A Big Earth Data Platform for Three Poles

**Surface cover map in the Antarctic (1999-2003)**

1、Description

A high-resolution remote sensing image mosaic of the entire Antarctic was generated by synthesizing the 1073 images taken by American Landsat 7 during 1999 to 2003 and the medium-resolution MODIS image (taken in 2005) covering south of 82.5°southern latitude. Based on the mosaic, combined with the needs of Antarctic scientific research, Antarctica land cover was divided into six types using the combination method of computer automatic interpretation and artificial assistance. They were blue ice, fissures, bare rocks, water bodies, moraines and firns, and the areas and proportions of the above types were 225,207.29 square kilometers (1.651%), 7153.36 square kilometers (0.052%), 72,958.04 square kilometers (0.535%), 189.43 square kilometers (0.001%), 310.76 square kilometers (0.003%), and 13337392.66 square kilometers (97.758%), respectively. The map is a satellite image map of approximate true color synthesis, and the regions of various cover types are represented by different color blocks. The map mainly provides a reference for popular scientific research, geography education and science popularization.

2、Keywords

Theme：crevasse,Glaciers,Glacier(Ice Sheet)
Discipline：Cryosphere
Places：Antarctic
Time：1999-2003

3、Data details

1.Scale：None

2.Projection：

3.Filesize：143.5MB

4.Data format：shape

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：-60.0 | - |
| west：None | - | east：360.0 |
| - | south：-90.0 | - |

5、Time frame:1999-01-06 08:00:00+00:00--2004-01-05 08:00:00+00:00

6、Reference method

References to data:

HUI Fengming. Surface cover map in the Antarctic (1999-2003). A Big Earth Data Platform for Three Poles, doi:10.11888/GlaciolGeocryo.tpe.00000049.file2018

References to articles:

7、Supporting project information

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

8、Data resource provider

name: HUI Fengming
unit: Spatio-temporal Three-pole Environment-Comparative Study of Impact on Remote Sensing of Three-pole Glacier Variation and Aerosol
email: huifm@bnu.edu.cn