The Month in Review: May 2021

National Weather Service
Charleston, WV

Photo courtesy of the National Weather Service Charleston, WV

May 2021 Climate Summary

May was characterized by below normal temperatures across the region, with departures generally ranging from 2-4 degrees below normal. Precipitation totals varied, with well below normal precipitation (approximately 25-75% of normal) seen in general across the area, with the one major exception being across a small portion of Northern West Virginia where more rain fell throughout May, allowing for some locations to be slightly above normal for the month. The month was also characterized by an abnormal lack of severe weather, with not one severe thunderstorm or tornado warning being issued throughout the entirety of the month. As is typical, May did not feature any snow for most areas, but some higher mountain elevations did see some light snowfall early in the morning on May 8th. The seasonal snowfall for 2020-2021 ended with a good portion of the area being below normal.

May began rather pleasant and quite across the area, but this would not last long. Back-to-back systems would start affecting the region beginning late on May 2nd, continuing through May 5th. While there was luckily no severe thunderstorms associated with these systems, several rounds of rainfall, heavy at times in spots, did lead to some isolated flooding and flash flooding.

Following the passage of these systems, the region would experience much cooler temperatures (well below normal at times) for an extended period through mid-month, with frost/freeze conditions on several mornings for parts of the area, and even a bit of light snow during the early morning hours of May 8th across portions of the higher elevations in the mountains. This period would also feature bouts of showers from time to time as disturbances moved through the region, with the most noteworthy occurring on May 9-10th as low pressure moved north of the area resulting in showers and gusty winds of over 50 mph in spots. This did cause some tree damage in parts of the area. While our region was on the warm side of the system, some accumulating snow did occur on the north side of the system across portions of the southern Great Lakes region.

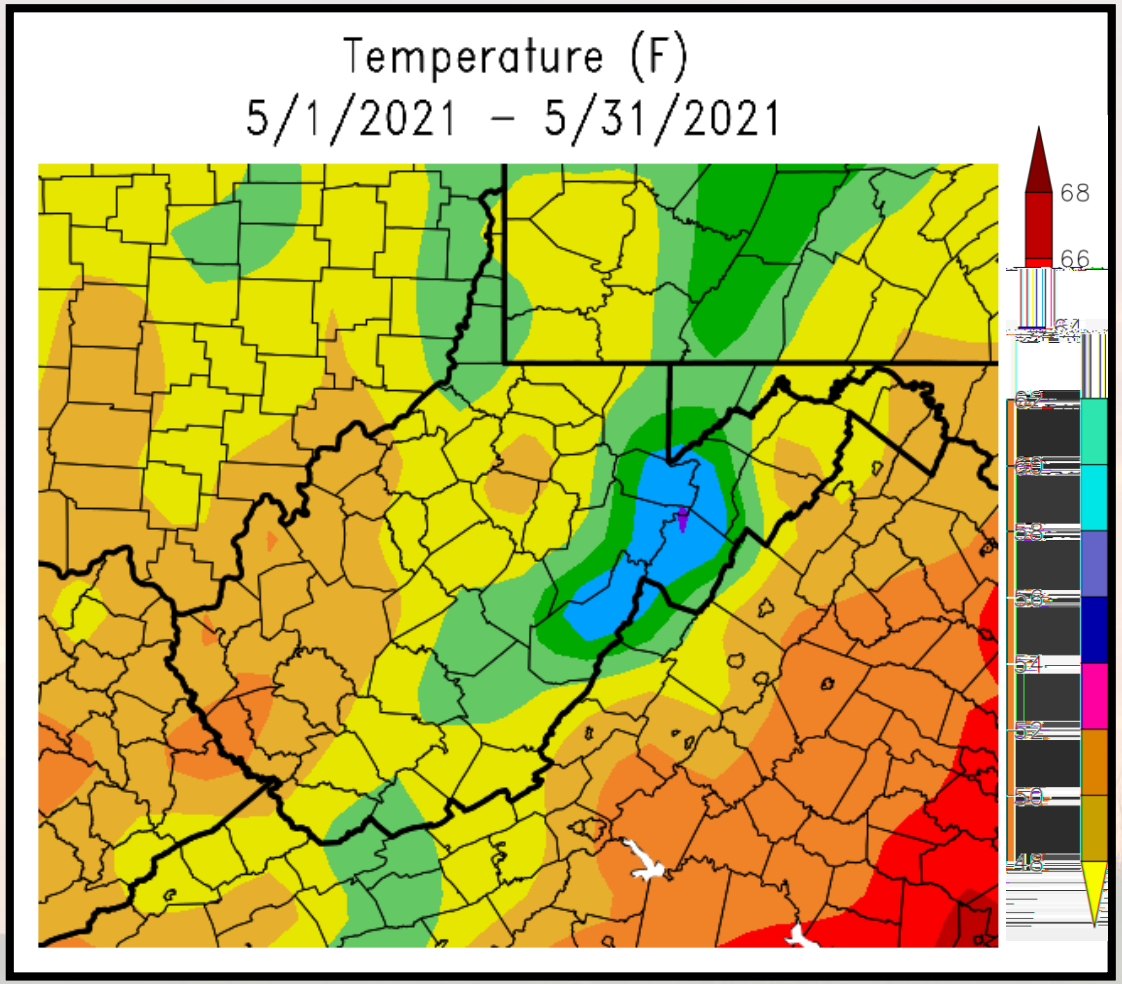
May 2021 Climate Summary (Continued)

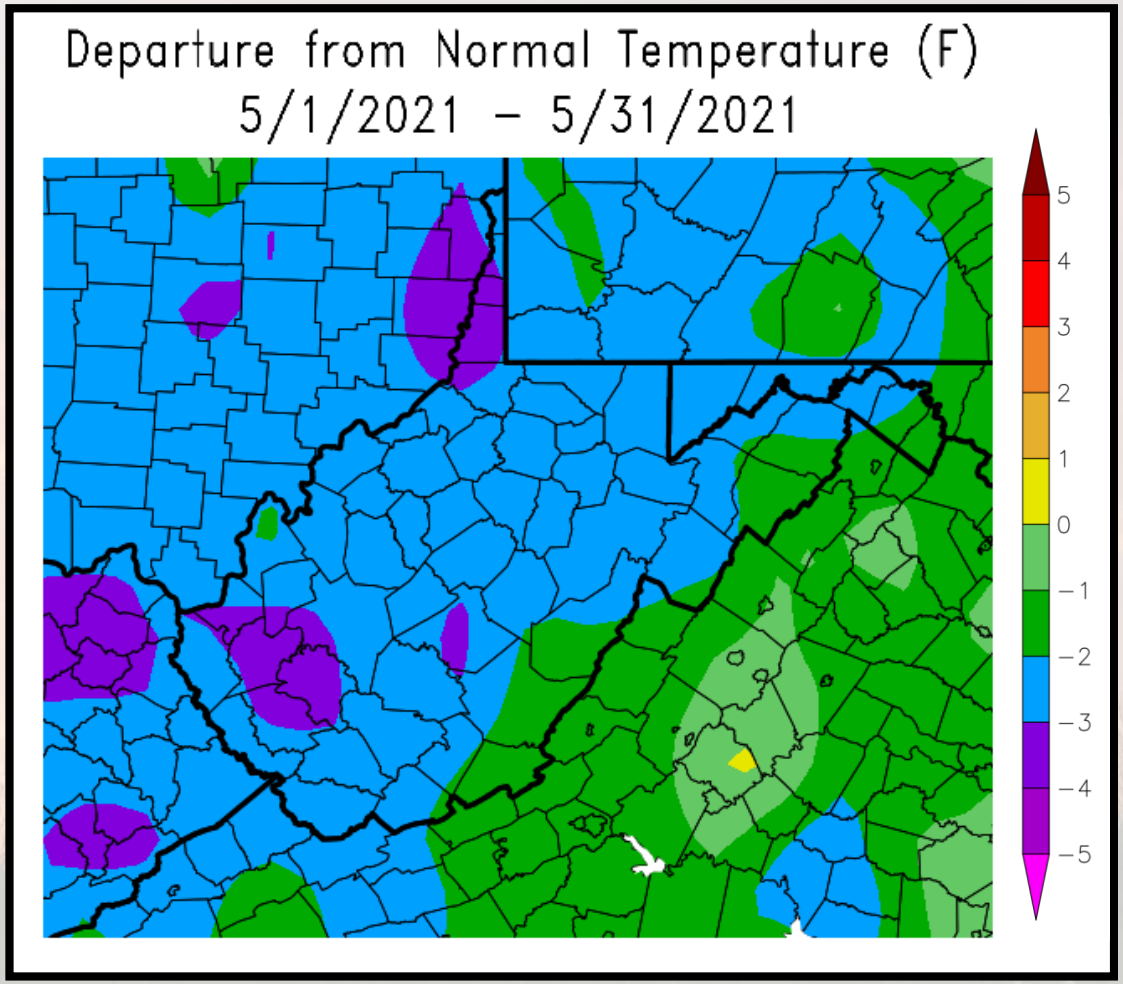
The region would see a transition back to much warmer weather starting May 18th until Memorial Day weekend, with temperatures rebounding to above normal values throughout this period. This period by and large featured dry and tranquil weather. There were some scattered showers and isolated storms that produced locally heavy rainfall, but most of this activity was on the light side, with no severe weather or flooding reported. Wind gusts of 30-40 mph did occur across the area on May 26th in advance of a cold front.

Widespread unsettled weather in the form of showers and scattered storms would return to the region on the morning of May 28th courtesy of approaching low pressure. While no severe weather occurred, heavy rainfall did across parts of the area. For example, 2.79” was reported 5 miles southwest of Hamlin, WV. In addition, both Clarksburg and Elkins broke their daily maximum rainfall records for May 28th. A cold front associated with this system would move through during the morning hours of May 29th, providing for an extremely chilly and damp start to the Memorial Day weekend, with pleasant weather returning for Memorial Day.

Event summaries for noteworthy events will be provided, along with temperature/precipitation departures for May. A record events list for the month of May, as well as temperature/precipitation outlooks are also included. In addition, temperature/precipitation statistics for meteorological spring will also be included in this edition.

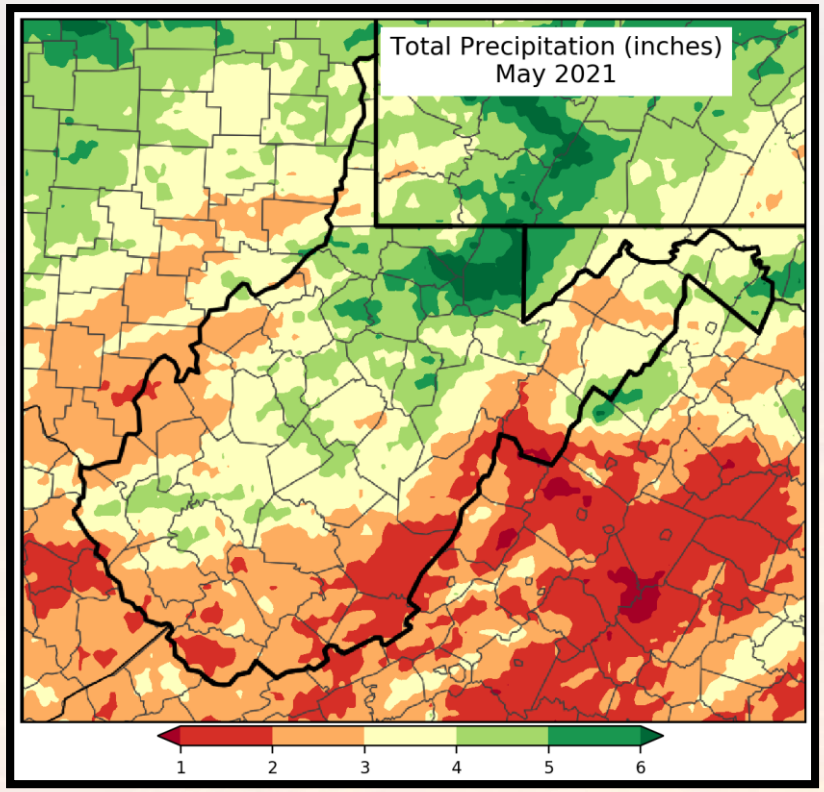
May 2021 Average Temperature/Departure

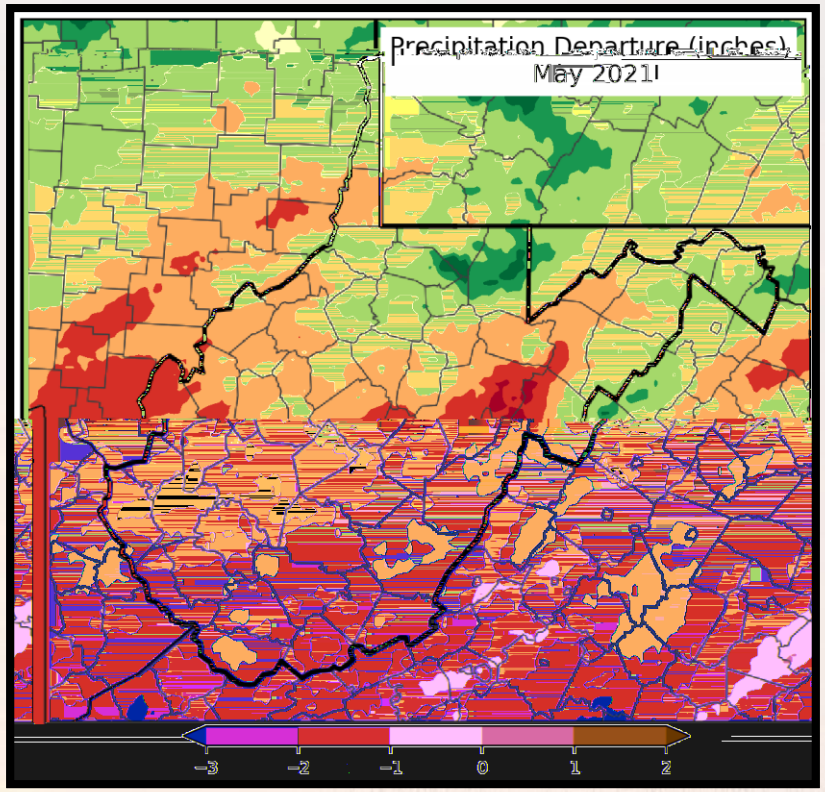


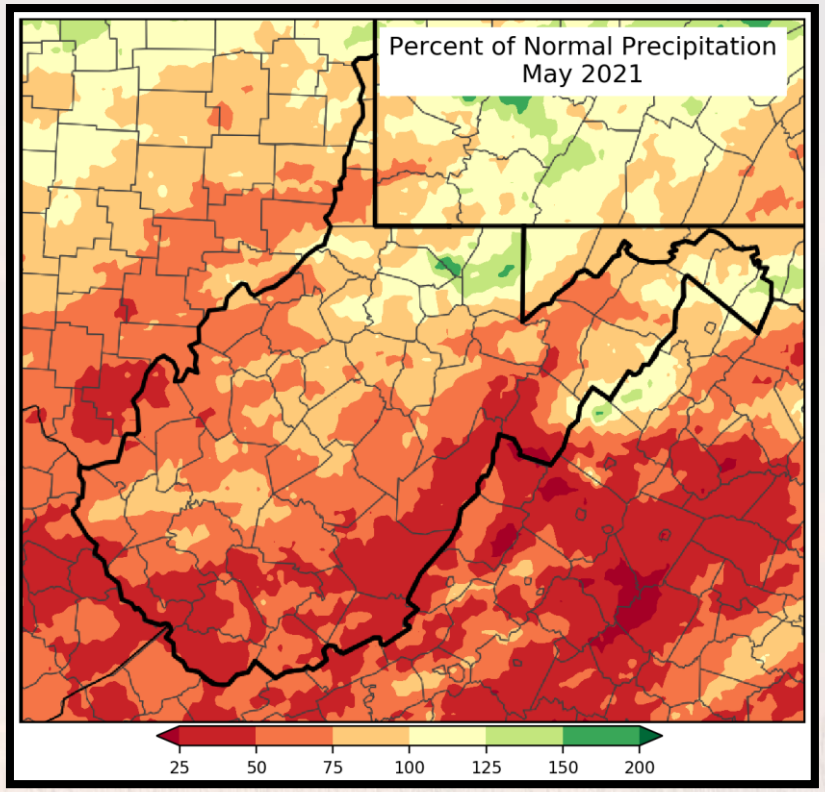


Temperatures were below normal areawide, generally ranging from 2-4 degrees below normal (depending on location) for most of the region.

May 2021 Precipitation/Departure/Percent of Normal





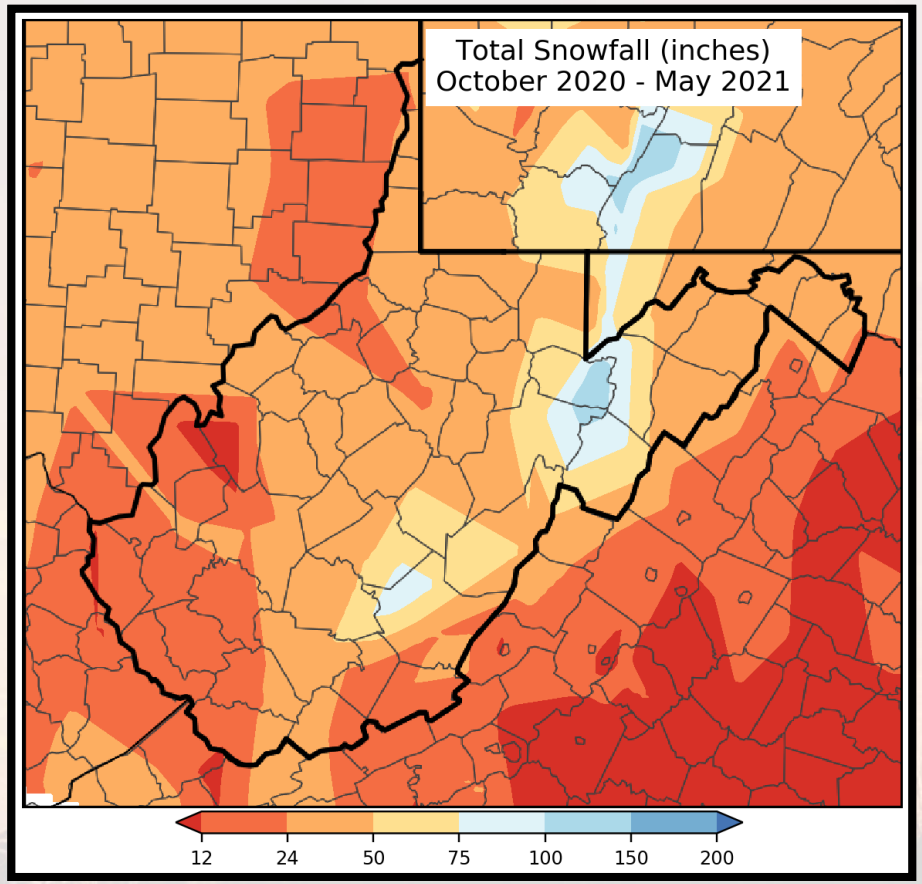


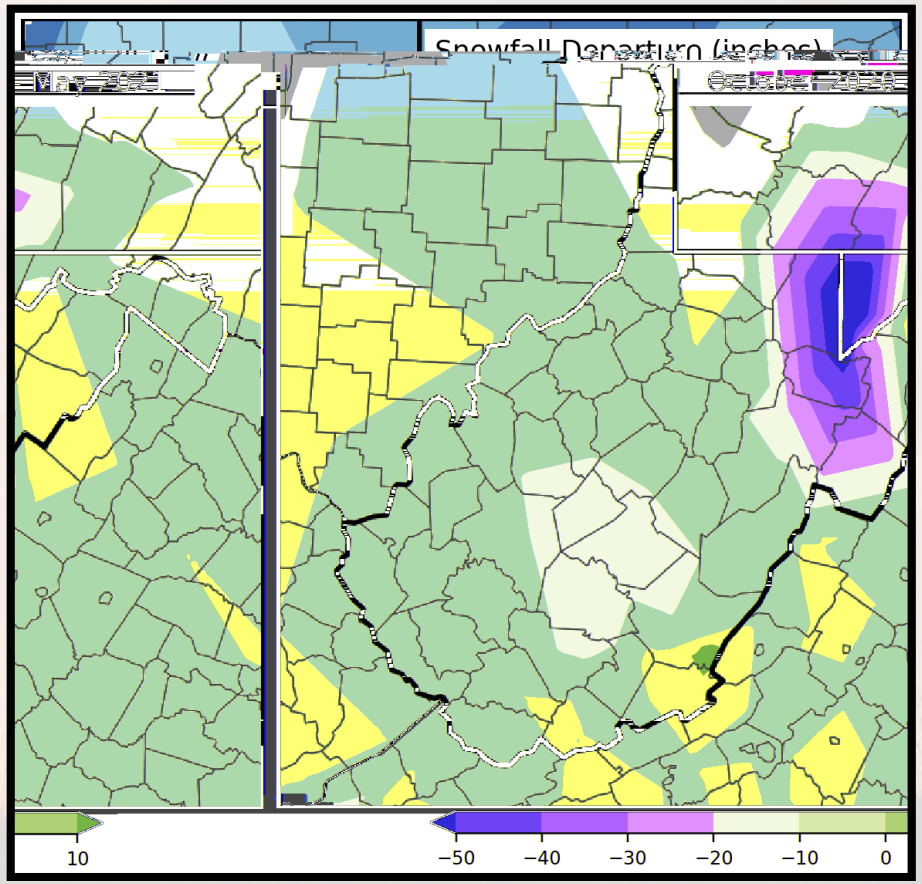
May featured a significant spread in precipitation totals, with portions of Central and Northern WV, along with portions of Southeast OH receiving more compared to the rest of the region. In fact, some locations in Southern WV had just over 1” for the month, while portions of northern WV received in excess of 5”, over five times as much! This precipitation spread resulted in a few areas across Northern WV being slightly above normal for May, while most of the rest of the region was well below normal for the month, with a large portion of the area receiving only 25-75% of normal precipitation.

May 2021 Snowfall/Departure

As is normal, May was quiet in terms of snowfall, with most of the region not receiving any. As a result, the total snowfall and snowfall departure maps for May are not included. While no measurable snowfall reports could be found, some light snow did fall early in the morning on May 8th in the higher elevations of the mountains. While this may seem rather late in the season, Snowshoe does average 0.8” of snow for the month of May! Snowfall maps will begin again in the middle of fall for the 2021-2022 season!

2020-2021 Seasonal Snowfall/Seasonal Departure

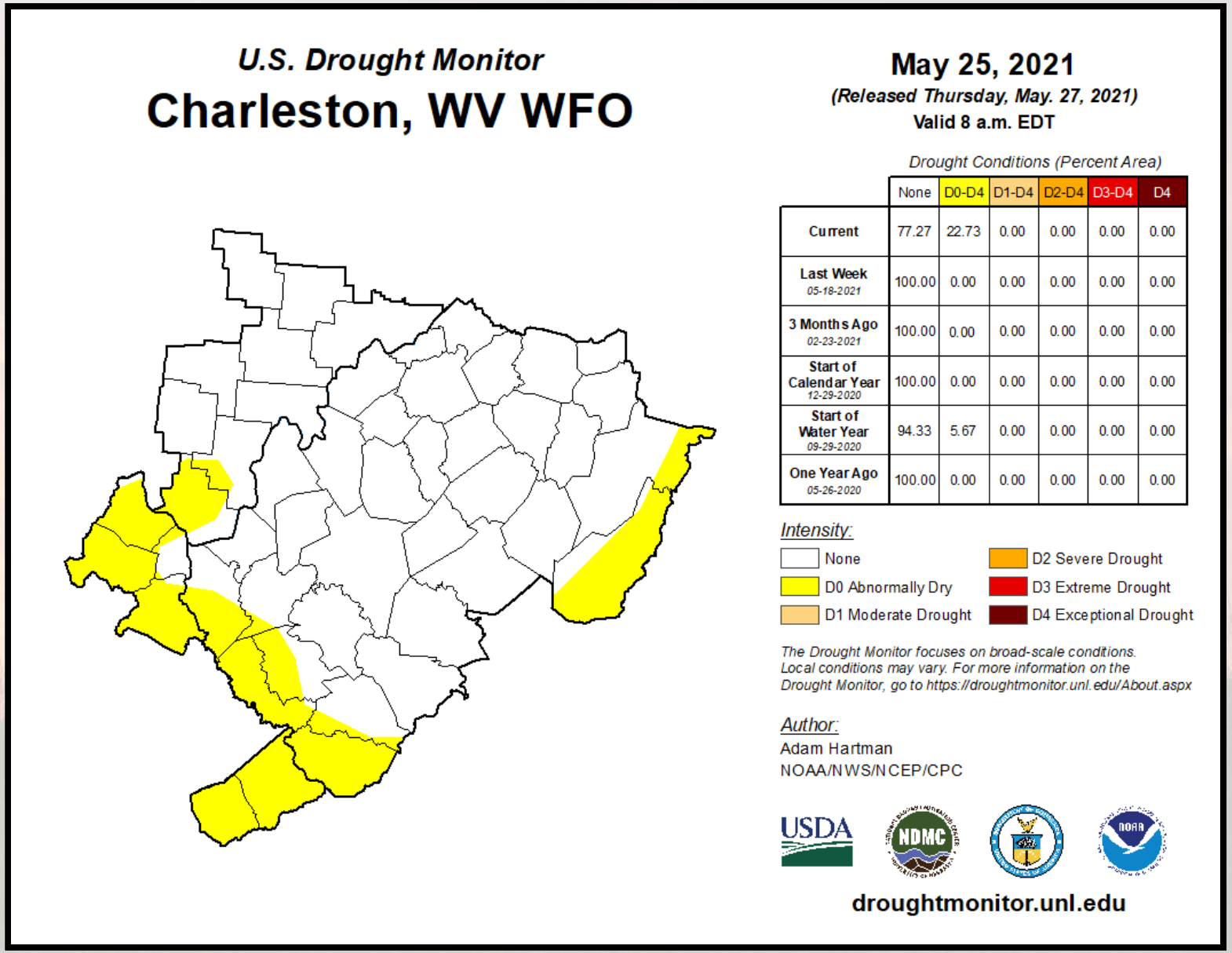




Seasonal snowfall this winter varied significantly across the area (as is usual) based on location/elevation. The general theme however was that of a below normal winter in terms of snowfall, with the largest departures being in portions of the mountains. The one main exception to this was across portions of Northeast KY and Southeast OH, where slightly above normal snowfall occurred in spots. Snowfall maps will begin again in the middle of fall for the 2021-2022 season!

May 2021 Drought Monitor

Precipitation departures to varying degrees across the region in May lead to increasingly dry conditions as the month progressed. This resulted in a D0 (abnormally dry) area being present near the end of May across portions of Northeast KY, Southern OH, Southwest VA, and Eastern/Southwest WV. It encompassed approximately 22.7% of the area and would expand in size through the beginning of June.



May 2021 Temperature Statistics for Selected Cities

	Avg Maximum Temperature	Avg Maximum Temperature Departure	Avg Minimum Temperature	Avg Minimum Temperature Departure	Average Temperature	Average Temperature Departure
Beckley	69.7	-1.8	48.2	-2.9	59.0	-2.3
Charleston	74.0	-2.2	49.4	-3.8	61.7	-3.0
Clarksburg	72.2	-3.5	48.0	-4.0	60.1	-3.8
Elkins	70.8	-2.6	44.0	-3.0	57.4	-2.8
Huntington	73.4	-2.8	51.2	-3.0	62.3	-2.9
Parkersburg	73.1	-1.8	48.0	-3.6	60.6	-2.7

Abbreviations: Avg, Average
Notes: Temperatures/Departures are in degrees Fahrenheit

May 2021 Precipitation Statistics for Selected Cities

	Precipitation	Precipitation Departure	Precipitation Year to Date	Precipitation Year to Date Departure
Beckley	2.12	-2.56	17.61	-0.93
Charleston	3.00	-1.93	16.25	-3.01
Clarksburg	4.43	0.18	13.88	-4.32
Elkins	3.21	-1.93	15.13	-4.71
Huntington	3.00	-1.51	18.17	-0.88
Parkersburg	3.82	-0.35	15.88	-1.96

Notes: All units are in inches. Precipitation Year to Date corresponds to precipitation since January 1st.

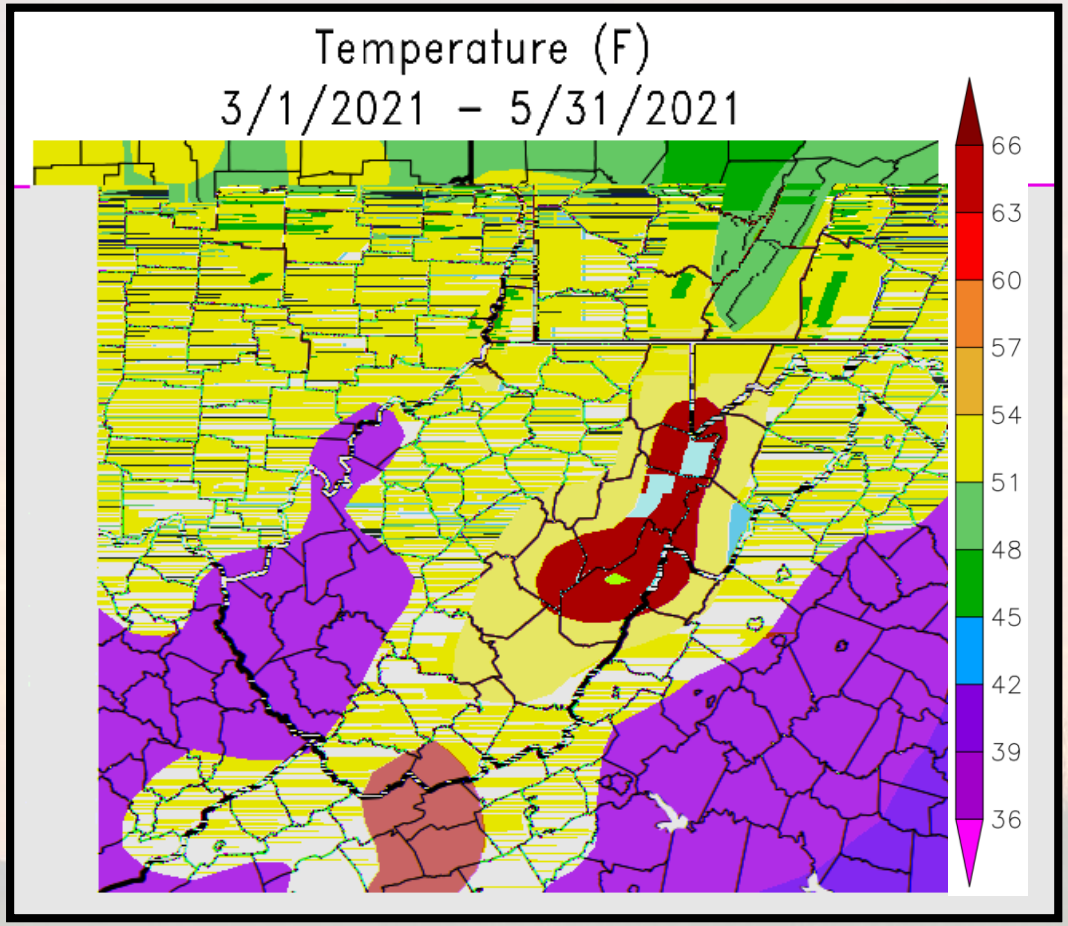
May 2021 Snowfall Statistics for Selected Cities

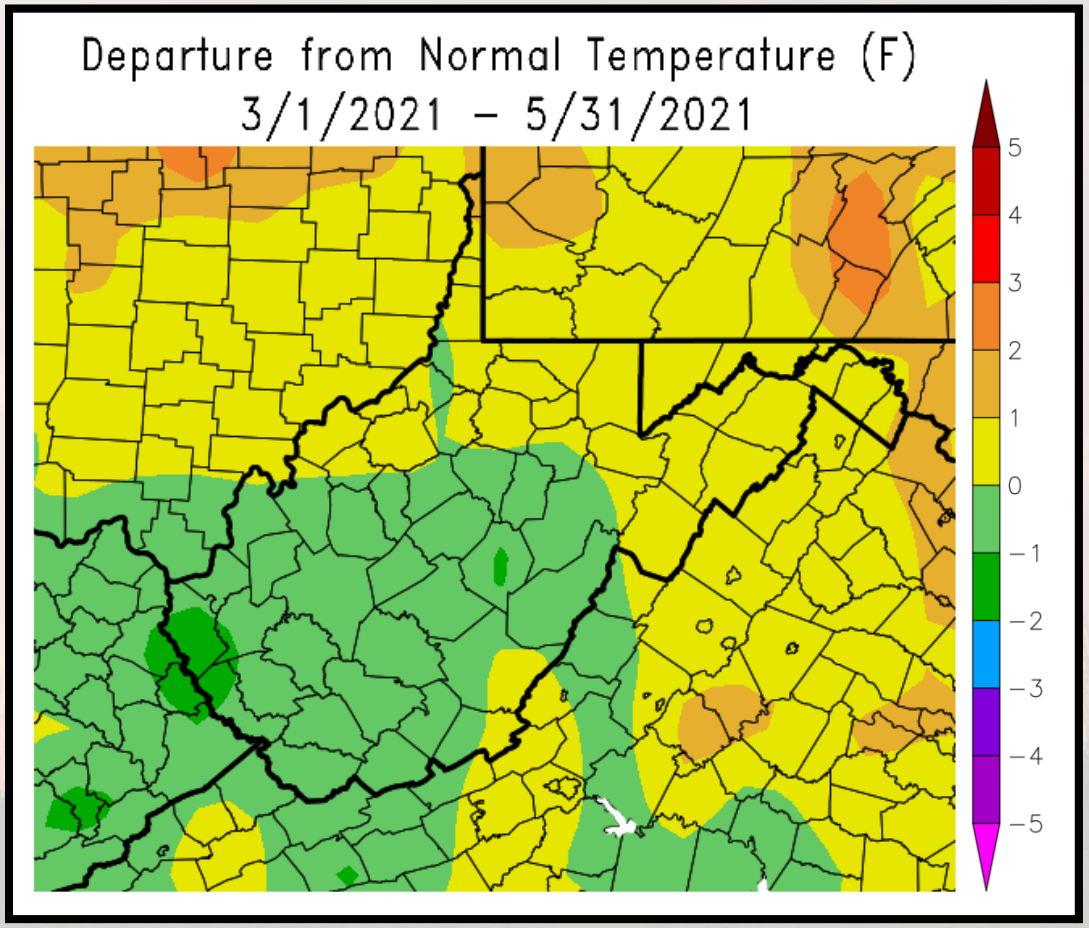
	Snowfall	Snowfall Departure	Seasonal Snowfall	Seasonal Snowfall Dep
Beckley	0.0	0.0	44.4	-11.5
Charleston	0.0	0.0	23.5	-8.0
Clarksburg	M	M	M	M
Elkins	0.0	0.0	55.2	-13.7
Huntington	0.0	0.0	11.4	-8.4
Parkersburg	M	M	M	M

Abbreviations: Dep, Departure; M, Missing

Notes: All units are in inches. Seasonal snowfall and the corresponding seasonal snowfall departures include all snowfall tallied from the first snow in the fall, through the end of May. This also reflects the final values for the 2020-2021 seasonal snowfall statistics. Charts for snowfall will not be posted throughout the summer and will begin again in the middle of fall for the 2021-2022 season.

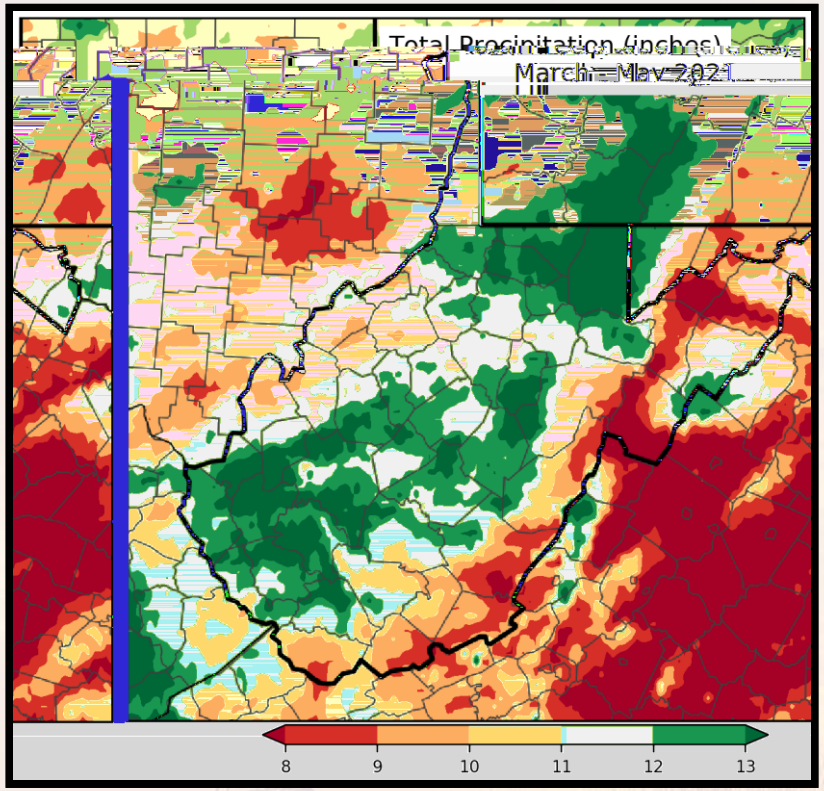
Seasonal Average Temperature/Departure
Spring: From 3-1-2021 to 5-31-2021

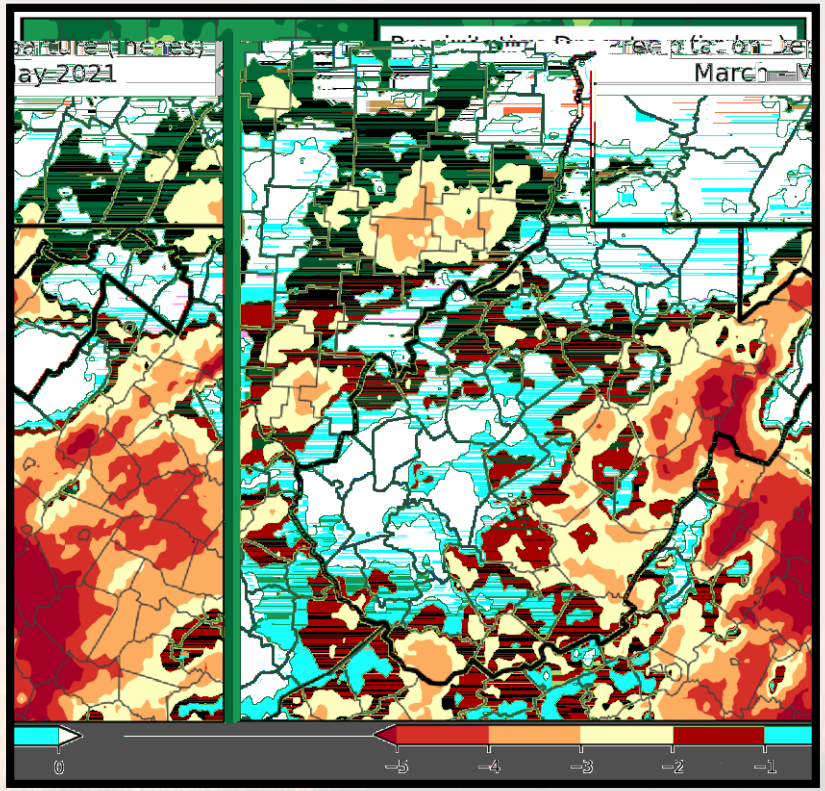


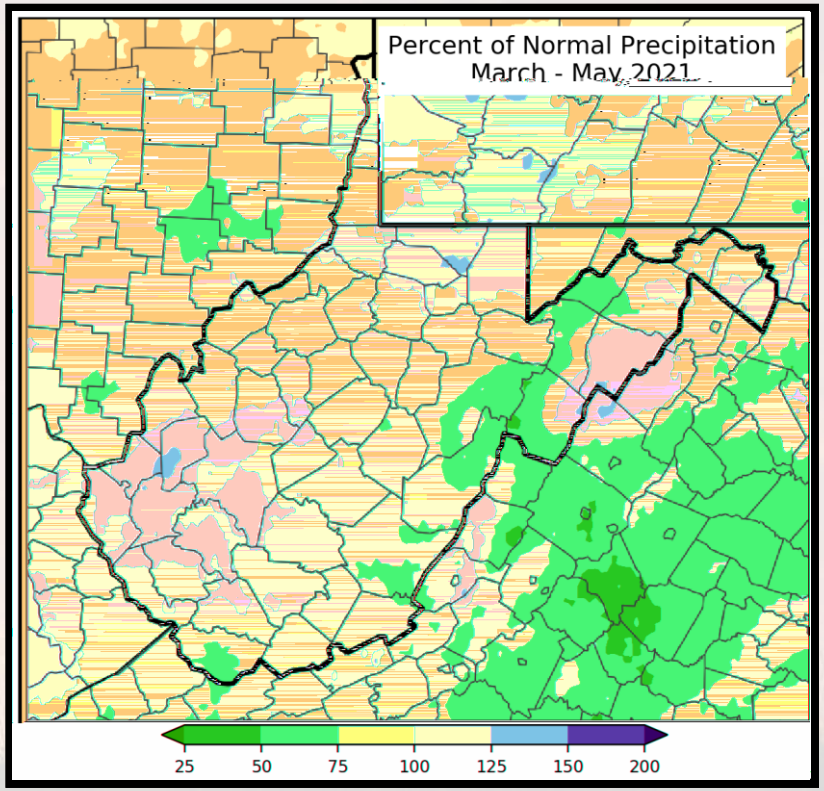


Seasonal temperatures for meteorological spring ended either slightly below or slightly above normal for much of the region, generally +/- 1 degree (F) from normal, with the slightly above normal temperatures being found across the northern portions of the region.

Seasonal Precipitation/Departure/Percent of Normal
Spring: From 3-1-2021 to 5-31-2021







Seasonal precipitation for meteorological spring varied significantly across the region, with areas of Central/Northern WV receiving significantly more rainfall than portions of Southeast OH and Southern/Eastern WV. Overall however, precipitation departures to varying degrees were common across a majority of the area, with the exception being across parts of West Central WV, where a slight surplus occurred for the period. The greatest departures occurred across portions of Pocohontas and Randolph counties. For example, Snowshoe ended the period 6.46” below normal!

Seasonal Temperature Statistics for Selected Cities
Spring: From 3-1-2021 to 5-31-2021

	Avg Maximum Temperature	Avg Maximum Temperature Departure	Avg Minimum Temperature	Avg Minimum Temperature Departure	Average Temperature	Average Temperature Departure
Beckley	63.5	0.7	41.2	-1.0	52.3	-0.2
Charleston	67.9	0.4	42.4	-1.9	55.2	-0.7
Clarksburg	65.6	-0.4	40.7	-2.2	53.1	-1.3
Elkins	64.5	0.3	36.0	-1.6	50.2	-0.7
Huntington	67.5	0.2	44.0	-1.3	55.8	-0.5
Parkersburg	67.2	1.9	40.9	-1.4	54.1	0.3

Abbreviations: Avg, Average

Notes: Temperatures/Departures are in degrees Fahrenheit

Seasonal Precipitation Statistics for Selected Cities
Spring: From 3-1-2021 to 5-31-2021

	Precipitation	Precipitation Departure	Snowfall	Snowfall Departure
Beckley	9.01	-3.28	0.8	-9.6
Charleston	8.87	-3.76	T	-6.4
Clarksburg	9.47	-2.29	M	M
Elkins	8.21	-5.01	1.2	-12.5
Huntington	10.50	-2.08	T	-4.6
Parkersburg	10.03	-1.43	M	M

Abbreviations: M, Missing; T, Trace
Notes: All units are in inches.

Record Events for May

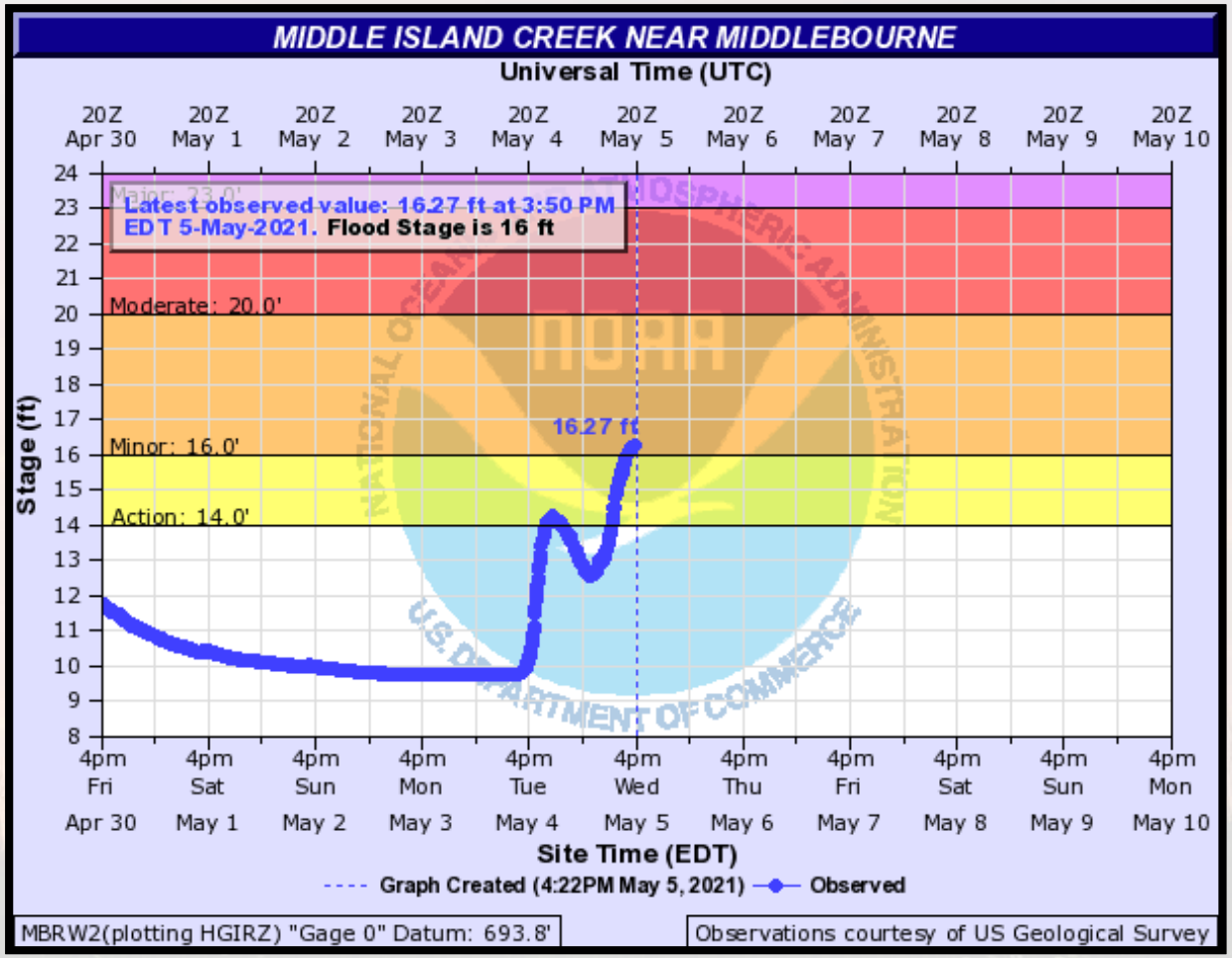
- May 1st: Record low temperature set at Parkersburg, WV. A record low temperature of 32 degrees was set at Parkersburg, breaking the old record of 34 degrees set in 1939.
- May 15th: Record low temperature set at Parkersburg, WV. A record low temperature of 36 degrees was set at Parkersburg, breaking the old record of 37 degrees set in 2016.
- May 28th: Record daily maximum rainfall set at Clarksburg, WV. A record rainfall of 1.98” was set at Clarksburg, breaking the old record of 1.12” set in 1956.
- May 28th: Record daily maximum rainfall set at Elkins, WV. A record rainfall of 1.02” was set at Elkins, breaking the old record of 0.99” set in 2004.

May Noteworthy Events

- May 2nd - 5th Heavy Rainfall and Isolated Flooding
- May 9-10th Rainfall and High Winds
- May 28-29th Heavy Rainfall and Unseasonably Chilly Temperatures

May 2nd - 5th Heavy Rainfall and Isolated Flooding

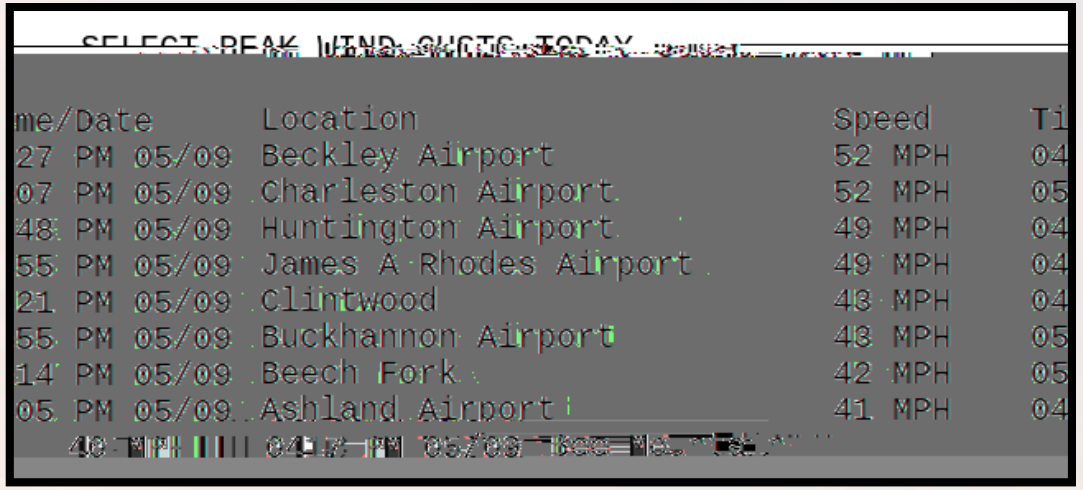
Back-to-back systems would start affecting the region beginning late on May 2nd, continuing through May 5th. The main issue associated with these systems was several rounds of rainfall that were heavy at times, leading to some isolated flooding and flash flooding occurring. For the 4-day period, rainfall totals of 1-2” were widespread across Northern WV and Southeast OH, with isolated higher amounts. 3.57” was reported 8 miles northeast of West Union, WV in Doddridge County, with 2.96” of that locations total falling between the mornings of May 4-5th. Flash flooding was reported on May 4th in the towns of Greenwood, Pennsboro, and Toll Gate in northern WV. In Toll Gate, numerous homes, campers, and vehicles were under water, while in Greenwood a horse trailer was swept into the Dotson Run. In addition, minor flooding occurred along Middle Island Creek near Middlebourne on May 5th.



Hydrograph for Middle Island Creek near Middlebourne displaying the rise into minor flood stage on May 5th. It would crest near 16.5 feet on the evening of May 5th.

May 9-10th Rainfall and High Winds

A rather vigorous low pressure for early May would approach the region from the west on May 9th. Showers would begin across portions of the area during the early morning hours with generally light amounts falling. Low pressure would slide just to the northwest of the region as the day would progress, resulting in a warm front moving northward across much of the area. This would bring in quite mild and dry conditions for portions of the area, with Charleston getting up to 77 degrees.



me/Date	Location	Speed	Ti
27 PM 05/09	Beckley Airport	52 MPH	04
07 PM 05/09	Charleston Airport	52 MPH	05
48 PM 05/09	Huntington Airport	49 MPH	04
55 PM 05/09	James A Rhodes Airport	49 MPH	04
21 PM 05/09	Clintwood	48 MPH	04
55 PM 05/09	Buckhannon Airport	48 MPH	05
14 PM 05/09	Beech Fork	42 MPH	05
05 PM 05/09	Ashland Airport	41 MPH	04

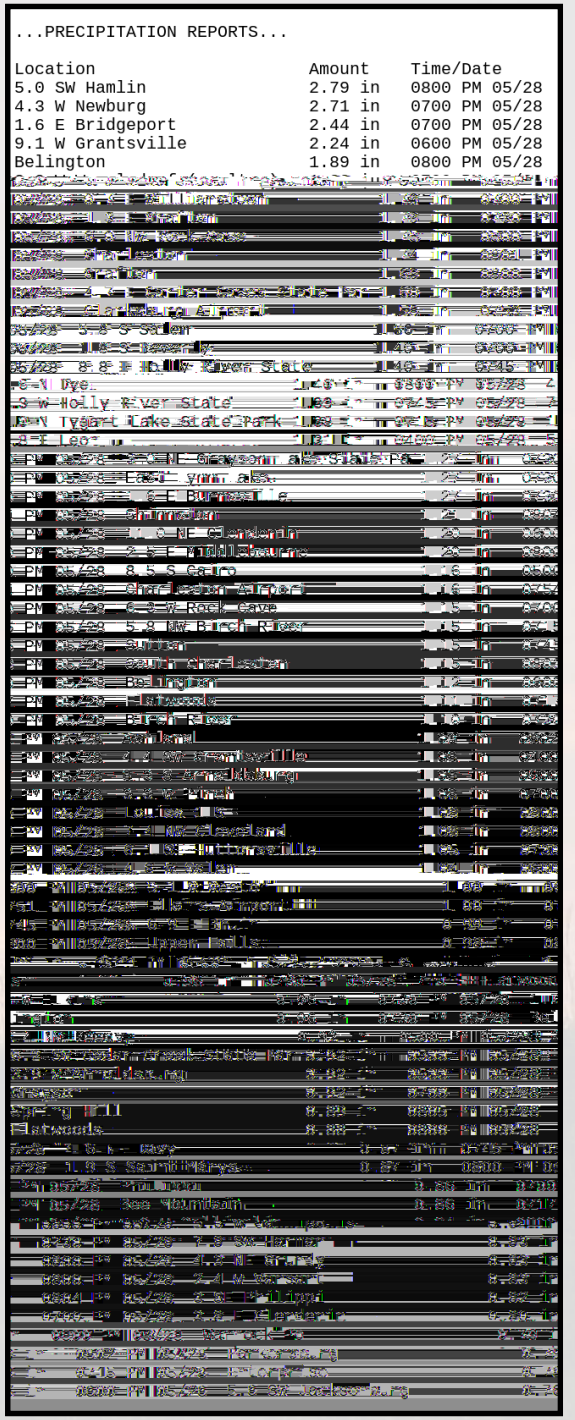
A cold front would then move through later that evening through the overnight, bringing along with it more showers and cooler temperature to the area before exiting eastward. Rainfall amounts were generally under a half an inch for much of the area, with the greatest impacts from the system coming in the form of breezy conditions and high wind gusts on May 9th. Gusts of 40-50 mph were recorded at several locations, with up to 52 mph recorded at both the Beckley and Charleston Airports, resulting in some tree damage across the area.

Much colder temperatures were found just to the north on the other side of this system. It was even cold enough to get some accumulating snowfall to the tune of up to 2” in portions of the Southern Great Lakes region!

May 28-29th Heavy Rainfall and Unseasonably Chilly Temperatures

Low pressure would approach the area from the west on May 28th, with scattered showers and isolated storms beginning across the area that morning. Activity would begin to fill in across the area during the early afternoon, with a steady, at times heavy, rain encompassing much of the region. Rainfall would become more scattered in nature throughout the evening, with the heaviest ending by the early morning hours of May 29th with the passage of an associated cold front. This would usher in unseasonably cool temperatures into the area for the start of the Memorial Day weekend. Rain totals of 1-2”+ were common across Northeastern KY and Central/Northern WV, with lesser amounts to the north and south. Clarksburg and Elkins broke their daily maximum rainfall records for May 28th. Luckily, the weather previous to this system had been quite dry, so any water issues associated with it were highly localized to non-existent.

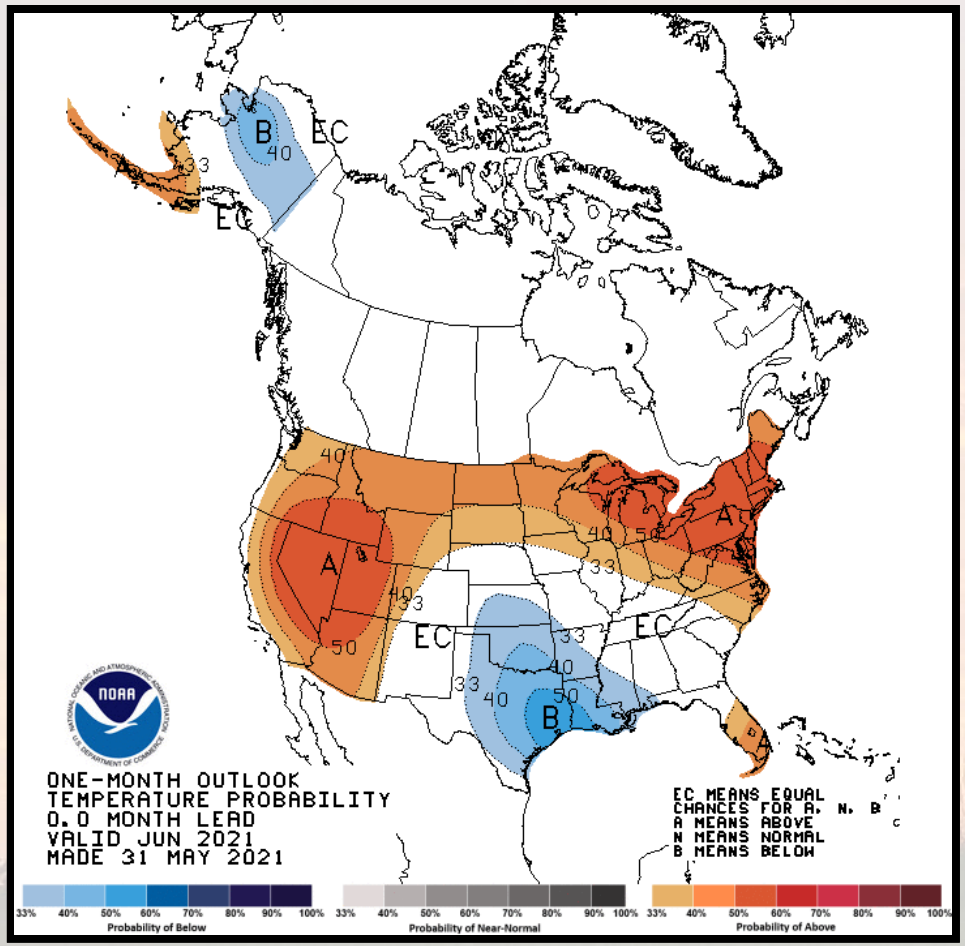
Following the passage of the cold front, an inverted trough would remain draped over the region, resulting in a very chilly, cloudy, and damp start to the Memorial Day weekend. In fact, several sites tied their May 29th lowest maximum temperature record, with many locations not getting above the mid 50s for high temperatures. Parkersburg tied their lowest maximum temperature record of 53 degrees, the same with Huntington at 54 degrees, as well as Clarksburg at 57 degrees!

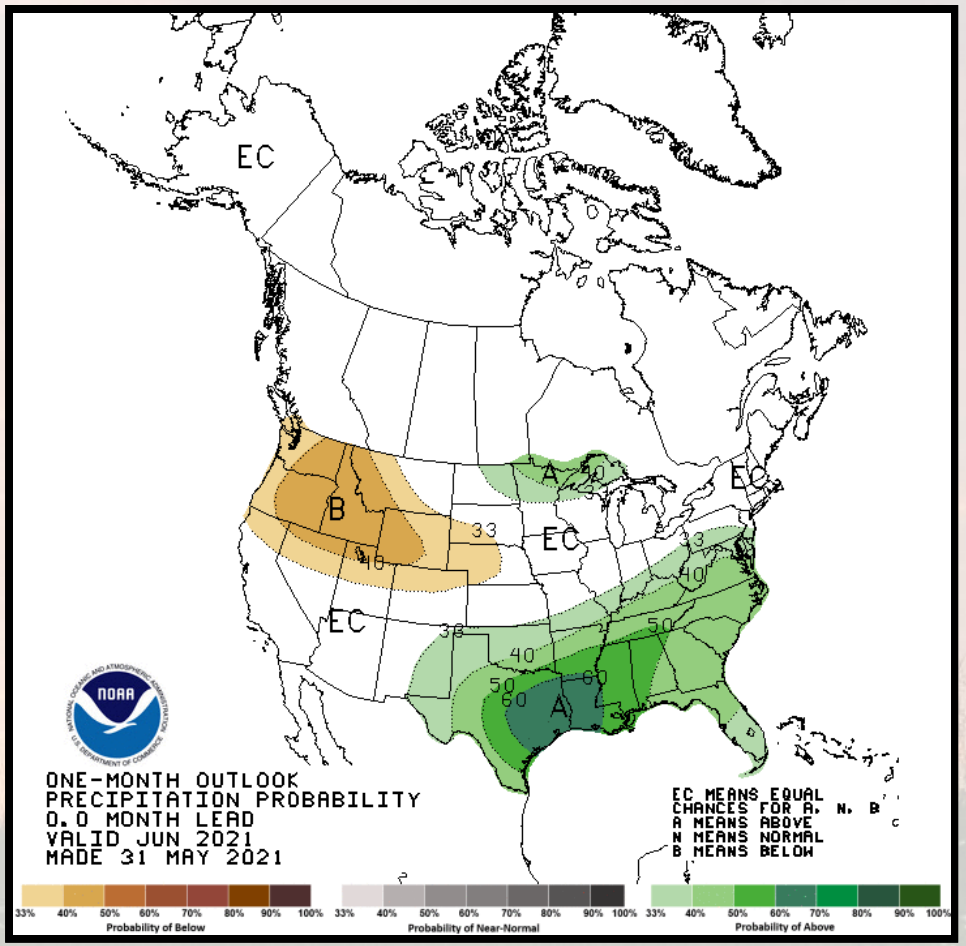


...PRECIPITATION REPORTS...

Location	Amount	Time/Date
5.0 SW Hamlin	2.79 in	0800 PM 05/28
4.3 W Newburg	2.71 in	0700 PM 05/28
1.6 E Bridgeport	2.44 in	0700 PM 05/28
9.1 W Grantsville	2.24 in	0600 PM 05/28
Belington	1.89 in	0800 PM 05/28

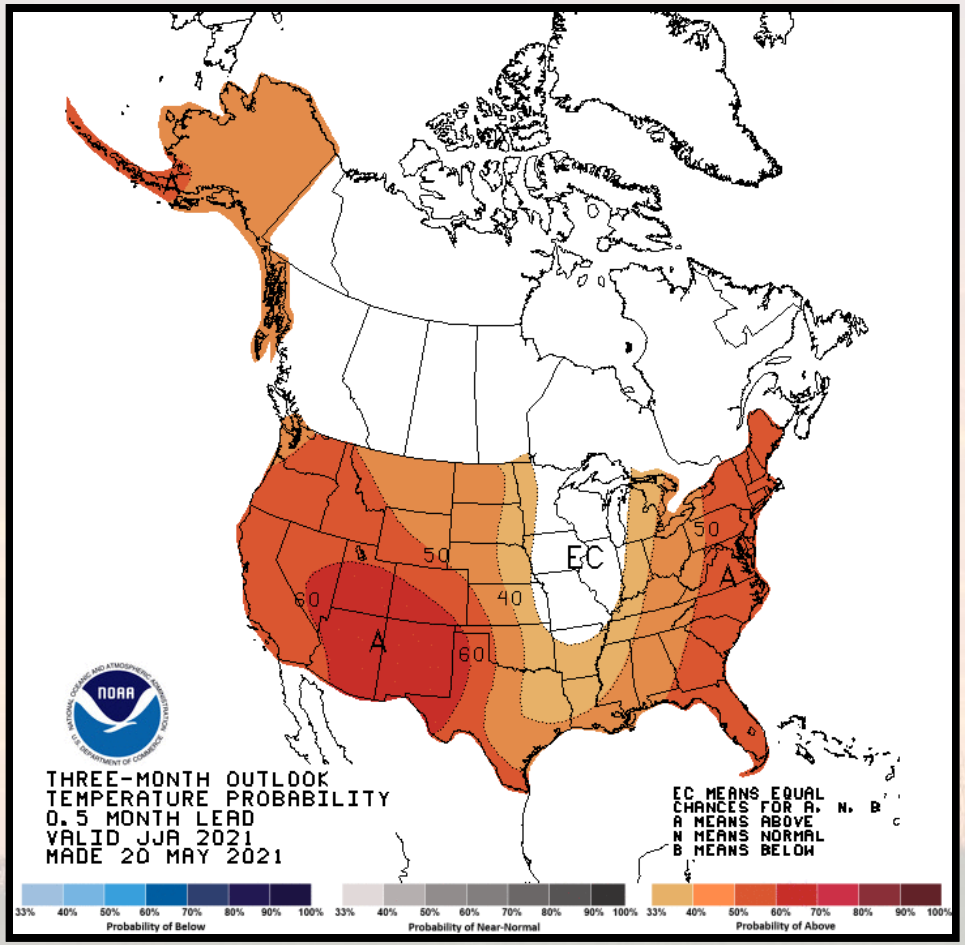
June Outlook

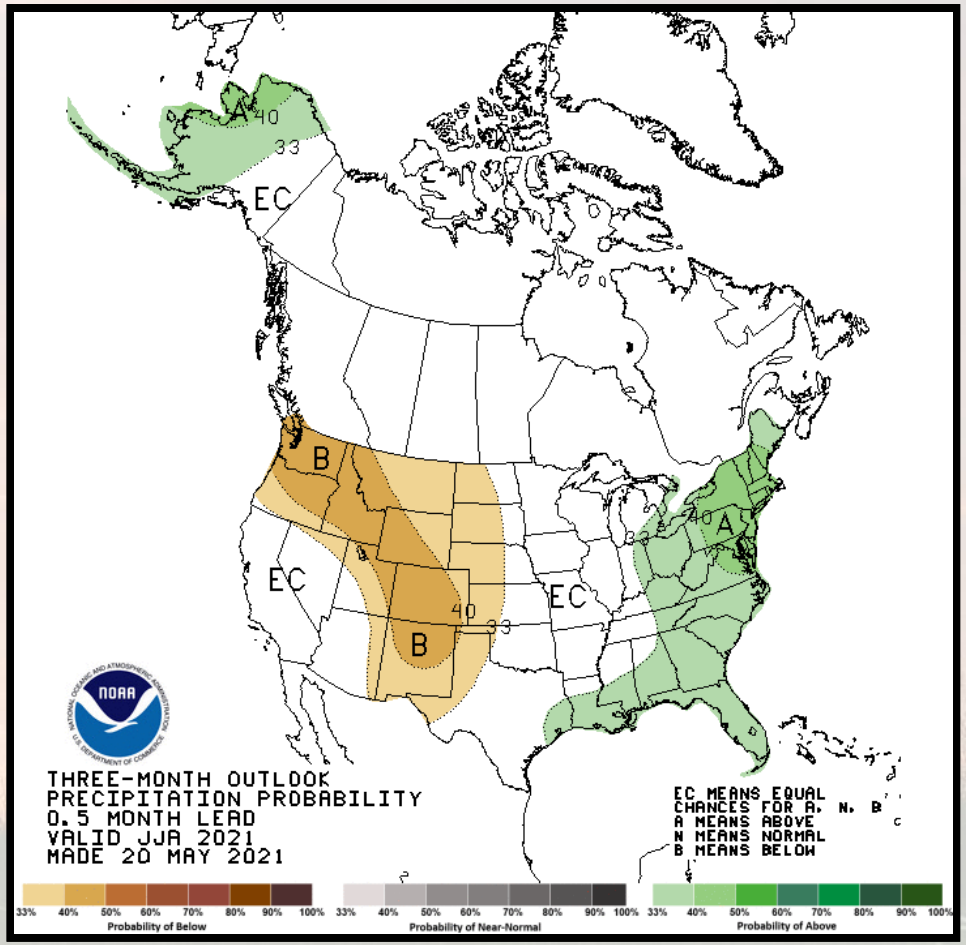




Climate Prediction Center One-Month Temperature and Precipitation Outlook for the United States.

Summer Outlook





Climate Prediction Center Three-Month Temperature and Precipitation Outlook for the United States: covering meteorological summer (June, July, and August).

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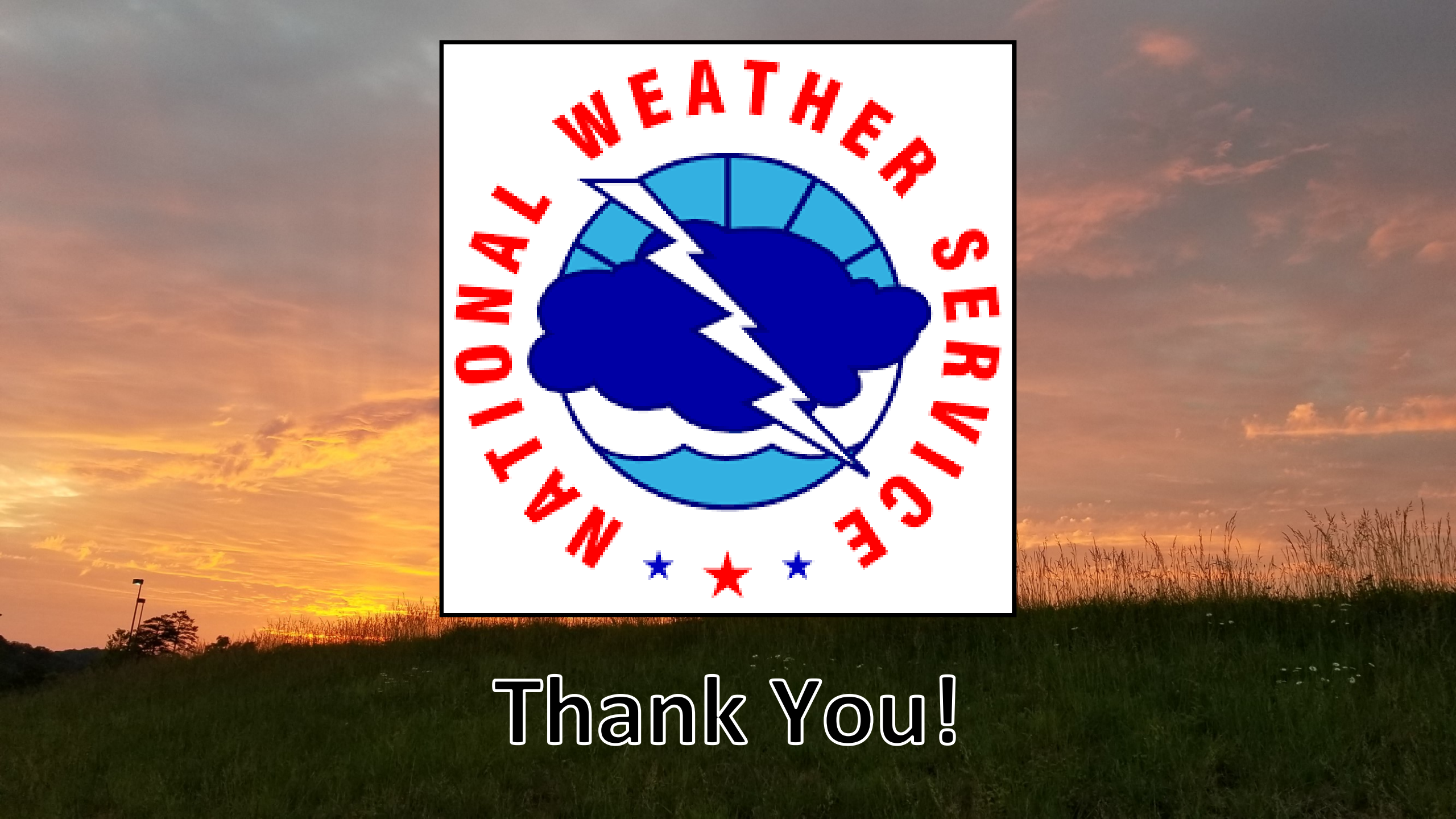

Thank You!