A Big Earth Data Platform for Three Poles

**DSM product data set of Tibet Bomi resource 3 satellite image (2018)**

1、Description

The data is the large-scale DSM data of debris flow gully area generated by using the purchased resource No. 3 satellite remote sensing image of the demonstration area and based on the stereo image pair matching method. The processing method is as follows:  
(1) Due to the large amount of cloud and shadow noise in the original image, this study uses IDL language to develop and form a special denoising and information completion program for satellite images in cloudy mountainous areas.  
(2) The emmetropia correction image is used as the left image and the front view correction image is the right image. Envi is used for DSM production.  
(3) Using aster-dem data with 30 m resolution, at least 4 typical ground control points are selected for geographic correction to ensure that the geographic coordinate error is in the order of 1 ".  
(4) Cross entropy, root mean square error and area error information entropy are used as accuracy evaluation indexes. Compared with the DSM obtained from the original data, it is verified that the imaging accuracy of the processed DSM is improved.

2、Keywords

Theme：Topography,DSM (Digital Surface Model)  
Discipline：Terrestrial Surface  
Places：Nyingchi Area  
Time：2018

3、Data details

1.Scale：None

2.Projection：UTM

3.Filesize：604.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：30.05 | - |
| west：95.2 | - | east：95.61 |
| - | south：29.75 | - |

5、Time frame:2018-10-28 16:00:00+00:00--2018-10-28 16:00:00+00:00

6、Reference method

References to data:

PENG Shuying , HUANG Fang . DSM product data set of Tibet Bomi resource 3 satellite image (2018). A Big Earth Data Platform for Three Poles, doi:10.11888/Terre.tpdc.2720242022

References to articles:

Peng, S., Huang, F., & Tie, B., et al. (2020). Optimization research on DSM product generation of ZY-3 satellite image based on the combination of image frequency-domain fusion and filtering. IGARSS, 244-247.

7、Supporting project information

8、Data resource provider

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