A Big Earth Data Platform for Three Poles

**Long-term snow depth dataset of China (1978-2012)**

1、Description

This data set provides daily snow thickness distribution data of China from October 24, 1978 to December 31, 2012, with a spatial resolution of 25km.The original data used for the inversion of the snow depth data set came from SMMR (1978-1987), SSM/I (1987-2008) and amsr-e (2002-2012) daily passive microwave bright temperature data processed by the national snow and ice data center (NSIDC).As the three sensors are mounted on different platforms, there is a certain system inconsistency in the obtained data.The time consistency of bright temperature data is improved by cross calibration of bright temperature of different sensors.Then, based on Chang algorithm, Dr. Che tao is used to carry out snow depth inversion.Refer to the data description document for specific inversion methods.

2、Keywords

Theme：Snow depth,Snow,Cryosphere remote sensing products,Surface Freeze-thaw Cycle/state Remote Sensing
Discipline：Cryosphere
Places：China
Time：1978-2012

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：421.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：55.0 | - |
| west：60.0 | - | east：140.0 |
| - | south：15.0 | - |

5、Time frame:1978-01-22 08:00:00+00:00--2013-01-21 19:59:59+00:00

6、Reference method

References to data:

LI Xin, DAI Liyun, CHE Tao. Long-term snow depth dataset of China (1978-2012). A Big Earth Data Platform for Three Poles, doi:10.3972/westdc.001.2014.db2019

References to articles:

Che, T., Li, X., Jin, R., Armstrong, R., &Zhang, T.J. (2008). Snow depth derived from passive microwave remote-sensing data in China. Annals of Glaciology, 49, 145-154.

7、Supporting project information

8、Data resource provider

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