

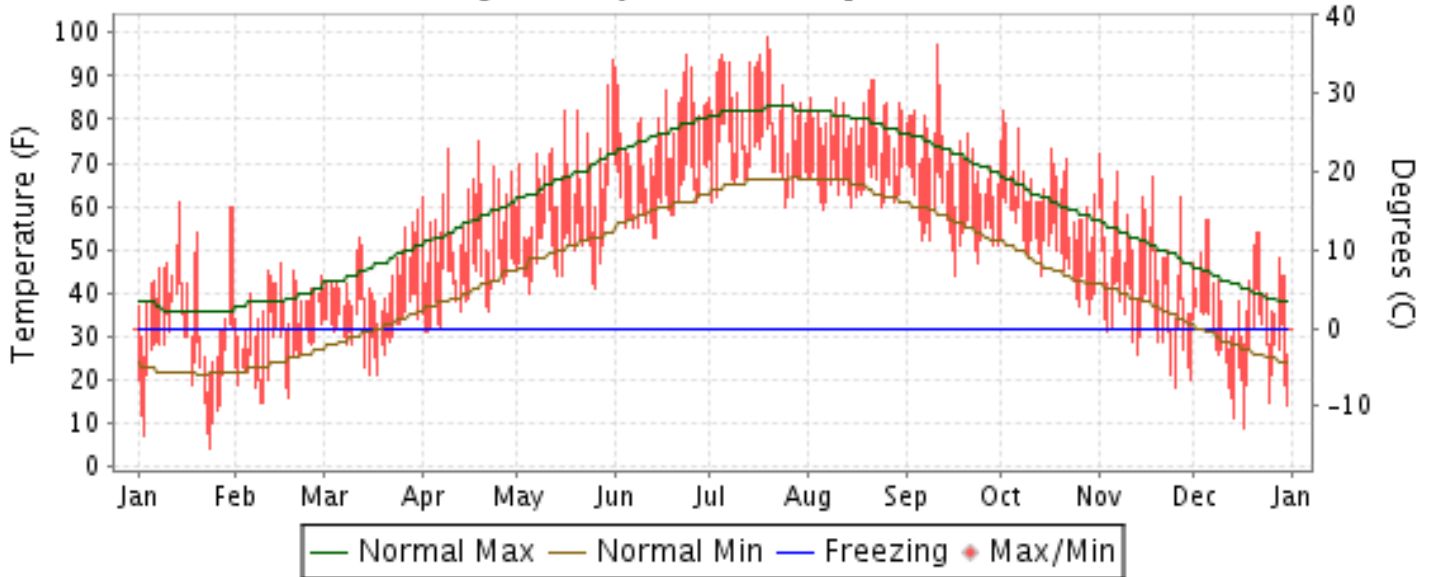


2013 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

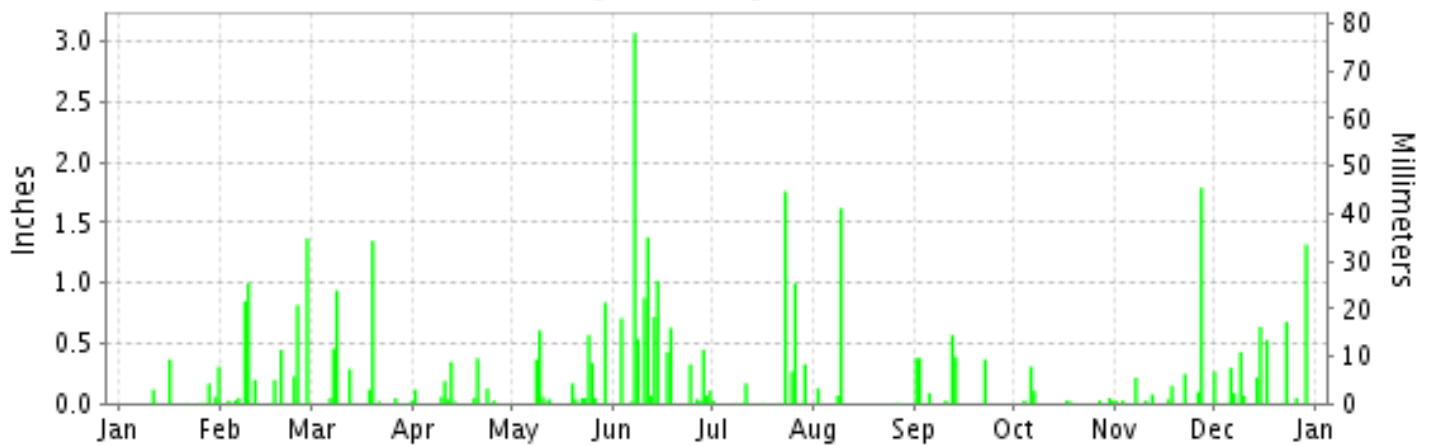
ISSN 0198-2419

BOSTON, MASSACHUSETTS (KBOS)

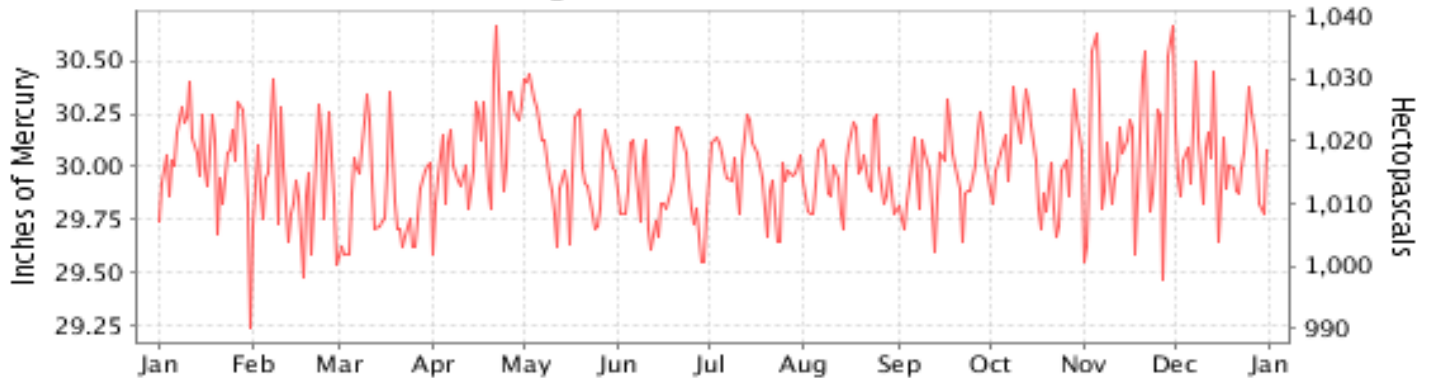
Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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ENVIRONMENTAL SATELLITE, DATA
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NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2013

BOSTON (KBOS)

LATITUDE: 42° 21'N LONGITUDE: 71° 0'W ELEVATION (FT): GRND: 12 BARO: 180 TIME ZONE: EASTERN (UTC -5) WBAN: 14739

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	38.7	36.9	43.8	57.1	67.3	78.0	84.8	79.8	73.0	64.2	50.7	40.2	59.5	
	HIGHEST DAILY MAXIMUM	61	47	59	75	94	95	99	89	97	82	72	57	99	
	DATE OF OCCURRENCE	14	15	31	19	31	24	19	22+	11	02	01	06+	JUL 19	
	MEAN DAILY MINIMUM	24.3	25.4	31.6	40.7	50.4	61.1	69.4	64.5	56.3	49.1	34.7	26.4	44.5	
	LOWEST DAILY MINIMUM	4	15	21	31	40	53	60	59	44	35	18	9	4	
	DATE OF OCCURRENCE	24	10+	18+	03+	05	14+	25	06	17	29	25	17	JAN 24	
	AVERAGE DRY BULB	31.5	31.2	37.7	48.9	58.8	69.6	77.1	72.1	64.7	56.6	42.7	33.3	52.0	
	MEAN WET BULB	27.9	27.5	32.9	41.8	52.8	62.1	69.8	63.5	57.8	50.3	36.5	30.0	46.1	
	MEAN DEW POINT	18.3	19.6	24.6	33.3	47.4	57.3	66.4	57.9	52.1	43.8	26.2	23.1	39.2	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	1	4	12	0	1	0	0	0	18	
	MAXIMUM <= 32°	11	7	0	0	0	0	0	0	0	0	1	9	28	
MINIMUM <= 32°	25	25	16	4	0	0	0	0	0	0	15	21	106		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	1030	942	839	475	221	25	2	0	83	267	664	973	5521	
	COOLING DEGREE DAYS	0	0	0	0	38	171	383	229	82	16	1	0	920	
RH	MEAN (PERCENT)	60	66	62	60	70	69	74	64	66	65	55	68	65	
	HOUR 01 LST	65	70	68	71	79	78	83	74	76	74	61	72	73	
	HOUR 07 LST	67	70	64	63	72	69	72	66	69	69	59	71	68	
	HOUR 13 LST	49	59	55	47	61	58	62	53	55	54	45	61	55	
	HOUR 19 LST	59	66	63	59	71	72	77	66	67	65	54	68	66	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	0	3	2	0	4	3	5	1	1	0	3	4	26	
	THUNDERSTORMS	0	0	0	1	1	4	0	1	2	0	0	0	9	
PR	MEAN STATION PRESS. (IN.)	30.03	29.91	29.85	30.09	30.02	29.87	29.97	29.95	29.96	30.03	30.08	30.05	29.98	
	MEAN SEA-LEVEL PRESS. (IN.)	30.07	29.95	29.89	30.13	30.05	29.91	30.01	29.99	29.99	30.06	30.10	30.08	30.02	
WINDS	RESULTANT SPEED (MPH)	8.1	5.0	5.3	1.5	1.1	3.2	1.4	4.2	3.3	2.6	7.0	5.0	3.5	
	RES. DIR. (TENS OF DEGS.)	27	31	33	23	25	24	23	24	26	27	27	28	28	
	MEAN SPEED (MPH)	11.6	12.4	12.5	12.2	9.7	10.5	9.1	9.0	8.8	8.9	11.5	10.1	10.5	
	PREVAIL.DIR.(TENS OF DEGS.)	29	27	29	20	08	20	08	28	28	28	29	32	29	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	48	40	38	33	26	32	26	26	26	33	39	41	48	
	DIR. (TENS OF DEGS.)	18	30	02	19	30	34	23	33	20	20	21	03	18	
	DATE OF OCCURRENCE	31	17	08	07	26	17	19	04	21	07	01	15	JAN 31	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	60	76	48	43	43	44	37	36	33	43	51	52	76	
DIR. (TENS OF DEGS.)	18	34	04	20	21	33	23	32	34	20	32	04	34		
DATE OF OCCURRENCE	31	08	08	07	11	17	19	04	08	07	24	15	FEB 08		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.08	5.26	3.32	1.37	3.22	10.50	3.61	1.84	2.21	0.61	2.72	4.62	40.36	
	GREATEST 24-HOUR (IN.)	0.37	1.37	1.35	0.43	0.98	3.58	1.76	1.62	0.96	0.31	1.89	1.32	3.58	
	DATE OF OCCURRENCE	16	27	19	19-20	08-09	07-08	23	09	12-13	06	26-27	29	JUN 07-08	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	10	14	10	10	14	17	11	5	7	8	10	13	129		
PRECIPITATION 0.10	4	8	5	5	6	12	5	2	5	2	5	8	67		
PRECIPITATION 1.00	0	2	1	0	0	3	2	1	0	0	1	1	11		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	5.0	34.0	20.6	T	0.0	0.0	0.0	0.0	0.0	0.0	T	11.7	71.3	
	GREATEST 24-HOUR (IN.)	3.2	24.8	10.5	T	0.0	0.0	0.0	0.0	0.0	0.0	T	6.4	24.8	
	DATE OF OCCURRENCE	16	08-09	08	02							26+	17	FEB 08-09	
	MAXIMUM SNOW DEPTH (IN.)														
	DATE OF OCCURRENCE														
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	2	4	3	0	0	0	0	0	0	0	0	3	12		

NORMALS, MEANS, AND EXTREMES BOSTON (KBOS)

LATITUDE: 42° 21'N **LONGITUDE:** 71° 0'W **ELEVATION (FT):** GRND: 12 BARO: 180 **TIME ZONE:** EASTERN (UTC -5) **WBAN: 14739**

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	35.8	38.7	45.4	55.6	66.0	75.9	81.4	79.6	72.4	61.4	51.5	41.2	58.7
	MEAN DAILY MAXIMUM	94	36.4	37.1	45.6	55.5	66.7	75.5	81.7	79.7	72.0	62.5	51.3	40.7	58.7
	HIGHEST DAILY MAXIMUM	62	69	70	89	94	95	100	103	102	100	90	79	76	103
	YEAR OF OCCURRENCE		2007	1985	1998	1976	1979	1952	2011	1975	1953	1963	1994	1998	JUL 2011
	MEAN OF EXTREME MAXS.	94	56.3	56.1	66.8	79.1	87.2	92.8	95.2	93.1	88.7	80.0	69.8	60.4	77.1
	NORMAL DAILY MINIMUM	30	22.2	24.7	31.1	40.6	49.9	59.5	65.4	64.6	57.4	46.5	38.0	28.2	44.0
	MEAN DAILY MINIMUM	94	22.1	22.8	31.0	39.8	49.8	58.4	65.1	63.9	56.4	46.8	37.5	27.0	43.4
	LOWEST DAILY MINIMUM	62	-12	-4	5	16	34	45	50	47	38	28	15	-7	-12
	YEAR OF OCCURRENCE		1957	1961	2007	1982	1956	1986	1988	1986	2000	1976	1989	1980	JAN 1957
	MEAN OF EXTREME MINS.	94	3.6	7.0	15.7	30.1	40.4	49.4	57.4	55.2	44.8	34.6	24.6	10.2	31.1
	NORMAL DRY BULB	30	29.0	31.7	38.3	48.1	57.9	67.7	73.4	72.1	64.9	54.0	44.7	34.7	51.4
	MEAN DRY BULB	94	29.2	30.0	38.3	47.7	58.3	67.1	73.4	71.9	64.2	54.7	44.4	33.9	51.1
	MEAN WET BULB	30	24.4	25.6	31.5	40.0	50.1	59.5	64.9	64.3	57.9	47.6	38.4	29.4	44.5
	MEAN DEW POINT	30	20.7	21.8	28.2	37.0	47.5	57.2	62.9	62.6	56.0	45.1	35.2	25.6	41.7
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.1	0.2	2.3	4.3	2.8	0.5	0.0	0.0	0.0	10.2
	MAXIMUM <= 32	30	10.9	6.4	1.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3	5.1	24.6
MINIMUM <= 32	30	25.6	22.6	15.3	2.1	0.0	0.0	0.0	0.0	0.0	0.0	5.6	20.7	91.9	
MINIMUM <= 0	30	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5	
H/C	NORMAL HEATING DEG. DAYS	30	1116	932	829	510	245	55	6	7	84	350	608	939	5681
	NORMAL COOLING DEG. DAYS	30	0	0	0	3	27	136	266	227	81	7	0	0	747
RH	NORMAL (PERCENT)	30	64	62	64	64	68	69	69	72	73	69	66	65	67
	HOURLY 01 LST	30	66	66	68	69	75	77	78	80	80	76	71	68	73
	HOURLY 07 LST	30	69	68	70	69	73	73	74	78	80	77	74	70	73
	HOURLY 13 LST	30	59	56	57	56	61	58	57	60	60	58	58	58	58
	HOURLY 19 LST	30	62	60	62	62	66	67	66	70	72	68	65	63	65
S	PERCENT POSSIBLE SUNSHINE	61	53	56	57	56	58	63	65	65	63	60	50	52	58
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	50	1.7	1.6	2.1	1.5	2.4	2.1	1.8	1.5	1.6	1.8	1.6	1.4	21.1
	THUNDERSTORMS	68	0.2	0.2	0.5	0.9	2.2	3.3	4.0	3.1	1.4	0.7	0.4	0.2	17.1
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	61	5.0	5.0	5.1	5.3	5.3	5.0	4.9	4.5	4.4	4.4	5.0	5.0	4.9
	MIDNIGHT-MIDNIGHT (OKTAS)	32	4.8	4.7	4.9	4.9	5.0	4.7	4.7	4.3	4.3	4.1	4.8	4.7	4.7
	MEAN NO. DAYS WITH: CLEAR	61	9.0	8.2	7.7	7.0	6.3	6.6	6.6	9.1	10.0	10.7	7.7	8.5	97.4
	PARTLY CLOUDY	61	6.8	6.6	8.0	8.1	9.9	10.4	12.0	10.5	7.9	7.7	7.2	7.3	102.4
	CLOUDY	61	15.2	13.4	15.3	14.9	14.8	12.9	11.9	10.9	11.6	12.1	14.7	14.9	162.6
PR	MEAN STATION PRESSURE(IN)	30	29.94	29.96	29.97	29.93	29.94	29.90	29.92	29.97	30.01	30.01	30.01	29.98	29.96
	MEAN SEA-LEVEL PRES. (IN)	30	30.01	30.00	30.01	29.96	29.98	29.94	29.96	30.00	30.05	30.04	30.06	30.02	30.00
WINDS	MEAN SPEED (MPH)	30	12.6	12.8	12.9	12.2	11.4	10.7	10.3	10.1	10.5	11.3	11.8	12.6	11.6
	PREVAIL.DIR(TENS OF DEGS)	46	30	30	30	30	21	24	24	24	24	30	30	30	30
	MAXIMUM 2-MINUTE: SPEED (MPH)	17	49	48	46	43	45	47	45	46	47	46	48	46	49
	DIR. (TENS OF DEGS)		18	29	03	11	28	26	30	17	23	09	11	18	18
	YEAR OF OCCURRENCE		2006	2006	1997	2007	2006	2010	1999	2011	1998	2012	1997	2000	JAN 2006
	MAXIMUM 3-SECOND SPEED (MPH)	17	61	76	56	55	55	68	74	63	63	62	57	55	76
	DIR. (TENS OF DEGS)		18	34	06	12	28	25	25	15	23	05	11	32	34
	YEAR OF OCCURRENCE		2006	2013	2001	2007	2006	2010	1999	2011	1998	2012	1997	2010	FEB 2013
PRECIPITATION	NORMAL (IN)	30	3.36	3.25	4.32	3.74	3.49	3.68	3.43	3.35	3.44	3.94	3.99	3.78	43.77
	MAXIMUM MONTHLY (IN)	62	10.55	7.94	14.87	9.57	13.38	13.20	8.12	17.09	9.86	10.66	8.89	9.74	17.09
	YEAR OF OCCURRENCE		1979	2008	2010	2004	1954	1982	1959	1955	1999	1996	1983	1969	AUG 1955
	MINIMUM MONTHLY (IN)	62	0.61	0.72	0.56	0.83	0.53	0.48	0.52	0.66	0.35	0.41	0.64	0.81	0.35
	YEAR OF OCCURRENCE		1989	1987	2006	1999	1964	1999	1952	2007	1957	1994	1976	1989	SEP 1957
	MAXIMUM IN 24 HOURS (IN)	62	2.72	2.81	4.13	4.29	5.74	5.69	3.36	8.40	5.64	6.63	3.76	5.14	8.40
	YEAR OF OCCURRENCE		1979	2008	1968	2004	1954	1998	1996	1955	1954	1996	1992	1992	AUG 1955
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	11.3	9.8	11.6	11.2	12.0	10.9	9.6	9.4	8.6	9.4	10.6	11.6	126.0
	PRECIPITATION >= 1.00	30	0.7	0.8	1.2	0.8	0.6	0.7	0.8	0.8	0.8	1.1	1.0	0.8	10.1
SNOWFALL	NORMAL (IN)	30	12.9	10.9	7.8	1.9	0.0	0.0	0.0	0.0	0.0	0.0	1.3	9.0	43.8
	MAXIMUM MONTHLY (IN)	76	43.3	41.6	38.9	13.3	0.5	T	T	T	0.0	1.1	10.0	27.9	43.3
	YEAR OF OCCURRENCE		1996	2003	1993	1982	1977	2012	2004	1994		1979	1938	1970	JAN 1996
	MAXIMUM IN 24 HOURS (IN)	76	21.0	24.8	17.7	13.2	0.5	T	T	T	0.0	1.1	8.0	13.0	24.8
	YEAR OF OCCURRENCE		1978	2013	1960	1982	1977	2012	2004	1994		2005	1987	1960	FEB 2013
	MAXIMUM SNOW DEPTH (IN)	54	26	29	20	12	0	0	0	0	0	0	6	14	29
	YEAR OF OCCURRENCE		1978	1978	1978	1982							1987	1975	FEB 1978
	NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	3.6	2.4	2.2	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.0	10.9

PRECIPITATION (inches) 2013 BOSTON (KBOS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	2.31	7.81	6.82	4.43	8.77	3.06	4.43	1.60	1.22	5.18	1.68	2.93	50.24
1985	1.12	1.83	2.29	1.62	3.36	3.94	3.51	6.67	3.00	1.65	6.39	1.21	36.59
1986	3.42	2.83	3.42	1.59	1.31	7.74	3.96	3.32	1.08	3.27	6.01	6.38	44.33
1987	7.28	0.72	4.27	9.46	1.75	2.62	0.82	2.93	7.29	2.73	3.49	2.12	45.48
1988	2.50	3.93	3.52	1.47	2.86	1.29	7.62	1.11	1.29	1.60	6.57	1.02	34.78
1989	0.61	2.51	3.07	3.58	3.54	2.84	5.09	5.92	4.61	5.71	4.13	0.81	42.42
1990	3.78	3.60	1.71	5.94	6.53	0.69	4.08	6.57	1.67	7.36	1.39	3.18	46.50
1991	3.24	1.58	4.33	4.84	0.92	2.89	1.95	5.27	6.32	4.27	4.06	2.58	42.25
1992	3.11	2.28	3.59	2.34	1.40	4.61	2.66	4.25	3.46	1.62	6.14	8.26	43.72
1993	2.17	4.94	7.67	4.86	1.04	1.75	1.75	1.32	4.64	3.61	2.86	6.60	43.21
1994	5.22	2.95	7.49	2.25	5.35	0.86	1.80	7.03	4.58	0.41	4.31	5.37	47.62
1995	4.33	2.57	2.20	1.40	1.82	1.55	2.06	0.82	3.60	6.42	5.13	3.20	35.10
1996	7.44	3.17	2.36	4.38	2.73	1.03	5.23	1.54	6.09	10.66	2.29	5.76	52.68
1997	2.34	1.28	4.68	3.46	2.63	1.41	0.63	3.01	1.02	1.78	5.86	2.29	30.39
1998	4.76	5.54	4.15	3.58	6.84	11.58	2.47	3.37	3.03	5.38	1.38	1.59	53.67
1999	5.69	3.51	2.52	0.83	2.70	T	3.51	1.33	9.86	4.30	2.14	1.52	37.91
2000	2.62	2.55	3.59	5.02	2.88	6.61	5.20	2.22	2.87	2.86	4.51	4.67	45.60
2001	1.58	1.37	7.57	0.88	1.23	4.99	2.13	4.14	2.29	0.98	0.73	2.83	30.72
2002	3.14	1.81	3.52	2.61	4.48	4.77	1.42	2.13	3.39	3.47	5.03	5.30	41.07
2003	1.81	4.21	4.00	4.00	4.12	4.69	2.11	2.89	2.65	6.20	2.63	5.06	44.37
2004	1.01	1.45	3.38	9.57	3.07	1.95	3.87	4.38	7.44	1.88	2.91	3.66	44.57
2005	4.45	2.70	3.89	3.17	3.98	1.46	3.37	2.88	1.78	9.41	3.71	2.87	43.67
2006	4.55	2.64	0.56	1.83	12.48	10.09	3.58	3.20	1.72	4.50	5.80	1.89	52.84
2007	2.57	2.20	4.31	6.71	3.70	2.12	5.26	0.66	1.81	2.08	2.80	5.25	39.47
2008	2.69	7.94	4.66	2.98	2.73	3.46	6.00	4.47	6.45	1.41	4.57	7.10	54.46
2009	3.35	1.94	2.51	4.13	2.69	3.22	6.90	3.24	3.09	5.17	3.34	3.91	43.49
2010	2.91	3.34	14.87	1.78	2.90	3.18	2.66	5.75	1.80	3.90	2.96	3.61	49.66
2011	4.57	4.57	2.10	4.03	3.23	4.76	2.04	7.74	4.40	6.77	4.21	3.97	52.39
2012	2.67	1.00	1.21	3.09	3.43	4.71	3.88	3.08	4.10	2.62	1.01	5.93	36.73
2013	1.08	5.26	3.32	1.37	3.22	10.50	3.61	1.84	2.21	0.61	2.72	4.62	40.36
POR= 94 YRS	3.56	3.33	3.93	3.63	3.33	3.49	3.10	3.41	3.30	3.33	3.87	3.90	42.18

WBAN : 14739

AVERAGE TEMPERATURE (°F) 2013 BOSTON (KBOS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	26.7	37.6	31.9	46.1	58.0	70.5	74.7	74.6	62.1	53.3	44.6	39.5	51.6
1985	24.4	32.8	40.4	49.3	59.3	64.8	73.5	70.4	65.4	55.4	45.4	31.3	51.0
1986	31.4	28.9	40.7	48.4	58.4	66.1	71.0	70.5	63.2	54.0	42.3	35.5	50.9
1987	28.9	29.1	38.5	45.1	57.2	65.1	71.7	70.3	65.4	54.3	43.9	36.1	50.5
1988	27.8	32.2	39.2	46.8	57.6	68.5	73.7	75.5	64.6	50.8	46.7	32.8	51.4
1989	34.5	30.5	37.3	45.9	59.4	67.8	72.8	71.6	64.7	55.3	42.8	21.7	50.4
1990	36.4	34.1	40.1	47.6	54.9	66.6	73.1	73.3	64.6	58.3	48.5	40.7	53.2
1991	29.4	36.1	41.6	51.3	63.3	70.0	74.6	73.8	63.7	56.4	45.2	36.0	53.5
1992	31.0	32.4	35.4	46.4	55.6	67.8	69.5	70.4	63.9	52.5	42.9	34.8	50.2
1993	32.4	27.1	36.4	48.3	60.3	69.5	74.7	73.6	64.8	52.3	45.6	34.2	51.6
1994	22.2	26.9	38.2	51.4	58.4	71.9	77.5	72.4	64.2	55.5	49.0	38.5	52.2
1995	34.6	28.5	38.8	46.1	57.2	68.6	75.9	72.8	63.1	58.4	41.9	31.7	51.5
1996	30.1	30.9	36.5	47.9	57.4	68.1	71.8	70.9	64.2	53.2	40.3	39.3	50.9
1997	29.2	36.0	36.7	46.3	56.1	68.2	73.7	71.2	64.2	52.8	41.7	35.2	50.9
1998	33.9	35.3	41.5	49.4	60.3	64.7	74.4	72.5	66.3	54.5	44.6	39.1	53.0
1999	29.5	33.6	39.4	49.2	58.2	71.0	75.7	71.3	67.1	53.0	48.0	37.3	52.8
2000	27.5	34.2	43.3	47.3	57.2	67.3	70.0	70.3	63.5	53.9	43.8	29.2	50.6
2001	30.0	31.8	35.3	48.7	59.6	71.1	69.9	73.9	65.3	56.2	48.3	40.5	52.6
2002	36.7	36.3	40.2	49.7	57.7	66.5	75.2	75.3	68.4	52.4	42.9	33.2	52.9
2003	24.1	26.4	37.7	44.5	55.1	65.4	74.3	74.3	65.7	53.0	45.9	36.1	50.2
2004	20.7	33.0	39.4	49.5	58.9	66.5	71.0	72.1	65.2	53.8	44.4	35.0	50.8
2005	26.8	31.2	35.2	49.7	52.2	68.4	73.3	74.4	67.9	54.7	45.9	32.5	51.0
2006	36.5	31.0	38.7	49.8	57.1	68.1	76.0	71.4	64.6	54.3	49.1	41.1	53.1
2007	32.8	26.2	37.5	45.2	61.4	68.5	72.9	72.7	67.7	59.2	43.1	32.4	51.6
2008	33.4	32.5	38.3	49.4	57.7	70.3	75.0	70.1	65.3	53.4	43.4	35.7	52.0
2009	24.9	32.9	37.5	50.5	59.5	63.4	70.5	73.6	63.2	51.9	48.9	33.2	50.8
2010	29.6	33.2	43.9	53.0	62.8	70.3	77.2	73.5	68.7	55.6	44.8	32.7	53.8
2011	27.6	30.6	39.0	50.1	59.3	67.1	77.3	73.9	67.3	57.6	50.4	40.0	53.4
2012	34.2	37.4	46.7	53.1	60.3	66.8	75.4	74.7	64.7	56.5	42.1	38.4	54.2
2013	31.5	31.2	37.7	48.9	58.8	69.6	77.1	72.1	64.7	56.6	42.7	33.3	52.0
POR= 94 YRS	29.2	30.0	38.3	47.7	58.3	67.1	73.4	71.9	64.2	54.7	44.4	33.9	51.1

HEATING DEGREE DAYS (base 65°F) 2013 BOSTON (KBOS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	3	0	142	359	605	781	1255	897	758	471	204	71	5546
1985-86	3	11	65	298	580	1035	1035	1008	746	490	258	66	5595
1986-87	21	16	98	344	674	904	1112	997	814	588	285	76	5929
1987-88	8	18	57	326	626	888	1145	945	792	541	253	61	5660
1988-89	9	10	64	443	541	992	938	959	853	565	196	51	5621
1989-90	2	4	88	294	660	1336	880	857	762	524	307	60	5774
1990-91	4	5	84	236	496	744	1096	803	721	407	126	35	4757
1991-92	1	8	111	273	586	894	1049	937	913	552	317	37	5678
1992-93	21	14	109	386	656	930	1002	1056	880	493	167	31	5745
1993-94	3	1	89	387	579	946	1320	1059	827	404	226	7	5848
1994-95	1	3	61	288	479	813	932	1016	804	561	258	30	5246
1995-96	1	2	113	214	685	1023	1074	981	875	510	260	20	5758
1996-97	1	6	80	358	739	792	1104	806	868	551	269	87	5661
1997-98	5	3	83	383	693	917	955	826	736	462	192	66	5321
1998-99	0	2	36	321	606	798	1092	872	790	468	215	29	5229
1999-00	2	7	39	363	505	851	1152	887	665	523	250	74	5318
2000-01	6	2	108	341	628	1103	1079	925	914	488	217	18	5829
2001-02	2	1	67	286	492	753	869	798	763	459	235	81	4806
2002-03	1	6	30	407	653	980	1264	1077	840	614	301	77	6250
2003-04	2	5	27	365	566	891	1369	924	784	462	210	52	5657
2004-05	2	3	59	339	617	926	1178	941	914	456	388	66	5889
2005-06	10	0	32	325	565	1000	878	947	810	449	258	55	5329
2006-07	0	11	64	331	470	735	991	1079	846	593	174	50	5344
2007-08	0	12	50	203	652	1004	972	934	822	462	232	27	5370
2008-09	0	0	78	356	641	902	1236	894	847	447	191	78	5670
2009-10	13	5	87	398	479	981	1091	884	649	355	130	18	5090
2010-11	0	6	28	298	597	993	1153	959	801	442	227	64	5568
2011-12	0	0	44	251	430	766	947	797	569	365	172	74	4415
2012-13	0	0	72	264	677	817	1030	942	839	475	221	25	5362
2013-	2	0	83	267	664	973							

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COOLING DEGREE DAYS (base 65°F) 2013 BOSTON (KBOS)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1984	0	0	0	3	31	207	312	306	62	3	0	0	924
1985	0	0	0	5	30	72	271	183	83	8	0	0	652
1986	0	0	0	0	60	105	211	190	55	10	0	0	631
1987	0	0	0	0	48	87	221	189	76	0	2	0	623
1988	0	0	0	0	31	173	287	342	59	11	0	0	903
1989	0	0	1	0	29	142	248	214	89	0	0	0	723
1990	0	0	0	10	2	116	261	268	77	34	8	0	776
1991	0	0	0	3	79	189	304	287	79	15	0	0	956
1992	0	0	0	0	30	126	165	189	83	5	0	0	598
1993	0	0	0	0	28	173	310	273	89	0	2	0	875
1994	0	0	0	1	29	221	395	241	44	1	4	0	936
1995	0	0	0	0	24	147	344	252	64	15	0	0	846
1996	0	0	0	3	30	120	222	196	63	0	1	0	635
1997	0	0	0	0	0	189	280	202	66	12	0	0	749
1998	0	0	16	2	52	59	298	240	83	1	0	0	751
1999	0	0	0	0	11	215	344	213	110	0	0	0	893
2000	0	0	0	0	15	151	167	174	71	5	0	0	583
2001	0	0	0	9	55	210	160	283	83	20	0	0	820
2002	0	0	0	8	18	133	324	330	138	21	0	0	972
2003	0	0	0	3	3	94	298	300	57	0	0	0	755
2004	0	0	0	3	24	104	198	231	72	0	0	0	632
2005	0	0	0	5	1	176	274	299	126	13	0	0	894
2006	0	0	0	0	20	158	341	218	60	4	0	0	801
2007	0	0	0	4	68	159	253	257	135	31	0	0	907
2008	0	0	0	2	13	195	318	165	95	1	0	0	789
2009	0	0	0	18	28	33	191	281	40	0	0	0	591
2010	0	0	0	3	70	186	385	278	147	13	0	0	1082
2011	0	0	0	3	55	135	389	282	118	25	0	0	1007
2012	0	0	9	16	34	135	329	304	72	6	0	0	905
2013	0	0	0	0	38	171	383	229	82	16	1	0	920

SNOWFALL (inches) 2013 BOSTON (KBOS)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	0.0	0.0	0.0	0.0	T	3.7	7.0	10.2	3.7	2.0	0.0	0.0	26.6
1985-86	0.0	0.0	0.0	0.0	3.0	1.3	0.8	10.4	2.6	T	0.0	0.0	18.1
1986-87	0.0	0.0	0.0	0.0	3.5	3.4	24.3	3.7	3.5	4.1	0.0	0.0	42.5
1987-88	0.0	0.0	0.0	0.0	9.0	7.5	17.0	14.1	5.0	T	0.0	0.0	52.6
1988-89	0.0	0.0	0.0	T	0.0	3.7	1.5	6.7	3.2	0.4	0.0	0.0	15.5
1989-90	0.0	0.0	0.0	0.0	4.5	6.2	7.0	16.9	4.1	0.5	0.0	0.0	39.2
1990-91	0.0	0.0	0.0	0.0	T	1.2	11.7	2.8	3.4	0.0	0.0	0.0	19.1
1991-92	0.0	0.0	0.0	0.0	T	5.8	0.4	4.0	10.8	1.0	0.0	0.0	22.0
1992-93	0.0	0.0	0.0	0.0	0.6	9.7	12.9	19.6	38.9	2.2	0.0	0.0	83.9
1993-94	0.0	0.0	0.0	0.0	T	11.6	33.7	36.2	14.8	0.0	0.0	0.0	96.3
1994-95	0.0	T	0.0	0.0	0.1	1.5	4.4	8.5	0.4	T	0.0	0.0	14.9
1995-96	0.0	0.0	0.0	0.0	4.1	24.1	39.8	15.5	16.8	7.3	0.0	0.0	107.6
1996-97	0.0	0.0	0.0	0.0	1.8	5.0	9.7	4.8	8.2	22.4	0.0	0.0	51.9
1997-98	0.0	0.0	0.0	0.0	3.9	7.8	10.0	0.3	3.6	T	0.0	0.0	25.6
1998-99	0.0	0.0	0.0	0.0	0.0	0.8	16.8	7.4	11.4	0.0	0.0	0.0	36.4
1999-00	0.0	0.0	0.0	0.0	0.0	0.0	13.7	9.2	2.0	T	0.0	0.0	24.9
2000-01	0.0	0.0	0.0	T	T	4.5	12.4	9.8	19.2	T	0.0	0.0	45.9
2001-02	0.0	0.0	0.0	T	0.0	5.0	7.9	0.5	1.4	0.3	0.0	T	15.1
2002-03	0.0	0.0	0.0	T	3.6	11.1	4.2	41.6	8.1	2.3	0.0	0.0	70.9
2003-04	0.0	0.0	0.0	T	0.0	21.5	4.9	2.4	10.6	T	0.0	0.0	39.4
2004-05	T	0.0	0.0	0.0	3.9	7.2	43.3	17.7	14.5	T	0.0	0.0	86.6
2005-06	0.0	0.0	0.0	1.1	T	10.7	7.6	20.0	T	T	0.0	0.0	39.4
2006-07	0.0	0.0	0.0	0.0	0.0	0.8	1.0	4.6	10.2	0.5	0.0	0.0	17.1
2007-08	0.0	0.0	0.0	0.0	T	26.9	8.3	15.0	1.0	0.0	0.0	0.0	51.2
2008-09	0.0	0.0	0.0	0.0	T	25.3	23.7	6.2	10.7	0.0	0.0	0.0	65.9
2009-10	0.0	0.0	0.0	0.1	0.0	15.2	13.2	7.0	0.2	0.0	0.0	0.0	35.7
2010-11	0.0	0.0	0.0	0.0	T	22.0	38.3	18.5	1.3	0.9	0.0	T	81.0
2011-12	0.0	0.0	0.0	1.0	T	T	6.8	0.9	0.6	0.0	0.0	T	9.3
2012-13	0.0	0.0	0.0	0.0	0.4	3.4	5.0	34.0	20.6	T	0.0	0.0	63.4
2013-	0.0	0.0	0.0	0.0	T	11.7							
POR= 91 YRS	T	T	0.0	T	1.1	7.8	12.7	12.5	7.4	1.1	0.0	T	42.6

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REFERENCE NOTES :

<p>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).</p> <p>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).</p> <p>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. 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 CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.</p> <p>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</p>	<p>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 EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED STATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS: http://www.ncdc.noaa.gov/homr/ SNOWFALL STOPPED MONTH & YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p>NOTE: The "Period of Record:(POR)" for all "averages" is based on "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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2013 BOSTON MASSACHUSETTS (KBOS)

Climate is the composite of numerous weather elements. Three important influences are responsible for the main features of the Boston climate. First, the latitude places the city in the zone of prevailing west to east atmospheric flow. Both polar and tropical air masses influence the region. Secondly, Boston is situated on or near several tracks frequently followed by low pressure storm systems. The weather fluctuates regularly from fair to cloudy to stormy conditions and assures an adequate amount of precipitation. The third factor is the east-coast location of Boston. The ocean has a moderating influence on temperature extremes of winter and summer.

Hot summer afternoons are frequently relieved by the locally celebrated sea breeze, as air flows inland from the cool water surface to displace the warm air over the land. This refreshing east wind is more commonly experienced along the shore than in the interior of the city or the western suburbs. In winter, under appropriate conditions, the severity of cold waves is reduced by the nearness of the relatively warm ocean. The average last occurrence of freezing temperature in spring is early April and the first occurrence of freezing temperature in autumn is early November. In suburban areas, especially away from the coast, these dates are later in spring and earlier in autumn by up to one month in the more susceptible localities.

Boston has no dry season. Most growing seasons have several shorter dry spells during which irrigation for high-value crops may be useful. Much of the rainfall from June to September comes from showers and thunderstorms. During the rest of the year, low pressure systems pass more or less regularly and produce precipitation on an average of roughly one day in three. Coastal storms, or northeasters, are prolific producers of rain and snow. The main snow season extends from December through March. Periods when the ground is bare or nearly bare of snow may occur at any time in the winter.

Relative humidity has been known to fall as low as 5 percent but such desert dryness is very rare. Heavy fog occurs on an average of about two days per month with its prevalence increasing eastward from the interior of Boston Bay to the open waters beyond.

Although winds of 30 mph or higher may be expected on at least one day in every month of the year, gales are both more common and more severe in winter.

Station History

BOSTON, MA

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
BOSTON AP	1936-01-01	1948-01-01	42° 22'	-71° 1'			AIRWAYS
BOSTON LOGAN INTL AP	2009-10-09	Present	42° 21'	-71° 0'	12		ASOS, COOP
BOSTON AP	1951-01-01	1951-11-22	42° 22'	-71° 1'	33		AIRWAYS, COOP
BOSTON LOGAN INTL AP	1969-01-01	1981-12-31	42° 22'	-71° 1'	20		COOP, WXSVC
BOSTON LOGAN INTL AP	1996-04-01	2009-10-09	42° 21'	-71° 0'	20		ASOS, COOP
BOSTON AP	1948-01-01	1951-01-01	42° 22'	-71° 1'	43		AIRWAYS, COOP
BOSTON LOGAN INTL AP	1981-12-31	1996-04-01	42° 22'	-71° 1'	20		COOP
BOSTON LOGAN INTL AP	1951-11-22	1964-01-01	42° 22'	-71° 1'	33		AIRWAYS, COOP
BOSTON LOGAN INTL AP	1964-01-01	1969-01-01	42° 22'	-71° 1'	20		AIRWAYS, COOP

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1995-07-01	2009-10-09	DAILY	2400	UNIV		ROOF
TEMP	1987-05-13	1995-07-01	DAILY	2400	HYGR		ROOF
PRECIP	1987-05-13	1995-07-01	HOURLY	2400			
TEMP	1995-07-01	2009-10-09	DAILY	2400	HYGR		ROOF
PRECIP	2009-10-09	Present	DAILY	2400	PCPNX		
TEMP	2009-10-09	Present	DAILY	2400	HYGR		
TEMP	1936-01-01	1964-04-01	DAILY	2400			
PRECIP	1987-05-13	1995-07-01	DAILY	2400	UNIV	RCRD	ROOF
PRECIP	2009-10-09	Present	HOURLY	2400	AWPAG	RCRD;HTD	
PRECIP	1964-04-01	1987-05-13	DAILY	2400	UNIV	RCRD	ROOF
PRECIP	1964-04-01	1987-05-13	HOURLY	2400			
PRECIP	1936-01-01	1964-04-01	DAILY	2400	UNIV	RCRD	ROOF
PRECIP	1995-07-01	2009-10-09	HOURLY	2400	UNIV	RCRD	ROOF
TEMP	1964-04-01	1987-05-13	DAILY	2400			

* For explanation of codes and abbreviations 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>

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NOAA/National Climatic Data Center

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Asheville, NC 28801-5001

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