

1999

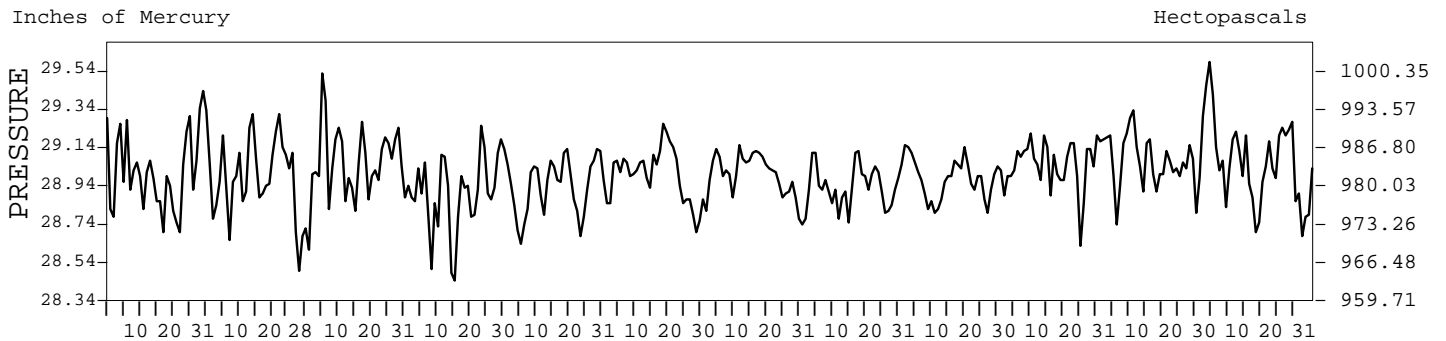
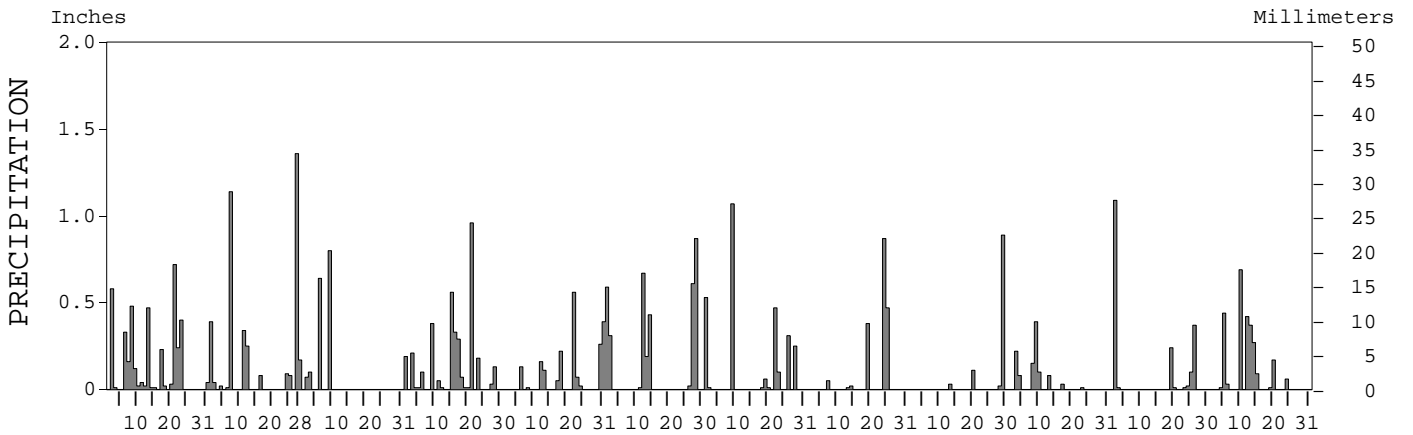
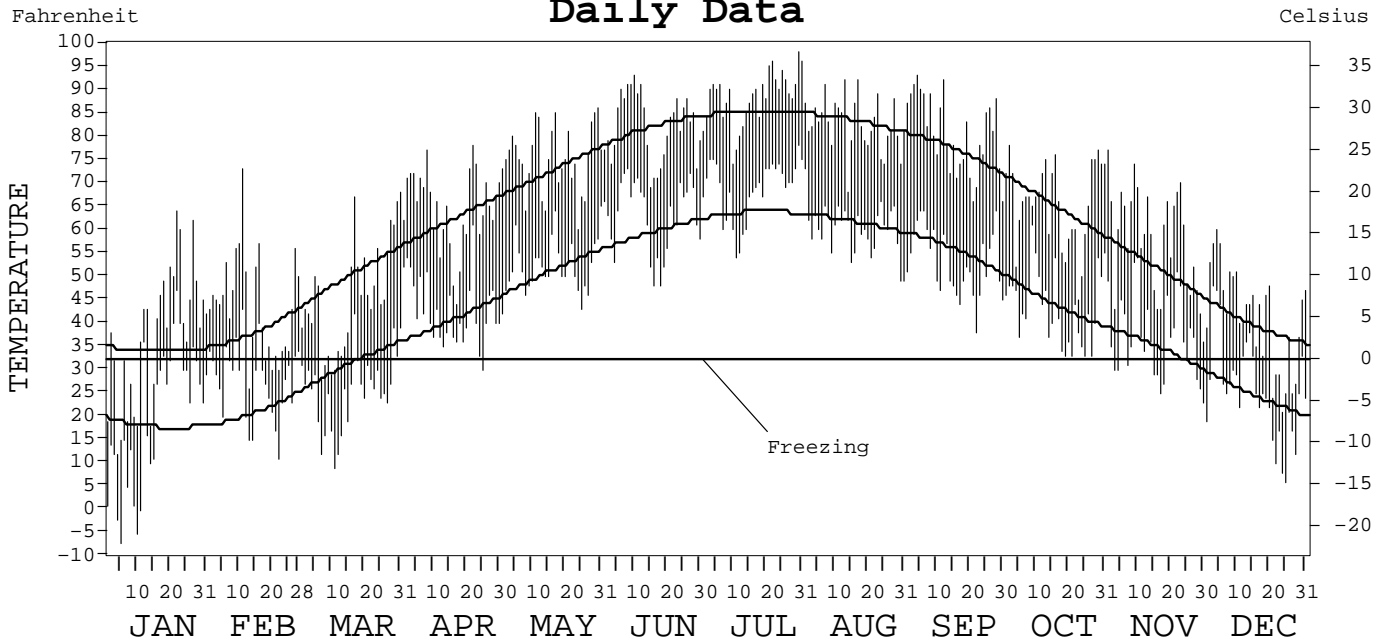
LOCAL CLIMATOLOGICAL DATA
ANNUAL SUMMARY WITH COMPARATIVE DATA



ISSN 0198-3970

DAYTON,
OHIO (DAY)

Daily Data



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Thomas R. Karl

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION	NATIONAL ENVIRONMENTAL AND INFORMATION SERVICE	NATIONAL ENVIRONMENTAL SATELLITE, DATA, AND INFORMATION SERVICE	NATIONAL CLIMATIC DATA CENTER ASHEVILLE, NORTH CAROLINA	DIRECTOR NATIONAL CLIMATIC DATA CENTER
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METEOROLOGICAL DATA FOR 1999

DAYTON, OH (DAY)

LATITUDE: 39° 54' 22" N LONGITUDE: 84° 13' 07" W ELEVATION (FT): GRND: 1002 BARO: 1002 TIME ZONE: EASTERN (UTC + 5) WBAN: 93815

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	37.4	43.8	45.7	64.5	75.2	82.1	88.3	82.5	80.5	65.7	57.8	41.1	63.7	
	HIGHEST DAILY MAXIMUM	64	73	68	78	86	93	98	92	93	78	77	60	98	
	DATE OF OCCURRENCE	22	11	31	22	30	10	30	17+	04	02	01	04	JUL 30	
	MEAN DAILY MINIMUM	20.2	27.5	25.5	42.6	52.1	62.8	68.5	60.1	53.1	43.4	36.9	25.5	43.2	
	LOWEST DAILY MINIMUM	-7	11	9	30	42	48	54	49	38	33	23	6	-7	
	DATE OF OCCURRENCE	05	22	11	25	01	18+	11	31+	22	27+	30	25	JAN 05	
	AVERAGE DRY BULB	28.8	35.7	35.6	53.6	63.7	72.5	78.4	71.3	66.8	54.6	47.4	33.3	53.5	
	MEAN WET BULB	26.6	32.6	31.4	48.3	56.1	64.7	70.9	63.7	57.2	48.0	42.1	30.9	47.7	
	MEAN DEW POINT	23.0	27.3	24.5	42.6	49.2	59.9	67.2	58.6	49.2	41.8	36.4	26.0	42.1	
	NUMBER OF DAYS WITH:														
	MAXIMUM ≥ 90°	0	0	0	0	0	5	16	3	4	0	0	0	0	28
	MAXIMUM ≤ 32°	11	4	4	0	0	0	0	0	0	0	0	7	26	
	MINIMUM ≤ 32°	25	21	27	1	0	0	0	0	0	0	11	23	108	
	MINIMUM ≤ 0°	4	0	0	0	0	0	0	0	0	0	0	0	4	
H/C	HEATING DEGREE DAYS	1119	814	903	340	91	16	0	3	63	320	521	976	5166	
	COOLING DEGREE DAYS	0	0	0	5	54	248	423	207	123	1	0	0	1061	
RH	MEAN (PERCENT)	80	74	66	69	61	67	71	67	57	66	70	75	69	
	HOUR 01 LST	82	78	71	77	70	78	81	77	67	75	77	79	76	
	HOUR 07 LST	83	81	80	82	74	79	83	86	80	82	82	83	81	
	HOUR 13 LST	75	68	56	58	51	55	57	51	41	52	57	66	57	
	HOUR 19 LST	79	72	59	62	53	58	64	57	45	60	65	72	62	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	2	3	2	3	1	0	0	2	2	1	0	0	16	
	THUNDERSTORMS	3	3	0	4	3	6	9	4	0	1	0	0	33	
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.)	29.01	28.98	29.03	28.89	28.93	28.98	28.98	28.95	28.95	29.06	29.08	29.02	28.99	
	MEAN SEA-LEVEL PRESS. (IN.)	30.12	30.08	30.13	29.96	29.99	30.04	30.02	30.00	30.01	30.14	30.16	30.12	30.06	
WINDS	RESULTANT SPEED (MPH)	4.5	3.6	3.1	2.4	3.0	1.7	1.8	1.9	1.9	2.8	4.3	5.1	2.4	
	RES. DIR. (TENS OF DEGS.)	22	23	32	22	24	19	28	34	26	23	24	22	24	
	MEAN SPEED (MPH)	12.5	11.4	11.1	11.9	9.7	8.3	8.7	8.2	8.0	9.8	10.0	10.8	10.0	
	PREVAIL. DIR. (TENS OF DEGS.)	24	19	33	20	19	19	24	01	19	19	20	19	19	
	MAXIMUM 2-MINUTE WIND:														
	SPEED (MPH)	37	44	33	43	54	38	40	30	25	32	30	36	54	
	DIR. (TENS OF DEGS.)	29	26	29	22	24	15	25	29	32	28	23	25	24	
	DATE OF OCCURRENCE	21+	11	17	16	06	12	09	19	29+	13	09	15	MAY 06	
	MAXIMUM 5-SECOND WIND:														
	SPEED (MPH)	44	52	40	59	60	43	47	53	33	40	37	48	60	
DIR. (TENS OF DEGS.)	29	25	28	28	24	14	29	28	01	28	27	22	24		
DATE OF OCCURRENCE	21	11	17	09	06	12	09	13	16	13	24	15	MAY 06		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	3.93	3.97	1.61	3.53	1.98	3.70	2.82	1.80	1.05	1.06	1.85	2.56	29.86	
	GREATEST 24-HOUR (IN.)	0.72	1.40	0.80	0.97	0.65	0.87	1.07	0.88	0.89	0.50	1.09	0.69	1.40	
	DATE OF OCCURRENCE	21	27-28	09	20-21	30-31	28	09	24-25	29	08-09	02	10	FEB 27-28	
	NUMBER OF DAYS WITH:														
	PRECIPITATION ≥ 0.01	19	12	4	18	11	9	10	6	4	8	8	11	120	
PRECIPITATION ≥ 0.10	10	6	3	10	7	7	6	3	2	4	4	6	68		
PRECIPITATION ≥ 1.00	0	2	0	0	0	0	1	0	0	0	1	0	4		
SNOWFALL	SNOW, ICE PELLETS, HAIL:														
	TOTAL (IN.)	17.4	3.7	7.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.9	29.9	
	GREATEST 24-HOUR (IN.)	7.5	2.0	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.6	7.8	
	DATE OF OCCURRENCE	02	12	09								03+	24	MAR 09	
	MAXIMUM SNOW DEPTH (IN.)	10	1	5	0	0	0	0	0	0	0	0	T	10	
	DATE OF OCCURRENCE	9+	25+	12+								29+		JAN 9+	
NUMBER OF DAYS WITH:															
SNOWFALL ≥ 1.0	4	1	1	0	0	0	0	0	0	0	0	0	6		

NORMALS, MEANS, AND EXTREMES

DAYTON, OH (DAY)

LATITUDE: 39° 54' 22" N LONGITUDE: 84° 13' 07" W ELEVATION (FT): GRND: 1002 BARO: 1002 TIME ZONE: EASTERN (UTC + 5) WBAN: 93815

ELEMENT		POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	34.1	38.0	50.0	61.9	72.5	81.6	84.9	83.0	76.5	64.5	51.3	39.1	61.4
	MEAN DAILY MAXIMUM	52	35.0	39.0	49.0	61.7	72.3	81.4	85.0	83.2	76.7	64.8	50.6	39.3	61.5
	HIGHEST DAILY MAXIMUM	56	71	73	82	89	93	102	102	102	101	89	79	72	102
	YEAR OF OCCURRENCE		1950	1999	1986	1962	1962	1988	1988	1988	1954	1951	1975	1998	AUG 1988
	MEAN OF EXTREME MAXS.	52	57.3	61.3	72.9	80.8	86.2	92.5	94.1	92.8	89.6	80.7	70.3	60.8	78.3
	NORMAL DAILY MINIMUM	30	17.9	20.8	31.0	40.5	51.0	59.2	63.4	61.3	55.1	43.6	34.4	24.0	41.8
	MEAN DAILY MINIMUM	52	19.6	22.3	30.5	40.6	51.2	60.4	64.7	62.5	55.1	44.0	34.0	24.4	42.4
	LOWEST DAILY MINIMUM	56	-25	-16	-7	15	27	40	44	40	32	21	-2	-20	-25
	YEAR OF OCCURRENCE		1994	1951	1980	1972	1947	1990	1972	1965	1974	1962	1958	1989	JAN 1994
	MEAN OF EXTREME MINS.	52	-3.3	1.2	11.9	24.7	35.3	47.2	52.8	50.3	39.1	29.0	17.6	3.3	25.8
	NORMAL DRY BULB	30	26.0	29.4	40.5	51.2	61.7	70.4	74.2	72.2	65.8	54.1	42.9	31.6	51.7
	MEAN DRY BULB	52	27.3	30.7	39.7	51.1	61.7	70.9	74.8	72.8	65.8	54.4	42.3	31.8	51.9
	MEAN WET BULB	16	26.0	29.2	35.8	45.5	54.8	63.7	63.4	61.6	59.0	45.3	38.7	29.8	46.1
	MEAN DEW POINT	16	21.5	23.9	29.6	38.8	49.0	58.6	59.4	57.9	54.3	40.1	33.8	25.6	41.0
	NORMAL NO. DAYS WITH:														
MAXIMUM ≥ 90°	30	0.0	0.0	0.0	0.0	0.5	3.7	6.7	3.8	1.2	0.0	0.0	0.0	15.9	
MAXIMUM ≤ 32°	30	13.9	9.3	2.4	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.9	8.7	35.3	
MINIMUM ≤ 32°	30	27.5	23.4	18.0	6.3	0.4	0.0	0.0	0.0	*	3.7	13.6	24.3	117.2	
MINIMUM ≤ 0°	30	3.5	1.9	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	7.0	
H/C	NORMAL HEATING DEG. DAYS	30	1209	997	760	414	185	11	0	6	73	355	663	1035	5708
	NORMAL COOLING DEG. DAYS	30	0	0	0	0	83	173	285	230	97	18	0	0	886
RH	NORMAL (PERCENT)	30	73	72	70	64	65	66	69	72	72	69	73	76	70
	HOUR 01 LST	30	75	75	74	71	74	76	79	82	81	77	77	78	77
	HOUR 07 LST	30	77	78	78	76	77	78	82	86	87	82	81	80	80
	HOUR 13 LST	30	68	66	62	54	54	53	55	57	57	56	65	71	60
	HOUR 19 LST	30	71	70	65	58	57	56	59	63	65	64	71	75	64
S	PERCENT POSSIBLE SUNSHINE	53	40	44	48	52	58	66	66	67	65	59	40	36	53
W/O	MEAN NO. DAYS WITH:														
	HEAVY FOG (VISBY ≤ 1/4 MI)	57	3.6	2.7	1.9	0.7	1.1	0.9	1.2	1.7	1.7	1.3	1.8	3.1	21.7
	THUNDERSTORMS	57	0.4	0.5	2.4	4.3	6.2	7.4	7.3	5.8	3.0	1.5	0.8	0.3	39.9
CLOUDINESS	MEAN:														
	SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH:														
CLEAR	0			4.0		1.0									
PARTLY CLOUDY	0					1.0									
CLOUDY	1	2.0	3.0	7.0		1.0	1.0								
PR	MEAN STATION PRESSURE (IN)	27	29.00	28.99	28.90	28.90	28.90	28.90	29.00	29.00	29.00	29.00	29.00	29.00	28.97
	MEAN SEA-LEVEL PRES. (IN)	16	30.12	30.10	30.06	29.97	30.00	30.01	30.03	30.06	30.08	30.11	30.10	30.15	30.07
WINDS	MEAN SPEED (MPH)	47	11.5	11.2	11.7	11.2	9.6	8.7	7.9	7.3	8.1	9.0	11.0	11.1	9.9
	PREVAIL. DIR (TENS OF DEGS)	31	27	26	29	21	22	21	24	22	20	21	20	20	21
	MAXIMUM 2-MINUTE:														
	SPEED (MPH)	4	43	44	43	47	54	41	61	30	39	38	44	36	61
	DIR. (TENS OF DEGS)		25	26	22	25	24	36	29	29	25	25	22	25	29
	YEAR OF OCCURRENCE		1997	1999	1997	1997	1999	1998	1998	1999	1997	1996	1998	1999	JUL 1998
	MAXIMUM 5-SECOND:														
SPEED (MPH)	4	53	55	54	59	60	54	74	53	49	49	52	48	74	
DIR. (TENS OF DEGS)		25	22	22	28	24	30	30	28	24	24	22	22	30	
YEAR OF OCCURRENCE		1997	1997	1997	1999	1999	1998	1998	1999	1997	1996	1998	1999	JUL 1998	
PRECIPITATION	NORMAL (IN)	30	2.13	2.17	3.42	3.46	3.88	3.82	3.54	3.20	2.54	2.48	3.07	2.93	36.64
	MAXIMUM MONTHLY (IN)	56	9.86	5.77	7.65	9.20	9.05	10.89	8.55	8.03	6.87	6.25	8.07	10.04	10.89
	YEAR OF OCCURRENCE		1950	1990	1964	1996	1995	1958	1990	1974	1996	1986	1985	1990	JUN 1958
	MINIMUM MONTHLY (IN)	56	0.30	0.14	1.07	0.56	1.55	0.32	0.47	0.03	0.27	0.10	0.48	0.36	0.03
	YEAR OF OCCURRENCE		1981	1947	1966	1962	1964	1962	1974	1996	1963	1944	1949	1955	AUG 1996
	MAXIMUM IN 24 HOURS (IN)	56	4.30	2.79	2.87	3.10	3.64	3.76	4.54	3.62	2.60	3.75	2.93	2.86	4.54
	YEAR OF OCCURRENCE		1959	1959	1964	1977	1989	1981	1990	1974	1981	1986	1955	1990	JUL 1990
	NORMAL NO. DAYS WITH:														
PRECIPITATION ≥ 0.01	30	12.6	11.1	13.2	12.2	11.6	10.2	10.3	9.7	8.3	9.4	11.6	12.9	133.1	
PRECIPITATION ≥ 1.00	30	0.2	0.3	0.4	0.6	0.8	0.9	0.9	0.8	0.6	0.4	0.5	0.5	6.9	
SNOWFALL	NORMAL (IN)	30	8.9	7.3	5.4	0.8	T	0.0	0.0	0.0	0.0	0.3	2.1	5.2	30.0
	MAXIMUM MONTHLY (IN)	55	40.2	17.5	13.8	4.9	T	0.0	T	0.0	0.0	5.8	12.7	15.6	40.2
	YEAR OF OCCURRENCE		1978	1979	1984	1974	1995		1995			1989	1950	1960	JAN 1978
	MAXIMUM IN 24 HOURS (IN)	55	12.2	7.7	11.3	4.7	T	0.0	T	0.0	0.0	5.0	10.0	7.6	12.2
	YEAR OF OCCURRENCE		1978	1984	1968	1974	1995		1995			1989	1950	1974	JAN 1978
	MAXIMUM SNOW DEPTH (IN)	50	22	14	11	6	0	0	0	0	0	4	12	10	22
	YEAR OF OCCURRENCE		1978	1978	1963	1987						1989	1950	1951	JAN 1978
NORMAL NO. DAYS WITH:															
SNOWFALL ≥ 1.0	30	2.7	2.3	1.7	0.3	0.0	0.0	0.0	0.0	0.0	0.1	0.5	1.8	9.4	

PRECIPITATION (inches) 1999 DAYTON, OH (DAY)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	1.23	1.16	2.08	5.60	2.68	3.01	2.64	1.04	1.29	2.91	1.63	1.95	27.22
1971	1.64	3.66	1.84	1.00	4.20	2.39	4.09	3.11	3.78	2.17	1.55	3.80	33.23
1972	1.47	0.85	2.46	3.77	4.34	3.04	2.08	3.13	4.64	2.22	5.00	2.81	35.81
1973	1.63	1.28	4.64	3.45	3.10	5.72	3.76	3.93	0.69	3.28	3.86	3.14	38.48
1974	2.67	2.04	3.59	2.97	5.20	4.50	0.47	8.03	3.68	0.98	3.44	2.86	40.43
1975	3.59	3.95	3.34	3.99	2.28	2.23	5.50	4.75	3.30	2.45	2.18	3.53	41.09
1976	3.01	1.73	2.97	1.80	1.90	5.32	0.95	1.88	1.71	2.82	0.87	0.67	25.63
1977	1.64	1.78	3.50	5.13	2.02	2.46	1.73	3.59	2.73	3.85	2.67	4.47	35.57
1978	4.72	0.24	2.45	3.89	2.85	4.66	3.83	6.98	0.43	2.47	2.03	4.45	39.00
1979	3.29	2.85	1.35	3.62	2.90	4.34	4.43	7.95	3.51	2.03	4.91	2.12	43.30
1980	2.16	1.69	4.43	3.55	5.06	9.54	2.98	4.60	1.45	2.25	1.81	1.44	40.96
1981	0.30	3.37	1.18	5.06	4.76	6.32	5.08	3.51	5.06	2.79	2.80	3.46	43.69
1982	6.03	1.82	5.54	1.95	4.80	4.05	1.46	6.42	1.40	1.42	4.10	3.72	42.71
1983	1.39	0.65	2.67	4.73	4.43	5.73	3.57	1.16	0.88	5.54	4.21	2.89	37.85
1984	1.15	2.67	3.63	3.92	4.29	1.87	2.37	2.06	3.30	3.52	3.38	3.83	35.99
1985	1.56	2.26	4.85	1.56	4.43	2.27	2.69	2.50	0.98	2.39	8.07	2.25	35.81
1986	1.68	3.67	4.02	2.68	2.29	6.66	4.62	1.99	3.15	6.25	3.04	2.87	42.92
1987	1.06	1.01	2.22	3.11	2.61	3.16	4.36	0.65	0.28	1.26	1.98	3.00	24.70
1988	1.46	3.81	3.04	2.01	1.62	1.41	3.76	2.86	4.73	3.00	6.22	2.65	36.57
1989	2.72	2.65	5.99	6.52	8.55	4.76	3.56	1.89	5.66	1.56	3.66	1.85	49.37
1990	2.28	5.77	3.70	3.00	8.40	3.21	8.55	3.76	2.60	5.98	2.46	10.04	59.75
1991	2.53	2.55	5.34	4.72	4.25	2.52	2.58	2.13	3.25	1.52	2.12	3.64	37.15
1992	3.06	0.96	2.99	5.44	3.17	3.23	6.83	4.48	2.27	1.51	5.07	1.58	40.59
1993	3.88	2.77	3.85	6.78	3.98	6.25	4.68	3.32	4.69	3.06	6.19	2.78	52.23
1994	3.76	1.27	1.88	6.32	2.00	3.85	4.54	2.92	0.97	1.00	3.50	2.76	34.77
1995	2.39	1.47	2.62	5.30	9.05	5.60	5.83	7.54	1.03	5.65	2.30	2.48	51.26
1996	4.11	1.82	3.88	9.20	7.75	6.04	5.89	0.03	6.87	1.39	3.54	4.13	54.65
1997	2.40	1.75	3.96	1.42	5.76	2.22	3.07	2.55	1.66	1.27	2.40	2.15	30.61
1998	3.30	2.32	2.98	6.19	4.09	6.35	3.31	2.71	0.77	3.47	1.59	2.13	39.21
1999	3.93	3.97	1.61	3.53	1.98	3.70	2.82	1.80	1.05	1.06	1.85	2.56	29.86
POR= 87 YRS	2.89	2.19	3.39	3.61	3.88	3.91	3.51	3.04	2.60	2.47	2.87	2.60	36.96

WBAN : 93815

AVERAGE TEMPERATURE (°F) 1999 DAYTON, OH (DAY)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	20.7	29.3	37.6	54.2	65.1	72.2	75.0	73.6	69.3	56.0	42.0	35.5	52.5
1971	23.9	30.0	37.8	51.4	59.5	74.6	72.7	71.1	68.2	62.9	42.8	38.8	52.8
1972	27.5	28.2	36.7	50.3	62.0	66.8	74.7	72.2	65.8	50.4	39.1	33.6	50.6
1973	31.3	31.2	48.6	50.5	58.7	73.5	75.8	74.5	70.2	58.7	45.0	31.0	54.1
1974	32.4	29.5	42.5	52.7	60.1	67.3	75.5	73.7	60.5	52.5	44.4	33.0	52.0
1975	33.3	33.9	37.9	47.1	65.9	71.6	73.1	74.5	62.0	55.8	48.6	33.8	53.1
1976	24.1	38.6	46.4	52.3	59.1	70.5	73.1	68.8	61.7	47.6	35.2	26.4	50.3
1977	11.6	27.5	45.6	55.7	68.8	69.2	77.5	72.8	68.3	51.8	44.8	29.0	51.9
1978	18.7	16.9	34.8	51.7	60.4	71.6	73.3	71.1	69.4	52.0	44.9	34.4	49.9
1979	20.6	19.1	44.3	50.3	61.5	70.3	73.0	71.6	64.7	52.6	43.2	35.1	50.5
1980	28.0	22.9	35.7	48.3	62.3	68.1	76.8	77.0	68.8	49.3	39.3	31.2	50.6
1981	23.3	32.9	39.3	54.9	57.3	71.9	75.1	72.8	63.4	52.1	43.6	29.7	51.4
1982	20.9	27.6	40.0	46.6	67.9	66.7	75.0	70.7	63.9	55.4	43.9	39.6	51.5
1983	29.1	34.4	42.0	46.9	56.7	69.9	76.4	75.8	66.2	54.1	43.1	21.9	51.4
1984	21.2	36.3	30.9	48.6	57.2	72.4	69.9	71.5	62.5	58.8	39.6	38.1	50.6
1985	19.4	25.3	43.6	56.2	62.8	67.0	73.0	70.8	66.3	57.4	47.6	23.8	51.1
1986	29.1	31.3	42.4	54.0	63.8	71.3	75.6	69.8	68.8	55.3	40.4	32.8	52.9
1987	28.2	34.1	43.3	51.3	66.4	72.5	75.5	73.2	67.4	48.5	46.6	35.2	53.5
1988	26.1	27.1	40.3	50.8	63.5	71.4	78.3	77.2	65.4	47.1	43.6	30.9	51.8
1989	36.3	27.5	42.4	50.2	58.8	70.6	76.1	72.2	64.1	54.1	41.0	19.0	51.0
1990	37.1	37.3	44.9	50.7	58.5	70.2	73.2	71.6	65.1	53.4	47.1	36.3	53.8
1991	28.1	34.9	42.9	55.0	69.3	74.2	76.3	73.7	66.0	56.7	39.2	34.6	54.2
1992	30.0	36.3	41.0	50.9	60.5	68.1	74.2	68.9	64.3	52.2	42.8	33.0	51.9
1993	32.1	26.3	37.7	50.0	62.0	69.7	77.0	75.1	62.7	51.6	42.5	31.1	51.5
1994	20.0	28.8	39.3	53.7	58.6	74.3	75.1	71.7	64.9	56.2	48.4	37.6	52.4
1995	28.9	28.1	43.0	50.4	60.4	72.8	75.9	78.0	63.5	56.1	36.1	26.5	51.6
1996	25.0	30.2	34.0	48.6	60.0	71.2	72.1	73.2	64.5	54.6	36.3	35.5	50.4
1997	25.7	35.0	41.8	47.4	55.8	69.1	73.2	69.8	64.5	54.0	38.8	33.1	50.7
1998	36.0	39.2	41.7	52.0	66.0	70.5	73.6	74.2	70.6	55.6	45.2	37.0	55.1
1999	28.8	35.7	35.6	53.6	63.7	72.5	78.4	71.3	66.8	54.6	47.4	33.3	53.5
POR= 87 YRS	28.3	31.2	40.1	51.3	61.7	71.0	75.0	73.1	66.5	55.0	42.5	32.1	52.3

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HEATING DEGREE DAYS (base 65°F) 1999 DAYTON, OH (DAY)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	5	0	48	278	685	907	1265	975	836	403	193	1	5596
1971-72	0	0	50	97	661	806	1155	1058	870	438	130	67	5332
1972-73	15	6	63	443	771	967	1038	941	502	444	204	0	5394
1973-74	0	2	31	227	593	1045	1004	986	691	379	198	42	5198
1974-75	0	0	164	384	613	988	977	868	835	530	84	22	5465
1975-76	2	0	130	292	492	957	1259	760	570	403	203	2	5070
1976-77	0	25	121	535	886	1191	1651	1042	600	309	63	36	6459
1977-78	0	7	45	403	605	1108	1428	1339	927	395	205	15	6477
1978-79	1	11	47	396	597	942	1372	1281	634	445	166	15	5907
1979-80	7	23	91	397	649	923	1145	1217	901	495	139	49	6036
1980-81	0	0	44	487	764	1043	1289	894	792	305	252	9	5879
1981-82	0	2	119	398	638	1089	1362	1039	766	546	27	22	6008
1982-83	1	9	102	320	630	782	1105	851	706	538	258	28	5330
1983-84	8	0	104	345	649	1331	1351	827	1051	493	263	2	6424
1984-85	7	8	142	191	756	824	1406	1104	660	294	128	34	5554
1985-86	0	1	107	255	516	1271	1109	939	699	343	118	15	5373
1986-87	0	32	42	317	732	991	1134	858	664	411	98	6	5285
1987-88	2	10	44	505	551	916	1200	1091	759	425	106	35	5644
1988-89	2	3	56	549	635	1052	881	1043	700	445	241	14	5621
1989-90	0	5	114	347	713	1419	858	772	628	450	199	29	5534
1990-91	3	1	101	359	534	886	1138	835	678	304	59	1	4899
1991-92	0	0	111	281	765	935	1078	828	735	427	187	26	5373
1992-93	2	10	110	392	658	988	1011	1076	837	444	129	47	5704
1993-94	0	2	121	413	672	1046	1391	1011	790	350	239	7	6042
1994-95	0	8	76	278	492	845	1112	1025	676	436	164	3	5115
1995-96	4	0	102	275	861	1186	1227	1001	955	491	218	14	6334
1996-97	2	0	97	316	856	908	1209	833	712	520	287	32	5772
1997-98	2	10	70	381	781	983	891	717	735	382	63	59	5074
1998-99	0	0	29	294	588	862	1119	814	903	340	91	16	5056
1999-	0	3	63	320	521	976							

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COOLING DEGREE DAYS (base 65°F) 1999 DAYTON, OH (DAY)

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1970	0	0	0	22	125	234	322	275	185	5	0	0	1168
1971	0	0	0	3	28	298	247	196	153	39	0	0	964
1972	0	0	0	4	42	130	324	237	94	0	0	0	831
1973	0	0	0	15	18	260	343	306	191	39	0	0	1172
1974	0	0	0	15	52	118	331	277	36	3	3	0	835
1975	0	0	0	2	119	228	257	302	46	13	7	0	974
1976	0	0	2	30	27	175	259	147	28	1	0	0	669
1977	0	0	4	36	188	167	393	255	153	0	3	0	1199
1978	0	0	0	1	66	219	265	210	184	0	0	0	945
1979	0	0	1	12	63	179	260	234	87	18	0	0	854
1980	0	0	0	0	61	148	373	378	164	6	0	0	1130
1981	0	0	1	11	17	221	321	251	76	5	0	0	903
1982	0	0	0	0	123	78	316	191	75	29	3	1	816
1983	0	0	0	1	8	180	369	339	148	10	0	0	1055
1984	0	0	0	5	25	233	169	218	72	7	0	0	729
1985	0	0	3	36	63	101	253	190	152	25	1	0	824
1986	0	0	4	23	88	211	335	186	161	21	0	0	1029
1987	0	0	0	5	148	238	331	270	122	0	5	0	1119
1988	0	0	1	4	64	232	423	387	73	3	0	0	1187
1989	0	0	5	7	55	189	350	235	94	17	0	0	952
1990	0	0	12	27	5	192	263	215	111	7	4	0	836
1991	0	0	0	11	199	284	355	277	149	28	0	0	1303
1992	0	0	0	11	51	127	293	138	94	0	0	0	714
1993	0	0	0	0	44	195	376	323	58	4	0	0	1000
1994	0	0	0	18	46	293	321	220	81	11	0	0	990
1995	0	0	0	3	26	243	349	410	66	4	0	0	1101
1996	0	0	0	6	69	208	228	263	87	0	0	0	861
1997	0	0	0	0	7	163	262	164	66	46	0	0	708
1998	0	0	19	0	102	229	272	293	203	10	0	3	1131
1999	0	0	0	5	54	248	423	207	123	1	0	0	1061

SNOWFALL (inches) 1999 DAYTON, OH (DAY)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1970-71	0.0	0.0	0.0	0.0	3.6	0.7	4.6	9.8	11.0	T	0.0	0.0	29.7
1971-72	0.0	0.0	0.0	0.0	3.4	1.0	6.6	9.6	1.2	1.2	0.0	0.0	23.0
1972-73	0.0	0.0	0.0	T	2.5	5.2	2.4	3.6	4.4	3.6	0.0	0.0	21.7
1973-74	0.0	0.0	0.0	0.0	T	11.6	2.0	6.3	3.5	4.9	0.0	0.0	28.3
1974-75	0.0	0.0	0.0	T	6.6	8.8	8.2	6.4	11.1	T	0.0	0.0	41.1
1975-76	0.0	0.0	0.0	0.0	3.0	4.7	11.6	1.3	1.2	T	0.0	0.0	21.8
1976-77	0.0	0.0	0.0	T	2.6	3.9	20.2	10.6	1.2	0.3	0.0	0.0	38.8
1977-78	0.0	0.0	0.0	T	2.4	8.5	40.2	3.6	8.0	0.0	0.0	0.0	62.7
1978-79	0.0	0.0	0.0	0.0	T	1.1	20.5	17.5	0.2	T	0.0	0.0	39.3
1979-80	0.0	0.0	0.0	T	0.4	0.2	7.3	14.6	2.4	T	0.0	0.0	24.9
1980-81	0.0	0.0	0.0	T	5.3	3.3	5.7	2.0	3.3	0.0	0.0	0.0	19.6
1981-82	0.0	0.0	0.0	T	0.8	14.7	13.3	5.1	4.9	4.1	0.0	0.0	42.9
1982-83	0.0	0.0	0.0	0.0	0.1	0.3	1.5	2.5	0.9	0.2	0.0	0.0	5.5
1983-84	0.0	0.0	0.0	0.0	T	5.9	9.2	12.2	13.8	T	0.0	0.0	41.1
1984-85	0.0	0.0	0.0	0.0	3.2	5.3	14.0	12.6	0.3	2.3	0.0	0.0	37.7
1985-86	0.0	0.0	0.0	0.0	0.0	7.5	4.2	10.4	1.6	0.3	0.0	0.0	24.0
1986-87	0.0	0.0	0.0	0.0	1.1	1.7	3.6	3.4	7.9	2.2	0.0	0.0	19.9
1987-88	0.0	0.0	0.0	0.0	0.5	2.0	3.2	7.2	2.1	T	0.0	0.0	15.0
1988-89	0.0	0.0	0.0	T	1.0	4.8	0.1	4.0	5.7	0.1	T	0.0	15.7
1989-90	0.0	0.0	0.0	5.8	0.4	8.6	3.8	3.8	2.2	0.2	0.0	0.0	24.8
1990-91	0.0	0.0	0.0	0.0	0.0	3.5	5.3	1.5	2.4	0.0	0.0	0.0	12.7
1991-92	0.0	0.0	0.0	0.0	1.9	1.0	9.1	1.1	2.9	1.0	0.0	0.0	17.0
1992-93	T	0.0	0.0	0.1	0.8	1.8	2.8	16.4	7.2	T	0.0	0.0	29.1
1993-94	0.0	0.0	0.0	4.1	1.2	6.5	16.8	5.3	7.0	2.3	0.0	0.0	43.2
1994-95	0.0	0.0	0.0	0.0	0.0	1.3	9.4	5.3	2.0	0.4	T	0.0	18.4
1995-96	T	0.0	0.0	0.0	0.6	7.9	24.6	2.0	6.0	1.2	0.0		
1996-97													
1997-98							1.4	3.2	4.0	0.0	0.0	0.0	
1998-99	0.0	0.0	0.0	0.0	0.0	1.6	17.4	3.7	7.9	0.0	0.0	0.0	30.6
1999-	0.0	0.0	0.0	0.0	T	0.9							
POR= 54 YRS	T	0.0	0.0	0.2	2.1	5.3	8.1	5.9	5.1	0.7	T	0.0	27.4

WBAN : 93815

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 (1961 - 1990). 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.</p>	<p>GENERAL CONTINUED: 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. 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.</p> <p>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.</p>
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1999
DAYTON,
OHIO (DAY)

Dayton is located near the center of the Miami River Valley, which is a nearly flat plain, 50 to 200 feet below the general elevation of the adjacent rolling country. Three Miami River tributaries, the Mad River, the Stillwater River, and Wolf Creek converge, fanwise, from the north to join the master stream within the city limits of Dayton. Heavy rains in March 1913 caused the worst flood disaster in the history of the Miami Valley. During the flood more than 400 people lost their lives and property damage amounted to \$100 million. After the 1913 flood, dams were built on the streams north of Dayton, forming retarding basins. No floods have occurred at Dayton since the construction of these dams.

The elevation of the city of Dayton is about 750 feet. Terrain north of the city slopes gradually upward to about 1,100 feet at Indian Lake. Ten miles southeast of Indian Lake, near Bellefontaine, is the highest point in the state, with an elevation of about 1,550 feet. South of the city, the terrain slopes gradually downward to about 450 feet where the Miami River empties into the Ohio River.

Precipitation, which is rather evenly distributed throughout the year, and moderate temperatures help to make the Miami Valley a rich agricultural region. High relative humidities during much of the year cause some discomfort to people with allergies. Temperatures of zero or below will be experienced in about four years out of five, while 100 degrees or higher will be recorded in about one year out of five. Extreme temperatures are usually of short duration. The downward slope of about 700 feet in the 163 miles of the Miami River may have some moderating influence on the winter temperatures in the Miami Valley.

The average last occurrence in the spring of freezing temperatures is mid-April, and the average first occurrence in the autumn is late October.

Cold, polar air, flowing across the Great Lakes, causes much cloudiness during the winter, and is accompanied by frequent snow flurries. These add little to the total snowfall.

STATION LOCATION

DAYTON, OHIO

LOCATION	OCCUPIED FROM	OCCUPIED TO	AIRLINE DISTANCES AND DIRECTIONS FROM PREVIOUS LOCATION	LATITUDE NORTH	LONGITUDE WEST	ELEVATION ABOVE											AUCOMPTHTO	* Type M = AMOS T = AUTOB S = ASOS W = AWOS	REMARKS
						SEA LEVEL	GROUND												
							G	W	E	P	S	T	R	W	8	H			
COOPERATIVE																			
Cooper's Seminary W. First Street	10/1844	3/1873	NA	39°46'	84°10'	741												Complete records 1846 through July 1850, otherwise only short periods.	
Miami Conservancy District, 38 E. Monument Street	7/1933	Present	NA	39°36'	84°11'	745			6							3			
CITY																			
102 S. Findlay Street	11/1882	1924	NA	39°44'	84°09'	790													
Rooms 1405-1407 U. B. Building Corner 4th & Main	7/9/11	7/18/23	NA	39°46'	84°10'	743	216	181	181			176				176			
Rooms 808-809 25 N. Main	7/18/23	7/21/33	0.1 N	39°46'	84°10'	743	173	137	137			132				132	Data from Miami Conservancy District cooperative station used for continuity of record while City Office was closed 7/23/33 through 1/35.		
Room 202 188 W. Third	2/1/35	4/19/38	NA	39°46'	84°12'	741	163	60	60			53				53			
Room 1309 32 N. Main	4/19/38	6/15/43	0.2 NE	39°46'	84°12'	743	213	186	186			179	179	179					
AIRPORT																			
CAA Airway Station Municipal Airport (10.4 mi. NNW of P.O.)	5/7/30	6/15/43	NA	39°54'	84°12'	1000	41	4	4	NA	NA	NA	NA	NA	NA	a3	a - Installed 8/11/40.		
Army Modification Ctr. #11, South Admn. Bldg. Municipal Airport	6/15/43	12/6/61	0.6 WNW	39°54'	84°12'	1002	55	6	6	Unk	3	3	3	3	b	NA			
Terminal Building James M. Cox Airport (Dayton Municipal)	12/6/61	2/4/74	0.75 WSW	39°54'	84°13'	997 c1002	20	5 e	5 e	Unk d95	15	17	15	b4	NA		b - Telepsychrometer (6') 6/15/43-6/26/63. Hygro. comm. 1900' SSE of thermometer site 6/26/63. c - Effective 6/26/63. d - Effective 7/19/63. e - Removed in 1964.		
FSS/NWS Building James M Cox, Dayton Municipal Airport + (eff. 10/15/78)	2/4/74	11/01/95	0.8 mi. ENE	39°54'	84°12'	f995	22	NA	4	21	3	5	3	4 g4 h4	NA		Instruments Installed 2/15/74. f - Established 8/1/74. g - Type change 1/1984. h - Type change 3/86.		
International Airport	11/01/95	Present	NA	39°54'	84°13'	1002									S		ASOS Commissioned 11/01/95		

SUBSCRIPTION: Price and ordering information available through: National Climatic Data Center, Federal Building, Asheville, North Carolina 28801.
INQUIRIES/COMMENTS CALL: (828) 271-4800

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