A Big Earth Data Platform for Three Poles

**Dataset of ERA-interim global surface air temperature reanalysis (1979-2016)**

1、Description

The data set of ERA-Interim global surface air temperature reanalysis (1979-2016) was obtained from the European Center for Medium-Range Weather Forecasts (ECMWF) by adopting the ECMWF IFS forecasting system (T255, 60 layers) and using the four-dimensional variational assimilation system (8DVAR) with an analysis window of 12 hours to assimilate satellite remote sensing data (TOVS, GOES, Meteosat, etc.) and regular observations of the surface and upper atmosphere in different regions of the world and from different sources. The surface air temperature (2 m air temperature) data span the time range from January 1979 to December 2016 and cover the whole world with the projection of equal latitude and longitude, a temporal resolution of six hours, and a horizontal resolution of 0.75. The data were stored as a NetCDF format file once a month and included longitude, latitude, time, and temperature (t2m, unit: K), with 241 latitudinal grid points and 480 longitudinal grid points.

2、Keywords

Theme：Atmospheric remote sensing products,Temperature,Skin temperature,Atmosphere Remote Sensing
Discipline：Atmosphere
Places：globe
Time：1979-2016

3、Data details

1.Scale：None

2.Projection：

3.Filesize：12185.6MB

4.Data format：Netcdf

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：90.0 | - |
| west：-180.0 | - | east：180.0 |
| - | south：-90.0 | - |

5、Time frame:1979-07-19 16:32:00+00:00--2017-07-18 16:32:00+00:00

6、Reference method

References to data:

Dataset of ERA-interim global surface air temperature reanalysis (1979-2016). A Big Earth Data Platform for Three Poles, 2018

References to articles:

Dee DP, et al. The ERA-Interim reanalysis: configuration and performance of the data assimilation system. Q.J.R. Meteorol. Soc., 2011,137: 553-597, doi: 10.1002/qj.828.

7、Supporting project information

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

8、Data resource provider