

TITLE

CAMP_Tibet_D105-DSTMS_20021001_20030331.stm

CONTACT

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DATE OF THIS DOCUMENT

02 Sep. 2004

1. 0 DATASET OVERVIEW

1.1 Introduction

To clarify the energy and water cycle in the Tibetan Plateau, it is important to understand the profile of the soil temperature.

The purpose of DSTMS (Deep Soil Temperature Measurement System) observation is to monitor these values and develop the land surface process models and satellite-based soil moisture retrieval methods.

1.2 Time period covered by the data

Start: 1 October 2002, 00:00

End: 31 March 2003, 23:00

1.3 Temporal characteristics of the data

All parameters are recorded every hour.

1.4 Physical location of the measurement

Latitude : 33.06429 N
Longitude : 91.94256 E
Elevation : 5038.6 m a.s.l.

Landscape : Bare land (with the thin weed-like plant)
Canopy height : Less than 5cm.
Soil Characteristics: Sand

1.5 Data source

1.6 Website address references

<http://monsoon.t.u-tokyo.ac.jp/camp/tibets/>

2.0 INSTRUMENTATION DESCRIPTION

2.1 Platform

The sensors are mounted on several heights.

2.2 Description of the instrumentation

Parameter	Model	Manufacturer
Soil Temperature	Pt100	Datamark

2.3 Instrumentation specification

Soil Temp_0cm : Soil Temperature at the 0cm depth (deg.C)
Soil Temp_3cm : Soil Temperature at the 3cm depth (deg.C)
Soil Temp_5cm : Soil Temperature at the 5cm depth (deg.C)
Soil Temp_10cm : Soil Temperature at the 10cm depth (deg.C)
Soil Temp_20cm : Soil Temperature at the 20cm depth (deg.C)
Soil Temp_80cm : Soil Temperature at the 80m depth (deg.C)
Soil Temp_160cm : Soil Temperature at the 160cm depth (deg.C)
Soil Temp_240cm : Soil Temperature at the 240cm depth (deg.C)
Soil Temp_320cm : Soil Temperature at the 320cm depth (deg.C)
Soil Temp_400cm : Soil Temperature at the 400cm depth (deg.C)
Soil Temp_500cm : Soil Temperature at the 500cm depth (deg.C)
Soil Temp_610cm : Soil Temperature at the 610cm depth (deg.C)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

Data are downloaded from the DSTMS twice a year. Then, data are sent to Tokyo, where they are processed.

3.2 Description of derived parameters and processing techniques used

Soil temperature is measured by using Trime MUX and Pt100 sensor.

4.0 QUALITY CONTROL PROCEDURES

For all parameters, the data has been visually checked, looking for extremely and unusual low/high values and/or periods with constant values through the CAMP Quality Control Web Interface.

The quality control flags follow the CEOP data flag definition document.

5.0 GAP FILLING PROCEDURES

No gap filling procedure was applied.

6.0 DATA REMARKS

6.1 PI's assessment of the data

6.1.1 Instruments problems

None.

6.1.2 Quality issues

6.2 Missing data periods

None

7.0 REFERENCE REQUIREMENTS

Original data was collected and is provided within the framework of GAME/CAMP Tibet Scientific and Technological Research Project, funded by the Ministry of Education, Culture, Sports, Science and Technology; the Japan Science and Technology Agency; the Frontier Research System for Global Change; the Japan Aerospace Exploration Agency; the Chinese Academy of Sciences; and the Chinese Academy of Meteorological Sciences.

8.0 REFERENCES

N. Hirose, T. Koike, and H. Ishidaira, 2002: Study on Spatially Averaged Evaporation under Soil Moisture Heterogeneity Affected by Permafrost Micro-topography. JMSJ, Vol.80. pp191-203.

N. Hirose and T. Koike, 2001: The effect of the soil moisture heterogeneity on the spatially averaged evaporation at the permafrost plain area in Tibetan Plateau, Proceedings of the Fifth International Study Conference on GEWEX in Asia and GAME, 655-660.

T. Koike, N. Hirose, H. Ishidaira, Y. Ding, Y. Shen, S. Wang, B. Ye and M. Yang, 2001b: Hydrological Variability in the Tibetan Permafrost, Proc. of the 2nd International Workshop on TIPEX/GAME-Tibet, Kunming, China.

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CAMP_Tibet_D105-DSTMS_20030401_20030930.stm

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DATE OF THIS DOCUMENT

20 Apr. 2005

1. 0 DATASET OVERVIEW

1.7 Introduction

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The purpose of DSTMS (Deep Soil Temperature Measurement System) observation is to monitor these values and develop the land surface process models and satellite-based soil moisture retrieval methods.

1.8 Time period covered by the data

Start: 1 April 2003, 00:00

End: 30 September 2003, 23:00

1.9 Temporal characteristics of the data

All parameters are recorded every hour.

1.10 Physical location of the measurement

Latitude : 33.06429 N
Longitude : 91.94256 E
Elevation : 5038.6 m a.s.l.

Landscape : Bare land (with the thin weed-like plant)
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5.0 GAP FILLING PROCEDURES

No gap filling procedure was applied.

6.0 DATA REMARKS

6.1 PI's assessment of the data

6.1.1 Instruments problems

None.

6.1.2 Quality issues

6.2 Missing data periods

Soil_Temperature_80cm	2003/9/20 11:00
Soil_Temperature_80cm	2003/9/20 17:00 - 2003/9/22 15:00
Soil_Temperature_80cm	2003/9/22 21:00 - 2003/9/23 7:00
Soil_Temperature_240cm	2003/7/6 0:00 - 2003/7/6 1:00

7.0 REFERENCE REQUIREMENTS

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10 Jun. 2006

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9.0 Missing Data Periods

None.