A Big Earth Data Platform for Three Poles

**Simulated meteorological forcing data of three kilometers and six hours in Heihe River basin (2011-2016)**

1、Description

In east Asia, institute of atmospheric physics, Chinese Academy of Sciences key laboratory of regional climate and environment development of regional integration environment with independent copyright system model RIEMS 2.0, on the basis of the regional climate model RIEMS 2.0 in the United States center for atmospheric research and the development of the university of binzhou mesoscale model (MM5) is a static dynamic framework, coupled with some physical processes needed for the study climate solutions.These processes include the biosphere - atmosphere transmission solutions, using FC80 closed Grell cumulus parameterization scheme, MRF planetary boundary condition and modify the CCM3 radiation, such as the heihe river basin observation and remote sensing data of important parameters in the model for second rate, USES the heihe river basin vegetation data list data of land use in 2000 and 30 SEC DEM data in heihe river basin, build up suitable for the study of heihe river basin ecological - hydrological processes of the regional climate model.
Drive field: ERA-INTERIM reanalysis data
Spatial scope: the grid center of the simulation area is located at (40.30n, 99.50e), the horizontal resolution is 3 km, and the number of simulated grid points in the model is 161 (meridional) X 201 (zonal).
Projection: LAMBERT conformal projection, two standard latitudes of 30N and 60N.
Time range: from January 1, 2011 to December 31, 2016, with an interval of 6 hours
Description of file contents: monthly storage by grads without format.Except the maximum and minimum temperature as the daily scale, the other variables are all 6-hour data.
MATLAB can be used to read, visible tmax\_erain\_xiong\_heihe.m file description.
Data description of heihe river basin:
1) Anemometer west wind (m/s) college usurf for short
2) Anemometer south wind(m/s), vsurf for short
College 3) Anemometer temperature (deg) K tsurf
College 4) maximal temperature (deg) K tmax
5) minimal temperature (deg K) abbreviated as tmin
6) college Anemom specific humidity (g/kg) college qsurf for short
7) value (mm/hr) is simply value p
College 8) Accumulated evaporation (mm/hr) evap
9) sensible heat (watts/m\*\*2/hr) for short
College 10) Accumulated net infrared radiation (watts/m \* \* 2 / hr) netrad for short
College definition file name:
-erain-xiong. Month and year

2、Keywords

Theme：Precipitation,Radiation,Temperature,Surface air temperature,Radiative forcing
Discipline：Atmosphere
Places：Heihe River Basin
Time：2011-2016

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：9574.0MB

4.Data format：文本

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：43.3 | - |
| west：96.1 | - | east：104.2 |
| - | south：37.7 | - |

5、Time frame:2011-07-06 00:00:00+00:00--2017-07-05 00:00:00+00:00

6、Reference method

References to data:

XIONG Zhe. Simulated meteorological forcing data of three kilometers and six hours in Heihe River basin (2011-2016). A Big Earth Data Platform for Three Poles, doi:10.3972/heihe.103.2017.db2018

References to articles:

Xiong, Z, Yan, X.D. (2013). Building a high-resolution regional climate model for the Heihe River Basin and simulating precipitation over this region. Chinese Science Bulletin, 58(036), 4670-4678. doi:10.116/s11434-013-5971-3.

7、Supporting project information

8、Data resource provider

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