

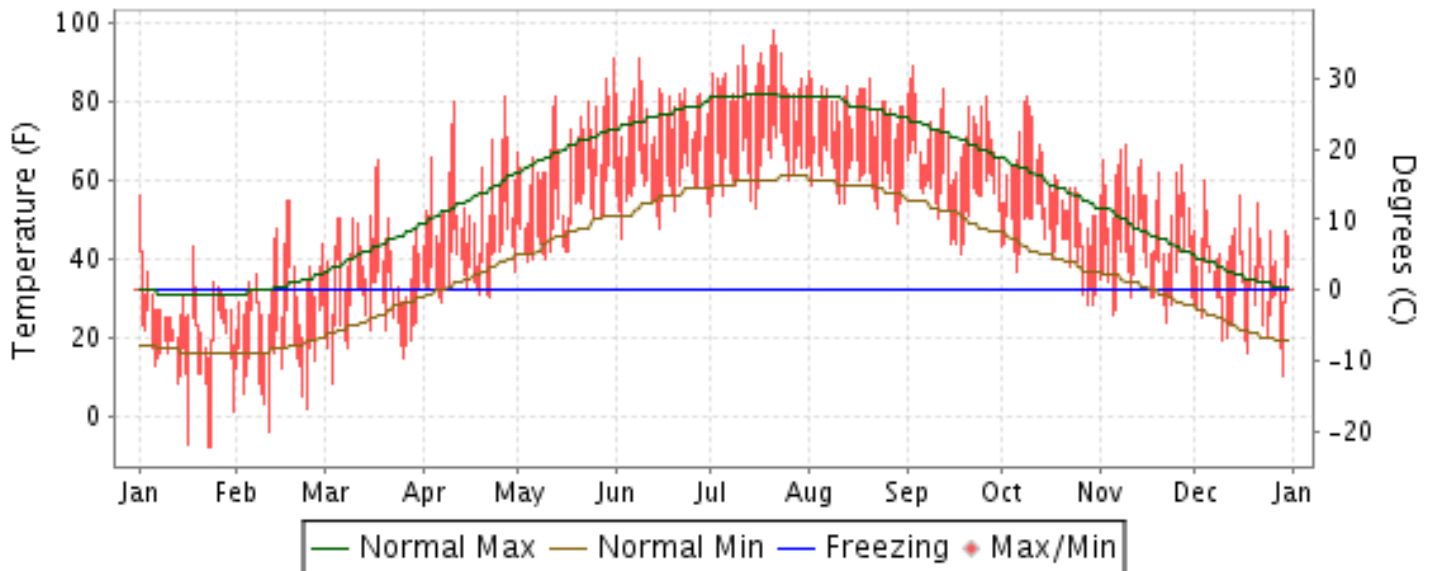


2011 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

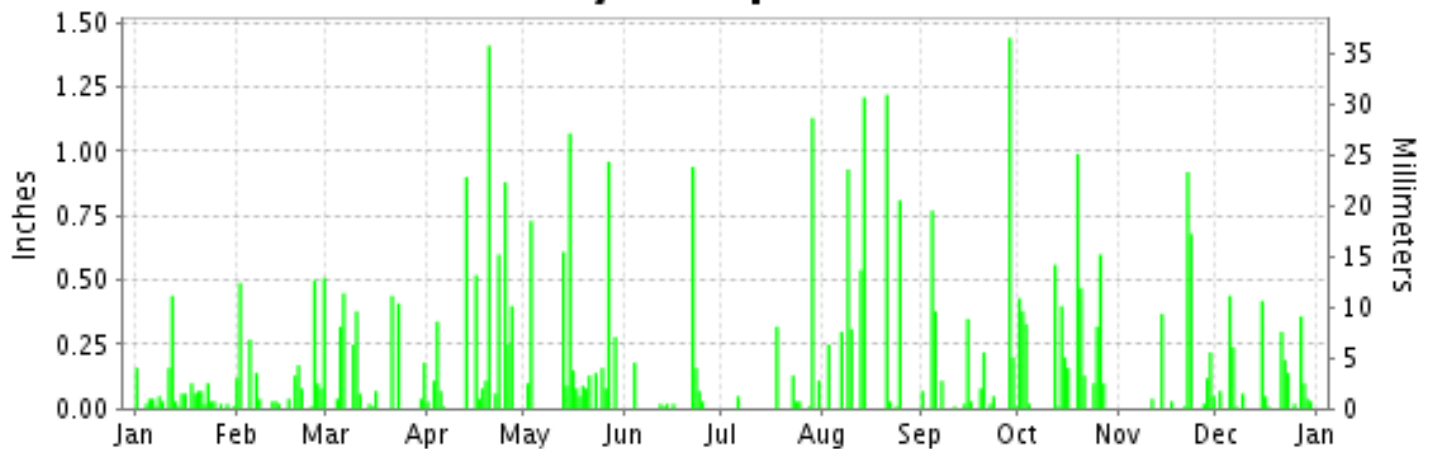
ISSN 0198-3652

ROCHESTER, NEW YORK (KROC)

Daily Max/Min Temperature



Daily Precipitation



Daily Station Pressure



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CLIMATIC DATA CENTER
ASHEVILLE, NORTH CAROLINA

Thomas R. Karl
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

METEOROLOGICAL DATA FOR 2011

ROCHESTER (KROC)

LATITUDE: 43° 7'N LONGITUDE: -77° 40'W ELEVATION (FT): GRND: 533 BARO: 588 TIME ZONE: EASTERN (UTC -5) WBAN: 14768

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	28.2	33.5	41.6	55.5	67.9	76.6	85.9	79.0	72.7	59.8	54.8	42.2	58.1	
	HIGHEST DAILY MAXIMUM	56	55	65	81	91	91	98	88	89	81	69	60	98	
	DATE OF OCCURRENCE	01	18+	18	27	31	08	21	01	03	09	09	04	JUL 21	
	MEAN DAILY MINIMUM	15.5	15.6	25.9	37.3	49.7	57.8	63.4	60.3	55.9	43.2	36.9	28.3	40.8	
	LOWEST DAILY MINIMUM	-8	-4	8	29	39	45	51	49	41	28	24	10	-8	
	DATE OF OCCURRENCE	24+	11	03	07	04	03	01	29	18	30+	22	29	JAN 24+	
	AVERAGE DRY BULB	21.9	24.6	33.8	46.4	58.8	67.2	74.7	69.7	64.3	51.5	45.9	35.3	49.5	
	MEAN WET BULB	20.4	22.4	30.2	42.0	54.1	60.6	65.6	64.2	59.8	47.4	40.9	32.3	45.0	
	MEAN DEW POINT	15.7	16.3	23.4	36.5	50.1	55.5	59.9	60.6	56.7	43.5	34.3	26.9	40.0	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	1	1	7	0	0	0	0	0	9	
MAXIMUM <= 32°	24	16	6	0	0	0	0	0	0	0	0	3	49		
MINIMUM <= 32°	30	27	23	11	0	0	0	0	0	4	10	22	127		
MINIMUM <= 0°	3	1	0	0	0	0	0	0	0	0	0	0	4		
H/C	HEATING DEGREE DAYS	1331	1125	960	556	232	30	0	9	86	411	565	914	6219	
	COOLING DEGREE DAYS	0	0	0	3	45	104	305	161	76	1	0	0	695	
RH	MEAN (PERCENT)	76	70	67	71	75	68	63	75	78	77	67	72	72	
	HOUR 01 LST	80	71	74	81	86	82	81	89	89	85	74	76	81	
	HOUR 07 LST	82	77	75	73	77	74	68	79	86	82	72	79	77	
	HOUR 13 LST	70	65	58	62	64	53	45	62	63	62	55	62	60	
	HOUR 19 LST	75	68	67	69	75	63	55	75	80	81	70	74	71	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	2	2	2	1	4	1	0	2	2	0	2	0	18	
	THUNDERSTORMS	0	0	0	3	5	4	2	8	5	3	1	1	32	
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.)	29.36	29.37	29.50	29.29	29.35	29.32	29.33	29.28	29.41	29.38	29.43	29.50	29.38	
	MEAN SEA-LEVEL PRESS. (IN.)	29.99	30.00	30.12	29.89	29.95	29.91	29.92	29.87	30.00	29.98	30.03	30.11	29.98	
WINDS	RESULTANT SPEED (MPH)	4.9	4.9	3.2	3.3	1.4	3.4	4.0	2.3	1.5	2.1	4.9	5.2	3.2	
	RES. DIR. (TENS OF DEGS.)	26	27	26	24	01	28	27	23	25	24	25	25	26	
	MEAN SPEED (MPH)	8.3	10.3	10.1	10.5	7.7	7.7	7.1	6.4	6.2	7.9	9.0	8.4	8.3	
	PREVAIL.DIR.(TENS OF DEGS.)	26	25	31	26	04	25	22	22	22	23	22	22	22	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	30	40	32	51	33	37	29	30	31	33	30	35	51	
	DIR. (TENS OF DEGS.)	26	28	26	23	27	26	26	03	25	26	26	28	23	
	DATE OF OCCURRENCE	21	18	18	28	29	01	21	28	13	17	20	15	APR 28	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	39	58	44	66	43	52	40	44	44	45	40	46	66	
DIR. (TENS OF DEGS.)	25	28	26	24	27	26	09	27	25	27	26	26	24		
DATE OF OCCURRENCE	21	18	18	11	29	01	13	10	13	17	20	16	APR 11		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	1.64	2.76	2.67	5.81	4.80	1.45	1.81	5.61	3.76	5.20	2.46	2.48	40.45	
	GREATEST 24-HOUR (IN.)	0.60	0.53	0.65	1.52	1.10	0.94	1.13	1.75	1.44	1.27	1.60	0.68	1.75	
	DATE OF OCCURRENCE	11-12	01-02	05-06	19-20	15-16	22	29	13-14	28	19-20	22-23	05-06	AUG 13-14	
	NUMBER OF DAYS WITH:														
	PRECIPITATION 0.01	24	17	13	16	16	9	8	10	15	16	10	16	170	
PRECIPITATION 0.10	5	9	7	10	10	3	4	8	7	14	5	8	90		
PRECIPITATION 1.00	0	0	0	1	1	0	1	2	1	0	0	0	6		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	31.7	33.7	15.1	T	0.0	0.0	0.0	0.0	0.0	T	0.3	4.9	85.7	
	GREATEST 24-HOUR (IN.)	7.9	7.5	6.3	T	0.0	0.0	0.0	0.0	0.0	T	0.3	1.8	7.9	
	DATE OF OCCURRENCE	12	25	23	21+						29+	17	28+	JAN 12	
	MAXIMUM SNOW DEPTH (IN.)	10	10	5	0	0	0	0	0	0	0	0	1	10	
	DATE OF OCCURRENCE	13	27+	24+									30+	FEB 27+	
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0	11	11	3	0	0	0	0	0	0	0	0	2	27		

NORMALS, MEANS, AND EXTREMES ROCHESTER (KROC)

LATITUDE: 43° 7'N LONGITUDE: -77° 40'W ELEVATION (FT): GRND: 533 BARO: 588 TIME ZONE: EASTERN (UTC -5) WBAN: 14768

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	31.2	33.2	42.7	55.2	67.9	76.6	81.4	79.1	71.1	59.7	47.2	36.1	56.8
	MEAN DAILY MAXIMUM	86	31.8	32.3	41.8	54.9	67.6	76.5	81.8	79.7	71.8	60.8	47.6	36.0	56.9
	HIGHEST DAILY MAXIMUM	71	74	73	84	93	94	100	98	99	99	91	81	72	100
	YEAR OF OCCURRENCE		1950	1997	1945	1990	1987	1953	2011	1948	1953	1951	1950	1982	JUN 1953
	MEAN OF EXTREME MAXS.	86	53.8	53.5	68.3	79.3	85.9	90.8	92.6	90.9	87.9	79.9	68.8	56.9	75.7
	NORMAL DAILY MINIMUM	30	16.6	17.3	25.2	35.3	46.1	55.0	60.0	58.7	51.3	41.1	32.6	22.7	38.5
	MEAN DAILY MINIMUM	86	17.7	17.3	25.7	36.0	46.6	55.6	61.0	59.6	52.0	42.2	33.1	23.0	39.2
	LOWEST DAILY MINIMUM	71	-17	-19	-7	13	26	35	42	36	28	20	5	-16	-19
	YEAR OF OCCURRENCE		1994	1979	1999	1982	1979	1949	1963	1965	1947	1972	1971	1942	FEB 1979
	MEAN OF EXTREME MINS.	86	-1.9	-1.2	7.1	22.7	32.7	42.2	48.9	46.8	37.7	28.4	18.3	3.8	23.8
	NORMAL DRY BULB	30	23.9	25.3	33.9	45.3	57.0	65.8	70.7	68.9	61.2	50.4	39.9	29.4	47.6
	MEAN DRY BULB	86	24.8	24.9	33.8	45.4	57.1	66.2	71.4	69.7	61.9	51.5	40.4	29.5	48.1
	MEAN WET BULB	28	22.3	22.8	29.2	39.6	49.9	59.4	63.6	62.8	56.5	45.6	36.4	26.9	42.9
	MEAN DEW POINT	28	19.6	19.9	26.2	36.0	46.9	56.9	61.5	60.8	54.4	43.2	33.8	24.4	40.3
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	*	0.3	1.3	3.8	1.9	0.4	0.0	0.0	0.0	7.7
	MAXIMUM <= 32	30	16.4	13.9	6.3	0.5	0.0	0.0	0.0	0.0	0.0	0.0	1.7	10.0	48.8
MINIMUM <= 32	30	28.2	25.3	22.8	10.9	0.8	0.0	0.0	0.0	0.2	4.3	15.4	25.5	133.4	
MINIMUM <= 0	30	2.6	1.8	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	5.2	
H/C	NORMAL HEATING DEG. DAYS	30	1263	1117	958	582	266	69	17	25	154	447	741	1089	6728
	NORMAL COOLING DEG. DAYS	30	0	0	1	5	32	109	209	162	54	4	0	0	576
RH	NORMAL (PERCENT)	30	76	75	71	67	68	71	72	75	78	76	76	77	74
	HOURLY 01 LST	30	78	79	77	76	80	84	85	88	88	84	80	80	82
	HOURLY 07 LST	30	79	80	80	77	78	81	84	88	89	86	82	82	82
	HOURLY 13 LST	30	70	67	62	56	55	57	55	59	62	61	67	72	62
	HOURLY 19 LST	30	76	74	69	62	60	62	61	68	75	75	76	78	70
S	PERCENT POSSIBLE SUNSHINE	57	35	41	49	53	59	66	69	66	59	49	31	31	51
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	48	0.9	0.9	1.4	0.8	1.0	0.7	0.6	0.8	1.2	1.5	0.8	1.2	11.8
	THUNDERSTORMS	64	0.1	0.1	0.8	2.0	3.5	5.3	6.0	5.6	2.8	0.9	0.4	0.2	27.7
CLOUDINESS	MEAN: SUNRISE-SUNSET (OKTAS)	56	6.6	6.3	5.8	5.4	5.3	4.9	4.6	4.7	4.9	5.3	6.4	6.6	5.6
	MIDNIGHT-MIDNIGHT (OKTAS)	32	6.5	6.2	5.7	5.3	5.0	4.7	4.3	4.5	4.7	5.2	6.3	6.5	5.4
	MEAN NO. DAYS WITH: CLEAR	56	2.0	2.4	4.6	6.1	6.0	7.2	7.8	7.7	7.0	6.4	2.1	2.0	61.3
	PARTLY CLOUDY	56	6.6	6.7	8.1	7.7	9.7	10.8	12.5	11.7	10.5	8.4	6.1	5.6	104.4
	CLOUDY	56	22.4	19.2	18.3	16.3	15.4	12.1	10.7	11.7	12.6	16.3	21.8	23.4	200.2
PR	MEAN STATION PRESSURE(IN)	28	29.42	29.43	29.43	29.37	29.38	29.36	29.38	29.42	29.46	29.46	29.44	29.44	29.42
	MEAN SEA-LEVEL PRES. (IN)	28	30.04	30.05	30.05	29.98	29.98	29.96	29.97	30.01	30.05	30.06	30.06	30.06	30.02
WINDS	MEAN SPEED (MPH)	28	10.6	10.3	10.2	10.1	8.9	8.1	7.5	7.1	7.4	8.4	9.4	10.0	9.0
	PREVAIL.DIR.(TENS OF DEGS)	37	26	26	26	26	26	23	23	22	22	22	26	26	26
	MAXIMUM 2-MINUTE: SPEED (MPH)	15	60	59	55	51	45	44	52	36	68	40	51	48	68
	DIR. (TENS OF DEGS)		23	26	25	23	25	25	20	30	27	27	26	24	27
	YEAR OF OCCURRENCE		2008	2002	2002	2011	2010	2007	1999	1999	1998	2003	2003	2004	SEP 1998
	MAXIMUM 3-SECOND SPEED (MPH)	15	75	77	70	66	63	52	64	59	89	54	66	63	89
	DIR. (TENS OF DEGS)		25	25	24	24	28	26	01	23	29	27	28	27	29
YEAR OF OCCURRENCE		2008	2006	2002	2011	1998	2011	2005	2010	1998	2003	2003	2008	SEP 1998	
PRECIPITATION	NORMAL (IN)	30	2.34	2.04	2.58	2.75	2.82	3.36	2.93	3.54	3.45	2.60	2.84	2.73	33.98
	MAXIMUM MONTHLY (IN)	71	5.79	5.07	5.42	5.81	6.62	7.11	9.70	6.00	6.30	7.85	6.99	5.05	9.70
	YEAR OF OCCURRENCE		1978	1950	1942	2011	1974	1998	1947	1984	1977	1955	1985	1944	JUL 1947
	MINIMUM MONTHLY (IN)	71	0.72	0.66	0.47	1.18	0.24	0.22	0.61	0.76	0.28	0.23	0.44	0.62	0.22
	YEAR OF OCCURRENCE		1988	1987	1958	1995	2007	1963	1994	1951	1960	1963	1976	1958	JUN 1963
	MAXIMUM IN 24 HOURS (IN)	71	2.24	2.43	2.21	2.22	3.85	2.86	3.33	3.03	3.54	3.13	3.13	1.60	3.85
	YEAR OF OCCURRENCE		1998	1950	1942	1991	1974	1950	2006	2005	1979	1995	1945	1978	MAY 1974
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	19.1	16.3	15.2	13.5	11.8	11.6	10.2	10.7	11.8	12.8	15.9	18.4	167.3
PRECIPITATION >= 1.00	30	0.2	0.1	0.2	0.2	0.3	0.7	0.5	0.8	0.8	0.2	0.4	0.2	4.6	
SNOWFALL	NORMAL (IN)	30	25.8	22.2	16.6	5.1	0.5	0.0	0.0	0.0	0.0	0.1	8.1	21.9	100.3
	MAXIMUM MONTHLY (IN)	71	61.3	64.8	45.0	20.2	10.9	T	T	T	T	2.6	24.9	46.5	64.8
	YEAR OF OCCURRENCE		2004	1958	1999	1979	1989	2006	2006	1965	2009	1993	1996	2010	FEB 1958
	MAXIMUM IN 24 HOURS (IN)	71	23.0	22.8	23.3	10.4	10.8	T	T	T	T	2.6	14.1	19.1	23.3
	YEAR OF OCCURRENCE		1996	1978	1999	1990	1989	1998	1990	1965	2009	1993	1995	1978	MAR 1999
	MAXIMUM SNOW DEPTH (IN)	63	32	34	34	10	4	0	0	0	0	1	8	40	40
	YEAR OF OCCURRENCE		1978	1966	1999	1975	1989					1957	1972	1959	DEC 1959
	NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	7.1	6.7	4.0	1.4	0.1	0.0	0.0	0.0	0.0	0.0	2.4	6.4	28.1

PRECIPITATION (inches) 2011 ROCHESTER (KROC)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	4.16	1.01	1.73	1.63	1.77	3.92	3.13	3.00	3.57	1.79	3.95	2.17	31.83
1983	1.43	1.23	2.45	3.50	3.44	2.40	1.13	5.43	1.56	3.26	4.91	4.47	35.21
1984	1.62	2.97	2.08	3.05	5.47	1.67	1.90	6.00	3.34	0.76	1.47	3.31	33.64
1985	2.49	1.78	3.47	1.30	2.08	2.63	1.86	1.11	2.49	2.34	6.99	1.46	30.00
1986	1.63	2.46	1.90	3.80	1.64	4.27	3.13	3.29	5.11	3.56	1.93	3.56	36.28
1987	1.89	0.66	1.98	3.68	1.19	3.94	5.85	3.92	4.60	1.65	2.74	1.98	34.08
1988	0.72	2.18	1.62	2.32	1.73	1.10	4.30	3.81	1.69	2.34	1.68	1.11	24.60
1989	1.18	1.55	3.69	1.62	5.99	5.65	0.98	2.46	2.82	3.13	2.01	1.58	32.66
1990	1.61	3.93	1.56	3.58	5.76	2.88	3.05	3.59	3.36	4.37	2.27	4.18	40.14
1991	1.69	1.16	4.70	4.07	2.43	1.19	2.37	1.80	2.86	1.65	2.39	2.92	29.23
1992	1.46	1.87	3.53	3.43	2.83	1.98	6.03	4.45	3.02	1.78	2.90	2.98	36.26
1993	2.32	1.52	2.44	3.07	1.24	2.76	1.67	1.67	4.37	3.21	3.27	1.60	29.14
1994	2.68	1.63	1.70	4.08	2.56	2.43	0.61	4.27	2.68	1.34	3.24	2.32	29.54
1995	2.46	1.58	1.15	1.18	1.75	2.07	3.85	3.05	1.50	5.70	4.21	1.50	30.00
1996	3.18	1.72	2.07	4.84	3.51	6.65	2.18	3.33	5.09	5.40	4.12	2.97	45.06
1997	2.03	2.40	3.88	1.33	2.12	3.01	1.94	4.22	5.36	1.94	3.57	2.88	34.68
1998	5.63	2.34	3.50	1.81	2.63	7.11	6.09	5.39	3.00	1.45	1.41	1.60	41.96
1999	3.92	0.69	3.28	2.07	2.72	2.52	1.78	5.71	3.41	2.12	2.86	2.06	33.14
2000	2.98	1.97	2.04	4.35	4.70	4.47	3.66	4.11	3.53	1.36	2.19	2.47	37.83
2001	1.95	2.26	4.13	1.19	2.66	1.84	1.80	4.30	3.15	2.28	1.90	1.72	29.18
2002	2.97	1.61	2.09	3.44	5.87	4.29	1.59	0.84	2.61	2.09	3.11	3.85	34.36
2003	2.05	1.96	1.95	1.27	4.56	2.23	2.26	4.13	2.69	1.90	4.26	2.42	31.68
2004	2.81	0.72	2.04	3.48	4.53	3.11	6.35	3.68	4.30	1.49	2.31	2.99	37.81
2005	3.34	1.40	1.11	4.43	1.24	2.44	3.36	5.10	4.98	3.48	3.18	1.37	35.43
2006	2.42	2.13	1.80	2.18	1.77	3.72	8.02	2.75	5.39	4.96	2.89	3.03	41.06
2007	4.25	2.09	2.98	3.64	0.24	2.30	2.31	0.81	2.50	3.05	4.01	4.28	32.46
2008	1.60	4.27	3.75	1.94	1.41	2.59	3.91	2.97	1.66	3.38	2.11	3.61	33.20
2009	2.17	1.63	2.99	2.20	3.30	6.25	4.32	1.63	2.03	2.97	1.13	2.95	33.57
2010	2.24	2.40	2.09	1.56	2.55	5.94	5.70	2.68	3.36	3.30	3.01	2.64	37.47
2011	1.64	2.76	2.67	5.81	4.80	1.45	1.81	5.61	3.76	5.20	2.46	2.48	40.45
POR= 86 YRS	2.34	2.22	2.67	2.71	2.75	2.92	2.94	3.13	2.86	2.66	2.80	2.56	32.56

WBAN : 14768

AVERAGE TEMPERATURE (°F) 2011 ROCHESTER (KROC)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1982	16.1	23.0	33.5	43.2	60.9	63.6	72.0	66.1	62.8	52.7	43.4	37.4	47.9
1983	27.4	29.1	37.2	43.9	53.8	66.7	73.8	70.7	63.9	52.9	40.7	25.1	48.8
1984	20.4	33.2	26.5	47.5	52.6	66.8	69.2	72.0	60.6	54.9	40.7	35.9	48.4
1985	21.9	25.6	36.7	49.6	58.6	61.7	68.8	68.7	63.8	51.0	41.4	25.0	47.7
1986	25.0	24.5	37.0	47.9	59.8	63.3	69.8	65.7	59.8	49.9	36.9	31.7	47.6
1987	25.3	23.6	37.1	49.7	59.9	67.9	72.7	67.3	61.6	47.1	40.6	32.6	48.8
1988	25.0	23.7	34.7	45.0	58.7	64.2	73.7	71.1	60.1	45.8	42.6	29.4	47.8
1989	30.3	22.5	32.3	42.1	56.3	67.4	72.8	68.5	61.7	52.6	38.1	17.1	46.8
1990	33.6	29.3	37.3	48.8	54.4	67.2	70.7	69.9	60.7	52.1	42.4	33.8	50.0
1991	25.1	30.5	37.0	50.0	62.8	68.3	72.3	70.3	60.5	52.1	39.0	30.7	49.9
1992	26.2	27.2	30.2	44.1	57.1	63.5	66.6	66.3	60.9	46.4	38.9	30.2	46.5
1993	27.5	18.7	30.0	46.9	56.6	65.5	72.4	71.4	59.0	48.0	39.0	28.4	47.0
1994	14.9	21.1	32.0	48.0	54.2	67.8	73.5	69.2	62.4	52.4	45.8	34.8	48.0
1995	32.1	23.8	38.5	41.6	57.2	69.5	73.0	73.3	60.4	55.2	35.2	25.3	48.8
1996	23.7	24.6	29.7	43.3	54.6	68.0	68.1	69.3	62.0	51.2	34.3	33.6	46.9
1997	24.3	30.5	32.9	43.8	50.4	67.1	67.8	66.3	59.3	49.1	37.4	31.2	46.7
1998	31.6	32.6	38.1	47.7	62.9	65.7	69.6	69.8	62.7	51.2	41.8	34.6	50.7
1999	22.9	30.6	30.8	45.3	59.6	68.3	74.3	67.1	64.0	50.9	44.9	32.2	49.2
2000	23.2	30.2	41.2	45.1	59.5	65.8	67.1	67.5	60.9	51.7	38.4	22.6	47.8
2001	26.6	28.6	30.3	47.7	59.5	66.7	69.0	72.2	61.2	52.4	47.1	35.9	49.8
2002	32.6	31.9	35.1	48.2	53.4	67.6	74.0	72.4	67.7	49.9	40.5	28.4	50.1
2003	18.2	20.9	34.1	43.3	55.2	64.8	70.6	70.7	62.5	48.2	42.2	32.3	46.9
2004	17.2	25.0	38.6	45.8	58.7	62.7	68.3	66.9	64.2	50.2	41.1	29.3	47.3
2005	21.7	25.8	29.7	46.0	52.2	70.5	73.0	72.8	65.5	53.4	43.7	28.1	48.5
2006	35.5	28.4	36.0	48.0	58.9	67.8	75.0	70.3	62.1	50.6	45.9	39.0	51.5
2007	30.0	20.3	35.3	44.6	59.6	69.6	69.7	71.7	64.7	58.0	38.6	29.3	49.3
2008	30.5	26.4	31.5	52.3	54.8	69.8	72.0	67.6	63.1	49.7	39.3	30.6	49.0
2009	19.1	29.0	35.8	46.6	56.8	63.5	66.2	69.3	60.7	48.2	41.9	27.9	47.1
2010	24.2	25.5	39.9	52.4	60.5	66.8	73.6	71.0	61.9	50.7	39.9	26.2	49.4
2011	21.9	24.6	33.8	46.4	58.8	67.2	74.7	69.7	64.3	51.5	45.9	35.3	49.5
POR= 86 YRS	24.8	24.9	33.8	45.4	57.1	66.2	71.4	69.7	61.9	51.5	40.4	29.5	48.0

HEATING DEGREE DAYS (base 65°F) 2011 ROCHESTER (KROC)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	10	54	113	377	643	847	1161	998	854	627	347	78	6109
1983-84	9	8	121	387	723	1228	1376	917	1187	520	395	50	6921
1984-85	14	7	162	307	724	897	1330	1097	869	471	217	119	6214
1985-86	15	23	121	429	700	1231	1235	1129	864	506	206	100	6559
1986-87	16	62	175	462	840	1026	1223	1153	858	454	234	39	6542
1987-88	7	50	139	547	722	997	1232	1192	933	594	220	126	6759
1988-89	6	40	164	596	664	1095	1070	1184	1009	682	288	33	6831
1989-90	0	33	149	383	801	1478	967	993	853	520	327	46	6550
1990-91	7	6	171	406	669	959	1230	957	862	458	170	29	5924
1991-92	2	1	196	408	776	1057	1195	1088	1069	621	259	89	6761
1992-93	26	46	172	571	774	1071	1158	1289	1077	538	263	66	7051
1993-94	0	10	214	525	775	1127	1550	1221	1015	505	345	56	7343
1994-95	1	16	106	386	568	928	1015	1147	811	694	239	33	5944
1995-96	13	7	162	300	885	1224	1271	1163	1086	647	347	16	7121
1996-97	19	6	140	421	915	968	1255	960	989	628	448	45	6794
1997-98	32	29	181	492	822	1041	1029	901	837	513	109	99	6085
1998-99	4	14	115	424	690	935	1295	955	1054	583	194	57	6320
1999-00	2	25	100	431	595	1008	1289	1003	732	591	211	75	6062
2000-01	23	35	178	404	793	1308	1186	1014	1067	522	192	63	6785
2001-02	24	3	152	391	529	896	999	921	919	521	372	63	5790
2002-03	2	4	45	482	728	1125	1445	1229	951	646	298	76	7031
2003-04	0	15	101	510	678	1006	1475	1153	811	574	220	120	6663
2004-05	10	33	74	453	708	1098	1334	1091	1085	562	388	37	6873
2005-06	2	1	50	377	634	1138	908	1019	892	502	229	35	5787
2006-07	0	14	109	440	566	798	1077	1246	913	608	229	33	6033
2007-08	10	12	85	242	785	1102	1065	1113	1030	386	317	23	6170
2008-09	1	21	115	471	761	1060	1414	1001	896	556	259	81	6636
2009-10	32	22	139	514	686	1141	1259	1098	770	382	204	46	6293
2010-11	6	9	150	435	742	1198	1331	1125	960	556	232	30	6774
2011-	0	9	86	411	565	914							

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COOLING DEGREE DAYS (base 65°F) 2011 ROCHESTER (KROC)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1982	0	0	0	3	40	30	232	95	52	3	1	0	456
1983	0	0	0	0	7	136	289	192	96	20	0	0	740
1984	0	0	0	1	14	113	152	233	35	1	0	0	549
1985	0	0	0	15	23	27	139	145	90	0	0	0	439
1986	0	0	1	0	50	53	168	94	28	0	0	0	394
1987	0	0	0	1	82	131	254	127	42	0	0	0	637
1988	0	0	0	0	34	107	284	232	29	7	0	0	693
1989	0	0	0	0	26	111	248	153	60	3	0	0	601
1990	0	0	3	41	5	122	192	164	45	14	0	0	586
1991	0	0	0	14	108	135	234	175	68	14	0	0	748
1992	0	0	0	1	19	51	84	96	57	0	0	0	308
1993	0	0	0	0	9	86	239	214	42	5	0	0	595
1994	0	0	0	0	16	145	271	152	36	2	1	0	623
1995	0	0	0	0	3	175	266	269	33	5	0	0	751
1996	0	0	0	1	31	115	120	147	58	0	0	0	472
1997	0	0	0	1	0	114	126	75	15	8	0	0	339
1998	0	0	9	0	48	125	152	168	53	4	0	0	559
1999	0	0	0	0	38	161	296	93	77	0	0	0	665
2000	0	0	0	2	49	105	95	120	63	0	0	0	434
2001	0	0	0	9	28	119	154	233	44	6	0	0	593
2002	0	0	0	24	19	148	288	241	135	23	0	0	878
2003	0	0	0	3	0	73	181	197	32	1	0	0	487
2004	0	0	0	2	33	56	119	99	57	0	0	0	366
2005	0	0	0	0	0	209	256	249	71	23	0	0	808
2006	0	0	0	0	47	130	318	184	29	0	0	0	708
2007	0	0	0	2	67	174	163	227	84	33	0	0	750
2008	0	0	0	13	6	175	226	113	66	2	0	0	601
2009	0	0	0	10	12	44	78	162	19	0	0	0	325
2010	0	0	0	10	69	106	280	203	64	0	0	0	732
2011	0	0	0	3	45	104	305	161	76	1	0	0	695

SNOWFALL (inches) 2011 ROCHESTER (KROC)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1982-83	0.0	0.0	0.0	T	3.0	11.6	10.2	13.6	9.3	12.2	T	0.0	59.9
1983-84	0.0	0.0	0.0	0.0	17.6	19.6	23.4	27.8	29.1	0.5	T	0.0	118.0
1984-85	0.0	0.0	0.0	0.0	1.6	11.6	36.8	26.1	8.4	2.6	0.0	0.0	87.1
1985-86	0.0	0.0	0.0	0.0	7.6	18.3	15.5	17.9	9.3	2.1	T	0.0	70.7
1986-87	0.0	0.0	0.0	0.0	7.4	9.3	29.6	13.0	5.3	2.5	0.0	0.0	67.1
1987-88	0.0	0.0	0.0	T	4.6	19.3	9.8	29.4	5.6	1.1	0.0	0.0	69.8
1988-89	0.0	0.0	0.0	0.1	0.2	10.3	15.0	30.6	15.6	3.9	10.9	0.0	86.6
1989-90	0.0	0.0	0.0	T	6.5	32.8	14.0	31.3	5.4	15.8	T	0.0	105.8
1990-91	T	0.0	0.0	T	4.4	18.2	26.5	16.1	2.0	1.1	0.0	0.0	68.3
1991-92	0.0	0.0	0.0	0.0	13.7	23.9	18.3	12.8	38.1	3.8	0.0	0.0	110.6
1992-93	0.0	0.0	0.0	T	9.5	29.3	22.4	31.2	37.1	2.0	T	0.0	131.5
1993-94	0.0	0.0	T	2.6	9.8	14.0	43.0	35.1	12.1	9.6	0.0	0.0	126.2
1994-95	0.0	0.0	T	0.0	2.8	7.6	12.8	23.6	5.3	4.1	0.0	0.0	56.2
1995-96	0.0	0.0	0.0	T	23.4	20.5	36.9	14.1	28.6	5.3	1.5	0.0	130.3
1996-97	T	0.0	0.0	0.0	24.9	14.0	24.8	13.3	26.4	1.3	T	0.0	104.7
1997-98	0.0	0.0	0.0	0.1	21.6	26.4	14.6	9.1	27.9	0.0	0.0	T	99.7
1998-99	0.0	0.0	T	0.0	0.1	10.1	48.8	4.7	45.0	2.9	0.0	0.0	111.6
1999-00	0.0	0.0	0.0	0.0	4.7	19.1	42.0	25.7	13.6	5.6	0.0	0.0	110.7
2000-01	0.0	0.0	0.0	T	7.3	39.3	21.6	23.3	41.4	0.1	0.0	0.0	133.0
2001-02	0.0	0.0	0.0	T	0.1	7.1	11.9	18.7	13.8	6.5	T	0.0	58.1
2002-03	0.0	0.0	0.0	0.0	16.9	41.1	43.4	21.9	5.6	6.3	T	0.0	135.2
2003-04	0.0	0.0	0.0	T	5.4	27.2	61.3	10.3	16.3	5.1	0.0	0.0	125.6
2004-05	0.0	0.0	0.0	0.0	1.9	16.8	49.7	27.8	17.4	T	0.0	0.0	113.6
2005-06	0.0	0.0	0.0	T	7.8	19.0	14.0	28.8	4.2	0.1	T	T	73.9
2006-07	T	0.0	0.0	0.4	0.5	4.3	29.8	46.5	19.5	6.2	0.0	0.0	107.2
2007-08	0.0	0.0	0.0	0.0	1.7	41.8	15.2	23.7	23.6	T	0.0	0.0	106.0
2008-09	0.0	0.0	0.0	0.1	11.0	46.2	29.3	13.9	1.4	1.8	0.0	0.0	103.7
2009-10	0.0	0.0	T	T	T	25.3	33.8	30.4	T	0.2	0.4	0.0	90.1
2010-11	0.0	0.0	0.0	T	0.4	46.5	31.7	33.7	15.1	T	0.0	0.0	127.4
2011-	0.0	0.0	0.0	T	0.3	4.9							
POR= 86 YRS	T	0.0	T	0.2	6.5	19.0	23.2	21.2	15.1	3.3	0.2	T	88.7

WBAN : 14768

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 ROCHESTER NEW YORK (KROC)

Rochester and the Genesee Valley experience a fairly humid, continental type climate, which is strongly modified by the proximity of the Great Lakes. Precipitation is rather evenly distributed throughout the year in quantity, but frequency is much higher during the cloudy winter months than in the sunny ones. Snowfall is heavy, but is highly variable over short distances.

Winters in general are cloudy, cold and snowy..but are changeable and include frequent thaws and rain as well. Snow covers the ground more often than not from christmas into early March..but periods of bare ground are not uncommon. About half of the annual snowfall comes from "lake-effect" process and is very localized. This feature develops when cold air crosses the warmer lake waters and becomes saturated.. creating clouds and precipitation downwind. The exact location of these snowbands are determined by the direction of the wind. Areas east of Rochester receive the most snow from this process..as northwest winds have a longer "fetch" off Lake Ontario..while areas south of the city get somewhat less. Lake Erie can even contribute some snow from this process if a west or southwest wind is strong enough. Since Lake Ontario does not freeze in most winters..this Lake effect machine can remain active throughout the winter. The Rochester area is also subject to occasional general or "synoptic" snowfalls..but the worst effects from these usually pass by to the east. Total season snowfall ranges from 70 inches south of the city to about 90 inches in Rochester to over 120 inches along the lakeshore east of the city. About 50 inches of this total results from general snows..the rest is due to the Lake effect machine. The lake does modify any extreme cold as the mercury falls below zero on only about six nights in an average winter..with anything below -10 extremely rare.

Spring comes slowly to the region. The last frosts usually occur by April 30 near Lake Ontario..but as late as mid-May south of the Thruway. The spring months are actually the driest months statistically, due in part to the stabilizing effects of the Great Lakes, although soils are wet. Sunshine increases markedly in May.

Summers are warm and sunny across the region. The average temperature is in the 70 to 72 degree range. Rain can be expected on every third or fourth day.. almost always in the form of showers and thunderstorms. This activity is more common inland than near the Lake. Completely overcast days in summer are rare. Severe weather is not common..but a few cases of damaging winds and small tornadoes occur each year. The greatest risk of this type of activity is south of the Thruway. There usually are several periods of uncomfortably warm and muggy weather in an average summer..but only about nine days reach 90-degree mark in an average year. Still, the area usually experiences some of the most delightful summer weather in the East.

Autumn is pleasant, but rather brief. Mild and dry conditions predominate through September and much of October, but colder airmasses cross the Great Lakes with increasing frequency starting in late October, and result in a drastic increase in cloud cover across the region in late October and early November. Although the first frosts may not occur until late October near Lake Ontario, the first lake effect snows of the season follow soon after...usually by mid November. These early snows melt off quickly, with a general snow cover seldom established before mid December. The growing season is relatively long for the latitude...average about 180 days. The long growing season...combined with ample spring moisture and abundant summer sunshine...is beneficial for the many fruit orchards and wineries...especially near the Lake Ontario shore and Finger Lakes.

Station History

ROCHESTER, NY

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
ROCHESTER GREATER ROCHESTER INTL AP	1989-01-17	1996-07-01	43° 7'	-77° 40'	600	1 MI N	COOP, USHCN, WXSVC
ROCHESTER GREATER ROCHESTER INTL AP	2004-01-25	Present	43° 7'	-77° 40'	533		ASOS, COOP, USHCN
ROCHESTER WBAS AP	1948-01-01	1954-01-01	43° 7'	-77° 40'	554		AIRWAYS, COOP, USHCN
ROCHESTER GREATER ROCHESTER INTL AP	1996-07-01	2004-01-25	43° 7'	-77° 40'	533	.8 MI S	ASOS, COOP, USHCN
ROCHESTER WBAS AP	1930-05-01	1948-01-01	43° 7'	-77° 40'			AIRWAYS
ROCHESTER MONROE COUNTY AP	1957-12-01	1969-01-01	43° 7'	-77° 40'	547		AIRWAYS, COOP, USHCN
ROCHESTER MONROE COUNTY AP	1969-01-01	1989-01-01	43° 7'	-77° 40'	547		COOP, USHCN, WXSVC
ROCHESTER GREATER ROCHESTER INTL AP	1989-01-01	1989-01-17	43° 7'	-77° 40'	547		COOP, USHCN, WXSVC
ROCHESTER WBAS AP	1954-01-01	1957-12-01	43° 7'	-77° 40'	547		AIRWAYS, COOP, USHCN

Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
PRECIP	1930-05-01	1963-06-01	DAILY	2400	UNIV	RCRD	
PRECIP	1963-06-01	1989-01-17	HOURLY	2400			
TEMP	2004-01-25	2010-02-25	DAILY	2400	ATEMP		
PRECIP	2004-01-25	2010-02-25	HOURLY	2400	TB	RCRD	
TEMP	1989-01-17	1995-07-01	DAILY	2400	HYGR		
PRECIP	1989-01-17	1995-07-01	HOURLY	2400			
PRECIP	1995-07-01	1996-07-01	DAILY	2400	UNIV	RCRD	
TEMP	1995-07-01	1996-07-01	DAILY	2400	HYGR		
TEMP	1996-07-01	2004-01-25	DAILY	2400	HYGR		
TEMP	1963-06-01	1989-01-17	DAILY	2400			
PRECIP	2004-01-25	2010-02-25	DAILY	2400	PCPN1		
PRECIP	1996-07-01	2004-01-25	HOURLY	2400	TB	RCRD	
PRECIP	2004-01-25	2010-02-25	DAILY	2400	TB	RCRD	
PRECIP	2010-02-25	Present	HOURLY	2400	AWPAG	RCRD;HTD	
PRECIP	1989-01-17	1995-07-01	DAILY	2400	UNIV	RCRD	
TEMP	1930-05-01	1963-06-01	DAILY	2400			
PRECIP	1963-06-01	1989-01-17	DAILY	2400	UNIV	RCRD	
PRECIP	1996-07-01	2004-01-25	DAILY	2400	TB	RCRD	
TEMP	2010-02-25	Present	DAILY	2400	ATEMP		
PRECIP	1995-07-01	1996-07-01	HOURLY	2400	UNIV	RCRD	
PRECIP	2010-02-25	Present	DAILY	2400	PCPNX		

* 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

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NOAA/National Climatic Data Center

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Asheville, NC 28801-5001

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