A Big Earth Data Platform for Three Poles

**Hydrological data set of surface process and environment observation network in alpine region of China (2019)**

1、Description

Based on the long-term observation data of the field stations in the alpine network and the overseas stations in the pan third polar region, a series of data sets of meteorological, hydrological and ecological elements in the pan third polar region are established; through the intensive observation and sample plot and sample point verification in key areas, the inversion of meteorological elements, lake water and water quality, aboveground vegetation biomass, glacier and frozen soil change and other data products are completed; based on the Internet of things, the data products are retrieved Network technology, research and establish meteorological, hydrological, ecological data management platform of multi station networking, to achieve real-time data acquisition and remote control and sharing.  
The hydrological data set of the surface process and environment observation network in China's alpine regions in 2019 mainly collects the measured hydrological (runoff, water level, water temperature, etc.) data at six stations, including Southeast Tibet station, Zhufeng station, Yulong Snow Mountain station, Namco station, Ali station and Tianshan station.  
Southeast Tibet station: flow data, including 4 times of using M9 to measure flow in 2019, including average velocity, flow and maximum water depth; relative water level data is measured by hobo pressure water level meter, including daily average relative water level and water temperature data in 2019.  
Namco station: discharge data, including the data measured by domestic ls-1206b hand-held current meter for 4 times in 2019, including river width and flow data. The water level data is measured by hobo pressure water level meter, including the water pressure, water temperature and electricity of the original 1 hour in 2019. The relative water level can be calculated by water pressure;  
Everest station: rongbuhe river discharge, including river width and discharge data measured by domestic ls-1206b hand-held current meter 13 times from June to September 2019;  
Ali station: flow data: including 22 times of irregular measurement data by river anchor M9 in 2019, and relative water level data measured by hobo pressure water level meter, including hourly water level and water temperature data of the whole year in 2019;  
Tianshan station: water level data: including daily average water level of 3 points in 2019  
Yulong Xueshan station: including mujiaqiao flow data from January to October in 2019

2、Keywords

Theme：Surface Water  
Discipline：Terrestrial Surface  
Places：Tibetan Plateau, HORN  
Time：Daily, 2019

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.8MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：43.0 | - |
| west：75.0 | - | east：103.0 |
| - | south：27.0 | - |

5、Time frame:2019-01-08 08:00:00+00:00--2020-01-07 19:59:59+00:00

6、Reference method

References to data:

ZHU Liping. Hydrological data set of surface process and environment observation network in alpine region of China (2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Hydro.tpdc.2707412020

References to articles:

彭萍, 朱立平. (2017). 基于野外站网络的青藏高原地表过程观测研究, 科技导报, 35(6), 97-102

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

name: ZHU Liping  
unit: Institute of Tibetan Plateau Research, CAS  
email: lpzhu@itpcas.ac.cn