

# **National Drought Summary for October 15, 2024**

## **Summary**

Precipitation across the country was pretty much nonexistent over the past week. The outliers were in Florida as Hurricane Milton came ashore and brought with it copious amounts of rain over much of the peninsula, as well as some rains in the upper Midwest into New England, and some coastal areas of the Pacific Northwest. From the Mississippi River west, most areas were warmer than normal, with departures of 9-12 degrees or more above normal over much of the southern Plains, Rocky Mountains, and into the desert Southwest. Cooler-than-normal temperatures were recorded along the Eastern Seaboard with departures of 3-6 degrees below normal quite common.

## **Northeast**

Cooler-than-normal temperatures dominated the region with much of New York and Massachusetts 3-6 degrees below normal. Northern areas of New York and into southern New Hampshire and Vermont recorded the greatest rainfall in the region last week with much of this area receiving 100% of normal or more. Dryness is developing in more of the area with both short- and long-term signals intermixed in the drought data. Severe drought expanded over southern New Jersey, Delaware and portions of eastern Maryland this week. Moderate drought expanded in New Jersey and Delaware and into eastern Pennsylvania, while abnormally dry conditions expanded over southern New York and eastern Massachusetts. A new area of moderate drought emerged in northwest Massachusetts as well.

## **Southeast**

The story in the region was the development and landfall of Hurricane Milton since the end of the last U.S. Drought Monitor period. Florida received tremendous rain during this storm, especially from Tampa to just north of the Space Coast. Most of the rest of the region was dry but cooler. Temperatures from the Florida Panhandle through southern Georgia and into the Carolinas were 2-4 degrees below normal. Some coastal dryness is being monitored in both North and South Carolina and the only changes made this week were in Alabama, where moderate drought expanded in the south, with a new pocket of severe drought introduced.

## **South**

Warm temperatures dominated the region with some areas of Texas having temperatures greater than 10 degrees above normal. The entire region was warmer than normal outside of far south Texas and portions of southern Louisiana. Like the High Plains, precipitation was pretty much nonexistent in the region this week, and coupled with the warm temperatures, degradation took place over much of the region. In Oklahoma, moderate and severe drought expanded in the central portions of the state while extreme drought expanded in the northeast. Northwest Arkansas had moderate, severe, and extreme drought all expand, while in Louisiana, moderate drought expanded in the north and in the south, with a new pocket of severe drought introduced in the south. A new area of moderate drought emerged in southern Mississippi and into southern portions of Louisiana. Moderate drought expanded over portions of central Tennessee. Texas had widespread degradation over much of the east and central portions of the state as well as expansion of moderate drought over the Panhandle. Severe and extreme drought expanded in the central portion of the state, where long-term indicators are showing drought at various timescales. Along the border with Oklahoma, severe and extreme drought expanded slightly.

## **Midwest**

Temperatures were mixed across the region with the eastern areas and Michigan mainly near normal to 2-4 degrees below normal. Other areas were 2-4 degrees above normal for the week. Rain impacted the northern portions of Minnesota, Wisconsin, and into Michigan with some areas recording 100-150% of normal precipitation for the week. The rains brought some small improvements in northern Minnesota where severe drought eased to moderate drought. Other areas impacted by rain either slowed down the recent dry pattern or were not enough to flip the data to show improvements. Degradation took place in the northern portion of lower Michigan where moderate drought was expanded. Moderate drought expanded over northern Indiana and into southern Michigan and severe drought expanded over northeast Indiana. Moderate and severe drought expanded over portions of northern Illinois and into eastern Iowa and southern Wisconsin. Moderate drought expanded over portions of both southern and northern Wisconsin as well as in central Iowa. Severe drought expanded over northwest Iowa and southwest and northern Minnesota. Missouri had widespread degradation with moderate and severe drought expanding over central, southern, and western portions of the state and abnormally dry conditions filling in for central Missouri. Ohio had little change this week, with only some expansion of severe drought in the northwest and a slight improvement to moderate drought in the south.

## **High Plains**

The dry pattern continued over the High Plains with only a small area of North Dakota recording any precipitation this week. The warm temperatures continued as well with

most areas 4-8 degrees above normal and even greater departures of 8-12 degrees above normal in the plains of Wyoming and Colorado and portions of western Nebraska and South Dakota. Degradation took place from North Dakota to Kansas and into the plains of Montana, Wyoming, and Colorado. Moderate and severe drought were expanded in North Dakota, mainly in the south and west portions of the state. South Dakota had moderate and severe drought expand in the northern, southern, and western portions of the state and had extreme drought expand in the northwest and a new area in southern portions of the state. Nebraska and Kansas both had severe and moderate drought expand over many areas of the state. Kansas had extreme drought expand in the far southeast. Moderate and severe drought expanded over eastern Colorado and abnormally dry conditions expanded over portions of northeast Colorado and into Wyoming and Nebraska. Eastern Wyoming had moderate, severe, and extreme drought conditions expand.

## **West**

As with the Plains and the South, most all of the West was dry this week with only some coastal areas of California and Washington measuring any precipitation. Warm temperatures dominated the region with almost everyone at least 3-6 degrees above normal for the week and areas of Utah, Idaho, Colorado, Nevada, Wyoming and southern Montana 9-12 degrees above normal. Abnormally dry and moderate drought conditions expanded over Washington and Oregon. In Arizona, moderate and severe drought expanded in the southern portions of the state and into southern California. Moderate drought also expanded in central Arizona. The heat that has impacted the Southwest has been record-setting. Phoenix went 21 straight days of setting all-time daily high temperature records that ended on October 15, when the high temperature of 99 degrees Fahrenheit did not break the daily high. New Mexico had severe and extreme drought expand over southern parts of the state, while abnormally dry conditions filled in more of the west. Moderate drought emerged in southwest Colorado, with severe drought expanding and a new area of extreme drought in the north central portions of the state. Utah had abnormally dry conditions and moderate drought expand in the east. In Wyoming, moderate drought expanded over the southwest part of the state, severe drought expanded in the central area, and moderate drought expanded in the northwest.

## **Caribbean**

No changes were made in Puerto Rico this week.

This week, near-normal conditions continued across the U.S. Virgin Islands. The satellite-based precipitation estimates across the Virgin Islands showed the rainfall amounts ranged from 0.04 to 0.8 inches this week. On St. Croix, the weekly rainfall

amount ranged from 0.38 inches at VI-SC-30 (Christiansted 1.7 SW) to 1.22 inches at VI-SC-34 (Frederiksted 1.9NE) with 4 days missing. Intermediate values included 0.74 inches at VI-SC-10 (Christiansted 1.6 E), 0.74 inches at VI-SC-20 (Frederiksted 1.7 ESE), 1.08 inches at VI-SC-23 (Christiansted 6.5 W), 0.95 inches at VI-SC-25 (Christiansted 4.4W), 1.08 inches at VI-SC-29 (Frederiksted 2.5 NNE), and 0.82 inches at VI-SC-35 (Frederiksted 1.3 ENE). Due to the recent rains, the depth to water level at Adventure 28 Well (St. Croix, USVI) on 15 October 2024 was 21.60 ft below land surface. Thus, St. Croix remained free of drought.

On St. Thomas, rainfall totals this week ranged from 0.22 inch at VI-ST-13 (Charlotte Amalie 1.2 NNW) to 0.80 inches at VI-ST-5 (Charlotte Amalie West 4.2 WNW). In addition, at VI-ST-15 (Charlotte Amalie West 1.3N), 0.22 inches of rain was reported with 2 days an accounted for. The depth to water level Grade School 3 well (St. Thomas, USVI) on 15 October 2024 was 8.52 ft below land surface, which is an increase in depth to water level as compared to last week (i.e., 7.43 ft). Thus, St. Thomas remained in free of drought.

On St. John, rainfall amounts reported at VI-SJ-5 (Cruz Bay 1.6 E) was 0.29 inches. In addition, VI-SJ-3 (Windswept Beach) observed 0.59 inches of rain. For St. John (Windswept station), except the 1-month SPI (-1.9), all the SPI data showed positive values (i.e., 0.44, 1.21, 1.72, and 1.24 values for the 3-, 6-, 9-, and 12-month, respectively). The depth to water level at Susannaberg DPW 3 well (St. John, USVI) on 15 October 2024 was 7.62 ft below land surface, which has slightly increased this week as compared to last week (i.e., 7.43 ft). However, compared to other weeks, the yearly graph shows relatively a shallow depth resulting St. John to remain free of drought for this week.

## **Pacific**

In Alaska, some abnormally dry conditions were removed in southeast portions of the state.

Hawaii continued with a dry pattern and abnormally dry conditions expanded to cover the rest of Oahu, Maui, and most all of the Big Island.

Generally wet and normal conditions continued across the Marshall Islands this week. On Kwajalein, 2.92 inches of rain was reported this week. Ailinglapalap reported 1.86 inches of rain, remaining in drought free condition. This week, Jaluit and Majuro received only 1.05 and 0.89 inches of rain, respectively. However, both Jaluit and Majuro are remaining free of drought due to the wet conditions in the previous weeks. Wotje received only 0.69 inches of rain this week. In addition, the island reported only 1.52 inches or rain last week. Because of drier-than-normal conditions in the past few weeks, Wotje is in short-term abnormally condition. No depiction was made for Milli and Utirik due to missing data.

Northern Micronesia received heavy showers this week. Pohnpei and Chuuk reported 4.10 and 2.57 inches of rain this week, respectively. Thus, these islands remained free of drought. Kosrae reported only 0.55 inches of rain this week. However, Kosrae received 2.63 inches of rain last week, improving the island to drought free condition.

Kapingamarangi received only 1 inch of rain this week, so the island remains in short-term abnormally dry conditions. This week, only 1.43 and 1.76 inches of rain were reported on Ulithi and Yap, respectively. Thus, both Ulithi and Yap remained in drier-than-normal conditions. Lukunoch, Nukuoro and Pingelap, reported only 0.20, 1.79, and 0.26 inches of rainfall this week, respectively. Thus, these locations remained in short-term abnormally dry conditions. No depiction was made for Fananu and Woleai due to missing data.

Wet conditions prevailed across Palau. Heavy scattered showers (2.77 inches of rain) were reported on Palau IAP (Airai) this week. Koror COOP station also reported 0.97 inches of rain, and the island remained in drought-free condition.

Heavy scattered showers were observed this week across the Mariana Islands. The weekly rainfall total report showed that 2.74 inches of rain was observed on Saipan (IAP, manual gauge) this week. Also, Saipan (AMME NPS) received only 1.23 inches of rain. Thus, Saipan remained in drought free conditions. Rota received 2.37 inches of rain to remain free from drought. On Guam, 3.14 inches of rain was reported this week, and the island remains in drought free condition.

Normal conditions prevailed across American Samoa in the past few weeks. Siufaga Ridge and Toa Ridge observed 0.61 and 0.62 inches of rain this week, respectively. Even though Pago Pago reported 0.14 inches of rain this week, the island remains free of drought due to wet conditions in the past few weeks.

## ***Looking Ahead***

Over the next 5-7 days, it is anticipated that much of the Rocky Mountain and central Plains areas will have the best chances for measurable precipitation. The highest amounts are anticipated over northeast New Mexico, southeast Colorado, and parts of the Oklahoma and Texas panhandles, where 2 or more inches may be recorded. Most of the other areas are expecting an inch or less. Temperatures during this time are anticipated to be above normal over much of the Plains, Midwest, and into the Northeast, with departures of 10-15 degrees above normal over the upper Midwest. Cooler than normal temperatures of 2-4 degrees below normal are expected over the Four Corners region and the Rocky Mountains.

The 6-10 day outlooks show that above-normal temperatures will continue for almost all of the country through the end of October, especially from Texas into the Midwest. The coastal areas of the Pacific Northwest have the greatest probabilities of below-normal

temperatures during this time. Outlooks show that the greatest chances of below-normal precipitation are from the Gulf Coast into the Midwest and over much of the East. The highest probabilities of above-normal precipitation will be in the central to northern Plains, northern Rocky Mountains and into portions of the Pacific Northwest.

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