Upper Yangtze River Scientific Data Center

**SMAP Vegetation Optical Depth Data of the Upper Yangtze River in China (2015-2022)**

1、Description

SMAP (Soil Moisture Active and Passive) is one of the Earth observation satellites of the United States, which has active sensors and passive sensors. The active sensor is an L-band radar, and the passive sensor is an L-band microwave radiometer. The vegetation optical thickness is derived from SMAP Class 1C (L1C) interpolated brightness temperature. Backus Gilbert optimal interpolation technology is used to extract information from SMAP antenna temperature and convert it into brightness temperature. These temperatures are published in the form of global cylindrical projection to 9 km equal product expandable earth grid version 2.0 (EASE Grid 2.0). By 2021, these data will also be released to the Northern Hemisphere EASE Grid 2.0,

2、Keywords

Theme：Terrestrial Surface Remote Sensing,Vegetation optical depth (VOD)  
Discipline：Terrestrial Surface  
Places：Yangtze  
Time：2015-2022

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：213504.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：36.5 | - |
| west：89.0 | - | east：112.0 |
| - | south：24.0 | - |

5、Time frame:2014-12-31 16:00:00+00:00--2022-08-31 16:00:00+00:00

6、Reference method

References to data:

P. O’NEILL P. O’neill . SMAP Vegetation Optical Depth Data of the Upper Yangtze River in China (2015-2022). Upper Yangtze River Scientific Data Center, doi:https://doi.org/10.5067/4DQ54OUIJ9DL2022

References to articles:

O'Neill, P. E., S. Chan, E. G. Njoku, T. Jackson, R. Bindlish, J. Chaubell, and A. Colliander. (2021). SMAP Enhanced L3 Radiometer Global and Polar Grid Daily 9 km EASE-Grid Soil Moisture, Version 5 [Data Set]. Boulder, Colorado USA. NASA National Snow and Ice Data Center Distributed Active Archive Center. https://doi.org/10.5067/4DQ54OUIJ9DL. Date Accessed 10-05-2022.

7、Supporting project information

8、Data resource provider

name: P. O’NEILL P. O’neill   
unit: NASA  
email: None