

<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>August 2013</b>
	DATE: <b>September 24, 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).	

X

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

**August Flooding**

Some minor urban and small stream flooding may have occurred after heavy rainfall, but no flooding was reported to the National Weather Service.

**August Precipitation**

August precipitation was scattered and inconsistent due to thunderstorm activity. Some areas, such as along the Wisconsin Border and over eastern Upper Michigan saw above to well above normal rain, while other areas, such as northwestern and interior central Upper Michigan, saw near or below normal precipitation. Other areas along Lake Superior near and east of Marquette generally saw above normal precipitation. The most rain fell near Ironwood and over southern Menominee County, where precipitation was generally 200 to 300 percent of 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
WFO Marquette	2.32	-0.73	
Marquette City	3.11	0.48	
Houghton Airport	1.72	-0.69	
Ironwood	8.40	5.03	2 <sup>nd</sup>
Iron Mountain	3.99	0.73	
Manistique	3.50	0.25	
Munising	2.60	0.88	
Newberry	4.71	No Data	
Ontonagon 6SE	1.99	0.78	

Other monthly precipitation totals from coop observers:

Location	Precipitation (inches)
Alberta (Baraga County)	1.69
Amasa (Iron County)	3.57
Atlantic Mine (Houghton County)	1.54
Baraga 7NW (Baraga County)	1.54
Big Bay (Marquette County)	3.29

Chatham (Alger County)	2.68
Clarksburg (Marquette County)	2.03
Cooks (Schoolcraft County)	2.98
Copper Harbor (Keweenaw County)	1.06
Garden Corners (Delta County)	3.68
Gladstone (Delta County)	2.54
Greenland 6N (Ontonagon County)	2.22
Gwinn (Marquette County)	1.69
Harvey (Marquette County)	1.92
Herman (Baraga County)	2.51
Jacobsville (Houghton County)	1.97
Mohawk (Keweenaw County)	2.07
Menominee (Menominee County)	4.08
Norway (Dickinson County)	3.37
Stambaugh (Iron County)	4.27
Twin Lakes (Houghton County)	1.13
Watersmeet (Gogebic County)	5.14
Watton (Baraga County)	1.53

### **Drought Discussion**

The September 3rd, 2013 release of the U.S. Drought Monitor continued to indicate no drought conditions across Upper Michigan. For the latest drought status, please go to <http://www.crh.noaa.gov/mqt/?n=drought>.

### **August 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	64.3	0.6	
Marquette City	67.7	1.1	
Houghton Airport	64.7	0.8	
Ironwood	64.1	0.0	
Iron Mountain	66.8	0.4	
Manistique	63.9	-0.7	
Munising	64.4	-0.1	
Newberry	65.4	No Data	
Ontonagon 6SE	66.4	0.3	

### **August River Levels**

According to the United States Geological Survey, August average streamflow was near normal (25-75 percentile) throughout much of Upper Michigan.

### **August Products Issued**

- 0 Areal Flash Flood Watch (ARBFFAMQT)
- 0 Areal Flood Watches (ARBFFAMQT)
- 0 Areal Flood Warnings (ARBFLWMQT)

2 Areal Flood Advisories (ARBFLSMQT)  
0 Areal Flood Statements (ARBFLSMQT)  
0 River Flood Watches (ARBFFAMQT)  
0 River Flood Warnings (ARBFLWMQT)  
0 River Flood Advisories (ARBFLSMQT)  
0 River Flood Statements (ARBFLSMQT)  
0 Hydrologic Statements (ARBRVSMQT)  
0 Hydrologic Outlook (ARBESFMQT)

CC:

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