United States Department of Agriculture

Water and Climate Update

June 28, 2018

The Natural Resources Conservation Service produces this weekly report using data and products from the National Water and Climate Center and other agencies. The report focuses on seasonal snowpack, precipitation, temperature, and drought conditions in the U.S.

Precipitation 2
Temperature 6
Drought 8
Other Climatic and Water Supply Indicators 11
Short- and Long-Range Outlooks..... 14
More Information 17

Wildfires increasing in the West

According to the National Interagency Fire Center (NIFC) there are currently 51 active large fires burning over 450,000 acres involving 7,500 firefighting personnel in the U.S.

Alaska has the majority of the active wildfires, with 29 large fires burning more than 170,000 acres. The Top of the World Fire in Alaska is pictured at left.

In most of the contiguous West, extreme temperatures and drought conditions have the fire danger placed at a High to Severe level. The Pawnee Fire in northern California has had the largest impact this week, causing thousands to evacuate, burning 22 buildings, and prompting the Governor to declare a state of emergency for the area.

Refer to page 10 for a map of active fire locations.

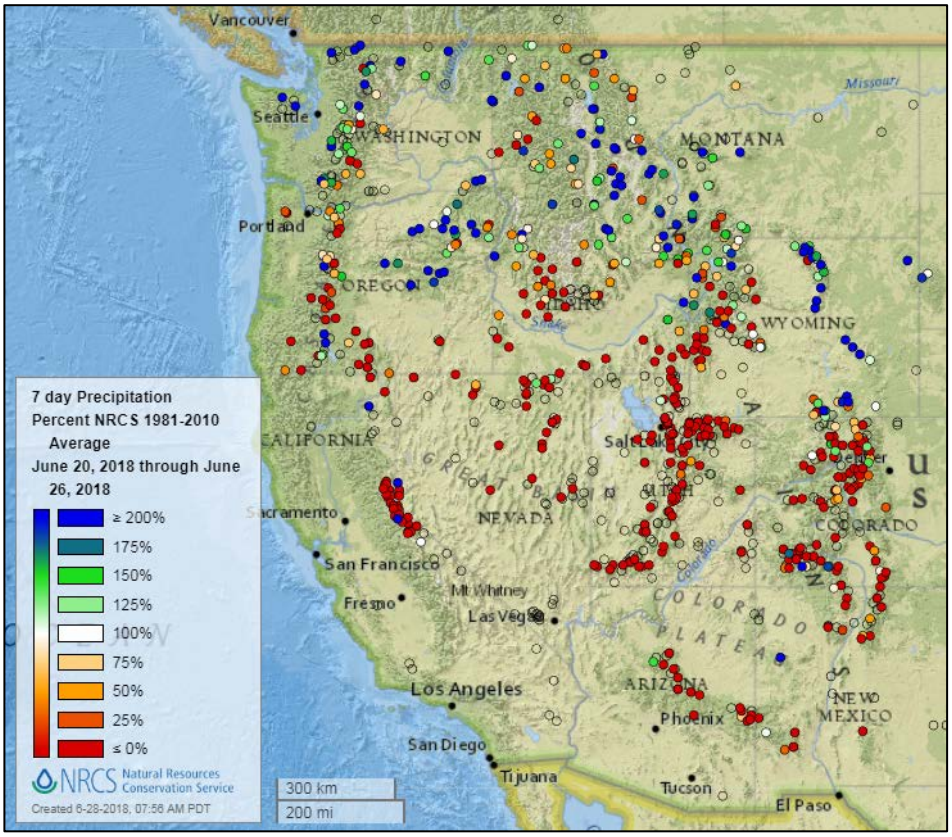
This aerial photo of the Top of the World Fire in Alaska was taken by air attack personnel and illustrates how retardant was used to box in the head of the fire with three retardant drops to slow its spread. Photo courtesy of Tim Whitesell/Alaska Division of Forestry.

Related:

Firefighters gain on Northern California wildfire – Reuters
Nearly 3,000 firefighters deployed as wildfire rages in Northern California – ABC News
California Governor Declares State of Emergency as Wildfires Force Thousands to Flee - Time
Officials Expect Long Battle Against CO Blaze – Firehouse (CO)
800-acre Sardinas Canyon Fire resulting in large smoke plumes, forest closures Local Source KOB (NM)
Three large Oregon fires burning across more than 116,000 acres almost contained – The Oregonian (OR)
Smokejumpers, air tankers halt spread of fire near Alaska-Canada border – AK Fire info

Precipitation

Last 7 Days, NRCS SNOTEL Network

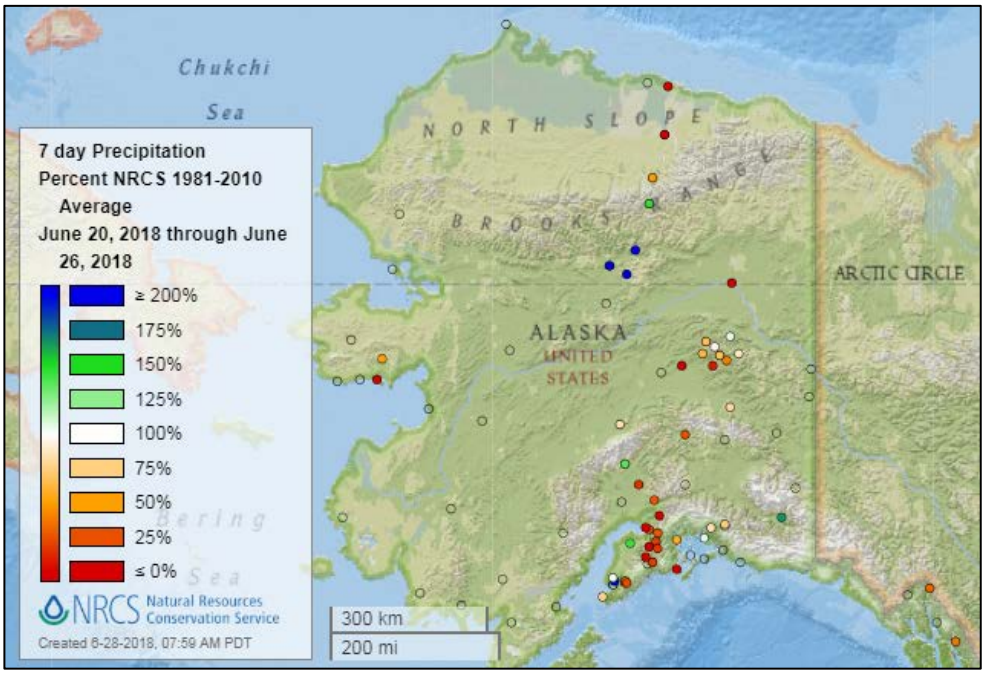


[7-day precipitation percent of average map]

See also:
[7-day total precipitation values (inches) map]

[Alaska 7-day precipitation percent of average map]

See also: [Alaska 7-day total precipitation values (inches) map]

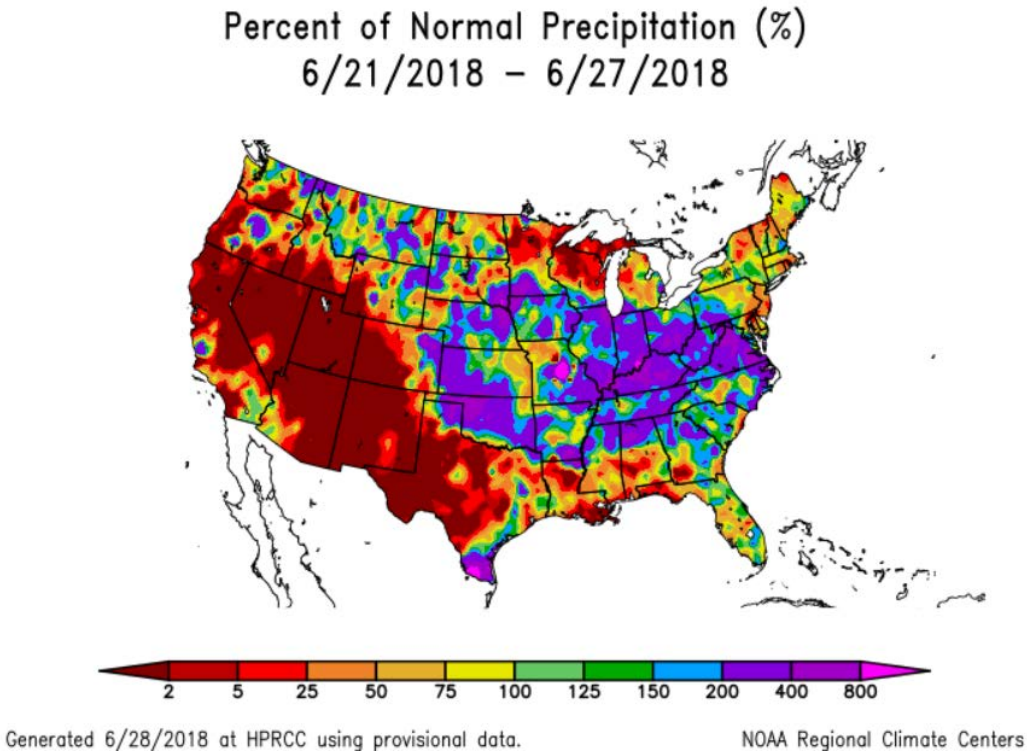


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

[7-day precipitation percent of normal map](#) for the continental U.S.

See also: [7-day total precipitation values (inches) map](#)

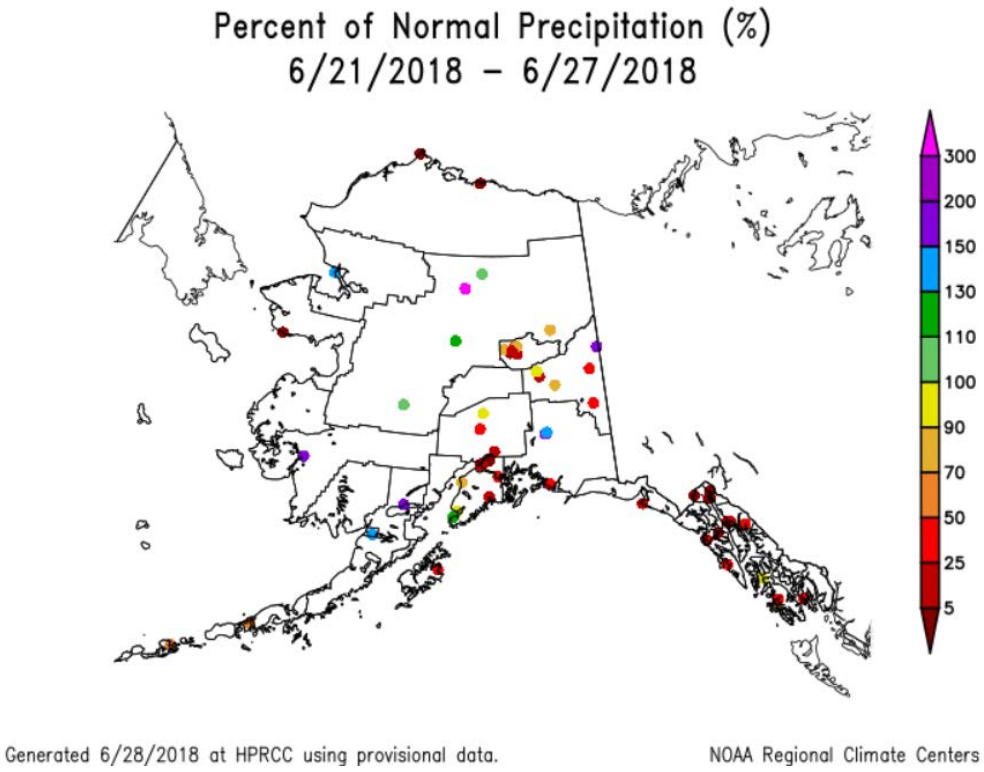


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

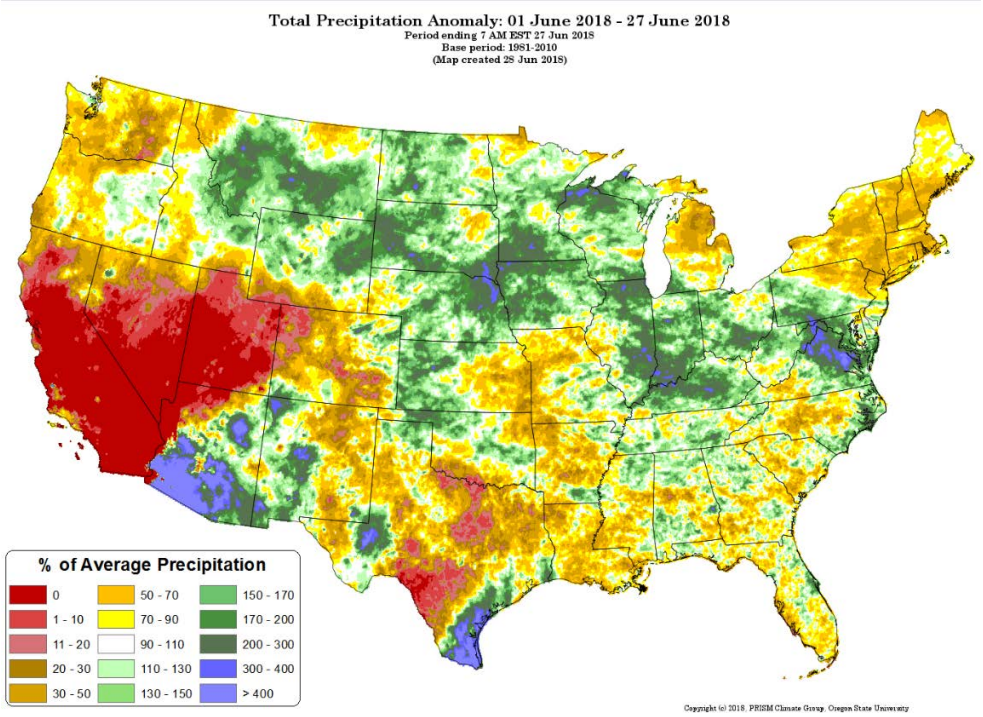
[7-day precipitation anomaly map](#) for Alaska.

See also: [7-day total precipitation values (inches) map](#)



Month-to-Date, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

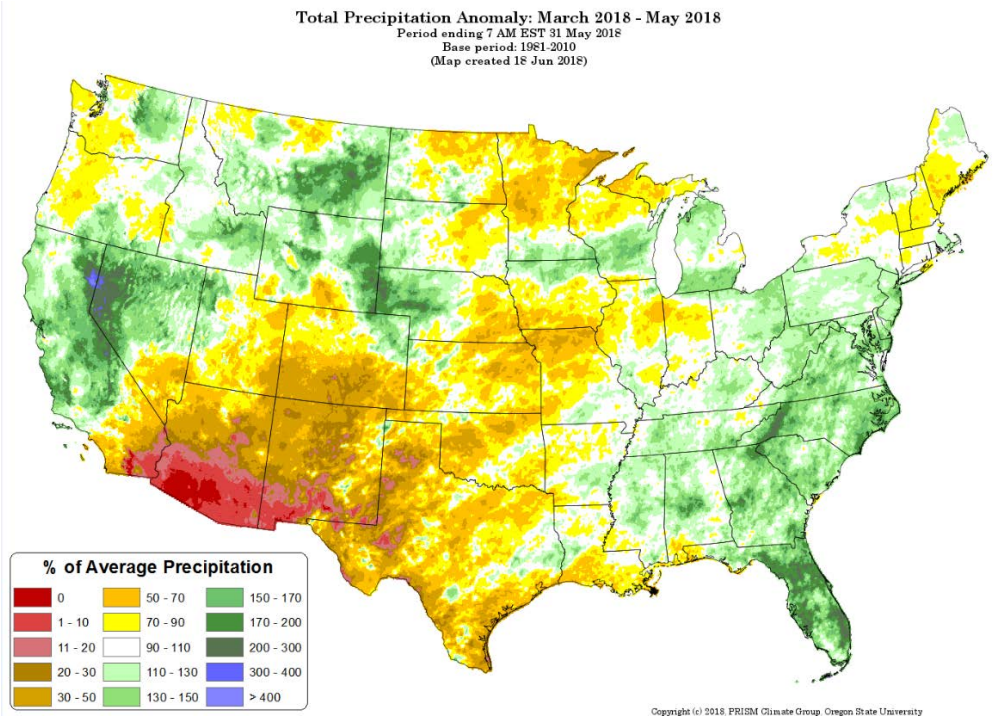


[Month-to-date national total precipitation percent of average map]

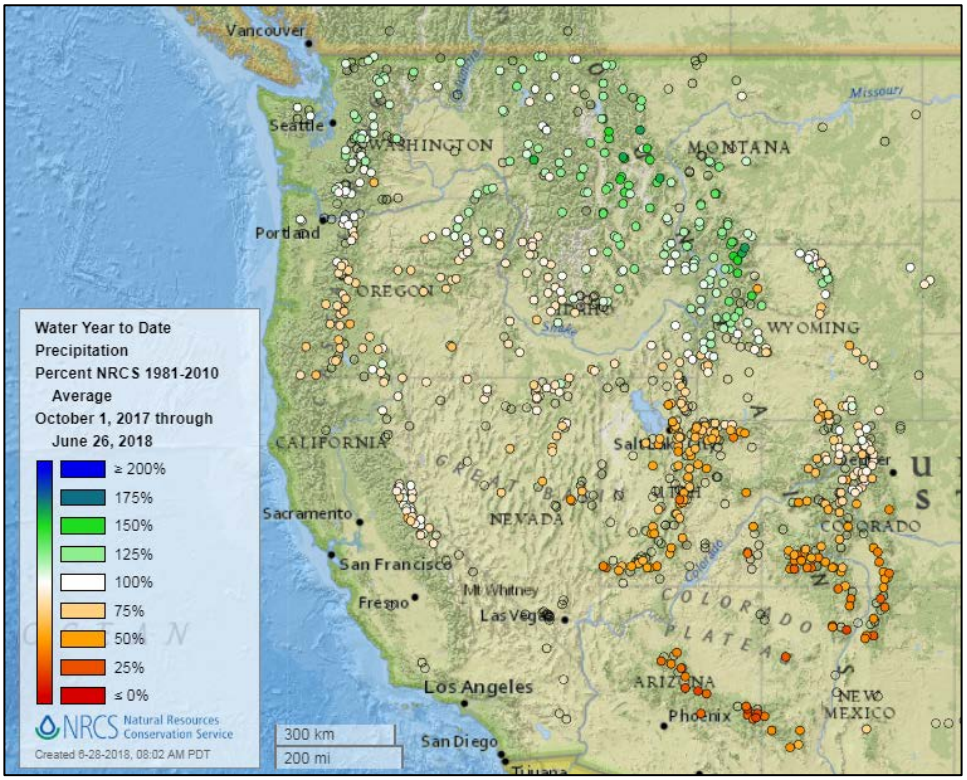
Last 3 Months, All Available Data Including SNOTEL and NWS Networks

Source: PRISM

[March through May 2018 total precipitation percent of average map]

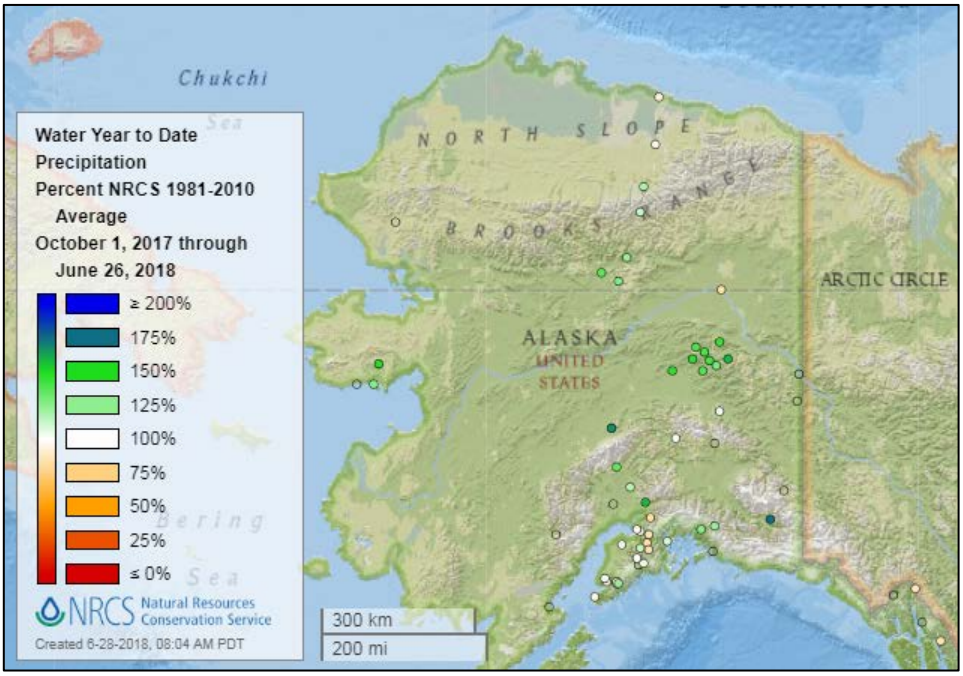


Water Year-to-Date, NRCS SNOTEL Network



[2018 water year-to-date precipitation percent of average map]

See also: [2018 water year-to-date precipitation values (inches) map]



[Alaska 2018 water year-to-date precipitation percent of average map]

See also: [Alaska 2018 water year-to-date precipitation values (inches) map]

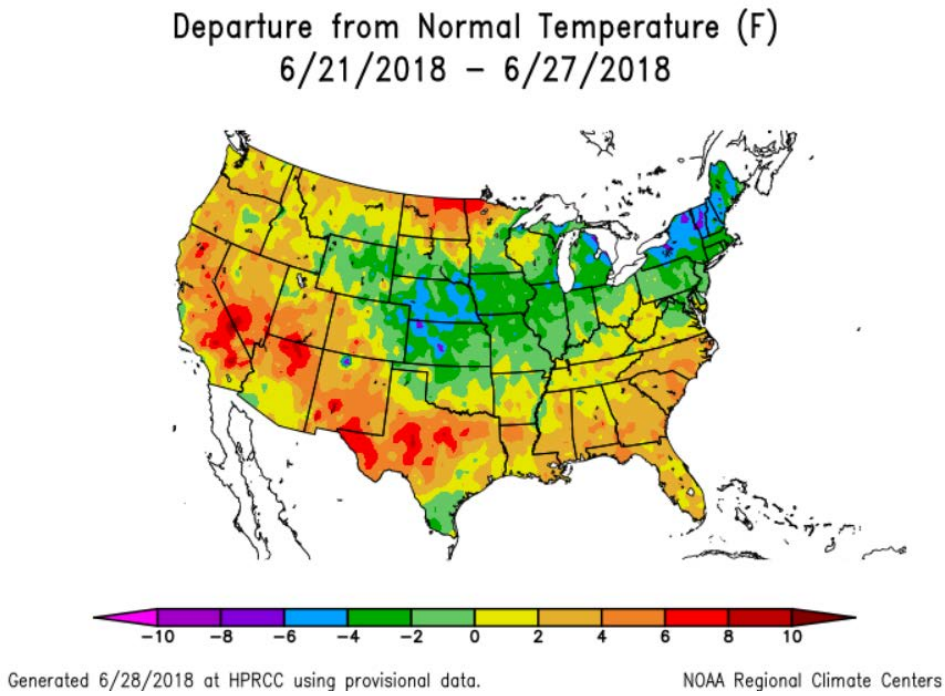
Temperature

Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for the continental U.S.

See also: 7-day temperature (° F) map

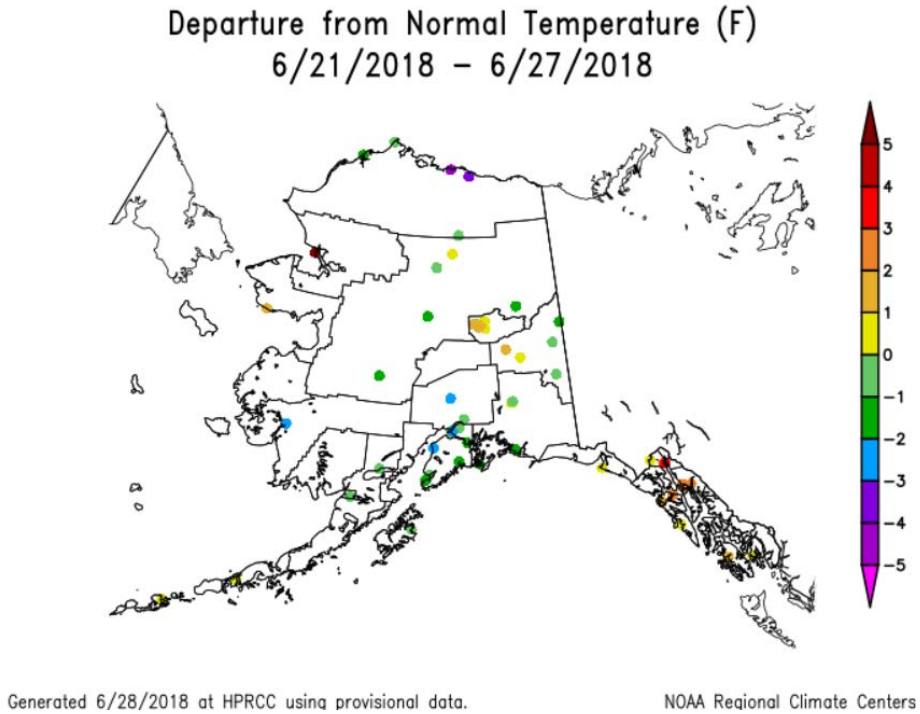


Last 7 Days, National Weather Service (NWS) Networks

Source: Regional Climate Centers

7-day temperature anomaly map for Alaska.

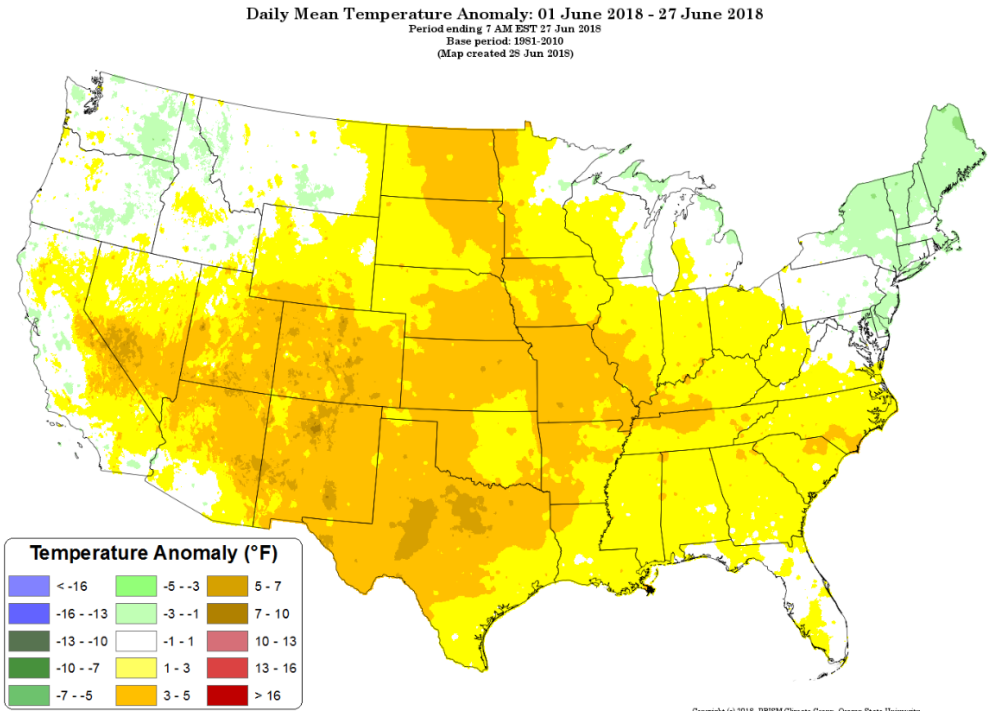
See also: 7-day temperature (° F) map



Month-to-Date, All Available Data Including SNOTEL and NWS Networks

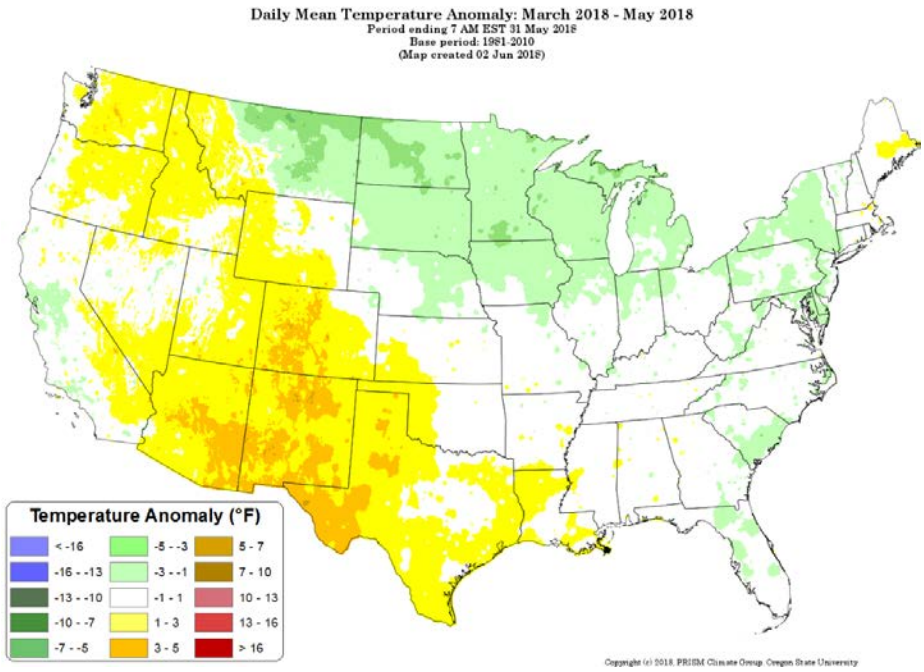
Source: PRISM

[Month-to-date national daily mean temperature anomaly map]



Last 3 Months, All Available Data Including SNOTEL and NWS Networks

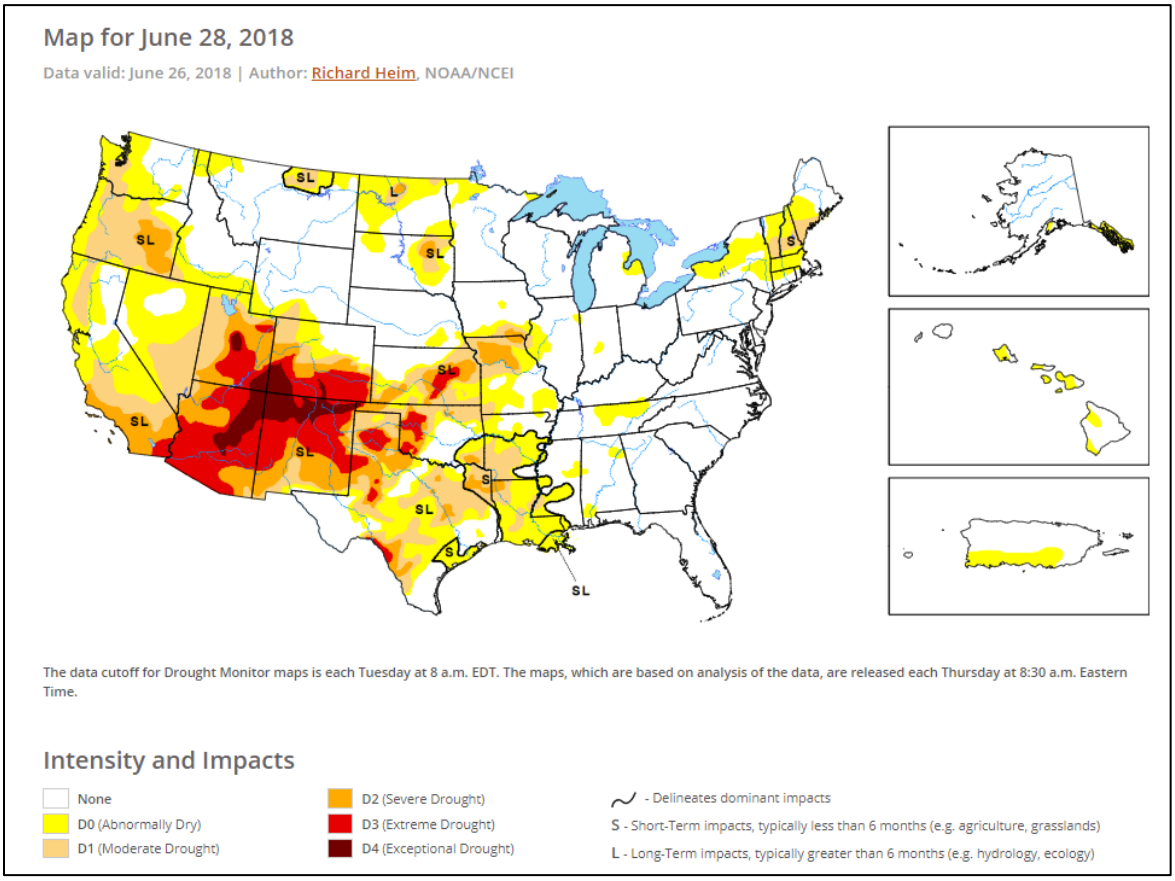
Source: PRISM



[March through May 2018 daily mean temperature anomaly map]

Drought

U.S. Drought Monitor Select map below. U.S. Drought Portal Comprehensive drought resource.



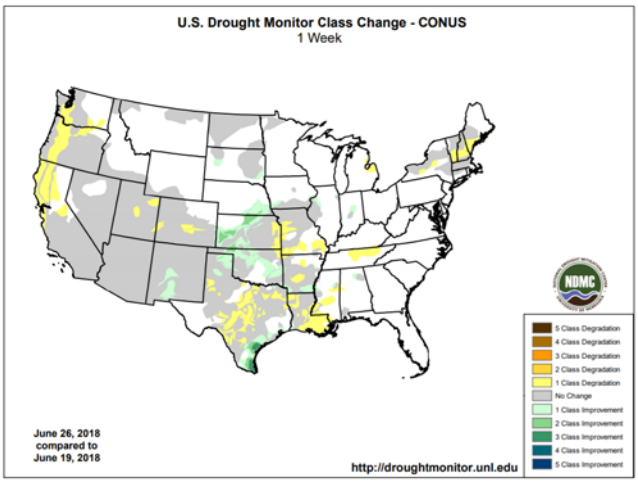
Current National Drought Summary, June 28, 2018

Author: Richard Heim, NOAA/NCEI

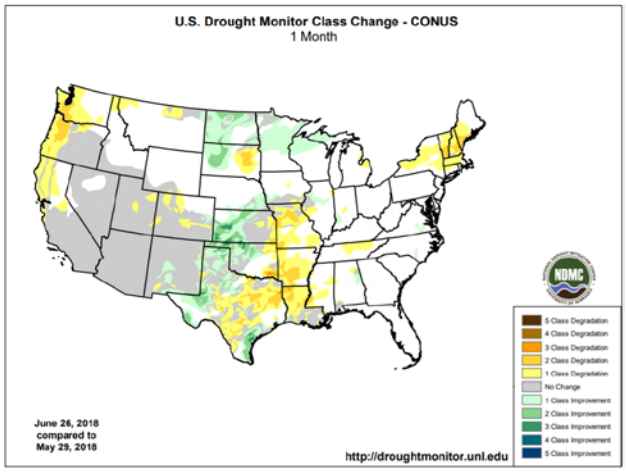
“A couple strong upper-level low pressure systems, moving in the jet stream flow, slowly crossed the northern half of the contiguous U.S. (CONUS) during this U.S. Drought Monitor (USDM) week. The lows dragged surface lows and frontal systems with them. Supplied with abundant Gulf of Mexico moisture, these systems generated numerous mesoscale thunderstorm complexes which dumped heavy rain across parts of the Plains to Midwest and Mid-Atlantic coast. The clouds and rain associated with the lows and fronts also brought cooler-than-normal temperatures to the central Plains to Northeast. A moist low pressure system at the beginning of the week dumped heavy rains along the Texas Gulf coast. Contraction of drought and abnormally dry areas occurred in the Plains and Texas Gulf coast where precipitation was above normal for the week. However, these lows tracked within a larger-scale upper-level ridge system. Drier-than-normal weather dominated much of the West, large parts of Texas and the Southeast States, and from the western Great Lakes to most of the Northeast, with drought and abnormal dryness expanding in parts of the West, South, and Northeast. The week was warmer than normal across much of the West, along the northern tier states, much of Texas, and most of the Southeast.”

Changes in Drought Monitor Categories over Time

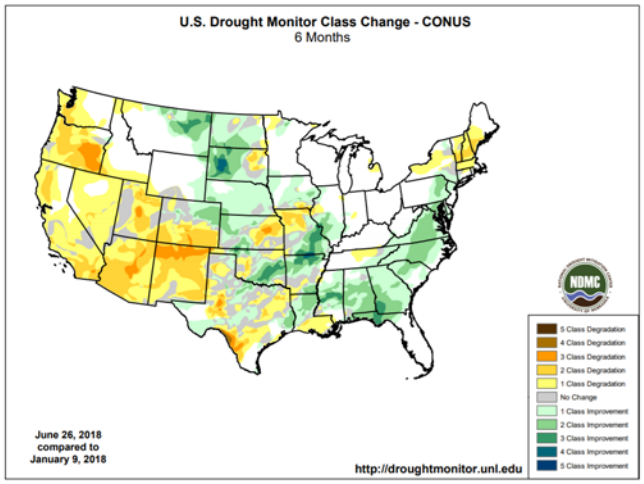
1 Week



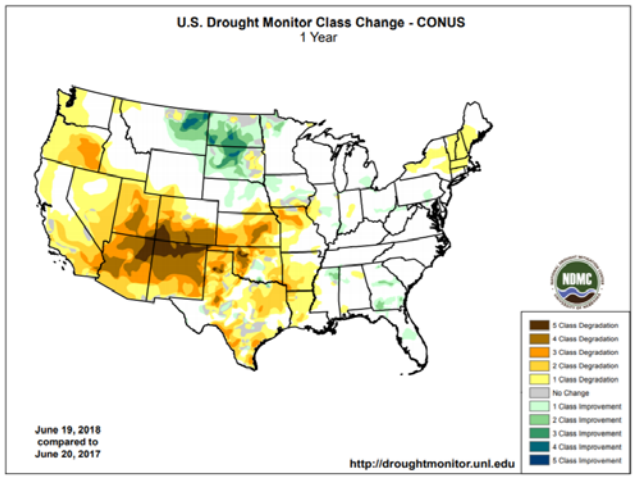
1 Month



6 Months



1 Year

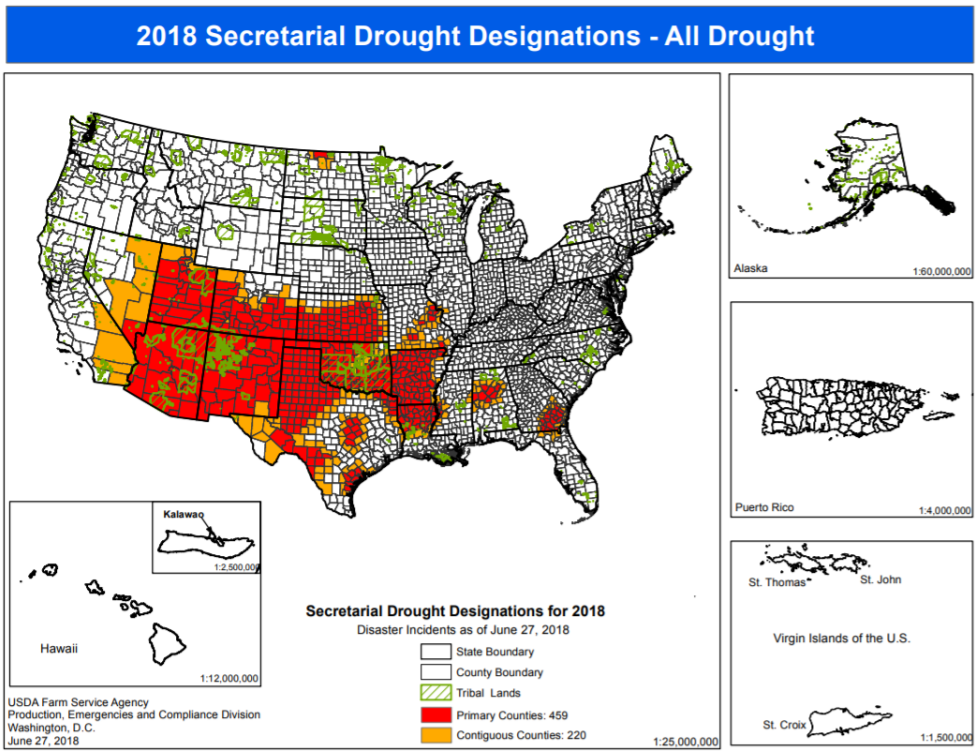


Changes in drought conditions over the last 12 months

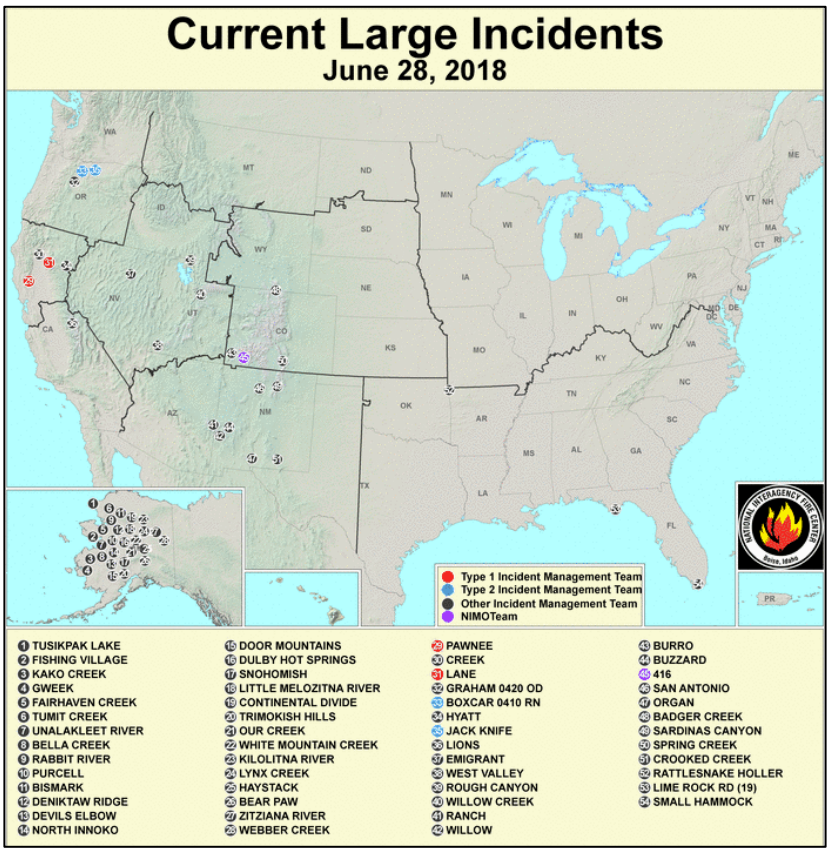
Highlighted Drought Resources

- Drought Impact Reporter
- Quarterly Regional Climate Impacts and Outlook
- U.S. Drought Portal Indicators and Monitoring
- U.S. Population in Drought, Weekly Comparison
- USDA Disaster and Drought Information

USDA 2018 Secretarial [Drought Designations]



Wildfires: [USDA Forest Service Active Fire Mapping]



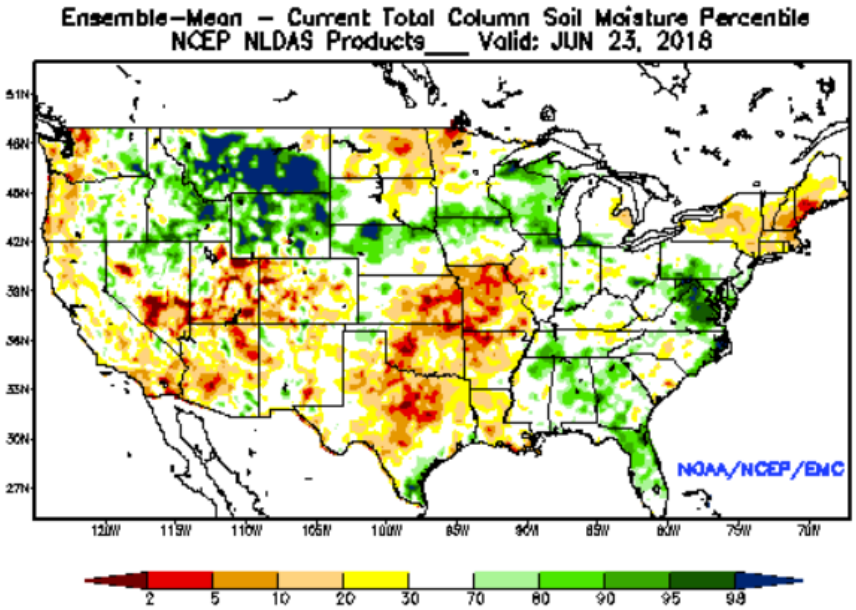
Highlighted Wildfire Resources

- [National Interagency Fire Center]
- [InciWeb Incident Information System]
- [Significant Wildland Fire Potential Outlook]

Other Climatic and Water Supply Indicators

Soil Moisture

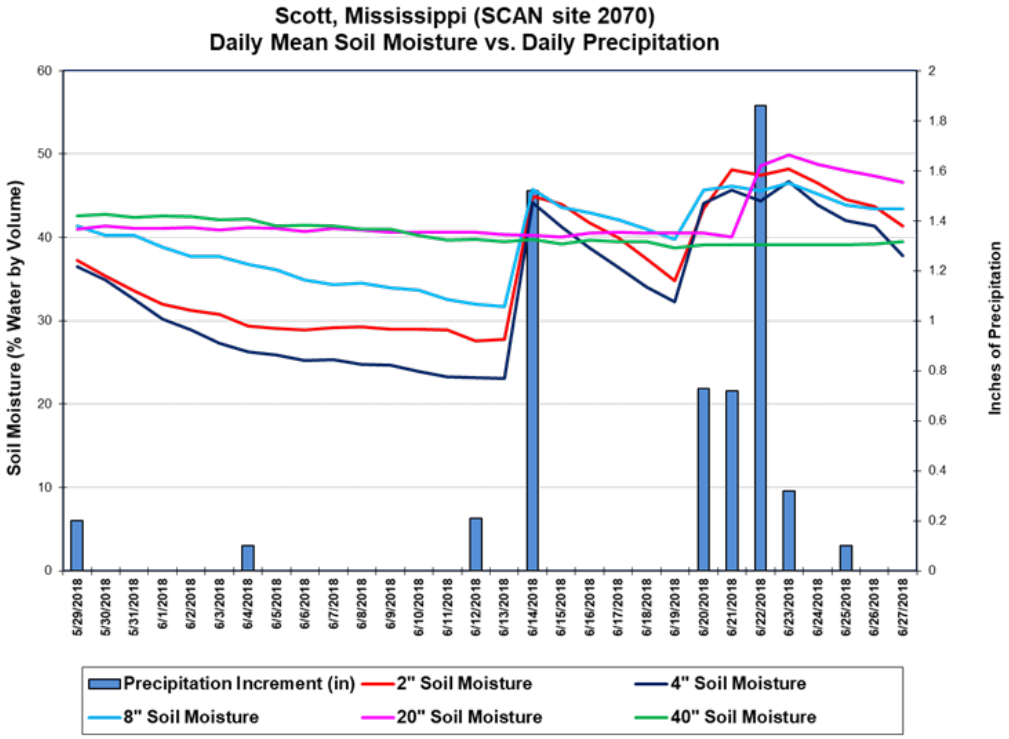
Source: NOAA National Centers for Environmental Prediction



Modeled soil moisture percentiles as of June 23, 2018.

Soil Moisture Data

Source: NRCS Soil Climate Analysis Network (SCAN)



This chart shows the precipitation and soil moisture for the last 30 days at the Scott SCAN site 2070 in Mississippi. The precipitation events between 6/20/18 and 6/23/18 accumulated 3.63 inches of precipitation. Following these events the 2-, 4-, 8-, and 20-inch sensors showed a decrease in soil moisture.

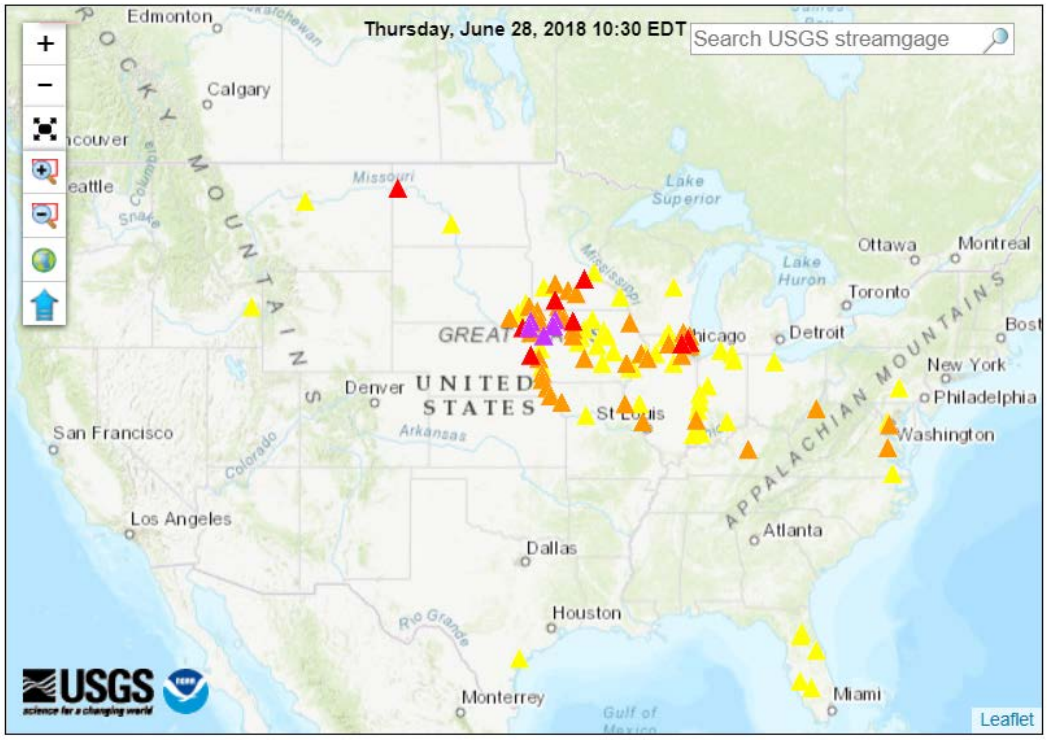
Soil Moisture Data Portals

- CRN Soil Moisture
- Texas A&M University North American Soil Moisture Database
- University of Washington Experimental Modeled Soil Moisture

Streamflow

Source: USGS

Map of flood and high flow conditions



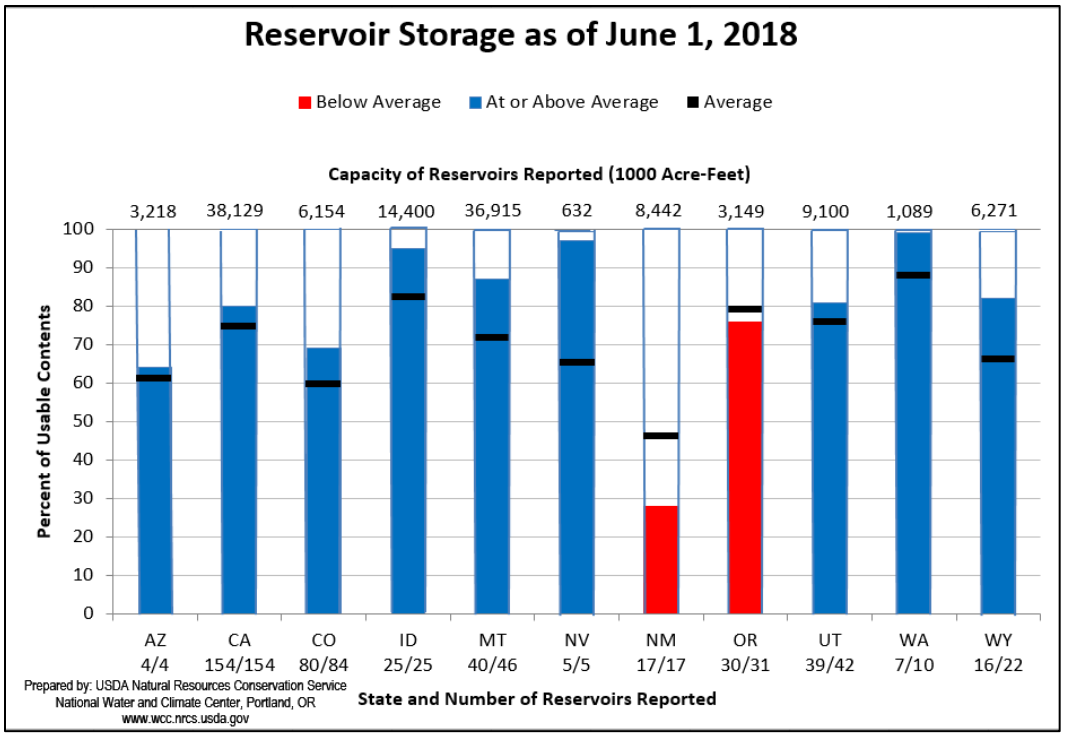
Explanation - Percentile classes						
<95	95-98	>= 99	Above action stage	Above flood stage	Above moderate flood stage	Above major flood stage
△ Streamgage with flood stage ○ Streamgage without flood stage						

WaterWatch: Streamflow, drought, flood, and runoff conditions

Reservoir Storage

Western States Reservoir Storage

Source: NRCS National Water and Climate Center

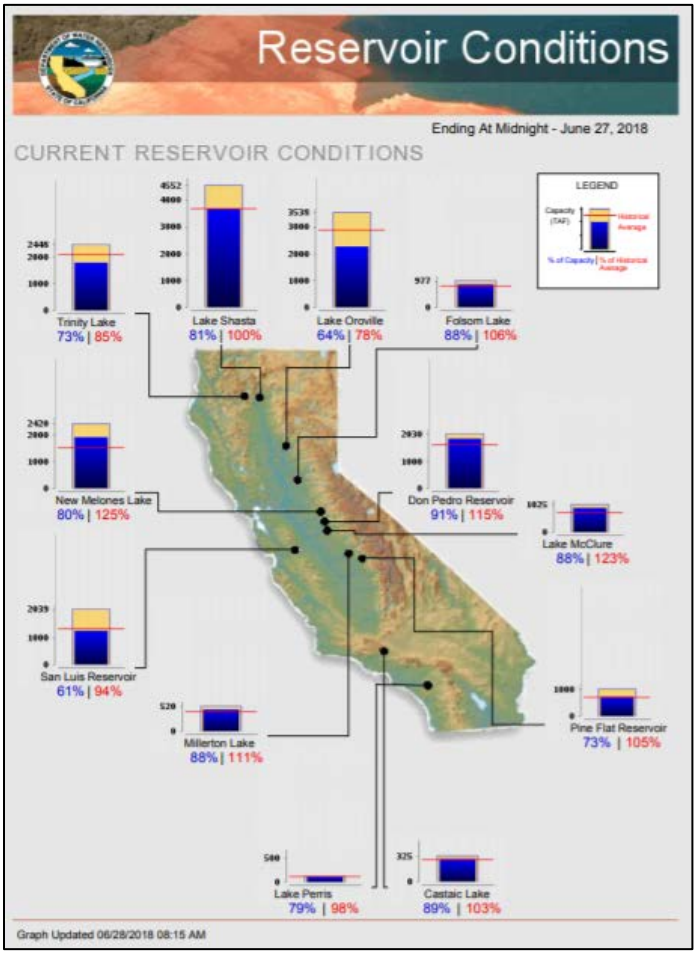


June 1 Reservoir Storage: Chart | Dataset

U.S. Bureau of Reclamation Hydromet Tea Cup Reservoir Depictions

- Upper Colorado
- Pacific Northwest/Snake/Columbia
- Sevier River Water, Utah
- Upper Missouri, Kansas, Oklahoma, Texas

Current California Reservoir Conditions Source: California Department of Water Resources



Current California Reservoir Conditions

Short- and Long-Range Outlooks

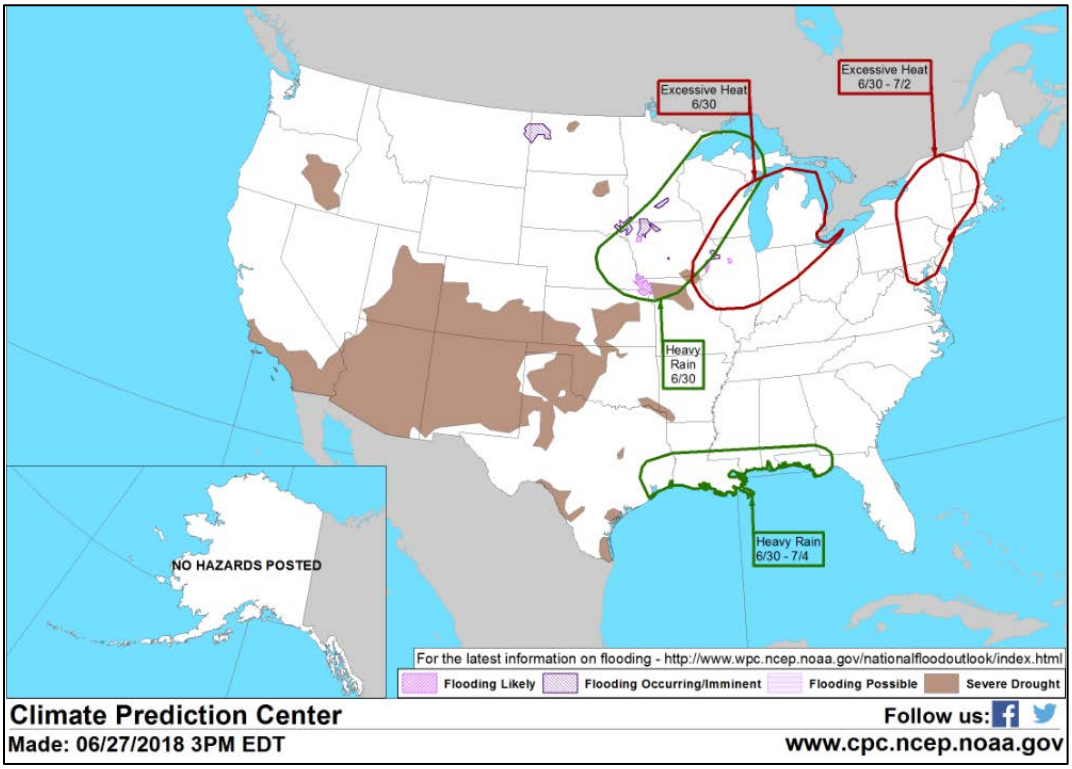
Agricultural Weather Highlights

Author: Eric Luebehusen, Meteorologist, USDA/OCE/WAOB

National Outlook, Thursday, June 28: "High pressure anchored over the eastern third of the nation will allow the heat currently over the central U.S. to shift into the Ohio Valley and Atlantic Coast States. Despite the presence of the high, a humid, unstable air mass will lead to showers over the Southeast. Meanwhile, a slow-moving cold front will produce locally heavy showers and thunderstorms from the north-central U.S. into central portions of the Plains and Mississippi Valley, with pockets of excessive rain (4 inches or more) possible from the western Corn belt into the Dakotas. The southern end of the cold front may trigger showers over the southern High Plains, but dry weather is expected from central Oklahoma southward. The NWS 6- to 10-day outlook for July 3 – 7 calls for the above-normal temperatures from the Rockies to the East Coast, with cooler-than-normal conditions confined to northern California and the Northwest. Drier-than-normal weather is expected over the Interior Northwest and from the central and southern Plains into the Great Lakes region. Conversely, above-normal rainfall is anticipated from the Pacific Northwest into the Upper Midwest and from the Four Corners into the Southeast — save for the dryness expected in southern Texas and on the southern High Plains."

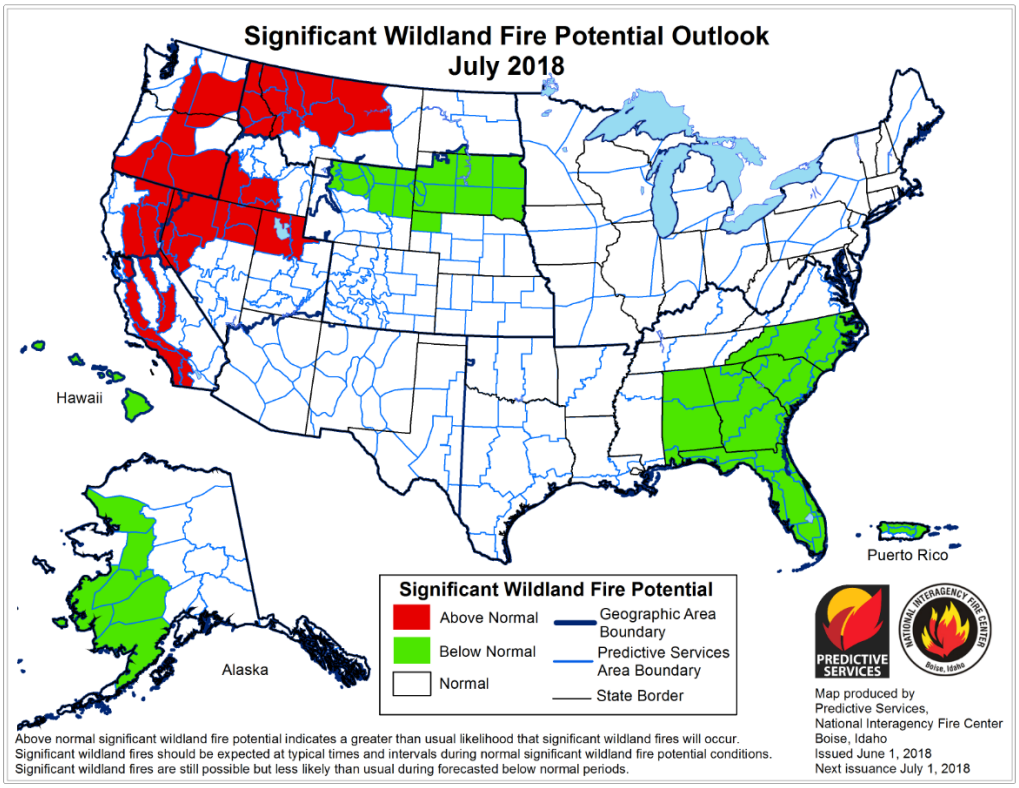
Weather Hazard Outlook June 30 – July 4, 2018

Source: Climate Prediction Center



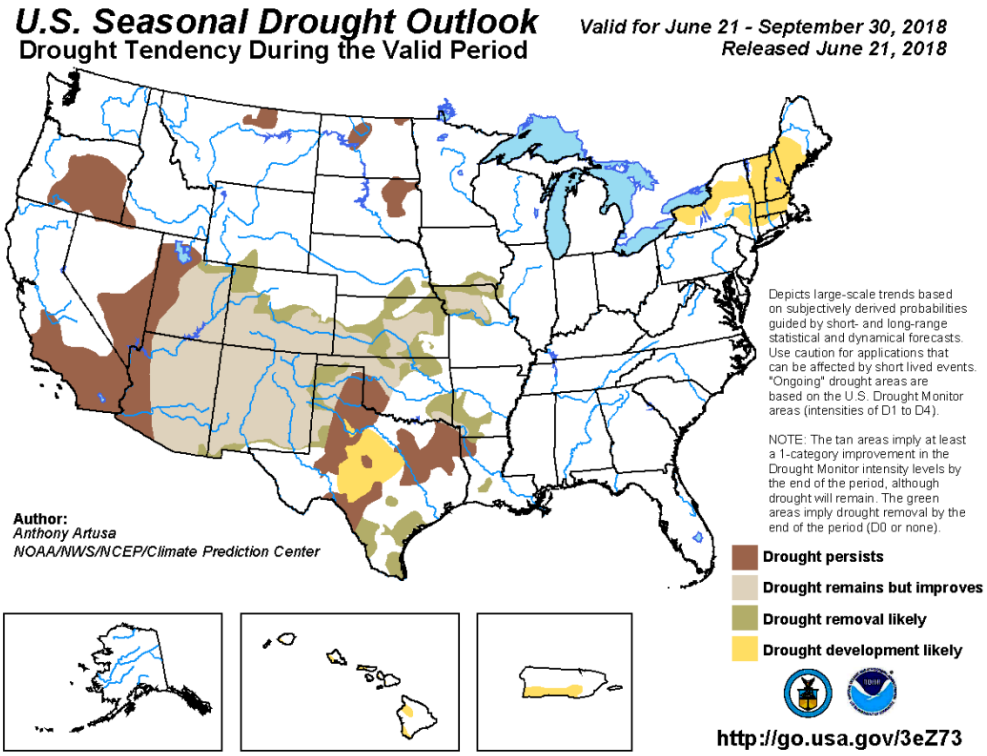
Significant Wildland Fire Potential Outlook

Source: National Interagency Fire Center



Seasonal Drought Outlook: June 21 – September 30, 2018

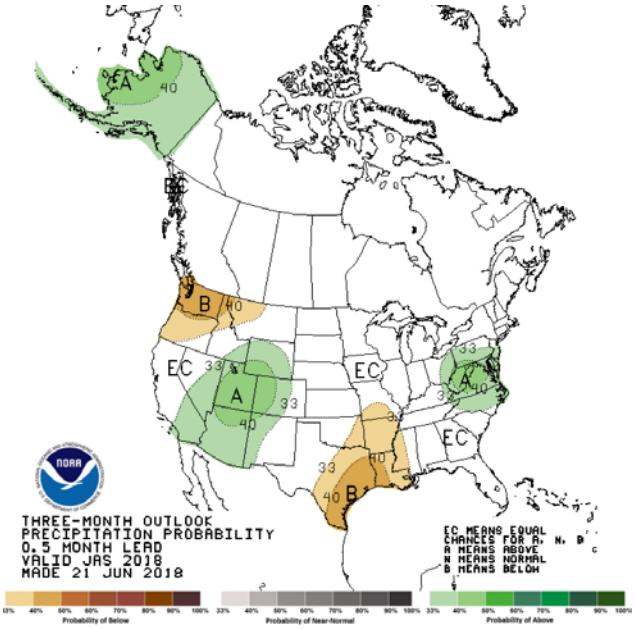
Source: National Weather Service



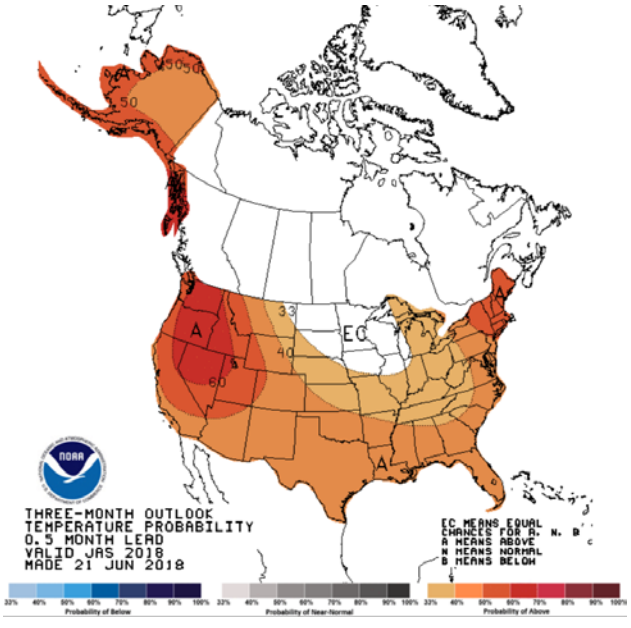
Climate Prediction Center 3-Month Outlook

Source: National Weather Service

Precipitation



Temperature



July-August-September (JAS) 2018 precipitation and temperature outlook summaries

More Information

The NRCS National Water and Climate Center publishes this weekly report. We welcome your feedback. If you have questions or comments, please contact us.