A Big Earth Data Platform for Three Poles

**Data product of ice velocity field on the Fimbul and Jelbart Ice Shelves, East Antarctica (1963-1987)**

1、Description

In order to better understand the mechanism of the interaction between the global climate and the Fimbu and Jelbart ice shelves, it is important to obtain the long-term ice velocity changes in this region. 1960-1980s Ice Flow Velocity Field Data Product Set of the Fimbul and Jelbart Ice Shelves, East Antarctica: Using the early Argon, Landsat MSS and TM satellite images, based on pre-processing the early remote sensing images to obtain the orthophoto images with precise geometric status, a layered matching method under the constraint strategy of artificial point feature point grid point was proposed, and the historical ice flow velocity field data product of the Fimbul Jelbart Ice Shelf, East Antarctica was extracted. This study is of great significance for studying the historical ice velocity of the Fimbul Jelbart Ice Shelf in East Antarctica from 1963 to 1987, and can provide basic data for studying the response of the ice sheet to global climate change.

2、Keywords

Theme：Ice Shelf,fimbul  
Discipline：Cryosphere  
Places：Antarctica  
Time：1963-1987

3、Data details

1.Scale：None

2.Projection：South\_Pole\_Stereographic

3.Filesize：6.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：-69.8 | - |
| west：-13.0 | - | east：11.0 |
| - | south：-75.7 | - |

5、Time frame:None--None

6、Reference method

References to data:

CHENG Yuan , QIAO Gang , LI Rongxing , LI Yanjun , FENG Tiantian . Data product of ice velocity field on the Fimbul and Jelbart Ice Shelves, East Antarctica (1963-1987). A Big Earth Data Platform for Three Poles, doi:https://doi.org/10.1017/jog.2022.582022

References to articles:

Feng, T., Li, Y., Wang, K., Qiao, G., Cheng, Y., Yuan, X., Luo, S., & Li, R.\*. (2022). A hierarchical network densification approach for reconstruction of historical ice velocity fields in East Antarctica. Journal of Glaciology. 1-20. https://doi.org/10.1017/jog.2022.58

7、Supporting project information

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8、Data resource provider

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