NWS FORM E-5 U.S. DEPARTMENT OF COMMERCE NOAA, NATIONAL WEATHER SERVICE **MONTHLY REPORT OF RIVER AND FLOOD CONDITIONS** TO: NATIONAL WEATHER SERVICE (W/OH12x1) HYDROMETEOROLOGICAL INFO CENTER 1325 EAST-WEST HIGHWAY, RM 7116 SILVER SPRING, MD 20910	HSA OFFICE: **Marquette, MI** REPORT FOR (MONTH / YEAR): **September 2020** DATE: **October 13th, 2020** SIGNATURE: **Jordan Wendt, Hydro Program Manager** **Robin J. Turner, MIC**
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).	

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

Summary

A bit of a mixed month for precipitation across Upper Michigan as there were a few different pockets of both above normal and below normal precipitation. These "pockets" were mostly due to a generally dry month with a few precipitation events that brought much of the monthly totals in just a few days. As seen below in Figure 3, there was one notable thunderstorm event that broad a swath of 1 to 2.5 inches in a day across the central UP from roughly Iron River to Marquette.

Location	Precipitation	% of normal	Snowfall
WFO Marquette	3.88"	104%	0.0"
Marquette City	4.28"	135%	0.0"
Quincy Hill	3.56"	M	0.0"
Ironwood	3.04"	75%	0.0"
Iron Mountain	4.20"	116%	0.0"
Manistique	2.92"	78%	0.0"
Munising	5.26"	129%	0.0"
Stambaugh	6.71"	189%	0.0"

NOTE: Rainfall after 8am EST August 31st was counted in September stats for all but the WFO Marquette site due to the reporting structure of our cooperative observers.

Flooding Conditions

No river flooding concerns occurred during the month of September across Upper Michigan.

River Conditions

Most basin's streamflow across Upper Michigan remained near-normal with the exception of those across Upper Michigan (Figure 1). This is likely due to the above-normal precipitation across much of the west-central UP (Figures 2, 3, & 4).

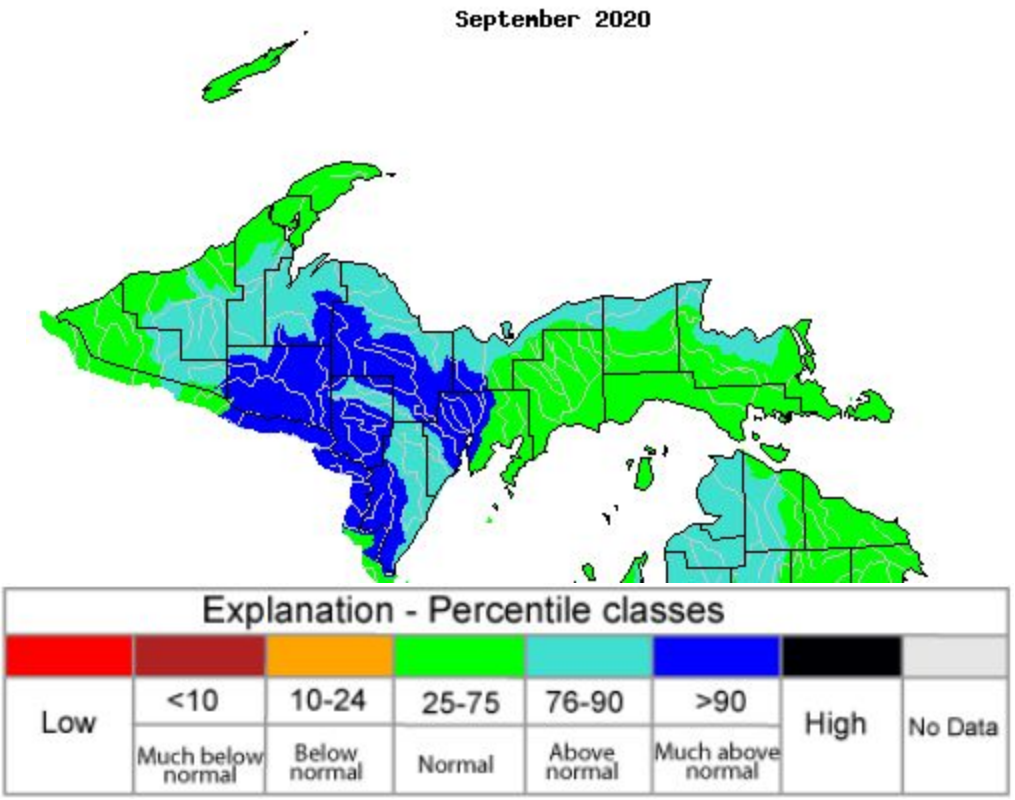

Figure 1: USGS monthly average streamflow in September 2020 across Upper Michigan

Snowpack Discussion

Snowpack across Upper Michigan has ended for the 2019-2020 season and will begin in the 2020-2021 season when a notable snowpack is achieved.

Drought Discussion

There were no areas of drought across Upper Michigan in September, or at this time. For the latest drought status, please go to http://www.drought.gov.

Media Links

None.

Hydro Products Issued

0 – Hydrologic Outlook (ESF)
0 – Flood Watch (FFA)
0 – Flood Warning (FLW)
3 – Flood Advisories and Statements (FLS)
0 – Flash Flood Warning (FFW)
0 – Flash Flood Statement (FFS)
30 – Hydrologic Summary (RVA)
30 – Daily River Forecasts (RVD)

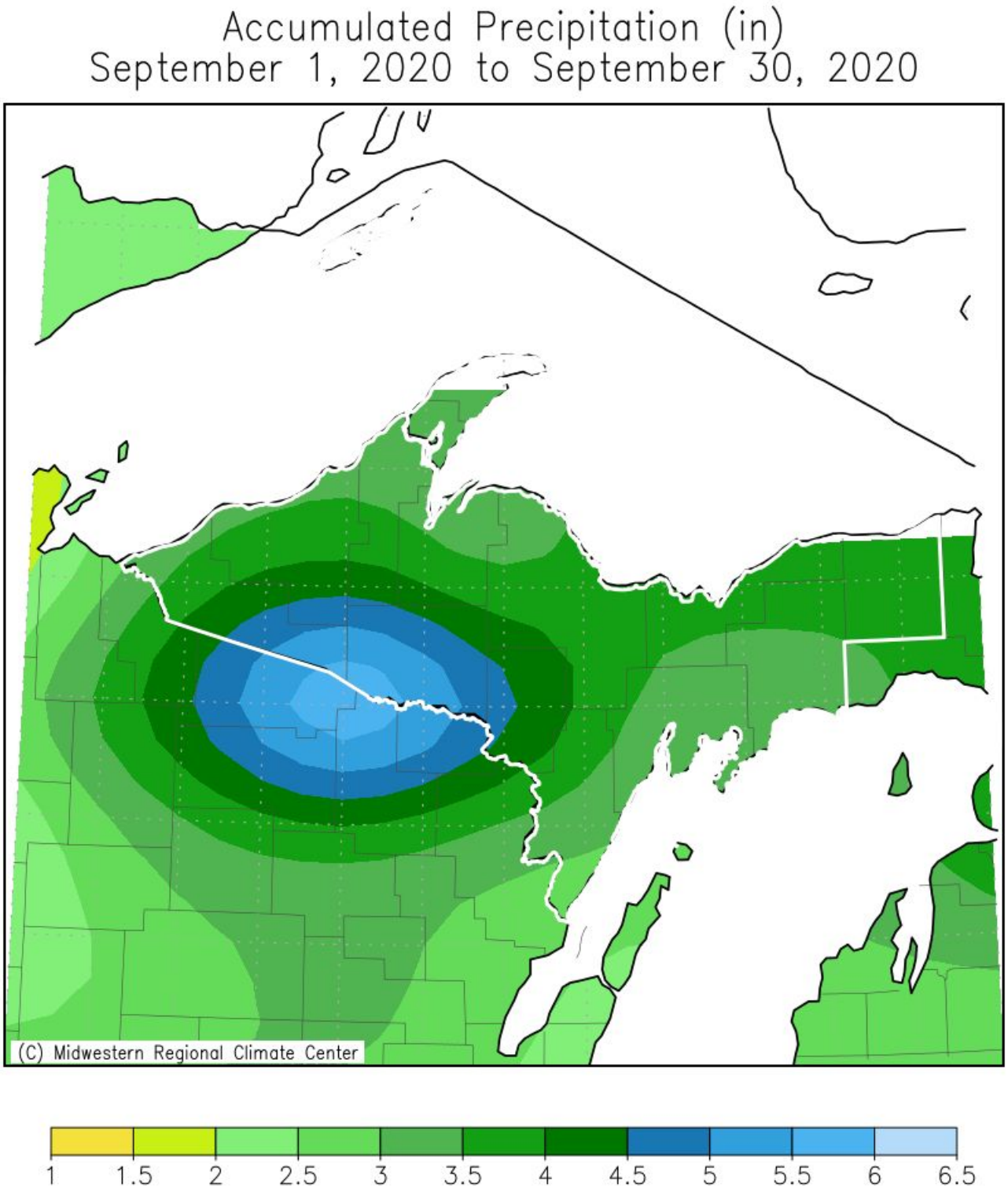

Figure 2. September 2020 Monthly Precipitation Totals.

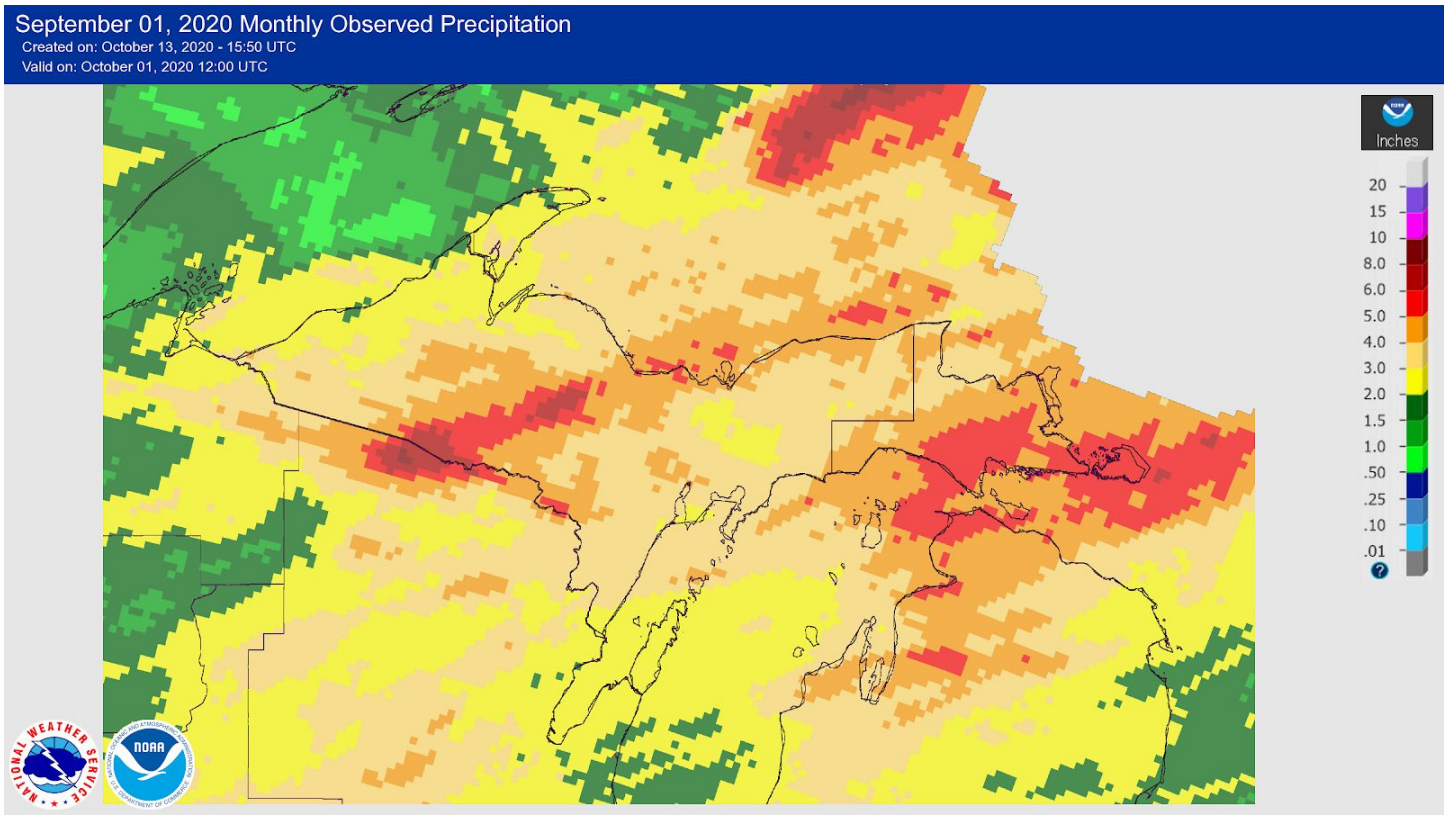

Figure 3. September 2020 Monthly Radar-Estimated, Observation-Calibrated Precipitation Totals

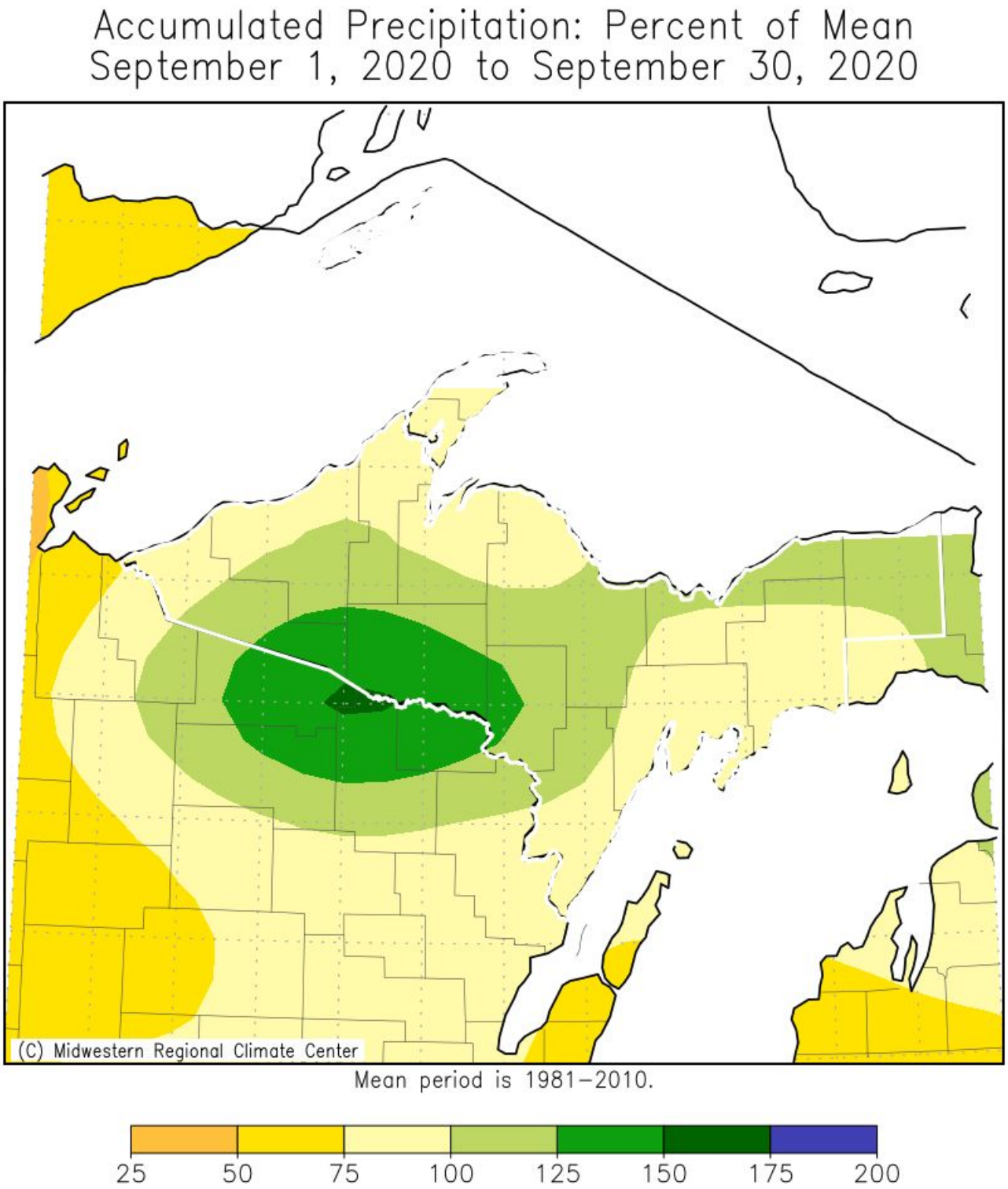

Figure 4. September 2020 Percent of Normal of Accumulated Precipitation

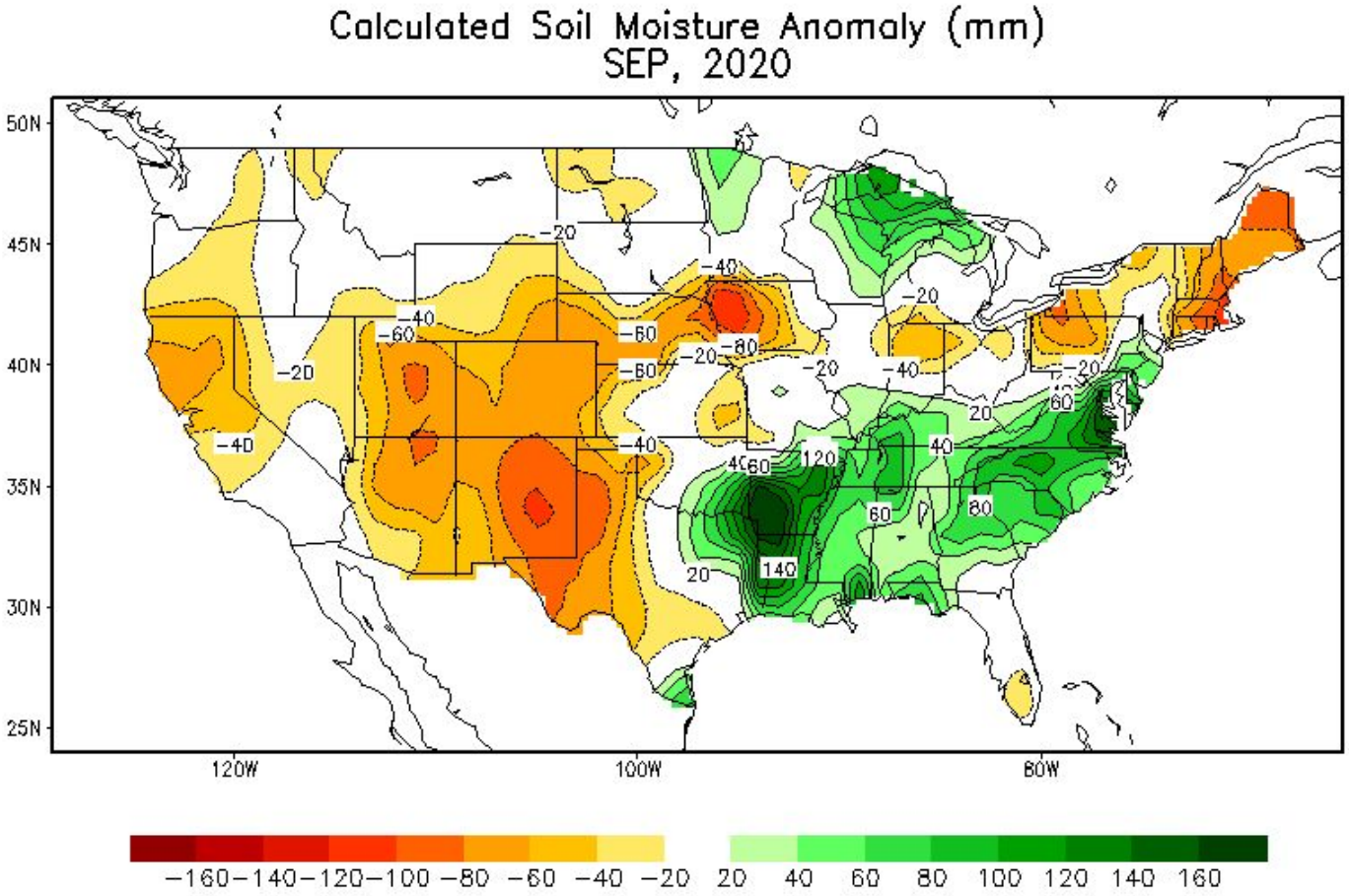

Figure 5: Climate Prediction Center's monthly average soil moisture anomaly for September 2020