A Big Earth Data Platform for Three Poles

**Glacier Velocity Data Set in Tibetan Plateau (2019-2020)**

1、Description

The extraction of glacier surface movement is of great significance in the study of glacier dynamics and material balance changes. In view of the shortcomings of the current application of autonomous remote sensing satellite data in glacier movement monitoring in China, the SAR data covering typical glaciers in alpine areas of the Qinghai Tibet Plateau from 2019 to 2020 obtained under the GF-3 satellite FSI mode was used to obtain the glacier surface velocity distribution in the study area with the help of a parallel offset tracking algorithm. With its good spatial resolution, GF-3 image has significant advantages in extracting glacier movement with small scale and slow movement, and can better reflect the details and differences of glacier movement. This study is helpful to analyze the movement law and spatio-temporal evolution characteristics of glaciers in the Qinghai Tibet Plateau under the background of climate change.

2、Keywords

Theme：Surface Freeze-thaw Cycle/state Remote Sensing,Glacier(Ice Sheet)  
Discipline：Cryosphere  
Places：Qinghai Tibet Plateau  
Time：2019-2020

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：94.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.0 | - |
| west：72.0 | - | east：95.0 |
| - | south：28.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

YAN Shiyong. Glacier Velocity Data Set in Tibetan Plateau (2019-2020). A Big Earth Data Platform for Three Poles, 2022

References to articles:

7、Supporting project information

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

8、Data resource provider

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