Historical Climatology: Ironwood, Michigan

1981-2010 Temperature and Precipitation Summary

- Mean Annual Temperature (°F) 40.1
- Mean Annual Minimum Temperature (°F) 30.2
- Mean Annual Maximum Temperature (°F) 50.1
- Mean Number of Days per Year that exceed 90°F 1
- Mean Number of Days per Year that fall below 32°F 179
- Lowest Mean Annual Temperature (°F) 36.3
- Highest Mean Annual Temperature (°F) 44.6
- Mean Annual Total Precipitation (inches) 34.9
- Lowest Mean Total Precipitation (inches) 25.9
- Highest Mean Total Precipitation (inches) 46.3
- Mean Number of Days/Year with > 0.1" Precip. 75
- Mean Number of Days/Year with > 0.25" Precip. 43
- Mean Number of Days/Year with > 0.5" Precip. 19
- Mean Number of Days/Year with > 1" Precip. 6

Mean monthly high, average, and low temperatures for the period 1981-2010.

Mean monthly total precipitation with the 25th and 75th percentiles for the period 1981-2010.

Geography

Ironwood, located in western Gogebic County, is 1 mile north of the Wisconsin border and 12 miles southeast of Lake Superior. The surrounding terrain is rolling to hilly and mostly forested. Recreational use of the lakes, rivers, and forest areas has increased rapidly in recent years. Soils are predominantly stony sandy loams, loams, and silt loams.

Overview

Ironwood is on the western edge of the Lake Superior "snowbelt" which extends from northern Wisconsin through Michigan's Keweenaw Peninsula. The terrain to the south and east rises by as much as 1200 feet above Lake Superior and strongly enhances the development of heavy snow squalls during the winter. Lake effects also modify temperatures, keeping them cooler during the late spring and early summer, and warmer during the late fall and early winter. In the late winter as ice builds up on the lakes, Ironwood is subjected to temperature variations which are more closely associated with interior locations. Diminished wind speeds or winds which do not traverse large unfrozen lakes often produce clearing skies and the colder temperatures expected at continental locations. As the day-to-day weather is controlled by the movement of high and low pressure systems across the continent, this area seldom experiences prolonged periods of hot, humid weather in the summer or extreme cold during the winter.
Changes in Mean 1981-2010 Temperature from 1951-1980 (°F)

<table>
<thead>
<tr>
<th>Season</th>
<th>Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual</td>
<td>-0.3</td>
</tr>
<tr>
<td>Winter, December-February</td>
<td>0.5</td>
</tr>
<tr>
<td>Spring, March-May</td>
<td>-0.3</td>
</tr>
<tr>
<td>Summer, June-August</td>
<td>-0.6</td>
</tr>
<tr>
<td>Fall, September-November</td>
<td>-1.0</td>
</tr>
</tbody>
</table>

Change in Mean 1981-2010 Total Precipitation from 1951-1980 (%)

<table>
<thead>
<tr>
<th>Season</th>
<th>Change</th>
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</thead>
<tbody>
<tr>
<td>Annual</td>
<td>1.7</td>
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<tr>
<td>Winter, December-February</td>
<td>5.2</td>
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<tr>
<td>Spring, March-May</td>
<td>-1.9</td>
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<tr>
<td>Summer, June-August</td>
<td>-11.6</td>
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<tr>
<td>Fall, September-November</td>
<td>17.4</td>
</tr>
</tbody>
</table>

Mean annual temperatures from 1903 to 2012. An open circle represents the average temperature of a single year. The solid line represents the 9-year running mean.

Mean annual precipitation totals from 1903 to 2012. An open circle represents the total precipitation for a single year. The solid line represents the 9-year running mean.

Mean annual high temperatures from 1903 to 2012. An open circle represents the average high temperature of a single year. The solid line represents the 9-year running mean.

Mean annual low temperatures from 1903 to 2012. An open circle represents the average low temperature of a single year. The solid line represents the 9-year running mean.

Unless otherwise stated, daily observations are used to calculate quantities in this document only if they satisfy a number of quality control tests and there is a high level of data coverage for the period in question. Nine-year running means are calculated for periods only when at least 5 of the 9 years are available. For more information on quality controls and data reliability requirements please see the Historical Climatologies: Quality Control document available on the GLISA website or email GLISA-info@umich.edu.

Many factors can influence long-term trends in precipitation and temperature. While human-caused climate change may be a major driver, other factors, such as natural variability, changes in nearby land use, urban heat-island effects, movement of the exact location of the observing station, and changes in measurement procedure can also play a role in climate trends over the station record.

The measurements of a single station do not necessarily represent global or regional trends in temperature and precipitation. Each station records the conditions at a given place over time.
Mean seasonal temperatures from 1903 to 2012. An open circle represents the average seasonal temperature of a single year. The solid line is the 9-year running mean.

Open circles represent the first (left) and last (right) winter freeze of the year (daily low temperature < 32°F) from 1903-2010. The solid line is the 9-year running mean.

Open circles represent the number of days per year in which the daily high temperature exceeded 90°F (left) and where the daily low temperature dropped below 32°F (right) in a single year. The solid line is the 9-year running mean.
Mean total precipitation by season from 1903 to 2012. An open circle represents the total seasonal precipitation for a single year. The solid line represents the 9-year running mean of the total seasonal precipitation.

Number of days per year that exceeded the indicated daily precipitation totals. The solid line represents the 9-year running mean. Days that exceeded a higher threshold are included in days exceeding lower thresholds.