A Big Earth Data Platform for Three Poles

**Comprehensive observation data set of severe convection and lightning in Lhasa (2019-2021)**

1、Description

Observation data of atmospheric average electric field and ground meteorological elements of Thunderstorm Activities in Lhasa from 2019 to 2021, including continuously monitored atmospheric average electric field intensity and polarity per second / minute, precipitation per minute, wind speed, air temperature, relative humidity, atmospheric pressure and other meteorological elements, as well as equipment status parameters. The data comes from the field observation experiments of severe convection and lightning disasters carried out in Lhasa urban area from 2019 to 2021. The data can be applied to the study of severe convection and lightning disasters in the Qinghai Tibet Plateau.  
The observation and data acquisition shall be carried out in strict accordance with the instrument operation specifications. Measurement accuracy of atmospheric average electric field: ± 5% × Measured value + 8V / M offset; Measurement accuracy of air temperature, Rh, wind speed and wind direction: ± 0.1 ℃, ± 0.8%, ± 0.3m/s and ± 3 º; Precipitation measurement accuracy: ± 1% (≤ 10mm / HR), ± 3% (10 ~ 20mm / HR), ± 5% (20 ~ 30mm / HR)  
Atmospheric pressure measurement accuracy: ± 0.3hpa @ 20 ℃, ± 0.6hpa @ 0 ~ 40 ℃, ± 1.0hpa @ - 20 ~ 45 ℃, ± 1.5hpa @ - 40 ~ 60 ℃.

2、Keywords

Theme：strong convection,Atmospheric Electricity,Meteorological Disaster,Lightning,Electric field  
Discipline：Atmosphere  
Places：Lhasa  
Time：2019-2021

3、Data details

1.Scale：None

2.Projection：

3.Filesize：959.0MB

4.Data format：None

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：30.6 | - |
| west：90.0 | - | east：92.0 |
| - | south：28.6 | - |

5、Time frame:2019-08-09 16:00:00+00:00--2021-08-23 03:59:59+00:00

6、Reference method

References to data:

FU Danhong . Comprehensive observation data set of severe convection and lightning in Lhasa (2019-2021). A Big Earth Data Platform for Three Poles, doi:10.11888/Atmos.tpdc.2719932021

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