

<b>NWS FORM E-5</b> U.S. DEPARTMENT OF COMMERCE NOAA, NATIONAL WEATHER SERVICE  <b>MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS</b>  TO: NATIONAL WEATHER SERVICE (W/OH12x1) HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 7116 SILVER SPRING, MD 20910	HSA OFFICE: <b>Marquette, MI</b>
	REPORT FOR (MONTH / YEAR): <b>December 2012</b>
	DATE: <b>January 28, 2013</b>
	SIGNATURE: <b>Robin J. Turner, MIC</b> <b>Justin Titus, Meteorologist</b>
When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (WSOM E-41).	



An X inside this box indicates no flooding occurred within this Hydrologic Service Area.

### December Flooding

No flooding was reported to the National Weather Service (NWS).

### December Precipitation

In general, December liquid precipitation was near or above normal over south central Upper Michigan, along Lake Michigan, and over the higher terrain of the north central U.P. Elsewhere, liquid precipitation was below to well below normal.

Snowfall for December was below to well below normal in most places, with the exception of the Iron Mountain area which was near normal.

Below is a chart of some of the larger cities in the Upper Peninsula, with monthly precipitation in inches, the amount of inches above or below normal for the month and any applicable record high or low rank.

Location	Precipitation	Above/Below	Rank	Snowfall	Above/Below	Rank
WFO Marquette	3.14	0.59		28.3	-13.4	
Marquette City	0.96	-0.94		3.2	-20.8	1 <sup>st</sup>
Houghton Airport	1.07	M	M	8.8	M	M
Ironwood	1.56	-0.53		18.5	-25.8	
Iron Mountain	1.55	0.03		13.5	0.0	
Manistique	2.12	0.84		12.5	-5.7	
Munising	1.96	-1.57		15.4	-22.4	9 <sup>th</sup>
Newberry	2.43	0.94		19.0	-4.2	
Ontonagon 6SE	0.73	-2.20		11.0	-41.7	1 <sup>st</sup>

Other monthly precipitation totals from coop observers:

Location	Precipitation (inches)	Snowfall (inches)
Amasa (Iron County)	0.73	7.0
Atlantic Mine (Houghton County)	1.71	22.5
Baraga 7NW (Baraga County)	0.72	6.2
Bergland Dam (Ontonagon County)	2.93	20.4
Big Bay (Marquette County)	1.16	11.6
Big Bay 9SW (Marquette County)	M	M
Chatham (Alger County)	1.50	16.0
Clarksburg (Marquette County)	1.17	24.5
Cooks (Schoolcraft County)	M	M
Copper Harbor (Keweenaw County)	1.31	4.3
Garden Corners (Delta County)	2.34	13.0
Gladstone (Delta County)	1.87	13.5
Greenland 6N (Ontonagon County)	0.99	8.8
Gwinn (Marquette County)	1.24	14.5
Harvey (Marquette County)	1.19	4.3
Herman (Baraga County)	1.62	22.0
Ishpeming 7NNE (Marquette County)	M	M
Jacobsville (Houghton County)	1.03	6.2
Mohawk (Keweenaw County)	1.83	15.3
Menominee (Menominee County)	1.36	6.2
Norway (Dickinson County)	1.42	10.9
Stambaugh (Iron County)	0.50	5.0
Twin Lakes (Houghton County)	1.56	16.7
Watersmeet (Gogebic County)	0.71	4.9
Watton (Baraga County)	1.00	10.6

### **Drought Discussion**

According to the January 1<sup>st</sup>, 2013 release of the U.S. Drought Monitor, most areas along the Wisconsin Border were classified under Abnormally Dry (D0) drought, with areas of Iron and Dickinson Counties under Moderate (D1) drought. Elsewhere, no drought was indicated. For the latest drought status, please go to <http://www.crh.noaa.gov/mqt/?n=drought>.

## **December Temperatures**

Below is a table of some of the larger cities in the Upper Peninsula, with average monthly temperature and number of degrees above or below normal for the month, and the rank of an all-time warmest or coldest month, where applicable.

Location	Temperature (degrees)	Above/Below	Rank
WFO Marquette	23.7	4.6	7 <sup>th</sup>
Marquette City	29.9	5.7	4 <sup>th</sup>
Houghton Airport	25.2	4.2	
Ironwood	22.1	5.2	
Iron Mountain	25.0	5.3	
Manistique	29.1	5.5	5 <sup>th</sup>
Munising	28.0	4.6	
Ontonagon	26.3	4.4	
Newberry	26.7	4.5	9 <sup>th</sup>

## **December River Levels**

According to the United States Geological Survey, December streamflow was below normal (10-24 percentile) in most drainage basins near the Wisconsin Border. Streamflow was listed as normal (25-75 percentile) in most other basins.

## **December Products Issued**

Flood Warnings (FLW): 0  
Flood Advisories (FLS): 0  
River Statements (RVS): 0  
Flash Flood Watches (FFA): 0  
Flash Flood Warnings (FFW): 0  
Flash Flood Statements (FFS): 0

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