A Big Earth Data Platform for Three Poles

**HiWATER: Airborne LiDAR-DSM data production in the Shenshawo desert area of the Heihe River Basin on Aug. 19, 2012**

1、Description

On 19 August 2012, a Leica ALS70 airborne laser scanner boarded by the Y-12 aircraft was used to obtain the point cloud data. Leica ALS70 airborne laser scanner has unlimited numbers of returns intensities measurements including the first, second, third return intensities. The wavelength of laser light is 1064 nm. The absolute flight altitude is 2900 m with the point cloud density 1 point per square meter. Aerial LiDAR-DSM was obtained through parameter calibration, automatic classification of point cloud density and manual editing.

2、Keywords

Theme：Digital surface model(DSM),Terrestrial Surface Remote Sensing  
Discipline：Terrestrial Surface  
Places：Heihe River Basin, the artificial oasis experimental area in the middle reaches, Shenshawo desert station  
Time：2012-08-19, 2012

3、Data details

1.Scale：None

2.Projection：WGS84 UTM

3.Filesize：396.0MB

4.Data format：las

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.78 | - |
| west：100.46 | - | east：100.48 |
| - | south：38.76 | - |

5、Time frame:2012-08-19 02:47:34+00:00--2012-08-19 02:47:34+00:00

6、Reference method

References to data:

Wen Jianguang, XIAO Qing. HiWATER: Airborne LiDAR-DSM data production in the Shenshawo desert area of the Heihe River Basin on Aug. 19, 2012. A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.152.2013.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.

7、Supporting project information

Heihe Watershed Allied Telemetry Experimental Research (HiWATER)

8、Data resource provider

name: Wen Jianguang  
unit:   
email: wenjg@irsa.ac.cn  
  
name: XIAO Qing  
unit: Institute of Remote Sensing and Digital Earth, Chinese Academy of Sciences  
email: xiaoqing@irsa.ac.cn