A Big Earth Data Platform for Three Poles

**Measurement data from 13 portable crustal displacement observation stations along Gyirong - Nyima profile in Tibetan Plateau (2018-2019)**

1、Description

The data set is the original repeated GPS observation data along Gyirong - Nyima profile trans active deformation Himalayan orogenic belt in Tibet Plateau. The data are measured twice in 2018 and 2019, including the data of 13 stations, and the data quality is good. Through the observation data of these observation points, combined with the continuous GPS observation profile data that the project research team has deployed along Yadong Gulou in the Himalayan orogenic belt, we can reveal the horizontal and vertical distribution characteristics of the northward converging strain of the Indian continent in the key parts of the Himalayan orogenic belt, understand the current uplift state of the Himalayan orogenic belt and its correlation with horizontal movement, and combine with the active faults Based on the theory of motion dislocation, the quantitative distribution of strain between earthquakes in the main boundary fault (MBT) and the main central fault (MCT) is studied, as well as the strain accumulation characteristics, fault locking range and fault locking degree between earthquakes, which provide important constraints for evaluating the seismic risk of active faults in the study area. Combined with the 2015 Nepal earthquake rupture model, the southern margin of Tibetan Plateau is studied from the perspective of motion to dynamics Lithospheric rheological characteristics.

2、Keywords

Theme：Crustal Motion,Deformation observation,Tectonics,Seismology,Earthquake risk  
Discipline：Solid earth  
Places：Gyirong, Nyima, Himalayan  
Time：2018-2019

3、Data details

1.Scale：None

2.Projection：

3.Filesize：876.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：32.6 | - |
| west：84.5 | - | east：87.5 |
| - | south：28.0 | - |

5、Time frame:2018-11-30 16:00:00+00:00--2019-11-30 03:59:59+00:00

6、Reference method

References to data:

HE Jiankun. Measurement data from 13 portable crustal displacement observation stations along Gyirong - Nyima profile in Tibetan Plateau (2018-2019). A Big Earth Data Platform for Three Poles, doi:10.11888/Geo.tpdc.2712882021

References to articles:

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

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