A Big Earth Data Platform for Three Poles

**Material balance data on the surface of the West Antarctic ice sheet (1800-2000)**

1、Description

1 High resolution gridded West Antarctic surface mass balance dataset, its project is Polar Stereographic Projection  
2. The kriging like interpolation method is used to reconstruct the high‐spatial resolution surface mass balance (SMB) over the West Antarctic Ice Sheet (WAIS) from 1800 to 2010, based on ice core records, the outputs of the European Centre for Medium‐Range Weather Forecasts “Interim” reanalysis (ERA‐Interim) as well as the latest polar version of the Regional Atmospheric Climate Model (RACMO2.3p2).   
3. Its accuracy is higher than reanalysis data.  
4. Temporal resolution: 1800-2010; Temporal resolution: 1 year; Spatial coverage : the whole West Antarctic Ice Sheet, Spatial resolution: 25km х 25km

2、Keywords

Theme：Glacier(Ice Sheet)  
Discipline：Cryosphere  
Places：West Antarctic  
Time：1800-2000

3、Data details

1.Scale：None

2.Projection：

3.Filesize：164.75MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：-50.0 | - |
| west：-30.0 | - | east：180.0 |
| - | south：-90.0 | - |

5、Time frame:None--None

6、Reference method

References to data:

Material balance data on the surface of the West Antarctic ice sheet (1800-2000). A Big Earth Data Platform for Three Poles, doi:10.11888/Glacio.tpdc.2709272019

References to articles:

Wang, Y., Huai, B., Thomas, E. R., van den Broeke, M. R., van Wessem, J. M., & Schlosser, E. (2019). A new 200‐year spatial reconstruction of West Antarctic surface mass balance. Journal of Geophysical Research: Atmospheres, 124. https://doi.org/10.1029/2018JD029601

7、Supporting project information

CASEarth:Big Earth Data for Three Poles（grant No. XDA19070000）

8、Data resource provider