A Big Earth Data Platform for Three Poles

**WATER: Dataset of automatic meteorological observations at the Binggou cold region hydrometerological station (2007-2009)**

1、Description

The dataset of automatic meteorological observations was obtained at the Binggou cold region hydrometerological station (N38°04′/E100°13′), south of Qilian county, Qinghai province, from Sep. 25, 2007 to Dec. 31, 2009. The experimental area with paramo and riverbed gravel, situated in the upper stream valley of Heihe river, is ideal for the flat and open terrain and hills and mountains stretching outwards.
 The items were multilayer (2m and 10m) of the air temperature and air humidity, the wind speed, 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 and 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.
 The period from Sep. 25, 2007 to Mar. 12, 2008 was the pre-observing duration, during which hourly precipitation data (fragmented) and the soil temperature and soil moisture data were to be obtained. Stylized observations began from Mar. 12, 2008. 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,Pressure,Soil heat flux
Discipline：Atmosphere,Terrestrial Surface
Places：Heihe River Basin, the cold region hydrology experimental area in the upper reaches, ice-channel watershed encryption observation area,
Time：

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：47.1MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.07 | - |
| west：100.22 | - | east：100.22 |
| - | south：38.07 | - |

5、Time frame:2007-10-13 00:00:00+00:00--2010-01-18 00:00:00+00:00

6、Reference method

References to data:

Zhang Zhihui. WATER: Dataset of automatic meteorological observations at the Binggou cold region hydrometerological station (2007-2009). A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0291.db2015

References to articles:

Li HY, Wang J. Simulation of snow distribution and melt under cloudy conditions in an alpine watershed. Hydrology and Earth System Sciences, 2011, 15(7): 2195-2203. doi:10.5194/hess-15-2195-2011.

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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