A Big Earth Data Platform for Three Poles

**The daily gridded precipitation dataset for Arctic Basin (1980-2018)**

1、Description

There is a lack of a set of high-resolution precipitation gridded data with long time series in the main basin of the Arctic. This dataset provides daily precipitation in the main basin of the Arctic. The range of data set is from 45 ° N to 76.15 °N. The metadata used includes: the meteorological station data during 1980-2015 obtained from GSOD and the reanalysis data of ERA-interim during 1980-2018. This dataset was obtained by bias correction of ERA-interim data with the improved quantile mapping method, and the background data used for bias correction is the interpolation gridded precipitation, in interpolation process, we not only take into account the effect of elevation, but fully consider the influence of wind on gauge measurements, the gauge used in interpolation all undergo bias adjustment. This dataset performs well both in region scale and cell grid scale, with high accuracy, which providing a set of reliable precipitation gridded data for the hydrological research of the Arctic.

2、Keywords

Theme：Hydrology
Discipline：Terrestrial Surface
Places：Arctic
Time：1980-2018, 1980-2015

3、Data details

1.Scale：None

2.Projection：North\_Pole\_Stereographic

3.Filesize：61501.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：76.15 | - |
| west：-180.0 | - | east：180.0 |
| - | south：45.0 | - |

5、Time frame:1980-01-07 00:00:00+00:00--2019-01-06 00:00:00+00:00

6、Reference method

References to data:

LI Hongyi, LEI Huajin. The daily gridded precipitation dataset for Arctic Basin (1980-2018). A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2703282019

References to articles:

7、Supporting project information

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

8、Data resource provider

name: LI Hongyi
unit:
email: lihongyi@lzb.ac.cn

name: LEI Huajin
unit:
email: leihuajin@lzb.ac.cn