A Big Earth Data Platform for Three Poles

**MODIS daily cloud-free snow cover area product for Sanjiangyuan from 2000 to 2019**

1、Description

The dataset was produced based on MODIS data. Parameters and algorithm were revised to be suitable for the land cover type in the Three-River-Source Regions. By using the Markov de-cloud algorithm, SSM/I snow water equivalent data was fused to the result. Finally, high accuracy daily de-cloud snow cover data was produced. The data value is 0(no snow) or 1(snow). The spatial resolution is 500m, the time period is from 2000-2-24 to 2019-12-31.
Data format is geotiff, Arcmap or python+GDAL were recommended to open and process the data.

2、Keywords

Theme：Snow area,Snow,MODIS,Atmosphere Remote Sensing
Discipline：Atmosphere,Cryosphere
Places：Three-River-Source National Park, Three Rivers Source, Tibetan Plateau
Time：2019, 2000

3、Data details

1.Scale：None

2.Projection：

3.Filesize：546.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：37.38 | - |
| west：89.15 | - | east：102.58 |
| - | south：30.79 | - |

5、Time frame:2000-03-21 00:00:00+00:00--2019-12-31 00:00:00+00:00

6、Reference method

References to data:

HAO Xiaohua. MODIS daily cloud-free snow cover area product for Sanjiangyuan from 2000 to 2019. A Big Earth Data Platform for Three Poles, doi:10.11888/Snow.tpdc.2709742019

References to articles:

7、Supporting project information

The National Nature Science Foundation of China:“The research on retrieval model of snow grain size and pollutants developed on subpixel scale”.
National Satellite Meteorological Center: The validation ofoptical snow cover product from FengYun-3 meteorological satellite

8、Data resource provider

name: HAO Xiaohua
unit: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences
email: haoxh@lzb.ac.cn