TITLE

CAMP_NorthEastThai_Nakhornratchasima_20021001_20030331.flx

CONTACT

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DATE OF THIS DOCUMENT

31 Aug. 2004
(Updated 3 July. 2006)

1. 0 DATASET OVERVIEW

1.1 Introduction

To clarify the energy and water cycle in the Thailand, it is important to understand the characteristics of the basic meteorological elements and surface fluxes.
The purpose of Nakhornratchasima-AWS (Automatic Weather Station) observation is to monitor these meteorological values and analyse the mechanisms of the energy and water cycle in the Cassava field in tropical Monsoon areas.

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 : 14.466 N
Longitude : 102.379 E
Elevation : 311.0m a.s.l.
Landscape : Cassava Field
Canopy height : Cassava canopy height: 250cm (in dry season there is no vegetation).
From May to Oct. the height of the Cassava is change with the growing season, while the maximum height is around the 250cm.

Soil Characteristics: Uniform acrisols up to 7m depth

1.5 Data source

1.6 WWW address references

None

2.0 INSTRUMENTATION DESCRIPTION

2.1 Platform

The sensors are mounted on several heights.

2.2 Description of the instrumentation

Parameter	Model	Manufacturer
Soil heat flux	P-MF-81	EKO

2.3 Instrumentation specification

Soil heat flux _1cm : Soil heat flux at the 1cm depth (deg.C)
Soil heat flux _2cm : Soil heat flux at the **1cm** depth (deg.C)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

Observed Data are sent to the data manager everyday using E-mail tele-communication system established by Tokyo University of Agriculture and Technology.

3.2 Description of derived parameters and processing techniques used

Soil heat flux is measured using a 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 two heat plates at the 1 cm depth.
(**Note**: This time, we entered separately Soil heat flux _1cm and Soil heat flux _2cm. Actually both Soil heat flux _1cm and Soil heat flux _2cm are **1cm** depth data.)

3.3 Format description

http://www.eol.ucar.edu/projects/ceop/dm/documents/refdata_report/ceop_flux_format.html

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

7.0 REFERENCE REQUIREMENTS

Original data was collected and is provided by the Coordinated Enhanced Observation Period (CEOP) Asian Monsoon Project (CAMP) supported by Japan Science and Technology Agency (JST) under the framework of GEWEX Asian Monsoon Experiment Tropics (GAME-T).

8.0 REFERENCES

None

9.0 Missing Data Periods

File Name : CAMP_NorthEastThai_Nakhonrachasima_20021001_20030331.flx
Data Period : 2002/10/01 00:00 - 2003/03/31 23:00

Sensible Heat Flux (-0.02m)
2002/10/01 00:00 - 2003/03/31 23:00 (ALL)

Sensible Heat Flux (-0.01m)
2002/10/01 00:00 - 2003/03/31 23:00 (ALL)

Latent Heat Flux (-0.02m)
2002/10/01 00:00 - 2003/03/31 23:00 (ALL)

Latent Heat Flux (-0.01m)
2002/10/01 00:00 - 2003/03/31 23:00 (ALL)

CO2 Flux (-0.02m)
2002/10/01 00:00 - 2003/03/31 23:00 (ALL)

CO2 Flux (-0.01m)
2002/10/01 00:00 - 2003/03/31 23:00 (ALL)

Soil Heat Flux (-0.02m)
2002/10/24 10:00 - 2002/10/25 04:00 (19)
2002/12/26 05:00 - 2002/12/26 07:00 (3)
2003/01/13 06:00
2003/02/16 09:00
2003/02/17 05:00
2003/02/24 08:00
2003/02/26 06:00
2003/03/01 06:00 - 2003/03/01 16:00 (11)
2003/03/03 14:00
2003/03/12 04:00
2003/03/13 23:00 - 2003/03/17 11:00 (85)
2003/03/23 04:00 - 2003/03/23 08:00 (5)

Soil Heat Flux (-0.01m)
2002/10/24 10:00 - 2002/10/25 04:00 (19)
2003/03/01 06:00 - 2003/03/01 16:00 (11)
2003/03/03 14:00

TITLE

CAMP_NorthEastThai_Nakhonrachasima_20030401_20030930.flx

CONTACT

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DATE OF THIS DOCUMENT

29 May 2006

1. 0 DATASET OVERVIEW

1.7 Introduction

To clarify the energy and water cycle in the Thailand, it is important to understand the characteristics of the basic meteorological elements and surface fluxes.
The purpose of Nakhorn-ratchasima-AWS (Automatic Weather Station) observation is to monitor these meteorological values and analyse the mechanisms of the energy and water cycle in the Cassava field in tropical Monsoon areas.

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 : 14.466 N
Longitude : 102.379 E
Elevation : 311.0m a.s.l.
Landscape : Cassava Field
Canopy height : Cassava canopy height: 250cm (in dry season there is no vegetation).
From May to Oct. the height of the Cassava is change with the growing season, while the maximum height is around the 250cm.
Soil Characteristics: Uniform acrisols up to 7m depth

1.11 Data source

1.12 WWW address references

None

2.0 INSTRUMENTATION DESCRIPTION

2.1 Platform

The sensors are mounted on several heights.

2.2 Description of the instrumentation

Parameter	Model	Manufacturer
Soil heat flux	P-MF-81	EKO

2.4 Instrumentation specification

Soil heat flux _1cm : Soil heat flux at the 1cm depth (deg.C)
Soil heat flux _2cm : Soil heat flux at the **1cm** depth (deg.C)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

Observed Data are sent to the data manager everyday using E-mail tele-communication system established by the Tokyo University of Agriculture and Technology.

3.2 Description of derived parameters and processing techniques used

Soil heat flux is measured using a 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 two heat plates at the 1 cm depth.
(**Note**: This time, we entered separately Soil heat flux _1cm and Soil heat flux _2cm. Actually both Soil heat flux _1cm and Soil heat flux _2cm are **1cm** depth data.)

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

7.0 REFERENCE REQUIREMENTS

Original data was collected and is provided by the Coordinated Enhanced Observation Period (CEOP) Asian Monsoon Project (CAMP) supported by Japan Science and Technology Agency (JST) under the framework of GEWEX Asian Monsoon Experiment Tropics (GAME-T).

8.0 REFERENCES

None

9.0 Missing Data Periods

File Name : CAMP_NorthEastThai_Nakhonrachasima_20030401_20030930.flx
Data Period : 2003/04/01 00:00 - 2003/09/30 23:00

Sensible Heat Flux (-0.02m)
2003/04/01 00:00 - 2003/09/30 23:00 (ALL)

Sensible Heat Flux (-0.01m)
2003/04/01 00:00 - 2003/09/30 23:00 (ALL)

Latent Heat Flux (-0.02m)
2003/04/01 00:00 - 2003/09/30 23:00 (ALL)

Latent Heat Flux (-0.01m)
2003/04/01 00:00 - 2003/09/30 23:00 (ALL)

CO2 Flux (-0.02m)
2003/04/01 00:00 - 2003/09/30 23:00 (ALL)

CO2 Flux (-0.01m)
2003/04/01 00:00 - 2003/09/30 23:00 (ALL)

Soil Heat Flux (-0.02m)

2003/04/09 04:00 - 2003/04/10 09:00 (30)
2003/04/13 04:00
2003/04/15 02:00 - 2003/04/15 10:00 (9)
2003/04/15 20:00
2003/04/15 23:00
2003/04/17 05:00
2003/04/18 09:00 - 2003/04/18 10:00 (2)
2003/04/21 06:00 - 2003/04/21 07:00 (2)
2003/04/25 05:00 - 2003/04/25 12:00 (8)
2003/04/26 10:00 - 2003/04/26 11:00 (2)
2003/05/02 08:00 - 2003/05/02 09:00 (2)
2003/05/02 14:00 - 2003/05/03 06:00 (17)
2003/05/04 11:00 - 2003/05/04 14:00 (4)
2003/05/06 08:00 - 2003/05/06 09:00 (2)
2003/05/08 12:00 - 2003/05/08 14:00 (3)
2003/05/11 11:00 - 2003/05/11 13:00 (3)
2003/05/13 09:00 - 2003/05/17 11:00 (99)
2003/05/22 06:00 - 2003/05/22 09:00 (4)
2003/05/24 11:00 - 2003/05/26 17:00 (55)
2003/05/27 06:00 - 2003/05/27 07:00 (2)
2003/05/30 05:00 - 2003/05/30 10:00 (6)
2003/05/31 06:00 - 2003/05/31 10:00 (5)
2003/06/08 20:00 - 2003/06/08 21:00 (2)
2003/06/12 07:00 - 2003/06/12 08:00 (2)
2003/06/13 05:00 - 2003/06/13 15:00 (11)
2003/06/14 01:00 - 2003/06/14 11:00 (11)
2003/06/15 02:00 - 2003/06/15 12:00 (11)
2003/06/16 04:00 - 2003/06/16 09:00 (6)
2003/07/13 07:00 - 2003/07/13 10:00 (4)
2003/08/29 09:00 - 2003/08/29 20:00 (12)
2003/09/03 06:00 - 2003/09/04 07:00 (26)

Soil Heat Flux (-0.01m)

2003/09/03 06:00 - 2003/09/04 07:00 (26)

TITLE

CAMP_NorthEastThai_Nakhonrachasima_20031001_20041231.flx

CONTACT

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DATE OF THIS DOCUMENT

29 Nov. 2006

1. 0 DATASET OVERVIEW

1.13 Introduction

To clarify the energy and water cycle in the Thailand, it is important to understand the characteristics of the basic meteorological elements and surface fluxes.
The purpose of Nakhorn-ratchasima-AWS (Automatic Weather Station) observation is to monitor these meteorological values and analyse the mechanisms of the energy and water cycle in the Cassava field in tropical Monsoon areas.

1.14 Time period covered by the data

Start: 1 October 2003, 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 : 14.466 N
Longitude : 102.379 E
Elevation : 311.0m a.s.l.
Landscape : Cassava Field
Canopy height : Cassava canopy height: 250cm (in dry season there is no vegetation).
From May to Oct. the height of the Cassava is change with the growing season, while the maximum height is around the 250cm.
Soil Characteristics: Uniform acrisols up to 7m depth

1.17 Data source

1.18 WWW address references

None

2.0 INSTRUMENTATION DESCRIPTION

2.1 Platform

The sensors are mounted on several heights.

2.2 Description of the instrumentation

Parameter	Model	Manufacturer
Soil heat flux	P-MF-81	EKO

2.5 Instrumentation specification

Soil heat flux _1cm : Soil heat flux at the 1cm depth (deg.C)
Soil heat flux _2cm : Soil heat flux at the **1cm** depth (deg.C)

3.0 DATA COLLECTION AND PROCESSING

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(**Note**: This time, we entered separately Soil heat flux _1cm and Soil heat flux _2cm. Actually both Soil heat flux _1cm and Soil heat flux _2cm are **1cm** depth data.)

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

7.0 REFERENCE REQUIREMENTS

Original data was collected and is provided by the Coordinated Enhanced Observation Period (CEOP) Asian Monsoon Project (CAMP) supported by Japan Science and Technology Agency (JST) under the framework of GEWEX Asian Monsoon Experiment Tropics (GAME-T).

8.0 REFERENCES

None

9.0 Missing Data Periods

File Name : CAMP_NorthEastThai_Nakhonrachasima_20031001_20041231.flx
Data Period : 2003/10/01 00:00 - 2004/12/31 23:00

Soil Heat Flux (-0.02m)
2003/10/21 08:00 - 2003/10/22 04:00 (21)
2003/10/22 09:00 - 2003/12/10 04:00 (1172)
2003/12/12 03:00 - 2003/12/13 17:00 (39)
2003/12/13 20:00 - 2003/12/14 01:00 (6)
2003/12/14 03:00 - 2003/12/19 20:00 (138)
2003/12/20 01:00 - 2003/12/20 02:00 (2)
2003/12/20 05:00 - 2003/12/23 04:00 (72)
2003/12/23 09:00 - 2003/12/25 04:00 (44)
2003/12/25 09:00 - 2003/12/25 21:00 (13)
2003/12/26 02:00 - 2003/12/28 09:00 (56)
2004/03/01 00:00 - 2004/03/01 05:00 (6)
2004/04/03 11:00 - 2004/04/03 22:00 (12)
2004/04/04 00:00 - 2004/04/05 17:00 (42)
2004/04/05 20:00 - 2004/04/06 02:00 (7)
2004/04/06 11:00 - 2004/04/06 15:00 (5)
2004/04/06 17:00 - 2004/04/07 18:00 (26)
2004/04/09 10:00 - 2004/04/12 11:00 (74)

2004/04/13 04:00 - 2004/04/13 08:00 (5)
2004/04/13 21:00 - 2004/04/14 06:00 (10)
2004/04/14 17:00 - 2004/04/15 11:00 (19)
2004/04/16 04:00 - 2004/04/19 07:00 (76)
2004/05/16 09:00 - 2004/05/16 10:00 (2)
2004/05/18 11:00 - 2004/05/31 13:00 (315)
2004/06/02 07:00 - 2004/06/03 09:00 (27)
2004/06/09 07:00 - 2004/06/10 12:00 (30)
2004/06/14 21:00
2004/06/22 09:00 - 2004/06/23 14:00 (30)
2004/06/23 23:00 - 2004/09/20 09:00 (2123)
2004/12/31 17:00 - 2004/12/31 23:00 (7)

Soil Heat Flux (-0.01m)
2004/03/01 00:00 - 2004/03/01 05:00 (6)
2004/04/09 23:00
2004/06/14 21:00
2004/12/31 17:00 - 2004/12/31 23:00 (7)