A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurements for snow synchronizing with MODIS in the Binggou watershed foci experimental area on Mar. 19, 2008**

1、Description

The dataset of ground truth measurements for snow synchronizing with MODIS was obtained in the Binggou watershed foci experimental area on Mar. 19, 2008. Those provide reliable data for retrieval and verification of the snow temperature through airborne and satellite-borne remote sensing approaches.  
 Observation items included:  
 (1) Snow parameters, such as snow depth by the ruler (five measurements at random each point), the snow surface temperature by the infrared thermometer (several measurements at random), the snow layer temperature by the probe thermometer (10cm as an interval and two times each point), the snow grain size by the handheld microscope (10cm as an interval and three times each point) in BG-B from 12:40-13:00 (BJT) with the satellite overpass on Mar. 19, 2008. 64 points were selected by four groups.  
 (2) Snow density, snow complex permittivity, snow volumetric moisture and snow gravimetric moisture by the Snowfork in BG-A,automatically in coordination with ASD.  
 (3) The snow spectrum by the portable ASD.  
 (4) Snow albedo by the portable radiometer in BG-A.  
 Two files including raw data and preprocessed data were archived.

2、Keywords

Theme：Near infrared remote sensing,Spectral characteristics of Snow,Albedo,Snow depth,Snow,Snow particle size,Snow density,Remote Sensing Technology,Visible remote sensing,Snow water equivalent  
Discipline：Remote Sensing Technology,Cryosphere  
Places：Heihe River Basin, the cold region hydrology experimental area in the upper reaches, ice-channel watershed encryption observation area  
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：116.5MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.18839 | - |
| west：100.096381 | - | east：100.286566 |
| - | south：38.01113 | - |

5、Time frame:2008-03-29 16:00:00+00:00--2008-03-29 16:00:00+00:00

6、Reference method

References to data:

XU Zhen, ZHU Shijie, GE Chunmei, HAO Xiaohua. WATER: Dataset of ground truth measurements for snow synchronizing with MODIS in the Binggou watershed foci experimental area on Mar. 19, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0087.db2013

References to articles:

郝晓华, 王建, 车涛, 张璞, 梁继, 李弘毅, 李哲, 白云洁, 白艳芬. 祁连山区冰沟流域积雪分布特征及其属性观测分析. 冰川冻土, 2009, 31(2): 284-292.

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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