Upper Yangtze River Scientific Data Center

**China 1km DMSP-OLS Night Light Data Set (1992-2020)**

1、Description

The data set mainly covers long time sequence night light information in mainland China. The data storage format is GeoTIFF, and the spatial resolution is 1-km. The processing method is to simulate the relationship between NPP-VIIRS data and DMSP-OLS data. NPP-VIIRS data from 2013 to 2020 is used to simulate DMSP-OLS data from 2013 to 2020, so as to obtain a similar DMSP-OLS dataset from 1992 to 2020. Firstly, the nuclear density method is used to resample the spatial fraction of NPP-VIIRS data to 1-km. Based on the "S" curve relationship between the resampled NPP-VIIRS data and DMSP-OLS data after logarithmic conversion, the sigmoid function is used to convert the logarithmic NPP-VIIRS data into analog DMSP-OLS data. The DMSP-OLS data calibrated from 1992 to 2013 and analog DMSP-OLS data from 2013 to 2020 are spliced into similar DMSP-OLS data from 1992 to 2020

2、Keywords

Theme：Others,Remote Sensing Product,Remote Sensing Technology,Remote Sensing Product,Nighttime light  
Discipline：Remote Sensing Technology  
Places：China  
Time：1992-2020

3、Data details

1.Scale：None

2.Projection：Albers

3.Filesize：40.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：54.47 | - |
| west：74.15 | - | east：130.71 |
| - | south：17.97 | - |

5、Time frame:None--None

6、Reference method

References to data:

SHI Kaifang . China 1km DMSP-OLS Night Light Data Set (1992-2020). Upper Yangtze River Scientific Data Center, doi:https://doi.org/10.7910/DVN/GIYGJU2022

References to articles:

Wu Y, Shi K\*, Chen Z, Liu S et al. Developing improved time-Series DMSP-OLS-Like data (1992–2019) in China by integrating DMSP-OLS and SNPP-VIIRS[J]. IEEE Transactions on Geoscience and Remote Sensing, 2022, 60, 4407714.

7、Supporting project information

8、Data resource provider

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