A Big Earth Data Platform for Three Poles

**Simulated forcing dataset of 3km/6hour in Heihe River basin (1980-2010)**

1、Description

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, and USES the heihe river basin vegetation data list data of land use in 2000 and the heihe river basin in 30 SEC DEM data, building up suitable for the study of heihe river basin ecological - hydrological processes of the regional climate model.  
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, 1980 to December 31, 2010, 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) abbreviation usurf   
2) Anemometer south wind(m/s), abbreviation vsurf   
College 3) Anemometer temperature (degK) abbreviation tsurf  
College 4) maximal temperature (degK) abbreviation tmax  
5) minimal temperature (deg K) abbreviated tmin  
6) college Anemom specific humidity (g/kg) abbreviation qsurf   
7) value (mm/hr) abbreviation precip  
8) Accumulated evaporation (mm/hr) abbreviation evap  
9) Accumulated sensible heat (watts/m\*\*2/hr) abbreviation sensible  
10) Accumulated net infrared radiation (watts/m \* \* 2 / hr) abbreviation netrad  
Definition file name:  
Abbreviation-erain-xiong. YTD

2、Keywords

Theme：Precipitation,Radiation,Temperature,Radiative forcing,Air temperature  
Discipline：Atmosphere  
Places：Heihe River Basin  
Time：1980-2010

3、Data details

1.Scale：100000

2.Projection：4326

3.Filesize：48688.0MB

4.Data format：文本

4、Space scope

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

5、Time frame:1980-07-06 08:00:00+00:00--2011-07-06 08:00:00+00:00

6、Reference method

References to data:

Simulated forcing dataset of 3km/6hour in Heihe River basin (1980-2010). A Big Earth Data Platform for Three Poles, doi:10.3972/heihe.103.2014.db2015

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