A Big Earth Data Platform for Three Poles

**The representative sequence dataset of surface temperature in the Tibetan Plateau (1951-2006)**

1、Description

This data set contains the temperature anomaly series for each quarter and month of the years from January, 1951 to December, 2006 on the Tibetan Plateau. Based on the “China Homogenized Historical Temperature Data Set (1951–2004) Version 1.0” and the daily average temperature data from 2005 to 2006, the monthly average temperature of 123 sites on the Tibetan Plateau and its neighboring areas were gridded using the Climate Anomaly Method (CAM). Further, the average monthly temperature anomaly sequences from 1951 to 2006 were established using the area weighting factor method. To maximize the use of the observation data, the method using the data at a nearby reference station to correct the short series of the climatic standard values of the air temperature data is emphatically discussed. Reference: Yu Ren, Xueqin Zhang, Lili Peng. Construction and Analysis of Mean Air Temperature Anomaly Series for the Qinghai-Xizang Plateau during 1951-2006. Plateau Meteorology, 2010.
The “China Homogenized Historical Temperature Data Set (1951–2004) Version 1.0” and the daily average temperature data from 2005 to 2006 meet the relevant national standards.
There are five fields in the monthly temperature anomaly data table.
Field 1: Year
Field 2: Month
Field 3: Number of grids Number of grids included in the calculation
Field 4: Number of sites Number of sites included in the calculation
Field 5: Monthly Temperature Anomaly Unit °C
There are five fields in the year and quarter temperature anomaly data table.
Field 1: Year
Field 2: Quarter
Field 3: Number of grids Number of grids included in the calculation
Field 4: Number of sites Explanation: Number of sites included in the calculation
Field 5: Temperature anomaly °C
In the quarter field:
1. If it is null, it is the annual temperature anomaly
2. DJF: Winter (Last December to this February) temperature anomaly °C
3. MAM: Spring (March-May) temperature anomaly °C
4. JJA: Summer (June-August) temperature anomaly °C
5. SON: Fall (September-November) temperature anomaly °C
Data accuracy: the monthly average temperature anomaly to the third decimal places, the annual and quarterly average temperature anomaly to the second decimal places.

2、Keywords

Theme：Temperature,Surface air temperature,Temperature anomalies
Discipline：Atmosphere
Places：Tibetan Plateau
Time：1951-2006

3、Data details

1.Scale：None

2.Projection：

3.Filesize：1.25MB

4.Data format：EXCEL

4、Space scope

|  |  |  |
| --- | --- | --- |
| - | north：38.0 | - |
| west：73.0 | - | east：104.0 |
| - | south：28.0 | - |

5、Time frame:1951-07-05 08:00:00+00:00--2007-07-03 08:00:00+00:00

6、Reference method

References to data:

LIU Linshan. The representative sequence dataset of surface temperature in the Tibetan Plateau (1951-2006). A Big Earth Data Platform for Three Poles, doi:10.11888/AtmosphericPhysics.tpe.7.db2019

References to articles:

任雨, 张雪芹, 彭莉莉. (2010). 青藏高原1951-2006年气温距平序列的建立与分析 [J]. 高原气象, 29(3), 572-578.

7、Supporting project information

Pan-Third Pole Environment Study for a Green Silk Road-A CAS Strategic Priority A Program

8、Data resource provider

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