

TITLE

CAMP_Tibet_D105-AWS_20021001_20030331.stm

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DATE OF THIS DOCUMENT

24 Sep. 2004 (Updated 04 Aug. 2006)

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 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: Silt loam / Sandy 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

This AWS was constructed in summer 2000 to represent the cold location north of the Tanngla Mts. The site was located in the shallow slope of the mountain. The sensors are mounted on several heights.

2.2 Description of the instrumentation

| Parameter | Model | Manufacturer |
|------------------|---------------|--------------|
| Soil Temperature | TS-301(Pt100) | Okazaki |
| Soil Moisture | Trime EZ | IMKO |

2.3 Instrumentation specification

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

Soil Temp_4cm : Soil Temperature at the 4cm 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)

Soil Moist_4cm : Soil Moisture at the 4cm depth (%)

Soil Moist_20cm : Soil Moisture at the 20cm depth (%)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

Data are sampled at every 5 second (0.2Hz) average is computed and stored in a datalogger (Campbell CR-10X).

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.

There are two Soil Temperature sensors at the 0 cm depth. This time we apply the average of these two data to get the representative value at 0 cm.

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

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

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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.

TITLE

CAMP_Tibet_D105-AWS_20030401_20030930.stm

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DATE OF THIS DOCUMENT

19 Apr. 2006 (Updated 31 Aug. 2006)

1. 0 DATASET OVERVIEW

1.7 Introduction

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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 : 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: Silt loam / Sandy loam

1.11 Data source

1.12 Website address references

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Soil Temp_4cm : Soil Temperature at the 4cm 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)
Soil Moist_20cm : Soil Moisture at the 20cm depth (%)
Soil Moist_4cm : Soil Moisture at the 4cm depth (%)
Soil Moist_20cm : Soil Moisture at the 20cm depth (%)

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Soil temperature is averaged over the previous hour.

Soil Moisture instantaneous values of each 1 hour.

There are two Soil Temperature sensors at the 0 cm depth. This time we apply the average of these two data to get the representative value at 0 cm.

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

Please see the chapter 9.0.

7.0 REFERENCE REQUIREMENTS

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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

Soil Temperature (-0.40m)
2003/07/23 10:00 - 2003/07/23 12:00 (3)

Soil Temperature (-0.20m)
2003/07/23 10:00 - 2003/07/23 12:00 (3)

Soil Temperature (-0.10m)
2003/07/23 10:00 - 2003/07/23 12:00 (3)

Soil Temperature (-0.04m)
2003/06/01 13:00
2003/07/23 10:00 - 2003/07/23 12:00 (3)

Soil Temperature (0.00m)
2003/07/23 10:00 - 2003/07/23 12:00 (3)

TITLE

CAMP_Tibet_D105-AWS_20031001_20041128.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: 1 October 2003, 00:00

End: 28 November 2004, 23:00

1.15 Temporal characteristics of the data

All parameters are recoded every hour.

1.16 Physical location of the measurement

Latitude : 33.06429 N
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Landscape : Bare land (with the thin weed-like plant)
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Soil Temp_10cm : Soil Temperature at the 10cm depth (deg.C)
Soil Temp_20cm : Soil Temperature at the 20cm depth (deg.C)
Soil Temp_40cm : Soil Temperature at the 40cm depth (deg.C)
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Soil Moist_20cm : Soil Moisture at the 20cm depth (%)

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2003/07/23 10:00 - 2003/07/23 12:00 (3)

Soil Temperature (-0.20m)
2003/07/23 10:00 - 2003/07/23 12:00 (3)

Soil Temperature (-0.10m)
2003/07/23 10:00 - 2003/07/23 12:00 (3)

Soil Temperature (-0.04m)
2003/06/01 13:00
2003/07/23 10:00 - 2003/07/23 12:00 (3)

Soil Temperature (0.00m)
2003/07/23 10:00 - 2003/07/23 12:00 (3)