

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): February 2013
	DATE: March 25, 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).	



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

February Flooding

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

February Precipitation

February precipitation was above to well above normal, especially in areas favored by northwest wind lake effect snow. Several storm systems brought wetter snow to mainly central and eastern Upper Michigan and even some rain near Lake Michigan, helping those areas to see above normal snowfall amounts but even greater above normal liquid/liquid-equivalent precipitation amounts. Persistent northwest winds favored areas from Ironwood to the Keweenaw Peninsula and areas east of Marquette for lake effect snow. In fact, Munising saw more than double the average snowfall and liquid equivalent precipitation for February. Cold temperatures allowed for virtually no melting of the existing snowpack in most places.

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	2.79	0.73		41.8	6.3	9 th
Marquette City	2.23	0.97		31.2	1.7	
Houghton Airport	M	M		M	M	
Ironwood	2.24	0.99		49.9	22.9	6 th
Iron Mountain	1.59	0.63		14.2	4.9	
Manistique	2.48	1.80	5 th	31.5	7.0	3 rd
Munising	4.26	2.15	4 th	58.2	30.4	2 nd
Newberry	2.86	2.10	8 th	32.3	14.4	10 th
Ontonagon 6SE	1.94	0.35		23.5	16.1	

Other monthly precipitation totals from coop observers:

Location	Precipitation (inches)	Snowfall (inches)
Alberta (Baraga County)	2.12	27.8
Amasa (Iron County)	1.16	19.2
Atlantic Mine (Houghton County)	3.00	65.5
Baraga 7NW (Baraga County)	1.07	18.5
Big Bay (Marquette County)	2.38	31.3
Chatham (Alger County)	3.05	52.4
Clarksburg (Marquette County)	1.10	25.7
Cooks (Schoolcraft County)	M	38.2
Copper Harbor (Keweenaw County)	1.88	26.5
Garden Corners (Delta County)	2.68	21.7
Gladstone (Delta County)	2.75	19.9
Greenland 6N (Ontonagon County)	2.36	47.2
Gwinn (Marquette County)	1.55	20.8
Harvey (Marquette County)	2.04	28.9
Herman (Baraga County)	2.38	58.2
Ishpeming 7NNE (Marquette County)	4.83	49.9
Jacobsville (Houghton County)	1.62	22.7
Mohawk (Keweenaw County)	4.34	58.3
Menominee (Menominee County)	3.12	16.9
Norway (Dickinson County)	1.55	14.3
Stambaugh (Iron County)	1.18	15.6
Twin Lakes (Houghton County)	3.29	58.8
Watersmeet (Gogebic County)	1.10	18.8
Watton (Baraga County)	1.63	26.8

Drought Discussion

According to the February 26th, 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>.

February 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	14.2	-2.3	
Marquette City	20.3	-1.3	
Houghton Airport	16.5	-1.3	
Ironwood	11.5	-3.6	
Iron Mountain	14.4	-3.5	
Manistique	19.1	-0.4	
Munising	19.1	-0.4	
Newberry	17.3	-1.5	
Ontonagon 6SE	17.6	-2.0	

February River Levels

According to the United States Geological Survey, February streamflow was much above normal (>90 percentile) in the Manistique River Basin and normal (25-75 percentile) elsewhere.

February 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

CC:
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