A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurements for snow synchronizing with EO-1 Hyperion and Landsat TM in the Binggou watershed foci experimental area on Mar. 17, 2008**

1、Description

The dataset of ground truth measurements for snow synchronizing with EO-1 Hyperion and Landsat TM was obtained in the Binggou watershed foci experimental area on Mar. 17, 2008.
 Observation items included:
 (1) Snow parameters as snow depth by the ruler, the snow layer temperature by the probe thermometer, the snow grain size by the handheld microscope, the snow surface temperature and the snow-soil interface temperature by the handheld infrared thermometer simultaneous with the satellite in BG-A, BG-E, BG-F and BG-H.
 (2) Snow density, snow complex permittivity, snow volumetric moisture and snow gravimetric moisture by the Snowfork in BG-A, BG-E and BG-H. Besides, 25-hour fixed-point continuous observation was carried out at the Binggou cold region hydrometerological station.
 (3) The snow spectrum by ASD (Xinjiang Meteorological Administration)
 (4) Snow albedo by the total radiometer
 Two files including raw data and preprocessed data were archived.

2、Keywords

Theme：Microwave remote sensing,Albedo,Snow/ice temperature,Snow depth,Snow,Snow particle size,Snow density,Surface Freeze-thaw Cycle/state Remote Sensing,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：708.3MB

4.Data format：EXCEL

4、Space scope

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

5、Time frame:2008-04-04 16:00:00+00:00--2008-04-04 16:00:00+00:00

6、Reference method

References to data:

CHANG Cun, JIANG Tenglong, HAO Xiaohua, XIAO Pengfeng , DOU Yan, BAI Yunjie, XU Zhen, MA Zhongguo, GE Chunmei, BAI Yanfen, LIANG Ji, SHU Lele, ZHANG Pu, LIU Yan, ZHU Shijie, WANG Xufeng, MA Mingguo. WATER: Dataset of ground truth measurements for snow synchronizing with EO-1 Hyperion and Landsat TM in the Binggou watershed foci experimental area on Mar. 17, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0086.db2013

References to articles:

梁继, 王建, 朱仕杰, 马明国, 秦春, 常存, 王树果, 盖春梅, 曲伟, 任杰. 多尺度卫星雪盖面积获取的对比研究. 遥感技术与应用, 2009, 24(5): 567–575+549–550.

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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