A Big Earth Data Platform for Three Poles

**HiWATER: Dataset of hydrometeorological observation network (No.2 runoff observation system of 312 bridge on the Heihe River, 2014)**

1、Description

The data set includes the observation data of river water level and velocity at No.2 point in the runoff densification observation of the middle reaches of Heihe River from January 1, 2014 to December 31, 2014. The observation point is located in Heihe bridge, 312 National Road, Zhangye City, Gansu Province. The riverbed is sandy gravel with unstable section. The longitude and latitude of the observation points are N38 ° 59 ′ 51.71 ″, E100 ° 24 ′ 38.76 ″, with an altitude of 1485 meters, and a channel width of 70 meters and 20 meters. Sr50 ultrasonic range finder is used for water level observation, with acquisition frequency of 30 minutes. The data description includes the following parts: For water level observation, the observation frequency is 30 minutes, unit (CM); the data covers the period from January 1, 2014 to December 31, 2014; for flow observation, unit (M3); for flow monitoring according to different water levels, the water level flow curve is obtained, and the runoff change process is obtained based on the observation of water level process. The section of bridge no.2-312 is frequently disturbed by human beings, and the unstable area of hydrological section leads to the disorder of water level and flow curve. During the measurement, the stable flow and water level curve cannot be obtained. The missing data is uniformly represented by string-6999.
Refer to Li et al. (2013) for hydrometeorological network or station information and he et al. (2016) for observation data processing.

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：2014, 2014-01-01 to 2014-12-31

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：1.0MB

4.Data format：EXCEL

4、Space scope

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

5、Time frame:2014-01-13 00:00:00+00:00--2015-01-12 00:00:00+00:00

6、Reference method

References to data:

LI Xin, LIU Shaomin, XU Ziwei, HE Xiaobo. HiWATER: Dataset of hydrometeorological observation network (No.2 runoff observation system of 312 bridge on the Heihe River, 2014). A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.227.2015.db2016

References to articles:

Li, X., Cheng, G.D., Liu, S.M., Xiao, Q., Ma, M.G., Jin, R., Che, T., Liu, Q.H., Wang, W.Z., Qi, Y., Wen, J.G., Li, H.Y., Zhu, G.F., Guo, J.W., Ran, Y.H., Wang, S.G., Zhu, Z.L., Zhou, J., Hu, X.L., & Xu, Z.W. (2013). Heihe watershed allied telemetry experimental research (hiwater): scientific objectives and experimental design. Bulletin of the American Meteorological Society, 94(8), 1145-1160. doi:10.1175/BAMS-D-12-00154.1.

Liu, S.M., Li, X., Xu, Z.W., Che, T., Xiao, Q., Ma, M.G., Liu, Q.H., Jin, R., Guo, J.W., Wang, L.X., Wang, W.Z., Qi, Y., Li, H.Y., Xu, T.R., Ran, Y.H., Hu, X.L., Shi, S.J., Zhu, Z.L., Tan, J.L., Zhang, Y., & Ren, Z.G. (2018). The Heihe Integrated Observatory Network: A Basin-Scale Land Surface Processes Observatory in China. Vadose Zone Journal, 17(1), 180072. doi:10.2136/vzj2018.04.0072.

7、Supporting project information

National Natural Science Foundation of China

8、Data resource provider

name: XU Ziwei
unit: Beijing Normal University
email: xuzw@bnu.edu.cn

name: HE Xiaobo
unit: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences
email: hxb@lzb.ac.cn

name: LI Xin
unit:
email: xinli@itpcas.ac.cn

name: LIU Shaomin
unit: Beijing Normal University
email: smliu@bnu.edu.cn