TITLE

CAMP_Tibet_Amdo-Tower_20021001_20030331.stm

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DATE OF THIS DOCUMENT

24 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 characteristics of the basic meteorological elements and surface fluxes.

The purpose of Tibet AWS (Automatic Weather Station) observation is to improve the quantitative understanding of land-atmosphere interactions over the Tibetan Plateau and develop the land surface process models by monitoring these meteorological values.

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 recoded every hour.

1.4 Physical location of the measurement

Latitude : 32.24096 N
Longitude : 91.62493 E
Elevation : 4695.2 m a.s.l.
Landscape : Bare land (with the thin weed-like plant)
Canopy height : Less than 5cm.
Soil Characteristics: Silt loam

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 AWS was constructed in summer 1997, and started continuous observation in May 1998. The site is located in the wide valley running from northeast to southwest, in the middle of the Tibetan Plateau. The AWS is consisted of the 14-m boundary layer tower and the 4-component radiation system. The soil temperature measured as a part of the tower observation system. The sensors are mounted on several heights.

2.2 Description of the instrumentation

Parameter	Model	Manufacturer
Soil Temperature	Pt100	VAISALA
Soil Moisture	N/A	N/A

2.3 Instrumentation specification

Soil Temp_0cm : Soil Temperature at the 0cm 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 20m depth (deg.C)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

Original data are sampled at every 1 second (1.0Hz) and 10-minute average is computed and stored in a data logger (VAISALA MILoS500).
Data are downloaded from the Tower twice every year, in spring and summer. Then, data are sent to Japan, where they are processed.

3.2 Description of derived parameters and processing techniques used

Soil temperature is averaged over the previous hour.
Soil Moisture instantaneous values of each 1 hour.

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 thorough 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

H. Ishikawa and GAME-Tibet Boundary Layer Group, 2001: What has been known and what has not in GAME/Tibet BL observation, Proceedings of the Fifth International Study Conference on GEWEX in Asia and GAME, 691.

Ma, Yaoming, O. Tsukamoto，H. Ishikawa, Z. Su, M. Menenti, J. Wang and J. Wen, 2002: Determination of regional land surface heat flux densities over heterogeneous landscape of HEIFE integrating satellite remote sensing with field observations, Jour. Meteorol. Soc. Japan, 80(3), 485-501.

K. Tanaka, I. Tamagawa, H. Ishikawa, Y. Ma and Z. Hu, 2003: Surface energy and closure of the eastern Tibetan Plateau during the GAME-Tibet IOP 1998, J. Hydrology, vol. 283, pp. 169-183

K. Tanaka and H. Ishikawa, 2001: Long term monitoring of surface energy fluxes of the Amdo PBL site in the eastern Tibetan Plateau, Proceedings of the Fifth International Study Conference on GEWEX in Asia and GAME, 384-388.

Ueno, K., H. Fujii, H. Yamada and L. Liu, （2001） Weak and Frequent Monsoon Precipitation over the Tibetan Plateau. J. Meteor. Soc. Japan, 79, 1B, 419-434.

TITLE

CAMP_Tibet_Amdo-Tower_20030401_20030904.stm

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DATE OF THIS DOCUMENT

19 Apr. 2006

1. 0 DATASET OVERVIEW

1.7 Introduction

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The purpose of Tibet AWS (Automatic Weather Station) observation is to improve the quantitative understanding of land-atmosphere interactions over the Tibetan Plateau and develop the land surface process models by monitoring these meteorological values.

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 recoded every hour.

1.10 Physical location of the measurement

Latitude : 32.24096 N
Longitude : 91.62493 E
Elevation : 4695.2 m a.s.l.
Landscape : Bare land (with the thin weed-like plant)
Canopy height : Less than 5cm.
Soil Characteristics: Silt loam

1.11 Data source

1.12 Website address references

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

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The AWS was constructed in summer 1997, and started continuous observation in May 1998. The site is located in the wide valley running from northeast to southwest, in the middle of the Tibetan Plateau. The AWS is consisted of the 14-m boundary layer tower and the 4-component radiation system. The soil temperature measured as a part of the tower observation system. The sensors are mounted on several heights.

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Soil Temp_0cm : Soil Temperature at the 0cm 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 20m depth (deg.C)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

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3.2 Description of derived parameters and processing techniques used

Soil temperature is averaged over the previous hour.
Soil Moisture instantaneous values of each 1 hour.

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 thorough 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

Please see the chapter 9.0.

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

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Ma, Yaoming, O. Tsukamoto，H. Ishikawa, Z. Su, M. Menenti, J. Wang and J. Wen, 2002: Determination of regional land surface heat flux densities over heterogeneous landscape of HEIFE integrating satellite remote sensing with field observations, Jour. Meteorol. Soc. Japan, 80(3), 485-501.

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Ueno, K., H. Fujii, H. Yamada and L. Liu, （2001） Weak and Frequent Monsoon Precipitation over the Tibetan Plateau. J. Meteor. Soc. Japan, 79, 1B, 419-434.

9.0 Missing data periods

```
2003/04/02 00:00 - 2003/04/02 01:00 (2)
2003/04/21 02:00 - 2003/04/21 15:00 (14)
2003/05/30 04:00
2003/09/04 13:00 - 2003/09/04 23:00 (11)
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TITLE

CAMP_Tibet_Amdo-Tower_20040421_20041231.stm

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DATE OF THIS DOCUMENT

7 July. 2006

1. 0 DATASET OVERVIEW

1.13 Introduction

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1.14 Time period covered by the data

Start: 21 April 2004, 00:00
End: 31 December 2004, 23:00

1.15 Temporal characteristics of the data

All parameters are recoded every hour.

1.16 Physical location of the measurement

Latitude : 32.24096 N
Longitude : 91.62493 E
Elevation : 4695.2 m a.s.l.
Landscape : Bare land (with the thin weed-like plant)
Canopy height : Less than 5cm.
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5.0 GAP FILLING PROCEDURES

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Ueno, K., H. Fujii, H. Yamada and L. Liu, （2001） Weak and Frequent Monsoon Precipitation over the Tibetan Plateau. J. Meteor. Soc. Japan, 79, 1B, 419-434.

9.0 Missing data periods

File Name : CAMP_Tibet_Amdo-Tower_20040421_20041231.stm
Data Period : 2004/04/21 00:00 - 2004/12/31 23:00

Soil Temperature (-0.20m)
2004/04/21 00:00 - 2004/04/21 06:00 (7)
2004/06/09 23:00 - 2004/08/12 07:00 (1521)

Soil Temperature (-0.10m)
2004/04/21 00:00 - 2004/04/21 06:00 (7)
2004/05/23 08:00
2004/06/09 23:00 - 2004/08/12 06:00 (1520)

Soil Temperature (-0.05m)
2004/04/21 00:00 - 2004/04/21 06:00 (7)
2004/06/09 23:00 - 2004/08/12 07:00 (1521)

Soil Moisture (-0.20m)
2004/04/21 00:00 - 2004/12/31 23:00 (ALL)

Soil Moisture (-0.10m)
2004/04/21 00:00 - 2004/12/31 23:00 (ALL)

Soil Moisture (-0.05m)
2004/04/21 00:00 - 2004/12/31 23:00 (ALL)