The discussion in the Looking Ahead section is a description of what the official national guidance from the National Weather Service (NWS) National Centers for Environmental Prediction is depicting for current areas of dryness and drought. The utilized NWS forecast products include the WPC 5-day QPF and 5-day Mean Temperature progs, the 6–10 Day Outlooks of Temperature and Precipitation Probability, and the 8–14 Day Outlooks of Temperature and Precipitation Probability—valid as of late Wednesday afternoon of the USDM release week. The NWS forecast Web page used for this section is http://www.cpc.ncep.noaa.gov/products/forecasts/.

This U.S. Drought Monitor week saw intensification of drought across parts of the western U.S. as hot and dry conditions persisted with a historic heat wave currently gripping much of the region. Since last Friday, dozens of high temperature records were broken across the West including a scorching 130°F recorded at the Furnace Creek Visitor’s Center in Death Valley National Park. If verified, this high would represent the hottest temperature on Earth since 1913. Accompanying the extreme heat, numerous lightning-ignited wildfires broke out across California during the past week causing air-quality issues across parts of the region. In the Southwest, the continued weak monsoon has led to expansion and intensification of drought-related conditions with areas of Arizona and New Mexico observing less than 50% of normal precipitation since the beginning of the monsoon season. Similarly, drought conditions in the western half of Texas have deteriorated from persistent dry conditions and extreme heat. In the Midwest, short-term precipitation deficits (past 60 days) have led to the expansion of areas of drought, particularly in Iowa, where impacts are being reported in the agricultural sector. In the Northeast, anomalously warm temperatures and below-normal precipitation during the past 90-day period have led to deterioration in drought-related conditions in parts of New England—including Massachusetts where state officials declared a Level 2 drought on August 14 for all regions of the state.

**The Northeast:** On this week’s map, areas of the region—including central and western Pennsylvania, south-central New York, Connecticut, Massachusetts, southeastern New Hampshire, and northern Maine—saw expansion and intensification of areas of drought in response to a combination of factors including short-term precipitation deficits, dry soils, and low streamflows. In the Finger Lakes region of New York, short-term rainfall has been spotty with some areas in the region reporting agricultural impacts (reduced hay yields). In Connecticut, Massachusetts, New Hampshire, and Maine, areas of Severe Drought (D2) expanded on the map in response to mounting precipitation deficits (4 to 8 inches) during the past 90 days and reduced streamflows. In southeastern New Hampshire, the Department of Environmental Services is reporting that numerous municipalities and community water systems have implemented mandatory outdoor water-use restrictions in response to the dry conditions. For the week, the region was generally dry with some light precipitation accumulations (generally <1 inch) observed in eastern and southern Pennsylvania, Upstate New York, and in eastern Maine.
Average temperatures for the week were 2-to-10 degrees above normal. According to the National Centers for Environmental Information (NCEI), the Northeast Climate Region experienced its warmest (+4.6° F anomaly) July on record.

**The Southeast:** During the past week, scattered precipitation was observed across the region with rainfall accumulations ranging from 1-to-10+ inches with areas of Virginia experiencing the heaviest accumulations. On the map, nearly all of the region remained drought-free with the exception of a few isolated pockets of Moderate Drought (D1) in Alabama and Georgia as well as a newly introduced area of Moderate Drought (D1) along the west-central and southwest coastal areas of Florida where precipitation deficits are ranging from 5-to-10+ inches for the past 60-day period.

**The South:** On this week’s map, drought intensified across the western half of Texas in response to continued anomalously hot temperatures, high winds, and mounting precipitation deficits. Changes on the map for Texas include expansion of areas of Moderate Drought (D1), Severe Drought (D2), Extreme Drought (D3) as well as the introduction of an area of Exceptional Drought (D4) in the Trans-Pecos region. According to the Texas A&M Agrilife Extension (August 11), the Far West region had reports of very poor rangeland conditions with many grass fires in addition to reports of a number of crops struggling—including cotton, corn, and sorghum. In Oklahoma, areas of drought intensified in the extreme southwestern part of the state with agricultural producers reporting very poor rangeland conditions and dry stock tanks. According to the Oklahoma Mesonet, for the period from January 1 to August 18, southwestern Oklahoma had experienced more than 30 days with temperatures exceeding 100° F. Elsewhere in the region, improvements were made in areas of Abnormally Dry (D0) in Arkansas, Louisiana, Mississippi, and Tennessee in response to showers and thunderstorm activity during the past week. For the week, most of the significant rainfall activity occurred in areas not experiencing drought with the heaviest accumulations observed in west-central and southwestern Arkansas where 5-to-8 inch accumulations were observed. Average temperatures were well above normal across much of Texas with areas in the Trans-Pecos and West Central Texas experiencing temperatures ranging from 6-to-10 degrees above normal for the week.

**The Midwest:** On this week’s map, some improvements were made to areas of Moderate Drought (D1) in Ohio in response to rainfall events during the past several weeks. Further to the west, areas of Moderate Drought (D1) and Severe Drought (D2) expanded in western and northeastern Iowa in response to short-term precipitation deficits during the past 60-day period, dry soils, and agricultural impacts including reports of supplemental feeding from deteriorating pasture conditions, water hauling, and reductions in corn yields. In southeastern Minnesota and southwestern Wisconsin, short-term dryness (past 60 days) and dry soils led to the introduction of areas of Moderate Drought (D1). In northern Minnesota, dry conditions this summer have reportedly impacted the availability of wild berries in forested areas leading to an increase in the frequency of bears coming into rural areas in search of food, according to the Minnesota
Department of Natural Resources. For the week, the heaviest precipitation was observed in central Minnesota (3-to-5 inch accumulations) while the rest of the region was generally dry with the exception of isolated areas in southern Indiana, southern Illinois, and Ohio that received modest accumulations (<1 inch).

The High Plains: On this week’s map, areas of the region—including central North Dakota and western Nebraska—saw modest expansion in areas of Moderate Drought (D1) and Severe Drought (D2) in response to below-normal precipitation during the past 30-to-90-day period. Elsewhere, drought-related conditions deteriorated in southwestern South Dakota leading to the expansion of areas of Moderate Drought (D1). In northeastern Wyoming, some minor improvements were made in an area of Moderate Drought (D1) where precipitation has been above normal during the past 30-60-day period. For the week, average temperatures were mainly above normal with the greatest anomalies occurring in eastern Colorado, southeastern Wyoming, western Nebraska, and southwestern South Dakota where temperatures were 2-to-8 degrees above normal. Overall, the region was generally dry with some lesser accumulations (generally <1 inch) observed in the Dakotas, eastern Montana, Nebraska, and Kansas.

The West: During the past week, an intense heat wave impacted the region as a strong mid/upper level ridge of high pressure parked over the region. Since Friday, numerous high temperature records were broken in cities across the West including Phoenix, Flagstaff, Oakland, Sacramento, and Reno—to name a few. In addition to the extreme heat, thunderstorm activity caused dozens of lightning-ignited wildfires to break out across central and northern California leading the Governor to declare a state of emergency on Tuesday, August 18. The wildfires have intensified and spread quickly leading to large-scale evacuations across numerous communities in northern California. On the map, areas of Severe Drought (D2) and Extreme Drought (D3) expanded in Arizona, Colorado, and Utah. To date, the monsoon has been a “bust” across much of the Southwest with cities like Phoenix, Tucson, Albuquerque, Las Vegas, and El Paso all reporting well below-normal precipitation totals for the monsoon season.

Hawaii, Alaska, and Puerto Rico: On this week’s map, no changes were made in Alaska or Puerto Rico. In the Hawaiian Islands, dry conditions during the past few weeks led to expansion of areas of Abnormally Dry (D0) on the windward slopes of the Big Island and Molokai. Additionally, a small area of Moderate Drought (D1) was added near South Point on the Big Island where vegetation-based satellite indicators were showing areas of dry vegetation. In Alaska, average temperatures for the week were well above normal (6-to-10 degrees F) on the North Slope while temperatures were 2-to-6 degrees above normal across parts of the Interior. In Southeast Alaska, average temperatures ranged from 2-to-8 degrees below normal. Precipitation was below normal across the western half of the state while the eastern portions (eastern Interior, Southeast) were well above average for the week.
**Looking Ahead:** The NWS WPC 7-Day Quantitative Precipitation Forecast (QPF) calls for light-to-moderate accumulations ranging from 1-to-5 inches across portions of the South, Southeast, and the Mid-Atlantic with Florida and eastern portions of the Gulf Coast expected to receive the heaviest accumulations. In the Upper Midwest and northern portions of New England, accumulations of less than 1 inch are expected. Elsewhere, generally dry conditions are expected across the remainder of the conterminous U.S. with some isolated thunderstorm activity expected across the Southwest, central and northern Rockies, and the Great Basin—although rainfall accumulations are expected to be light (<1 inch). The CPC 6-10-day Outlook calls for a moderate-to-high probability of above-normal temperatures across most the conterminous U.S. with the exception of the far northern portions where temperatures are expected to be normal except for the Upper Midwest where below-normal temperatures are expected. In terms of precipitation, there is a moderate-to-high probability of above-normal precipitation across parts of the West including the Great Basin and areas of the Intermountain West including Utah, Wyoming, Idaho, and Montana. Other areas with a moderate probability of above-normal precipitation include much of the Midwest and the eastern tier. Conversely, drier-than-normal conditions are forecasted for western portions of Oregon and Washington as well as the Desert Southwest, northern Texas, and the Southern Plains.

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**Dryness Categories**

D0 ... Abnormally Dry ... used for areas showing dryness but not yet in drought or for areas recovering from drought.

**Drought Intensity Categories**

D1 ... Moderate Drought
D2 ... Severe Drought
D3 ... Extreme Drought
D4 ... Exceptional Drought

**Drought or Dryness Types**

S ... Short-term
L ... Long-term

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