A Big Earth Data Platform for Three Poles

**WATER: Dataset of automatic meteorological observations at the Dayekou Maliantan grassland station in the Dayekou watershed from Nov to Dec, 2007**

1、Description

The dataset of automatic meteorological observations was obtained at the Dayekou Maliantan grassland station (E100°18′/N38°33′, 2817m) from Nov. 2, 2007 to Dec. 31, 2009. The experimental area with a flat and open terrain was slightly sloping from southeast to northwest. The landscape was mainly grassland, with vegetation 0.2-0.5m high.
 Observation items were multilayer gradient (2m and 10m) of the wind speed, the air temperature and air humidity, the air pressure, precipitation, four components of radiation, the multilayer soil temperature (5cm, 10cm, 20cm, 40cm, 80cm, and 120cm), soil moisture (5cm, 10cm, 20cm, 40cm, 80cm, and 120cm), and soil heat flux (5cm & 15cm).
 The raw data were level0 and the data after basic processes were level1, in which ambiguous ones were marked; the data after strict quality control were defined as Level2. The data files were named as follows: station+datalevel+AMS+datadate. Level2 or above were strongly recommended to domestic users. As for detailed information, please refer to Meteorological and Hydrological Flux Data Guide.

2、Keywords

Theme：Soil,Precipitation,Radiation,Temperature,Winds,Visibility,Soil temperature,Wind direction,Soil moisture/Water content,Air temperature,wind speed,Soil heat flux
Discipline：Atmosphere,Terrestrial Surface
Places：Heihe River Basin, Dayekou watershed foci experimental areas, Forest and Hydrology Experimental Areas,
Time：

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：62.2MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.548 | - |
| west：100.296 | - | east：100.296 |
| - | south：38.548 | - |

5、Time frame:2007-11-15 16:00:00+00:00--2010-01-13 16:00:00+00:00

6、Reference method

References to data:

Zhang Zhihui. WATER: Dataset of automatic meteorological observations at the Dayekou Maliantan grassland station in the Dayekou watershed from Nov to Dec, 2007. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0289.db2015

References to articles:

Xu, T., Liu, S., Xu, L., Chen ,Y., Jia, Z., Xu, Z., &Nielson, J. (2015). Temporal Upscaling and Reconstruction of Thermal Remotely Sensed Instantaneous Evapotranspiration. Remote Sensing, 7(3), 3400-3425.

7、Supporting project information

The CAS (Chinese Academy of Sciences) Action Plan for West Development Project
National Program on Key Basic Research Project (973 Program

8、Data resource provider

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