Under the Big Sky e-Letter August 2020

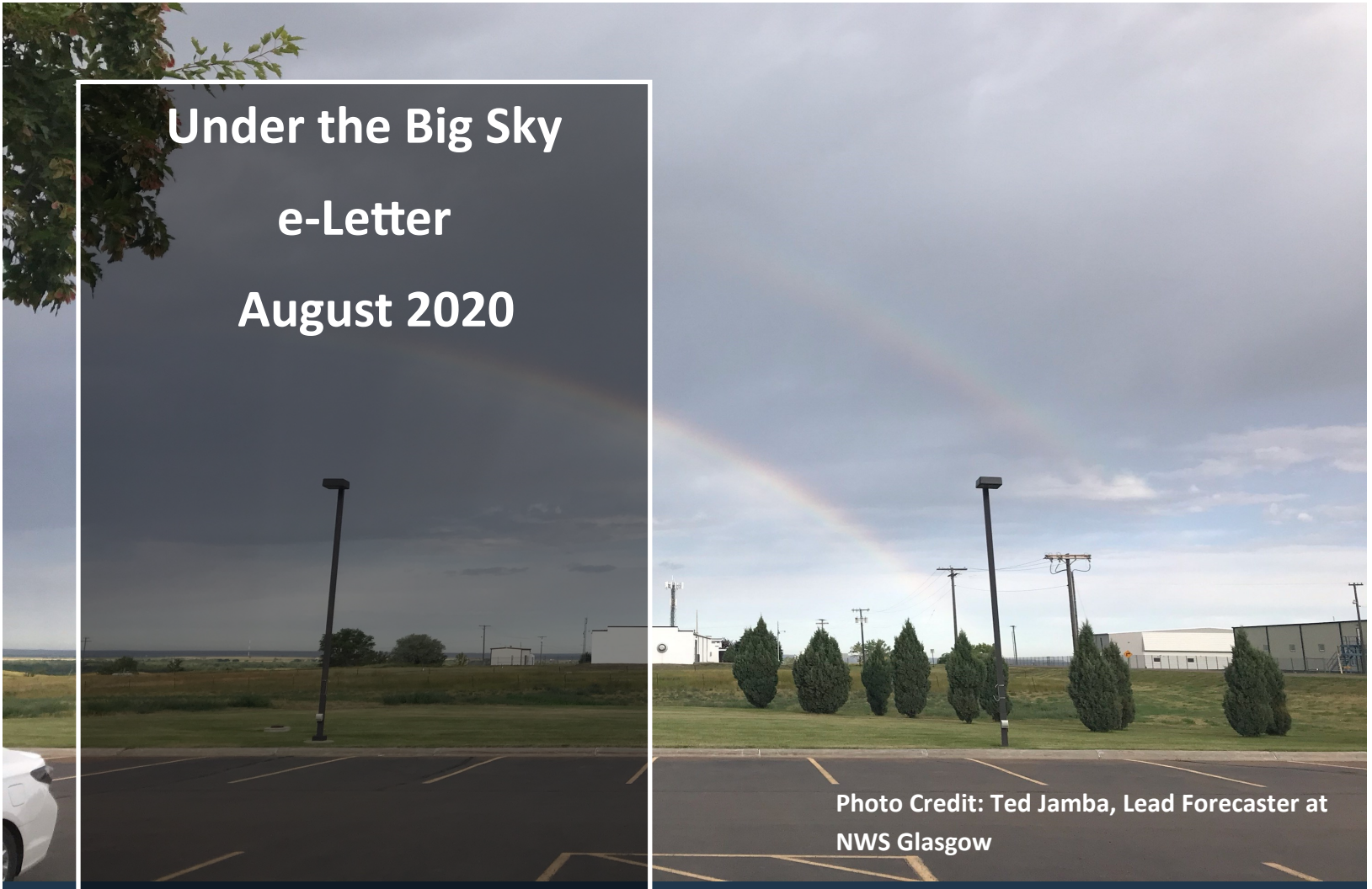

Photo Credit: Ted Jamba, Lead Forecaster at NWS Glasgow

National Weather Service Glasgow, MT

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

Each month we issue the latest Under the Big Sky newsletter in which we provide you with important weather, climate, and water information. Routinely included are the latest three month outlooks, the latest U.S. Drought Monitor, COOP precipitation reports, summaries of important weather events, trivia, and more. In addition, we also try to shed light on local office NWS Glasgow happenings from time to time , as well as keep you up to date on any staffing changes.

We hope that you find these regularly issued newsletters both fun and informative and we thank you for allowing us the opportunity to serve!

As always, we continue to welcome any feedback that you may have so feel free to share with us what you think!

A Peak Inside:

We Need New CoCoRaHS Observers:

NWS Glasgow continues to look for new CoCoRaHS volunteers. Here is how to join:

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?

30 Day Percent of Normal Precipitation (Montana)

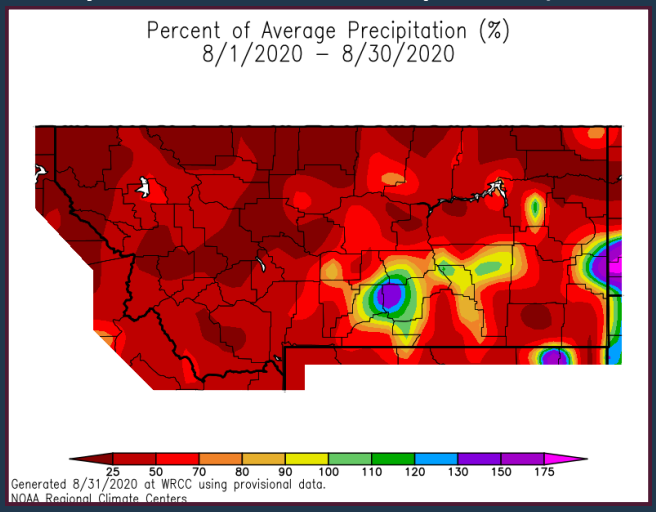

Figure 1: 30-day percent of normal precipitation across Montana.

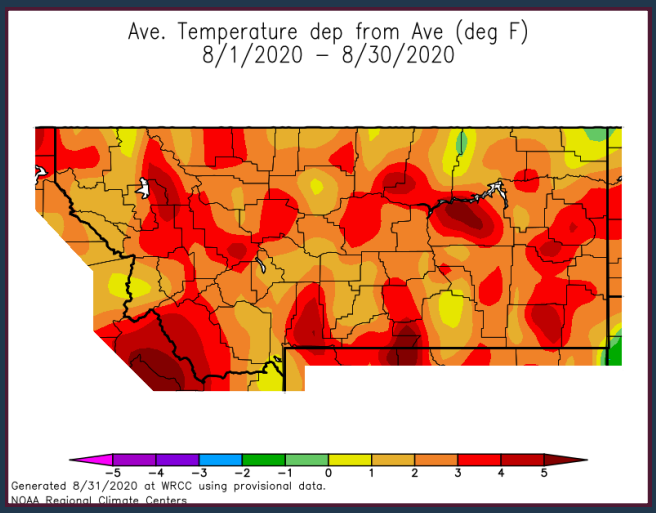

Figure 2: 30-day temperature anomalies across Montana.

Summary: With few exceptions, the 30 day graphic depicting percent of normal precipitation shows that much of Montana has been under the influence of a significant dry spell. In addition, temperatures have generally trended above average over the last 30 days. The combination of dry and warm conditions with gusty winds at times this late summer has led to an increase in wildfire incidents across the area. Please try to avoid outdoor activities that could cause a spark during dry and windy conditions.

Hydrologic Summary (August 2020) by Rex Morgan, HMT at NWS Glasgow:

It was generally an above normal month for temperatures over northeast Montana. A few exceptions include Saco 1 NNW, Plentywood, Westby, and Hinsdale 4SW. Temperatures averaged 1.6 degrees warmer than normal across the region. Glasgow averaged 73.3 degrees, which was 3.1 degrees above normal. Glasgow also had a low of 38 degrees and a high of 103 degrees.

Precipitation was highly variable across the region as most of it came in thunderstorms. Although, nearly all the stations experienced below normal precipitation. There was an average rainfall deficit of 0.95 inches across all of northeast Montana. There were at least 3 stations in northeast Montana that reported no precipitation. These include the Fort Peck Power Plant, Savage, and Hinsdale 4SW.

Glasgow had 0.29 inches of precipitation which was 23 percent of normal.

The stream flow on the Milk River near Harlem, Saco, and Nashua was below normal to much below normal. Some of that is due to the failure of the St. Mary Dam. However, below normal precipitation also contributed to the low flow issue.

The flow along the Missouri and Yellowstone Rivers was normal.

The flow along the Poplar River was low at the International Boundary but near normal near Poplar.

The Fort Peck Reservoir elevation fell to 2238.66 feet during the month.

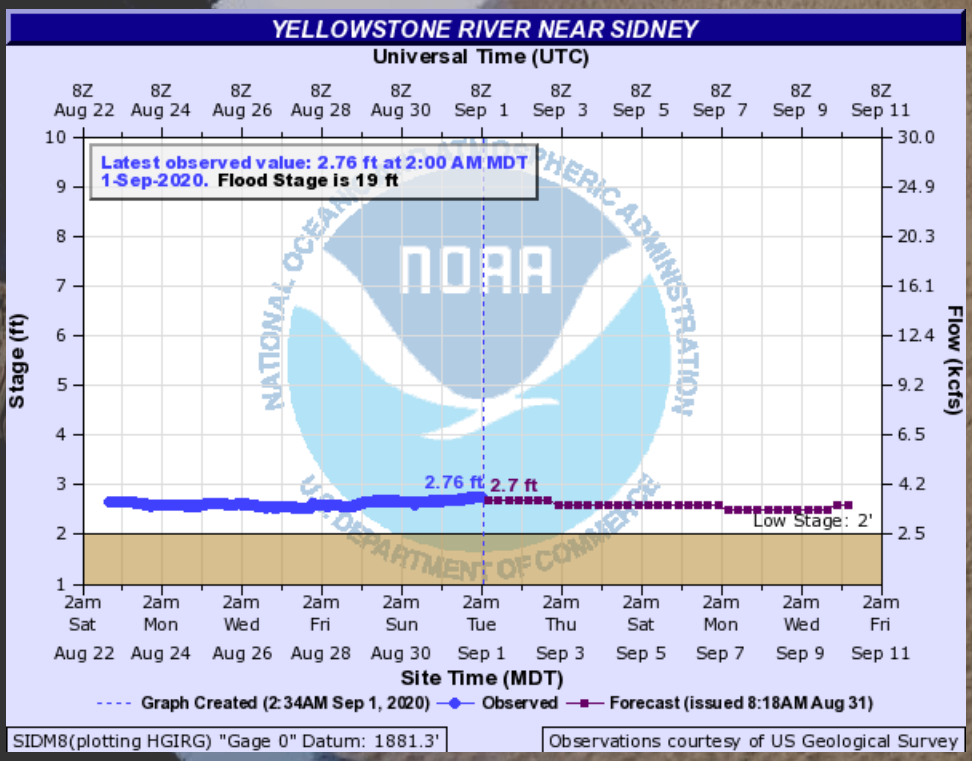

Figure 3: Due to recent dry conditions, the river level on the Yellowstone near Sidney has dropped below 3 feet. Due to these low flow conditions, the MBRFC (Missouri Basic River Forecast Center) has been issuing forecasts so that we can monitor important trends.

Background Photo Credit: Jason Geer

CPC Three Month Outlook:

The Climate Prediction Center released its three month outlook for temperature and precipitation for September 2020 through November 2020 on August 20, 2020. The outlook calls for above normal temperatures to persist over the three month period across the state. Meanwhile, above average precipitation is favored across Montana. Equal chances for above normal, normal, and below normal precipitation exist for southern parts of the state. 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.

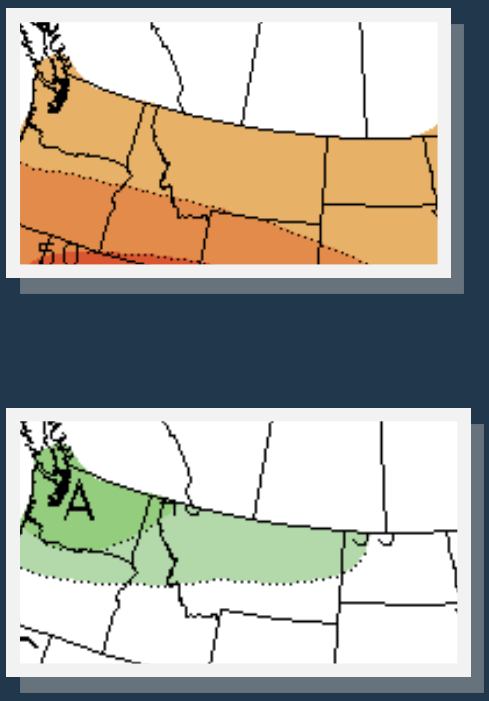

Figure 4: Climate Prediction Center three month temperature (top) and precipitation (bottom) outlook for September 2020 through November 2020.

U.S. Drought Monitor:

The latest U.S. Drought Monitor was released on Thursday August 25, 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 southern Montana. A small area of severe drought is now present across southeast Montana as well.

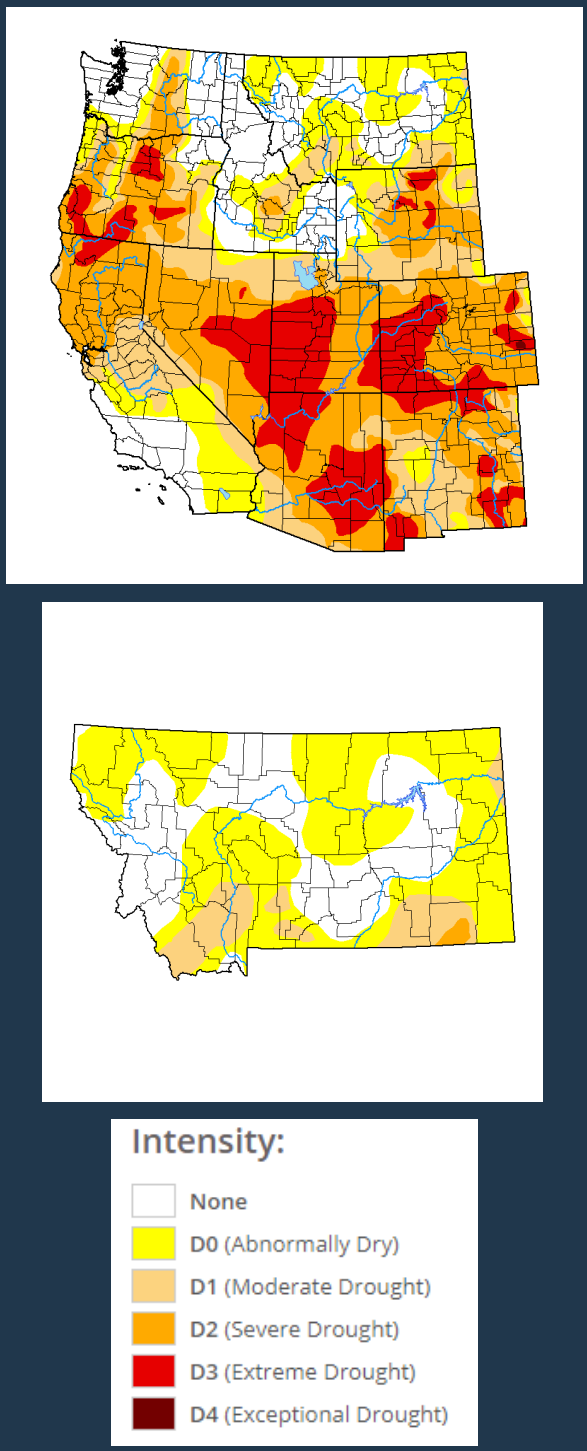

Figure 5: U.S. Drought Monitor updated July 16, 2020.

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

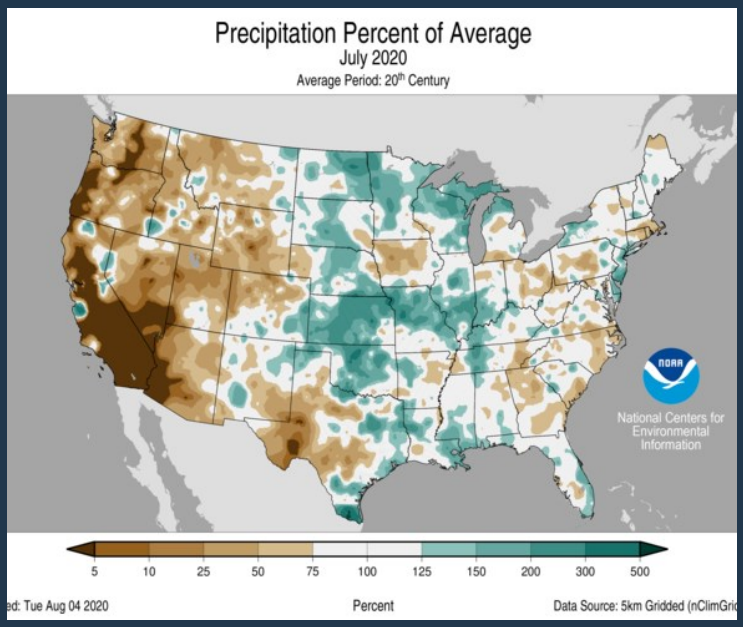

Figure 6: July 2020 Percent of Average Precipitation (U.S.).

U.S. Highlights for July 2020

1) The contiguous U.S. average temperature for July 2020 was 75.7 °F, the 11th warmest on record.
2) The average July precipitation total for the contiguous U.S. came in at 2.93 inches. This ranks within the wettest third of the existing period of record.

Global Highlights for July 2020

1) The July 2020 global land and ocean surface temperature tied with 2016 as the second highest in the 141 year period of record.
2) The July 2020 global ocean only surface temperature was 1.44 °F. This was the third highest for July as well within the 141 year period of record.

Local Weather Highlight: Fall Comes Early

Low Temperatures in NE Montana (8/31/2020)

Whitewater (school)	33	1 E Saco	35
Thoeny 1WSW/Bluff Creek	35	4.4 E Bredette	35
4.6 E Malta (AGRIMET)	35	1.9 E Saco (MT DOT)	35
4.1 N Poplar	35	6 ESE Reserve	36
Scobey	36	1.7 E Circle (GTFWFO)	36
Malta	36	Wolf Point Airport	36
0.7 NE Culbertson (GTFWFO)	36	Scobey N Mda	36
13.1 NW Four Buttes	36	0.8 NW Saco	36
3 S Dooley	37	2.7 W Antelope	37
Frazer	37	Sand Springs	37
Jordan	37	1.5 E Wibaux	37
0.9 S Malta (GGWWFO)	38	Glendive Airport	38
Glasgow Airport (ASOS)	38	Medicine Lake 1ESE	38
Plentywood	38	5 S Froid	39
2.2 NE Poplar (GTFWFO)	39	2.0 E Plentywood (GTFWFO)	39

Figure 7: Table showing preliminary low temperatures across NE Montana on 8/31/2020. It sure feels like fall is coming as we finish out the month of August!

Links You May Like:

ENSO Update

Ocean Heatwaves

California Wildfires

Lightning: Facts & Fiction

Snow Droughts

2020 Atlantic Hurricane Season Updated Outlook

COOP Precipitation Data (*Preliminary* July 2020)

Station	Precipitation	Location
BAYM8	M	Baylor
BRDM8	2.95	Bredette
BTNM8	M	Brockton 17 N
BKNM8	4.09	Brockton 20 S
BKYM8	2.04	Brockway 3 WSW
BRSM8	M	Brusette
CLLM8	1.74	Carlyle 13 NW
CIRM8	3.00	Circle
CHNM8	1.18	Cohagen
COM8	0.98	Cohagen 22 SE
CNTM8	1.83	Content 3 SSE
CULM8	2.81	Culbertson
DSNM8	0.65	Dodson 11 N
FLTM8	0.13	Flatwillow 4 ENE
FPKM8	3.05	Fort Peck PP
GLAM8	1.24	Glasgow 14 NW
GGWM8	1.92	Glasgow WFO
GGSM8	1.89	Glasgow 46 SW
GNDM8	2.09	Glendive WTP
HRBM8	M	Harb
HINM8	1.35	Hinsdale 4 SW
HNSM8	1.10	Hinsdale 21 SW
HOMM8	3.03	Homestead 5 SE
HOYM8	1.18	Hoyt
JORM8	M	Jordan
LNDM8	1.08	Lindsay
MLAM8	1.07	Malta
MLTM8	0.97	Malta 7 E
MTAM8	1.22	Malta 35 S

Station	Precipitation	Location
MDCM8	3.10	Medicine Lake 3 SE
MLDM8	M	Mildred 5 N
MSBM8	0.45	Mosby 4 ENE
OPNM8	M	Opheim 10 N
OPMM8	1.92	Opheim 12 SSE
PTYM8	4.23	Plentywood
PTWM8	4.16	Plentywood 1 NE
POGM8	1.89	Port of Morgan
RAYM8	M	Raymond Border Station
SAOM8	1.30	Saco 1 NNW
SMIM8	1.42	St. Marie
SAVM8	2.70	Savage
SCOM8	4.61	Scobey 4 NW
SDYM8	1.96	Sidney
SIDM8	2.81	Sidney 2S
TERM8	0.93	Terry
TYNM8	M	Terry 21 NNW
VIDM8	M	Vida 6 NE
WSBM8	3.27	Westby
WTRM8	2.46	Whitewater
WHIM8	M	Whitewater 18 NE
WBXM8	2.86	Wibaux 2 E
WTTM8	M	Winnett
WNEM8	0.88	Winnett 6 NNE
WNTM8	0.64	Winnett 8 ESE
WITM8	M	Winnett 12 SW
WLFM8	2.34	Wolf Point
ZRTM8	2.20	Zortman

Monthly Trivia:

Last time we asked…

As thunderstorm season ages in the late summer, fire weather concerns begin to ramp up, especially as area fuels dry, and warm and breezy environments become present. Dry thunderstorms also contribute to the risk for new fire starts. This month we ask: What exactly is a dry thunderstorm?

Answer: A wetting rain, or precipitation that measures one tenth of an inch or greater, has important fire weather considerations. When fuels are dried out in the late summer months, the combination of low relative humidity and strong wind raises the risk of new wildfire starts. Late summertime convection that has little or no precipitation (i.e., less than a wetting rain), can produce dry lightning and lead to new fire starts. Strong winds can then lead to rapid spread and erratic wildfire behavior.

New Question: What is an Incident Meteorologist (IMET)?

Figure 8 (image left): MODIS satellite imagery from August 23, 2020 showing wildfire "hot spot" north of the long arm of Fort Peck Lake in southern Valley County.

Background Photo (Smokey Sunset) Credit: Tanja Fransen, Meteorologist In Charge at NWS Glasgow

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