A Big Earth Data Platform for Three Poles

**Data set of water balance elements for Arctic River Basins (1971-2017)**

1、Description

This product provides the data set of key variables of the water cycle of major Arctic rivers (North America: Mackenzie, Eurasia: Lena from 1971 to 2017, including 7 variables: precipitation, evapotranspiration, surface runoff, underground runoff, glacier runoff, snow water equivalent and three-layer soil humidity, which are numerically simulated by the land surface model vic-cas developed by the project team. The spatial resolution of the data set is 0.1degree and the temporal resolution is month. This data set can be used to analyze the change of water balance in the Arctic River Basin under long-term climate change, and can also be used to compare and verify remote sensing data products and the simulation results of other models.

2、Keywords

Theme：Precipitation,Surface Water,Snow,Glacier melt,Ground Water,Hydrology,Precipitation,Glacier(Ice Sheet),Soil Moisture,Snow water equivalent,Runoff
Discipline：Atmosphere,Terrestrial Surface,Cryosphere
Places：Arctic
Time：2017, 1971

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：3563.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：72.6 | - |
| west：-140.1 | - | east：141.6 |
| - | south：44.9 | - |

5、Time frame:1970-12-31 16:00:00+00:00--2017-12-30 16:00:00+00:00

6、Reference method

References to data:

ZHAO Qiudong, WU Yuwei, WANG Ninglian. Data set of water balance elements for Arctic River Basins (1971-2017). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2727302022

References to articles:

7、Supporting project information

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

8、Data resource provider

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