A Big Earth Data Platform for Three Poles

**Continent-wide annual ice velocity maps in Antarctic ice sheet between 2013 and 2019**

1、Description

This dataset includes annual mosaics of Antarctic ice velocity derived from Landsat 8 images between December, 2013 and April, 2019, which was updated in 2020 in order to produce multi-year annual ice velocity mosaics and improve the quality of products including non-local means (NLM) filter, and absolute calibration using rock outcrops data. The resulting Version 2 of the mosaics offer reduced local errors, improved spatial resolution as described in the README file.

2、Keywords

Theme：Glacier motion,Glacial velocity,Glacier(Ice Sheet)
Discipline：Cryosphere
Places：Antarctica
Time：2013-2019

3、Data details

1.Scale：None

2.Projection：South\_Pole\_Stereographic

3.Filesize：11400.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：-60.0 | - |
| west：-180.0 | - | east：180.0 |
| - | south：-90.0 | - |

5、Time frame:2013-12-20 16:00:00+00:00--2019-05-19 03:59:59+00:00

6、Reference method

References to data:

SHEN Qiang, SHEN Qiang. Continent-wide annual ice velocity maps in Antarctic ice sheet between 2013 and 2019. A Big Earth Data Platform for Three Poles, doi:10.1594/PANGAEA.9088452020

References to articles:

Shen, Q., Wang, H., & Shum, C.K., et al. (2018). Recent high-resolution Antarctic ice velocity maps reveal increased mass loss in Wilkes Land, East Antarctica. Sci Rep 8, 4477. https://doi.org/10.1038/s41598-018-22765-0

Shen, Q., Wang, H.S., Shum, C.K., Jiang, L.M., Hsu, H.T., Dong, J.L., Mao, S., Gao, F. (in review). Present-day high-resolution ice velocity map of the Antarctic ice sheet. Earth System Science Data Discussions, 1-25, https://doi.org/10.5194/essd-2018-149

7、Supporting project information

Observation and inversion of key parameters of Cryosphere and polar environmental change

8、Data resource provider

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