Early record cold and snowfall starts winter

Record-breaking October snow fell from the northern Cascades across the Rockies and into the Plains and Great Lakes region this week. Snow records fell across the Plains where Sioux City’s 2.9 inches broke the previous record set in 1918. Many records were also broken in New Mexico, with the highest recorded amount of 22 inches in Arroyo Seco. Along with the heavy snow, record cold temperatures were seen across the region. Denver broke a 148-year-old record when high temperatures failed to reach 17°F on October 26. A cooperative National Weather Service observer in Lyman, Wyoming, recorded -31.0°F on October 26, making it the coldest temperature observed in October in the lower 48 states.

Related:

Old Man Winter arrives early for millions across the Great Plains and Upper Midwest – Omaha.com
Record Early Season Snow Cover in N. America/U.S. – Wood-TV
Omaha records less than an inch of snow, but other Nebraska spots had 12 inches or more – Omaha.com (NE)
Sunday snowfall breaks 102-year-old record in Sioux City – Sioux City Journal (SD)
San Antonio breaks 84-year-record for cold temperatures on Tuesday – Houston Chronicle (TX)
A record-setting cold laid a blanket of snow over the north-central US during the weekend – KTVB (ID)
‘Killing freeze’ in Wichita weather forecast after snow and cold break NWS records – The Wichita Eagle
How much snow fell around New Mexico? Preliminary snow totals for October 26-28 storm – KRQE (NM)
Denver Weather: Another Record Shattered This Morning As Our Cold Snap Continues – CBS Denver (CO)
Snow

Snow water equivalent percent of median map

See also:
Snow water equivalent values (inches) map

Alaska snow water equivalent percent of median map

See also:
Alaska snow water equivalent values (inches) map
Current Snow Depth, National Weather Service Snow Analysis
Source: NOAA Office of Water Prediction
Precipitation

Last 7 Days, NRCS SNOTEL Network

See also:
Alaska 7-day precipitation percent of average map
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

Percent of Normal Precipitation (%)
10/21/2020 – 10/27/2020

Generated 10/28/2020 at HPRCC using provisional data.
NOAA Regional Climate Centers

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

Percent of Normal Precipitation (%)
10/21/2020 – 10/27/2020

Generated 10/28/2020 at HPRCC using provisional data.
NOAA Regional Climate Centers
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

July through September precipitation percent of average map
Water and Climate Update

Water Year-to-Date, NRCS SNOTEL Network

See also:

2021 water year-to-date precipitation percent of average map

Alaska 2021 water year-to-date precipitation percent of average map

2021 water year-to-date precipitation values (inches) map

Alaska 2021 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 contiguous 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

Last 3 Months, All Available Data Including SNOTEL and NWS Networks
Source: PRISM
“A blast of frigid Arctic air invaded the North Central States, producing weekly temperatures averaging 15 to 25 degrees F below normal in Montana, the Dakotas, Wyoming, Minnesota, Iowa, and Nebraska. The chill was accompanied by a slow-moving storm system that produced light snow across most of the Rockies, Plains, and upper Midwest. Although outdoor conditions were harsh, the storm and cold were welcome as it brought a halt to the abnormal warmth and dryness that had expanded and deepened the drought in the region. In the southern Plains, mixed precipitation (snow, sleet, freezing rain, and rain) glazed portions of New Mexico, western Texas, Oklahoma, and Kansas, while beneficial moderate to heavy rains fell from southwestern Oklahoma northeastward into the eastern Great Lakes region. Heavy rains also were measured in the western Great Lakes region and south Florida. Scattered, light precipitation was measured across most of the Pacific Northwest, Southeast, Midwest, and western portions of the Northeast. Much of the Southwest and Intermountain West was dry, with wild fires still burning across California. In addition, little or no precipitation fell on the southern Plains, parts of the Southeast, and eastern sections of the Northeast. Above normal temperatures enveloped the Southwest, southern Plains, and eastern third of the Nation. At the end of the period, all eyes were on Hurricane Zeta in the Gulf of Mexico as it tracked toward yet another Louisiana landfall.”
Changes in Drought Monitor Categories over Time
Source: National Drought Mitigation Center

1 Week
U.S. Drought Monitor Class Change - CONUS
1 Week

1 Month
U.S. Drought Monitor Class Change - CONUS
1 Month

6 Months
U.S. Drought Monitor Class Change - CONUS
6 Months

1 Year
U.S. Drought Monitor Class Change - CONUS
1 Year

Changes in drought conditions over the last 12 months for the contiguous U.S.

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
Secretarial **Drought Designations**
Source: USDA Farm Service Agency

**2020 Secretarial Drought Designations - All Drought**

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 October 24, 2020](image)

Soil Moisture Percent of Saturation
Source: NRCS SNOTEL and Soil Climate Analysis Network (SCAN)
Soil Moisture
Source: NRCS Soil Climate Analysis Network (SCAN)

This chart shows the precipitation and soil moisture for the last 30 days at the Los Lunas PMC SCAN site in New Mexico. Precipitation on October 28 increased soil moisture at the -2" sensor.

Soil Moisture Data Portals

- CRN Soil Moisture
- Texas A&M University North American Soil Moisture Database
- University of Washington Experimental Modeled Soil Moisture
Streamflow, Drought, Flood, and Runoff
Source: U.S. Geological Survey

Map of flood and high flow conditions
(12 in floods [moderate: 1, minor: 11], 26 in near-flood)

WaterWatch: Streamflow, drought, flood, and runoff conditions
Reservoir Storage

Western States Reservoir Storage
Source: NRCS National Water and Climate Center

Reservoir Storage as of October 1, 2020

Capacity of Reservoirs Reported (1000 Acre-Feet)

State and Number of Reservoirs Reported

Hydromet Teacup Reservoir Depictions
Source: U.S. Bureau of Reclamation

- 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

[Image of a chart showing current California reservoir conditions as of October 22, 2020]

Current California Reservoir Conditions
Agricultural Weather Highlights
Author: Brad Rippey, Agricultural Meteorologist, USDA/OCE/WAOB

**National Outlook, Thursday, October 29, 2020:** “For the remainder of today, Tropical Storm Zeta will accelerate northeastward across the mid-Atlantic before moving offshore. Meanwhile, a storm system departing the southern Plains will move eastward, closely trailing the former hurricane. By Friday and continuing into early next week, mostly dry weather will cover most of the country. Notably, cool, dry weather in areas heavily affected by Zeta will favor recovery efforts and damage assessments. Farther north, however, a weekend cold front will spark some rain and snow showers from the Great Lakes States into the Northeast. Periodic showers will also affect the Pacific Northwest. Elsewhere, a Western warming trend will continue, while a sharp surge of cold air will overspread the Midwest and Northeast during the weekend and early next week. The NWS 6- to 10-day outlook for November 3 – 7 calls for the likelihood of near- or above-normal temperatures and near- or below-normal precipitation across most of the country. Cooler-than-normal conditions should be confined to New England, while wetter-than-normal weather will be limited to the southern tip of Florida and areas from the Pacific Northwest to Montana.”

**Weather Hazards Outlook: October 31 – November 4, 2020**
Source: NOAA Weather Prediction Center
Source: National Weather Service

**U.S. Seasonal Drought Outlook**
Drought Tendency During the Valid Period
Valid for October 15, 2020 - January 31, 2021
Released October 15, 2020

Climate Prediction Center 3-Month Outlook
Source: National Weather Service

**Precipitation**

**Temperature**

November-December-January (NDJ) 2020-2021 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.