A Big Earth Data Platform for Three Poles

**Meteorological data of the integrated observation and research station of Ngari for desert environment (2009-2017)**

1、Description

The data set includes meteorological data from the Ngari Desert Observation and Research Station from 2009 to 2017. It includes the following basic meteorological parameters: temperature (1.5 m from the ground, once every half hour, unit: Celsius), relative humidity (1.5 m from the ground, once every half hour, unit: %), wind speed (1.5 m from the ground, once every half hour, unit: m/s), wind direction (1.5 m from the ground, once every half hour, unit: degrees), atmospheric pressure (1.5 m from the ground, once every half hour, unit: hPa), precipitation (once every 24 hours, unit: mm), water vapour pressure (unit: kPa), evaporation (unit: mm), downward shortwave radiation (unit: W/m2), upward shortwave radiation (unit: W/m2), downward longwave radiation (unit: W/m2), upward longwave radiation (unit: W/m2), net radiation (unit: W/m2), surface albedo (unit: %). The temporal resolution of the data is one day.
The data were directly downloaded from the Ngari automatic weather station. The precipitation data represent daily precipitation measured by the automatic rain and snow gauge and corrected based on manual observations. The other observation data are the daily mean value of the measurements taken every half hour.
Instrument models of different observations: temperature and humidity: HMP45C air temperature and humidity probe; precipitation: T200-B rain and snow gauge sensor; wind speed and direction: Vaisala 05013 wind speed and direction sensor; net radiation: Kipp Zonen NR01 net radiation sensor; atmospheric pressure: Vaisala PTB210 atmospheric pressure sensor; collector model: CR 1000; acquisition interval: 30 minutes.
The data table is processed and quality controlled by a particular person based on observation records. Observations and data acquisition are carried out in strict accordance with the instrument operating specifications, and some data with obvious errors are removed when processing the data table.

2、Keywords

Theme：Precipitation,Radiation,Temperature,Desert,Winds,Precipitation amount,Solar radiation,Humidity/Dryness,Desert ecosystem,Pressure
Discipline：Atmosphere,Terrestrial Surface
Places：Tibetan Plateau , Ngari
Time：2009-2017

3、Data details

1.Scale：None

2.Projection：None

3.Filesize：17.53MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：33.0 | - |
| west：79.0 | - | east：79.0 |
| - | south：33.0 | - |

5、Time frame:2009-12-13 08:00:00+00:00--2018-01-16 08:00:00+00:00

6、Reference method

References to data:

ZHAO Huabiao. Meteorological data of the integrated observation and research station of Ngari for desert environment (2009-2017). A Big Earth Data Platform for Three Poles, doi:10.11888/AtmosphericPhysics.tpe.62.db2018

References to articles:

7、Supporting project information

8、Data resource provider

name: ZHAO Huabiao
unit: Institute of Tibetan Plateau Research, CAS
email: zhaohb@itpcas.ac.cn