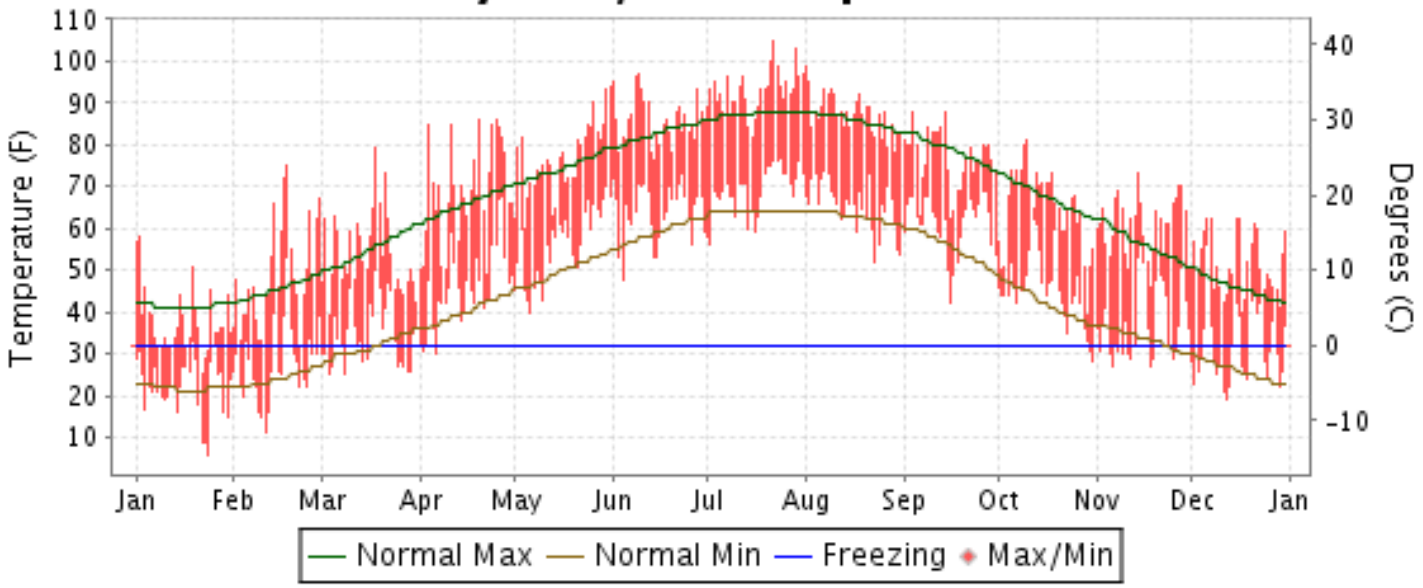
2011
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA

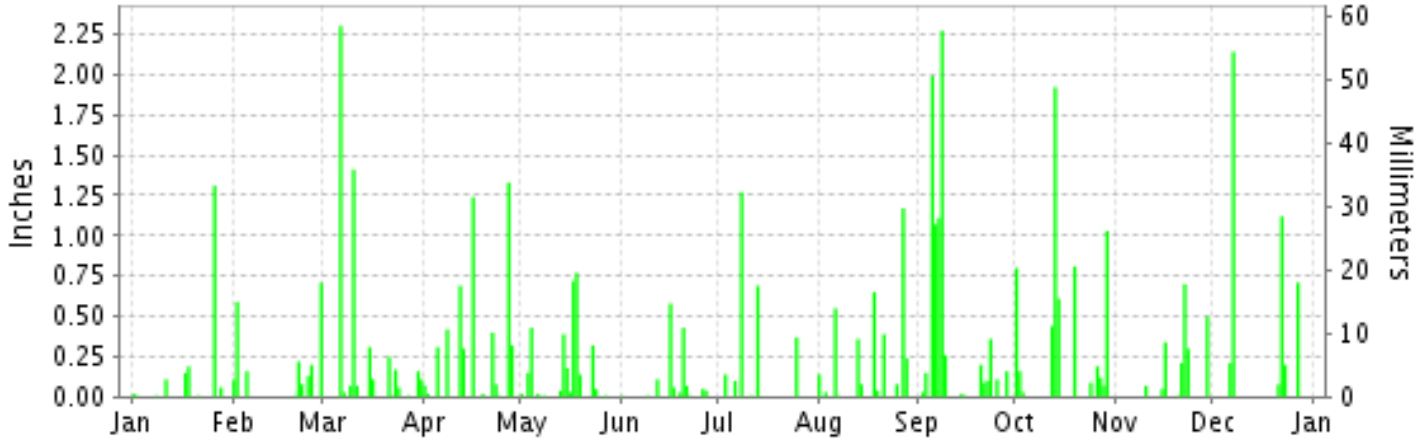
ISSN 0198-120X

WASHINGTON, D.C. (KIAD)

Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA

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METEOROLOGICAL DATA FOR 2011
WASHINGTON (KIAD)

LATITUDE: 38° 56'N **LONGITUDE:** -77° 27'W **ELEVATION (FT):** GRND: 290 BARO: 309 **TIME ZONE:** EASTERN (UTC -5) **WBAN:** 93738

	ELEMENT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	MEAN DAILY MAXIMUM	37.8	48.7	54.0	68.7	76.5	85.8	92.8	87.3	76.8	64.9	60.7	51.5	67.1
	HIGHEST DAILY MAXIMUM	58	75	79	86	94	97	105	99	88	81	73	62	105
	DATE OF OCCURRENCE	02	18	18	25+	31	09	22	01	14+	10	14	16+	JUL 22
	MEAN DAILY MINIMUM	22.1	27.5	34.4	45.9	56.1	64.0	69.1	65.3	61.3	45.2	37.5	31.4	46.7
	LOWEST DAILY MINIMUM	6	11	25	30	40	48	56	52	42	28	27	19	6
	DATE OF OCCURRENCE	24	11	08+	06	06	04	02	23	16	31	18+	12	JAN 24
	AVERAGE DRY BULB	30.0	38.1	44.2	57.3	66.3	74.9	81.0	76.3	69.1	55.1	49.1	41.5	56.9
	MEAN WET BULB	26.5	32.9	38.7	50.9	60.5	66.2	70.8	67.9	65.0	50.5	44.1	37.9	51.0
	MEAN DEW POINT	18.0	23.5	29.8	44.7	56.3	60.7	65.4	63.1	62.5	46.4	38.2	31.6	45.0
	NUMBER OF DAYS WITH:													
	MAXIMUM >= 90°	0	0	0	0	3	7	24	8	0	0	0	0	42
	MAXIMUM <= 32°	8	1	0	0	0	0	0	0	0	0	0	0	9
	MINIMUM <= 32°	30	21	14	4	0	0	0	0	0	2	14	20	105
	MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0
H/C	HEATING DEGREE DAYS	1080	750	637	269	74	0	0	0	33	303	469	723	4338
	COOLING DEGREE DAYS	0	0	0	45	121	306	504	359	160	2	0	0	1497
RH	MEAN (PERCENT)	62	60	60	66	72	65	63	67	81	75	70	69	68
	HOUR 01 LST	69	68	70	76	87	82	81	83	91	85	80	77	79
	HOUR 07 LST	71	69	67	72	76	67	65	71	86	81	82	78	74
	HOUR 13 LST	50	47	47	54	54	46	44	48	68	58	52	54	52
	HOUR 19 LST	60	59	55	61	72	66	60	67	83	79	68	69	67
S	PERCENT POSSIBLE SUNSHINE													
W/O	NUMBER OF DAYS WITH:													
	HEAVY FOG(VISBY <= 1/4 MI)	3	1	0	1	0	0	2	0	5	0	3	1	16
	THUNDERSTORMS	1	2	2	6	8	5	5	4	8	2	0	0	43
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.)	29.66	29.69	29.77	29.58	29.60	29.59	29.60	29.54	29.66	29.66	29.77	29.83	29.66
	MEAN SEA-LEVEL PRESS. (IN.)	30.03	30.05	30.12	29.93	29.95	29.93	29.94	29.90	30.01	30.01	30.12	30.19	30.02
WINDS	RESULTANT SPEED (MPH)	4.2	4.1	1.5	2.5	1.8	2.4	1.7	1.3	0.3	1.7	1.9	2.1	1.7
	RES. DIR. (TENS OF DEGS.)	31	28	32	21	20	28	26	28	14	29	24	28	28
	MEAN SPEED (MPH)	7.2	8.7	8.3	9.6	6.5	5.8	5.3	6.6	4.7	5.9	6.4	5.9	6.7
	PREVAIL.DIR.(TENS OF DEGS.)	31	19	33	19	17	33	20	31	16	31	19	19	31
	MAXIMUM 2-MINUTE WIND													
	SPEED (MPH)	36	46	36	33	35	30	31	32	29	29	36	29	46
	DIR. (TENS OF DEGS.)	29	30	33	31	22	30	03	34	35	32	32	29	30
	DATE OF OCCURRENCE	12	25	07	05	27	09	13	27	15	27	23	28	FEB 25
	MAXIMUM 3-SECOND WIND:													
	SPEED (MPH)	43	59	46	43	49	38	39	45	37	36	44	41	59
	DIR. (TENS OF DEGS.)	30	29	33	26	22	30	03	34	35	32	32	28	29
	DATE OF OCCURRENCE	12	25	07	16	27	09	13	27	15	27	23	08	FEB 25
PRECIPITATION	WATER EQUIVALENT:													
	TOTAL (IN.)	1.87	2.21	5.07	5.21	3.28	1.40	2.58	3.74	7.93	6.27	2.18	4.46	46.20
	GREATEST 24-HOUR (IN.)	1.31	0.71	2.33	1.65	1.16	0.58	1.27	1.41	2.91	2.04	0.87	2.14	2.91
	DATE OF OCCURRENCE	26	28	06-07	27-28	17-18	16	08	27-28	05-06	13-14	22-23	07	SEP 05-06
	NUMBER OF DAYS WITH:													
	PRECIPITATION 0.01	9	9	14	13	15	11	6	12	15	12	8	6	130
	PRECIPITATION 0.10	4	7	8	8	8	3	5	7	11	9	5	5	80
	PRECIPITATION 1.00	1	0	2	2	0	0	1	1	4	2	0	2	15
SNOWFALL	SNOW,ICE PELLETS,HAIL													
	TOTAL (IN.)	10.3	0.7	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	T	11.7
	GREATEST 24-HOUR (IN.)	7.3	0.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	T	7.3
	DATE OF OCCURRENCE	26	21	27							29		29	JAN 26
	MAXIMUM SNOW DEPTH (IN.)	6	4	T	0	0	0	0	0	0	0	0	0	6
	DATE OF OCCURRENCE	27	01	27										JAN 27
	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 (KIAD)

LATITUDE: 38° 56'N **LONGITUDE:** -77° 27'W **ELEVATION (FT):** GRND: 290 BARO: 309 **TIME ZONE:** EASTERN (UTC -5) **WBAN:** 93738

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	41.4	45.5	55.0	65.9	74.6	82.8	87.4	85.9	78.9	67.7	56.5	45.9	65.6
	MEAN DAILY MAXIMUM	49	41.3	44.8	54.7	66.0	74.6	82.9	87.3	86.0	78.9	67.6	56.7	45.4	65.5
	HIGHEST DAILY MAXIMUM	49	75	79	89	93	97	100	105	104	99	94	84	79	105
	YEAR OF OCCURRENCE		1975	2000	1998	2010	1969	1964	2011	1983	1983	2007	1982	1998	JUL 2011
	MEAN OF EXTREME MAXS.	49	63.6	65.7	77.0	85.4	88.9	93.6	96.2	95.3	91.4	83.5	74.6	65.5	81.7
	NORMAL DAILY MINIMUM	30	21.9	24.1	31.8	40.2	49.9	59.0	64.0	62.8	55.6	42.3	33.8	26.0	42.6
	MEAN DAILY MINIMUM	49	22.8	24.4	32.5	41.4	50.8	59.9	65.0	63.6	56.1	43.1	34.8	26.6	43.4
	LOWEST DAILY MINIMUM	49	-18	-14	-1	17	28	36	41	38	30	15	9	-4	-18
	YEAR OF OCCURRENCE		1984	1979	1993	1969	1970	1977	1988	1982	1974	1969	1989	1989	JAN 1984
	MEAN OF EXTREME MINS.	49	3.4	7.0	15.9	26.0	35.2	45.4	52.2	50.5	39.8	27.8	19.2	10.2	27.7
	NORMAL DRY BULB	30	31.7	34.8	43.4	53.1	62.3	70.9	75.7	74.4	67.3	55.0	45.2	36.0	54.2
	MEAN DRY BULB	49	32.0	34.6	43.7	53.7	62.7	71.6	76.1	74.9	67.5	55.3	45.7	36.1	54.5
	MEAN WET BULB	28	28.0	29.9	36.6	46.4	56.0	64.5	68.3	67.2	60.9	49.7	40.4	31.5	48.3
	MEAN DEW POINT	28	24.3	26.0	32.7	42.3	53.4	62.4	66.6	65.5	58.8	47.1	37.0	27.9	45.3
	NORMAL NO. DAYS WITH:														
	MAXIMUM >= 90	30	0.0	0.0	0.0	0.3	1.0	5.0	12.0	8.7	2.9	*	0.0	0.0	29.9
	MAXIMUM <= 32	30	6.4	3.8	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	3.1	14.0
	MINIMUM <= 32	30	25.6	21.6	16.7	5.6	0.3	0.0	0.0	0.0	0.1	4.9	14.7	23.0	112.5
	MINIMUM <= 0	30	1.1	0.4	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.6
H/C	NORMAL HEATING DEG. DAYS	30	1025	847	670	362	139	21	1	4	60	323	589	884	4925
	NORMAL COOLING DEG. DAYS	30	0	0	4	11	60	203	345	302	132	15	3	0	1075
RH	NORMAL (PERCENT)	30	68	67	64	63	71	73	74	75	76	74	70	70	70
	HOUR 01 LST	30	75	74	72	73	84	88	88	90	89	86	79	77	81
	HOUR 07 LST	30	77	78	77	76	83	84	86	89	90	89	82	79	83
	HOUR 13 LST	30	59	54	51	48	55	56	55	55	56	54	54	58	55
	HOUR 19 LST	30	66	62	57	54	63	66	67	70	73	72	67	68	65
S	PERCENT POSSIBLE SUNSHINE	1	51												
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	48	2.9	2.2	1.8	1.1	2.1	1.5	1.7	2.1	2.4	2.8	2.0	2.6	25.2
	THUNDERSTORMS	49	0.2	0.2	1.0	2.6	4.2	6.1	6.1	4.8	2.2	0.9	0.5	0.1	28.9
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)	34	5.4	5.2	5.3	5.1	5.1	5.0	4.7	4.7	4.6	4.3	5.0	5.2	5.0
	MIDNIGHT-MIDNIGHT (OKTAS)	32	5.1	4.9	5.0	4.9	4.8	4.7	4.7	4.4	4.4	4.1	4.7	5.0	4.7
	MEAN NO. DAYS WITH:														
	CLEAR	34	7.4	7.4	6.7	7.0	7.0	6.4	7.8	8.2	8.6	10.6	7.2	7.3	91.6
	PARTLY CLOUDY	34	6.9	6.2	8.3	9.0	9.5	11.8	10.8	10.7	9.4	8.3	7.8	6.7	105.4
	CLOUDY	34	16.7	14.7	16.1	14.0	14.5	11.8	12.5	12.2	12.1	12.1	14.9	17.0	168.6
PR	MEAN STATION PRESSURE(IN)	28	29.74	29.73	29.70	29.63	29.65	29.64	29.65	29.68	29.72	29.74	29.77	29.77	29.70
	MEAN SEA-LEVEL PRES. (IN)	28	30.10	30.09	30.05	29.98	29.99	29.98	29.99	30.03	30.07	30.09	30.12	30.12	30.05
WINDS	MEAN SPEED (MPH)	28	7.7	8.0	8.5	8.0	6.9	6.3	5.8	5.6	6.0	6.2	6.9	7.1	6.9
	PREVAIL.DIR(TENS OF DEGS)	41	32	32	33	33	20	21	20	19	19	33	33	32	32
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	15	39	46	44	44	35	46	39	43	37	35	43	39	46
	DIR. (TENS OF DEGS)		31	30	28	32	22	09	31	34	08	30	29	31	30
	YEAR OF OCCURRENCE		2000	2011	2001	2008	2011	2007	2010	1997	2003	2006	2003	2010	FEB 2011
	MAXIMUM 3-SECOND														
	SPEED (MPH)	15	52	59	51	56	49	61	54	63	48	61	52	59	63
	DIR. (TENS OF DEGS)		29	29	28	30	22	14	30	33	09	16	30	29	33
	YEAR OF OCCURRENCE		2000	2011	2001	2007	2011	2007	2005	1997	2003	2007	2003	2008	AUG 1997
PRECIPITATION	NORMAL (IN)	30	3.05	2.77	3.55	3.22	4.22	4.07	3.57	3.78	3.82	3.37	3.31	3.07	41.80
	MAXIMUM MONTHLY (IN)	48	6.61	6.27	7.65	7.35	10.26	18.19	7.85	10.71	11.26	9.22	7.83	6.74	18.19
	YEAR OF OCCURRENCE		1979	2003	1993	1973	2009	1972	2005	1984	1975	2005	1963	1969	JUN 1972
	MINIMUM MONTHLY (IN)	48	0.40	0.25	0.07	0.33	0.34	0.52	0.94	0.44	.15	T	0.24	0.42	0.07
	YEAR OF OCCURRENCE		1981	1978	2006	1985	2007	1988	1983	1998	2005	1963	1981	1965	MAR 2006
	MAXIMUM IN 24 HOURS (IN)	48	2.22	2.17	2.56	3.61	4.36	11.88	4.05	7.04	5.54	4.62	4.80	3.15	11.88
	YEAR OF OCCURRENCE		1998	1998	1967	2008	2008	1972	1994	1984	1966	2005	1993	1977	JUN 1972
	NORMAL NO. DAYS WITH:														
	PRECIPITATION >= 0.01	30	10.8	9.2	10.6	10.1	12.3	10.8	10.8	9.7	9.1	7.8	9.1	9.8	120.1
	PRECIPITATION >= 1.00	30	0.6	0.8	0.9	0.7	0.8	0.9	0.9	1.0	1.0	0.9	0.8	0.5	9.8
SNOWFALL	NORMAL (IN)	30	8.1	6.2	3.4	0.4	0.0	0.0	0.0	0.0	0.0	0.1	0.8	2.2	21.2
	MAXIMUM MONTHLY (IN)	49	30.9	46.1	15.5	4.0	T	T	T	T	0.0	1.3	11.4	24.2	46.1
	YEAR OF OCCURRENCE		1996	2010	1993	1990	1963	1995	2006	2006		1979	1967	1966	FEB 2010
	MAXIMUM IN 24 HOURS (IN)	49	19.8	22.8	13.9	3.8	T	T	T	T	0.0	1.3	11.4	16.0	22.8
	YEAR OF OCCURRENCE'		1996	1983	1993	1990	1963	1995	2006	1993		1979	1967	2009	FEB 1983
	MAXIMUM SNOW DEPTH (IN)	47	19	26	13	1	0	0	0	0	0	0	4	18	26
	YEAR OF OCCURRENCE		1987	2010	1993	1990							1987	2009	FEB 2010
	NORMAL NO. DAYS WITH:														
	SNOWFALL >= 1.0	30	2.0	1.3	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.6	5.4

PRECIPITATION (inches) 2011 WASHINGTON (KIAD)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	2.10	4.09	3.47	2.82	3.57	5.49	2.11	3.36	4.22	2.21	2.87	2.25	38.56
1983	1.40	3.74	4.21	7.24	3.63	4.01	0.94	1.34	2.95	6.00	5.06	5.66	46.18
1984	1.42	4.13	5.81	5.01	4.23	2.19	2.46	10.71	1.49	1.73	3.64	1.25	44.07
1985	2.32	3.73	1.70	0.33	4.82	1.14	2.34	3.35	2.96	4.06	5.27	0.92	32.94
1986	1.58	3.16	1.12	3.01	1.19	1.40	1.86	5.72	1.04	1.30	4.17	4.83	30.38
1987	4.53	2.47	1.46	4.61	2.33	3.38	3.04	0.96	8.11	2.51	5.02	2.35	40.77
1988	2.47	2.06	2.31	2.35	10.26	0.52	7.12	3.92	1.80	1.60	4.48	0.92	39.81
1989	2.65	2.50	4.01	2.70	7.71	5.75	5.99	0.76	3.14	4.73	2.68	1.72	44.34
1990	3.14	1.65	2.78	5.06	4.37	1.77	5.42	5.56	1.49	6.53	2.56	5.00	45.33
1991	2.67	0.81	5.16	1.80	1.51	6.58	2.64	0.99	3.25	1.37	2.70	4.54	34.02
1992	2.13	2.26	3.23	3.15	3.82	2.88	7.23	1.33	5.55	2.81	5.24	4.73	44.36
1993	2.72	2.74	7.65	5.62	2.85	1.77	2.06	4.68	4.66	2.15	6.28	3.78	46.96
1994	4.12	3.61	6.71	1.71	3.19	5.82	5.75	4.62	3.40	1.05	1.86	2.42	44.26
1995	4.18	1.80	1.39	2.14	5.13	3.25	4.24	2.02	2.74	6.51	4.75	2.05	40.20
1996	5.61	2.62	3.52	3.69	7.07	4.88	5.89	4.16	7.72	3.97	3.75	5.21	58.09
1997	2.16	2.16	4.78	2.18	2.87	2.36	1.38	5.32	3.16	2.75	5.48	1.92	36.52
1998	5.43	5.83	5.60	2.92	4.52	5.87	1.31	0.44	1.25	1.50	1.21	1.53	37.41
1999	5.39	2.62	3.44	2.68	2.22	3.00	2.56	5.43	9.32	2.55	1.72	2.67	43.60
2000	2.50	1.92	3.35	4.36	2.57	4.02	4.28	5.92	4.20	0.06	1.57	2.06	36.81
2001	2.54	1.68	4.14	2.15	5.68	4.83	4.24	4.52	3.39	1.42	0.81	1.56	36.96
2002	1.22	0.46	3.48	3.45	4.73	3.61	2.64	2.91	2.84	5.04	4.13	3.61	38.12
2003	2.69	6.27	3.69	2.71	8.71	8.33	6.06	5.55	7.26	4.63	5.20	4.57	65.67
2004	1.41	1.93	2.05	5.04	3.06	3.73	3.72	3.79	5.80	1.04	4.11	3.01	38.69
2005	3.14	1.41	3.93	4.34	4.86	1.92	7.85	2.32	0.15	9.22	2.49	2.92	44.55
2006	2.39	2.38	0.07	4.86	1.80	11.79	2.45	1.24	7.12	4.82	5.31	1.74	45.97
2007	2.11	2.54	2.93	3.38	0.34	2.92	1.75	1.67	1.40	3.52	1.49	2.97	27.02
2008	1.26	2.67	2.47	6.22	9.38	4.21	2.18	2.48	7.18	1.31	2.01	2.61	43.98
2009	2.64	0.35	2.41	4.12	10.26	6.69	2.18	2.75	1.83	5.70	3.71	5.98	48.62
2010	2.01	4.63	3.36	1.29	5.42	1.29	4.17	4.42	6.16	2.38	2.50	1.47	39.10
2011	1.87	2.21	5.07	5.21	3.28	1.40	2.58	3.74	7.93	6.27	2.18	4.46	46.20
POR= 49 YRS	2.75	2.61	3.38	3.24	4.21	4.09	3.58	3.74	3.94	3.31	3.18	3.12	41.15

WBAN : 93738

AVERAGE TEMPERATURE (°F) 2011 WASHINGTON (KIAD)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	26.2	36.5	43.7	51.3	66.8	70.8	77.0	72.3	66.9	57.3	48.4	42.6	55.0
1983	34.7	35.0	46.0	50.2	59.4	70.0	74.6	75.3	66.2	54.7	44.7	30.4	53.4
1984	25.8	38.9	37.5	50.9	59.8	71.2	72.0	74.2	63.0	61.8	42.6	43.3	53.4
1985	28.1	35.8	45.0	57.1	63.8	69.7	75.9	73.4	67.7	58.4	52.6	33.2	55.1
1986	32.5	32.1	44.3	53.6	64.2	73.4	79.0	72.5	68.2	56.8	43.2	36.8	54.7
1987	31.2	33.1	43.5	51.7	64.3	73.7	79.1	75.4	68.7	49.9	47.8	38.6	54.8
1988	27.6	34.5	43.9	52.2	63.5	70.9	78.7	78.4	66.4	49.2	46.0	35.8	53.9
1989	36.3	35.2	43.7	51.7	61.4	73.8	76.0	74.4	68.6	57.3	43.7	23.1	53.8
1990	40.8	42.2	48.1	54.3	61.6	72.0	76.9	73.8	66.1	58.7	48.6	41.3	57.0
1991	34.0	39.5	46.1	56.0	69.3	72.3	77.9	77.0	67.6	56.6	45.7	38.5	56.7
1992	35.0	38.0	41.9	53.1	59.7	68.6	75.9	70.4	66.0	52.2	45.7	36.8	53.6
1993	36.8	31.7	39.3	52.6	64.5	72.0	79.7	78.0	68.7	54.2	45.3	34.0	54.7
1994	26.1	33.3	42.7	60.1	59.9	76.1	79.5	73.8	66.7	53.9	49.1	40.3	55.1
1995	37.2	31.3	46.1	52.6	62.7	71.5	78.2	77.6	67.1	58.3	39.7	33.0	54.6
1996	30.0	34.7	39.7	54.6	59.7	72.8	72.9	72.7	67.1	55.7	39.3	38.3	53.1
1997	32.5	40.5	44.6	50.3	58.8	69.1	75.8	73.3	65.1	53.7	43.6	37.2	53.7
1998	40.1	41.0	45.5	54.9	66.0	70.4	75.3	76.2	72.7	56.2	45.6	40.9	57.1
1999	35.0	37.5	41.4	53.0	62.8	70.8	78.5	75.4	67.0	53.1	50.1	38.2	55.2
2000	32.5	39.2	47.9	53.3	64.6	72.2	71.8	72.8	65.0	57.0	42.5	27.8	53.9
2001	32.1	38.5	40.5	55.5	62.6	72.4	72.2	76.5	65.4	55.8	50.7	41.3	55.3
2002	39.1	38.9	45.4	56.8	61.9	72.6	77.3	78.1	69.1	55.0	44.1	33.4	56.0
2003	28.4	30.3	44.1	53.5	59.8	69.3	75.4	76.2	67.1	53.8	50.0	36.0	53.7
2004	28.0	34.8	46.3	54.8	69.8	70.9	75.9	73.6	68.8	55.6	48.4	37.8	55.4
2005	34.8	37.4	40.9	55.3	59.7	73.7	77.9	77.7	71.9	58.8	47.8	33.4	55.8
2006	41.8	36.0	45.9	57.4	62.8	72.6	78.6	78.1	65.6	54.9	48.6	41.9	57.0
2007	39.1	28.6	46.4	52.2	66.1	74.1	77.3	78.7	71.2	63.6	46.1	38.4	56.8
2008	35.5	37.3	45.9	56.0	61.1	74.4	76.8	73.8	69.4	55.2	44.3	38.3	55.7
2009	29.6	38.0	43.7	55.9	65.0	73.1	74.9	78.4	68.4	56.4	49.9	35.2	55.7
2010	33.4	30.9	49.5	59.3	67.0	76.8	79.5	77.0	71.3	58.0	46.2	30.9	56.7
2011	30.0	38.1	44.2	57.3	66.3	74.9	81.0	76.3	69.1	55.1	49.1	41.5	56.9
POR= 49 YRS	32.0	34.6	43.7	53.7	62.7	71.6	76.1	74.9	67.5	55.3	45.7	36.1	54.5

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

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0	13	41	266	504	687	934	832	581	449	204	16	4527
1983-84	3	1	103	325	600	1066	1209	750	845	414	194	19	5529
1984-85	4	0	137	130	664	664	1136	814	617	261	94	20	4541
1985-86	0	0	73	217	368	977	995	915	636	336	114	10	4641
1986-87	0	31	52	296	648	868	1039	888	660	398	113	4	4997
1987-88	0	5	21	464	508	810	1152	873	646	381	107	49	5016
1988-89	7	0	50	485	564	899	881	825	670	399	167	0	4947
1989-90	0	7	60	260	633	1295	740	634	547	347	124	8	4655
1990-91	1	0	79	236	482	728	952	706	579	290	53	8	4114
1991-92	0	0	69	280	577	814	921	779	708	359	181	20	4708
1992-93	0	4	79	391	572	869	870	929	787	366	79	19	4965
1993-94	0	0	64	330	587	952	1201	884	684	187	196	5	5090
1994-95	0	0	28	342	474	762	857	936	580	378	118	4	4479
1995-96	0	0	61	236	754	987	1075	874	778	330	220	7	5322
1996-97	0	0	41	288	765	820	998	680	625	433	205	54	4909
1997-98	0	0	69	369	633	855	765	665	630	298	60	33	4377
1998-99	0	1	25	269	577	743	924	765	725	355	96	15	4495
1999-00	2	1	50	364	442	823	1001	742	520	348	98	9	4400
2000-01	0	1	112	256	670	1144	1015	736	752	304	106	13	5109
2001-02	5	0	80	293	426	727	796	724	600	294	163	2	4110
2002-03	0	0	17	341	621	972	1127	963	641	347	178	31	5238
2003-04	0	0	35	339	452	891	1142	872	574	336	47	12	4700
2004-05	0	2	13	298	493	836	929	766	744	295	178	9	4563
2005-06	0	0	12	221	506	971	715	803	589	232	132	4	4185
2006-07	0	0	54	322	486	708	795	1012	580	392	87	3	4439
2007-08	0	0	28	142	559	818	908	795	586	274	154	0	4264
2008-09	0	0	24	314	615	820	1089	752	655	306	86	9	4670
2009-10	0	0	19	268	447	917	973	947	473	209	77	1	4331
2010-11	0	0	10	231	557	1051	1080	750	637	269	74	0	4659
2011-	0	0	33	303	469	723							

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

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	0	6	120	191	381	248	103	34	11	2	1096
1983	0	0	0	12	40	173	307	328	149	10	0	0	1019
1984	0	0	0	0	38	215	228	292	82	39	0	0	894
1985	0	1	4	32	65	169	344	267	160	20	5	0	1067
1986	0	0	3	0	93	266	441	273	151	49	0	0	1276
1987	0	0	0	5	97	270	446	335	138	0	0	0	1291
1988	0	0	1	2	71	231	439	423	96	5	0	0	1268
1989	0	0	16	9	63	270	343	305	176	27	1	0	1210
1990	0	0	30	31	26	223	376	279	118	49	0	0	1132
1991	0	0	0	23	196	234	408	379	153	24	3	0	1420
1992	0	0	0	8	24	131	343	180	116	1	0	0	803
1993	0	0	0	2	71	233	464	407	183	2	6	0	1368
1994	0	0	0	49	45	345	456	277	88	2	4	0	1266
1995	0	0	0	12	55	208	415	395	132	37	0	0	1254
1996	0	0	0	27	61	248	253	247	113	4	0	0	953
1997	0	0	0	0	22	185	340	265	79	28	0	0	919
1998	1	0	35	3	97	204	326	358	259	3	0	3	1289
1999	0	0	0	0	34	198	426	332	120	1	0	0	1111
2000	0	0	0	5	92	229	220	248	119	15	0	0	928
2001	0	0	0	26	41	245	235	366	98	15	4	0	1030
2002	0	0	0	55	73	237	386	414	147	35	0	0	1347
2003	0	0	0	8	22	165	328	356	105	0	9	0	993
2004	0	0	0	37	203	197	344	278	133	9	0	0	1201
2005	0	0	0	11	17	273	409	401	226	35	0	0	1372
2006	0	0	3	9	70	239	418	411	80	14	1	0	1245
2007	0	0	8	15	128	280	389	434	220	108	0	0	1582
2008	0	0	0	12	39	290	375	278	160	17	0	0	1171
2009	0	0	2	40	92	259	313	416	129	8	0	0	1259
2010	0	0	0	42	147	360	457	380	207	20	0	0	1613
2011	0	0	0	45	121	306	504	359	160	2	0	0	1497

SNOWFALL (inches) 2011 WASHINGTON (KIAD)

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	11.9	0.1	27.2	T	T	0.0	0.0	39.2
1983-84	0.0	0.0	0.0	0.0	0.3	T	10.5	0.8	10.8	0.0	0.0	0.0	22.4
1984-85	0.0	0.0	0.0	0.0	T	T	13.8	0.7	T	0.3	0.0	0.0	14.8
1985-86	0.0	0.0	0.0	0.0	0.0	0.2	1.9	16.0	T	T	0.0	0.0	18.1
1986-87	0.0	0.0	0.0	0.0	0.0	T	28.8	12.0	1.4	0.5	0.0	0.0	42.7
1987-88	0.0	0.0	0.0	0.0	5.5	0.1	10.9	T	0.2	T	0.0	0.0	16.7
1988-89	0.0	0.0	0.0	0.0	0.0	1.0	6.6	1.4	0.9	0.0	0.0	0.0	9.9
1989-90	0.0	0.0	0.0	0.0	2.4	11.4	5.0	T	6.4	4.0	0.0	0.0	29.2
1990-91	0.0	0.0	0.0	0.0	0.0	4.7	6.3	0.1	3.5	T	0.0	0.0	14.6
1991-92	0.0	0.0	0.0	0.0	T	T	2.1	3.4	1.2	T	0.0	0.0	6.7
1992-93	0.0	0.0	0.0	0.0	T	2.8	3.2	8.8	15.5	T	0.0	0.0	30.3
1993-94	0.0	T	0.0	0.0	0.0	3.5	4.2	3.8	7.9	T	0.0	T	19.4
1994-95	0.0	0.0	0.0	0.0	T	0.0	4.3	7.8	1.9	0.0	0.0	T	14.0
1995-96	0.0	0.0	0.0	0.0	3.6	2.5	30.9	16.4	6.0	2.5			
1996-97					.7	1.9	5.5	8.2	1.5	0.0	0.0	0.0	
1997-98	0.0	0.0	0.0	0.0	0.0	4.7	0.5	0.7	T	0.0	T	T	5.9
1998-99	0.0	0.0	0.0	0.0	0.0	0.6	4.1	0.9	14.6	0.0	0.0	0.0	20.2
1999-00	0.0	0.0	0.0	0.0	0.0	0.2	21.4	1.4	0.0	0.2	T	0.0	23.2
2000-01	0.0	0.0	0.0	0.0	T	3.1	5.1	3.7	1.0	0.0	0.0	0.0	12.9
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	2.6	T	0.0	0.0	T	0.0	2.6
2002-03	0.0	0.0	0.0	0.0	T	8.2	5.1	34.9	1.9	T	0.0	0.0	50.1
2003-04	0.0	T	0.0	0.0	0.0	11.4	6.0	T	T	0.0	0.0	0.0	17.4
2004-05	0.0	0.0	0.0	0.0	0.0	T	7.4	8.7	1.2	0.0	0.0	0.0	17.3
2005-06	0.0	0.0	0.0	0.0	T	5.7	T	8.1	T	0.0	0.0	0.0	13.8
2006-07	T	T	0.0	0.0	0.0	T	1.6	9.8	3.1	0.2	0.0	0.0	14.7
2007-08	0.0	0.0	0.0	0.0	0.0	2.5	4.0	T	0.0	T	0.0	0.0	6.5
2008-09	0.0	0.0	0.0	0.0	0.0	T	2.0	T	6.0	0.0	0.0	0.0	8.0
2009-10	0.0	0.0	0.0	0.0	0.0	21.4	5.7	46.1	T	0.0	0.0	0.0	73.2
2010-11	0.0	0.0	0.0	0.0	0.0	1.5	10.3	0.7	0.1	0.0	0.0	0.0	12.6
2011-	0.0	0.0	0.0	0.6	0.0	T							
POR= 48 YRS	T	T	0.0	0.0	0.8	3.9	7.0	7.4	3.0	0.3	T	T	22.4

WBAN : 93738

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
WASHINGTON
D.C. (KIAD)

Dulles International Airport is located in the Virginia Piedmont about 23 miles east of the Blue Ridge Mountains and 12 miles east of the Bull Run and Catoctin Mountains. The Blue Ridge rises to about 2,500 feet above sea level and the Bull Run Mountains to about 1,500 feet at their nearest points. Field elevation is 313 feet. The terrain near the airport is mostly low rolling hills about one-fourth wooded. Ponds located on and near the airport, along with poor air drainage contribute to the formation of local ground fog. Easterly winds cause an upslope effect from the Atlantic Ocean, 140 miles east, and from the Chesapeake Bay, about 55 miles east. Westerly winds create a slight foehn effect.

Its location in the middle latitudes, where the general atmospheric flow is from west to east, favors a continental climate with four well defined seasons. Summers are warm and at times humid, Winters are mild. Generally pleasant weather prevails in spring and autumn. The coldest period, when temperatures average 21 degrees, occurs in late January. The warmest period, averaging 88 degrees, occurs in the last half of July.

Precipitation is rather evenly distributed through the year. Annual precipitation has ranged from about 25 inches to more than 55 inches. Rainfalls of over 10 inches in a 24-hour period have been recorded during the passage of tropical storms. The seasonal snowfall is nearly 24 inches, but varies greatly from season to season. Snowfalls of 4 inches or more occur only twice each winter on average. Accumulations of over 20 inches from a single storm are extremely rare.

Storm damage results mainly from heavy snows and freezing rains in winter and from hurricanes and severe thunderstorms during the other seasons. Damage may result from wind, flooding or rain.

Prevailing winds are from the south except during the winter months when they are from the northwest. The windiest period is late winter and early spring. Winds are generally less during the night and early morning hours and increase to a high in the afternoon. Winds may reach 50 to 60 miles per hour or even higher during severe summer thunderstorms, hurricanes, and winter storms.

The growing season averages l69 days. The average date for the last freeze in spring is late April and the average date for the first freeze in the fall is mid October.

Station History

WASHINGTON, DC

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
WASHINGTON DC DULLES INTL AP	2008-02-21	Present	38° 56'	-77° 27'	290		ASOS,COOP
WASHINGTON DC DULLES INTL AP	1973-01-01	1996-05-01	38° 57'	-77° 27'	290		COOP,WXSVC
WASHINGTON DC DULLES INTL AP	2001-11-29	2008-02-21	38° 56'	-77° 29'	290		ASOS,COOP
WASHINGTON DC DULLES INTL AP	1996-05-01	2001-11-29	38° 56'	-77° 29'	290	1 MI SSW	ASOS,COOP
WASHINGTON DC DULLES INTL AP	1962-12-01	1973-01-01	38° 57'	-77° 27'	290		AIRWAYS,COOP
WASHINGTON DC DULLES INTL AP	1962-11-17	1962-12-01	38° 57'	-77° 27'	290		AIRWAYS

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1996-05-01	2001-11-29	DAILY	2400	HYGR		
PRECIP	2001-11-29	2008-02-21	HOURLY	2400	AHTB	RCRD;HTD	
PRECIP	2001-11-29	2008-02-21	DAILY	2400	AHTB	RCRD;HTD	
PRECIP	2008-02-21	Present	HOURLY	2400	AWPAG	RCRD;HTD	
PRECIP	2008-02-21	Present	DAILY	2400	PCPNX		
PRECIP	1992-01-01	1995-07-01	DAILY		SRG		
TEMP	1992-01-01	1995-07-01	DAILY		HYGR		
PRECIP	1995-07-01	1996-05-01	DAILY	2400	SRG		
PRECIP	1962-11-17	1992-01-01	DAILY	2400			
TEMP	1962-11-17	1992-01-01	DAILY	2400			
PRECIP	1996-05-01	2001-11-29	HOURLY	2400	TB	RCRD	
TEMP	2001-11-29	2008-02-21	DAILY	2400	ATEMP		
TEMP	1995-07-01	1996-05-01	DAILY		HYGR		
PRECIP	1996-05-01	2001-11-29	DAILY	2400	TB	RCRD	
TEMP	2008-02-21	Present	DAILY	2400	ATEMP		

* 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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