A Big Earth Data Platform for Three Poles

**WATER: Dataset of ground truth measurements synchronizing with the airborne microwave radiometers (L&K bands) mission in the Linze grassland foci experimental area on May 25, 2008**

1、Description

The dataset of ground truth measurements synchronizing with the airborne microwave radiometers (L&K bands) mission was obtained along the sample lines 1, 2, 3, 4, 5 and 6 of the Linze grassland foci experimental area on May 25, 2008. Complementary measurements were carried out along Line 7 on Jun. 2. 25 points at intervals of 100m were selected at each line.  
 Simultaneous with the satellite overpass, numerous ground data were collected, the soil temperature, soil moisture, the loss tangent, soil conductivity, the real part and the imaginary part of soil complex permittivity measured by the POGO soil sensor, the mean soil temperature from 0-5cm measured by the probe thermometer, and the surface radiative temperature measured three times by the hand-held infrared thermometer in L1, L2, L3 and L4; soil volumetric moisture, soil conductivity, the soil temperature, and the real part of soil complex permittivity were measured by WET, the mean soil temperature from 0-5cm measured by the probe thermometer, and the surface radiative temperature measured three times by the hand-held infrared thermometer in L5 and L6; the soil temperature, soil moisture, the loss tangent, soil conductivity, the real part and the imaginary part of soil complex permittivity by the POGO soil sensor, the mean soil temperature from 0-5cm measured by the probe thermometer, and the surface radiative temperature measured by the hand-held infrared thermometer, and soil gravimetric moisture, volumetric moisture, and soil bulk density measured by the cutting ring in L7. See WATER: Dataset of setting of the sampling plots and stripes in the foci experimental area of Linze station for more information.

2、Keywords

Theme：Electrical conductivity,Soil,Surface radiation temperature,Earth SurFace Processes,Soil temperature,Soil bulk density,Soil moisture/Water content,Terrestrial Surface Remote Sensing,Ground verification information  
Discipline：Terrestrial Surface  
Places：Heihe River Basin, Arid Region Hydrology in the Middle Reaches,   
Time：2008-05-25, 2008

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：6.07MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.268 | - |
| west：100.037 | - | east：100.095 |
| - | south：39.225 | - |

5、Time frame:2008-06-04 16:00:00+00:00--2008-06-04 16:00:00+00:00

6、Reference method

References to data:

HAN Xujun, SONG Yi, GE Chunmei. WATER: Dataset of ground truth measurements synchronizing with the airborne microwave radiometers (L&K bands) mission in the Linze grassland foci experimental area on May 25, 2008. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0057.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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