A Big Earth Data Platform for Three Poles

**WATER: SPOT5 dataset (2008)**

1、Description

The spot satellite series in France consists of five stars, of which spot 5 is the best. It was launched in May 2002, with a height of 830km, an orbit inclination of 98.7 degrees, and a sun synchronous quasi regression orbit, with a regression period of 26 days. Linear array sensor (CCD) and push scan scanning technology were used for imaging. SPOT5 satellite carries two high-resolution geometric imagers (HRG), one high-resolution Stereo Imager (HRS) and one wide field vegetation detector (VGT). It has five working bands, multi spectral band spatial resolution is 10m (short wave infrared spatial resolution is 20m), panchromatic band spatial resolution is 2.5m.   
At present, there are three spots of SPOT5 data in Heihe River Basin. The coverage and acquisition time are respectively: 1 scene in Linze area, including multispectral image with resolution of 10m and panchromatic image with resolution of 2.5m, with time of 2008-07-04; 1 scene in Zhangye City, with resolution of 2.5m, with time of 2008-03-29; 1 scene of multispectral data with resolution of 10m, with time of 2008-08-10.   
The product level is L1, and the product has undergone rough geometric correction.   
SPOT5 image is mainly used as the base map of geometric precision correction in Heihe experiment.   
The spot 5 remote sensing data set of Heihe comprehensive remote sensing joint experiment was purchased by Beijing Normal University.

2、Keywords

Theme：Remote Sensing Technology,Visible remote sensing  
Discipline：Remote Sensing Technology  
Places：Heihe River Basin, Arid Region Hydrology in the Middle Reaches, Zhangye City Foci Experimental Area, Closed observation area of Linze station  
Time：2008-07-04, 2008-03-29, 2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：974.6MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.511 | - |
| west：99.685 | - | east：101.111 |
| - | south：38.487 | - |

5、Time frame:2008-10-08 08:00:00+00:00--2009-02-19 08:00:00+00:00

6、Reference method

References to data:

Institute of Remote Sensing and Digital earth, Chinese Academy of Sciences. WATER: SPOT5 dataset (2008). A Big Earth Data Platform for Three Poles, 2014

References to articles:

Tian, X., Li, Z.Y., van der Tol C, Su, Z., Li, X., He, Q.S., Bao, Y.F., Chen, E.X., & Li, L.H. (2011). Estimating zero-plane displacement height and aerodynamic roughness length using synthesis of LiDAR and SPOT-5 data. Remote Sensing of Environment, 115(9): 2330-2341. 10.1016/j.rse.2011.04.033.

7、Supporting project information

The CAS (Chinese Academy of Sciences) Action Plan for West Development Project  
National Program on Key Basic Research Project (973 Program

8、Data resource provider

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