A Big Earth Data Platform for Three Poles

**Domestic high-resolution 2-50m fusion orthophoto validation data set in key rivers and lakes research area of Qinghai Tibet Plateau (2015-2020)**

1、Description

Data content: this data set is the historical archived satellite data of the domestic high score series (GF1 / 2 / 3 / 4) in the key river and lake research areas of the Qinghai Tibet Plateau from 2015 to 2020, which can cover the typical river and lake areas for effective monitoring. The time range of the data is from 2015 to 2020. Data source and processing method: the data are level 1 products. After equalizing radiation correction, the changes affecting the sensors are corrected by the equalizing functions of different detectors. Some data are based on the Landsat 8 images in the same period as the base map, and control points are selected for geometric correction of the images. Then, orthophoto correction is carried out based on DEM data, and band fusion processing is carried out for the corresponding data. Data quality description: the Gaofen series satellites are processed by the China Resources Satellite Application Center. There are raw data received by the satellite ground receiving station of the Chinese Academy of Sciences and processed products at all levels. Among them, level 1a (pre-processing level radiometric correction image product): image data processed by data analysis, uniform radiometric correction, noise removal, MTFC, CCD splicing, band registration, etc; And provide RPC files for satellite direct attitude orbit data production. Refer to the data website of China Resources Satellite Application Center for details. Data application achievements and prospects: the data are domestic high-resolution data with high resolution, which can be used to monitor the changes of the Qinghai Tibet Plateau as a water tower in Asia and the generated images, and test the accuracy of other data in the region

2、Keywords

Theme：Terrestrial Surface Remote Sensing  
Discipline：Terrestrial Surface  
Places：Qinghai-Tibet Plateau  
Time：2015-2020

3、Data details

1.Scale：None

2.Projection：

3.Filesize：33280.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：45.0 | - |
| west：67.0 | - | east：107.0 |
| - | south：25.0 | - |

5、Time frame:2014-12-31 16:00:00+00:00--2020-12-29 16:00:00+00:00

6、Reference method

References to data:

QIU Yubao. Domestic high-resolution 2-50m fusion orthophoto validation data set in key rivers and lakes research area of Qinghai Tibet Plateau (2015-2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2727982022

References to articles:

7、Supporting project information

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

8、Data resource provider

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