A Big Earth Data Platform for Three Poles

**WATER: Dataset of the drop spectrometer observations in the cold region hydrology experimental area**

1、Description

The dataset of the drop spectrometer observations was obtained at an interval of 30 seconds in the cold region hydrology experimental area from Mar. 14 to Apr. 14, 2008. The site was chosen in A'rou (N39.06°, E100.44°, 3002m), Qilian county, Qinghai province. The data mainly included the raindrop grain size and the terminal velocity. Besides, dual polarized radar (X-band) parameters such as ZDR and KDR could be further developed based on those data.  
 The observation was carried out within an area of 5400mm^2; the liquid grain diameter was from 0.2-5mm, and the solid grain diameter was from 0.2-25mm.

2、Keywords

Theme：Precipitation,Drop spectrometer,Rain,Remote Sensing Technology,Hydrology  
Discipline：Atmosphere,Terrestrial Surface,Remote Sensing Technology  
Places：Heihe River Basin, the cold region hydrology experimental area in the upper reaches, A'rou flight zone,   
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：15.48MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：39.06 | - |
| west：100.44 | - | east：100.44 |
| - | south：39.06 | - |

5、Time frame:2008-03-31 09:00:00+00:00--2008-05-01 05:42:00+00:00

6、Reference method

References to data:

WATER: Dataset of the drop spectrometer observations in the cold region hydrology experimental area. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0163.db2013

References to articles:

Zhao G, Chu R, Zhang T, Li J, Shen J, Wu Z. Improving the rainfall rate estimation in the midstream of the Heihe River Basin using rain drop size distribution. Hydrology and Earth System Sciences, 2011, 15(3): 943-951. doi:10.5194/hess-15-943-2011.  
  
赵果, 楚荣忠, 张彤, 贾伟. 祁连山区春季降雪滴谱特性分析. 冰川冻土, 2009, 31(2): 254-261.  
  
Zhao G, Chu RZ, Zhang T, Jia W, Shen J, Wu ZY. Analysis of the characteristics of snow drop size distribution in the Qilian Mountains. Sciences in Cold and Arid Regions, 2010, 2(5): 419-426, DOI: 10.3724/SP.J.1226.2010.00419.

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