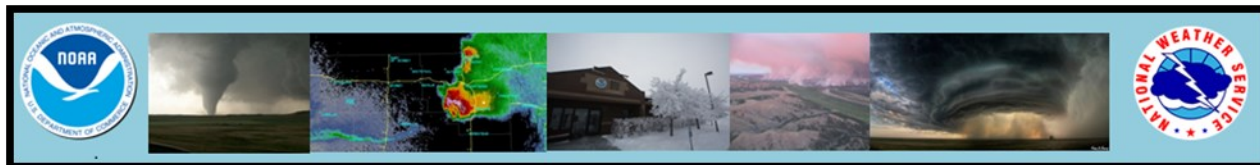


# Under the Big Sky e-Letter

## April 2020



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### CoCoRaHS Spring Training:

NWS Glasgow would like to invite new CoCoRaHS volunteers.



Check out the CoCoRaHS [webpage](#) and tap the join button on the upper right. It is as easy as that!

NWS Glasgow will be doing an online warm season CoCoRaHS training for anyone interested in reporting daily precipitation. Current observers are also welcome to take the training as a refresher. This is a great way to make a difference in your community! Here are the details:

**Date:** Wednesday May 20, 2020 Time: 12-

**Time:** 12:30 PM MDT

**Link:** <https://global.gotomeeting.com/join/331948645>

**Call:** 1-877-929-2703

**Passcode:** 8972342#

**Hope to see you there!**

### 30 Day Percent of Normal Precipitation (Montana)

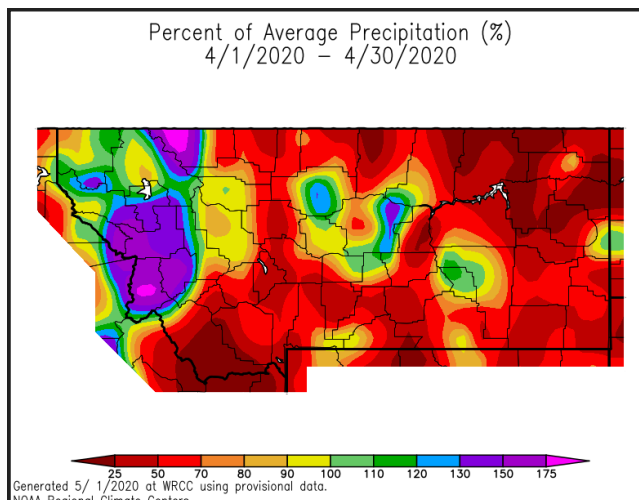


Figure 1: 30-day percent of normal precipitation across Montana.

### 30 Day Temperature Anomalies (Montana)

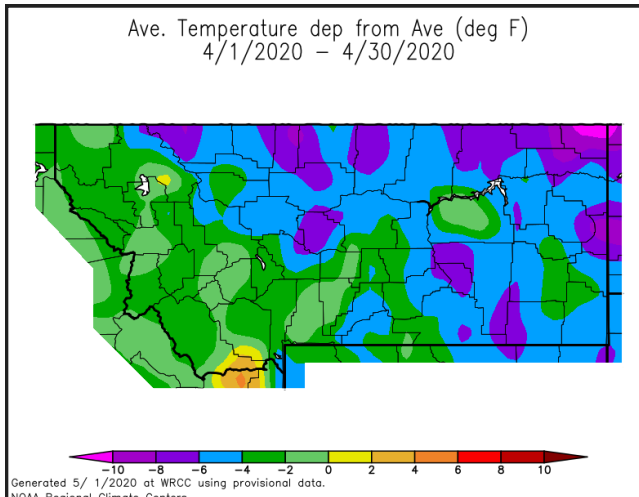


Figure 2: 30-day temperature anomalies across Montana.

**Summary:** Precipitation ranged below normal across much of the central and eastern portion of the state, with only spotty locations in western MT, in general, having above normal Precipitation. Temperatures, meanwhile ranged cooler than normal for much of the state. Western areas saw temperatures near or just slightly below average.

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

It was a near normal to above normal month for temperatures over Northeast Montana. Temperatures averaged between 2 below and 4 degrees above normal. Glasgow averaged 33.4 degrees which was 1.7 degrees above normal.

Precipitation varied across the region with most areas below normal and some areas near normal for the month. The dry spots were Wolf Point with 0.08 inch, Whitewater and Bredette with 0.10 inch, and Culbertson with 0.12 inch. The wet spots were Zortman with 0.90 inch, Cohagan with 0.66 inch, and Savage with 0.63 inch.

Glasgow had 0.40 inch of precipitation which was 95 percent of normal.

Snow melt in late February and early March brought snowmelt flooding to Beaver Creek over Phillips and Valley Counties, the Milk River downstream from Hinsdale, and small streams that flow into the Milk River near Glasgow like Antelope Creek, Cherry Creek, and Willow Creek. An ice jam on the Yellowstone River caused a brief flood on March 2. Another round of snow melt in late March brought flooding to Frenchman Creek in Phillips County, Cherry Creek near Glasgow, the Milk River between Tampico and Glasgow, and high water on the Poplar River that remained just below flood stage.

The ice broke up on the Milk, Yellowstone, Missouri, and Poplar Rivers around the middle of the month. Stream flow was above normal after break up during the month.

The Fort Peck Reservoir elevation rose to 2235.7 feet during the month. The reservoir was at 81 percent of capacity and 101 percent of the mean pool.

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### May off to a Wet Start:

Following a wet April, many across NE Montana are likely welcoming a wet start to the month of May. A round of strong showers and thunderstorms pushed through the area on Sunday May 3, 2020, producing in excess of a half inch of rainfall across some portions of the forecast area. **Glasgow received 0.65" on that day from the storms. This was the wettest day since September 29, 2019 when 0.74 inches of rainfall occurred.**



Figure 3: Radar image across NE Montana on 5/3/2020 showing showers and thunderstorms across the area.

**CPC Three Month Outlook:** The Climate Prediction Center released its three month outlook for temperature and precipitation for May 2020 through July 2020 on April 16, 2020. The outlook calls for above normal temperatures to take hold over the three month period across the state. Meanwhile, above normal precipitation is favored for southeast Montana, below normal precipitation is favored over western Montana, with the rest of the state having equal chances for above normal, below normal, or normal precipitation. 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 (left) and precipitation (right) outlook for May 2020 through July 2020.

**Updated U.S. Drought Monitor:** The [latest U.S. Drought Monitor](#) was released on Thursday April 30, 2020. As of that time, Montana was void of having any drought conditions. That said, spotty abnormally dry conditions were present across portions of the state (see yellow shaded areas on the state graphic below). Moving forward, we can hold out some hope that the wet start to May will help alleviate the recent abnormally dry conditions. At least it's a start, but we'll see what the rest of the month brings!

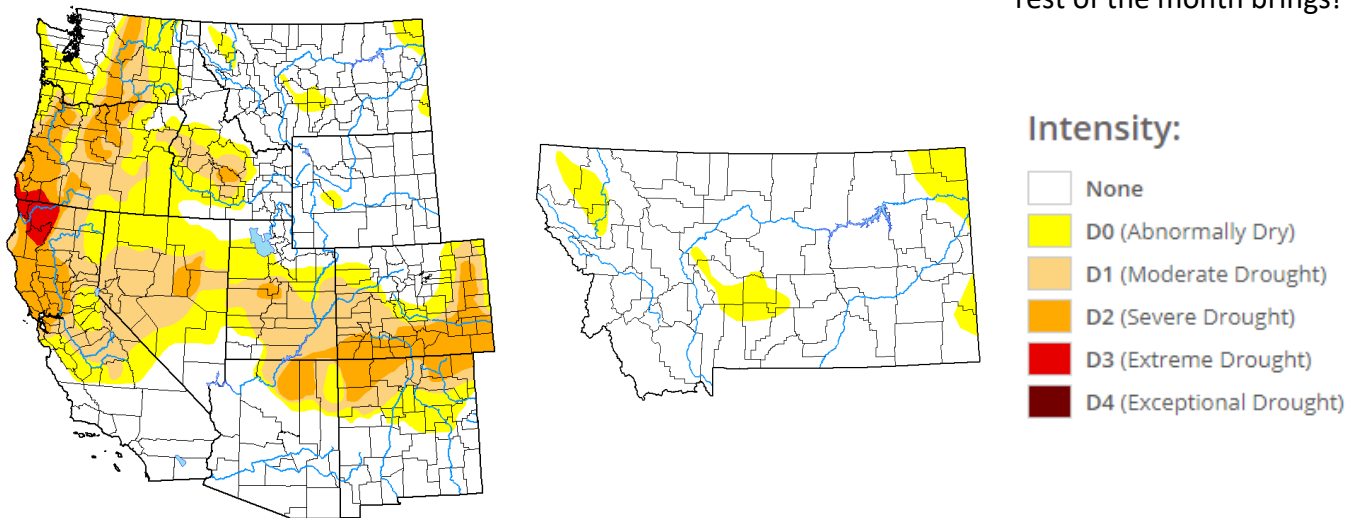


Figure 5: Latest Drought Monitor for the western U.S. (left) and Montana (right) released Thursday April 30, 2020.

**U.S. & Global Climate Highlights (March):** The [U.S.](#) & [Global](#) climate highlights for March 2020 have been released. A few points for you to take home are provided below. April will be available soon!

## U.S. Selected Significant Climate Anomalies and Events for March 2020

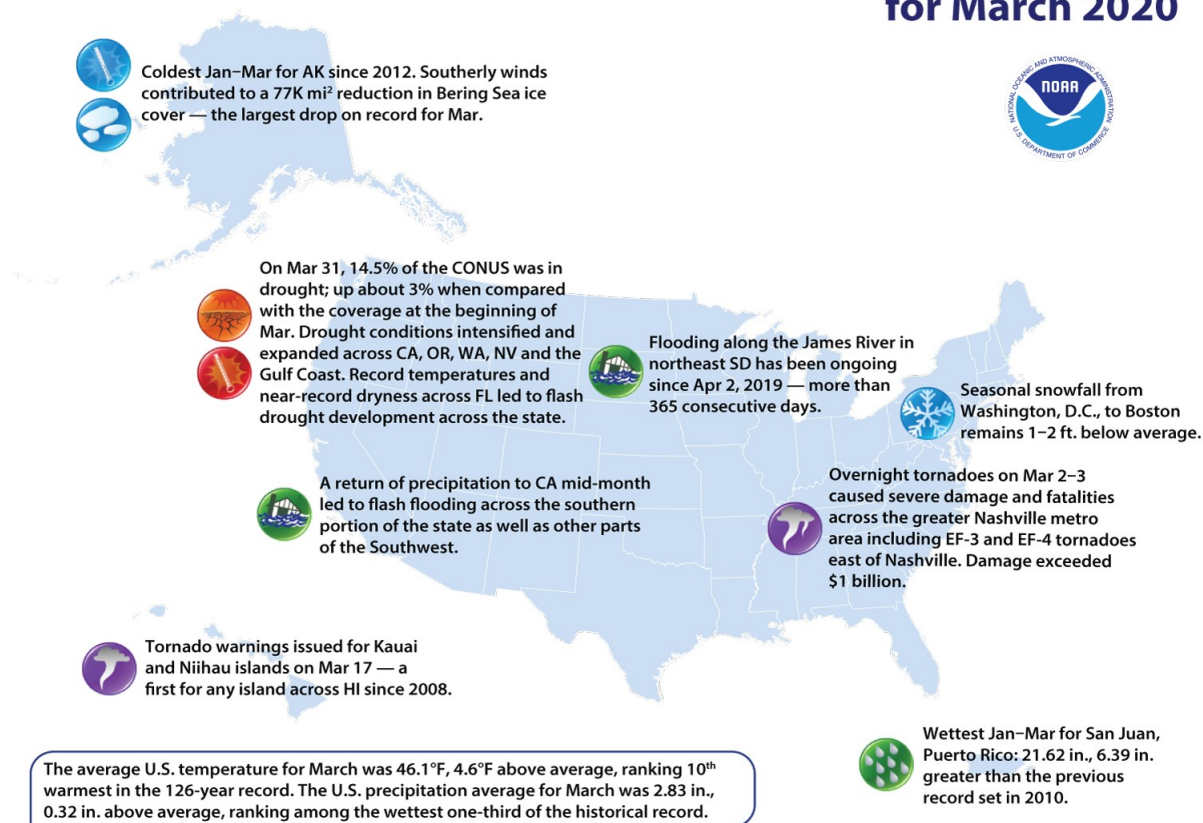


Figure 6: Climate highlights for March 2020, across the U.S.

### U.S. Highlights for March 2020

- 1) The contiguous U.S. average temperature for February 2020 was 46.1 °F, 10th warmest on record.
- 2) The average March precipitation total for the contiguous U.S. came in at 2.83 inches. This ranks within the wettest third of the existing period of record (spanning 126 years).
- 3) According to the U.S. Drought Monitor, 14.5% of the contiguous U.S. was in drought.

### Global Highlights for March 2020

- 1) The February 2020 global land and ocean surface temperature departure from average was the 2nd-warmest on record (topped only by March 2016).
- 2) The global land only surface temperature departure was the fifth highest for any month on record.
- 3) The globally averaged sea surface temperature departure tied with the seventh highest for any month on record.
- 4) ENSO neutral conditions were present during the month of March and is favored to continue into the Northern Hemisphere spring.



## Precipitation Data (March 2020):

Station	Precipitation	Location
BAYM8	0.14	Baylor
BRDM8	0.10	Bredette
BTNM8	M	Brockton 17 N
BKNM8	0.28	Brockton 20 S
BKYM8	0.34	Brockway 3 WSW
BRSM8	M	Brusette
CLLM8	0.47	Carlyle 13 NW
CIRM8	0.31	Circle
CHNM8	0.66	Cohagen
COM8	M	Cohagen 22 SE
CNTM8	0.71	Content 3 SSE
CULM8	0.12	Culbertson
DSNM8	0.13	Dodson 11 N
FLTM8	0.51	Flatwillow 4 ENE
FPKM8	0.19	Fort Peck PP
GLAM8	0.39	Glasgow 14 NW
GGWM8	0.40	Glasgow WFO
GGSM8	0.55	Glasgow 46 SW
GNDM8	0.52	Glendive WTP
HRBM8	M	Harb
HINM8	0.34	Hinsdale 4 SW
HNSM8	M	Hinsdale 21 SW
HOMM8	0.12	Homestead 5 SE
HOYM8	0.14	Hoyt
JORM8	M	Jordan
LNDM8	0.41	Lindsay
MLAM8	0.42	Malta
MLTM8	0.36	Malta 7 E
MTAM8	M	Malta 35 S

Station	Precipitation	Location
MDCM8	M	Medicine Lake 3 SE
MLDM8	M	Mildred 5 N
MSBM8	0.39	Mosby 4 ENE
OPNM8	M	Opheim 10 N
OPMM8	0.16	Opheim 12 SSE
PTYM8	0.15	Plentywood
PTWM8	0.10	Plentywood 1 NE
POGM8	M	Port of Morgan
RAYM8	M	Raymond Border Station
SAOM8	0.14	Saco 1 NNW
SMIM8	0.10	St. Marie
SAVM8	0.63	Savage
SCOM8	0.16	Scobey 4 NW
SDYM8	0.40	Sidney
SIDM8	0.38	Sidney 2S
TERM8	0.28	Terry
TYNM8	M	Terry 21 NNW
VIDM8	0.27	Vida 6 NE
WSBM8	M	Westby
WTRM8	0.10	Whitewater
WHIM8	M	Whitewater 18 NE
WBXM8	0.50	Wibaux 2 E
WTTM8	M	Winnett
WNEM8	0.19	Winnett 6 NNE
WNTM8	0.59	Winnett 8 ESE
WITM8	0.46	Winnett 12 SW
WLFM8	0.08	Wolf Point
ZRTM8	0.90	Zortman

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## Links You May Like:

[ENSO Update](#)

[Drought Predictability and Declining Snowpack: What's the link?](#)

[NOAA Education At Home](#)

[Arctic Ozone Hole](#)

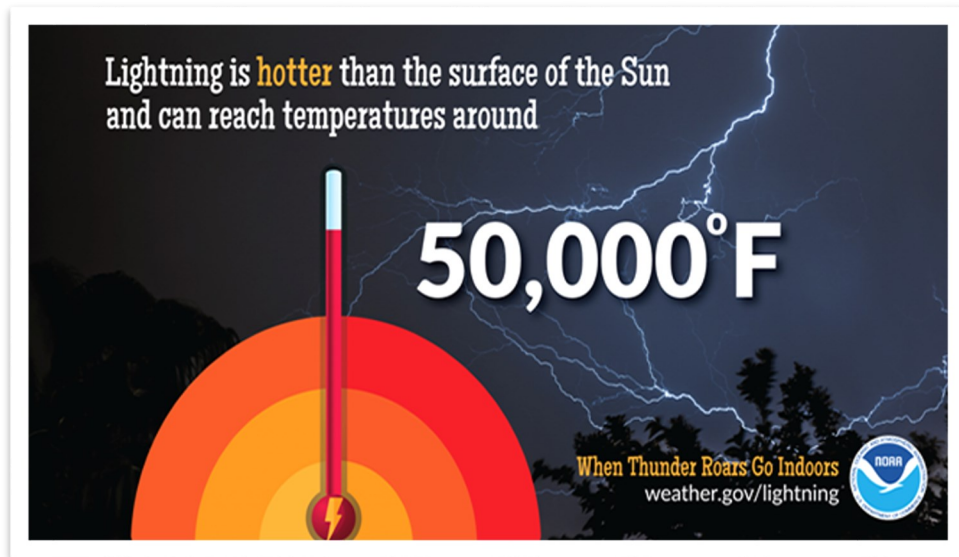
[Human Activities and Tropical Cyclone Strength](#)

## Monthly Trivia: Last time we asked...

With winter in the rear-view mirror (hopefully) and summertime thunderstorm season right around the corner, now is a good time to review your [thunderstorm](#) (and [lightning](#)) safety information. As always we'll help you stay ahead of any watches and warnings that come, but now is a good time to be prepared.

That brings us to this month's trivia question. All thunderstorms (severe or not) produce dangerous lightning. It's perhaps not surprising that lightning is also hot—very hot in fact. This month we ask: What's the temperature of lightning? We'll share the answer to this fun trivia question in the next newsletter.

**Answer:** Lightning is five times hotter than the surface of the sun!



**New Question:** This time we ask, what is the difference between a water year and a regular year when it comes to precipitation total?

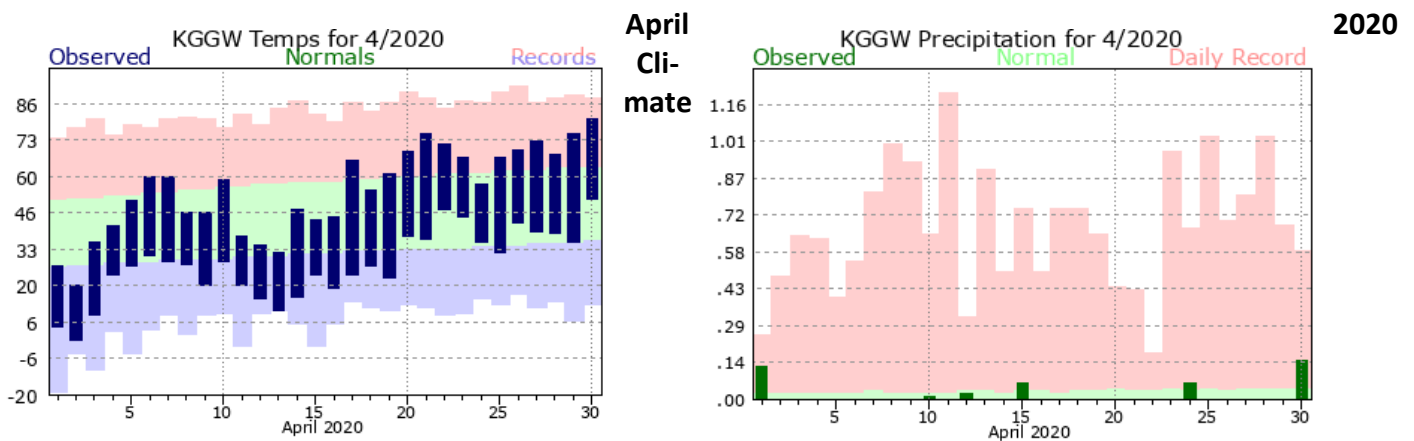


Figure 7: Climate graphs for Glasgow, MT in April 2020: Temperature (left) and precipitation (right).

### Graphs for Glasgow, MT