Under the Big Sky e-Letter February 2020



A Peak Inside:

- 30-Day precip & temps/CoCoRaHS...Page 1
- CPC Outlook/Drought Monitor...Page 2
- Climate Highlights...Page 3
- Monthly COOP Precipitation...Page 4
- Monthly Trivia ... Page 5

Join CoCoRaHS:

NWS Glasgow would like to invite new CoCo-



RaHS volunteers. Check out the CoCo-RaHS <u>webpage</u> and tap the join button on the upper right. It is as easy as that!

A station will be created at your location and you'll soon

be on your way toward sending in your very own daily precipitation reports. All you need to get started is a ruler or yard stick, as well as an official CoCoRaHS 4 inch rain gauge. Your data will be used by NWS meteorologists, as well as by those in agriculture, education, those working with mosquito control, insurance adjusters, and numerous others. This is a great way to make a difference in your community, so if you have an interest in the weather and would like to help, get started today!

30 Day Percent of Normal Precipitation (Montana)



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

30 Day Temperature Anomalies (Montana) Ave. Temperature dep from Ave (deg F)



Figure 2: 30-day temperature anomalies across Montana. **Summary:** Over the recent 30 day period, temperatures generally averaged above average across much of the state of Montana. Southwest Montana had temperatures below average. Meanwhile, precipitation relative to normal varied more widely across the state. Check out the maps above for more details on how things stacked up! **CPC Three Month Outlook:** The Climate Prediction Center released its three month outlook for temperature and precipitation for March 2020 through March 2020 on May 20, 2020. The outlook calls for increased odds for below normal temperatures across much of central and eastern Montana. Western parts of the state carry equal chances for above normal, below normal, or normal temperatures over the three month period. Meanwhile, above normal precipitation is favored for the same time frame for all but western Montana. This suggests that while mild and dry conditions are certainly possible at times, as a whole, the next few months may stack up to be colder and wetter than average. 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 (left) and precipitation (right) outlook for March 2020 through May 2020.

Updated U.S. Drought Monitor: The <u>latest U.S. Drought Monitor</u> was released on Thursday March 5, 2020. As of that time, Montana was void of having any drought conditions. However, spotty abnormally dry conditions were present across western portions of the state. It is notable that these areas have been expanding in coverage in recent weeks. Moving forward, if the above normal precipitation outlook verifies, Montana should continue to see a lack of drought conditions over the short and medium term.



Figure 4: Latest Drought Monitor for the western U.S. (left) and Montana (right) released Thursday March 5, 2020.

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



Figure 5: Temperature departure from average for January 2020, across the U.S.

U.S. Highlights for January 2020

- 1) The contiguous U.S. average temperature for January 2020 was 36.5 °F, 5th warmest on record.
- 2) The average January precipitation total for the contiguous U.S. came in at 2.70 inches. This ranks within the middle third of the existing period of record (spanning 125 years).
- 3) According to the U.S. Drought Monitor, 11% of the contiguous U.S. was in drought.

Global Highlights for January 2020

- 1) The January 2020 global land and ocean surface temperature departure from average was the warmest on record.
- 2) The global land only surface temperature for January 2020 was the highest on record.
- 3) The globally averaged sea surface temperature was the second warmest in the record books.
- 4) January 2020 global land and ocean surface temperature departure from average turned out to be the highest ever for any month in which ENSO neutral conditions were present.

Precipitation Data (January 2020):

Station	Precipitation	Location
MDCM8	0.32	Medicine Lake 3 SE
MLDM8	B M	Mildred 5 N
MSBM8	0.33	Mosby 4 ENE
OPNM8	0.18	Opheim 10 N
OPMM8	0.28	Opheim 12 SSE
PTYM8	0.26	Plentywood
PTWM8	0.10	Plentywood 1 NE
POGM8	0.31	Port of Morgan
RAYM8	B M	Raymond Border Station
SAOM	8 0.19	Saco 1 NNW
SMIM8	.24	St. Marie
SAVM8	0.25	Savage
SCOM	0.22	Scobey 4 NW
SDYM8	0.46	Sidney
SIDM8	0.33	Sidney 2S
TERM8	0.12	Terry
TYNM8	B M	Terry 21 NNW
VIDM8	0.05	Vida 6 NE
WSBM8	B M	Westby
WTRM8	0.25	Whitewater
WHIM8	B M	Whitewater 18 NE
WBXM8	8 0.17	Wibaux 2 E
WTTM8	0.25	Winnett
WNEM8	8 0.34	Winnett 6 NNE
WNTM8	8 M	Winnett 8 ESE
WITM8	0.18	Winnett 12 SW
WLFM8	0.09	Wolf Point
ZRTM8	3 0.98	Zortman

Station	Precipitation	Location
BAYM8	0.50	Baylor
BRDM8	0.27	Bredette
BTNM8	Μ	Brockton 17 N
BKNM8	0.38	Brockton 20 S
BKYM8	0.19	Brockway 3 WSW
BRSM8	Μ	Brusette
CLLM8	0.74	Carlyle 13 NW
CIRM8	0.25	Circle
CHNM8	0.27	Cohagen
COM8	0.40	Cohagen 22 SE
CNTM8	0.38	Content 3 SSE
CULM8	0.63	Culbertson
DSNM8	0.16	Dodson 11 N
FLTM8	0.22	Flatwillow 4 ENE
FPKM8	0.30	Fort Peck PP
GLAM8	0.25	Glasgow 14 NW
GGWM8	0.29	Glasgow WFO
GGSM8	0.44	Glasgow 46 SW
GNDM8	0.18	Glendive WTP
HRBM8	Μ	Harb
HINM8	0.11	Hinsdale 4 SW
HNSM8	0.22	Hinsdale 21 SW
HOMM8	0.30	Homestead 5 SE
HOYM8	0.03	Hoyt
JORM8	Μ	Jordan
LNDM8	0.48	Lindsay
MLAM8	0.20	Malta
MLTM8	0.19	Malta 7 E
MTAM8	0.24	Malta 35 S

Links You May Like:

<u>Climate Change and Carbon Dioxide</u>

Shrinking Glaciers

Spring Snow Disappearing Earlier

ENSO Update

Monthly Trivia: Last time we asked...

The National Weather Service issues a number of products to help keep people safe and informed when cold temperatures and wind speeds combine to create dangerous wind chills. These include wind chill warnings and advisories. We all know that it feels colder when the wind is stronger (if the temperature is constant), but what is the science behind this concept? We'll go over it in the next newsletter.

Answer: See below the graphic that shares with you the science of wind chill. Basically, when the wind is calm your body radiates heat. This creates a warm layer between your skin and the cold surroundings. However, when it is windy, the moving air breaks up this warm insulating layer. This causes heat loss to accelerate by whisking away the warmth from our skin. In other words, warmth is moved away from our bodies in the absence of that protective layer. This is why wearing warm, insulating layers of clothing can help you stay safe during times of wind chill danger. Learn more on winter safety <u>here</u>.



Figure 6: Graphical explanation of the science behind wind chill.

New Question: Spring is right around the corner, but before you celebrate, have you reviewed your flood safety plan? Snowmelt, ice jamming, and heavy rainfall in the spring can all cause spring season flooding, which can lead to extreme danger if not prepared. For now, let us just focus on one of these hazards—ice jams. This month we ask: Do you know which state has the highest number of ice jam related deaths in the lower 48 states? We'll share the answer to this question as well as much more on flood safety in our next newsletter.

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