A Big Earth Data Platform for Three Poles

**Daily cloud-free snow products of MODIS in the northern hemisphere (2000-2016)**

1、Description

This dataset is the spatial distribution map of the marshes in the source area of the Yellow River near the Zaling Lake-Eling Lake, covering an area of about 21,000 square kilometers. The data set is classified by the Landsat 8 image through an expert decision tree and corrected by manual visual interpretation. The spatial resolution of the image is 30m, using the WGS 1984 UTM projected coordinate system, and the data format is grid format. The image is divided into five types of land, the land type 1 is “water body”, the land type 2 is “high-cover vegetation”, the land type 3 is “naked land”, and the land type 4 is “low-cover vegetation”, and the land type 5 is For "marsh", low-coverage vegetation and high-coverage vegetation are distinguished by vegetation coverage. The threshold is 0.1 to 0.4 for low-cover vegetation and 0.4 to 1 for high-cover vegetation.

2、Keywords

Theme：二值积雪图像, IMS, AMSR-E, 逐日无云积雪产品, 雪水当量, MODIS  
Discipline：Cryosphere science, Physical geography  
Places：Northern Hemisphere  
Time：2000-2016

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：3592.5MB

4.Data format：\*.tif

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：90.0 | - |
| west：-180.0 | - | east：180.0 |
| - | south：None | - |

5、Time frame:2000-07-29 22:00:00+00:00--2017-01-24 00:00:00+00:00

6、Reference method

References to data:

Daily cloud-free snow products of MODIS in the northern hemisphere (2000-2016). A Big Earth Data Platform for Three Poles, doi:10.11888/Geogra.tpdc.2705602018

References to articles:

2、Huang XD, Hao XH, Feng QS, Wang W, Liang TG. A new MODIS daily cloud free snow cover mapping algorithm on the Tibetan Plateau. Sciences in Cold and Arid Regions, 2014, 6(2):0116-0123.  
  
3、Wang YL, Huang XD, Liang H, et al. Tracking snow variations in the Northern Hemisphere using multi-source remote sensing data (2000-2015). Remote Sensing, 2018, 10, 136.

7、Supporting project information

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

8、Data resource provider