A Big Earth Data Platform for Three Poles

**Glacier melt runoff data of the Qinghai Tibet Plateau (2020)**

1、Description

Glacier is the supply water source of rivers in the western mountainous area, and it is one of the most basic elements for people to survive and develop industry, agriculture and animal husbandry in the western region. Glaciers are not only valuable fresh water resources, but also the source of serious natural disasters in mountainous areas, such as sudden ice lake outburst flood, glacier debris flow and ice avalanche. Glacier hydrological monitoring is the basis for studying the characteristics of glacier melt water, the replenishment of glacier melt water to rivers, the relationship between glacier surface ablation and runoff, the process of ice runoff and confluence, and the calculation and prediction of floods and debris flows induced by glacier and seasonal snow melt water. Glacial hydrology refers to the water and heat conditions of glacial covered basins (i.e. glacial action areas), that is, the water and heat exchange between glaciers and their surrounding environment, the physical process of water accumulation and flow on the surface, inside and bottom of glaciers, the water balance of glaciers, the replenishment of glacial melt water to rivers, and the impact of water bodies in cold regions on climate change. At present, hydrological monitoring stations are mainly established at the outlet of the river basin to carry out field monitoring《 Glacial water resources of China (1991), hydrology of cold regions of China (2000) and glacial Hydrology (2001) summarize the early studies on glacial hydrology. China has carried out glacier hydrological monitoring on more than 20 glaciers in Tianshan, Karakorum, West Kunlun, Qilian, Tanggula, Nianqing Tanggula, gangrigab, Hengduan and Himalayas. This data set is the monthly runoff data of representative glaciers.

2、Keywords

Theme：Surface Water,Glacier(Ice Sheet),Runoff
Discipline：Terrestrial Surface,Cryosphere
Places：Tibetan Plateau
Time：2020

3、Data details

1.Scale：None

2.Projection：

3.Filesize：1.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：45.0 | - |
| west：70.0 | - | east：105.0 |
| - | south：25.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

LI Zhongqin, QIN Xiang, WANG Ninglian, YANG Wei. Glacier melt runoff data of the Qinghai Tibet Plateau (2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2719022021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: QIN Xiang
unit: Institute of Geographical Sciences and Natural Research, CAS
email: qinxiang@lzb.ac.cn

name: YANG Wei
unit: Institute of Tibetan Plateau Research,Chinese Academy of Sciences
email: yangww@itpcas.ac.cn

name: LI Zhongqin
unit:
email: lizq@lzb.ac.cn

name: WANG Ninglian
unit:
email: nlwang@nwu.edu.cn