A Big Earth Data Platform for Three Poles

**Typical glacial velocity dataset of the north and south poles of the QTP (2000-2017) v1.0**

1、Description

Glaciers are very sensitive to regional and global climate change, so they are often regarded as one of the indicators of climate change, and their relevant parameters are also the key indicators of climate change research. Especially in the comparative study of the three polar environmental changes on the earth, the time and space difference ratio of glacial speed is one of the focuses of climate change research. However, because glaciers are basically located in high altitude, high latitude and high cold areas, the natural environment is poor, and people are rarely seen, and it is difficult to carry out the conventional field measurement of large-scale glacial movement. In order to understand the glacial movement in the three polar areas in a timely, efficient, comprehensive and accurate manner, radar interferometry, radar and optical image pixel tracking are used to obtain the three polar areas. The distribution of surface movement of some typical glaciers in some years from 2000 to 2017 provides basic data for the comparative analysis of the movement of the three polar glaciers. The dataset contains 12 grid files named "glacier movement in a certain period of time in a certain region". Each grid map mainly contains the regional velocity distribution of a typical glacier.

2、Keywords

Theme：Glacier motion,Glacial velocity,Glacier(Ice Sheet)  
Discipline：Cryosphere  
Places：Antarctica, QTP, Arctic  
Time：2000-2017

3、Data details

1.Scale：None

2.Projection：

3.Filesize：1500.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.33 | - |
| west：79.51 | - | east：80.33 |
| - | south：42.0 | - |

5、Time frame:2000-01-15 08:00:00+00:00--2018-01-14 08:00:00+00:00

6、Reference method

References to data:

Yan Shiyong. Typical glacial velocity dataset of the north and south poles of the QTP (2000-2017) v1.0. A Big Earth Data Platform for Three Poles, doi:10.11888/Glacio.tpdc.2702632019

References to articles:

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider

name: Yan Shiyong  
unit: China University of Mining and Technology  
email: yanshiyong@126.com