A Big Earth Data Platform for Three Poles

**HiWATER: Land surface temperature product in the middle reaches of the Heihe River Basin (10th, July, 2012)**

1、Description

On 10 July 2012 (UTC+8), TASI sensor carried by the Harbin Y-12 aircraft was used in a visible near Infrared hyperspectral airborne remote sensing experiment, which is located in the observation experimental area (30×30 km). The relative flight altitude is 2500 meters. Land surface temperature product was obtained at a resolution of 3 m using a modified temperature/emissivity separation algorithm based on TASI surface radiance data. The product were validated with in situ ground measurements. The validation results indicated that the Land surface temperature product agreed with the ground LSTs well with RMSE lower than 1.5 K.

2、Keywords

Theme：Atmosphere Remote Sensing,land surface temperature  
Discipline：Atmosphere  
Places：Heihe River Basin, the artificial oasis experimental area in the middle reaches  
Time：2012-07-10, 2012

3、Data details

1.Scale：None

2.Projection：WGS84 UTM

3.Filesize：693.0MB

4.Data format：las

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.0 | - |
| west：100.3 | - | east：100.46 |
| - | south：38.7 | - |

5、Time frame:2018-11-24 10:50:47+00:00--2018-11-24 10:50:47+00:00

6、Reference method

References to data:

Wen Jianguang. HiWATER: Land surface temperature product in the middle reaches of the Heihe River Basin (10th, July, 2012). A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.170.2014.db2017

References to articles:

Li, X., Liu, S.M., Xiao, Q., Ma, M.G., Jin, R., Che, T., Wang, W.Z., Hu, X.L., Xu, Z.W., Wen, J.G., Wang, L.X. (2017). A multiscale dataset for understanding complex eco-hydrological processes in a heterogeneous oasis system. Scientific Data, 4, 170083. doi:10.1038/sdata.2017.83.

7、Supporting project information

Heihe Watershed Allied Telemetry Experimental Research (HiWATER)

8、Data resource provider

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