A Big Earth Data Platform for Three Poles

**HiWATER: Airborne LiDAR-DEM data production in the Shenshawo desert area of the Heihe River Basin**

1、Description

On 19 August 2012, a Leica ALS70 airborne laser scanner boarded on the Y-12 aircraft was used to obtain the Lidar 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-DEM was obtained through parameter calibration, automatic classification of point cloud density and manual editing.

2、Keywords

Theme：Digital elevation model(DEM),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：352.0MB

4.Data format：las

4、Space scope

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

5、Time frame:2018-11-26 02:49:25+00:00--2018-11-26 02:49:25+00:00

6、Reference method

References to data:

Wen Jianguang. HiWATER: Airborne LiDAR-DEM data production in the Shenshawo desert area of the Heihe River Basin. A Big Earth Data Platform for Three Poles, doi:10.3972/hiwater.141.2013.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

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