

January 2007 Climate Narrative

By William Marino

Precipitation for the month was close to normal for most locations (Table 1). The first half of the month was drier than normal. Areas near and south of Interstate 94 were wetter than normal, areas between Interstate 94 and Interstate 96 were near normal and areas north of interstate 96 were drier than normal (Figure 1; Table 1).

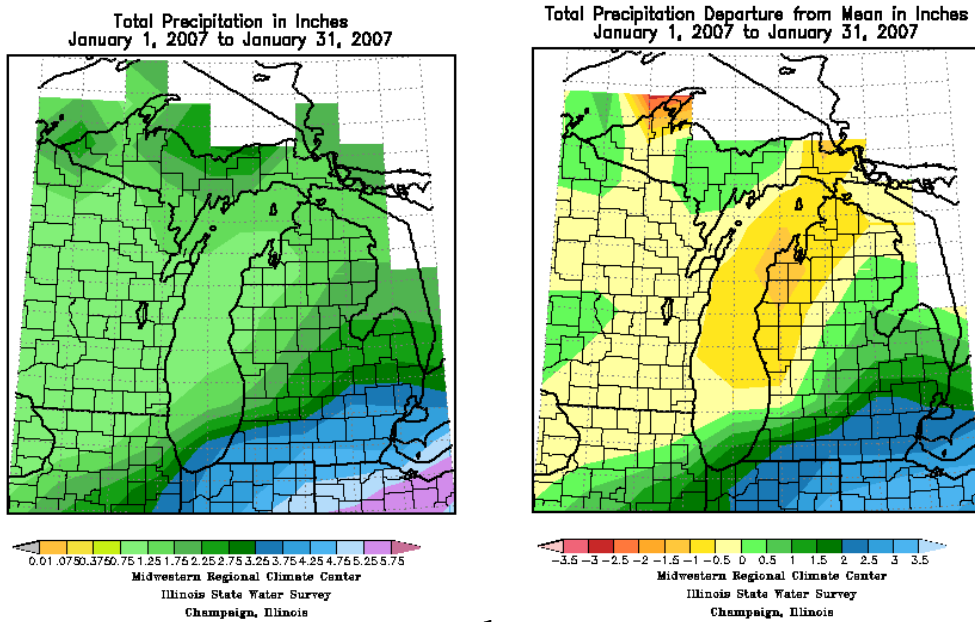


Figure 1 . Western Great Lakes total precipitation (**a**) and departure from normal (**b**) for January 2007 (courtesy of the Midwestern Regional Climate Center).

On the morning of January 15th, a strong storm system approached from the southwest and passed just south of Lower Michigan. It brought the first general snowfall of 2007 to southwest Lower Michigan with a strip of 4 to 6 inches just south of route 10 (Fig. 2). It also pulled down a great deal of cold Canadian air into Lower Michigan. Once the cold airmass reached the area, it remained in place for the rest of the month. Locations north of Interstate 94 had snow cover for the remainder of January.

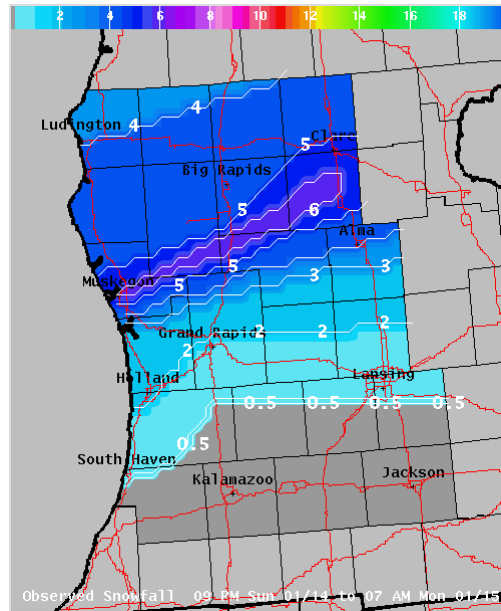


Fig. 2. Snowfall totals from January 14th at 9 pm to 7 am on the 15th.

There was a series of light snowfalls between the 15th and the 24th. Then, a series of heavy lake effect snows began on the 25th. The 25th brought 4 to 6 inches in western Allegan and central Van Buren County (Fig. 3). A much stronger lake effect event began on the 27th and ended on the 28th (Fig. 4). This brought 8 to 12 inches to the same locations across southwest Allegan and most of Van Buren counties.

The biggest lake effect snow event began on the late morning of the 29th and ended on the evening of the 30th (Fig. 5). This event brought 10 to 20 inches across most of the lake shore counties from Van Buren north to Oceana. Mason County had 5 to 8 inches from the event. In spite of snow falling nearly every day during the latter half of the month, the monthly snowfall totals still remained below normal (Fig. 6; Table 1).

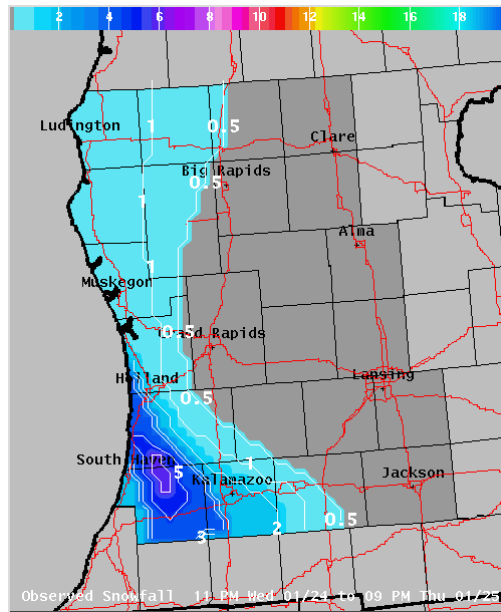


Fig. 3. Snowfall totals from January 24th at 11 pm to 9 pm on the 25th.

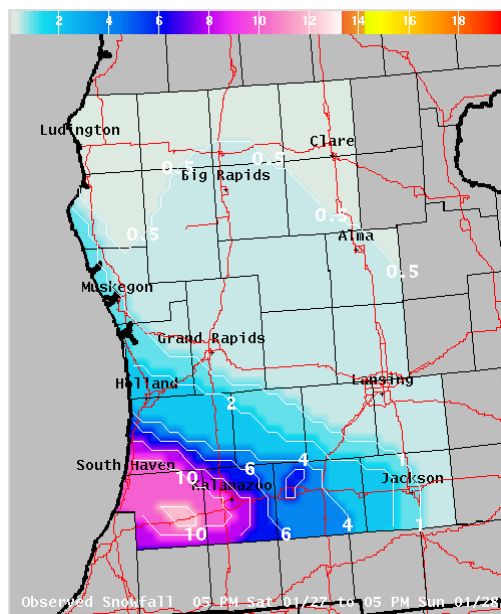


Fig. 4. Snowfall totals from January 27th at 5 pm to 5 pm on the 28th

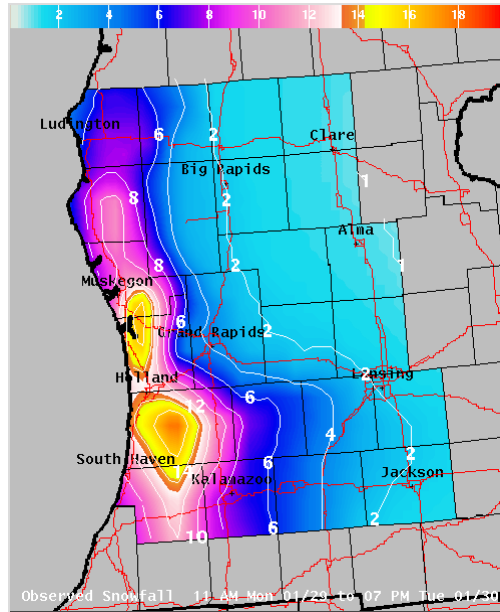
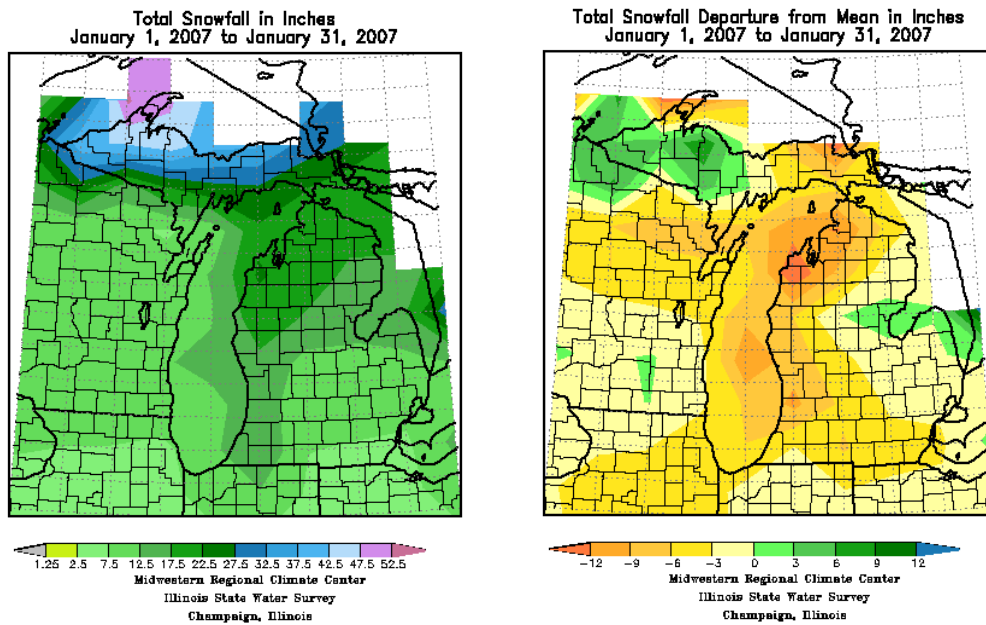


Fig. 5. Snowfall totals from January 29th at 11 pm to 7 pm on the 30th



a)

b)

Fig. 6. Western Great Lakes snowfall (a) and departure from normal (b) for January 2007 (courtesy of the Midwestern Regional Climate Center).

With respect to temperatures, January of 2007 was a month of contrasts for southwest Lower Michigan. Persistent warmth for the first 15 days of the month was followed by a stretch of cold weather (Fig. 7 through Fig. 9). During the first 15 days of January, only the 10th saw a maximum temperature that

was below freezing. After the 15th, only the 26th and 27th had highs above freezing.

Looking across all of the western Great Lakes (Fig. 10; Table 1), it can be seen that all parts of southwest Lower Michigan areas were warmer than normal.

Table 1. Temperature, precipitation, and snowfall amounts for January 2007.

<u>Site:</u>	<u>Temperature</u>	<u>Precipitation</u>	<u>Snowfall</u>
Grand Rapids	27.3 °F	2.19 Inches	15.4 Inches
Normal	22.4 °F	2.03 Inches	21.1 Inches
Departure	+4.9 °F	+0.16 Inches	-5.7 Inches
Lansing	26.4 °F	2.13 Inches	8.8 Inches
Normal	21.6 °F	1.61 Inches	14.0 Inches
Departure	+4.8 °F	+0.52 Inches	-5.2 Inches
Muskegon	29.0 °F	1.94 Inches	19.8 Inches
Normal	23.5 °F	2.22 Inches	34.4 Inches
Departure	+5.5 °F	-0.28 Inches	-9.6 Inches

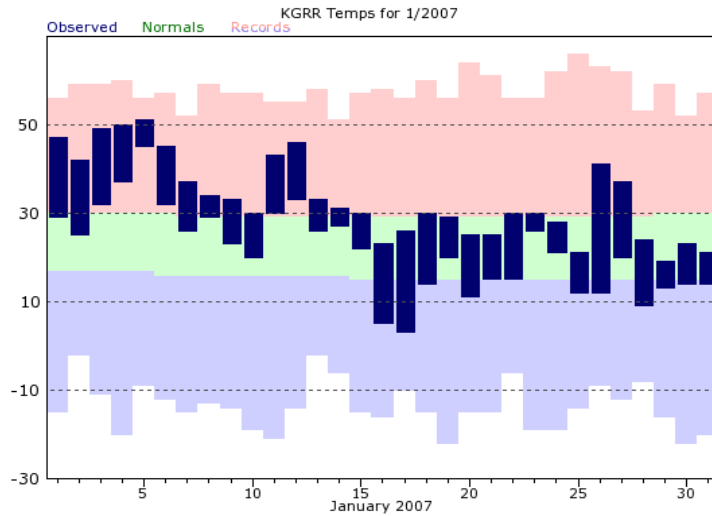


Fig. 7. January 2007 Grand Rapids Daily Temperatures. Dark blue bars represent the actual temperature range recorded for each day. The green area represents the normal range of temperatures. The upper (lower) bound of the pink (blue) shaded area represents the record maximum (minimum) temperature for that day.

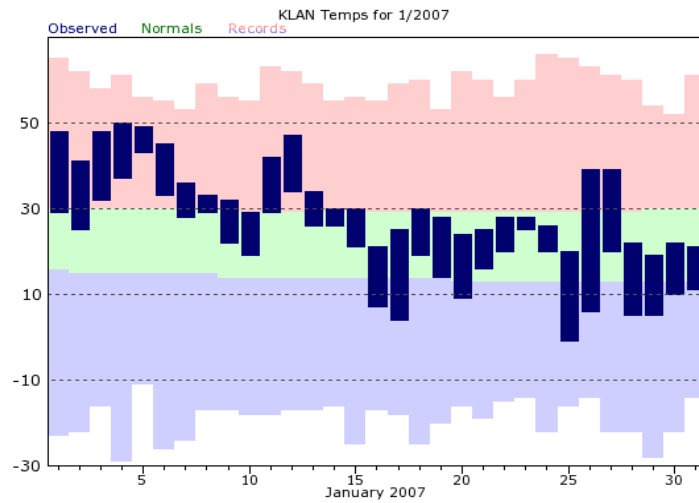


Fig. 8. As in Fig. 7, except for Lansing.

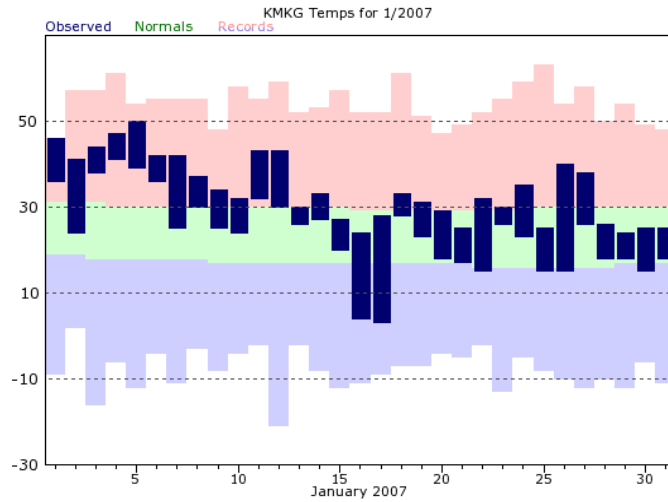
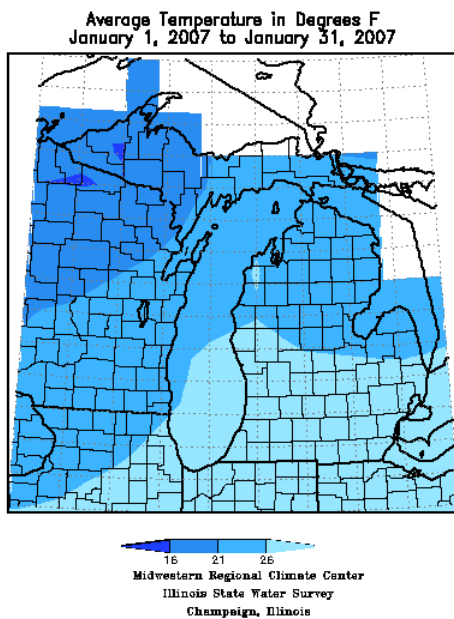
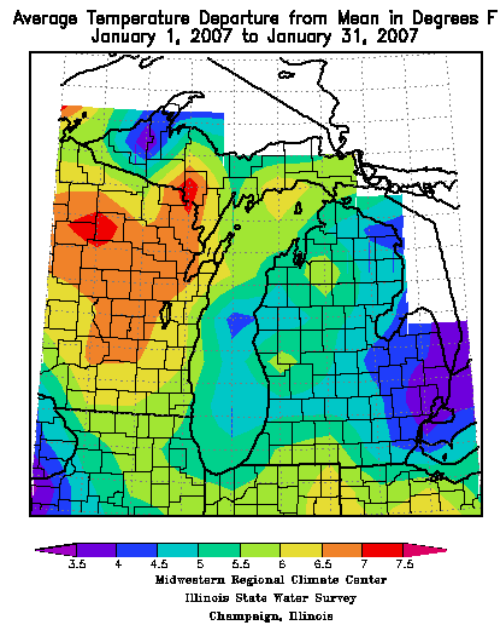


Fig. 9. As in Fig. 7, except for Muskegon.



a)



b)

Fig. 10. Western Great Lakes average daily temperature **(a)** and departure from normal **(b)** for January 2007 (courtesy of the Midwestern Regional Climate Center).