

# October 2023 Northern Michigan Climate Summary

## Alpena

Avg Temp	Avg Temp Departure	Precip	Precip Departure	Snowfall	Snowfall Departure
50.5°F	+3.1°F	2.86"	-0.15"	1.0"	+0.6"

## Houghton Lake

Avg Temp	Avg Temp Departure	Precip	Precip Departure	Snowfall	Snowfall Departure
49.3°F	+2.5°F	3.05"	-0.03"	T	-1.3"

## Sault Ste. Marie

Avg Temp	Avg Temp Departure	Precip	Precip Departure	Snowfall	Snowfall Departure
49.2°F	+2.9°F	4.17"	-0.21"	4.1"	+2.4"

## Gaylord

Avg Temp	Avg Temp Departure	Precip	Precip Departure	Snowfall	Snowfall Departure
50.4°F	+6.0°F	4.22"	+0.14"	1.2"	-1.3"

## Traverse City

Avg Temp	Avg Temp Departure	Precip	Precip Departure	Snowfall	Snowfall Departure
53.4°F	+3.5°F	4.61"	+0.53"	0.2"	+0.1"

# October 2023 Notes

## **Alpena (Records 1916 - Present)**

- Daily record high temperatures
  - October 2nd: 85°F (broke 84°F record from 1922)
  - October 3rd: 87°F (broke 84°F record from 2005)

## **Sault Sainte Marie (Records 1888 - Present)**

- **All-time monthly record high temperature of 83°F observed on both October 2nd and October 3rd.**
  - Previous October monthly maximum temperature was 81°F, originally observed on both October 2nd, 1922 and October 12th, 1938.
    - Previous daily record high for October 2nd was 81°F originally set in 1922.
    - Previous daily record high for October 3rd was 77°F originally set in 1953.
- Daily record snowfall of 4.1" observed on October 30th.
  - Previous daily snowfall record was 2.5" originally observed in 1895.
- Daily record snow depth for October 31st of 4" observed.

## **Gaylord (Records 1951 - Present)**

- Daily record high temperatures
  - October 2nd: 84°F (broke 82°F record from 1971)
  - October 3rd: 85°F (broke 84°F record from 1971)

## **Traverse City (Records 1897 - Present)**

- Daily record high temperature
  - October 3rd: 88°F (broke 87°F record from 1922)

October 2023 started out on a blistering note, with heat more reminiscent of mid summer enveloping all of northern lower and eastern upper Michigan. Temperatures in the mid-to-upper 80s were common across the board the first few days of the month. Several locations observed daily record high temperatures, and Sault Ste. Marie even set a new monthly maximum temperature on both October 2nd and October 3rd. Following this period of warmth, temperatures fell to more seasonable levels, though overnight lows remained milder than normal. Most places experienced an October with little to no frost or freeze until after the 20th of the month when a drier and colder airmass infiltrated the region. This too was short lasting, the return of deeper moisture led to more above normal warmth both during the day and nighttime from the 24th through the 27th. During this time, several places saw highs in the 60s and 70s, with lows barely making it much into the 50s if they did at all. A strong cold front then passed through the region on October 27th, ushering in the first true cold airmass to the region, with below normal temperatures ruling to close the month out. Despite the cold end to the month, the mild nights and warmth at the beginning of the month propelled average temperatures well above normal for October 2023.

Precipitation through the month generally hovered near normal across the board, with various rounds of rain dominating throughout the month. Seasonably cool air coupled with warm Great Lakes waters allowed for an outburst of lake effect rain to commence in the typical downwind locations from October 6-10. A brief lull in appreciable precipitation followed thereafter, with occasional periods of drizzle and light rain. Then, after October 24th, a dynamic jet stream allowed for a direct connection to the western Gulf of Mexico to essentially “firehose” into the region. The anomalously humid airmass allowed for rounds of heavy rain and even thunderstorms for several days, particularly on the 24th, where numerous spots across northwest lower Michigan saw 2-3” of rain from repeated rounds of thunderstorms.

Eventually, a strong cold front ushered in a colder airmass to close out the month, and generated the region’s first snowflakes and accumulations. In some cases, the accumulations were historic, despite the heaviest snows impacting areas downstate. Sault Ste. Marie set a daily record for snowfall on October 30th, tallying 4.1” of snowfall, and also set a daily record for highest snow depth on Halloween, with 4” of snow on the ground. All in all, the snow depended on how lucky one got in relation to the wind direction from the lakes, leading to no definitive trend in snow across the region, as some spots were well above normal and some well below.