A Big Earth Data Platform for Three Poles

**HiWATER：The multi-scale observation experiment on evapotranspiration over heterogeneous land surfaces 2012 (MUSOEXE-12)-Dataset of Intensive runoff observations of No.2 in the middle reaches of the Heihe River Basin**

1、Description

The No. 2 hydrological section is located at 312 Heihe River Bridge (38°59′51.71″ N, 100° 24′38.76″ E, 1485 m a.s.l.) in the middle reaches of the Heihe River Basin, Zhangye, Gansu Province. The dataset contains observations from the No.2 hydrological section from 19 June, 2012, to 24 November, 2012. This section consists of two river sections, i.e., the east section is marked as No. 1 and the west section is marked as No. 2. The width of this section is 90 meters. This section consists of a gravel bed; the cross-sectional area is unstable because of human factors. The water level was measured using SR50 ultrasonic range and the discharge was measured using cross-section reconnaissance by the StreamPro ADCP. The dataset includes the following sections: Water level (recorded every 30 minutes) and Discharge. The data processing and quality control steps were as follows: 1) The water level data which collected from the hydrological station were averaged over intervals of 10 min for a total of 144 records per day. The missing data were denoted by -6999. 2) Data out the normal range records were rejected. 3) Unphysical data were rejected.  
For more information, please refer to Liu et al. (2016) (for multi-scale observation experiment or sites information), He et al. (2016) (for data processing) in the Citation section.

2、Keywords

Theme：Surface Water,Hydrology section,Discharge/Flow,Runoff  
Discipline：Terrestrial Surface  
Places：Heihe River Basin, the artificial oasis experimental area in the middle reaches,   
Time：2012-06-19 to 2012-11-24, 2012

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：0.22MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.996667 | - |
| west：100.42444 | - | east：100.427222 |
| - | south：38.996387 | - |

5、Time frame:2012-06-28 16:26:00+00:00--2012-12-03 02:00:00+00:00

6、Reference method

References to data:

LIU Shaomin, JIANG Heng. HiWATER：The multi-scale observation experiment on evapotranspiration over heterogeneous land surfaces 2012 (MUSOEXE-12)-Dataset of Intensive runoff observations of No.2 in the middle reaches of the Heihe River Basin. A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.110.2013.db2016

References to articles:

He XB, et al. Comparison of a tipping-buchet and electronic weighting precipitation gauge for rainfall. Manuscript in preparation.  
  
Li X, Cheng GD, Liu SM, Xiao Q, Ma MG, Jin R, Che T, Liu QH, Wang WZ, Qi Y, Wen JG, Li HY, Zhu GF, Guo JW, Ran YH, Wang SG, Zhu ZL, Zhou J, Hu XL, Xu ZW. Heihe Watershed Allied Telemetry Experimental Research (HiWATER): Scientific objectives and experimental design. Bulletin of the American Meteorological Society, 2013, 94(8): 1145-1160, 10.1175/BAMS-D-12-00154.1.

7、Supporting project information

National Natural Science Foundation of China

8、Data resource provider

name: JIANG Heng  
unit: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences  
email:   
  
name: LIU Shaomin  
unit: Beijing Normal University  
email: smliu@bnu.edu.cn