Historical Climatology: Southeast Lower Michigan

Michigan Climatic Division 10
Southeast Lower

***Included counties**: Genesee, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, St. Clair, Wayne, Washtenaw*

Geography

The Southeast Lower Climatic Division of Michigan is bounded by the Ohio border to the south, Lake Huron, Lake St Clair, and Lake Erie to the east, and extends west to include the cities of Flint and Ann Arbor. The terrain is diverse, ranging from the extremely urbanized areas of downtown Detroit, to expansive agricultural lands in the Thumb, to rolling forests peppered with inland lakes in the central counties.

Overview

This region experiences a humid continental climate dominated primarily by the movement of high and low pressure systems. Large seasonal temperature variations and highly variable daily weather patterns are common. Long periods of intense heat or severe cold are relatively rare, and the Great Lakes do provide some moderation of temperature compared to areas at similar latitudes that are outside the Great Lakes Basin. There are occasional spells of lake-effect precipitation, but lake effects are typically limited to increased cloudiness in the fall and winter. Most of the annual precipitation falls during the summer months in the form of afternoon thunderstorms. Snow cover is less severe and of shorter duration than in northern regions of the state.

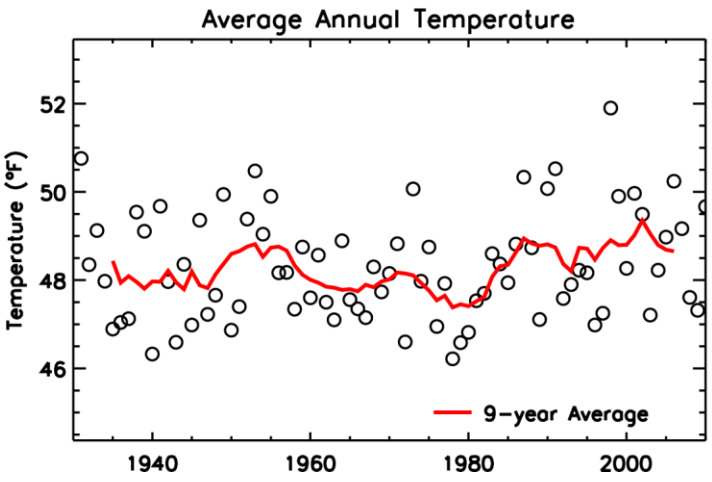
Mean Annual Temperature	48.7°F	9.3°C
Mean Annual Total Precipitation	33.8 in	85.9 cm

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

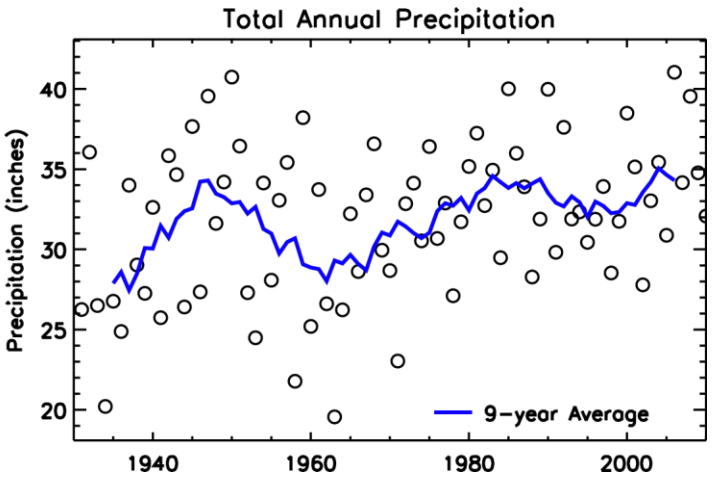
Annual	0.6
Winter, December-February	1.4
Spring, March-May	1.0
Summer, June-August	0.3
Fall, September-November	-0.1

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

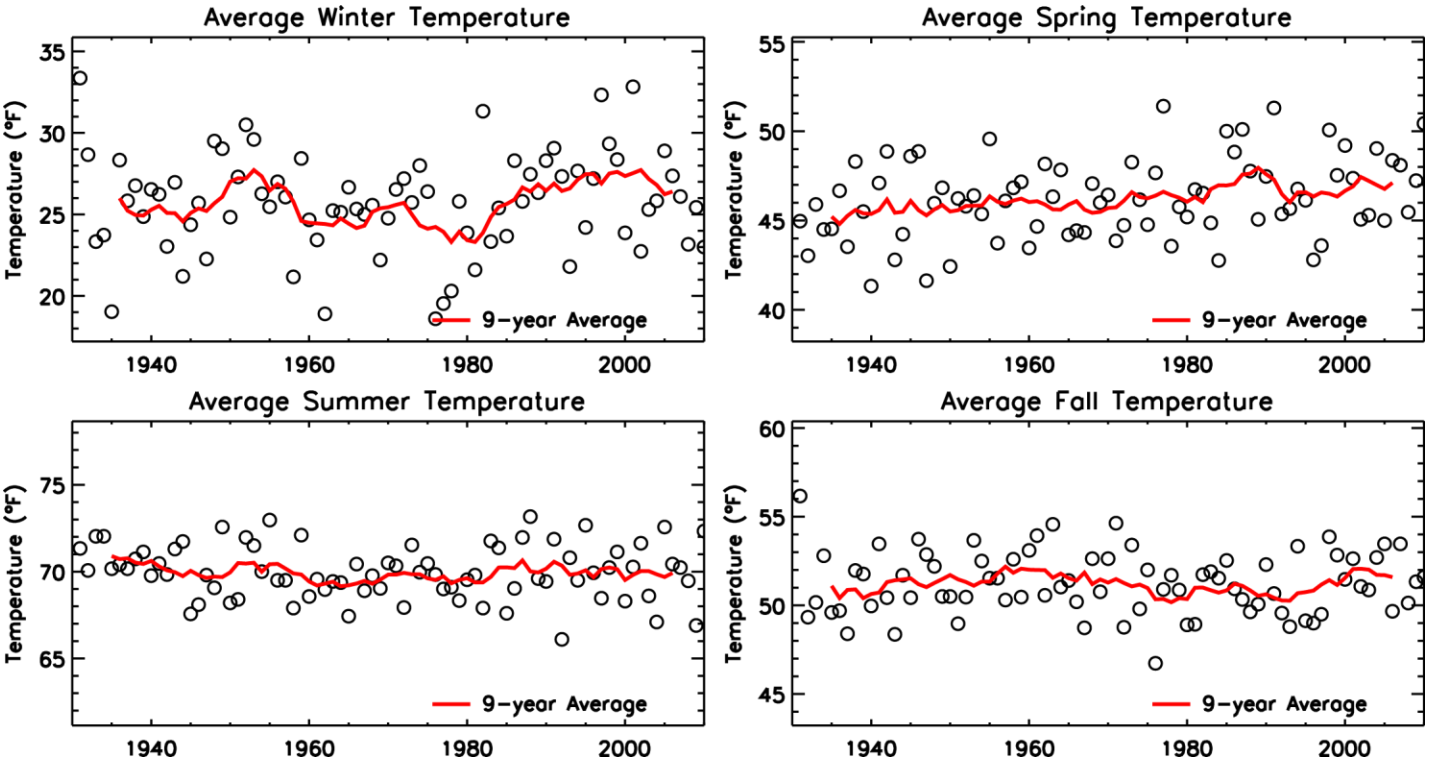
Annual	11.9
Winter, December-February	12.7
Spring, March-May	2.6
Summer, June-August	5.3
Fall, September-November	28.3



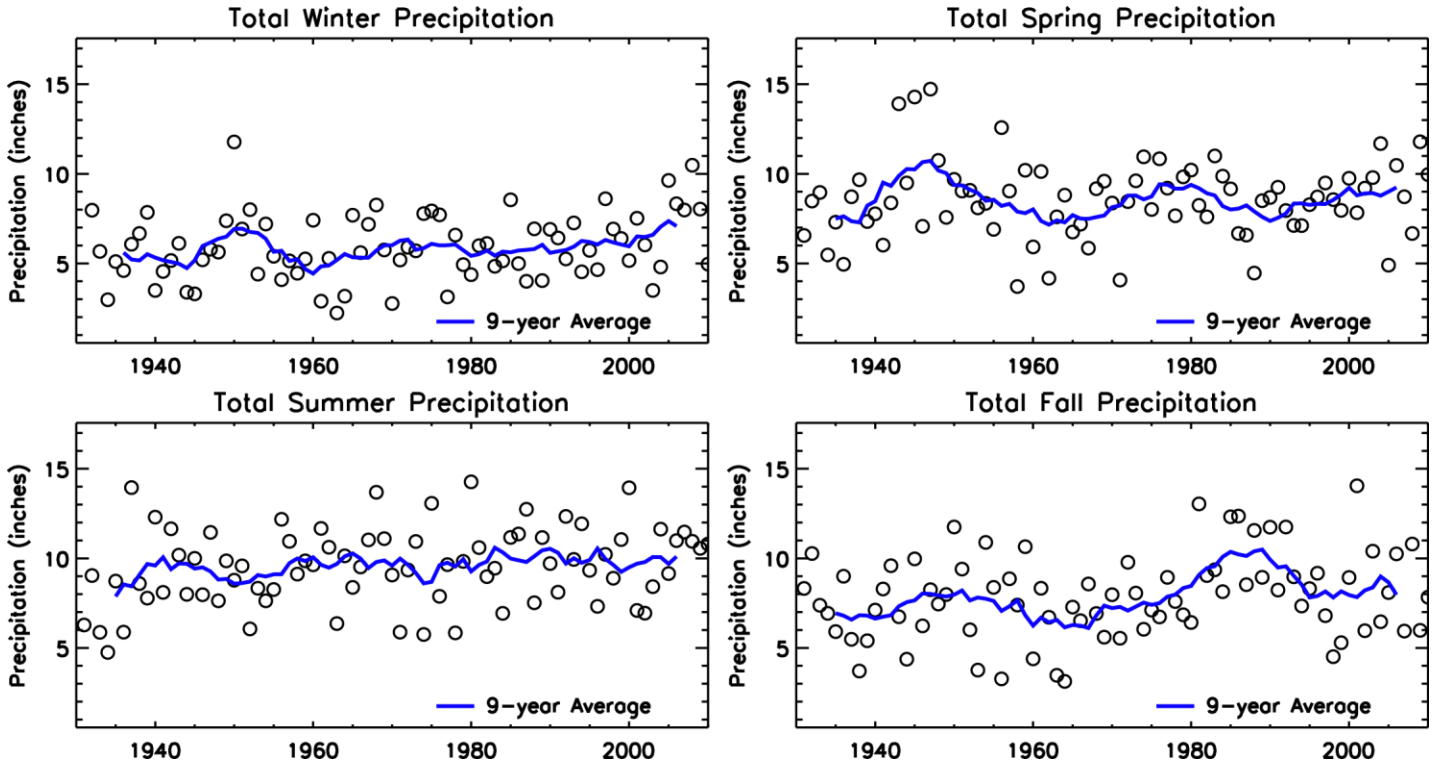
Mean annual temperatures from 1931 to 2011. An open circle represents the average temperature of a single year. The solid line represents the 9-year running mean.



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.



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.