A Big Earth Data Platform for Three Poles

**WATER: Dataset of automatic meteorological observations at the Dadongshu mountain pass snow observation station (2007-2009)**

1、Description

The dataset of automatic meteorological observations was obtained at the Dadongshu mountain snow observation station (E100°14′/N38°01′, 4101m) from Oct. 29, 2007 to Oct. 1, 2009. The experimental area with a flat and open terrain was slightly sloping from southeast to northwest. With alpine meadow and stones, and snow in autumn, winter and spring, the landscape was ideal.  
 Observation items were multilayer (2m and 10m) of the wind speed, the air temperature and air humidity, the air pressure, rain and snow gauges, snow depth, 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,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：53.2MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.01 | - |
| west：100.24 | - | east：100.24 |
| - | south：38.01 | - |

5、Time frame:2007-11-13 08:00:00+00:00--2010-01-15 08:00:00+00:00

6、Reference method

References to data:

HAO Xiaohua. WATER: Dataset of automatic meteorological observations at the Dadongshu mountain pass snow observation station (2007-2009). A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0295.db2015

References to articles:

Wang L, Koike T, Yang K, Jin R, Li H. Frozen soil parameterization in a distributed biosphere hydrological model. Hydrology and Earth System Sciences, 2010, 14(3): 557-571.  
  
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. doi:10.3390/rs70303400.

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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