A Big Earth Data Platform for Three Poles

**SAR ice sheet freezing-thawing data for Antarctica and Greenland V1.0 (2015-2019)**

1、Description

At present, based on the proposed SAR ice sheet freeze-thaw detection algorithm using change detection and decision tree algorithm, the monthly average ice sheet freeze-thaw is detected using sentinel-1 EW SAR data. At the same time, using the developed production module of freeze-thaw products based on big data platform, the international first production of Antarctic ice sheet and Greenland ice sheet freeze-thaw products. Through the development of automatic weather station temperature data, the ice sheet freeze-thaw detection accuracy reaches 90%. At present, the acquisition time of data products is mainly the summer of the north and south poles, among which the Antarctic ice sheet products are January, February, March, October, November, December and Greenland products are may, June, July, August, September and October.

2、Keywords

Theme：Ice sheet freeze-thaw,Glacier(Ice Sheet)
Discipline：Cryosphere
Places：Antarctica and Greenland
Time：2015-2019

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：1024.0MB

4.Data format：None

4、Space scope

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

5、Time frame:2015-09-06 08:00:00+00:00--2019-02-05 08:00:00+00:00

6、Reference method

References to data:

Lu Zhang. SAR ice sheet freezing-thawing data for Antarctica and Greenland V1.0 (2015-2019). A Big Earth Data Platform for Three Poles, 2019

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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