

<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>September 2013</b>
	DATE: <b>October 30, 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.

### **September Flooding**

No flooding was reported to the National Weather Service. However, some minor flooding may have occurred, particularly over parts of the Keweenaw Peninsula where thunderstorms dropped heavy rainfall on September 1<sup>st</sup>.

### **September Precipitation**

September precipitation remained somewhat inconsistent due to thunderstorm activity, which dropped some brief, but significant, heavy rainfall early in the month. Because of the scattered nature of any heavier rainfall, some areas may have seen near normal rainfall, but most areas were below to well below normal. In general, precipitation across Upper Michigan was between 10 and 75 percent of normal, with the greatest rainfall deficits noted over western Upper Michigan.

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	2.02	-1.70	9 <sup>th</sup>
Marquette City	2.56	-0.60	
Houghton Airport	1.25	-2.20	9 <sup>th</sup>
Ironwood	1.80	-2.26	
Iron Mountain	2.17	-1.45	
Manistique	3.07	-0.69	
Munising	3.04	-1.03	
Newberry	2.62	No Data	
Ontonagon 6SE	0.39	-2.90	1 <sup>st</sup>

Other monthly precipitation totals from coop observers:

Location	Precipitation (inches)
Alberta (Baraga County)	1.29
Amasa (Iron County)	1.02
Atlantic Mine (Houghton County)	1.21
Baraga 7NW (Baraga County)	0.29
Big Bay (Marquette County)	0.97
Chatham (Alger County)	2.71
Clarksburg (Marquette County)	1.45
Cooks (Schoolcraft County)	4.98
Copper Harbor (Keweenaw County)	2.12
Garden Corners (Delta County)	4.49
Gladstone (Delta County)	1.67
Greenland 6N (Ontonagon County)	0.73
Gwinn (Marquette County)	M
Harvey (Marquette County)	M
Herman (Baraga County)	1.77
Jacobsville (Houghton County)	0.93
Mohawk (Keweenaw County)	4.61
Menominee (Menominee County)	1.40
Norway (Dickinson County)	1.36
Paulding (Ontonagon County)	1.43
Stambaugh (Iron County)	2.08
Twin Lakes (Houghton County)	M
Watersmeet (Gogebic County)	M
Watton (Baraga County)	0.75

### **Drought Discussion**

The October 1, 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>.

### **September 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	56.7	0.9	
Marquette City	59.7	0.3	
Houghton Airport	56.8	1.4	
Ironwood	57.2	1.5	
Iron Mountain	58.5	0.9	
Manistique	56.0	-1.0	
Munising	56.3	-1.0	
Newberry	57.4	No Data	
Ontonagon 6SE	61.0	2.5	5 <sup>th</sup>

## **September River Levels**

According to the United States Geological Survey, September average streamflow was near normal (25-75 percentile) over central and much of eastern Upper Michigan. Areas of northwest and south central Upper Michigan saw generally below normal streamflow (10-24 percentile)

## **September Products Issued**

0 Areal Flash Flood Watch (ARBFFAMQT)  
0 Areal Flood Watches (ARBFFAMQT)  
0 Areal Flood Warnings (ARBFLWMQT)  
1 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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