



# DECEMBER 2002

## LOCAL CLIMATOLOGICAL DATA

NOAA, National Climatic Data Center

## MARQUETTE, MI

MARQUETTE MICHIGAN COUNTY ARPT (MQT)

Lat: 46°32' N Long: 87°34' W Elev (Ground): 1415 Feet

Time Zone: EASTERN WBAN: 94850 ISSN #:0198-2648

DATE	TEMPERATURE °F						DEG DAYS BASE 65 °		WEATHER	SNOW/ICE ON GND (IN)		PRECIPITATION (INCHES)		PRESSURE (INCHES OF HG)		WIND SPEED = MPH DIR = TENS OF DEGREES								DATE				
	MAXIMUM	MINIMUM	AVERAGE	DEP FROM NORMAL	AVERAGE DEW PT	AVERAGE WET BULB	HEATING	COOLING		0700 LST	1300 LST	2400 LST	2400 LST	AVERAGE STATION	AVERAGE SEA LEVEL	RESULTANT SPEED	RES DIR	AVERAGE SPEED	MAXIMUM									
																			PEAK	2-MIN	SPEED	DIR	SPEED		DIR			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24					
01	18	-3	8	-14			57	0		10		0.6	0.02										01					
02	14	-9*	3*	-19			62	0		10		5.2	0.24											02				
03	16	0	8	-13			57	0		12		T	T											03				
04	17	-4	7	-14			58	0		12		T	T											04				
05	18	-6	6	-15			59	0		11			0.2	T										05				
06	27	11	19	-1			46	0		10			0.4	T										06				
07	27	11	19	-1			46	0		10			1.7	0.09										07				
08	16	2	9	-11			56	0		11			0.9	0.03										08				
09	29	2	16	-3			49	0		11			0.0	0.00										09				
10	43	19	31	12			34	0		10			0.0	0.00										10				
11	45*	30	38	19			27	0		9			0.0	0.00										11				
12	35	27	31	13			34	0		8			0.0	T										12				
13	32	30	31	13			34	0		8			T	T										13				
14	37	26	32	14			33	0		8			0.0	0.00										14				
15	33	17	25	8			40	0		8			0.9	0.09										15				
16	25	14	20	3			45	0		9			T	T										16				
17	32	17	25	8			40	0		9			T	T										17				
18	43	25	34	18			31	0		9			0.0	0.05										18				
19	44	31	38*	22			27	0		5			T	T										19				
20	31	26	29	13			36	0		5			0.2	0.01										20				
21	26	22	24	9			41	0		5			T	T										21				
22	24	22	23	8			42	0		5			T	T										22				
23	22	15	19	4			46	0		5			0.4	0.01										23				
24	23	19	21	6			44	0		5			T	T										24				
25	28	22	25	11			40	0		5			T	T										25				
26	32	19	26	12			39	0		5			0.0	0.00										26				
27	39	16	28	14			37	0		4			0.0	0.00										27				
28	35	15	25	11			40	0		4			0.0	0.00										28				
29	33	12	23	10			42	0		4			0.0	0.00										29				
30	35	27	31	18			34	0		4			T	0.01										30				
31	27	12	20	7			45	0		4			0.9	0.01										31				
29.2		15.1	22.2	■ ■			42.6	0.0	< MONTHLY AVERAGES	TOTALS->			11.4	0.56									<- MONTHLY AVERAGES					
5.1		4.9	5.0	■ ■	<-----DEPARTURE FROM NORMAL----->							-1.87	SUNSHINE, CLOUD, & VISIBILITY TABLES ON PAGE 3															
DEGREE DAYS									GREATEST 24-HR PRECIPITATION: 0.24 DATE :02					SEA LEVEL PRESSURE DATE TIME														
MONTHLY									GREATEST 24-HR SNOWFALL: 5.2 DATE :02					MAXIMUM														
TOTAL DEPARTURE									GREATEST SNOW DEPTH: 12 DATE : 04+					MINIMUM														
SEASON TO DATE									NUMBER OF DAYS WITH ➔					MAXIMUM TEMP ≥ 90: 0					MINIMUM TEMP ≤ 32 :31					PRECIPITATION ≥ 0.01 INCH : 10				
TOTAL DEPARTURE														MAXIMUM TEMP ≤ 32 :20					MINIMUM TEMP ≤ 0 : 5					PRECIPITATION ≥ 0.10 INCH : 1				
HEATING: 1321 -163 3625 -216														THUNDERSTORMS :					HEAVY FOG :					SNOWFALL ≥ 1.0 INCH : 2				
COOLING: 0 0 407 240																												

DECEMBER 2002  
MARQUETTE, MI

\* = Extreme for the month (last occurrence if more than one)  
T = Trace precipitation amount  
+ = also occurs on earlier date  
FG+ = Heavy fog, visibility 0.25 miles or less  
BLANK entries denote missing or unreported data

Wind direction is recorded in tens of degrees (2 digits) clockwise from true north. '00' = calm, 'VR' = variable.

Water Equivalent of snow on the ground is reported only when the depth is 2 or more inches.

## WEATHER NOTATIONS

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Sky Cover is the mean cloud cover observed from sunrise to sunset (SR–SS), or midnight to midnight (MN–MN).

Satellite data are used to derive cloudiness above 12,000 feet. Effective Cloud Amount is based on the cloud cover and the transparency of the clouds within the satellite field of view (approx. 31x31 miles).

Sky Condition is based on the SR–SS sky cover.  
Clear = 0–2 oktas, Partly Cloudy = 3–6 oktas,  
Cloudy = 7–8 oktas.

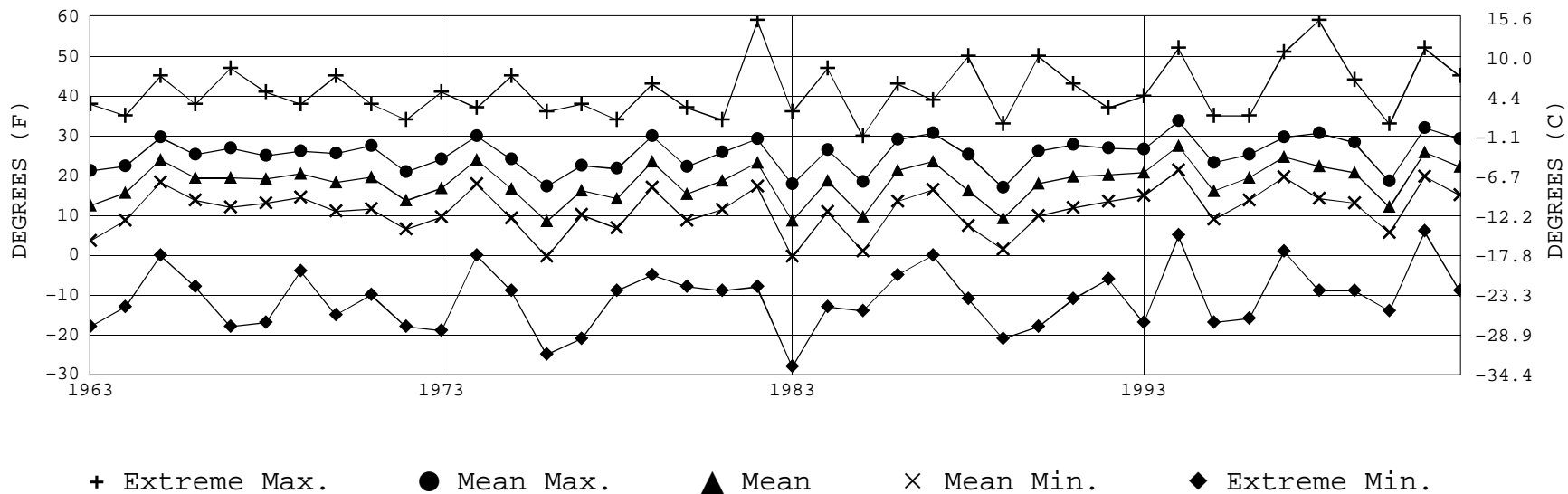
A Heating (Cooling) Degree Day is the difference between the average daily temperature and 65 degrees F. The HDD season begins July 1, the CDD season begins January 1.

Dew Point is the temperature to which the air must be cooled to achieve 100% relative humidity. Wet Bulb is the temperature the air would have if cooled at constant pressure by evaporation of moisture into it, to 100% relative humidity.

ADDITIONAL NOTES:

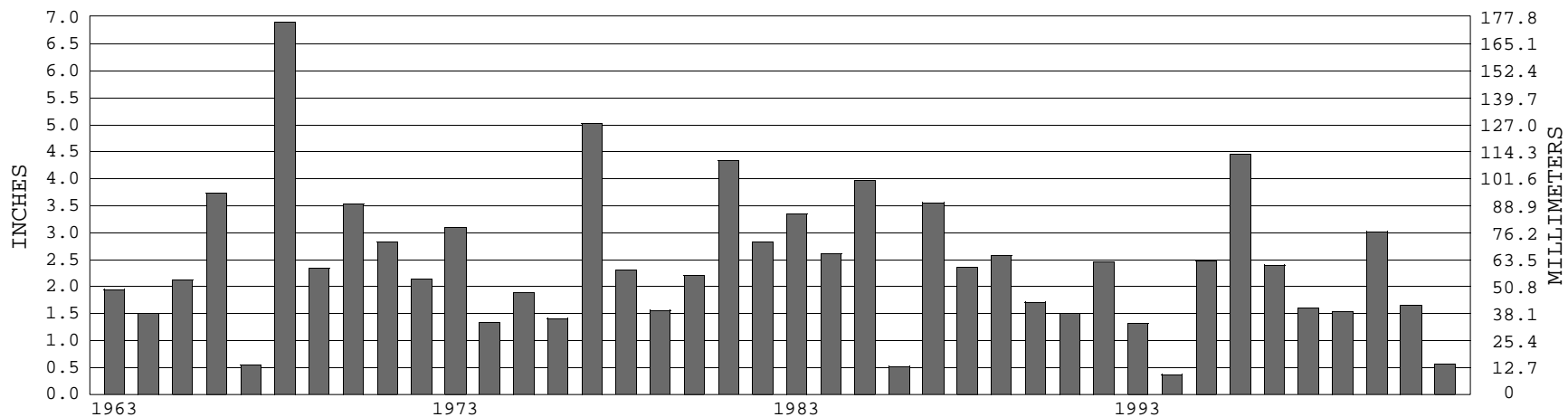
DATE	SUNSHINE		CLOUDINESS (OKTAS)				VISIBILITY (MILES)		RESERVED
	TOTAL MINUTES	PERCENT POSSIBLE	SR-SS		MN-MN		MINIMUM	MAXIMUM	
			SKY COVER	SATELLITE	SKY COVER	SATELLITE			
01	169	32							
02	466	88							
03	457	87							
04	493	94							
05	487	93							
06	484	92							
07	441	84							
08	474	91							
09	439	84							
10	520	100							
11	519	100							
12	0	0							
13	0	0							
14	155	30							
15	0	0							
16	430	83							
17	442	86							
18	0	0							
19	0	0							
20	212	41							
21	329	64							
22	316	61							
23	0	0							
24	0	0							
25	211	41							
26	441	86							
27	478	93							
28	465	90							
29	421	81							
30	190	37							
31	462	89							
MONTHLY AVGS									
<b>SUNSHINE (MINUTES)</b> Total: 9501    Possible: 16093 Percent Possible: 59									
<b>NUMBER OF DAYS WITH:</b> <b>SKY CONDITION</b> CLR   PTLY CLDY   CLOUDY   MISSING 31 <b>MINIMUM VISIBILITY (MILES)</b> <=0.25    <=3.0    >=7.0									

# MARQUETTE, MI DECEMBER TEMPERATURES



Long-Term (1963-2002) Mean: 18.4      1961-1990 Normal: 17.2

# MARQUETTE, MI DECEMBER PRECIPITATION



Long-Term (1963-2002) Mean Monthly Total: 2.44

1961-1990 Normal: 2.43



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DIRECTOR

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