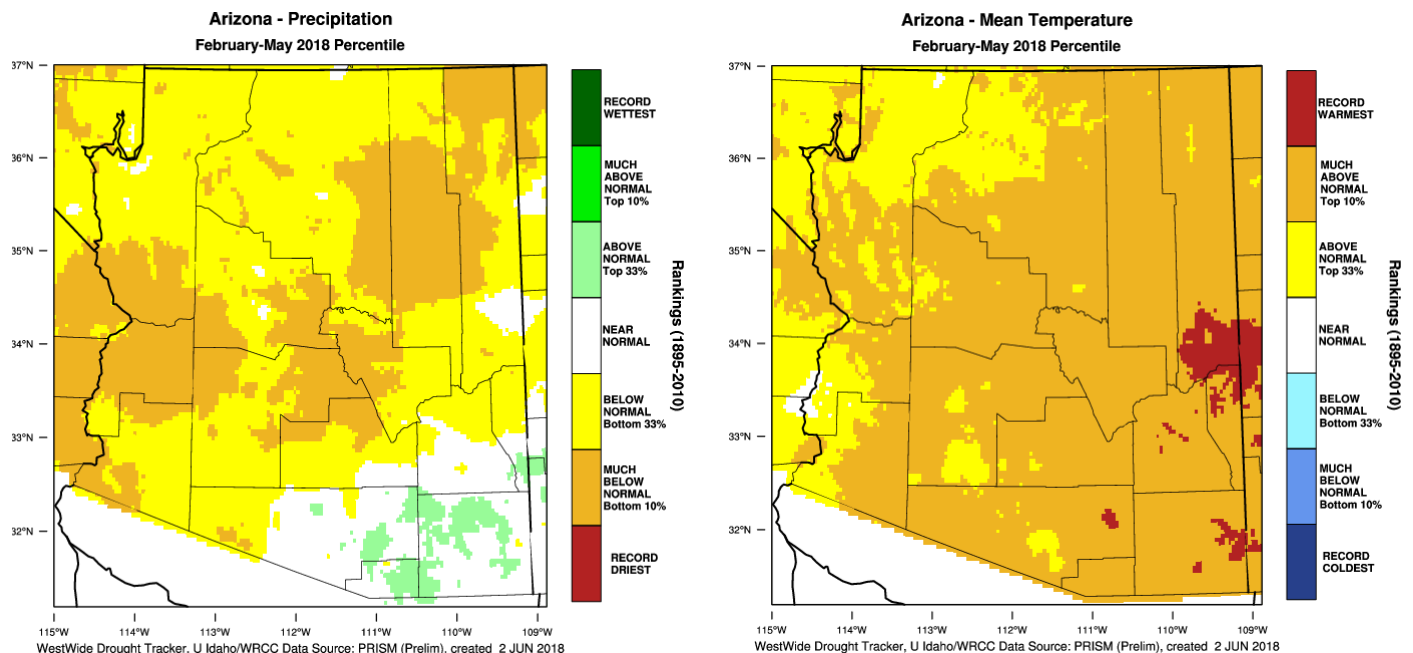




Arizona Seasonal Climate Summary: Spring 2018

June 4, 2018 - The February through May period was a bit wetter with more moderate temperatures in comparison to the record dry and warm winter across Arizona, but overall was still drier and warmer than average. A very warm and wet precipitation event lasting several days occurred in mid-February across far southeast Arizona bringing several inches of rain (over 10 inches at highest elevations in the Sky Islands) to parts of Pima, Santa Cruz, and Cochise Counties. This was the only precipitation that region received over the past several months. Areas to the north didn't observe much if any precipitation in February, but saw more storm activity in the following months of March, April, May. Precipitation amounts were still very light with some higher elevation snow, but overall not enough to come anywhere close to average conditions for the period. Winslow, for example, observed several small precipitation events (< 0.1") in March and April, but still had its driest October-May period on record (1947-2018, <https://goo.gl/bgHcG9>).

Subsequently, drought conditions have continued to degrade across all of Arizona with almost 75% of the state observing 'Extreme' to 'Exceptional' drought according to the May 31st U.S. Drought Monitor map. The depiction of Extreme to Exceptional drought hasn't been this extensive across Arizona on the U.S. Drought Monitor map since spring of 2002. Temperatures moderated slightly over this period, but continued to be much-above average leading to added drought and water stress. This combination of warm and dry conditions has also enhanced spring wildfire danger across the region to near record levels in some areas.



October-January precipitation and temperature rankings from the WestWide Drought Tracker

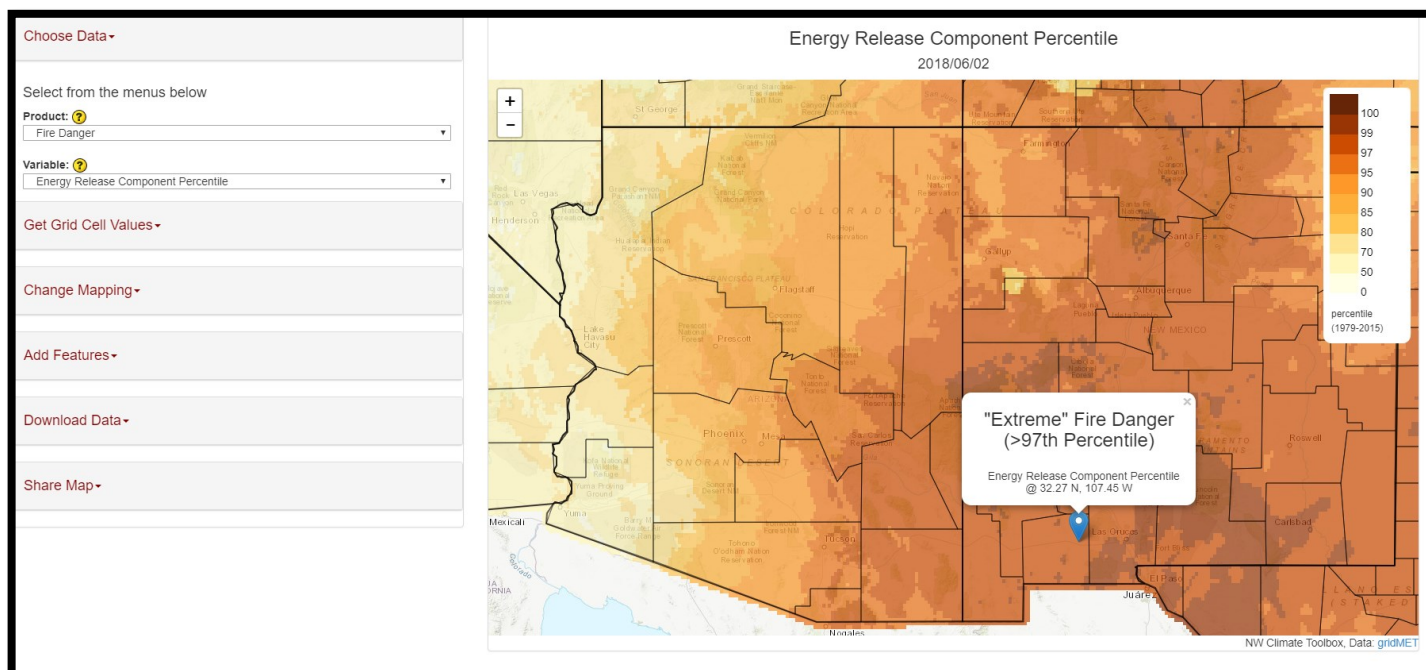
(<http://www.wrcc.dri.edu/wwdt/>)



More information available at :
<http://cals.arizona.edu/climate>
<http://www.climas.arizona.edu>

Questions /comments? Contact Mike Crimmins, crimmins@email.arizona.edu





This map from the Climate Mapper online tool (<https://climatetoolbox.org/tool/Climate-Mapper>) shows the percentile of Energy Release Component (ERC) values across Arizona and New Mexico on June 2nd. The ERC is a fire danger index used in the National Fire Danger Rating System (NFDRS) and is used to track how hot a fire could burn and how hard it would be to control based on estimated moisture in heavier fuels. Cumulative drought conditions will lead to lower fuel moisture values and higher ERC values showing higher fire danger risk. The map above shows the percentile of observed ERC values for this time of year. Very high percentiles (>97th) indicate very rare ERC values in the observed record indicating how extreme current fire conditions are. Very warm and dry conditions over the past several months have pushed ERC percentile values above the 95th percentile across much of eastern Arizona. These high ERC values will persist until monsoon season precipitation raises fuel moisture conditions and reduces seasonal fire risk. This map is available at <https://goo.gl/FnUoS9>.

The July-August-September seasonal precipitation outlook issued by the NOAA Climate Prediction Center in late May depicts an increased chance of above-average seasonal total precipitation for all of Arizona with the largest shift in odds towards wet conditions across northern Arizona. This lean towards wetter than average conditions for Arizona over the upcoming summer monsoon season is being driven by several forecast models that indicate the possibility of above-average precipitation later in the summer, not necessarily an earlier or wetter early monsoon. This may be in response towards a slow progression towards possible El Niño conditions later this summer and enhanced East Pacific tropical storm activity. The official NOAA Eastern Pacific Hurricane Season Outlook also indicates an increased chance of above-average tropical storm activity this upcoming summer season. The impact of tropical storms on Arizona summer precipitation is highly variable from year to year and doesn't always lead to substantial changes in total precipitation. This leads to lower confidence in this seasonal outlook. (More info at http://www.cpc.ncep.noaa.gov/products/predictions/long_range/)

