137	267	407	170	129	28	0	0	1161
2008-09	0	0	0	35	122	319	355	145	152	31	0	0	1159
2009-10	0	0	0	32	108	459	497	455	198	19	0	0	1768
2010-11	0	0	0	7	156	316	421	332	71	10	1	0	1314
2011-	0	0	0	33	156	331							

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COOLING DEGREE DAYS (base 65°F) 2011 HOUSTON (KIAH)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	39	11	147	170	329	547	641	599	437	199	60	40	3219
1983	0	0	18	76	268	427	541	554	362	196	87	18	2547
1984	0	13	64	135	315	415	527	562	384	302	62	100	2879
1985	0	6	87	180	335	487	521	602	456	257	143	9	3083
1986	4	71	52	220	341	518	654	553	510	157	92	4	3176
1987	4	4	14	154	383	497	580	661	423	137	54	15	2926
1988	7	20	65	121	274	472	609	637	478	229	144	20	3076
1989	33	44	105	194	405	454	547	526	363	218	105	5	2999
1990	20	19	65	174	413	603	536	630	456	181	87	47	3231
1991	0	14	76	231	408	514	593	565	376	248	47	37	3109
1992	0	17	74	155	281	508	584	476	437	210	32	20	2794
1993	4	10	42	92	267	506	652	674	463	221	31	27	2989
1994	15	25	74	186	347	561	644	569	406	243	102	33	3205
1995	24	22	98	142	406	476	622	622	508	183	42	65	3210
1996	15	89	53	192	513	475	587	532	384	205	78	51	3174
1997	23	21	94	52	274	432	567	570	426	187	9	0	2655
1998	16	6	64	90	429	621	678	616	524	250	75	50	3419
1999	37	60	73	270	365	515	568	685	395	182	35	11	3196
2000	41	64	126	143	413	495	632	622	443	242	51	0	3272
2001	2	51	3	230	344	474	585	581	370	123	70	40	2873
2002	27	2	72	272	380	507	611	590	449	223	24	17	3174
2003	6	6	31	196	495	538	575	617	387	228	111	3	3193
2004	17	1	108	176	379	491	616	570	495	398	37	11	3299
2005	41	42	51	109	329	558	611	615	558	233	131	14	3292
2006	23	17	116	265	370	499	574	625	441	252	70	34	3286
2007	9	19	108	125	360	530	539	640	513	280	106	48	3277
2008	17	32	93	166	403	594	625	594	403	184	54	38	3203
2009	19	44	92	150	418	627	699	665	430	227	40	8	3419
2010	9	0	21	162	455	599	598	710	497	259	81	26	3417
2011	3	58	126	314	432	640	693	793	543	221	103	16	3942

SNOWFALL (inches) 2011 HOUSTON (KIAH)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1984-85	0.0	0.0	0.0	0.0	0.0	0.0	1.4	0.3	0.0	0.0	0.0	0.0	1.7
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1988-89	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1989-90	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.0	0.0	0.0	0.0	T	1.7
1990-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	T	0.0	T
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	T
1993-94	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T	T
1996-97	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
1997-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
1998-99	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
1999-00	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	T
2000-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2002-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2003-04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2004-05	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	0.0	0.0	T
2005-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T
2006-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2008-09	0.0	0.0	0.0	0.0	0.0	1.4	0.0	0.0	T	0.0	0.0	0.0	1.4
2009-10	0.0	0.0	0.0	0.0	0.0	1.0	0.0	T	0.0	0.0	0.0	0.0	1.0
2010-11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2011-	T	0.0	0.0	0.0	0.0	0.0							
POR= 43 YRS	T	0.0	0.0	0.0	0.0	0.1	0.1	0.1	T	T	T	T	0.3

WBAN : 12960

REFERENCE NOTES :

PAGE 1:
THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).

PAGE 2 AND 3:
H/C INDICATES HEATING AND COOLING DEGREE DAYS.
RH INDICATES RELATIVE HUMIDITY
W/O INDICATES WEATHER AND OBSTRUCTIONS
S INDICATES SUNSHINE.
PR INDICATES PRESSURE.
CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).

GENERAL:
T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE.
+ INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.
NORMALS ARE 30-YEAR AVERAGES (1971 - 2000).
ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM.
PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH.
POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING.
WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED.
0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05.
CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET.
THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD.
CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.
WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED.

GENERAL CONTINUED:
WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH.
RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION.
AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2.
SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL.
A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F.
DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR.
DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY.
WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY.
ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER.
STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK MEDADATA SYSTEM", URL IS: https://mi3.ncdc.noaa.gov/mi3qry/login.cfm
SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.

NOTE:
The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.

2011
HOUSTON
TEXAS (KIAH)

Houston, the largest city in Texas, is located in the flat Coastal Plains, about 50 miles from the Gulf of Mexico and about 25 miles from Galveston Bay. The climate is predominantly marine. The terrain includes numerous small streams and bayous which, together with the nearness to Galveston Bay, favor the development of both ground and advective fogs. Prevailing winds are from the southeast and south, except in January, when frequent passages of high pressure areas bring invasions of polar air and prevailing northerly winds.

Temperatures are moderated by the influence of winds from the Gulf, which result in mild winters. Another effect of the nearness of the Gulf is abundant rainfall, except for rare extended dry periods. Polar air penetrates the area frequently enough to provide variability in the weather.

Records of sky cover for daylight hours indicate about one-fourth of the days per year as clear, with a high number of clear days in October and November. Cloudy days are relatively frequent from December to May and partly cloudy days are the more frequent for June through September. Sunshine averages nearly 60 percent of the possible amount for the year ranging from 42 percent in January to 67 percent in June.

Heavy fog occurs on an average of l6 days a year and light fog occurs about 62 days a year in the city. The frequency of heavy fog is considerably higher at William P. Hobby Airport and at Intercontinental Airport.

Destructive windstorms are fairly infrequent, but both thundersqualls and tropical storms occasionally pass through the area.

Station History

HOUSTON, TX

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
HOUSTON INTERCONTINENTAL AP	2002-04-18	2011-04-15	29° 58'	-95° 21'	95	200 YD S	ASOS,COOP
HOUSTON INTERCONTINENTAL AP	1996-06-01	2002-04-18	29° 59'	-95° 21'	95		ASOS,COOP
HOUSTON INTERCONTINENTAL AP	2011-04-15	Present	29° 58'	-95° 21'	95		ASOS,COOP
HOUSTON INTERCONTINENTAL AP	1969-06-01	1973-01-01	29° 58'	-95° 22'	102		AIRWAYS,COOP
HOUSTON INTERCONTINENTAL AP	1973-01-01	1981-12-31	29° 58'	-95° 21'	96		COOP,WXSVC
HOUSTON INTERCONTINENTAL AP	1981-12-31	1996-06-01	29° 58'	-95° 21'	96		COOP

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1969-06-01	1982-01-01	DAILY	2400			
TEMP	1990-08-07	1995-07-01	DAILY	2400	HYGR		
PRECIP	1995-07-01	1996-06-01	HOURLY	2400	UNIV	RCRD	
PRECIP	1996-06-01	Present	DAILY	2400	TB	RCRD	
PRECIP	1995-07-01	1996-06-01	DAILY	2400	UNIV	RCRD	
PRECIP	1982-01-01	1990-08-07	HOURLY	2400			
TEMP	1982-01-01	1990-08-07	DAILY	2400			
PRECIP	1990-08-07	1995-07-01	DAILY	2400	UNIV	RCRD	
PRECIP	1996-06-01	Present	HOURLY	2400	TB	RCRD	
PRECIP	1969-06-01	1982-01-01	DAILY	2400			
PRECIP	1982-01-01	1990-08-07	DAILY	2400			
PRECIP	1990-08-07	1995-07-01	HOURLY	2400			
TEMP	1996-06-01	Present	DAILY	2400	HYGR		
TEMP	1995-07-01	1996-06-01	DAILY	2400	HYGR		

* For explanation of codes and abbrevitions see Station Metadata link below.

Other Station Information can be found at:
ASOS Implementation by NWS: http://www.nws.noaa.gov/ops2/Surface/asosimplementation.htm
Station Metadata website: http://www.ncdc.noaa.gov/homr

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2
Fax Number : (828) 271-4876
TDD : (828) 271-4010
Email : ncdc.info@noaa.gov

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