A Big Earth Data Platform for Three Poles

**HiWATER: Wide-angle infrared dual-mode line/area array scanner, WIDAS（1th, August, 2012）**

1、Description

On 1 August 2012 (UTC+8), a Wide-angle Infrared Dual-mode line/area Array Scanner (WIDAS) carried by the Harbin Y-12 aircraft was used in a visible near Infrared thermal Dual-mode airborne remote sensing experiment, which is located in the upper reaches of the Heihe River Basin. WIDAS includes a CCD camera with a spatial resolution of 0.08 m, a visible near Infrared multispectral camera with five bands scanner (an maximum observation angle 48° and spatial resolution 0.4 m), and a thermal image camera with a spatial resolution of 2 m.  
The CCD camera data are recorded in DN values processed by mosaic and orthorectification. The mutispectral camera data production are recorded in reflectance processed by atmospheric and geometric correction. Thermal image camera data production are recorded in radiation brightness temperature processed by atmospheric and geometric correction.

2、Keywords

Theme：Remote Sensing Technology,Wide-angle infrared dual-mode line/Area array scanner  
Discipline：Remote Sensing Technology  
Places：Heihe River Basin, the artificial oasis experimental area in the middle reaches  
Time：2012, 2012-08-01

3、Data details

1.Scale：None

2.Projection：WGS84 UTM

3.Filesize：153600.0MB

4.Data format：影像

4、Space scope

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

5、Time frame:2018-11-22 18:47:37+00:00--2018-11-22 18:47:37+00:00

6、Reference method

References to data:

Wen Jianguang. HiWATER: Wide-angle infrared dual-mode line/area array scanner, WIDAS（1th, August, 2012）. A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.003.2013.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.  
  
Che, T., Li, X., Liu, S., Li, H., Xu, Z., Tan, J., Zhang, Y., Ren, Z., Xiao, L., Deng, J., Jin, R., Ma, M., Wang, J., & Yang, X. (2019). Integrated hydrometeorological, snow and frozen-ground observations in the alpine region of the Heihe River Basin, China. Earth System Science Data, 11, 1483-1499

7、Supporting project information

Heihe Watershed Allied Telemetry Experimental Research (HiWATER)

8、Data resource provider

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