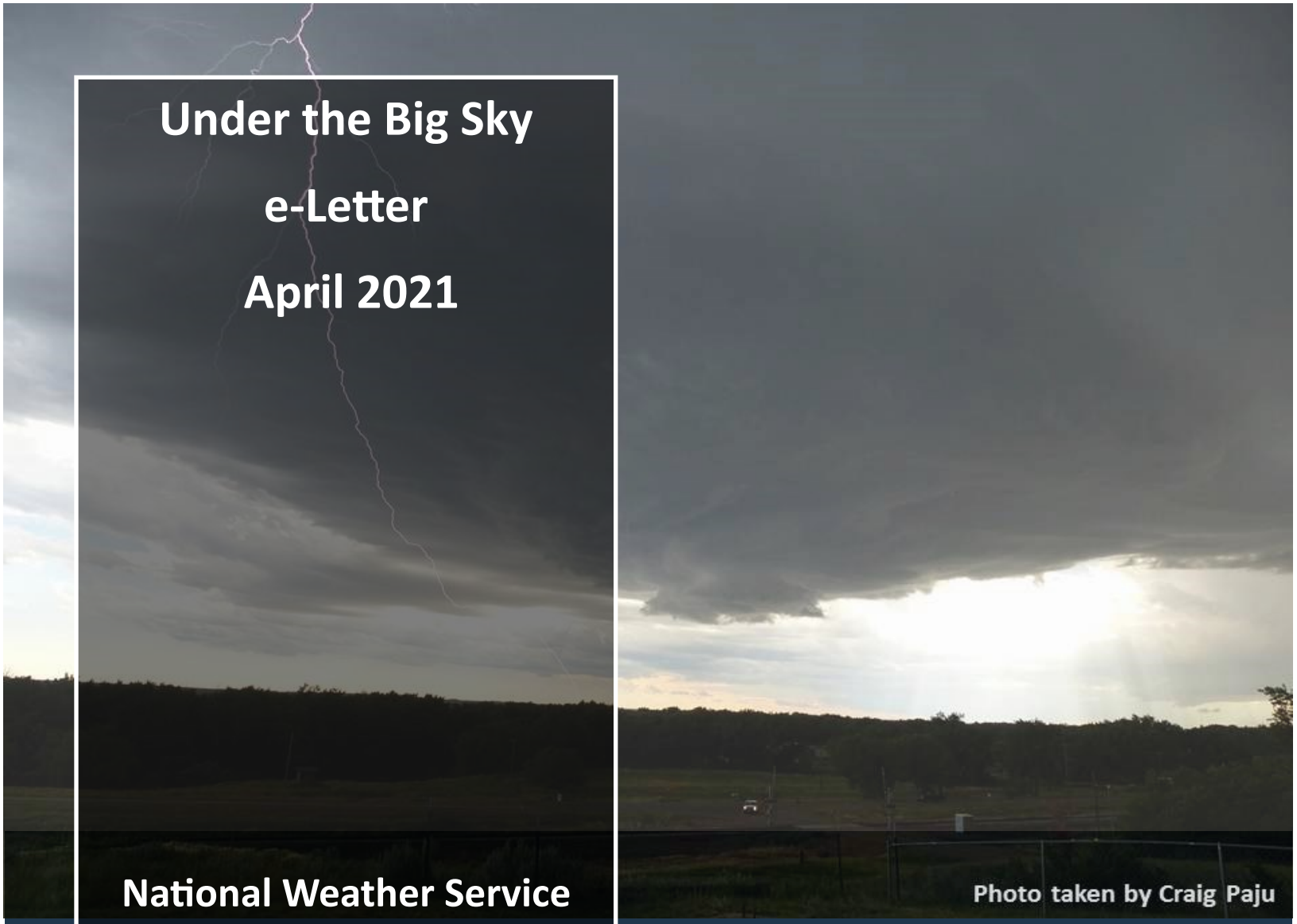


Under the Big Sky e-Letter

April 2021

Photo taken by Craig Paju

National Weather Service

Glasgow, MT

A Peak Inside:

Photo Credit: Tanja Fransen, Meteorologist in Charge at NWS Glasgow, 10/26/2012.

From the MIC (Meteorologist in Charge):

We're still teleworking, but should start seeing more of our administrative and support staff in the office more routinely in the near future. Otherwise, what's on our minds? The drought for one. And prairie fires for another. We provide WEEKLY input to the drought monitor authors on the weather, water and climate data that we have. Sometimes our recommendations are taken, and sometimes they are not. We really need your help in identifying the impacts from drought. Are you going to have to sell cow/calf pairs that you don't want to sell? Are your prairie potholes dried up? To report these impacts, there's two ways to do it, the **Montana Drought and Water Supply Committee** and the **US Drought Monitor National Impact Reporter**. Either of these links will work, we just need to see the information coming in. Please share with your neighbors and family that may be struggling with impacts due to the lack of moisture this winter.

The staff has been doing extra training these past few months to get spun up with the newest tools to help with severe weather warnings. Our Electronics staff has been busy making sure routine and emergency fixes are handled quickly with our observation and communications equipment. It's hard to believe that a lot of our equipment we use is reaching 30+ years of use (ha, it was all "brand new" when I started 26 years ago!). And, our ITO is busy keeping our scripts and programs running with all the software updates that occur. We fix one thing, and break another it seems! :)
Start thinking about your **summer weather safety plans**. Whether it's severe thunderstorms, extreme heat, or a wildfire, is your home and place of work ready for it?

~Tanja Fransen~
tanja.fransen@noaa.gov

Interactive Lightning Density Map Available

Vaisala is one of the providers of lightning strike data that the NWS utilizes in our operations. They have recently created an interactive map that shows lightning density across the United States. You can see it (and zoom into areas of interest) by **visiting this website**.

Skywarn 2021

This year due to COVID, NWS Glasgow is sharing bite sized Skywarn themed videos on **social media**. Feel free to check them out!

Recent Warm Season CoCoRaHS Training:

NWS Glasgow recently held a warm season CoCoRaHS training for those interested in becoming a new observer. The training is also a good reference for those current observers seeking a refresher.

CoCoRaHS is a grass-roots 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. Check out the CoCoRaHS main page to learn more! We are still accepting new observers so feel free to join through the main CoCoRaHS website today. All you'll need is a ruler and a rain gage to get started!

30 Day Percent of Normal Precipitation (Montana)

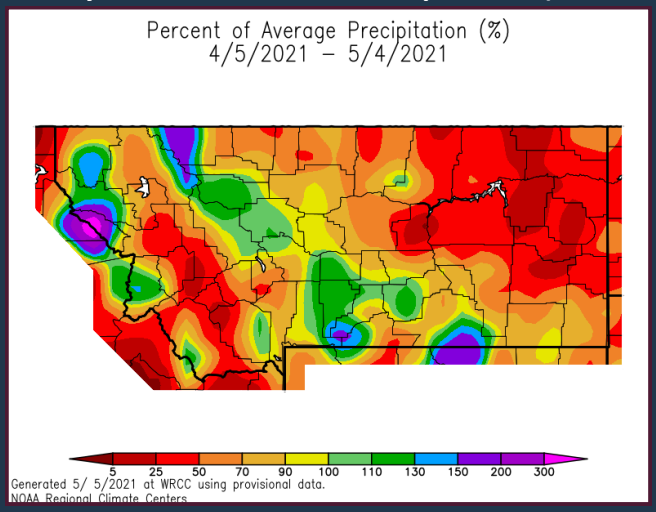


Figure 1: 30-day percent of normal precipitation across Montana.

Avg. Temp Departure from Normal (Montana)

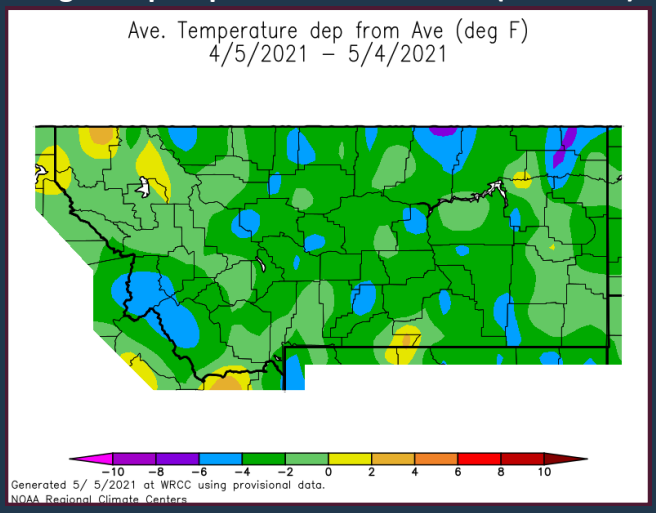


Figure 2: 30-day temperature anomalies across Montana.

Summary: Drought concerns continue across NE Montana where the 30 day percent of normal precipitation continues to trend well below average. Meanwhile, temperatures have generally been near to below normal over the last 30 days pretty much across the state.

Hydrologic Summary for March 2021 by Greg Forester, Lead Forecaster at NWS Glasgow:

It was a drier and warmer than normal month for temperatures over Northeast Montana. The wet spots were Cohagen with 0.39 inch, Zortman and Wolf Point with 0.35 inch, and Sidney with 0.30 inch. The dry spots were Glasgow 46SW with 0.01 inch, Port of Morgan with 0.04 inch, Malta 7E and Winnett 12SW with 0.05 inch. Glasgow received 0.21 inch which was 45 percent of normal. Temperatures averaged between 5 degrees and 10 degrees above normal across the region. Glasgow averaged 39.4 degrees which was 8.5 degrees above normal.

The dry weather has allowed severe drought to develop over the northeast half of the region which includes areas east of Malta, Fort Peck, and Terry.

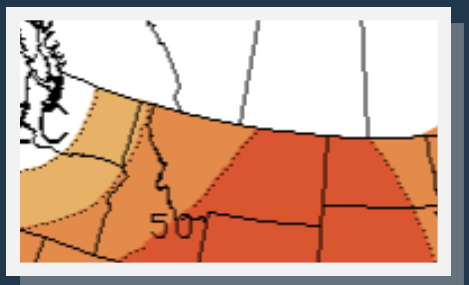
Stream flow on the Milk River was near normal in early March but fell to well below normal during the second half of the month. The Yellowstone River was frozen for the first 2 weeks of the month and had below normal stream flow after the ice broke up in the middle of the month. The Missouri River was frozen until the ice broke up around March 20 and then had near normal stream flow the remainder of the month. The Poplar River was frozen or partly frozen the entire month.

The Fort Peck Reservoir elevation rose slightly to 2233.4 feet during the month. The reservoir was at 78 percent of capacity and 99 percent of the mean pool.

CPC Three Month Outlook:

The Climate Prediction Center released an update of its three month outlook for temperature and precipitation for May through July back on May 6, 2021. The outlook calls for above average temperatures to be favored across the state. Unfortunately, though drought conditions continue across NE Montana, it does look like the three month period ahead overall does have a higher probability of being drier than average. At least the current forecast points to increased rain chances this weekend, so hopefully that will provide some relief for now, but whether that trend continues into the summer months is yet to be seen. And when it comes to the forecast at least, it does look like precipitation will most likely remain below normal overall.

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.



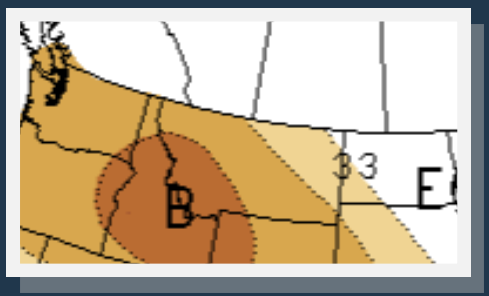
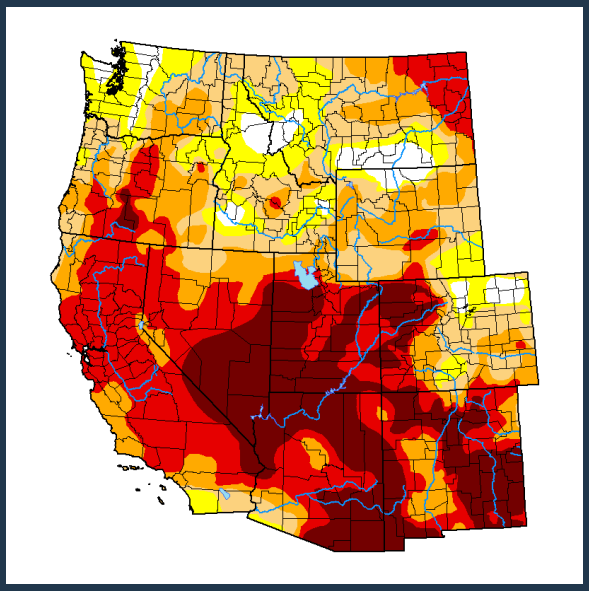
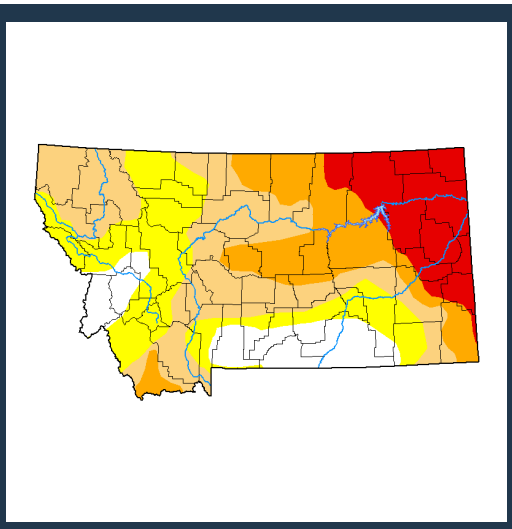


Figure 3: Climate Prediction Center three month temperature (top) and precipitation (bottom) outlook for May 2021 through July 2021.

U.S. Drought Monitor:

The latest U.S. Drought Monitor was released on Thursday May 6, 2021. Much of NE Montana is now under the influence of a severe to extreme drought. This outlook is updated weekly. Please feel free to check out the latest here.





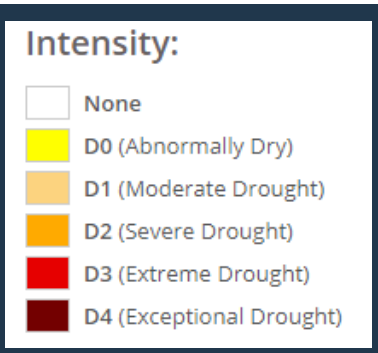


Figure 4: U.S. Drought Monitor updated May 6, 2021

U.S. & Global Climate Highlights (March): The U.S. & Global climate highlights for March 2021 have been released, the latest month for which data was available. A few points for you to take home are provided below.

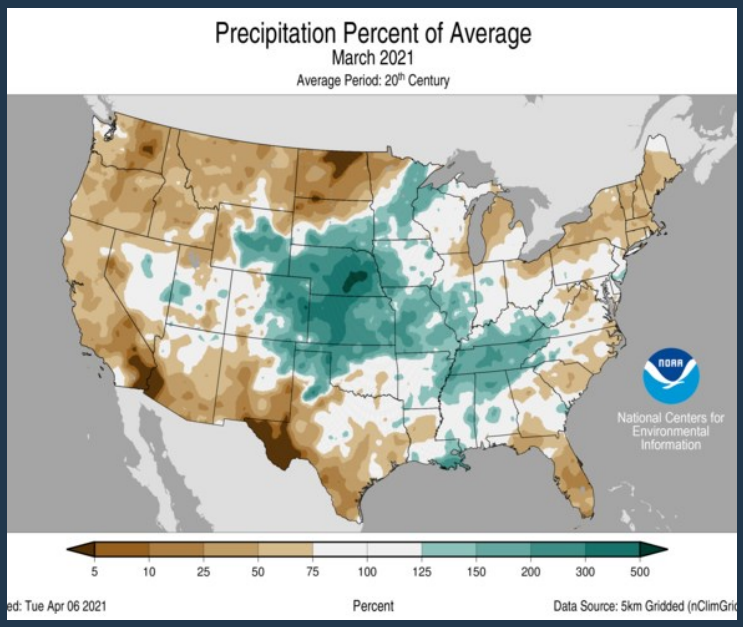


Figure 5: March 2021 Percent of Average Precipitation (U.S.).

U.S. Highlights for March 2021

1) The contiguous U.S. average temperature for March 2021 was 45.5 °F, ranking within the warmest third on record.
2) The average March precipitation total for the contiguous U.S. came in at 2.45 inches. This ranks within the middle of the existing period of record.

Global Highlights for March 2021

1) The March 2021 global land and ocean surface temperature was the 8th warmest February on record.
2) There were no global land or ocean areas that experienced record breaking cold March temperatures.
3) La Niña continued to be present in March, but weakened in strength.

Social Media Highlight of the Month

Warm/dry weather and gusty winds on April 30 led to two large wildfires across the region that were picked up on satellite.

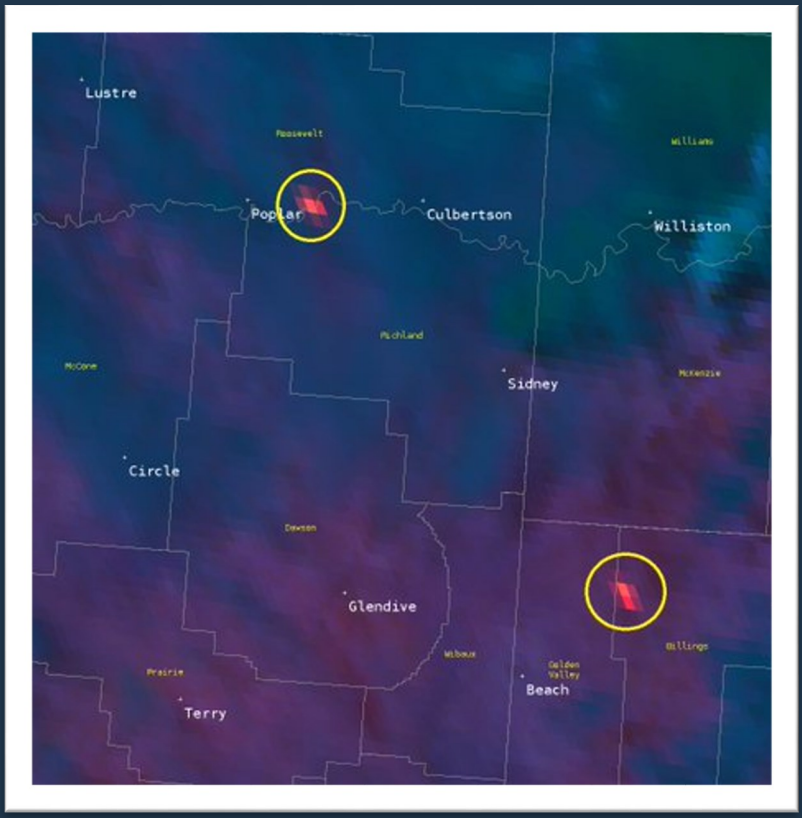


Figure 6: Satellite imagery shared on NWS Glasgow social media on April 30 when two large wildfires were detected during extreme fire weather conditions.

Links You May Like:

April ENSO Update

ENSO or Climate Change

On the 1991-2020 U.S. Climate Normals

Atlantic Hurricane Season: A New Normal

COOP Precipitation Data (*Preliminary* March 2021)

Station	Precipitation	Location
BAYM8	0.32	Baylor
BRDM8	0.19	Bredette
BTNM8	M	Brockton 17 N
BKNM8	0.22	Brockton 20 S
BKYM8	0.12	Brockway 3 WSW
BRSM8	M	Brusette
CLLM8	0.17	Carlyle 13 NW
CIRM8	0.16	Circle
CHNM8	0.39	Cohagen
COM8	0.36	Cohagen 22 SE
CNTM8	0.06	Content 3 SSE
CULM8	0.09	Culbertson
DSNM8	0.05	Dodson 11 N
FLTM8	0.04	Flatwillow 4 ENE
FPKM8	0.20	Fort Peck PP
GLAM8	0.11	Glasgow 14 NW
GGWM8	0.21	Glasgow WFO
GGSM8	0.01	Glasgow 46 SW
GNDM8	0.14	Glendive WTP
HRBM8	M	Harb
HINM8	0.23	Hinsdale 4 SW
HNSM8	M	Hinsdale 21 SW
HOMM8	0.28	Homestead 5 SE
HOYM8	0.15	Hoyt
JORM8	M	Jordan
LNDM8	0.17	Lindsay
MLAM8	0.07	Malta
MLTM8	0.05	Malta 7 E
MTAM8	0.01	Malta 35 S

Station	Precipitation	Location
MDCM8	0.12	Medicine Lake 3 SE
MLDM8	0.14	Mildred 5 N
MSBM8	0.14	Mosby 4 ENE
OPNM8	0.13	Opheim 10 N
OPMM8	0.16	Opheim 12 SSE
PTYM8	0.18	Plentywood
PTWM8	0.19	Plentywood 1 NE
POGM8	0.04	Port of Morgan
RAYM8	0.19	Raymond Border Station
SAOM8	0.06	Saco 1 NNW
SMIM8	0.07	St. Marie
SAVM8	0.14	Savage
SCOM8	0.20	Scobey 4 NW
SDYM8	0.04	Sidney
SIDM8	0.30	Sidney 2S
TERM8	0.14	Terry
TYNM8	M	Terry 21 NNW
VIDM8	M	Vida 6 NE
WSBM8	0.27	Westby
WTRM8	0.15	Whitewater
WHIM8	M	Whitewater 18 NE
WBXM8	0.06	Wibaux 2 E
WTTM8	M	Winnett
WNEM8	0.09	Winnett 6 NNE
WNTM8	0.13	Winnett 8 ESE
WITM8	0.05	Winnett 12 SW
WLFM8	0.35	Wolf Point
ZRTM8	0.33	Zortman

COOP Precipitation Data (*Preliminary* April 2021)

Station	Precipitation	Location
BAYM8	M	Baylor
BRDM8	0.26	Bredette
BTNM8	M	Brockton 17 N
BKNM8	M	Brockton 20 S
BKYM8	0.24	Brockway 3 WSW
BRSM8	M	Brusette
CLLM8	M	Carlyle 13 NW
CIRM8	0.17	Circle
CHNM8	0.42	Cohagen
COM8	M	Cohagen 22 SE
CNTM8	0.32	Content 3 SSE
CULM8	0.33	Culbertson
DSNM8	M	Dodson 11 N
FLTM8	0.83	Flatwillow 4 ENE
FPKM8	0.29	Fort Peck PP
GLAM8	0.35	Glasgow 14 NW
GGWM8	0.43	Glasgow WFO
GGSM8	0.95	Glasgow 46 SW
GNDM8	0.18	Glendive WTP
HRBM8	M	Harb
HINM8	0.76	Hinsdale 4 SW
HNSM8	M	Hinsdale 21 SW
HOMM8	M	Homestead 5 SE
HOYM8	M	Hoyt
JORM8	M	Jordan
LNDM8	0.43	Lindsay
MLAM8	0.41	Malta
MLTM8	0.49	Malta 7 E
MTAM8	M	Malta 35 S

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MDCM8	0.42	Medicine Lake 3 SE
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PTYM8	0.53	Plentywood
PTWM8	M	Plentywood 1 NE
POGM8	0.16	Port of Morgan
RAYM8	M	Raymond Border Station
SAOM8	0.45	Saco 1 NNW
SMIM8	0.22	St. Marie
SAVM8	M	Savage
SCOM8	0.10	Scobey 4 NW
SDYM8	0.38	Sidney
SIDM8	0.23	Sidney 2S
TERM8	0.39	Terry
TYNM8	M	Terry 21 NNW
VIDM8	M	Vida 6 NE
WSBM8	M	Westby
WTRM8	0.22	Whitewater
WHIM8	M	Whitewater 18 NE
WBXM8	0.63	Wibaux 2 E
WTTM8	M	Winnett
WNEM8	0.26	Winnett 6 NNE
WNTM8	M	Winnett 8 ESE
WITM8	M	Winnett 12 SW
WLFM8	0.17	Wolf Point
ZRTM8	1.56	Zortman

Monthly Trivia:

Last time we asked…

New Question: As spring and summer get underway, so does increasing recreation on Fort Peck Lake! NWS Glasgow issues many products to help keep you safe out on your adventures, such as a Lake Wind Advisory during those breezy days! Our question this month, what is the Criteria for when a Lake Wind Advisory is officially hoisted?

Answer: A Lake Wind Advisory is issued for sustained wind speeds of 20 MPH or greater for three consecutive hours or ANY gust in excess of 30 MPH. You can always check the latest forecast from NWS Glasgow before you head out on the lake.

Figure 7: Fort Peck Lake/boating safety campaign graphic.

New Question: Convective thunderstorm season is upon us! This month we ask: What's the difference between a watch and a warning? We'll share the answer to this as well as some additional important safety information in the next newsletter edition!

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