July 2013 Climate Summary for Southwest Lower Michigan

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Overview

July 2013 was highlighted by large temperature swings and below normal precipitation for most of the region. Overall, temperatures ended up being normal.

After a somewhat cool start to the month...the mercury gradually rose as the middle of the month approached...and predominantly dry conditions were commonplace. Temperatures of 90 degrees or higher occurred for six straight days at Grand Rapids. A maximum temperature of 96 degrees occurred on the 19th. Lows at night were in the mid to upper 70s...making for an uncomfortable but certainly not unprecedented stretch of hot weather. The heat wave ended with a round of severe thunderstorms that swept across the area on the 19th.

Storms developed during the afternoon hours and also the late night hours. Severe weather was reported across southern Ottawa and Kent counties with numerous trees being blown down and a peak wind gust of 54 mph occurring at Gerald R Ford Intl. Strong winds brought down some tree limbs and even a healthy tree east of Mount Pleasant. Late night storms brought down trees and power lines from Plainwell to Kalamazoo and Battle Creek.

Another round of severe thunderstorms affected the Plainwell and Kalamazoo areas late on the 21st with numerous trees being blown down. Accompanying the storms was heavy rainfall in some locations...also stretching up into the Grand Rapids area. Reports of 1 to 2 inches of rain in the Grand Rapids and Kalamazoo areas were common. Very heavy rainfall of 3.8 inches fell in Oshtemo in about 3 hours.

A strong cold front for July standards brought cool to even chilly air to the entire region for the last week of July. High temperatures in many locations did not make it out of the 60s for 2 to 3 days. A record low temperature of 50 degrees was tied at Grand Rapids on the 30th. The cool stretch of weather at the end of the month balanced out the heat during the middle of the month, and therefore temperatures averaged out to be normal. Across mid-Michigan and Central Lower Michigan, precipitation was well below normal as most storms steered south and west of the area. A narrow corridor of well above normal precipitation was found across Kalamazoo and Calhoun counties.

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TABLE 1. Reported temperature and precipitation amounts for July 2013 at primary climate stations in Southwest Lower Michigan.

Location		Average Temperature (°F)	Precipitation (inches)
Grand Rapids	Observed	72.7	3.21
	Normal	72.5	3.78
	Above/Below Normal	**+ 0.2**	**- 0.57**
Lansing	Observed	71.6	1.75
	Normal	71.5	2.84
	Above/Below Normal	**+ 0.1**	**- 1.09**
Muskegon	Observed	71.3	2.29
	Normal	71.1	2.37
	Above/Below Normal	**+ 0.2**	**- 0.08**

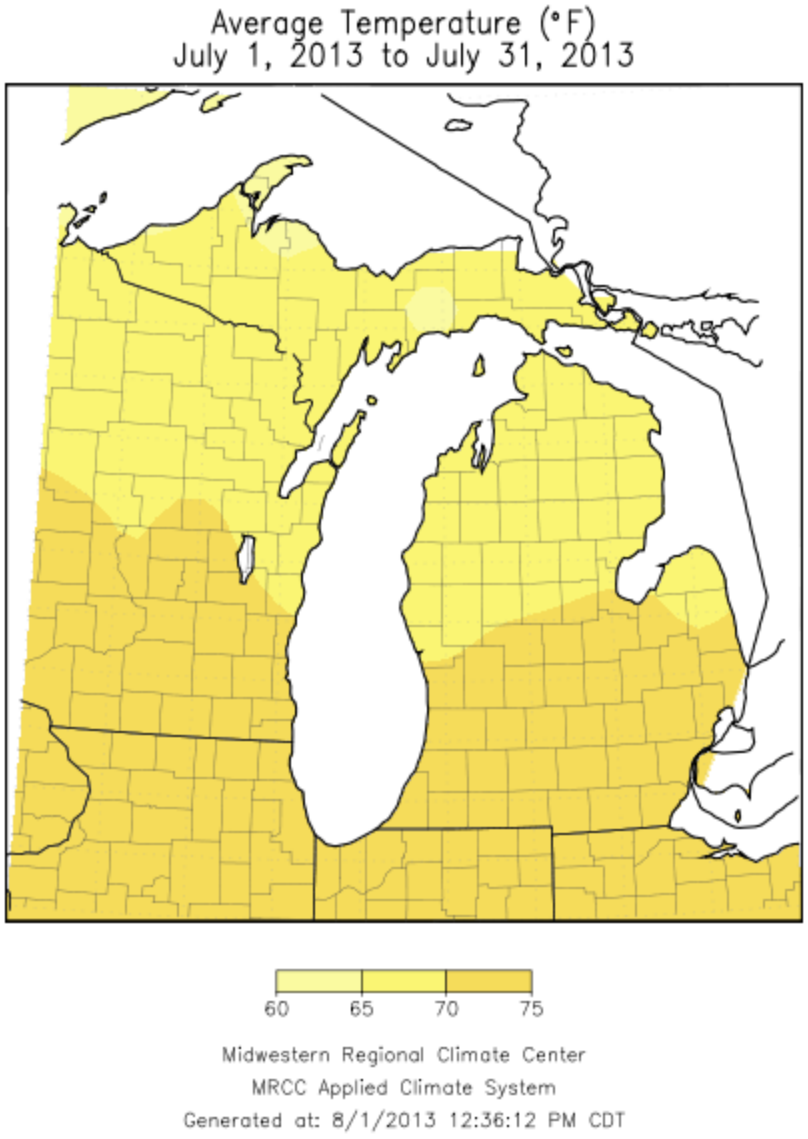

Figure 1. Average temperature (°F) for July 2013.

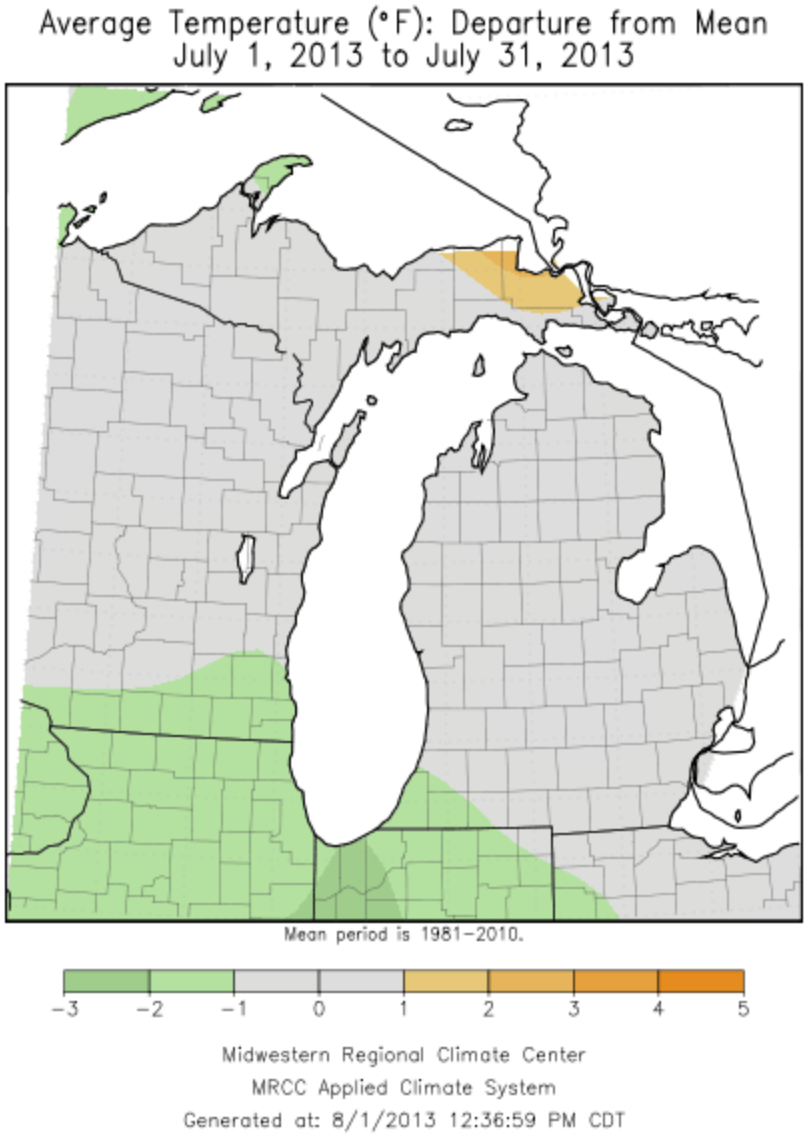

Figure 2. Average temperature departure (°F) for July 2013.

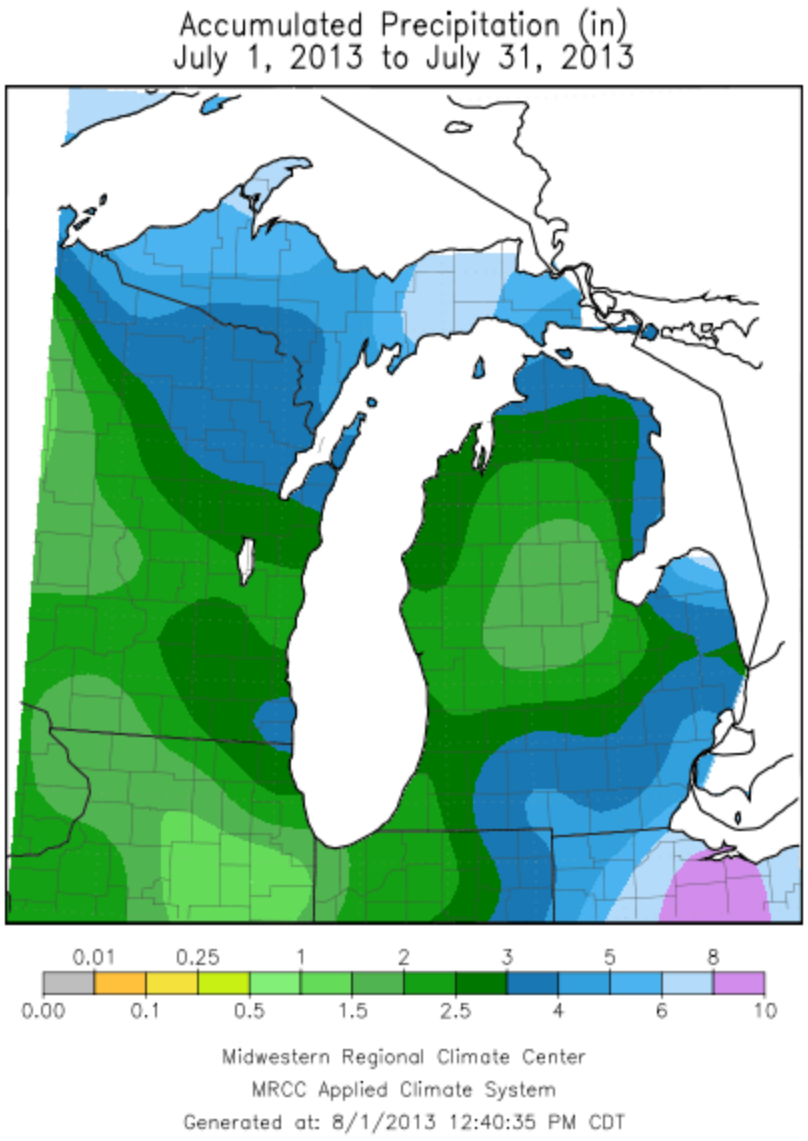

Figure 3. Total precipitation (in inches) for July 2013.

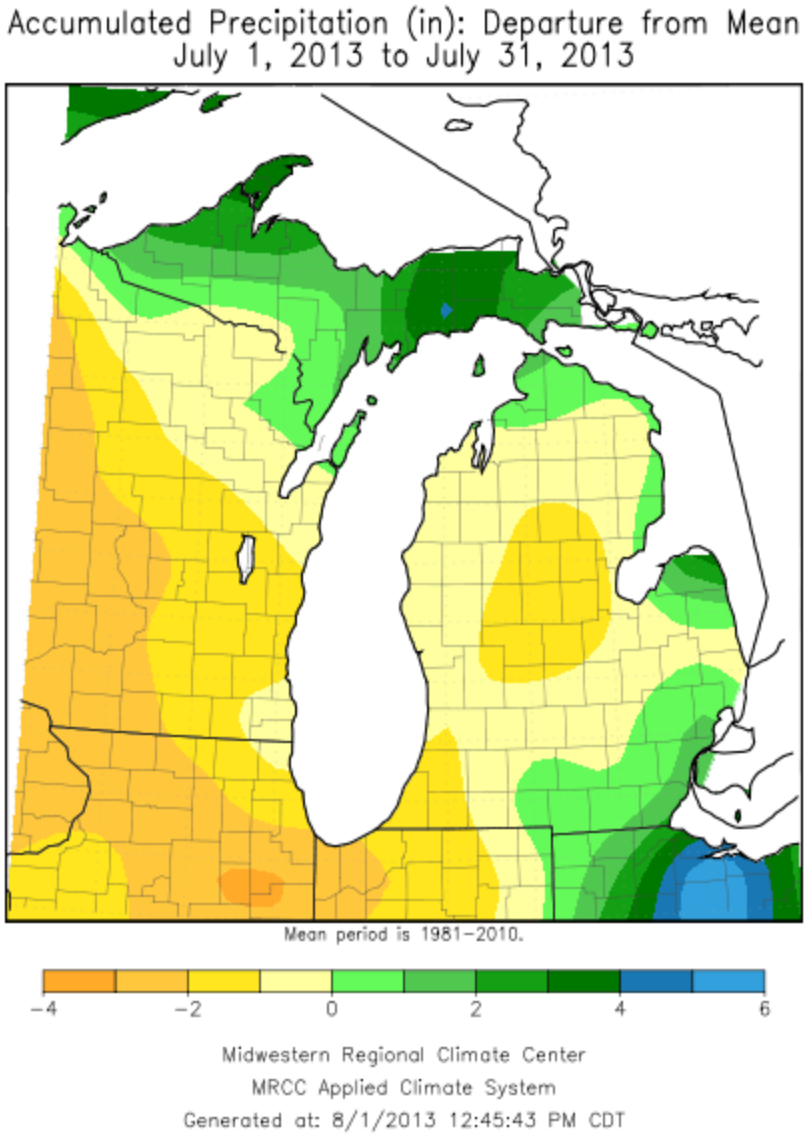

Figure 4. Accumulated precipitation departure (in inches) for July 2013.