A Big Earth Data Platform for Three Poles

**WATER: Dataset of the truck-mounted dual polarized doppler radar observations in the arid region hydrology experiment area**

1、Description

The dataset of the truck-mounted dual polarized doppler radar observations (time-continuous 10-minute on the 250m×250m horizontal grid) was obtained in the arid region hydrology experiment area from May 20 to Jul. 5, 2008. The observation site (38.73°N, 100.45°E, 1668m) was typical of complex underlying surface and transit zone landscapes.
 The aim was to explore and retrieve precipitation type and intensity by radar in cold regions, with the precipitation particle drop size analyzer and ground intensive measurements occurring simultaneously, thus making it possible to produce a high resolution precipitation dataset.
 The 714XDP X-band dual-linear polarization Doppler weather radar was with a horizontal resolution of 150 m, an azimuth resolution of 1, VCP from 10-22 layers and the scanning cycle 10 minutes. ZH, ZDR and KDP could be acquired together. For more details, please refer to Readme file.

2、Keywords

Theme：Clouds,Precipitation,Cloud properties,Dual-polarization doppler weather radar,Radar Weather
Discipline：Atmosphere
Places：Heihe River Basin, Arid Region Hydrology in the Middle Reaches,
Time：2008,

3、Data details

1.Scale：None

2.Projection：4326

3.Filesize：16135.0MB

4.Data format：

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.73 | - |
| west：100.45 | - | east：100.45 |
| - | south：38.73 | - |

5、Time frame:2008-11-26 14:45:00+00:00--2009-01-11 14:45:00+00:00

6、Reference method

References to data:

WATER: Dataset of the truck-mounted dual polarized doppler radar observations in the arid region hydrology experiment area. A Big Earth Data Platform for Three Poles, doi:10.3972/water973.0263.db2014

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.

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