A Big Earth Data Platform for Three Poles

**Land Surface Temperature Dataset of Typical Stations in Middle Reaches of Heihe River Basin Based on UAV Remote Sensing(2020,V1)**

1、Description

Land Surface temperature is one of the important parameters of surface energy balance. This dataset is the monthly land surface temperature data of typical stations in Heihe River Basin from June to October in 2020; In flight, DJI M600 Pro UAV was equipped with the WIRIS Pro sc thermal imager. taking SD station in the wetland, DM station in the oasis and Hz station in the desert as the center, the land surface temperature was observed, and the surface brightness temperature image was obtained. The flying height of the UAV was about 300m, the pixel of the thermal imager was 336x256, and the spatial resolution of the image was 0.4m. The surface temperature retrieval algorithm is an improved single channel algorithm, which is applied to the surface brightness temperature data obtained by UAV thermal imager, and finally the land surface temperature data with 0.4 m spatial resolution is obtained.

2、Keywords

Theme：Land surface product,Terrestrial Surface Remote Sensing  
Discipline：Terrestrial Surface  
Places：Zhangye wetland station, huazhaizi desert steppe station, Daman superstation  
Time：2020, 2020-6-10

3、Data details

1.Scale：None

2.Projection：WGS84

3.Filesize：928.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.98 | - |
| west：100.309 | - | east：100.451 |
| - | south：38.757 | - |

5、Time frame:2020-06-13 16:00:00+00:00--2020-10-20 16:00:00+00:00

6、Reference method

References to data:

WANG Ziwei, ZHOU Ji, LIU Shaomin. Land Surface Temperature Dataset of Typical Stations in Middle Reaches of Heihe River Basin Based on UAV Remote Sensing(2020,V1). A Big Earth Data Platform for Three Poles, doi:10.11888/Ecolo.tpdc.2713482021

References to articles:

Li, M., Zhou, J., Peng, Z., Liu, S., Göttsche, F. M., Zhang, X., & Song, L. (2019). Component radiative temperatures over sparsely vegetated surfaces and their potential for upscaling land surface temperature. Agricultural and Forest Meteorology, 276, 107600.

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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