A Big Earth Data Platform for Three Poles

**Data set of 250m ice melt in the Antarctic marginal area (2000-2019)**

1、Description

In recent years, with the acceleration of the melting of the Antarctic ice sheet, a large amount of ice melt has formed on the surface of the ice sheet from 2000 to 2019. It is of great significance to study the material balance of the Antarctic ice sheet to deeply understand the spatial-temporal distribution and dynamic changes of the melt water on the Antarctic ice sheet. This data set is based on Landsat7 and landsat8 images with 30 m spatial resolution from 2000 to 2019. By using normalized water body index, Gabor filtering and morphological path opening operations, the ice melt grid data set is generated, and the grid water body mask is converted into vector data in ArcGIS. This data set is based on the 250m ice surface melt water data set of the Antarctic ice sheet melting area (Alexander Island, Antarctic Peninsula) from 2000 to 2019 extracted from Landsat images. The time is concentrated from December to February (Southern Hemisphere summer)

2、Keywords

Theme：Glacier(Ice Sheet)
Discipline：Cryosphere
Places：Antarctic
Time：2000-2019,

3、Data details

1.Scale：None

2.Projection：South\_Pole\_Stereographic

3.Filesize：1428.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：70.77 | - |
| west：66.81 | - | east：71.5 |
| - | south：73.31 | - |

5、Time frame:1999-12-31 16:00:00+00:00--2019-12-01 03:59:59+00:00

6、Reference method

References to data:

YANG Kang. Data set of 250m ice melt in the Antarctic marginal area (2000-2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Cryos.tpdc.2727392022

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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