A Big Earth Data Platform for Three Poles

**WATER: Dataset of surface roughness at the super site around the Dayekou Guantan forest station**

1、Description

The dataset of surface roughness was obtained at the super site (100m×100m, pure Qinghai spruce) around the Dayekou Guantan forest station.
 25 corner points and 16 center points were collected and each point was measured twice and photos were taken. With the roughness plate 110cm long and the measuring points distance 1cm, the samples were collected along the strip from south to north and from east to west, respectively.
 The photos were processed using ArcView software; and after geometric correction, surface height standard deviation (cm) and correlation length (cm) could be acquired based on the formula listed on pages 234-236, Microwave Remote Sensing, Vol. II.
 The roughness data were initialized by the sample name, which was followed by the serial number, the name of the file, standard deviation and correlation length. Each .txt file is matched with one sample photo and standard deviation and correlation length represent the roughness. In addition, the length of 101 radius is also included for further checking.
 Those provide reliable ground data for improving and verifying the remote sensing algorithms.

2、Keywords

Theme：Gravity,Surface Roughness
Discipline：Solid earth
Places：Heihe River Basin, Dayekou watershed foci experimental areas, Forest and Hydrology Experimental Areas, Super Site around the Dayekou Guantan Forest Station
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：113.8MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.534361 | - |
| west：100.250212 | - | east：100.251297 |
| - | south：38.533171 | - |

5、Time frame:2008-06-20 16:00:00+00:00--2008-06-20 16:00:00+00:00

6、Reference method

References to data:

CAO Yongpan, BAI Yunjie, Qu Yonghua, CHEN Ling, ZHOU Hongmin, CHE Tao. WATER: Dataset of surface roughness at the super site around the Dayekou Guantan forest station. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0049.db2013

References to articles:

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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