A Big Earth Data Platform for Three Poles

**Dataset of long term temperature and precipitation simulated by RegCM in Central Asia (1948-2011)**

1、Description

Regional climate mode RegCM4.3 parameter settings are as follows: horizontal resolution is 40 km, east and west 112 divisions
Point, 84 grid points in north-south direction, grid center is 74.21 ° E, 44.76 ° N, projection is Lambert projection, vertical stratification
It is divided into 23 layers, and the top pressure is 50 hPa; the initial boundary field uses ERA40 with a horizontal resolution of 2.5 °.
NCEP / NCAR then analyzes the data, the time series takes the pattern data and the site interpolation data is the common part of the time series.
SST data selection GISST (1948-2002), the planet boundary layer in the model is selected as Holtslag format, cumulus convection
The scheme is Emanuel MIT format, the side boundary conditions are exponential relaxation conditions, and the land surface process is described as BATs. In mode
Terrain data selection USGS GTOPO 30 30 ″ DEM digital elevation model, surface vegetation data selection USGS points
GLCC (global land cover characterization) with a resolution of 30 ″.

The data set is daily data, including surface pressure (hpa), 2m maximum temperature (K), 2m minimum temperature (K), 2m average temperature (K), and average surface precipitation (kg · m-2 · s-1)

Naming rules, xx\_xxxx\_YYYY.nc. Where YYYY is the year, xx represents Central Asia, and xxxx is the drive data name (ERA40, NCEP1 respectively).

2、Keywords

Theme：Precipitation,Temperature
Discipline：Atmosphere
Places：Uzbekistan, turkmanstein, Tajikistan, Kazakhstan, Xinjiang, Kyrgyzstan
Time：1948-2011

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：6100.0MB

4.Data format：数字文档

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：56.0 | - |
| west：40.0 | - | east：100.0 |
| - | south：32.0 | - |

5、Time frame:1948-07-12 10:00:00+00:00--2012-07-03 08:00:00+00:00

6、Reference method

References to data:

YIN Gang, LI Lanhai, BAI Lei, CHEN Xi. Dataset of long term temperature and precipitation simulated by RegCM in Central Asia (1948-2011). A Big Earth Data Platform for Three Poles, doi:10.11888/Meteoro.tpdc.2705692016

References to articles:

殷刚, 陈曦, 邵华, 白磊, 胡增运, & 张弛, et al. (2015). 气候模式同站点插值外推气象数据的比较. 地理研究, 34(4).

7、Supporting project information

8、Data resource provider

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