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DWD-Crowdsourcing: User Reports available on Open Data

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Since July 2020 the DWD WarnWetter-App comprises the Crowdsourcing-module “User Reports”. This module provides users the functionality to report observations about current weather conditions and severe weather to DWD and other users. The data is daily collected and available on DWD’s Open Data portal (<https://opendata.dwd.de/weather/crowdsourcing/warnwetter/>).

The user reports represent the current meteorological conditions at a certain place at a certain point of time. The Crowdsourcing-module provides 10 different meteorological categories (lightning, wind, hail, rain, wet icy conditions, snowfall, snow cover, cloudiness, fog, tornado), each of which contains specific characteristic levels and optionally additional attributes. In addition, the user has the option of setting the location and time of the event manually.

The benefit of the data is that meteorological information at ground level is collected at places where no weather station is located in the immediate vicinity. The dataset is able to complement the existing synoptic station network. In the future, the data could improve the evaluation of the current meteorological conditions and the warning management particularly during extreme weather events.

There is no sophisticated quality control for the user reports. Instead, the users are expected to estimate and report the weather conditions as accurate as possible. Badly inaccurate and false reports are detected by reference data and are excluded instantly. Additionally, in the app users have the opportunity to manually flag meteorologically doubtful reports. Other quality assurance methods are under development.

This contribution contains some numbers and statistics on previous user reports, shows some meteorologically interesting cases, and gives an insight into quality control.