

NWS FORM E-5

U.S. DEPARTMENT OF COMMERCE
NOAA, NATIONAL WEATHER SERVICE

HSA OFFICE:

Grand Rapids, MI

REPORT FOR (MONTH & YEAR):

December 2017

MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS

DATE:

January 6th, 2018

TO: NATIONAL WEATHER SERVICE (W/OS31)
HYDROMETEOROLOGICAL INFO CENTER
1325 EAST-WEST HIGHWAY, RM 13468
SILVER SPRING, MD 20910

SIGNATURE:

Daniel K. Cobb, MIC
Mark Sekelsky, Lead Forecaster

When no flooding occurs, include miscellaneous river conditions, such as significant rises, record low stages, ice conditions, snow cover, droughts, and hydrologic products issued (WSOM E-41).

An X inside this box indicates that no significant flooding occurred within this Hydrologic Service Area.

Summary

Flood impacts were minimal this month...largely the result of below normal precipitation and colder than normal weather. Ice did form on most rivers by the end of the month...with some elevated water levels as a result.

Flood Conditions

No significant flooding was noted in the month of December. Only one river did briefly exceed bankfull levels this month.

The following rivers exceeded bankfull during the month of December 2017:

- Looking Glass River near Eagle, Michigan(4 days above bankfull)

Flood Stage Report

No forecast points exceeded flood stage in our HSA during the month of December 2017. As a result, no NWS Form E-3 "Flood Stage Report" was issued.

River Conditions

The end of the December percentage of normal flow for selected rivers is listed below:

<u>Location</u>	<u>River</u>	<u>% of Normal</u>
Scottville	Pere Marquette	*
Whitehall	White	*
Evert	Muskegon	*
Mt. Pleasant	Chippewa	*
Lansing	Grand	89
Grand Rapids	Grand	*
East Lansing	Red Cedar	93
Hastings	Thornapple	85
Battle Creek	Battle Creek	98
Battle Creek	Kalamazoo	115

* Ice impacted

General Hydrologic Information

The month of December featured mainly below normal amounts of precipitation for the hydrologic service area. What did fall was mostly snow. Ice formed on many rivers and that resulted in some elevated levels.

December precipitation totals at Grand Rapids, Lansing, and Muskegon, Michigan, were 1.96, 1.32, and 2.57 inches, respectively (Figure 1). Monthly departures were -0.71, -0.55 and 0.22 inches respectively. Yearly departures were 1.16, 7.85, and 3.05 inches for Grand Rapids, Lansing and Muskegon respectively. Percent of mean precipitation for December 2017 is shown in Figure 2.

Temperatures for the month of December were below normal at Grand Rapids, Lansing and Muskegon. The average monthly temperature departures for these sites were, -4.8, -4.3 and -4.0 degrees Fahrenheit respectively.

Accumulated Precipitation (in)
December 1, 2017 to December 31, 2017

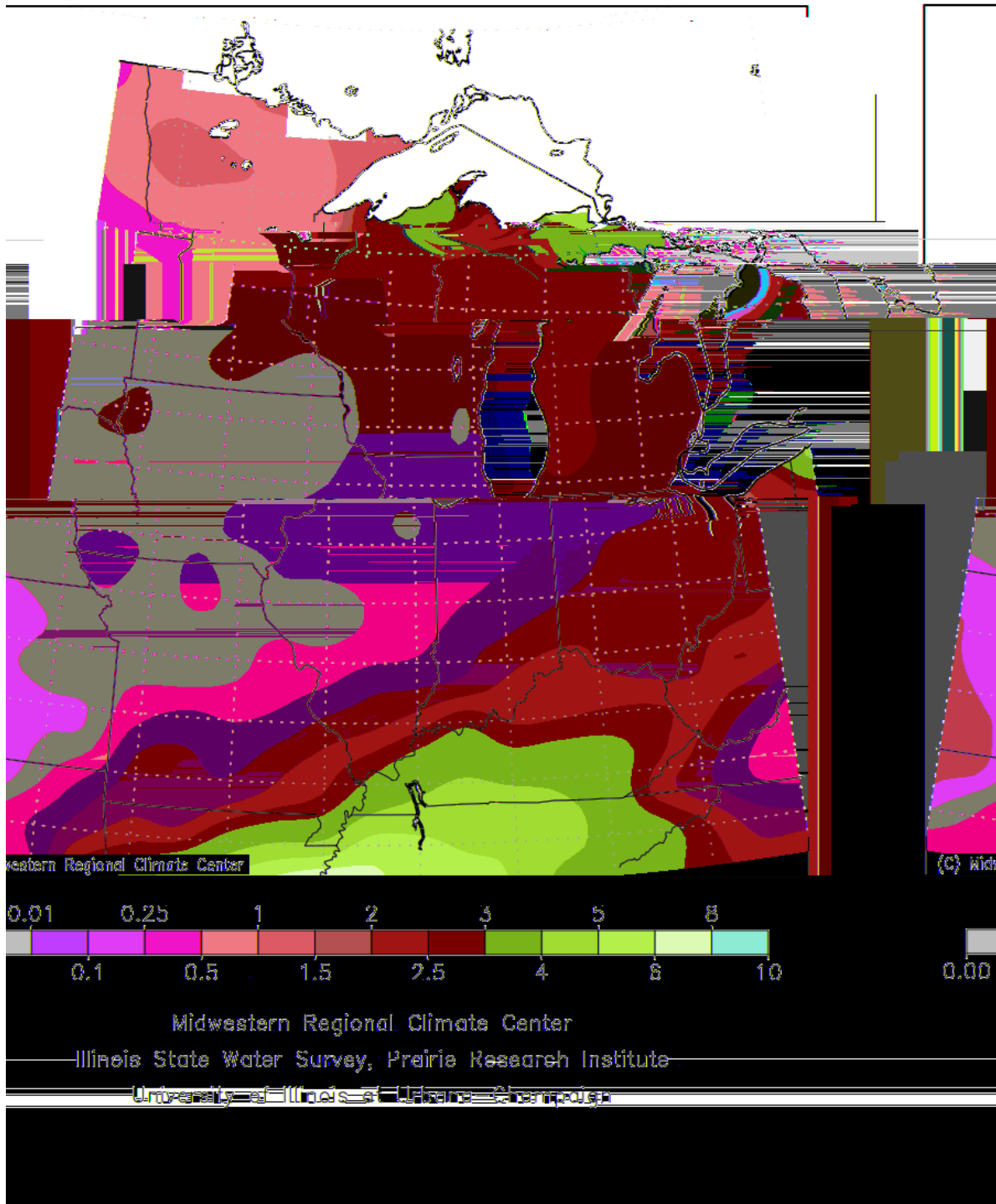


Figure 1. December Monthly Precipitation Totals

Accumulated Precipitation: Percent of Mean December 1, 2017 to December 31, 2017

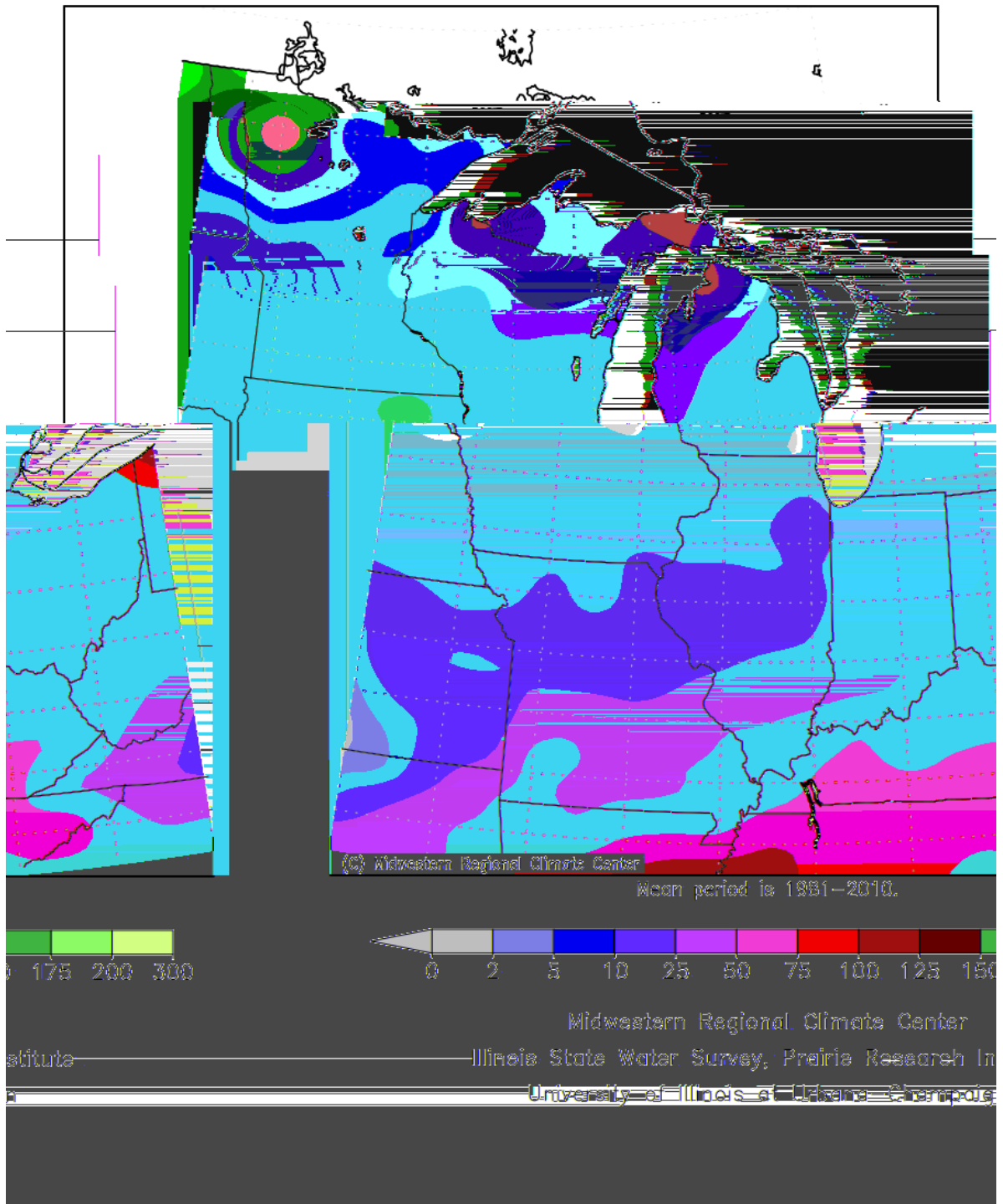


Figure 2. December 2017 Percent of Mean of Accumulated Precipitation

Hydrologic Products issued this month:

31 Hydrologic Summaries (ARBRVAGRR)

1 Probabilistic Hydrologic Outlook (ARBESFGRR)

12 Areal Flood Advisory Statements (ARBFLSGRR)