A Big Earth Data Platform for Three Poles

**The ASTER\_GDEM dataset of the Tibetan Plateau (2011)**

1、Description

The ASTER Global Digital Elevation Model (ASTER GDEM) is a global digital elevation data product jointly released by the National Aeronautics and Space Administration of America (NASA) and the Ministry of Economy, Trade and Industry of Japan (METI). The DEM data were based on the observation results of NASA’s new generation of Earth observation satellite, TERRA, and generated from 1.3 million stereo image pairs collected by ASTER (Advanced Space borne Thermal Emission and Reflection Radio meter) sensors, covering more than 99% of the land surface of the Earth. These data were downloaded from the ASTER GDEM data distribution website. For the convenience of using the data, based on framing the ASTER GDEM data, we used Erdas software to splice and prepare the ASTER GDEM mosaic of the Tibetan Plateau.
This data set contains three data files:
ASTER\_GDEM\_TILES
ASTERGDEM\_MOSAIC\_DEM
ASTERGDEM\_MOSAIC\_NUM
The ASTER GDEM data of the Tibetan Plateau have an accuracy of 30 meters, the raw data are in tif format, and the mosaic data are stored in the img format.
The raw data of this data set were downloaded from the ASTERGDEM website and completely retained the original appearance of the data. ASTER GDEM was divided into several 1×1 degree data blocks during distribution. The distribution format was the zip compression format, and each compressed package included two files. The file naming format is as follows:
ASTGTM\_NxxEyyy\_dem.tif
ASTGTM\_NxxEyyy\_num.tif
xx is the starting latitude, and yyy is the starting longitude. \_dem.tif is the dem data file, and \_num.tif is the data quality file.
ASTER GDEM TILES: The original, unprocessed raw data are retained.
ASTERGDEM\_MOSAIC\_DEM: Inlay the dem.tif data using Erdas software, and parameter settings use default values.
ASRERGDEM\_MOSAIC\_NUM: Inlay the num.tif data using Erdas software, and parameter settings use default values.
The original raw data are retained, and the accuracy is consistent with that of the ASTERGDEM data distribution website. The horizontal accuracy of the data is 30 meters, and the elevation accuracy is 20 meters. The mosaic data are made by Erdas, and the parameter settings use the default values.

2、Keywords

Theme：Digital elevation model,Topography,Remote Sensing Technology,Visible remote sensing
Discipline：Terrestrial Surface,Remote Sensing Technology
Places：Tibetan Plateau
Time：2011

3、Data details

1.Scale：None

2.Projection：

3.Filesize：74000.0MB

4.Data format：\*tif

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：44.0 | - |
| west：64.0 | - | east：107.0 |
| - | south：24.0 | - |

5、Time frame:2012-04-08 00:00:00+00:00--2012-05-08 00:00:00+00:00

6、Reference method

References to data:

National Aeronautics and Space Administration, METI. The ASTER\_GDEM dataset of the Tibetan Plateau (2011). A Big Earth Data Platform for Three Poles, 2019

References to articles:

7、Supporting project information

8、Data resource provider

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