

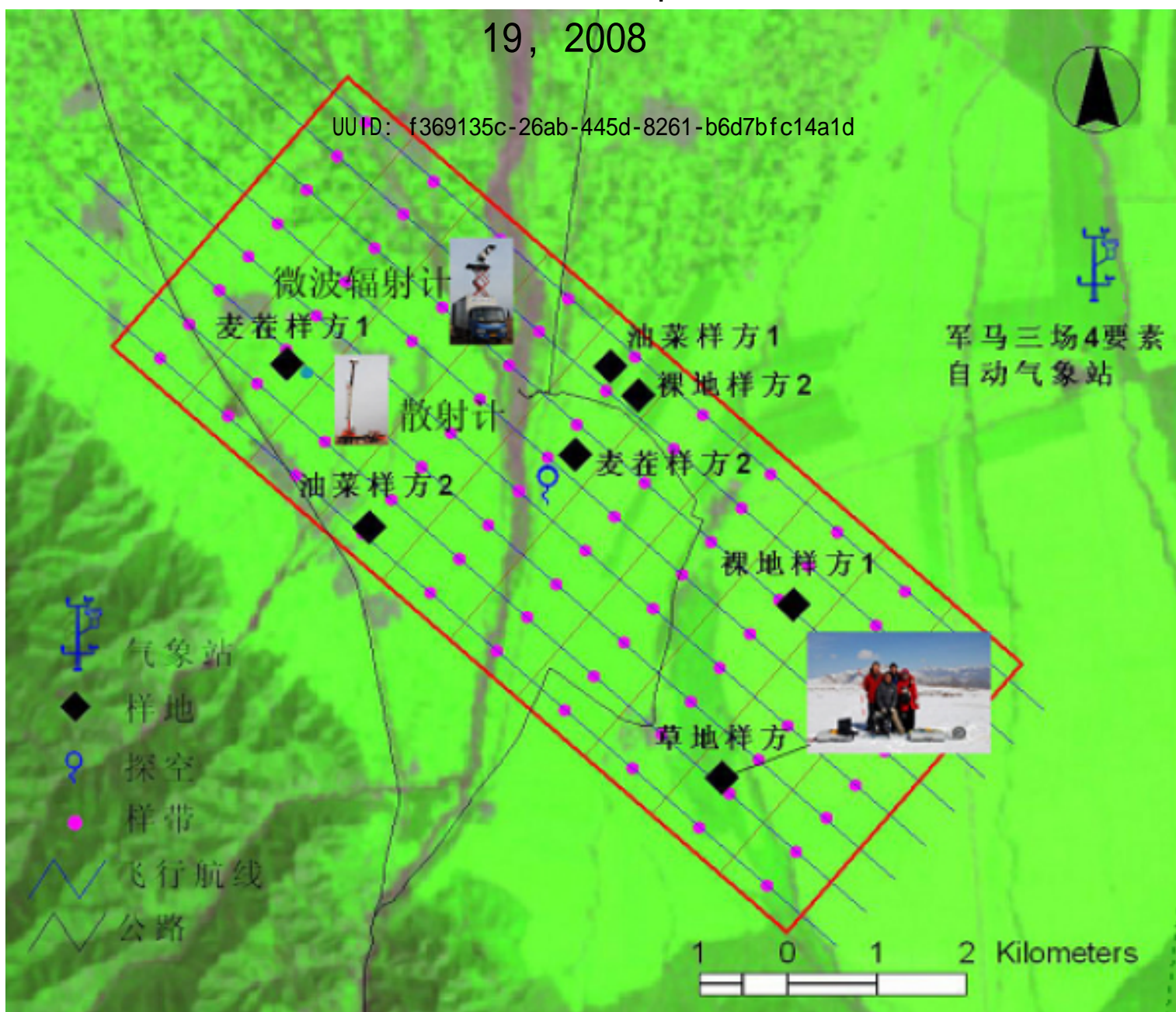


## Cold and Arid Regions Science Data Center

WATER: Dataset of ground truth measurement synchronizing with the airborne microwave radiometers (L&K bands) mission in the Biandukou foci experimental area on Mar.

19, 2008

UUID: f369135c-26ab-445d-8261-b6d7bfc14a1d



WATER: Dataset of ground truth measurement synchronizing with the airborne microwave radiometers (L&K bands) mission in the Biandukou foci experimental area on Mar. 19, 2008

## Abstract

The dataset of ground truth measurement synchronizing with the airborne microwave radiometers (L&K bands) was obtained in the Biandukou foci experimental area from 11:20 to 12:30BJT on Mar. 19, 2008. Observation items included:

- (1) the frost depth by the chopstick and the ruler. The soil was considered frozen when it was hard and with ice crystal. The data can be opened by Microsoft Office Word.
- (2) the surface radiative temperature by the handheld infrared thermometer and the physical temperature by the thermocouple. The data can be opened by Microsoft Office Word.
- (3) the soil moisture (soil samples from 0-1cm, 1-3cm and 3-5cm) by the microwave drying method. The data can be opened by Microsoft Office Word.
- (4) photos of each sampling point in .jpg for further reference.

Six data files were included, the ground-based K-band microwave radiometer, the ground-based L-band microwave radiometer, the frost depth, soil moisture, the surface temperature and the surface conditions.

## Keywords

Theme: soil water content, the surface radiative temperature, the airborne K-band microwave radiometer, the portable infrared thermometer, the soil physical temperature, the airborne L-band microwave radiometer, the ground based synchronous observation, soil freezing and thaw,

Place: the Heihe River Basin, the cold region hydrology experimental area, Biandukou (BDK) foci experimental area,

Temporal: 2008-03-19,

Discipline:

Statrum:

## ISO 19115 Category

Category: geoscientificInformation

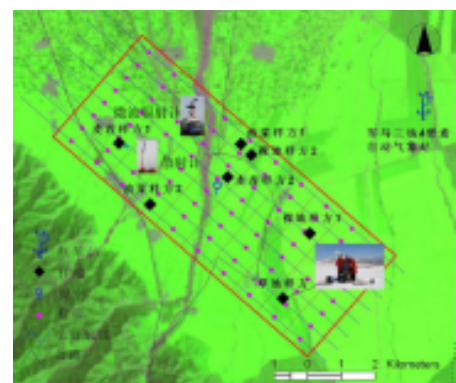
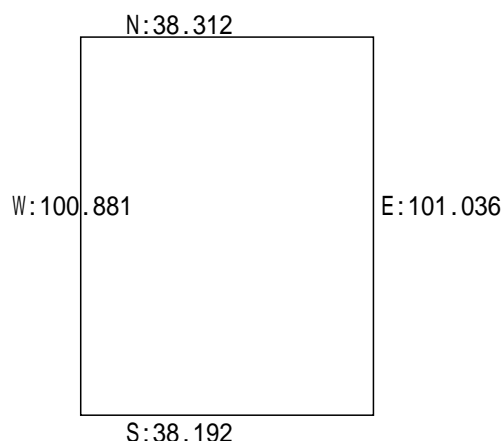
## Detail

Project: +proj=longlat +datum=WGS84 +no\_defs

Data Volume(MB): 262.9

Data Format:

## Position and Thumbnail



## Temporal Range

Start: 2008-03-19

End: 2008-03-19

#### Citation

Zhang Lixin, Chang Sheng, Che Tao, Fang Qian, Qu Ying, Liang Xingtao, Liu Zhigang, Pan Jinmei, Peng Danqing, Ren Huazhong, Zhang Yongpan, Zhang Zhiyu, Zhao Shaojie, Zhao Tianjie, Zheng Yue, Zhou Ji. WATER: Dataset of ground truth measurement synchronizing with the airborne microwave radiometers (L&K bands) mission in the Biandukou foci experimental area on Mar. 19, 2008. Beijing Normal University; Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences; Institute of Remote Sensing Applications, Chinese Academy of Sciences. 2008. doi:10.3972/water973.0029.db

#### Recommended Publications

DOI

doi:10.3972/water973.0029.db

#### Funding

1. National Program on Key Basic Research Project (973 Program) : Theory and method for a synthetic retrieval of terrestrial ecological variables from both active and passive remote sensing approaches(No: 2007CB714400)
2. The CAS (Chinese Academy of Sciences) Action Plan for West Development Project : Watershed Airborne Telemetry Experimental Research (WATER)(No: KZCX2-XB2-09)

#### Limitation

1. The dataset is generated from the "Watershed Airborne Telemetry Experimental Research (WATER) ", the user must have a clear statement in the article of the original data source and adopt the reference style providing by the metadata in the References section.

#### Online Resources

1. WATER data report <http://westdc.westgis.ac.cn/doc/数据总体报告v1.pdf>
2. WATER Website <http://water.westgis.ac.cn>
3. Environmental and Ecological Science Data Center for West China <http://westdc.westgis.ac.cn>
4. metadata link <http://westdc.westgis.ac.cn/data/f369135c-26ab-445d-8261-b6d7bfc14a1d>

#### Contacts

1. Publisher

Wu Lizong Organization: Cold and Arid Regions Environmental and Engineering Research Institute, Chinese Academy of Sciences

Address: China Lanzhou

Zip code: 730000 Phone: 0931-4967298 Email: wulizong@lzb.ac.cn