Upper Yangtze River Scientific Data Center

**25KM-ESACCI Soil Moisture Data in Southwest China**

1、Description

The highlight of this version is the improved time and space coverage, because it includes 3 new active and passive sensors (the observation values of all sensors for the rise and fall overpasses are incorporated into this version for the first time). The verification shows that the new version is the most accurate ESA CCI SM product so far. It provides global data from 1978 to 2021.
The algorithm update includes the following contents:
Including new Fengyun 3C, 3D and ASCAT-C sensors
LPRM v7.1 improves the model parameterization of LPRM. This applies to all passive sensors except SMOS and SMAP using LPRM v06.2
Daytime observations from all passive sensors are now included in the merge
Includes a new optional sign for barren ground
Coordinate sensors using intra year offset correction
The product time range will be extended to the end of 2021.
This data is clipped on the basis of the original data (active passive joint version), and the clipped range is Southwest China.

2、Keywords

Theme：Soil,Microwave Remote Sensing,Remote Sensing Technology,Soil moisture,microwave remote sensing,Terrestrial Surface Remote Sensing
Discipline：Terrestrial Surface,Remote Sensing Technology
Places：Southwest China, World
Time：1978-2022

3、Data details

1.Scale：None

2.Projection：

3.Filesize：71680.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：35.0 | - |
| west：96.0 | - | east：113.0 |
| - | south：20.5 | - |

5、Time frame:None--None

6、Reference method

References to data:

WOUTER Dorigo . 25KM-ESACCI Soil Moisture Data in Southwest China. Upper Yangtze River Scientific Data Center, 2022

References to articles:

Dorigo, W.A., Wagner, W., Albergel, C., Albrecht, F., Balsamo, G., Brocca, L., Chung, D., Ertl, M., Forkel, M., Gruber, A., Haas, E., Hamer, P. D., Hirschi, M., Ikonen, J., de Jeu, R., Kidd, R., Lahoz, W., Liu, Y. Y.,Miralles, D., Mistelbauer, T., Nicolai-Shaw, N., Parinussa, R., Pratola, C., Reimer, C., van der Schalie, R., Seneviratne, S. I. Smolander, T., Lecomte, P. (2017). ESA CCI Soil Moisture for improved Earth system understanding: State-of-the art and future directions, Remote Sensing of Environment. https://doi.org/10.1016/j.rse.2017.07.001

Preimesberger, W., Scanlon, T., Su, C. -H., Gruber, A. and Dorigo, W. (2021). Homogenization of Structural Breaks in the Global ESA CCI Soil Moisture Multisatellite Climate Data Record, in IEEE Transactions on Geoscience and Remote Sensing, vol. 59, no. 4, pp. 2845-2862, April 2021, doi: 10.1109/TGRS.2020.3012896

7、Supporting project information

8、Data resource provider

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