Water Year 2020 Climate Summary for the City of Moab

Matthew Van Scoyoc

2020-10-30

This document summarizes current temperature and precipitation anomalies relative to 30-year (1981-2010) averages for Moab, Utah (MOAB) during the 2020 water year (October 2019 through September 2020). The data for these analyses were collected at the Visitor Center by NPS personnel and downloaded from the Global Historical Climatology Network on 26 October, 2020 using R (ver. 4.0.3, R Core Team, 2020) and the rnoaa package (ver 1.2.0, Chamberlain, et al. 2020).

Temperature

Water year 2020 was the 16th warmest water year in the 128-year record for MOAB (1893 to 2020); the average annual temperature was 0.17°C above the 30-year average (figure 1A).

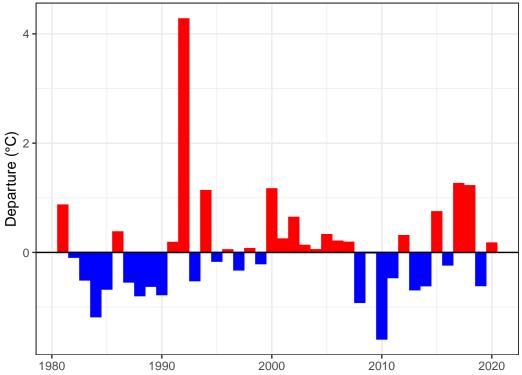
The annual average daily high (TMAX) was 0.59°C below average at 22.53°C (figure 1B). The 30-year annual average daily high is 23.12°C. The monthly average daily high was exceeded 5 times (Nov, Mar, May, Aug, and Sep; figure 1C).

The annual average daily low (TMIN) was 0.67°C above average at 6.51°C (figure 1B). The 30-year annual average daily low is 5.84°C. The monthly average daily low was exceeded 9 times (Dec, Jan, Mar, Apr, May, Jun, Jul, Aug, and Sep; figure 1C).

Precipitation

Water year 2020 was the 6th driest on record for MOAB (figures 2A and 2B). Total precipitation was 143.2 mm less than the 30-year average, totaling 90.3 mm. The 30-year average water year precipitation total for MOAB is 233.5 mm. Nov, Dec, Mar, and Jun received above average precipitation, but they were not enough to compensate for the 8 months that were below average (Oct, Jan, Feb, Apr, May, Jul, Aug, and Sep; figures 2B and 2D).

A. Departure of average annual temperatures



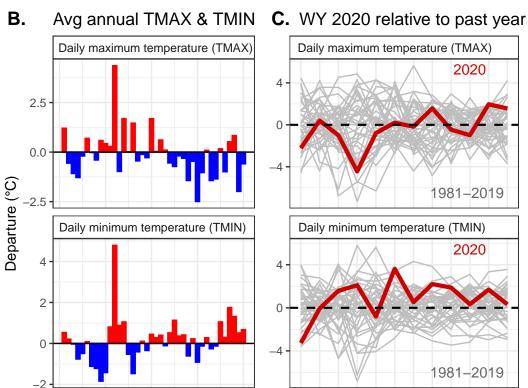
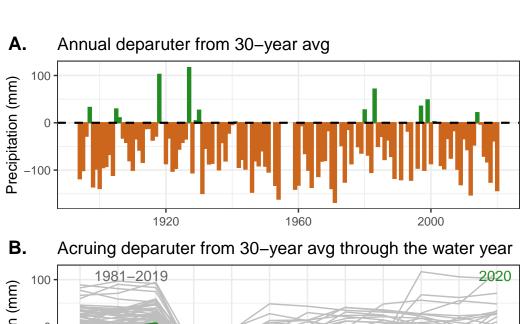
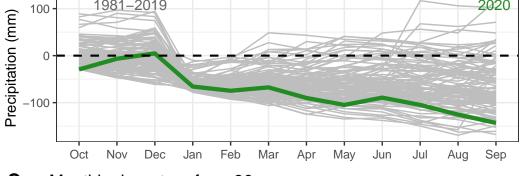
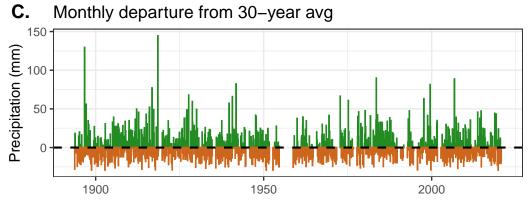


Figure 1: Departure of average temperatures from 30-year averages.

OctNovDecJanFebMarAprlMayJun Jul AugSep







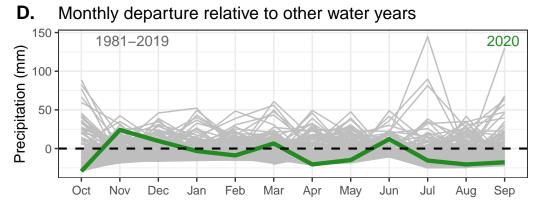


Figure 2: Departure of annual precipitation from 30-year averages.