A Big Earth Data Platform for Three Poles

**Comprehensive observation data set of cloud precipitation process in Qilian Mountain (2020)**

1、Description

This data set is a sub data set of the comprehensive observation data set of cloud precipitation process, which is derived from the comprehensive investigation test carried out on the South and north slopes of Qilian Mountains during 2020. The air observation is mainly conducted by the king aircraft in the air. The ground investigation includes automatic weather station, raindrop spectrometer, microwave radiometer, Cloud Radar, sounding second data, etc. The observation elements of automatic weather station include air temperature, air pressure, humidity Wind direction, wind speed, precipitation. The observation elements of raindrop spectrometer include particle spectrum, precipitation intensity, etc. The observation elements of microwave radiometer are atmospheric temperature and humidity profiles. The observation elements of cloud Radar are mainly fixed-point vertical observation data. Meanwhile aerosol, rain, hail and soil samples are collected. It can provide data support for revealing the influence of westerly monsoon on cloud precipitation process and atmospheric water cycle in Qilian Mountains.

2、Keywords

Theme：Clouds,DSD,Precipitation,aircraft sounding,C band dual polarization radar,Humidity,cloud radar,Remote Sensing Technology,Ground-based microwave radiometer,Atmospheric Water Vapor
Discipline：Atmosphere,Remote Sensing Technology
Places：Qilian Mountains area
Time：2020

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：6769.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：42.0 | - |
| west：95.0 | - | east：104.0 |
| - | south：36.0 | - |

5、Time frame:2019-12-31 16:00:00+00:00--2020-12-30 16:00:00+00:00

6、Reference method

References to data:

FU Danhong . Comprehensive observation data set of cloud precipitation process in Qilian Mountain (2020). A Big Earth Data Platform for Three Poles, doi:10.11888/Atmos.tpdc.2720002021

References to articles:

7、Supporting project information

Second Tibetan Plateau Scientific Expedition Program

8、Data resource provider

name: FU Danhong
unit: The Institute of Atmospheric Physics， Chinese Academy of Sciences
email: fudanhong@mail.iap.ac.cn