Under the Big Sky

e-Letter

June 2020

National Weather Service

Glasgow, MT

Welcome to the May 2020 Edition of the NWS Glasgow Under the Big Sky E-Letter!

This month, we offer a brand new fresh look to the Under the Big Sky Newsletter! Please let us know what you think or if you have feedback to share.

Each month, NWS Glasgow shares with the folks in NE Montana important weather, water, and climate information in a newsletter called “Under the Big Sky.” First and foremost, we highlight any meteorological events of importance across NE Montana so that readers can get an important recap of something that caused local impacts. There are common features in each issue such as the three month outlook for precipitation and temperature from the Climate Prediction Center, updates on the U.S. Drought Monitor, monthly COOP Observer reports, as well as a variety of climate and hydrology information. In addition, this newsletter shares vital safety reminders as well as education on many of our products aimed at keeping people safe. We also provide happenings from the local office such as any staffing changes that take place. Also keep learning with regular trivia and fun facts that you can share with others. We hope that you find these regular newsletters fun and informative and we thank you for allowing us to serve!

A Peak Inside:

Lightning Safety Awareness

Lightning Safety Awareness week took place during the last week of June this year, and NWS Glasgow shared a number of educational and safety resources on social media pages. You can check out more lightning safety tips and resources here. Meanwhile, here are a few facts:

- ⇒ Lightning strikes in the U.S. 25 million times each year.
- ⇒ While most lightning does occur in summer, lightning can strike at any time during the year.
- ⇒ There are 20 lightning related deaths or more in the U.S. every year with hundreds more injured.
- ⇒ Lightning is hotter than the surface of the sun, checking in at 50,000 °F!
- ⇒ Check out this video from the National Lightning Safety Council.

Figure 1: Photo taken by Greg Forrester, Lead Forecaster at NWS Glasgow. Image depicts distant thunderstorm in Saskatchewan about 4:30 am on 6/24/2020.

Photo taken by Craig Paju

Join CoCoRaHS:

NWS Glasgow is looking for new CoCoRaHS volunteers.

Check out the CoCoRaHS webpage and tap the join button on the upper right. It is as easy as that!

CoCoRaHS is a grassroots organization with a network of dedicated observers who report daily precipitation such as rain, hail, or snow from all across the country. The data are used by meteorologists, insurance adjusters, mosquito control, and even by those in academia.

Participating in the CoCoRaHS program is a great way to make a difference in your community. And the best part is that you only need a couple of things to get started such as a 4 inch rain gauge and a ruler or yardstick. Why not give it a try today?

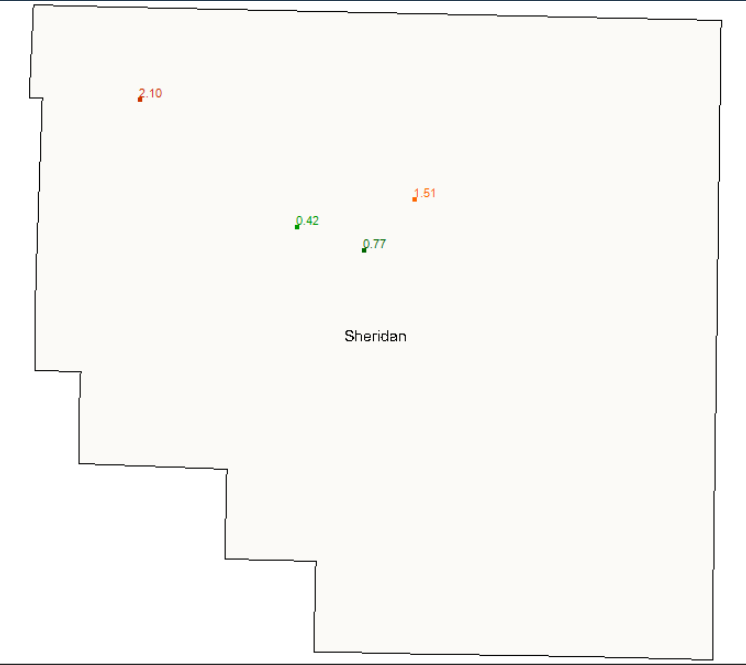


Figure 1: CoCoRaHS observations across Sheridan County ending 7 am 6/30/2020 depicting precipitation totals ranging from 0.42" to 2.10"

30 Day Percent of Normal Precipitation (Montana)

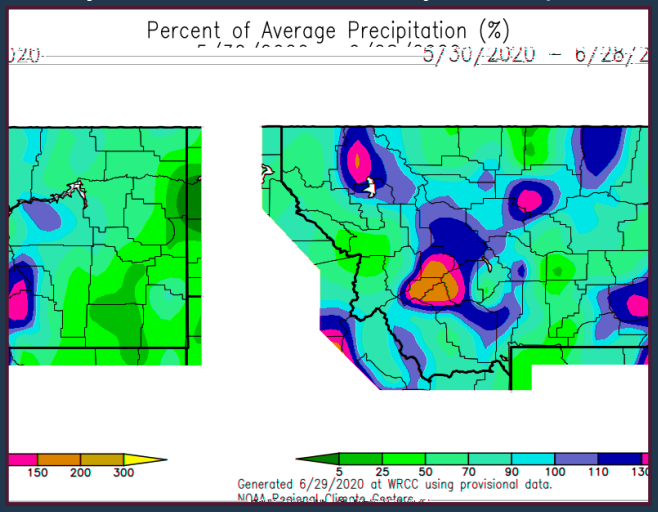


Figure 2: 30-day percent of normal precipitation across Montana.

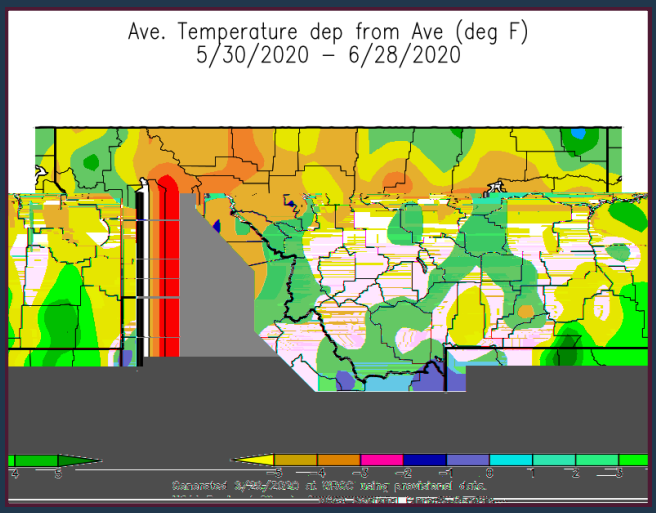


Figure 3: 30-day temperature anomalies across Montana.

Summary: While there were patches of cooler and wetter conditions across Montana, the overall picture is one of a warm and dry 30 days that elapsed during the month of June. Rain chances are heavily dependent upon thunderstorm activity this time of year, and often times they are of the hit and miss variety.

Hydrologic Summary (May 2020) by Greg Forrester, Lead Forecaster at NWS Glasgow:

It was a slightly warmer than normal month for temperatures over Northeast Montana. Temperatures averaged between near normal and 3 degrees above normal. Glasgow averaged 56.5 degrees which was 1.4 degrees below normal.

Precipitation was highly variable across the region as most of it came in thunderstorms. The dry spots were Malta 7E with 0.87 inch, Plentywood with 1.01 inches, and Content with 1.06 inches. The wet spots were Winnett 6NNE with 3.56 inches, Glasgow with 3.24 inches, and Cohagen with 3.07 inches.

Glasgow had 3.24 inches of precipitation which was 169 percent of normal.

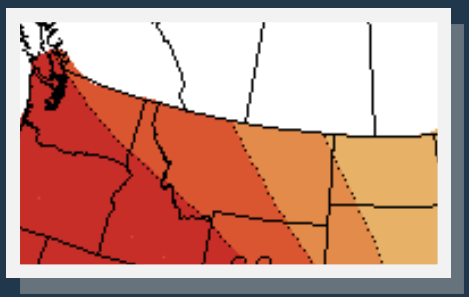
Heavy rain on May 20th did produce minor flooding on small streams across western Garfield and southwest Valley Counties.

Stream flow on the Milk, Missouri, and Poplar Rivers was above normal for the entire month. Streamflow was near normal on the Yellowstone River for the entire month.

The Fort Peck Reservoir elevation rose to 2238.0 feet during he month. The reservoir was at 84 percent of capacity and 105 percent of the mean pool.

CPC Three Month Outlook:

The Climate Prediction Center released its three month outlook for temperature and precipitation for July2020 through September 2020 on June 18, 2020. The outlook calls for above normal temperatures to persist over the three month period across the state. Meanwhile, below normal precipitation is favored for central and wester portions of Montana. Equal chances for average, below average, and above average precipitation exist in eastern Montana. The latest outlook in full detail is always available here. In addition, you can check out the Climate Prediction Center Interactive site! You can zoom in on our area, and navigate to see the climate outlook for your specific location. The pie charts on the left hand side can be particularly useful for assessing the outlook at your specific location.



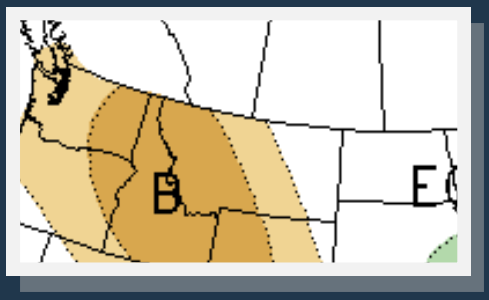
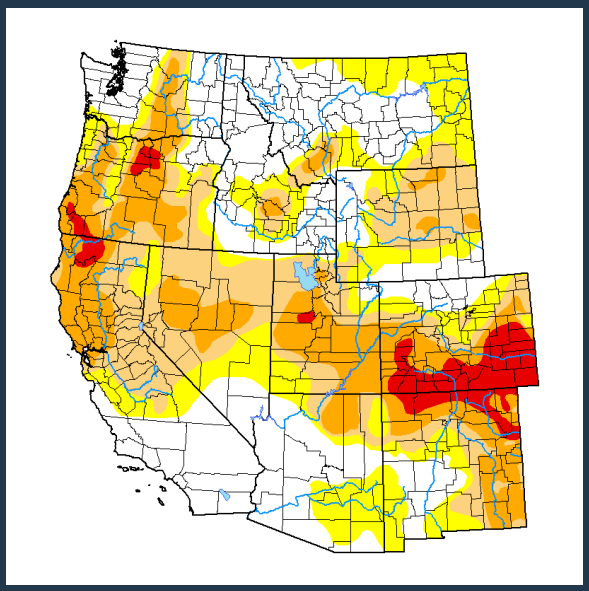
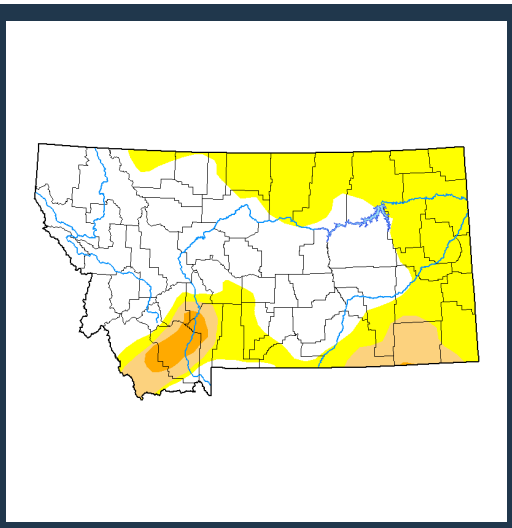


Figure 4: Climate Prediction Center three month temperature (top) and precipitation (bottom) outlook for July 2020 through September 2020.

U.S. Drought Monitor:

The latest U.S. Drought Monitor was released on Thursday July 9, 2020. As of that time, areas of abnormally dry conditions were present across much of north central and eastern Montana. Moderate drought was present across portions of eastern and southeast Montana as well.





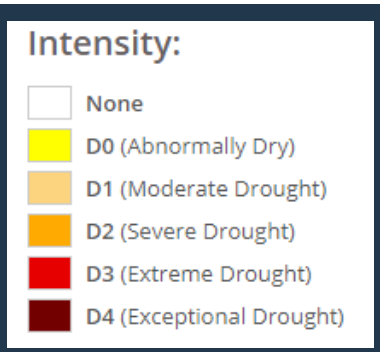


Figure 5: U.S. Drought Monitor updated July 9, 2020.

U.S. & Global Climate Highlights (May): The U.S. & Global climate highlights for May 2020 have been released. A few points for you to take home are provided below.

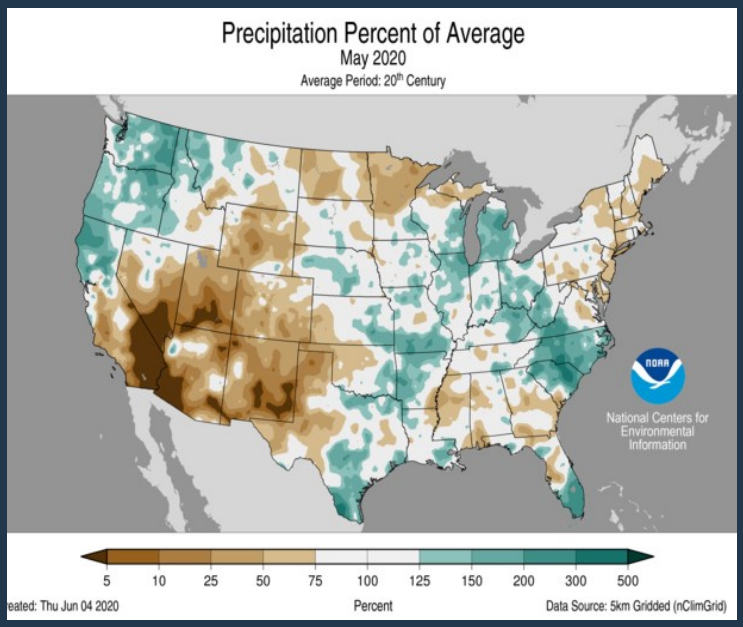


Figure 6: May 2020 Percent of Average Precipitation (U.S.).

U.S. Highlights for May 2020

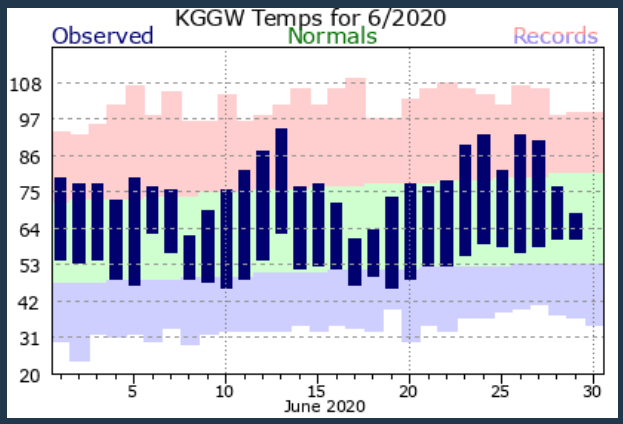
1) The contiguous U.S. average temperature for May2020 was 60.8 °F, in the middle third of the 126 year record.
2) The average May precipitation total for the contiguous U.S. came in at 3.04 inches. This ranks within the middle third of the existing period of record.

Global Highlights for May 2020

1) The May 2020 global land and ocean surface temperature was the highest in the 141 year period of record, tied with 2016.
2) The May 2020 global ocean only surface temperature was 1.42 °F. This was only 0.02 °F shy of tying the all time record.

Local Climate Graphs:

Glasgow, MT (June 2020)



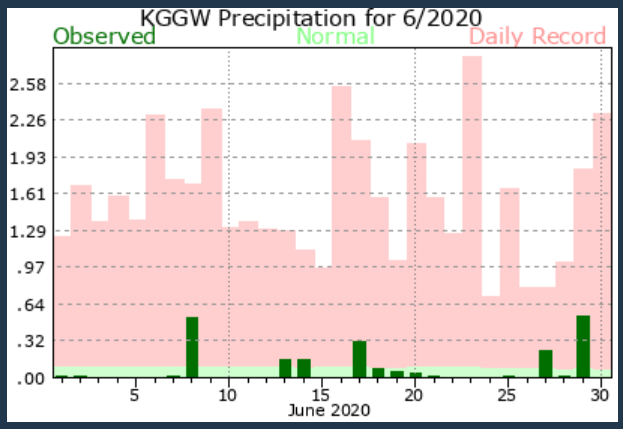


Figure 7: June 2020 Glasgow, MT Climate Graphs.

Links You May Like:

ENSO Update

Rise of CO2 Continues

NOAA Research Road Map

The Saharan Air Layer

COOP Precipitation Data (May 2020)

Station	Precipitation	Location
BAYM8	1.79	Baylor
BRDM8	M	Bredette
BTNM8	M	Brockton 17 N
BKNM8	2.24	Brockton 20 S
BKYM8	2.69	Brockway 3 WSW
BRSM8	M	Brusette
CLLM8	2.46	Carlyle 13 NW
CIRM8	2.02	Circle
CHNM8	2.35	Cohagen
COM8	3.07	Cohagen 22 SE
CNTM8	1.06	Content 4 NNE
CULM8	2.08	Culbertson
DSNM8	1.50	Dodson 11 N
FLTM8	3.07	Flatwillow 4 ENE
FPKM8	1.85	Fort Peck PP
GLAM8	2.38	Glasgow 14 NW
GGWM8	3.24	Glasgow WFO
GGSM8	1.12	Glasgow 46 SW
GNDM8	1.94	Glendive WTP
HRBM8	M	Harb
HINM8	2.20	Hinsdale 4 SW
HNSM8	1.75	Hinsdale 21 SW
HOMM8	1.60	Homestead 5 SE
HOYM8	2.43	Hoyt
JORM8	M	Jordan
LNDM8	2.54	Lindsay
MLAM8	1.51	Malta
MLTM8	0.87	Malta 7 E
MTAM8	1.10	Malta 35 S

Station	Precipitation	Location
MDCM8	1.27	Medicine Lake 3 SE
MLDM8	M	Mildred 5 N
MSBM8	2.87	Mosby 4 ENE
OPNM8	M	Opheim 10 N
OPMM8	1.55	Opheim 12 SSE
PTYM8	1.01	Plentywood
PTWM8	0.86	Plentywood 1 NE
POGM8	1.62	Port of Morgan
RAYM8	M	Raymond Border Station
SAOM8	2.37	Saco 1 NNW
SMIM8	1.74	St. Marie
SAVM8	1.19	Savage
SCOM8	1.35	Scobey 4 NW
SDYM8	1.63	Sidney
SIDM8	1.55	Sidney 2S
TERM8	2.62	Terry
TYNM8	M	Terry 21 NNW
VIDM8	M	Vida 6 NE
WSBM8	0.93	Westby
WTRM8	1.10	Whitewater
WHIM8	M	Whitewater 18 NE
WBXM8	2.91	Wibaux 2 E
WTTM8	M	Winnett
WNEM8	3.56	Winnett 6 NNE
WNTM8	3.17	Winnett 8 ESE
WITM8	M	Winnett 12 SW
WLFM8	1.59	Wolf Point
ZRTM8	2.02	Zortman

Monthly Trivia:

Last time we asked…

Since we are in the spirit of severe weather season, this time we are asking: What's the difference between straight line wind damage and tornado damage?

Answer: Straight line wind damage and tornado damage often get confused. In fact, both can be devastating. It is important to know that straight line wind damage associated with a strong thunderstorm downdraft is far more common. Often times we get wind damage reports from someone thinking they were struck by a tornado when in fact it turned out to be straight line wind damage. When doing a storm survey, we can see the difference as we can see the rotation in the damage path caused by a tornado. That said, both forms of wind damage can cause equal destruction. That's why important safety information for all severe thunderstorm warnings include to seek immediate shelter inside a sturdy building and away from windows.

New Question: We often ask spotters to report hail sizes in the context of a coin or sporting ball. However, we do not find it useful when someone reports marble sized hail. This month we ask — why is it that meteorologists do not like reports of marble sized hail?

Figure 8: Small hail pile photo taken at WFO Glasgow.

Summer Tip: Heading out on Fort Peck Lake this summer? Be sure to check out our boating safety page!

Find us on Facebook, Twitter and YouTube! No account needed:

Facebook.com/NWSGlasgow Twitter.com/NWSGlasgow YouTube.com/NWSGlasgow