

## **Niveograph interpolation to estimate peak accumulation at two mountain sites**

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**Abstract** The typical assumption that 1 April SWE represents the peak annual SWE can be improved by fitting a modelled time series plot of SWE derived from daily SWE measurements, to the monthly data typically available from snow courses. For each year, first of the month SWE values were used to adjust the average daily time series to produce estimates of peak SWE. The average annual from (a) the entire time series and (b) specific years averaged for high, medium and low snow accumulation were implemented. For a station in northern Colorado (Joe Wright, average annual peak SWE of 681 mm) and a station in eastern Arizona (Hannagan Meadow, average annual peak SWE of 334 mm), this method produced good estimates of peak SWE. These estimates were improved when the amount of snow on 1 April or 1 March was considered for Joe Wright and Hannagan Meadow, respectively.

**Key words** snow, peak SWE, niveographs, SNOTEL