A Big Earth Data Platform for Three Poles

**Meteorological forcing dataset for Arctic River Basins (1961-2018)**

1、Description

Meteorological forcing dataset for Arctic River Basins includes five elements: daily maximum, minimum and average temperature, daily precipitation and daily average wind speed. The data is in NetCDF format with a horizontal spatial resolution of 0.083°, covering Yenisy, Lena, ob, Yukon and Mackenzie catchments. The data can be used to dirve hydrolodical model (VIC model) for hydrological process simulation of the Arctic River Basins. The further quality control were made for daily observation data from Global Historical Climatology Network Daily database(GHCN-D), Global Summary of the Day (GSPD),The U.S. Historical Climatology Network (USHCN),Adjusted and homogenized Canadian climate data (AHCCD) and USSR / Russia climate data set (USSR / Russia). The thin plate spline interpolating method, which similar to the method used in PNWNAmet datasets (Werner et al., 2019), was employed to interpolate daily station data to 5min spatial resolution daily gridded forcing data using WorldClim and ClimateNA monthly climate normal data as a predictor.

2、Keywords

Theme：Temperature,Precipitation,Precipitation,Temperature,Surface air temperature,Hydrology,Hydrological models,Gridded precipitation
Discipline：Atmosphere,Terrestrial Surface
Places：Yenisy、Lena、Ob、Yukon及Mackenzie
Time：1961-2018年

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：531456.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：73.6 | - |
| west：-180.0 | - | east：142.0 |
| - | south：44.4 | - |

5、Time frame:1960-12-31 16:00:00+00:00--2018-12-30 16:00:00+00:00

6、Reference method

References to data:

ZHAO Qiudong, WU Yuwei. Meteorological forcing dataset for Arctic River Basins (1961-2018). A Big Earth Data Platform for Three Poles, 2021

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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