A Big Earth Data Platform for Three Poles

**Ice velocity of the Amery ice shelf in the Antarctic (Version 1.0) (2003-2013)**

1、Description

Using the Modis1B data of 11 scenes from 2003 to 2013 (the ice shelf Modis1B data published on the NSIDC website), the surface velocity of the Antarctic Amery Ice Shelf was extracted by the subpixel cross-correlation method, the ice velocity was extracted by the COSI-Corr software, and then the time sequence of annual average velocities for nearly ten years was obtained. Due to the lack of field observations in the study area, the accuracy of the ice flow results was estimated by using the offset value of the stable region, and the ice flow error was approximately ±50 m/year. The ice velocity data date from 2003 to 2013, the temporal resolution is one year, and the data cover the Amery area with a spatial resolution of 500 m. A GeoTIFF file of velocity data is stored every year.
For details regarding the data, please refer to the Amery Ice Flow Field - Data Description.

2、Keywords

Theme：Cryosphere remote sensing products,Glacier motion,Surface Freeze-thaw Cycle/state Remote Sensing,Ice shelf,Glacier(Ice Sheet)
Discipline：Cryosphere
Places：Antarctic, Amery Ice Shelf
Time：2003-2013

3、Data details

1.Scale：250000

2.Projection：

3.Filesize：30.0MB

4.Data format：tif

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：-70.5 | - |
| west：74.0 | - | east：76.0 |
| - | south：-72.0 | - |

5、Time frame:2003-01-08 08:00:00+00:00--2014-01-07 08:00:00+00:00

6、Reference method

References to data:

JIANG Liming. Ice velocity of the Amery ice shelf in the Antarctic (Version 1.0) (2003-2013). A Big Earth Data Platform for Three Poles, doi:10.11888/GlaciolGeocryol.tpe.00000038.file2018

References to articles:

7、Supporting project information

National Important Project on Science Research：Study on the Instability of Polar Ice Sheet and Its Influence on Global Sea Level（No.2012CB957702)
CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider

name: JIANG Liming
unit: Institute of Geodesy and Geophysics, Chinese Academy of Sciences
email: jlm@whigg.ac.cn