A Big Earth Data Platform for Three Poles

**Monthly mean evapotranspiration data set of the Tibet Plateau (2001-2018)**

1、Description

This data set includes the monthly average actual evapotranspiration of the Tibet Plateau from 2001 to 2018. The data set is based on the satellite remote sensing data (MODIS) and reanalysis meteorological data (CMFD), and is calculated by the surface energy balance system model (SEBS). In the process of calculating the turbulent flux, the sub-grid scale topography drag parameterization scheme is introduced to improve the simulation of sensible and latent heat fluxes. In addition, the evapotranspiration of the model is verified by the observation data of six turbulence flux stations on the Tibetan Plateau, which shows high accuracy. The data set can be used to study the characteristics of land-atmosphere interaction and the water cycle in the Tibetan Plateau.

2、Keywords

Theme：Latent heat flux,Evapotranspiration,Radiation,Remote sensing evapotranspiration,Hydrology,Terrestrial Surface Remote Sensing  
Discipline：Atmosphere,Terrestrial Surface  
Places：Tibetan Pleteau  
Time：Month data

3、Data details

1.Scale：1

2.Projection：WGS84

3.Filesize：145.03MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：45.0 | - |
| west：70.0 | - | east：105.0 |
| - | south：22.0 | - |

5、Time frame:2000-12-31 16:00:00+00:00--2018-12-31 03:59:59+00:00

6、Reference method

References to data:

HAN Cunbo, MA Weiqiang\*, WANG Binbin, ZHONG Lei, SU Zhongbo, CHEN Xuelong, MA Yaoming. Monthly mean evapotranspiration data set of the Tibet Plateau (2001-2018). A Big Earth Data Platform for Three Poles, doi:10.11888/Hydro.tpdc.2709952020

References to articles:

Han, C., Ma, Y., Wang, B., Zhong, L., Ma, W., Chen, X., & Su, Z. (2021). Long-term variations in actual evapotranspiration over the Tibetan Plateau. Earth System Science Data, 13(7), 3513–3524. https://doi.org/10.5194/essd-13-3513-2021

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program  
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8、Data resource provider

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