

NWS FORM E-5 U.S. DEPARTMENT OF COMMERCE NOAA, NATIONAL WEATHER SERVICE MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS TO: NATIONAL WEATHER SERVICE (W/OH12x1) HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 7116 SILVER SPRING, MD 20910	HSA OFFICE: Marquette, MI
	REPORT FOR (MONTH / YEAR): November 2013
	DATE: December 5, 2013
	SIGNATURE: Robin J. Turner, MIC Justin Titus, Meteorologist
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.

November Flooding

No flooding was reported to the National Weather Service.

November Precipitation

November saw a lack of significant snow storms moving through, limiting widespread precipitation. However, lake effect snow and small scale features on the great lakes did help some locations achieve greater than normal precipitation amounts.

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	3.03	-0.15		19.0	-5.4	
Marquette City	3.25	0.63		7.2	-3.7	
Houghton Airport	No Data			No Data		
Ironwood	3.94	-1.24		27.8	3.3	
Iron Mountain	2.82	0.88		1.1	-4.8	
Manistique	5.46	2.99	3 rd	7.5	No Data	
Munising	6.47	2.73	3 rd	21.4	8.4	
Newberry	5.17	No Data		20.0	No Data	
Ontonagon 6SE	2.91	0.22		11.5	-12.0	

Other monthly precipitation totals from coop observers:

Location	Precipitation (inches)	Snowfall (inches)
Ahmeek (Keweenaw County)	2.79	5.7
Alberta (Baraga County)	2.15	5.8
Amasa (Iron County)	3.57	8.2
Atlantic Mine (Houghton County)	3.46	23.0
Baraga 7NW (Baraga County)	2.83	11.9
Big Bay (Marquette County)	4.19	23.6
Chatham (Alger County)	5.49	18.5
Clarksburg (Marquette County)	3.11	16.4
Cooks (Schoolcraft County)	5.91	18.9
Copper Harbor (Keweenaw County)	4.09	14.6
Garden Corners (Delta County)	4.88	13.2
Gladstone (Delta County)	4.70	2.8
Greenland 6N (Ontonagon County)	3.53	13.4
Gwinn (Marquette County)	1.63	5.2
Harvey (Marquette County)	M	M
Herman (Baraga County)	4.81	40.4
Jacobsville (Houghton County)	3.10	11.0
Mohawk (Keweenaw County)	3.55	3.1
Menominee (Menominee County)	3.38	1.7
Norway (Dickinson County)	3.00	2.0
Paulding (Ontonagon County)	3.38	27.0
Stambaugh (Iron County)	2.42	8.6
Watton (Baraga County)	3.62	28.8

Drought Discussion

The December 3, 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>.

November 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	29.2	-1.1	
Marquette City	37.3	2.5	
Houghton Airport	31.0	-0.4	
Ironwood	28.6	-1.2	
Iron Mountain	30.4	-1.6	
Manistique	32.7	-1.7	
Munising	32.1	-1.9	
Newberry	30.9	No Data	
Ontonagon 6SE	33.8	0.1	

November River Levels

According to the United States Geological Survey, November average streamflow was much above normal (>90 percentile) in the Manistique River basin and normal (25-75 percentile) in the rest of the Lake Michigan drainage basins of Upper Michigan. Average streamflow was above normal (76-90 percentile) in Lake Superior drainage basins of Upper Michigan.

November Products Issued

0 Areal Flash Flood Watch (ARBFFAMQT)
0 Areal Flood Watches (ARBFFAMQT)
0 Areal Flood Warnings (ARBFLWMQT)
0 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:
Robin J. Turner - WFO MQT MIC
Justin Titus – WFO MQT HPM
Mark Walton - WFO GRR SH