A Big Earth Data Platform for Three Poles

**Glacier mass storage changes of 71 pieces of glaciers in the east section of Yigongzangbu, Southeast Tibetan Plateau in 2000-2014**

1、Description

The data involved geodetic glacier mass change of 71pieces of glaciers during 2000-2014 in the east of the Yigongzangbu, Southeast Tibetan Plateau. It is stored in the ESRI vector polygon format.Glacier-averaged mass balance (m w.e.a-1) was calculated by the surface elevation difference between 2000-2014 ( Dh2000-2014)、glacier coveraged vector data (CGI2/TPG1976/RGI6.0) and ice density of 850 ± 60 kg m−3. Dh2000-2014 is obtained from surface elevation change by D-InSAR technique from a pair of TSX / TDx SAR images on February 7, 2014 and SRTM DEM. CGI2/TPG1976/RGI6.0 were used to extract glacier boundary and GLIMS-ID. SRTM DEM is the reference DEM and datum DEM with spatial resolution 30m. The attribute data includes GLIMS-ID, Area,EC\_m\_a-1,,MB\_m w.e.a-1, MC\_m3 w.e.a-1, MC\_Gt.a-1, Uncerty\_EC, Uncerty\_MB, UT\_MCm3w.e. a-1. Respectively, EC\_m\_a-1,,is the glacier-averaged annual elevation change during 2000-2014(m a-1),MB\_m w.e.a-1, is glacier-averaged annual mass balance during 2000-2014(m w.e.a-1), MC\_m3 w.e.a-1, is glacier-averaged annual mass change during 2000-2014 (m3 w.e.a-1), MC\_Gt.a-1,is glacier-averaged annual mass change during 2000-2014 (Gt.a-1)Uncerty\_EC is the uncertainty of glacier surface elevation change（±m a-1）、Uncerty\_MB ,is the uncertainty of glacier mass balance（±m w.e. a-1），UT\_MCm3w.e. a-1, is the uncertainty of glacier mass change（±m3w.e. a-1）。The data sets could be used for glacier change, hydrological and climate change studies in the southeast of Tibetan Plateau.

2、Keywords

Theme：Ice reserves,Mass balance,Glacier(Ice Sheet)
Discipline：Cryosphere
Places：Yigongzangbu, Southeast Tibet
Time：2000-2014

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：0.06MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：29.29 | - |
| west：96.95 | - | east：97.2 |
| - | south：28.95 | - |

5、Time frame:2000-02-14 00:00:00+00:00--2014-02-20 00:00:00+00:00

6、Reference method

References to data:

YE Qinghua. Glacier mass storage changes of 71 pieces of glaciers in the east section of Yigongzangbu, Southeast Tibetan Plateau in 2000-2014. A Big Earth Data Platform for Three Poles, doi:10.11888/Glacio.tpdc.2707552020

References to articles:

Ye, Q., T. Bolch, R. Naruse, et al. (2015). Glacier mass changes in Rongbuk catchment on Mt. Qomolangma from 1974 to 2006 based on topographic maps and ALOS PRISM data. Journal of Hydrology, 530, 273-280.DOI:10.1016/j.jhydrol.2015.09.014

叶庆华, 程维明, 赵永利, 宋继彪, 赵瑞. (2016). 青藏高原冰川变化遥感监测研究综述. 地球信息科学学报,18(7), 920-930.

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

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