



DATASET DESCRIPTION

Recent daily observations of snow height and water equivalent for Germany, quality control not completed yet

Version: v23.3

Publication date: 2023

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Dataset-ID: urn:x-wmo:md:de.dwd.cdc::obsgermany-climate-daily-water_equiv-recent

Dataset-URL: https://opendata.dwd.de/climate_environment/CDC/observations_germany/climate/daily/water_equiv/recent/

ABSTRACT

They are obtained from DWD stations and legally and qualitatively equivalent partner stations operated for climatological and climate related applications. Comprehensive station metadata (station relocation, instrument change, time zones, change of algorithms) are included.

The data are versioned up to and including the previous year, see date of issue.
For more recent data the quality control has not yet been completed.

POINT OF CONTACT

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DATASET DESCRIPTION

| | |
|-------------------------------|--|
| Parameter | snow depth, snow water equivalent, height of set snow |
| Unit(s) | mm, cm |
| Statistical processing | daily value |
| Temporal coverage | now-P500D -- ... |
| Spatial coverage | stations in Germany |
| Projection | WGS 84 (EPSG:4326) |
| Format description | A zip archive is provided for each station. This zip archive contains the data and meta-informations of the station, instruments and algorithms. The naming schema of the zip-archives is: <code>tageswerte_{product_code}_{station_id}_akt.zip</code> |

application schema csv dialect description

| delimiter | line terminator | header | quote char |
|-----------|-----------------|--------|------------|
| ; | \\r\\n | true | " |

csv content description

| column name | description | uom | type | format |
|--------------------|---|-----|----------|----------------|
| STATIONS_ID | DWD Station ID | | VARCHAR2 | |
| MESS_DATUM | reference date for the measurement | | NUMBER | YYYYMMDD |
| QN_6 | the code of the quality level reflects the quality control procedure applied for the data | | NUMBER | numerical code |
| ASH_6 | height of set snow in cm; missing value = -999 | cm | NUMBER | 9990.0 |
| SH_TAG | snow height in cm; missing value = -999 | cm | NUMBER | 9990.0 |
| WASH_6 | Wasseräquivalent der Gesamtschneehöhe in mm; missing value = -999 | mm | NUMBER | 9990.0 |
| WAAS_6 | Wasseräquivalent ausgestochene Schneehöhe in mm; missing value = -999 | mm | NUMBER | 9990.0 |

Quality Information The QUALITAETS_NIVEAU (QN) shows the quality control procedure applied for a data report (of several parameters) for a certain reporting time.

Data before and including 1980 can reach as best quality check level QN=5. Data after 1980 can reach QN=10 as best quality check level.

QN = 1 : only formal control;
 QN = 2 : controlled with individually defined criteria;
 QN = 3 : automatic control and correction;
 QN = 5 : historic, subjective procedures;
 QN = 7 : second control done, before correction;
 QN = 8 : quality control outside ROUTINE;
 QN = 9 : not all parameters corrected;
 QN = 10 : quality control finished, all corrections finished.

The QUALITAETS_BYTE (QB) denotes whether the value was objected to and/or corrected.

QB = 0 : denotes not flagged,
 QB = 1 : had no objections (either checked and not objected, or not checked and not objected, this can be interpreted only when considering QN);
 QB = 2 : corrected;
 QB = 3 : confirmed with objection rejected;
 QB = 4 : added or calculated;
 QB = 5 : objected;
 QB = 6 : only formally checked;
 QB = 7 : formal objection;
 QB = -999 : quality flag does not exist.

DATA ORIGIN

This climate data are from the station network of DWD, operationally collected in the central MIRAKEL data base and archived, see Behrendt et al., 2011, and Kaspar et al., 2013. For details on current measurement and observation procedures see VuB 3 Beobachterhandbuch (DWD, 2014a), VuB 3 Technikerhandbuch (DWD, 2014b) and VuB 2 Wetterschlüsselhandbuch (DWD, 2013).

RESOURCE MAINTENANCE

In the directory recent/ the data files are updated daily. On a rolling basis, the data of the last 500 days - up to yesterday - are exchanged.

VALIDATION AND UNCERTAINTY ESTIMATE

The quality control (see Spengler, 2002) of this data is not completed yet. Various levels of quality control (see Kaspar et al., 2013) are in progress.

UNCERTAINTIES

The stations are nowadays selected and operated according to WMO guidelines. Though these guidelines aim at minimizing possible local effects, still some applications of certain parameters may require the consideration of local and regional effects.

CONSIDERATIONS FOR APPLICATIONS

For any data analysis, the metadata available in the *.zip files should be taken into account.

ADDITIONAL INFORMATION

For extending the time series into the past, see subdirectories ../historical/. When data from both directories "historical" and "recent" are used together, the difference in the quality control procedure should be considered. For the long term stability consider the uncertainties explained in the data set descriptions within subdirectories /historical/.

LITERATURE

Behrendt, J., et al.: Beschreibung der Datenbasis des NKDZ. Version 3.5, Offenbach, 15.02.2011.

Kaspar, F., et al.: Monitoring of climate change in Germany – data, products and services of Germany's National Climate Data Centre. Adv. Sci. Res., 10, doi:10.5194/asr-10-99-2013, 99–106, 2013.

Spengler, R.: The new Quality Control- and Monitoring System of the Deutscher Wetterdienst. Proceedings of the WMO Technical Conference on Meteorological and Environmental Instruments and Methods of Observation, Bratislava, 2002.

DWD Vorschriften und Betriebsunterlagen Nr. 2 (VuB 2), Wetterschlüsselhandbuch Band D, Nov 2013.

DWD Vorschriften und Betriebsunterlagen Nr. 3 (VuB 3), Technikerhandbuch (THB) für Wettermeldestellen des synoptisch-klimatologischen Mess- und Beobachtungsnetzes, März 2014b.

DWD Vorschriften und Betriebsunterlagen Nr. 3 (VuB 3), Beobachterhandbuch (BHB) für Wettermeldestellen des synoptisch-klimatologischen Mess- und Beobachtungsnetzes, März 2014a.

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REVISION HISTORY

This document is maintained by Deutscher Wetterdienst, CDC - Betrieb, last edited at 2023-06-06.