

Historical Climatology: West Central Lower Michigan



Michigan Climatic Division 5 West Central Lower

Included counties: Lake, Mason,
Muskegon, Newaygo, Oceana

Geography

The West Central Lower Climatic Division of Michigan is bounded by the Lake Michigan to the west, includes the cities of Hart, Muskegon, Montague, and extends west to the eastern edge of Big Rapids. The terrain is gently hilly, and ranges from forests to agricultural lands.

Overview

Prevailing westerly winds, in combination with Lake Michigan to the west, produce a strong lake effect throughout most of the year. The lake effect gives rise to cloudiness and lake-effect snowfall during the fall and winter, and moderates the temperature over the course of the year. As a result, sudden, severe, snowstorms are not uncommon, while temperatures year-round tend to be mild. This modification of the climate is partially responsible for the diversified agriculture carried on in western Michigan. As with the rest of the Great Lakes region, the day-to-day weather is controlled by the movement of pressure systems across the nation, this area seldom experiences prolonged periods of hot, humid weather in the summer or extreme cold during the winter.

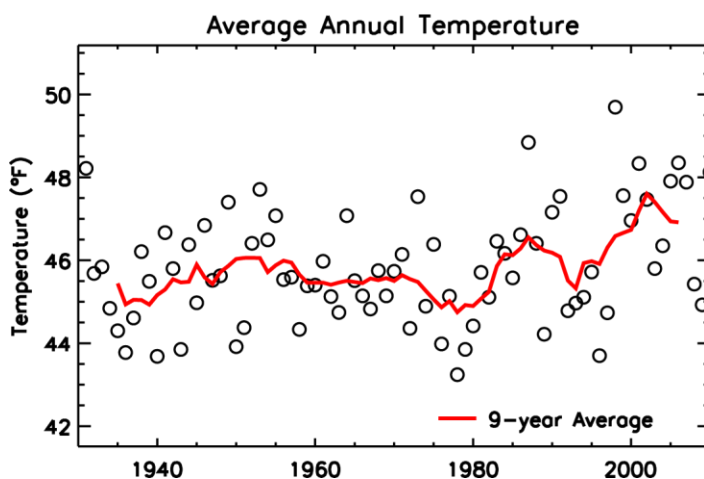
Mean Annual Temperature, 1981-2010	46.5°F	8.1°C
Mean Annual Total Precipitation, 1981-2010	34.7 in	88.1 cm

Changes in Mean Temperature (°F) from 1951-1980 to 1981-2010

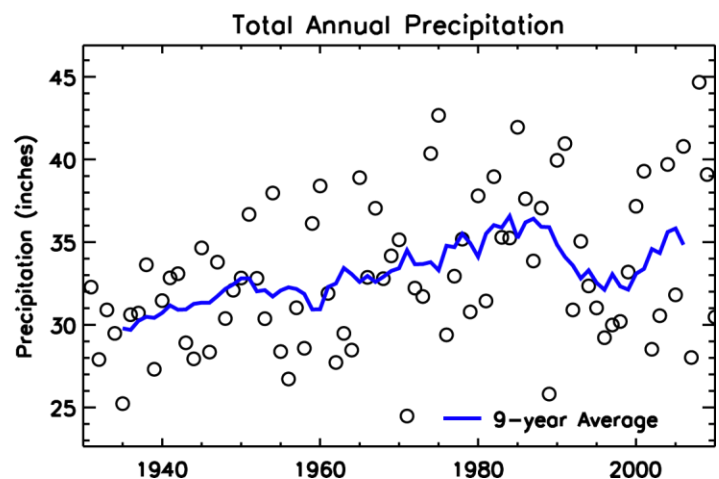
Annual	1.0
Winter, December-February	2.3
Spring, March-May	1.2
Summer, June-August	0.4
Fall, September-November	0.1

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

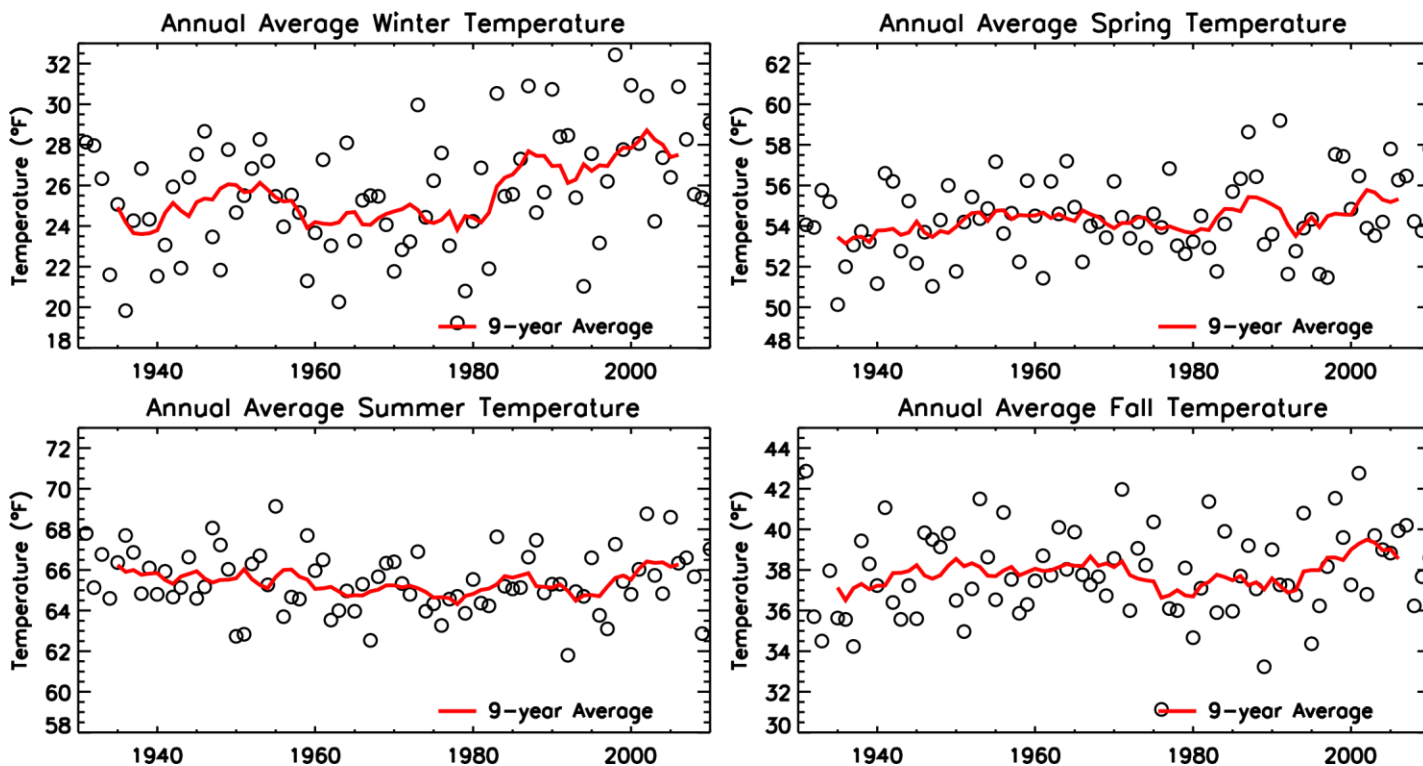
Annual	4.7
Winter, December-February	-8.2
Spring, March-May	5.6
Summer, June-August	0.1
Fall, September-November	18.0



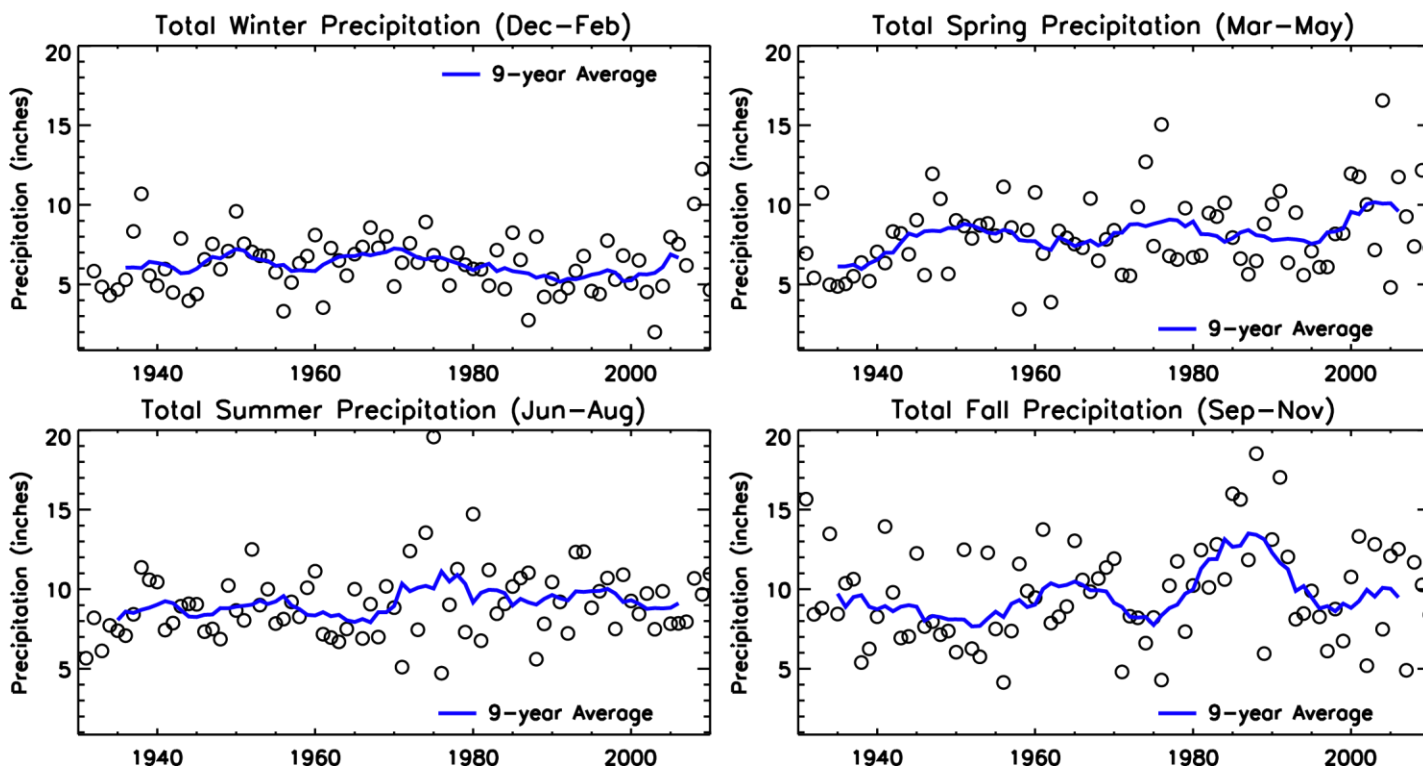
Mean annual temperatures from 1931 to 2011. An open circle represents the average temperature of a single year. The solid line represents the 9-year running mean.



Annual precipitation totals from 1931 to 2011. An open circle represents the total precipitation for a single year. The solid line represents the 9-year running mean.



Mean seasonal temperatures from 1931 to 2011. An open circle represents the average seasonal temperature of a single year. The solid line is the 9-year running mean. Winter values include data from the December of the previous year.



Total seasonal precipitation from 1931 to 2011. 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. Winter values include data from the December of the previous year.