A Big Earth Data Platform for Three Poles

**Annual glacier mass balance data on Tibetan Plateau (2019-2020)**

1、Description

Glacial mass balance is one of the most important glaciological parameters to characterize the accumulation and ablation of glaciers. Glacier mass balance is the link between climate and glacier change, and it is the direct reflection of glacier to the regional climate. Climate change leads to the corresponding changes in the material budget of glaciers, which in turn can lead to changes in the movement characteristics and thermal conditions of glaciers, and then lead to changes in the location, area and ice storage of glaciers. The monitoring method is to set a fixed mark flower pole on the glacier surface and regularly monitor the distance between the glacier surface and the top of the flower pole to calculate the amount of ice and snow melting; In the accumulation area, the snow pits or boreholes are excavated regularly to measure the snow density, analyze the characteristics of snow granular snow additional ice layer, and calculate the snow accumulation; Then, the single point monitoring results are drawn on the large-scale glacier topographic map, and the instantaneous, seasonal (such as winter and summer) and annual mass balance components of the whole glacier are calculated according to the net equilibrium contour method or contour zoning method. The data set is the annual mass balance data of different representative glaciers in the Qinghai Tibet Plateau and Tianshan Mountains, in millimeter water equivalent.

2、Keywords

Theme：Surface mass balance,Glacier(Ice Sheet)  
Discipline：Cryosphere  
Places：Tibetan Plateau, Tibetan PlateauTianshan mountain,   
Time：2019-2020

3、Data details

1.Scale：None

2.Projection：

3.Filesize：0.01MB

4.Data format：None

4、Space scope

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

5、Time frame:2019-08-31 16:00:00+00:00--2020-09-30 16:00:00+00:00

6、Reference method

References to data:

WU Guangjian. Annual glacier mass balance data on Tibetan Plateau (2019-2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Glacio.tpdc.2714672021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

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