TITLE: CAMP_Tibet_Gaize_20021001_20030331.flx.txt

CONTACT(S):

	Contact 1	Contact 2
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1.0 DATA SET OVERVIEW:

1.1 Introduction or abstract

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 gaize AWS (Automatic Weather Station) observation is to monitor these meteorological values.

This data set includes 60 min resolution observations of soil heat flux at 3 and 8 cm depths.

There are no observations of latent heat flux, sensible heat flux or CO2 flux at this station.

1.2 Time period covered by the data

The First half CEOP EOP-3 time period (01 October 2002 to 31 March 2003).

1.3 Physical location (including lat/lon/elev) of the measurement or platform

Station name	Lat.(deg.)	Long. (deg.)	Alt.(m)	Measurement interval
Gaize	32.30	84.05	4416	1 hour

1.4 Data source if applicable (e.g. for operational data include agency)

1.5 Any World Wide Web address references

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

2.0 INSTRUMENTATION DESCRIPTION:

Table : AWS Type of Data.

Parameter/Variable Description	Range	Units	Source
soil heat flux	1 - 1000	W/m^2	EKO heat plate MF-81

G160(2.5cm) : Soil heat flux at the 2.5cm (W/m^2)
G60 (7.5cm) : Soil heat flux at the 7.5cm (W/m^2)

3.0 DATA COLLECTION AND PROCESSING:

Soil heat flux is measured by using heat plate. It serves to measure the heat that flows through the object in which it is incorporated. The actual sensor is a thermopile that measures the differential temperature across the body of plate. Assuming that the heat flux is steady, that the thermal conductivity of the body is constant and that the sensor has negligible influence on the thermal flow pattern, the signal of plate is proportional to the local heat flux.

These data are in the CEOP EOP-3 data format agreed to by the CEOP Scientific Steering Committee. This format is described in detail as part of the CEOP Reference Site Data Set Procedures Report which is available at the following URL:

http://www.joss.ucar.edu/ghp/ceopdm/refdata_report/ceop_flux_format.html

4.0 QUALITY CONTROL PROCEDURES

PI performed visual checks on this data set.

4.2 UCAR/JOSS Quality Control Procedures

UCAR/JOSS conducted two primary quality assurance/control procedures on the reference site data. First the data has been evaluated by a detailed QA algorithm that verifies the format is correct, examines any QC flags, and conducts basic checks on data values.
Second, JOSS conducts a manual inspection of time series plots of each parameter.

5.0 GAP FILLING PROCEDURES

Filled in gap by the Missing value "-999.99".

6.0 DATA REMARKS:

6.1 Missing data periods

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:

S. Haginoya, 2001: Seasonal and annual variation of heat balance in the western Tibet, Proceedings of the International Workshop on GAME-AAN/Radiation, Thailand, 63-66.

S. Haginoya, 2001: Study on the Surface Heat Balance in the Tibetan Plateau - Precision of Bowen Ratio Method, Proc. of the 2nd International Workshop on TIPEX/GAME-Tibet, Kunming, China.

J. Xu and S. Haginoya, 2001: An Estimation of Heat and Water Balances in the Tibetan Plateau, J. Meteor. Soc. Japan, 79(1B), 485-504.

TITLE

TITLE: CAMP_Tibet_Gaize_20030401_20030930.flx.doc

CONTACT

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DATE OF THIS DOCUMENT

14 Jan. 2005

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 Gaize AWS (Automatic Weather Station) observation is to monitor these meteorological values.

1.2 Time period covered by the data

Start: 1 April 2003, 00:00
End: 30 September 2003, 23:30

1.3 Temporal characteristics of the data

All parameters are recoded every 1 hour.

1.4 Physical location of the measurement

Latitude : 32.30 N
Longitude : 84.05 E
Elevation : 4416 m a.s.l.
Landscape : Bare land (with the thin weed-like plant): Plain land
Canopy height : Less than 5cm.
Soil Characteristics: Silt loam

1.5 Data source

1.6 WWW address references

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

2.0 INSTRUMENTATION DESCRIPTION

2.1 Platform

The sensors are mounted on several depths.

2.2 Description of the instrumentation

Parameter	Model	Manufacturer
Soil Heat Flux	heat plate MF-81	EKO

2.3 Instrumentation specification

G160(2.5cm) : Soil heat flux at the 2.5cm (W/m^2)
G60 (7.5cm) : Soil heat flux at the 7.5cm (W/m^2)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

3.2 Description of derived parameters and processing techniques used

Soil heat flux is measured by using heat plate. It serves to measure the heat that flows through the object in which it is incorporated. The actual sensor is a thermopile that measures the differential temperature across the body of plate. Assuming that the heat flux is steady, that the thermal conductivity of the body is constant and that the sensor has negligible influence on the thermal flow pattern, the signal of plate is proportional to the local heat flux.
There are three Soil Heat Flux sensors at the 2.5 cm depth. This time we apply the average of these three data to get the representative value at 2.5 cm depth.

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

There are missing data at 2003/07/28 05:00:00

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

S. Haginoya, 2001: Seasonal and annual variation of heat balance in the western Tibet, Proceedings of the International Workshop on GAME-AAN/Radiation, Thailand, 63-66.

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J. Xu and S. Haginoya, 2001: An Estimation of Heat and Water Balances in the Tibetan Plateau, J. Meteor. Soc. Japan, 79(1B), 485-504.

TITLE

TITLE: CAMP_Tibet_Gaize_20031001_20041231.flx.doc

CONTACT

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DATE OF THIS DOCUMENT

30 May. 2006

1. 0 DATASET OVERVIEW

1.7 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 Gaize AWS (Automatic Weather Station) observation is to monitor these meteorological values.

1.8 Time period covered by the data

Start: 1 October 2003, 00:00
End: 31 December 2004, 23:00

1.9 Temporal characteristics of the data

All parameters are recoded every 1 hour.

1.10 Physical location of the measurement

Latitude : 32.30 N
Longitude : 84.05 E
Elevation : 4416 m a.s.l.
Landscape : Bare land (with the thin weed-like plant): Plain land
Canopy height : Less than 5cm.
Soil Characteristics: Silt loam

1.11 Data source

1.12 WWW address references

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

2.0 INSTRUMENTATION DESCRIPTION

2.1 Platform

The sensors are mounted on several depths.

2.2 Description of the instrumentation

Parameter	Model	Manufacturer
Soil Heat Flux	MF-81	EKO

2.4 Instrumentation specification

G160(2.5cm) : Soil heat flux at the 2.5cm (W/m^2)
G60 (7.5cm) : Soil heat flux at the 7.5cm (W/m^2)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

3.2 Description of derived parameters and processing techniques used

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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

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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S. Haginoya, 2001: Study on the Surface Heat Balance in the Tibetan Plateau - Precision of Bowen Ratio Method, Proc. of the 2nd International Workshop on TIPEX/GAME-Tibet, Kunming, China.

J. Xu and S. Haginoya, 2001: An Estimation of Heat and Water Balances in the Tibetan Plateau, J. Meteor. Soc. Japan, 79(1B), 485-504.

9.0 Missing Data Periods

File Name : CAMP_Tibet_Gaize_20031001_20041231.flx
Data Period : 2003/10/01 00:00 - 2004/12/31 23:00

Sensible Heat Flux (-0.08m)
2003/10/01 00:00 - 2004/12/31 23:00 (ALL)

Sensible Heat Flux (-0.03m)
2003/10/01 00:00 - 2004/12/31 23:00 (ALL)

Latent Heat Flux (-0.08m)
2003/10/01 00:00 - 2004/12/31 23:00 (ALL)

Latent Heat Flux (-0.03m)
2003/10/01 00:00 - 2004/12/31 23:00 (ALL)

CO2 Flux (-0.08m)
2003/10/01 00:00 - 2004/12/31 23:00 (ALL)

CO2 Flux (-0.03m)
2003/10/01 00:00 - 2004/12/31 23:00 (ALL)

Soil Heat Flux (-0.08m)
2004/05/23 23:00

Soil Heat Flux (-0.03m)
2004/05/23 23:00