A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurements for snow synchronizing with Envisat ASAR in the Binggou watershed foci experimental area on Mar. 15, 2008**

1、Description

The dataset of ground truth measurements for snow synchronizing with Envisat ASAR was obtained in the Binggou watershed foci experimental area on Mar. 15, 2008. The Envisat ASAR data were acquired in AP mode and VV/VH polarization combinations, and the overpass time was approximately at 11:34 BJT.
 Observation items included:
 (1) Snow density, snow complex permittivity, snow volumetric moisture and snow gravimetric moisture by the snowfork in BG-B, BG-D, BG-E and BG-F;
 (2) Snow parameters including the snow surface temperature and the snow-soil interface temperature by the handheld infrared thermometer, the snow layer temperature by the probe thermometer, the snow grain size by the handheld microscope, snow density by the aluminum case, snow depth by the ruler, and the snow surface temperature synchronizing with ASAR in BG-H, BG-D, BG-E and BG-F;
 (3) The snow spectrum by the portable ASD (Xinjiang Meteorological Administration) synchronizing with ASAR in BG-H15; the major and minor axis and shape of the snow layer grain through the self-made snow sieve.
 Two files including raw data and the preprocessed data were archived.

2、Keywords

Theme：Microwave remote sensing,Spectral characteristics of Snow,Snow/ice temperature,Snow depth,Snow,Snow particle size,Snow density,Surface Freeze-thaw Cycle/state Remote Sensing,Snow water equivalent
Discipline：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：163.3MB

4.Data format：EXCEL

4、Space scope

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

5、Time frame:2008-04-06 08:00:00+00:00--2008-04-06 08:00:00+00:00

6、Reference method

References to data:

REN Jie, DOU Yan, BAI Yunjie, XU Zhen, MA Zhongguo, GE Chunmei, BAI Yanfen, LIANG Ji, SHU Lele, ZHANG Pu, LIU Yan, WANG Xufeng, MA Mingguo, LI Hongyi, QU Wei, CHANG Cun, HAO Xiaohua. WATER: Dataset of ground truth measurements for snow synchronizing with Envisat ASAR in the Binggou watershed foci experimental area on Mar. 15, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0084.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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