

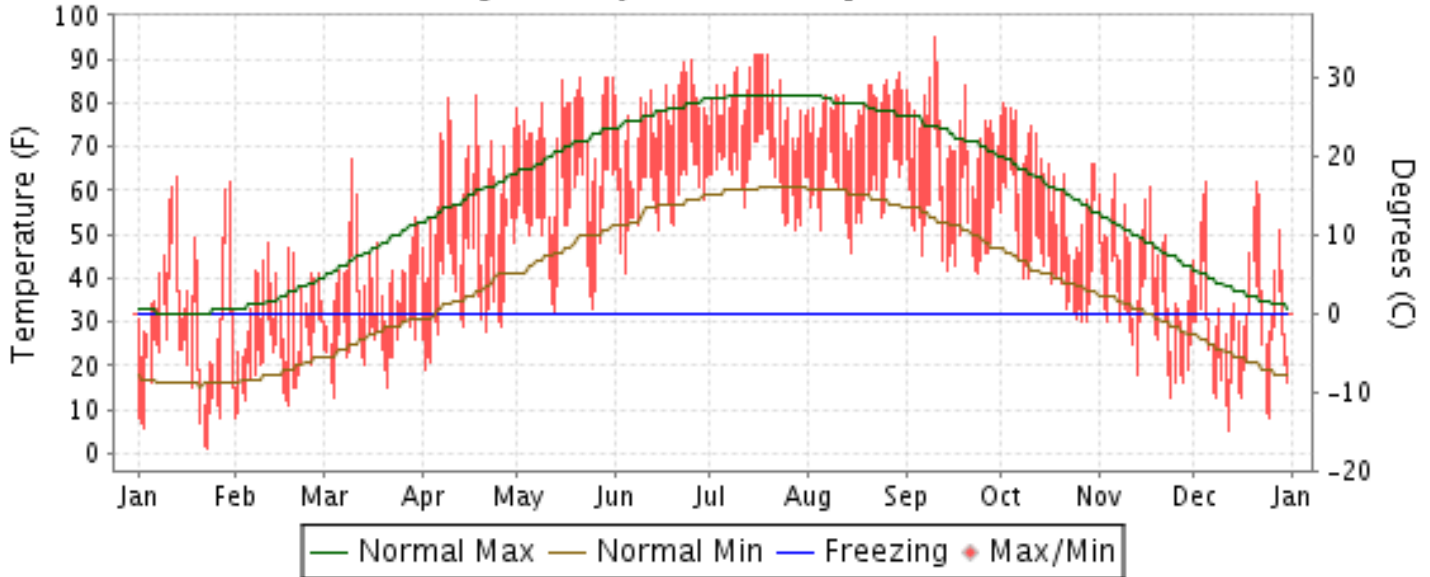


# 2013 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

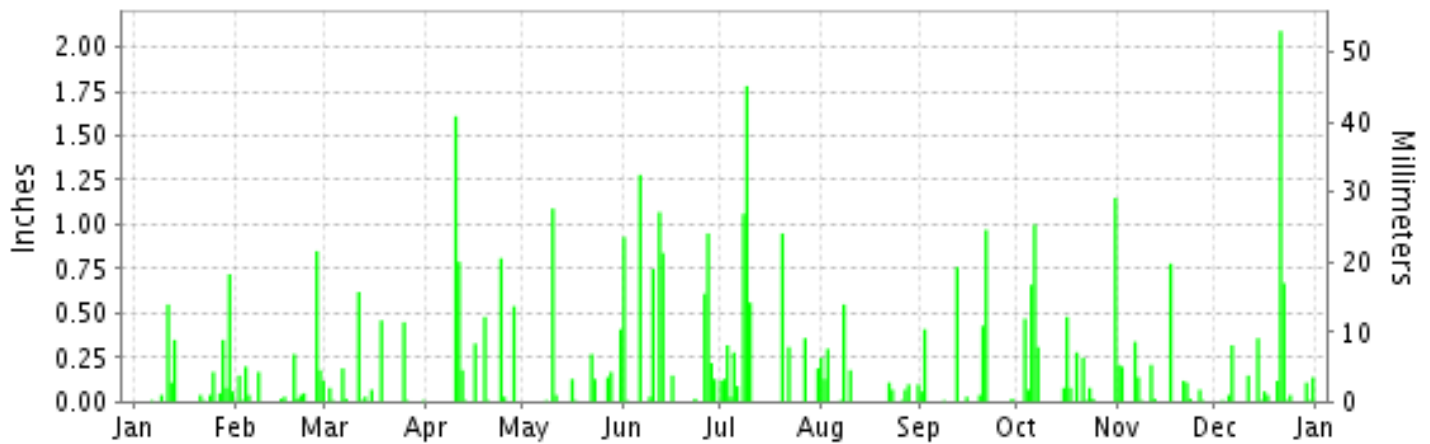
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## MANSFIELD, OHIO (KMFD)

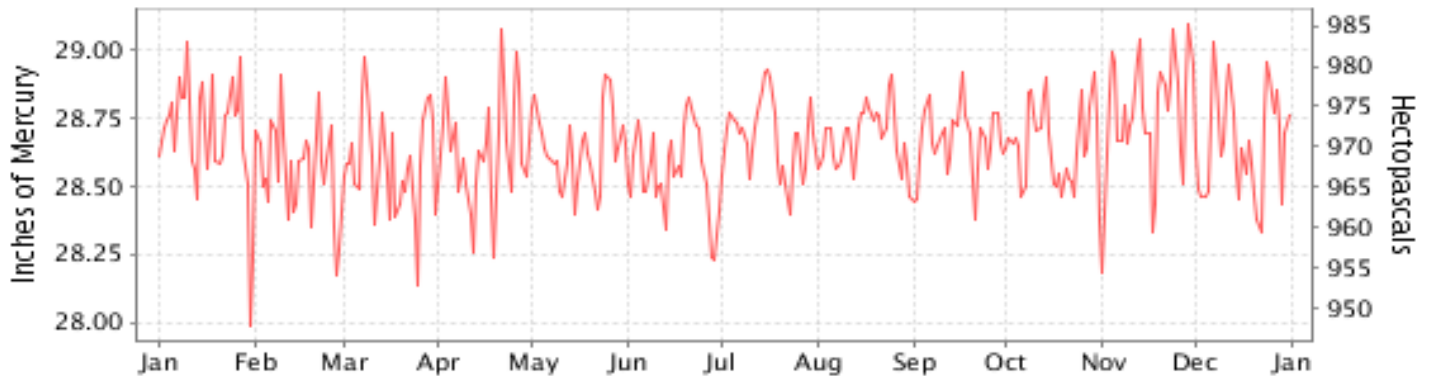
### Daily Max/Min Temperature



### 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 2013

## MANSFIELD (KMFD)

LATITUDE: 40° 49'N      LONGITUDE: 82° 31'W      ELEVATION (FT): GRND: 1295 BARO: 1300      TIME ZONE: EASTERN (UTC -5)      WBAN: 14891

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	36.6	33.6	40.7	60.7	73.6	77.9	80.8	79.5	74.2	63.4	44.8	37.1	58.6	
	HIGHEST DAILY MAXIMUM	63	48	67	82	86	90	91	87	95	80	64	62	95	
	DATE OF OCCURRENCE	13	11	10	18	31+	25	19+	30	10	02	06	21+	SEP 10	
	MEAN DAILY MINIMUM	21.2	20.0	26.0	37.3	51.7	58.8	63.4	59.4	52.6	43.9	30.3	23.5	40.7	
	LOWEST DAILY MINIMUM	1	8	13	19	32	41	51	46	41	30	13	5	1	
	DATE OF OCCURRENCE	23	01	04	02	13	04	28	15	24	28+	24	12	JAN 23	
	AVERAGE DRY BULB	28.9	26.8	33.4	49.0	62.7	68.4	72.1	69.4	63.4	53.7	37.5	30.3	49.6	
	MEAN WET BULB	27.5		30.2	43.7	55.3	62.7	67.2	64.1	58.6	49.8	34.3	28.1		
	MEAN DEW POINT	23.2		25.4	36.5	49.0	59.3	64.6	60.9	55.4	46.1	28.9	24.0		
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	1	5	0	1	0	0	0	0	7
	MAXIMUM <= 32°	12	12	7	0	0	0	0	0	0	0	4	16	51	
MINIMUM <= 32°	25	28	28	12	1	0	0	0	0	4	18	25	141		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	1110	1061	975	480	154	39	10	18	118	370	816	1069	6220	
	COOLING DEGREE DAYS	0	0	0	6	89	148	238	161	75	24	0	0	741	
RH	MEAN (PERCENT)	77	78	74	65	64	76	80	76	78	78	72	79	75	
	HOUR 01 LST	80	83	79	73	75	88	92	89	89	88	79	81	83	
	HOUR 07 LST	82	84	81	72	69	80	84	82	88	88	80	83	81	
	HOUR 13 LST	71	72	66	54	49	60	63	58	58	61	61	71	62	
	HOUR 19 LST	76	79	74	61	60	76	81	80	81	80	73	81	75	
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	1	3	2	2	2	3	2	4	2	2	1	2	26	
	THUNDERSTORMS	0	0	0	2	3	6	4	3	0	2	0	0	20	
PR	MEAN STATION PRESS. (IN.)	28.69	28.56	28.58	28.64	28.64	28.56	28.68	28.68	28.66	28.66	28.76	28.66	28.65	
	MEAN SEA-LEVEL PRESS. (IN.)	30.14	30.01	30.01	30.05	30.03	29.94	30.05	30.06	30.05	30.06	30.20	30.11	30.06	
WINDS	RESULTANT SPEED (MPH)	7.5	4.7	3.4	4.8	3.6	1.9	2.1	1.3	1.6	4.6	5.6	6.7	3.7	
	RES. DIR. (TENS OF DEGS.)	22	22	27	19	17	24	21	25	22	21	22	22	22	
	MEAN SPEED (MPH)	11.0	10.1	9.5	10.1	9.3	7.2	6.5	5.6	6.4	7.4	10.7	10.1	8.7	
	PREVAIL.DIR.(TENS OF DEGS.)	22	24	26	16	20	21	19	20	20	20	21	24	24	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	33	40	31	35	36	36	32	21	24	32	40	37	40	
	DIR. (TENS OF DEGS.)	20	19	17	19	19	01	28	31	33	18	16	17	16	
	DATE OF OCCURRENCE	19	19	11	18	22	27	10	31	12	31	17	21	NOV 17	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	47	48	39	47	52	66	45	28	31	44	53	53	66	
DIR. (TENS OF DEGS.)	19	19	17	18	20	36	27	22	33	17	17	25	36		
DATE OF OCCURRENCE	19	19	11	18	22	27	10	02	12	31	17	22	JUN 27		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	2.58	2.15	1.96	4.79	2.40	6.99	6.18	1.88	2.73	4.94	2.24	4.18	43.02	
	GREATEST 24-HOUR (IN.)	0.72	0.99	0.62	1.74	1.09	1.91	2.44	0.56	1.37	1.30	0.78	2.29	2.44	
	DATE OF OCCURRENCE	30	26-27	11	10-11	10	12-13	08-09	07-08	20-21	06-07	17	21-22	JUL 08-09	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	14	14	12	10	10	13	13	12	9	14	13	16	150		
PRECIPITATION 0.10	6	7	4	7	7	10	11	8	4	8	8	8	88		
PRECIPITATION 1.00	0	0	0	1	1	2	2	0	0	2	0	1	9		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	5.4	11.6	9.5	0.1	0.0	0.0	0.0	0.0	0.0	T	1.5	16.4	44.5	
	GREATEST 24-HOUR (IN.)	2.3	3.2	4.5	0.1	0.0	0.0	0.0	0.0	0.0	T	0.7	4.5	4.5	
	DATE OF OCCURRENCE	25	04	25	20						23	26	14+	DEC 14+	
	MAXIMUM SNOW DEPTH (IN.)	5	6	4	0	0	0	0	0	0	0	1	5	6	
	DATE OF OCCURRENCE	03+	05	25								28+	18	FEB 05	
	NUMBER OF DAYS WITH:														
SNOWFALL >= 1.0	2	4	3	0	0	0	0	0	0	0	0	5	14		

# NORMALS, MEANS, AND EXTREMES MANSFIELD (KMFD)

**LATITUDE:** 40° 49'N      **LONGITUDE:** 82° 31'W      **ELEVATION (FT):** GRND: 1295 BARO: 1300      **TIME ZONE:** EASTERN (UTC -5)      **WBAN: 14891**

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
<b>TEMPERATURE °F</b>	NORMAL DAILY MAXIMUM	30	32.8	36.3	46.2	59.3	69.4	78.1	81.7	80.0	73.3	61.6	49.4	36.5	58.7
	MEAN DAILY MAXIMUM	62	33.0	35.6	45.8	58.7	69.5	78.1	82.1	80.2	73.5	62.2	48.7	36.8	58.7
	HIGHEST DAILY MAXIMUM	54	65	71	84	86	92	101	100	97	95	87	78	73	101
	YEAR OF OCCURRENCE		2005	2000	2012	1990	1962	1988	1988	1988	2013	2007	1968	1982	JUN 1988
	MEAN OF EXTREME MAXS.	62	55.6	57.3	70.3	79.0	84.3	89.8	91.0	89.3	86.6	79.3	68.6	58.4	75.8
	NORMAL DAILY MINIMUM	30	18.3	20.5	28.0	38.2	48.1	57.3	61.3	60.0	52.6	41.9	33.1	22.8	40.2
	MEAN DAILY MINIMUM	62	18.5	20.1	28.2	38.3	48.5	57.6	61.9	60.3	53.3	42.9	33.3	23.2	40.5
	LOWEST DAILY MINIMUM	54	-22	-11	-6	8	25	37	43	40	33	20	2	-17	-22
	YEAR OF OCCURRENCE		1994	1982	1980	1982	1966	2003	1988	1965	1995	1988	1976	1989	JAN 1994
	MEAN OF EXTREME MINS.	62	-3.3	0.4	9.3	22.5	33.6	43.8	49.8	48.5	38.5	27.9	17.5	3.1	24.3
	NORMAL DRY BULB	30	25.5	28.4	37.1	48.8	58.7	67.7	71.5	70.0	63.0	51.7	41.3	29.7	49.5
	MEAN DRY BULB	62	25.8	27.9	37.1	48.5	59.0	68.0	72.0	70.3	63.4	52.6	41.0	30.0	49.6
	MEAN WET BULB	30	23.7	25.7	33.0	42.2	52.4	61.2	65.0	64.0	57.4	46.5	36.9	27.5	44.6
	MEAN DEW POINT	30	21.8	23.1	30.3	39.2	50.0	59.1	63.2	62.4	55.4	44.2	34.7	25.8	42.4
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.0	0.0	0.9	1.8	1.3	0.3	0.0	0.0	0.0	4.3
	MAXIMUM <= 32	30	14.8	10.5	4.3	0.3	0.0	0.0	0.0	0.0	0.0	0.1	1.9	11.5	43.4
MINIMUM <= 32	30	27.1	24.2	20.7	8.5	0.4	0.0	0.0	0.0	0.0	3.9	14.5	25.4	124.7	
MINIMUM <= 0	30	2.7	1.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	5.1	
<b>H/C</b>	NORMAL HEATING DEG. DAYS	30	1223	1025	865	495	232	53	8	17	125	418	713	1096	6270
	NORMAL COOLING DEG. DAYS	30	0	0	1	7	38	134	210	172	63	7	0	0	632
<b>RH</b>	NORMAL (PERCENT)	30			71	66	68	70	71	75	74	71		79	
	HOURLY 01 LST	30			75	75	78	83	84	88	86	80		82	
	HOURLY 07 LST	30	83	82	81	78	79	82	84	89	89	84	82	84	83
	HOURLY 13 LST	30	73	70	63	57	57	59	59	62	61	60	67	74	64
	HOURLY 19 LST	30	78	76	69	61	63	65	66	72	74	71	74	79	71
<b>S</b>	PERCENT POSSIBLE SUNSHINE														
<b>W/O</b>	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	50	2.8	3.6	3.0	1.9	2.4	1.7	1.8	3.1	2.3	2.3	2.4	3.4	30.7
	THUNDERSTORMS	59	0.3	0.4	1.7	3.2	4.7	6.0	5.9	5.1	2.8	0.8	0.6	0.2	31.7
<b>CLOUDINESS</b>	MEAN: SUNRISE-SUNSET (OKTAS)	30	6.2	6.1	5.9	5.5	5.2	4.8	4.4	4.5	4.6	4.7	6.0	6.3	5.4
	MIDNIGHT-MIDNIGHT (OKTAS)	17	5.6	5.3	5.3	4.8	4.5	4.3	4.1	4.0	4.1	4.1	5.6	5.9	4.8
	MEAN NO. DAYS WITH: CLEAR	30	4.0	3.8	4.8	5.6	6.9	7.3	7.8	8.4	8.7	8.8	4.0	3.5	73.6
	PARTLY CLOUDY	30	6.4	6.4	7.0	8.0	9.5	11.6	13.3	11.3	8.8	7.9	5.9	4.9	101.0
	CLOUDY	30	20.6	18.0	19.2	16.4	14.6	11.2	9.9	11.3	12.5	14.3	20.1	22.6	190.7
<b>PR</b>	MEAN STATION PRESSURE(IN)	30	28.64	28.64	28.63	28.58	28.61	28.61	28.64	28.67	28.69	28.68	28.67	28.66	28.64
	MEAN SEA-LEVEL PRES. (IN)	30	30.09	30.08	30.06	29.98	30.00	29.99	30.01	30.04	30.07	30.08	30.10	30.10	30.05
<b>WINDS</b>	MEAN SPEED (MPH)	30	11.8	11.2	11.3	11.3	9.8	8.6	7.8	7.3	8.1	9.6	10.9	11.1	9.9
	PREVAIL.DIR(TENS OF DEGS)	18	25	26	28	21	21	22	24	24	19	19	19	24	25
	MAXIMUM 2-MINUTE: SPEED (MPH)	17	44	46	47	46	46	45	39	41	51	40	40	44	51
	DIR. (TENS OF DEGS)		21	21	22	21	33	31	26	31	20	32	16	22	20
	YEAR OF OCCURRENCE		2008	2009	2004	2011	2004	2006	1999	2005	2008	1999	2013	2004	SEP 2008
	MAXIMUM 3-SECOND SPEED (MPH)	17	62	66	59	63	60	68	53	54	66	51	54	63	68
	DIR. (TENS OF DEGS)		25	20	21	23	32	31	32	22	21	18	24	25	31
YEAR OF OCCURRENCE		2012	2009	2004	2011	2004	2006	2008	2009	2008	2010	2005	2000	JUN 2006	
<b>PRECIPITATION</b>	NORMAL (IN)	30	2.87	2.39	3.39	4.14	4.54	4.75	4.38	4.37	3.32	2.94	3.81	3.29	44.19
	MAXIMUM MONTHLY (IN)	54	6.08	6.05	7.04	8.68	8.83	10.00	13.23	10.32	7.76	7.30	12.82	11.19	13.23
	YEAR OF OCCURRENCE		2005	2008	1964	1996	1989	1981	1992	2007	1986	2012	1985	1990	JUL 1992
	MINIMUM MONTHLY (IN)	54	0.41	0.29	1.16	0.75	1.50	0.56	0.94	0.63	0.70	0.43	0.70	0.74	0.29
	YEAR OF OCCURRENCE		1981	1978	1960	1971	1961	1988	1975	1970	1998	1963	1976	1976	FEB 1978
	MAXIMUM IN 24 HOURS (IN)	54	2.10	2.79	2.45	2.66	3.12	3.80	5.06	6.25	4.10	3.39	3.17	3.55	6.25
	YEAR OF OCCURRENCE		1992	1961	1964	1996	2011	2010	1969	2007	1979	1995	1993	1990	AUG 2007
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	14.9	12.9	13.8	14.5	13.8	11.9	10.5	10.2	9.5	10.6	12.8	14.9	150.3
PRECIPITATION >= 1.00	30	0.5	0.2	0.6	0.8	0.7	1.1	1.3	1.3	1.1	0.5	0.8	0.7	9.6	
<b>SNOWFALL</b>	NORMAL (IN)	30	13.3	11.4	7.8	2.6	0.0	0.0	0.0	0.0	0.0	0.5	2.2	10.5	48.3
	MAXIMUM MONTHLY (IN)	53	43.8	52.5	21.4	18.1	1.4	T	0.0	0.0	T	10.3	8.7	28.7	52.5
	YEAR OF OCCURRENCE		2009	2010	2008	1982	1966	2011	T	T	1970	1993	2000	2004	FEB 2010
	MAXIMUM IN 24 HOURS (IN)	53	12.0	11.0	8.0	11.8	1.4	T	0.0	0.0	T	8.6	4.4	15.2	15.2
	YEAR OF OCCURRENCE		1968	2010	1987	1987	1966	2011	T	T	1970	1993	2000	2004	DEC 2004
	MAXIMUM SNOW DEPTH (IN)	56	22	20	15	10	0	0	0	0	0	2	13	15	22
	YEAR OF OCCURRENCE		1978	1978	2008	1987						1993	1950	1995	JAN 1978
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	4.6	3.6	2.3	0.7	0.0	0.0	0.0	0.0	0.0	0.1	0.8	3.0	15.1	

**PRECIPITATION (inches) 2013 MANSFIELD (KMFD)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	1.22	2.91	4.68	5.48	6.23	1.25	3.55	4.43	3.78	3.71	4.15	4.41	45.80
1985	1.49	2.09	6.17	1.42	6.57	3.13	3.00	6.90	1.63	2.46	12.82	3.17	50.85
1986	1.62	4.34	3.92	3.51	3.72	6.67	8.56	4.00	7.76	4.57	3.94	3.71	56.32
1987	1.35	0.82	3.06	4.00	3.76	8.87	6.92	7.44	0.81	2.42	1.60	3.01	44.06
1988	2.04	3.23	2.63	3.89	2.84	0.56	4.90	5.34	2.60	2.29	5.41	2.44	38.17
1989	2.82	1.94	4.29	3.74	8.83	6.40	3.96	0.64	3.10	3.20	4.42	2.06	45.40
1990	2.39	4.74	1.74	4.58	7.79	5.21	9.59	6.95	4.94	5.66	2.44	11.19	67.22
1991	2.65	1.55	3.56	4.70	4.05	1.02	1.97	3.50	3.09	1.86	1.81	2.78	32.54
1992	3.59	2.09	3.21	4.17	3.00	3.05	13.23	2.62	4.07	2.68	7.63	2.35	51.69
1993	5.54	2.02	5.70	6.12	2.52	6.02	1.92	0.94	5.50	3.19	7.23	2.53	49.23
1994	2.52	0.84	2.10	6.96	2.95	5.91	3.67	5.01	1.99	1.01	4.09	4.01	41.06
1995	5.69	1.53	2.53	4.85	6.13	5.19	2.38	8.65	1.19	6.45	4.14	2.07	50.80
1996	5.05	3.36	5.52	8.68	3.70	5.34	3.21	2.86	6.25	2.33	2.49	4.27	53.06
1997	1.78	1.73	3.32	2.21	7.88	3.79	5.04	4.55	3.06	1.39	1.84	2.27	38.86
1998	2.96	2.50	1.97	4.81	1.95	7.29	3.41	5.96	0.70	2.84	1.55	1.55	37.49
1999	3.73	2.41	1.56	5.34	2.71	1.66	5.51	2.15	1.62	2.43	2.29	2.70	34.11
2000	3.03	2.59	2.13	4.37	5.14	4.66	3.33	5.39	2.55	2.05	2.02	3.12	40.38
2001	1.23	1.61	1.72	4.21	3.80	3.15	1.07	4.30	2.46	4.79	3.18	2.52	34.04
2002	2.15	1.71	3.81	4.83	4.62	4.30	2.40	3.14	2.86	1.79	2.88	2.74	37.23
2003	1.32	1.96	2.67	2.10	5.24	2.49	6.01	4.52	6.54	2.33	3.16	3.27	41.61
2004	3.78	0.83	4.26	3.13	6.96	6.87	4.47	2.54	2.92	2.48	3.55	3.01	44.80
2005	6.08	1.80	2.50	4.92	2.07	3.51	3.05	4.99	2.87	2.60	2.43	1.35	38.17
2006	2.74	2.46	3.21	2.82	5.58	4.06	6.39	2.71	2.62	4.39	3.14	3.05	43.17
2007	5.21	1.86	4.26	3.04	1.68	3.88	4.09	10.32	3.73	3.10	3.01	4.61	48.79
2008	2.84	6.05	5.70	1.96	4.57	6.64	3.30	0.72	4.29	1.46	2.68	4.86	45.07
2009	2.83	2.46	3.28	3.19	3.90	3.69	3.06	3.16	2.36	4.57	0.87	3.12	36.49
2010	1.62	3.73	2.81	1.76	4.19	8.88	2.59	2.76	2.29	1.82	4.72	1.03	38.20
2011	1.70	5.52	4.12	5.72	8.57	2.88	4.65	4.14	5.13	3.86	5.30	5.09	56.68
2012	3.62	2.51	3.14	1.82	3.90	2.52	1.92	2.04	6.71	7.30	0.82	3.86	40.16
2013	2.58	2.15	1.96	4.79	2.40	6.99	6.18	1.88	2.73	4.94	2.24	4.18	43.02
POR= 62 YRS	2.73	2.25	3.28	3.79	4.16	4.06	3.98	3.85	3.25	2.59	3.28	3.00	40.22

WBAN : 14891

**AVERAGE TEMPERATURE (°F) 2013 MANSFIELD (KMFD)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1984	20.2	34.5	28.7	48.5	55.9	72.2	70.1	71.1	61.0	58.3	41.0	38.2	50.0
1985	21.0	25.2	42.0	54.4	60.7	63.0	70.7	68.6	64.8	54.4	45.2	23.1	49.4
1986	26.4	28.2	39.7	51.8	61.1	67.4	72.7	67.5	66.2	53.8	38.8	31.2	50.4
1987	26.2	31.1	39.6	49.0	62.8	69.7	73.9	70.1	63.7	46.7	45.1	32.8	50.9
1988	23.9	24.7	36.7	47.0	60.7	68.4	75.6	73.3	62.9	45.1	42.4	29.1	49.2
1989	34.5	24.3	38.8	45.4	55.8	67.5	72.5	69.5	62.7	52.6	38.8	17.0	48.3
1990	34.5	34.1	42.0	48.5	55.8	67.1	70.0	68.9	62.9	52.8	44.0	34.7	51.3
1991	26.2	32.3	41.1	52.8	67.5	71.1	74.1	71.8	63.4	55.2	38.0	32.5	52.2
1992	28.2	32.1	36.2	47.6	57.2	64.2	70.5	66.5	61.5	48.6	41.0	32.3	48.8
1993	30.6	24.2	33.7	47.6	59.4	67.2	73.9	71.3	61.0	49.9	40.7	29.4	49.1
1994	17.8	25.2	35.4	49.8	54.3	69.2	71.7	67.7	62.8	53.2	46.2	36.2	49.1
1995	27.3	24.5	40.4	46.7	58.6	71.0	74.1	76.2	61.6	54.8	36.1	25.7	49.8
1996	24.7	26.2	30.8	45.8	57.1	69.2	69.1	70.4	62.2	51.9	33.8	33.4	47.9
1997	23.9	32.2	38.4	44.8	52.1	67.6	70.3	66.3	61.6	51.5	37.0	31.3	48.1
1998	33.5	37.3	39.7	48.7	64.2	67.5	70.3	70.8	66.0	52.3	43.0	34.9	52.4
1999	26.4	32.7	32.9	50.9	61.3	69.5	73.7	67.4	63.2	51.4	44.0	31.5	50.4
2000	23.9	33.7	42.4	47.6	61.4	68.3	68.5	68.2	62.0	55.2	38.4	19.8	49.1
2001	26.4	31.1	33.3	52.3	59.6	67.6	70.9	71.1	60.7	52.9	47.6	35.1	50.7
2002	33.1	32.3	36.6	50.1	55.4	70.0	75.0	72.6	67.0	49.5	38.1	28.6	50.7
2003	18.7	22.6	38.7	49.8	56.9	64.5	69.8	70.7	61.1	49.5	44.5	30.8	48.1
2004	20.1	27.5	39.7	48.7	62.6	65.7	69.9	66.6	64.5	52.0	42.9	28.8	49.1
2005	25.6	29.6	32.5	49.6	54.9	71.7	73.3	72.6	66.3	52.2	42.8	25.6	49.7
2006	37.1	28.9	36.4	52.1	58.1	65.9	72.9	71.8	60.8	48.9	43.2	37.1	51.1
2007	30.2	17.5	41.3	46.4	62.9	68.6	69.2	72.7	66.2	58.6	40.1	31.1	50.4
2008	28.0	26.0	33.7	51.3	55.6	69.3	71.6	69.2	65.5	50.4	38.0	29.1	49.0
2009	17.5	29.2	40.6	49.6	59.5	67.1	67.2	69.7	63.0	48.9	45.2	29.1	48.9
2010	23.4	24.5	40.0	54.3	62.5	70.6	73.8	73.4	64.3	53.6	41.8	23.3	50.5
2011	21.0	27.9	36.6	50.2	61.6	69.5	76.5	71.0	63.4	52.4	46.8	35.9	51.1
2012	30.4	33.2	50.4	49.0	65.3	69.6	76.7	70.8	62.2	51.7	39.5	36.6	53.0
2013	28.9	26.8	33.4	49.0	62.7	68.4	72.1	69.4	63.4	53.7	37.5	30.3	49.6
POR= 62 YRS	25.8	27.9	37.1	48.5	59.0	68.0	72.0	70.3	63.4	52.6	41.0	30.0	49.6

**HEATING DEGREE DAYS (base 65°F) 2013 MANSFIELD (KMFD)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	9	9	172	214	713	825	1361	1108	706	344	177	88	5726
1985-86	2	11	128	323	587	1293	1191	1025	783	403	174	52	5972
1986-87	4	56	72	354	783	1043	1196	945	782	476	168	29	5908
1987-88	5	24	88	562	593	993	1266	1165	870	534	178	71	6349
1988-89	7	13	97	617	672	1111	940	1135	812	578	312	37	6331
1989-90	3	12	132	394	779	1483	939	859	716	517	282	61	6177
1990-91	13	9	135	375	623	931	1197	909	735	377	92	15	5411
1991-92	0	1	143	321	803	999	1131	948	886	524	259	82	6097
1992-93	14	42	158	501	716	1008	1060	1135	961	516	192	62	6365
1993-94	0	8	158	460	722	1096	1456	1107	910	463	341	51	6772
1994-95	7	38	115	361	558	883	1159	1125	758	542	209	10	5765
1995-96	6	0	130	313	860	1209	1242	1121	1053	571	291	26	6822
1996-97	17	0	131	402	930	973	1266	912	820	598	392	48	6489
1997-98	9	41	124	442	837	1039	967	767	788	483	93	83	5673
1998-99	5	4	64	392	655	926	1190	897	987	416	138	51	5725
1999-00	8	13	121	415	621	1031	1263	900	695	513	163	57	5800
2000-01	10	22	161	303	789	1396	1192	943	975	395	185	63	6434
2001-02	13	3	155	376	514	920	979	911	873	472	313	28	5557
2002-03	0	3	56	501	801	1121	1424	1180	809	454	258	88	6695
2003-04	4	5	135	474	608	1053	1382	1079	777	491	149	64	6221
2004-05	10	50	77	395	656	1117	1217	986	999	461	312	14	6294
2005-06	0	4	32	408	661	1216	860	1003	873	380	256	54	5747
2006-07	6	0	137	496	647	858	1072	1322	728	551	151	32	6000
2007-08	14	5	72	243	740	1043	1142	1127	965	409	301	27	6088
2008-09	3	5	46	446	800	1108	1465	997	753	484	189	42	6338
2009-10	17	23	95	492	585	1105	1282	1127	766	334	138	16	5980
2010-11	5	5	102	359	690	1283	1358	1031	873	441	188	23	6358
2011-12	0	1	117	385	539	896	1065	915	465	474	88	37	4982
2012-13	0	4	157	411	757	873	1110	1061	975	480	154	39	6021
2013-	10	18	118	370	816	1069							

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**COOLING DEGREE DAYS (base 65°F) 2013 MANSFIELD (KMFD)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1984	0	0	0	6	22	228	176	205	57	14	0	0	708
1985	0	0	0	36	53	36	187	129	129	0	0	0	570
1986	0	0	6	15	60	129	247	139	118	11	0	0	725
1987	0	0	0	3	108	176	287	189	56	0	2	0	821
1988	0	0	0	0	49	182	343	281	40	6	0	0	901
1989	0	0	4	0	33	116	243	160	71	15	0	0	642
1990	0	0	10	28	6	131	175	139	80	5	0	0	574
1991	0	0	0	19	177	205	287	219	104	25	0	0	1036
1992	0	0	0	7	25	66	191	94	60	0	0	0	443
1993	0	0	0	0	24	136	285	211	44	2	0	0	702
1994	0	0	0	14	16	183	220	129	51	0	0	0	613
1995	0	0	0	0	16	196	295	356	37	4	0	0	904
1996	0	0	0	0	54	156	151	175	54	0	0	0	590
1997	0	0	0	0	0	135	176	86	28	31	0	0	456
1998	0	0	14	0	72	163	174	189	99	5	0	0	716
1999	0	0	0	2	32	191	281	97	74	0	0	0	677
2000	0	0	2	0	60	162	126	127	74	6	0	0	557
2001	0	0	0	18	23	146	203	201	34	7	0	0	632
2002	0	0	0	31	23	185	315	245	125	29	0	0	953
2003	0	0	0	6	13	81	162	190	24	2	0	0	478
2004	0	0	0	8	78	94	167	110	71	0	0	0	528
2005	0	0	0	4	6	223	265	245	78	18	0	0	839
2006	0	0	0	2	54	84	257	219	16	3	0	0	635
2007	0	0	0	2	91	149	151	250	114	51	0	0	808
2008	0	0	0	5	16	161	213	141	71	2	0	0	609
2009	0	0	0	28	27	112	91	176	42	0	0	0	476
2010	0	0	0	19	66	190	285	272	89	11	0	0	932
2011	0	0	0	4	89	161	367	195	78	2	0	0	896
2012	0	0	17	2	104	181	370	191	82	8	0	0	955
2013	0	0	0	6	89	148	238	161	75	24	0	0	741

**SNOWFALL (inches) 2013 MANSFIELD (KMFD)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1984-85	0.0	0.0	0.0	0.0	0.7	7.1	20.3	18.2	0.5	2.2	0.0	0.0	49.0
1985-86	0.0	0.0	0.0	0.0	T	13.3	8.6	7.4	5.7	2.8	0.0	0.0	37.8
1986-87	0.0	0.0	0.0	0.0	5.7	0.2	10.5	2.6	10.6	13.0	0.0	0.0	42.6
1987-88	0.0	0.0	0.0	T	0.9	13.8	7.5	11.1	14.9	0.3	0.0	0.0	48.5
1988-89	0.0	0.0	0.0	0.5	2.1	8.1	3.4	6.3	6.0	0.7	1.1	0.0	28.2
1989-90	0.0	0.0	0.0	3.1	0.9	11.9	7.3	5.8	2.4	1.3	0.0	0.0	32.7
1990-91	0.0	0.0	0.0	0.0	T	6.0	7.0	9.1	2.7	T	0.0	0.0	24.8
1991-92	0.0	0.0	0.0	0.0	3.1	4.2	19.1	2.2	4.6	4.2	0.0	0.0	37.4
1992-93	0.0	0.0	0.0	1.1	2.6	7.3	5.5	15.1	17.1	0.1	0.0	0.0	48.8
1993-94	0.0	0.0	0.0	10.3	2.2	8.0	20.6	12.2	6.6	1.9	0.0	T	61.8
1994-95	0.0	0.0	0.0	0.0	T	3.0	15.1	7.8	3.9	0.3	0.0	T	30.1
1995-96	0.0	0.0	0.0	T	4.1	23.4	30.4		16.8	5.4			
1996-97													
1997-98							2.1	0.2	5.8	0.0	0.0	0.0	
1998-99	0.0	0.0	0.0	0.0	0.0	3.1	22.0	10.3	11.9	T	0.0	0.0	47.3
1999-00	0.0	0.0	0.0	T	2.3	4.7	16.9	7.7	2.7	0.7	0.0	0.0	35.0
2000-01	0.0	0.0	0.0	0.0	8.7	22.1	9.2	2.2	12.3	0.5	0.0	0.0	55.0
2001-02	0.0	0.0	0.0	0.0	0.0	5.2	5.1	10.9	9.6	1.5	0.0	0.0	32.3
2002-03	0.0	0.0	0.0	0.1	6.5	11.3	19.0	16.5	3.6	T	0.0	0.0	57.0
2003-04	0.0	0.0	0.0	0.0	2.1	23.3	18.9	5.0	9.5	1.0	0.0	0.0	59.8
2004-05	0.0	0.0	0.0	0.0	0.8	28.7	15.2	7.0	16.3	18.1	0.0	0.0	86.1
2005-06	0.0	0.0	0.0	0.0	2.0	11.3	2.7	11.5	4.1	T	0.0	0.0	31.6
2006-07	0.0	0.0	0.0	T	0.8	0.6	8.4	25.8	4.0	3.9	0.0	T	43.5
2007-08	0.0	0.0	0.0	0.0	T	19.4	13.8	25.0	21.4	T	0.0	0.0	79.6
2008-09	0.0	0.0	0.0	T	6.0	6.2	43.8	7.0	0.1	1.2	0.0	0.0	64.3
2009-10	0.0	0.0	0.0	0.0	T	11.6	16.5	52.5	3.5	T	0.0	0.0	84.1
2010-11	0.0	0.0	0.0	0.0	T	10.5	17.8	25.3	5.5	T	0.0	T	59.1
2011-12	0.0	0.0	0.0	0.0	0.6	4.4	16.3	10.9	1.5	T	0.0	0.0	33.7
2012-13	0.0	0.0	0.0	2.5	0.1	10.2	5.4	11.6	9.5	0.1	0.0	0.0	39.4
2013-	0.0	0.0	0.0	T	1.5	16.4							
POR= 59 YRS	0.0	0.0	0.0	0.3	2.4	9.3	12.0	10.7	7.3	1.8	0.0	T	43.8

WBAN : 14891

**REFERENCE NOTES :**

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS.</p> <p>GENERAL CONTINUED: WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN</p>	<p>PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY. ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTHS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED STATION HISTORY INFORMATION GO TO "Historical Observing Metadata Repository", URL IS: <a href="http://www.ncdc.noaa.gov/homr/">http://www.ncdc.noaa.gov/homr/</a> SNOWFALL STOPPED MONTH &amp; YEAR INDICATED ABOVE. NO FURTHER YEARS INCLUDED UNLESS RESTARTED.</p> <p><b>NOTE:</b> The "Period of Record:(POR)" for all "averages" is based on "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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# 2013 MANSFIELD OHIO (KMFD)

Mansfield is in the north central highlands at the geographical and climatological junction of central Ohio, northwest Ohio, and northeast Ohio. The station is on a plateau 3 miles north of the city of Mansfield and surrounded by rolling open farmland. The general elevation ranges from around 1,300 to 1,400 feet above sea level with the 1,000-foot contour east to west some 15 miles to the north. The climate is continental, with the modifying effects of Lake Erie most pronounced in winter. Lake Erie is just 38 miles due north.

The lake influence, plus the elevation, produce cloudy skies and considerable snow shower activity from late November into April with any wind flow from northwest through northeast. Because of this, any windshift with a cold frontal passage in winter does not bring the clearing skies, indeed, more snow is often measured from the flurry activity behind the front than from the pre-frontal conditions. A frozen Lake Erie will allow clearing skies, but an open lake dictates overcast and snow flurries. Usually the lake is open enough to set off the flurries and cloudy conditions. The major snow producer will be an intense storm moving out of the southwest with the Gulf of Mexico moisture available. Snow cover is almost constant from December through March due to almost daily snow flurries, but the depth of cover is rarely more than 8 inches. Daytime winter temperatures are not above the freezing mark too often.

Spring is a short period of rapid transition from hard winter to summer conditions. April usually brings abundant shower activity and the crops and vegetation get a quick start.

Summer is a pleasant season with low humidities and no extremely high temperatures. Rarely does the temperature climb above the 90 degree point. Thunderstorms average about once every three days during the season from June through September. Highest winds are associated with the heavier thunderstorms, and while hail does not occur often, it is of major concern to the applegrowers in the area. Flooding problems are confined to the flash-flood type on the small streams in the area.

The growing season is normally about 153 days. Autumn usually produces many clear warm days and cool invigorating nights. Ground fog is at a maximum incidence during the autumn. Little rainfall occurs to interfere with harvest time and county fair time.

# Station History

MANSFIELD, OH

NAME	Begin Date	End Date	Latitude	Longitude	Elevation Feet	Relocation	Platform
MANSFIELD WSO AP	1959-11-01	1959-11-10	40° 49'	-82° 31'	1302		AIRWAYS, COOP
MANSFIELD MUNICIPAL AP	1959-11-10	1960-01-01	40° 49'	-82° 31'	1302		AIRWAYS, COOP
MANSFIELD LAHM MUNICIPAL AP	1981-12-31	1985-02-01	40° 49'	-82° 31'	1296		COOP
MANSFIELD MUNICIPAL AP	1962-01-01	1968-07-01	40° 49'	-82° 31'	1296		AIRWAYS, COOP
LAHM	1947-07-01	1947-09-01	40° 49'	-82° 31'	1302		COOP
MANSFIELD WSO AP	1956-07-01	1956-07-31	40° 49'	-82° 31'	1296		AIRWAYS, COOP
MANSFIELD WSO AP	1947-09-01	1956-07-01	40° 49'	-82° 31'	1302		AIRWAYS, COOP
MANSFIELD WSO AP	1956-07-31	1956-08-01	40° 49'	-82° 31'	1296		AIRWAYS
MANSFIELD LAHM MUNICIPAL AP	1968-07-01	1973-01-01	40° 49'	-82° 31'	1296		AIRWAYS, COOP
MANSFIELD LAHM MUNICIPAL AP	1985-02-01	1995-03-28	40° 49'	-82° 31'	1295	200 FT S	COOP
MANSFIELD WSO AP	1956-08-01	1959-11-01	40° 49'	-82° 31'			AIRWAYS
MANSFIELD MUNICIPAL AP	1960-01-01	1962-01-01	40° 49'	-82° 31'	1302		AIRWAYS, COOP
MANSFIELD LAHM MUNICIPAL AP	1973-01-01	1981-12-31	40° 49'	-82° 31'	1296		COOP, WXSVC
MANSFIELD LAHM MUNICIPAL AP	1995-03-28	1996-02-01	40° 49'	-82° 31'	1295		COOP
MANSFIELD LAHM MUNICIPAL AP	1996-02-01	Present	40° 49'	-82° 31'	1295		ASOS, COOP

# Element History

Element	Begin Date	End Date	Frequency	Time Of Observation	Equipment *	Equipment * Modifications	Equipment Exposure
TEMP	1947-07-01	1959-11-01	DAILY	2400			
PRECIP	1947-07-01	1959-11-01	DAILY	2400			
PRECIP	1985-02-01	1995-07-01	HOURLY	2400			
PRECIP	1959-11-01	1985-02-01	DAILY	2400			
PRECIP	1995-07-01	Present	DAILY	2400	UNIV	RCRD	
PRECIP	1985-02-01	1995-07-01	DAILY	2400	UNIV	RCRD	
PRECIP	1995-07-01	Present	HOURLY	2400	UNIV	RCRD	
PRECIP	1959-11-01	1985-02-01	HOURLY	2400			
TEMP	1959-11-01	1985-02-01	DAILY	2400			
TEMP	1985-02-01	1995-07-01	DAILY	2400	HYGR		
TEMP	1995-07-01	Present	DAILY	2400	HYGR		

\* 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/asos2implementation.htm>

Station Metadata website: <http://www.ncdc.noaa.gov/homr>

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