

DATA SET DESCRIPTION

1km x 1km gridded mean of annual wind speeds from 10 m to 100 m (in 10 m steps) above ground and Weibull parameters, for Germany

Version V0.1

Cite data set as: DWD Climate Data Center (CDC): 1km x 1km gridded mean of annual wind speeds from 10 m to 100 m (in 10 m steps) above ground and Weibull parameters, for Germany, Version V0.1, 2014.

INTENT OF THE DATASET

This document describes the freely available data of the DWD Climate Data Center (CDC). The grids of mean wind speed and Weibull parameters were deduced based on 218 especially quality controlled ground stations with the statistical wind model (SWM). In the procedure, the height over mean sea level was considered, together with geographical surrounding and orography, as well as land-use.

POINT OF CONTACT

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DATA DESCRIPTION

Spatial coverage	Germany
Temporal coverage	01.01.1981 - 31.12.2000
Spatial resolution	1km x 1km
Temporal resolution	multi-annual mean
Projection	0
Format(s)	The files beginning with Wind_*.asc.zip contain the wind velocity in the different heights. Their format is explained in Satzbeschreibung_Wind_1000x1000.pdf. In the files weibull_*.asc.zip the Weibull parameters are given for 10m und 80m, the formats are explained in Satzbeschreibung_Weibull_1000x1000.pdf. All pdf are at https://opendata.dwd.de/climate_environment/CDC/grids_germany/multi_annual/wind_parameters/resol_1000x1000/ .
Parameters	wind velocity 10m, 20m, 30m, 40m, 50m, 60m,70m,80m, 90m, 100m height 0.1 m/s Weibull-scale parameter cdat for 10m und 80m height 1/10 Weibull-form parameter kdat for 10m und 80m height 1/10 Missing values are set 0 or -999.

DATA ORIGIN

See ftp://ftp.dwd.de/pub/CDC/grids_germany/multi_annual/wind_parameters/resol_1000x1000/Wind1981-2000_Info.pdf and Gerth and Christoffer, 1994. Calculations are based on hourly means of wind speeds.

VALIDATION AND UNCERTAINTY ESTIMATE

Siehe ftp://ftp.dwd.de/pub/CDC/grids_germany/multi_annual/wind_parameters/resol_1000x1000/Wind1981-2000_Info.pdf.

REFERENCES

Europäischer Windatlas, Riso, National Laboratory, Roskilde, Denmark, 1990.

Gerth, W.-P. und und J. Christoffer, Windkarten von Deutschland, Meteorologische Zeitschrift, N.F. 3, 67-77, 1994.

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REVISION HISTORY

This document is maintained by DWD unit KU11, last edited on 19.12.2018.