

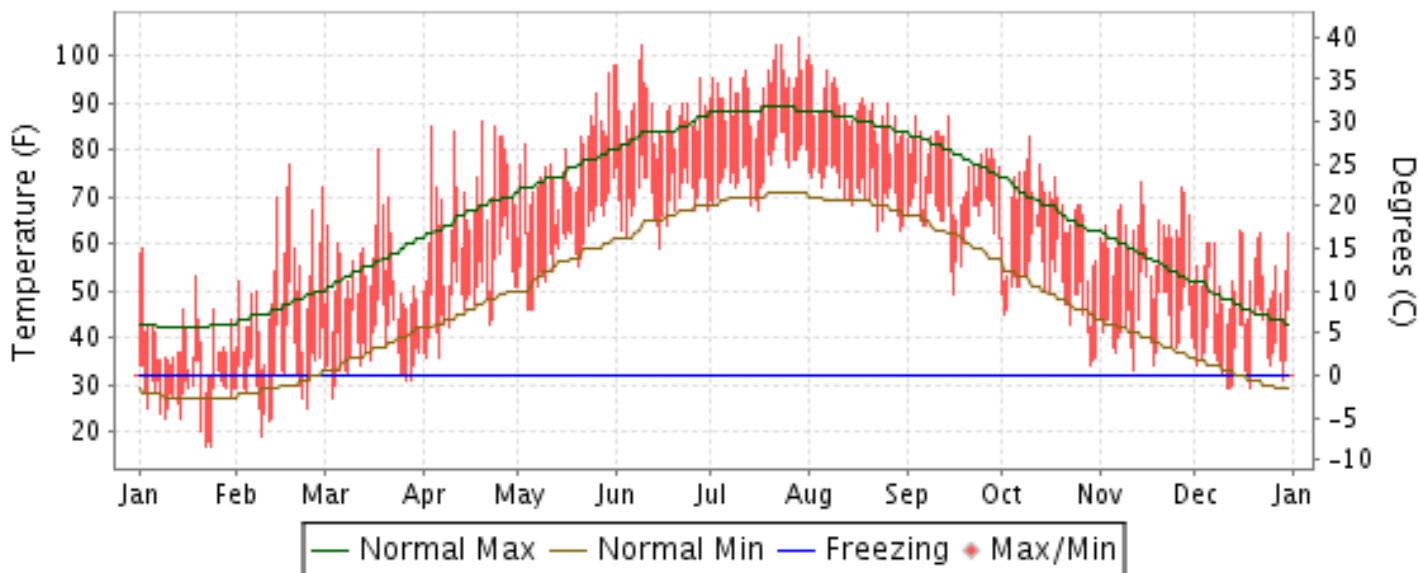


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

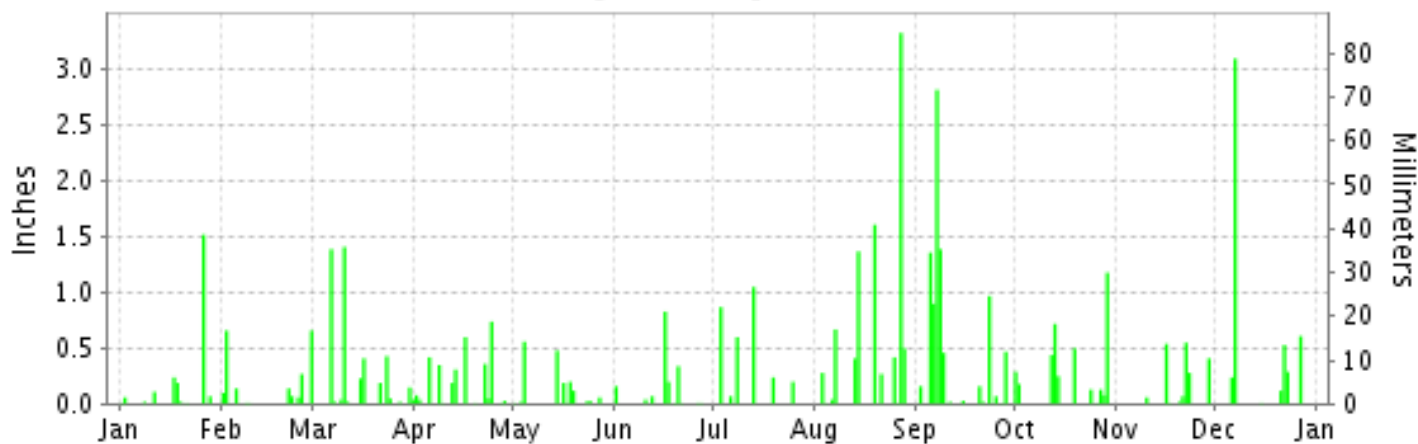
WASHINGTON,
D.C. (KDCA)

ISSN 0198-1196

Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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NATIONAL
ENVIRONMENTAL SATELLITE, DATA
AND INFORMATION SERVICE

NATIONAL
CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2011

WASHINGTON (KDCA)

LATITUDE: 38° 50'N LONGITUDE: -77° 2'W ELEVATION (FT): GRND: 10 BARO: 3 TIME ZONE: EASTERN (UTC -5) WBAN: 13743

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	39.7	51.3	54.0	68.6	77.4	87.9	93.6	88.6	77.6	66.5	61.5	52.6	68.3	
	HIGHEST DAILY MAXIMUM	59	77	80	86	98	102	104	100	87	83	73	63	104	
	DATE OF OCCURRENCE	02	18	18	20	31	09	29	01	14+	10	14	15	JUL 29	
	MEAN DAILY MINIMUM	27.6	32.2	37.2	49.0	59.3	69.6	75.4	71.3	64.9	50.2	43.3	37.4	51.5	
	LOWEST DAILY MINIMUM	17	19	27	36	46	59	67	63	49	34	33	29	17	
	DATE OF OCCURRENCE	24+	09	03	06+	06+	15	16	30+	16	29	12	19+	JAN 24+	
	AVERAGE DRY BULB	33.7	41.8	45.6	58.8	68.4	78.8	84.5	80.0	71.3	58.4	52.4	45.0	59.9	
	MEAN WET BULB	28.9	35.1	39.8	52.0	61.6	67.8	72.7	69.7	66.3	52.8	46.8	40.2	52.8	
	MEAN DEW POINT	19.5	24.8	30.9	46.0	57.1	61.5	66.8	64.2	63.4	47.8	40.6	33.3	46.3	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	3	10	25	12	0	0	0	0	0	50
	MAXIMUM <= 32°	3	0	0	0	0	0	0	0	0	0	0	0	0	3
MINIMUM <= 32°	26	16	7	0	0	0	0	0	0	0	0	7	56		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	965	648	594	225	48	0	0	0	14	212	369	613	3688	
	COOLING DEGREE DAYS	0	0	0	44	156	421	613	468	208	15	0	0	1925	
RH	MEAN (PERCENT)	59	57	61	67	71	59	59	63	78	71	68	65	65	
	HOUR 01 LST	64	65	69	76	84	72	70	73	86	80	77	70	74	
	HOUR 07 LST	63	66	68	74	77	65	64	66	84	76	78	73	71	
	HOUR 13 LST	50	45	48	57	57	44	45	47	67	58	52	54	52	
	HOUR 19 LST	58	56	58	62	68	58	59	63	76	71	66	63	63	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	2	0	0	0	0	0	0	0	0	0	1	0	3	
	THUNDERSTORMS	1	1	2	7	7	8	6	8	5	1	0	0	46	
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.)	29.96	29.98	30.06	29.87	29.88	29.86	29.87	29.82	29.94	29.96	30.05	30.12	29.95	
	MEAN SEA-LEVEL PRESS. (IN.)	30.03	30.06	30.14	29.94	29.95	29.93	29.94	29.89	30.01	30.03	30.13	30.20	30.02	
WINDS	RESULTANT SPEED (MPH)	4.1	3.7	1.6	2.3	2.6	2.1	2.4	1.2	0.6	1.6	2.2	2.4	1.5	
	RES. DIR. (TENS OF DEGS.)	31	27	36	21	19	27	21	25	14	29	23	28	26	
	MEAN SPEED (MPH)	8.4	9.5	9.7	10.2	7.6	7.5	7.2	8.3	6.3	7.4	7.6	6.9	8.1	
	PREVAIL.DIR.(TENS OF DEGS.)	32	19	34	19	18	33	20	18	18	33	19	19	18	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	29	41	31	44	36	33	40	47	29	31	29	31	47	
	DIR. (TENS OF DEGS.)	28	30	33	14	25	19	34	34	35	34	35	31	34	
	DATE OF OCCURRENCE	21	25	07	16	27	16	03	28	15	27	23	07	AUG 28	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	41	58	43	58	45	52	52	60	36	39	39	41	60	
DIR. (TENS OF DEGS.)	02	30	32	14	26	20	33	34	35	34	29	33	34		
DATE OF OCCURRENCE	26	25	07	16	27	16	03	28	15	27	23	07	AUG 28		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	2.25	2.12	4.40	3.20	1.70	1.68	3.03	8.92	8.84	3.91	1.94	4.90	46.89	
	GREATEST 24-HOUR (IN.)	1.52	0.76	1.43	0.74	0.58	0.98	1.05	3.83	3.09	1.26	0.76	3.10	3.83	
	DATE OF OCCURRENCE	26	01-02	09-10	24	03-04	16-17	13	27-28	07-08	28-29	22-23	07	AUG 27-28	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	10	10	13	14	11	10	6	12	14	11	8	7	126	
PRECIPITATION 0.10	4	6	7	7	5	4	5	9	9	9	4	6	75		
PRECIPITATION 1.00	1	0	2	0	0	0	1	3	3	1	0	1	12		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	7.3	0.5	0.2	T	0.0	T	0.0	0.0	0.0	T	0.0	T	8.0	
	GREATEST 24-HOUR (IN.)	5.0	0.2	0.2	T	0.0	T	0.0	0.0	0.0	T	0.0	T	5.0	
	DATE OF OCCURRENCE	26	22+	27	24+		01				29		17+	JAN 26	
	MAXIMUM SNOW DEPTH (IN.)	4	2	T	0	0	0	0	0	0	0	0	0	4	
	DATE OF OCCURRENCE	29+	01	27										JAN 29+	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	2	0	0	0	0	0	0	0	0	0	0	0	2		

NORMALS, MEANS, AND EXTREMES WASHINGTON (KDCA)

LATITUDE:
38° 50'N

LONGITUDE:
-77° 2'W

ELEVATION (FT):
GRND: 10 BARO: 3

TIME ZONE:
EASTERN (UTC -5)

WBAN: 13743

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	42.5	46.5	55.7	66.3	75.4	83.9	88.3	86.3	79.3	68.0	57.3	47.0	66.4
	MEAN DAILY MAXIMUM	66	43.5	46.6	55.5	66.8	75.6	83.9	88.1	86.3	79.6	68.8	57.8	46.7	66.6
	HIGHEST DAILY MAXIMUM	70	79	82	89	95	99	102	104	105	101	94	86	79	105
	YEAR OF OCCURRENCE		1950	1948	1990	2002	1991	2011	2011	1997	1980	2007	1974	1998	AUG 1997
	MEAN OF EXTREME MAXS.	66	64.9	67.2	77.5	86.1	90.3	95.2	97.0	95.6	92.0	83.9	75.2	66.0	82.6
	NORMAL DAILY MINIMUM	30	27.3	29.7	37.3	45.9	55.8	65.0	70.1	68.6	61.8	49.6	40.0	32.0	48.6
	MEAN DAILY MINIMUM	66	28.4	30.0	37.1	46.6	56.3	65.4	70.4	69.2	62.2	50.4	40.6	31.9	49.0
	LOWEST DAILY MINIMUM	70	-5	4	11	24	34	47	54	49	39	29	16	1	-5
	YEAR OF OCCURRENCE		1982	1961	1943	1982	1947	1972	1988	1986	1963	1969	1955	1942	JAN 1982
	MEAN OF EXTREME MINS.	66	12.8	15.5	23.0	33.5	43.8	53.9	61.3	59.1	48.8	37.0	27.2	17.9	36.2
	NORMAL DRY BULB	30	34.9	38.1	46.5	56.1	65.6	74.5	79.2	77.4	70.5	58.8	48.7	39.5	57.5
	MEAN DRY BULB	66	35.9	38.3	46.3	56.7	66.0	74.8	79.3	77.8	70.9	59.6	49.2	39.3	57.8
	MEAN WET BULB	28	30.0	31.9	38.4	48.0	57.5	66.0	69.7	69.0	63.0	52.4	42.9	33.8	50.2
	MEAN DEW POINT	28	26.0	27.6	33.8	43.8	54.4	63.5	67.6	67.0	60.7	49.6	39.3	29.8	46.9
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.5	1.5	6.9	14.5	9.9	3.3	0.1	0.0	0.0	36.7
	MAXIMUM <= 32	30	4.6	2.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	2.1	9.3
MINIMUM <= 32	30	20.7	16.9	7.7	0.6	0.0	0.0	0.0	0.0	0.0	0.2	4.4	13.9	64.4	
MINIMUM <= 0	30	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	
H/C	NORMAL HEATING DEG. DAYS	30	917	742	563	272	73	5	0	7	19	205	477	775	4055
	NORMAL COOLING DEG. DAYS	30	0	0	4	21	107	304	456	407	200	28	4	0	1531
RH	NORMAL (PERCENT)	30	64	63	60	60	66	68	68	70	71	70	66	66	66
	HOURLY 01 LST	30	68	68	66	68	76	78	78	81	81	79	73	70	74
	HOURLY 07 LST	30	71	72	71	70	76	76	77	81	82	81	77	73	76
	HOURLY 13 LST	30	57	53	50	49	54	54	54	56	57	55	55	57	54
	HOURLY 19 LST	30	62	58	54	52	60	62	62	65	67	66	62	62	61
S	PERCENT POSSIBLE SUNSHINE	50	46	50	55	57	58	64	62	62	61	59	51	46	56
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	48	1.6	1.2	0.7	0.5	0.4	0.3	0.2	0.0	0.2	0.9	1.0	1.3	8.3
	THUNDERSTORMS	66	0.3	0.3	1.1	2.8	4.9	6.3	6.9	5.3	2.4	1.0	0.6	0.1	32.0
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	50	5.4	5.2	5.2	5.1	5.1	4.8	4.8	4.6	4.6	4.3	5.0	5.2	4.9
	MIDNIGHT-MIDNIGHT (OKTAS)	34	5.1	5.0	5.0	4.8	5.0	4.7	4.8	4.5	4.5	4.2	4.7	5.1	4.8
	MEAN NO. DAYS WITH: CLEAR	50	7.2	7.0	7.5	7.1	6.9	7.3	7.4	8.6	9.4	10.7	7.7	7.9	94.7
	PARTLY CLOUDY	50	7.4	6.7	8.3	9.1	10.1	11.4	11.8	10.2	8.4	7.9	7.8	6.6	105.7
	CLOUDY	50	16.4	14.5	15.2	13.9	14.0	11.4	11.4	11.7	11.6	11.9	13.8	15.9	161.7
PR	MEAN STATION PRESSURE(IN)	28	30.03	30.02	29.99	29.92	29.93	29.91	29.92	29.95	30.00	30.02	30.05	30.05	29.98
	MEAN SEA-LEVEL PRES. (IN)	28	30.10	30.09	30.06	29.99	29.99	29.98	29.99	30.02	30.07	30.09	30.11	30.12	30.05
WINDS	MEAN SPEED (MPH)	28	9.6	9.8	10.5	9.9	9.1	8.7	8.2	8.0	8.4	8.4	9.0	9.2	9.1
	PREVAIL.DIR(TENS OF DEGS)	42	34	33	33	19	19	19	19	19	19	19	19	34	19
	MAXIMUM 2-MINUTE: SPEED (MPH)	13	43	41	46	44	39	49	47	47	45	37	43	40	49
	DIR. (TENS OF DEGS)		32	30	25	14	36	31	05	34	11	29	33	29	31
	YEAR OF OCCURRENCE		2006	2011	2008	2011	2008	1999	2000	2011	2003	2006	2005	2004	JUN 1999
	MAXIMUM 3-SECOND SPEED (MPH)	13	55	58	74	59	55	60	53	60	58	51	54	55	74
	DIR. (TENS OF DEGS)		31	30	22	25	25	31	34	34	13	26	24	34	22
	YEAR OF OCCURRENCE		2000	2011	2008	2010	2000	1999	2010	2011	2003	2004	2010	2010	MAR 2008
PRECIPITATION	NORMAL (IN)	30	3.21	2.63	3.60	2.77	3.82	3.13	3.66	3.44	3.79	3.22	3.03	3.05	39.35
	MAXIMUM MONTHLY (IN)	70	7.11	5.71	8.45	6.88	10.69	14.02	11.06	14.31	12.36	9.41	6.70	6.79	14.31
	YEAR OF OCCURRENCE		1978	1961	1994	1983	1953	2006	1945	1955	1975	2005	1963	2009	AUG 1955
	MINIMUM MONTHLY (IN)	70	0.31	0.35	0.05	0.03	0.75	0.95	0.93	0.55	.11	T	0.29	0.22	0.03
	YEAR OF OCCURRENCE		1955	2009	2006	1985	1986	1988	1966	1962	2005	1963	1981	1955	APR 1985
	MAXIMUM IN 24 HOURS (IN)	70	2.13	2.56	3.43	3.08	4.32	7.94	4.69	6.39	5.31	5.91	4.03	3.10	7.94
	YEAR OF OCCURRENCE		1976	2003	1958	1970	1953	2006	1970	1955	1975	2005	1993	2011	JUN 2006
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	10.5	9.3	10.6	9.6	11.2	10.2	10.4	8.6	8.1	7.8	8.5	9.5	114.3
	PRECIPITATION >= 1.00	30	0.7	0.4	0.9	0.5	0.8	0.7	1.0	1.1	1.1	1.0	0.8	0.6	9.6
SNOWFALL	NORMAL (IN)	30	6.2	5.2	1.6	0.*	0.0	0.0	0.0	0.0	0.0	0.*	0.7	1.5	15.2
	MAXIMUM MONTHLY (IN)	68	23.8	32.1	17.1	0.6	T	T	T	T	T	0.3	11.5	16.6	32.1
	YEAR OF OCCURRENCE		1996	2010	1960	1972	2010	2011	2006	2008		1979	1987	2009	FEB 2010
	MAXIMUM IN 24 HOURS (IN)	68	13.8	18.7	8.4	0.6	T	T	T	T	0.0	0.3	11.5	15.0	18.7
	YEAR OF OCCURRENCE		1966	1979	1999	1972	2010	2011	1990	1992		1979	1987	2009	FEB 1979
	MAXIMUM SNOW DEPTH (IN)	65	18	22	8	1	0	0	0	0	0	0	12	16	22
	YEAR OF OCCURRENCE		1987	1979	1960	1972							1987	2009	FEB 1979
	NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	1.6	1.2	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.4	3.8

PRECIPITATION (inches) 2011 WASHINGTON (KDCA)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	2.27	3.33	2.64	3.19	5.11	5.41	2.98	2.68	1.71	1.75	2.96	1.74	35.77
1983	1.69	3.09	4.84	6.88	4.62	7.09	1.78	3.11	2.90	4.87	5.09	5.91	51.87
1984	1.71	3.43	6.14	3.71	3.80	2.01	4.09	2.30	2.51	3.18	3.66	1.19	37.73
1985	2.11	3.07	1.88	0.03	5.79	2.05	2.91	2.35	6.67	3.85	4.47	0.68	35.86
1986	2.38	3.49	0.74	1.98	0.75	1.29	3.79	5.33	0.60	2.01	5.23	4.98	32.57
1987	4.90	2.11	1.54	2.28	2.54	3.90	2.59	2.07	5.11	2.53	4.49	2.57	36.63
1988	3.14	2.52	2.27	2.00	4.50	0.95	3.74	2.39	1.85	1.75	5.33	1.30	31.74
1989	2.49	2.80	4.30	3.50	7.77	6.02	5.66	1.15	6.68	5.48	2.37	2.10	50.32
1990	2.95	1.30	2.57	4.09	5.20	3.14	3.78	6.74	0.87	3.30	2.17	4.73	40.84
1991	2.90	0.83	4.42	1.39	1.57	1.27	3.76	2.03	3.50	2.03	0.85	5.07	29.62
1992	2.78	2.23	3.48	2.55	3.41	2.35	5.34	2.48	3.49	2.03	3.38	2.86	36.38
1993	2.90	2.27	6.82	3.62	3.40	1.73	1.36	3.87	3.68	2.62	4.76	4.38	41.41
1994	4.28	4.20	8.45	1.58	1.56	1.59	3.61	4.35	2.84	1.19	1.57	2.35	37.57
1995	3.22	1.71	2.14	1.89	4.19	2.42	4.03	0.88	3.73	8.65	4.77	2.17	39.80
1996	5.01	1.99	3.60	3.17	4.96	3.14	5.60	2.63	7.79	4.04	3.58	5.51	51.02
1997	2.55	2.43	4.15	2.41	3.04	2.94	1.14	3.51	1.59	3.72	4.60	1.74	33.82
1998	5.43	5.23	5.40	3.96	4.05	4.42	1.79	0.59	1.83	0.59	0.91	1.74	35.94
1999	5.42	2.54	3.87	2.09	1.28	2.26	1.01	5.02	10.27	2.16	1.82	2.49	40.23
2000	3.66	2.06	3.98	5.13	3.08	4.93	5.51	3.77	4.91	0.02	1.60	2.01	40.66
2001	2.22	1.83	3.88	1.68	3.71	4.69	4.78	2.98	1.41	0.69	0.55	1.53	29.95
2002	1.32	0.47	3.37	3.47	2.17	3.81	2.20	1.63	2.10	5.00	4.34	4.45	34.33
2003	2.41	5.68	4.20	2.55	7.06	7.87	5.76	4.65	6.87	3.93	4.23	4.32	59.53
2004	1.35	2.28	2.09	3.84	2.98	4.60	6.98	5.09	3.99	1.74	4.50	3.05	42.49
2005	3.31	1.63	4.46	4.33	4.61	2.87	6.06	2.33	0.11	9.41	1.92	3.34	44.38
2006	3.25	2.46	0.05	3.10	2.21	14.02	3.56	1.03	6.31	5.06	5.16	1.56	47.77
2007	2.46	2.22	3.19	4.17	1.75	1.38	2.40	3.47	0.60	6.55	1.46	3.28	32.93
2008	1.37	4.17	2.80	4.92	10.66	4.80	3.60	1.23	6.41	1.13	2.43	2.97	46.49
2009	2.68	0.35	1.97	4.12	8.05	5.86	1.07	2.46	3.31	5.71	4.43	6.79	46.80
2010	1.56	2.72	3.55	1.50	2.40	1.87	5.17	2.59	6.02	3.40	2.22	1.78	34.78
2011	2.25	2.12	4.40	3.20	1.70	1.68	3.03	8.92	8.84	3.91	1.94	4.90	46.89
POR= 66 YRS	2.83	2.56	3.43	2.94	3.91	3.56	3.95	3.87	3.61	3.11	3.00	3.12	39.89

WBAN : 13743

AVERAGE TEMPERATURE (°F) 2011 WASHINGTON (KDCA)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	28.1	38.3	45.7	54.0	69.0	72.8	80.3	75.4	70.6	60.2	51.8	45.5	57.6
1983	38.1	38.7	48.8	53.3	64.9	75.0	81.2	81.0	72.6	60.5	50.3	36.0	58.4
1984	32.2	43.8	41.8	54.9	64.9	76.9	76.5	77.8	68.3	65.2	46.0	45.6	57.8
1985	30.8	37.8	47.7	61.6	68.1	72.3	79.0	76.7	71.9	61.2	54.3	36.4	58.2
1986	35.4	35.3	47.4	56.2	68.1	76.6	81.1	74.6	70.9	61.1	46.5	39.8	57.8
1987	34.7	37.0	47.7	54.8	67.2	76.4	82.6	78.7	72.1	54.4	49.9	41.5	58.1
1988	31.0	37.3	47.2	54.4	65.8	74.4	81.9	80.7	68.9	54.4	49.9	38.7	57.1
1989	39.9	37.8	46.1	55.4	64.1	76.8	78.3	77.1	71.4	60.5	48.0	27.9	56.9
1990	43.6	45.2	50.2	56.8	64.3	75.0	79.4	76.5	69.6	62.8	52.0	44.5	60.0
1991	38.6	43.0	48.8	58.2	73.0	76.8	81.4	80.0	71.0	60.4	48.8	42.3	60.2
1992	38.2	41.2	45.0	55.4	62.3	71.7	79.5	74.0	69.2	56.0	48.8	39.6	56.7
1993	39.7	34.3	42.2	54.8	67.4	75.3	83.1	79.6	71.0	58.1	48.8	38.1	57.7
1994	28.8	36.3	45.4	62.0	63.1	79.4	81.8	75.5	70.2	59.1	53.4	44.2	58.3
1995	39.6	34.4	49.2	56.3	65.8	74.6	81.5	81.3	71.0	62.3	43.1	35.6	57.9
1996	32.9	37.3	42.9	56.8	63.9	77.2	77.6	76.5	70.6	59.4	44.1	43.0	56.9
1997	37.0	44.7	48.7	54.0	62.9	73.1	80.4	77.6	70.5	59.6	46.2	41.0	58.0
1998	43.0	43.4	46.9	57.4	67.5	73.0	78.9	79.4	75.4	60.1	50.3	44.4	60.0
1999	38.2	41.0	44.5	56.5	67.3	74.7	83.0	79.7	70.0	57.2	53.1	42.0	58.9
2000	35.9	42.5	51.7	55.6	67.8	74.7	74.7	75.1	67.6	60.2	46.7	31.8	57.0
2001	35.5	40.9	43.8	57.6	65.9	75.2	75.3	78.9	68.9	59.7	54.8	45.5	58.5
2002	41.6	42.6	47.7	60.0	65.2	76.1	80.9	81.1	73.0	58.7	47.1	37.2	59.3
2003	31.1	33.7	47.1	55.1	61.7	71.4	77.8	78.8	70.5	57.5	53.1	39.2	56.4
2004	30.6	38.2	48.8	57.4	71.8	73.4	78.6	75.9	71.6	58.3	51.0	40.1	58.0
2005	36.1	39.6	43.1	57.3	61.9	75.7	80.5	80.1	75.0	60.5	50.2	36.4	58.0
2006	43.1	38.6	47.9	59.5	65.1	74.5	80.4	80.6	67.8	57.3	50.7	44.2	59.1
2007	40.7	30.9	47.7	53.6	67.8	76.1	79.3	79.7	72.9	67.1	49.8	41.8	59.0
2008	40.0	41.0	49.0	58.9	64.7	77.9	80.8	77.9	74.0	58.9	46.6	40.3	59.2
2009	31.7	39.8	45.2	57.0	65.5	73.7	76.9	79.9	70.2	58.5	52.2	37.9	57.4
2010	35.3	34.2	51.2	60.9	69.4	80.6	83.1	80.2	75.5	61.6	50.5	34.6	59.8
2011	33.7	41.8	45.6	58.8	68.4	78.8	84.5	80.0	71.3	58.4	52.4	45.0	59.9
POR= 66 YRS	35.9	38.3	46.3	56.7	66.0	74.8	79.3	77.8	70.9	59.6	49.2	39.3	57.8

HEATING DEGREE DAYS (base 65°F) 2011 WASHINGTON (KDCA)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	2	9	193	402	597	827	730	497	365	77	0	3699
1983-84	0	0	32	177	433	890	1009	610	710	302	95	4	4262
1984-85	0	0	54	59	561	594	1053	757	533	166	30	6	3813
1985-86	0	0	14	147	320	879	913	824	542	267	61	3	3970
1986-87	0	13	18	180	548	775	931	777	527	304	68	0	4141
1987-88	0	0	4	325	448	719	1047	796	544	317	69	25	4294
1988-89	0	0	18	330	442	807	771	755	596	297	112	0	4128
1989-90	0	0	35	167	507	1144	656	550	481	285	64	4	3893
1990-91	0	0	38	153	381	630	810	608	502	237	22	0	3381
1991-92	0	0	27	175	486	696	824	686	614	295	127	5	3935
1992-93	0	0	43	282	477	781	779	855	700	307	32	3	4259
1993-94	0	0	33	217	487	825	1115	796	599	135	132	0	4339
1994-95	0	0	5	190	348	639	782	853	485	274	59	0	3635
1995-96	0	0	30	144	651	901	993	798	675	268	131	0	4591
1996-97	0	0	9	182	617	677	861	564	499	322	110	30	3871
1997-98	0	0	14	232	557	737	675	596	581	229	50	11	3682
1998-99	0	0	4	153	433	638	824	667	630	251	34	3	3637
1999-00	0	0	22	240	348	707	896	649	408	280	46	2	3598
2000-01	0	0	60	171	544	1022	908	670	654	246	54	4	4347
2001-02	0	0	44	207	302	598	717	621	532	225	101	0	3347
2002-03	0	0	1	257	531	855	1043	871	549	303	128	15	4553
2003-04	0	0	13	231	366	791	1062	771	494	267	34	4	4033
2004-05	0	0	7	209	414	766	887	702	675	240	121	4	4025
2005-06	0	0	5	179	439	881	672	733	529	174	81	0	3693
2006-07	0	0	22	250	419	639	746	950	535	353	53	0	3967
2007-08	0	0	10	74	451	713	769	688	487	204	67	0	3463
2008-09	0	0	2	225	543	759	1028	698	607	270	73	5	4210
2009-10	0	0	8	208	376	835	914	856	419	159	58	0	3833
2010-11	0	0	0	144	428	933	965	648	594	225	48	0	3985
2011-	0	0	14	212	369	613							

WBAN : 13743

COOLING DEGREE DAYS (base 65°F) 2011 WASHINGTON (KDCA)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	0	6	155	244	479	330	185	51	13	1	1464
1983	0	0	0	21	81	310	510	504	269	42	0	0	1737
1984	0	0	0	4	99	368	365	404	157	73	0	0	1470
1985	0	0	6	70	135	232	444	373	228	37	6	0	1531
1986	0	0	5	10	162	358	503	318	202	70	1	0	1629
1987	0	0	0	8	146	347	554	431	222	0	0	0	1708
1988	0	0	1	4	101	313	534	490	144	11	0	0	1598
1989	0	0	16	14	91	362	417	381	233	33	1	0	1548
1990	0	0	30	46	50	309	451	364	183	88	0	0	1521
1991	0	0	5	38	278	362	517	472	214	41	5	0	1932
1992	0	0	0	16	53	214	457	285	175	8	0	0	1208
1993	0	0	0	5	114	319	569	460	218	9	8	0	1702
1994	0	0	1	53	82	439	530	333	166	11	6	0	1621
1995	0	0	0	20	91	297	515	511	216	67	1	0	1718
1996	0	0	0	29	105	373	397	364	181	14	0	0	1463
1997	0	0	1	0	52	282	484	399	184	72	0	0	1474
1998	0	0	27	11	132	257	438	456	322	9	0	5	1657
1999	0	0	0	4	111	301	565	462	180	6	0	0	1629
2000	0	0	4	5	143	300	307	319	146	29	0	0	1253
2001	0	0	0	31	88	318	323	441	171	47	5	0	1424
2002	0	0	1	82	117	340	500	507	248	66	0	0	1861
2003	0	0	0	12	32	211	402	434	183	9	15	0	1298
2004	0	0	0	45	250	262	426	345	213	8	0	0	1549
2005	0	0	0	16	32	331	490	474	315	46	1	0	1705
2006	0	0	6	16	90	291	487	489	115	20	0	0	1514
2007	0	0	5	19	150	341	451	462	254	146	0	0	1828
2008	0	0	0	29	65	394	495	406	280	44	0	0	1713
2009	0	0	0	37	93	272	378	467	172	14	0	0	1433
2010	0	0	0	40	201	473	566	479	323	42	0	0	2124
2011	0	0	0	44	156	421	613	468	208	15	0	0	1925

SNOWFALL (inches) 2011 WASHINGTON (KDCA)

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	6.6	T	21.0	0.0	T	0.0	0.0	27.6
1983-84	0.0	0.0	0.0	0.0	0.3	T	6.5	T	1.8	T	0.0	0.0	8.6
1984-85	0.0	0.0	0.0	0.0	T	0.3	10.0	T	T	T	0.0	0.0	10.3
1985-86	0.0	0.0	0.0	0.0	0.0	0.7	1.8	12.9	T	T	0.0	0.0	15.4
1986-87	0.0	0.0	0.0	0.0	0.0	T	20.8	10.3	T	T	0.0	0.0	31.1
1987-88	0.0	0.0	0.0	0.0	11.5	T	13.1	T	0.4	T	0.0	0.0	25.0
1988-89	0.0	0.0	0.0	0.0	0.0	1.2	2.9	1.2	0.4	0.0	0.0	0.0	5.7
1989-90	0.0	0.0	0.0	0.0	3.5	9.0	0.2	T	2.4	0.2	0.0	0.0	15.3
1990-91	T	0.0	0.0	0.0	0.0	3.0	4.8	0.3	T	0.0	T	0.0	8.1
1991-92	0.0	0.0	0.0	0.0	T	0.0	4.0	2.6	T	0.0	0.0	0.0	6.6
1992-93	0.0	T	0.0	0.0	T	1.0	T	4.1	6.6	0.0	T	0.0	11.7
1993-94	0.0	0.0	0.0	0.0	T	2.6	3.5	3.1	4.0	0.0	0.0	0.0	13.2
1994-95	0.0	0.0	0.0	0.0	T	0.0	3.9	5.8	0.4	0.0	0.0	0.0	10.1
1995-96	0.0	0.0	0.0	0.0	0.5	1.3	23.8	15.2	5.2	T	0.0	0.0	46.0
1996-97	0.0	T	0.0	0.0	.2	.2	2.3	4.0	T	0.0	0.0	0.0	6.7
1997-98	0.0	0.0	0.0	0.0	T	0.1	T	T	T	0.0	T	T	0.1
1998-99	0.0	0.0	0.0	0.0	0.0	0.5	2.2	0.2	8.7	0.0	0.0	0.0	11.6
1999-00	0.0	0.0	0.0	0.0	0.0	T	14.5	0.9	0.0	T	0.0	0.0	15.4
2000-01	0.0	T	0.0	0.0	0.0	2.0	2.4	2.8	0.2	T	0.0	0.0	7.4
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	2.7	0.5	0.0	0.0	0.0	T	3.2
2002-03	0.0	0.0	0.0	0.0	0.0	7.1	4.5	28.7	0.1	0.0	0.0	0.0	40.4
2003-04	T	0.0	0.0	0.0	0.0	6.2	6.2	T	T	0.0	T	0.0	12.4
2004-05	T	T	0.0	0.0	0.0	0.1	6.4	5.2	0.8	0.0	T	0.0	12.5
2005-06	0.0	0.0	0.0	0.0	T	4.8	T	8.8	T	T	0.0	0.0	13.6
2006-07	T	0.0	0.0	0.0	0.0	T	1.3	5.9	1.9	0.4	0.0	0.0	9.5
2007-08	0.0	0.0	0.0	0.0	0.0	2.6	1.3	1.0	0.0	0.0	0.0	T	4.9
2008-09	0.0	T	0.0	0.0	T	T	1.9	0.1	5.5	0.0	0.0	T	7.5
2009-10	0.0	0.0	0.0	0.0	0.0	16.6	7.4	32.1	T	0.0	T	0.0	56.1
2010-11	0.0	0.0	0.0	0.0	T	2.1	7.3	0.5	0.2	T	0.0	T	10.1
2011-	0.0	0.0	0.0	T	0.0	T							
POR= 67 YRS	T	T	0.0	T	0.6	2.9	5.3	5.6	2.0	T	T	T	16.4

WBAN : 13743

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. 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.</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 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.</p> <p>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.</p>
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2011 WASHINGTON D.C. (KDCA)

Washington lies at the western edge of the mid Atlantic Coastal Plain, about 50 miles east of the Blue Ridge Mountains and 35 miles west of Chesapeake Bay, adjacent to the Potomac and Anacostia Rivers. Elevations range from a few feet above sea level to about 400 feet in parts of the northwest section of the city.

Observations have been kept continuously since November 1870. Since June 1941 the official observations have been taken at Washington National Airport.

National Airport is located at the center of the urban heat island. As a result, low temperatures are the highest for the area. Differences between the airport and suburban locations are often 10 to 15 degrees. There is less variation in the high temperatures.

Summers are warm and humid and winters are cold, but not severe. Periods of pleasant weather often occur in the spring and fall. The summertime temperature is in the upper 80s and the winter is in the upper 20s. Precipitation is rather uniformly distributed throughout the year.

Thunderstorms can occur at any time but are most frequent during the late spring and summer. The storms are most often accompanied by downpours and gusty winds, but are not usually severe.

Tornadoes, which infrequently occur, have resulted in significant damage. Severe hailstorms have occurred in the spring.

Tropical storms can bring heavy rain, high winds and flooding, but extensive damage from wind and tidal flooding is rare. Wind gusts of nearly 100 mph and rainfall over 7 inches have occurred during the passage of tropical storms and hurricanes.

Major flooding of the Potomac River can result from heavy rains over the basin, occasionally augmented by snowmelt, and above normal tides associated with hurricanes or severe storms along the coast. Flooding may also occur after a cold winter when the Potomac may be blocked with ice.

Although a snowfall of 10 inches or more in 24 hours is unusual, several notable falls of more than 25 inches have occurred. Normal snowfall during the winter season is 18 inches.

The average date of the last freezing temperature in the spring is April 1 and the average date for the first freezing temperature in the fall is November 10.

Station History

WASHINGTON, DC

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
WASHINGTON D C WASHNGTN HOOVER AP	1941-01-01	1941-06-16	38° 51'	-77° 1'			AIRWAYS
WASHINGTON DC NATIONAL AP	1960-01-01	1973-01-01	38° 51'	-77° 1'	10		AIRWAYS, COOP
WASHINGTON DC NATIONAL AP	1948-04-01	1960-01-01	38° 51'	-77° 1'	66		AIRWAYS, COOP
WASHINGTON DC NATIONAL AP	1981-12-31	1998-02-01	38° 51'	-77° 1'	10		COOP
WASHINGTON D C WASHNGTN HOOVER AP	1931-07-21	1941-01-01	38° 52'	-77° 3'			AIRWAYS
WASHINGTON REAGAN NATIONAL AP	1999-01-01	2003-12-13	38° 50'	-77° 2'	10		ASOS, COOP
WASHINGTON REAGAN NATIONAL AP	2003-12-13	Present	38° 50'	-77° 2'	10		ASOS, COOP
WASHINGTON D C BOLLING FIELD	1929-07-01	1931-07-21	38° 52'	-77° 3'			AIRWAYS
WASHINGTON DC NATIONAL AP	1941-06-16	1948-04-01	38° 51'	-77° 1'			AIRWAYS
WASHINGTON DC NATIONAL AP	1998-02-01	1999-01-01	38° 50'	-77° 2'	10	.2 MI W	ASOS, COOP
WASHINGTON DC NATIONAL AP	1973-01-01	1981-12-31	38° 51'	-77° 1'	10		COOP, WXSVC

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	2003-12-13	2008-02-21	DAILY	2400	PCPN1		
TEMP	2008-02-21	Present	DAILY	2400	HYGR		
PRECIP	1982-01-01	1992-01-01	HOURLY	2400			
PRECIP	1929-07-01	1982-01-01	DAILY		UNIV	RCRD	
PRECIP	1992-01-01	1995-07-01	DAILY		UNIV	RCRD	
TEMP	2003-12-13	2008-02-21	DAILY	2400	HYGR		
PRECIP	2008-02-21	Present	DAILY	2400	PCPN1		
TEMP	1982-01-01	1992-01-01	DAILY	2400			
PRECIP	1992-01-01	1995-07-01	HOURLY	2400			
TEMP	1929-07-01	1982-01-01	DAILY	2400			
TEMP	1998-02-01	2003-12-13	DAILY	2400	HYGR		
PRECIP	1998-02-01	2003-12-13	HOURLY	2400	TB	RCRD	
PRECIP	1998-02-01	2003-12-13	DAILY	2400	TB	RCRD	
PRECIP	1995-07-01	1998-02-01	DAILY	2400	UNIV	RCRD	
PRECIP	2003-12-13	2008-02-21	HOURLY	2400	TB	RCRD	
PRECIP	1982-01-01	1992-01-01	DAILY		UNIV	RCRD	
TEMP	1992-01-01	1995-07-01	DAILY	2400	MXMN		
PRECIP	1995-07-01	1998-02-01	HOURLY	2400	UNIV	RCRD	
TEMP	1995-07-01	1998-02-01	DAILY	2400	MXMN		
PRECIP	2003-12-13	2008-02-21	DAILY	2400	TB	RCRD	
PRECIP	2008-02-21	Present	HOURLY	2400	AWPAG	RCRD;HTD	

* 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>

INQUIRES/COMMENTS CALL: (828) 271-4800, option 2

Fax Number : (828) 271-4876

TDD : (828) 271-4010

Email : ncdc.info@noaa.gov

NOAA/National Climatic Data Center

Attn: User Engagement & Services Branch

151 Patton Avenue

Asheville, NC 28801-5001

Visit our Web Site for other weather data: www.ncdc.noaa.gov