A Big Earth Data Platform for Three Poles

**Daily 5-km Gap-free AVHRR snow cover extent product over China (1981-2019)**

1、Description

Based on AVHRR-CDR SR products, a daily cloud-free snow cover extent dataset with a spatial resolution of 5 km from 1981 to 2019 was prepared by using decision tree classification method. Each HDF4 file contains 18 data elements, including data value, data start date, longitude and latitude, etc. At the same time, to quickly preview the snow distribution, the daily file contains the snow area thumbnail, which is stored in JPG format. This data set will be continuously supplemented and improved according to the real-time satellite remote sensing data and algorithm update (up to may 2019), and will be fully open and shared.

2、Keywords

Theme：Snow,AVHRR,Snowpack,Terrestrial Surface Remote Sensing
Discipline：Terrestrial Surface,Cryosphere
Places：China
Time：1981-2019

3、Data details

1.Scale：None

2.Projection：

3.Filesize：753.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：56.0 | - |
| west：142.0 | - | east：72.0 |
| - | south：16.0 | - |

5、Time frame:1981-06-23 16:00:00+00:00--2019-05-15 16:00:00+00:00

6、Reference method

References to data:

HAO Xiaohua. Daily 5-km Gap-free AVHRR snow cover extent product over China (1981-2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Snow.tpdc.2713812021

References to articles:

Hao, X., Huang, G., Che, T., Ji, W., Sun, X., Zhao, Q., Zhao, H., Wang, J., Li, H., and Yang, Q.: The NIEER AVHRR snow cover extent product over China – a long-term daily snow record for regional climate research, Earth Syst. Sci. Data, 13, 4711–4726, https://doi.org/10.5194/essd-13-4711-2021, 2021.

7、Supporting project information

The Science & Technology Basic Resources Investigation Program of China
The National Key Research and Development Program of China
The Strategic Priority Research Program of the Chinese Academy of Sciences

8、Data resource provider

name: HAO Xiaohua
unit:
email: haoxh@lzb.ac.cn