

TITLE

CAMP_Tongyu_Grassland_20021001_20030331.stm

CONTACT

Dong Wenjie
Institute of Atmospheric Physics, Chinese Academy of Sciences
Beijing 100029, China
Phone: +86-10-62040678
Fax : +86-10-62028606
Email: dwj@tea.ac.cn

Liu Huizhi
Institute of Atmospheric Physics, Chinese Academy of Sciences
Beijing 100029, China
Phone: +86-10-82083809
Fax : +86-10-62041393
Email: huizhil@mail.iap.ac.cn

DATE OF THIS DOCUMENT

30 Aug. 2004

1. 0 DATASET OVERVIEW

1.1 Introduction

The field experiment of energy and mass exchange process between the land and atmosphere in semi-arid area, northeast china.

Objectives

Based on the observation data to analysis the facts and mechanisms of the water and heat flux transfer in the ecosystem in semiarid areas.

By comparing the different transfer process over different land surface, we study the effects of the land use on the aridification in the north of China.

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 30 minutes.

1.4 Physical location of the measurement

Latitude : 44.416 N

Longitude : 122.867 E
 Elevation : 184.0m a.s.l.
 Landscape : The degraded grassland
 Canopy height : Less than 10 cm (in the winter period less than 5 cm)
 Soil Characteristics: salina soil, meadow soil, light chernozem

1.5 Data source

Original data was provided by the Chinese Academy of Sciences (CAS).

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 Temperature	STP01_L50	HUKSEFLUX
Soil Moisture	CS616_L	CAMPBELL

2.3 Instrumentation specification

Soil Temp_2cm: Soil Temperature at the 2cm 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)
 Soil Temp_50cm : Soil Temperature at the 50cm depth (deg.C)
 Soil Temp_80cm : Soil Temperature at the 80cm depth (deg.C)
 Soil Moist_5cm : Soil Moisture at the 5cm depth (%)
 Soil Moist_10cm : Soil Moisture at the 10cm depth (%)
 (During the First Half EOP3 there are just two layers at 5 and 10cm are available. After the Apr., 2003, there are five layers volumetric soil moisture observation in this station.)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

Data are downloaded from the Tower once each month. Then, data are sent to Beijing, where they are processed.

3.2 Description of derived parameters and processing techniques used

Soil temperature and moisture data are instantaneous values.

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.eol.ucar.edu/projects/ceop/dm/documents/refdata_report/ceop_soils_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 through the CAMP Quality Control Web Interface.

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

4.1 UCAR/JOSS QA Procedures

UCAR/JOSS conducted two primary quality assurance/control procedures on the reference site data. First the data have 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

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

The Soil Temperature at the 80cm depth had some problem from 2002/10/08 to 2002/10/19. Then the Quality Flag was put "D".

6.2 Missing data periods

There are four missing periods indicated below;

2002/10/01 00:00 - 2002/10/08 05:30

2002/10/28 03:30 - 2002/11/04 03:30

2002/12/31 16:00 - 2003/01/30 04:00

2003/03/31 16:30 - 2003/03/31 23:30

7.0 REFERENCE REQUIREMENTS

These data was collected and is provided "Predictive Study of Aridification in Northern China in association with Life-supporting Environment Changes" projects funded by National Key Basic Research Development Program G1999043404.

8.0 REFERENCES

None.

TITLE

CAMP_Tongyu_Grassland_20030401_20030930.stm.doc

CONTACT

Dong Wenjie
Institute of Atmospheric Physics, Chinese Academy of Sciences
Beijing 100029, China
Phone: +86-10-62040678
Fax : +86-10-62028606
Email: dwj@tea.ac.cn

Liu Huizhi
Institute of Atmospheric Physics, Chinese Academy of Sciences
Beijing 100029, China
Phone: +86-10-82083809
Fax : +86-10-62041393
Email: huizhil@mail.iap.ac.cn

DATE OF THIS DOCUMENT

14 Jan. 2005

1. 0 DATASET OVERVIEW

1.7 Introduction

The field experiment of energy and mass exchange process between the land and atmosphere in semi-arid area, northeast china.

Objectives

Based on the observation data to analysis the facts and mechanisms of the water and heat flux transfer in the ecosystem in semiarid areas.

By comparing the different transfer process over different land surface, we study the effects of the land use on the aridification in the north of China.

1.8 Time period covered by the data

Start: 1 April 2003, 00:00

End: 30 September 2003, 23:30

1.9 Temporal characteristics of the data

All parameters are recoded every 30 minutes.

1.10 Physical location of the measurement

Latitude : 44.416 N

Longitude : 122.867 E
 Elevation : 184.0m a.s.l.
 Landscape : The degraded grassland
 Canopy height : Less than 10 cm (in the winter period less than 5 cm)
 Soil Characteristics: salina soil, meadow soil, light chernozem

1.11 Data source

Original data was provided by the Chinese Academy of Sciences (CAS).

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 Temperature	STP01_L50	HUKSEFLUX
Soil Moisture	CS616_L	CAMPBELL

2.4 Instrumentation specification

Soil Temp_2cm: Soil Temperature at the 2cm 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)
 Soil Temp_50cm : Soil Temperature at the 50cm depth (deg.C)
 Soil Temp_80cm : Soil Temperature at the 80cm depth (deg.C)
 Soil Moist_5cm : Soil Moisture at the 5cm depth (%)
 Soil Moist_10cm : Soil Moisture at the 10cm depth (%)
 Soil Moist_20cm : Soil Moisture at the 20cm depth (%)
 Soil Moist_40cm : Soil Moisture at the 40cm depth (%)
 Soil Moist_80cm : Soil Moisture at the 80cm depth (%)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

Data are downloaded from the Tower once each month. Then, data are sent to Beijing, where they are processed.

3.2 Description of derived parameters and processing techniques used

Soil temperature and moisture data are instantaneous values.

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

There are **five** missing periods indicated below;

2003/04/11 05:00 -	2003/04/18 08:30
2003/04/19 04:30 -	2003/04/19 06:00
2003/08/28 03:00 -	2003/08/28 08:00
2003/08/31 03:30 -	2003/08/31 07:00
2003/09/30 16:00 -	2003/09/30 23:30

7.0 REFERENCE REQUIREMENTS

These data was collected and is provided "Predictive Study of Aridification in Northern China in association with Life-supporting Environment Changes" projects funded by National Key Basic Research Development Program G1999043404.

8.0 REFERENCES

None.

TITLE

CAMP_Tongyu_Grassland_20031001_20040331.stm

CONTACT

Liu Huizhi
Institute of Atmospheric Physics, Chinese Academy of Sciences
Beijing 100029, China
Phone: +86-10-82083809
Fax : +86-10-62041393
Email: huizhil@mail.iap.ac.cn

DATE OF THIS DOCUMENT

18 May. 2006

1. 0 DATASET OVERVIEW

1.13 Introduction

The field experiment of energy and mass exchange process between the land and atmosphere in semi-arid area, northeast china.

Objectives

Based on the observation data to analysis the facts and mechanisms of the water and heat flux transfer in the ecosystem in semiarid areas.

By comparing the different transfer process over different land surface, we study the effects of the land use on the aridification in the north of China.

1.14 Time period covered by the data

Start: 1 October 2003, 00:00

End: 31 March 2004, 23:30

1.15 Temporal characteristics of the data

All parameters are recoded every 30 minutes.

1.16 Physical location of the measurement

Latitude : 44.416 N

Longitude : 122.867 E

Elevation : 184.0m a.s.l.

Landscape : The degraded grassland

Canopy height : Less than 10 cm (in the winter period less than 5 cm)

Soil Characteristics: salina soil, meadow soil, light chernozem

1.17 Data source

Original data was provided by the Chinese Academy of Sciences (CAS).

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 Temperature	STP01_L50	HUKSEFLUX
Soil Moisture	CS616_L	CAMPBELL

2.5 Instrumentation specification

Soil Temp_2cm: Soil Temperature at the 2cm 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)
Soil Temp_50cm : Soil Temperature at the 50cm depth (deg.C)
Soil Temp_80cm : Soil Temperature at the 80cm depth (deg.C)
Soil Moist_5cm : Soil Moisture at the 5cm depth (%)
Soil Moist_10cm : Soil Moisture at the 10cm depth (%)
Soil Moist_20cm : Soil Moisture at the 20cm depth (%)
Soil Moist_80cm : Soil Moisture at the 80cm depth (%)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

Data are downloaded from the Tower once each month. Then, data are sent to Beijing, where they are processed.

3.2 Description of derived parameters and processing techniques used

Soil temperature and moisture data are instantaneous values.

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

The missing data period are listed in chapter 9.0.

7.0 REFERENCE REQUIREMENTS

These data was collected and is provided "Aridification in Northern China in association with human being's adpatation" projects funded by National Key Basic Research Development Program G2006CB400501.

8.0 REFERENCES

None.

9.0 Missing Data Periods

File Name : CAMP_Tongyu_Grassland_20031001_20040331.stm
Data Period : 2003/10/01 00:00 - 2004/03/31 23:30

Soil Temperature (-0.80m)
2004/03/27 01:30 - 2004/03/27 06:30 (11)
2004/03/31 16:00 - 2004/03/31 23:30 (16)

Soil Temperature (-0.10m)
2004/03/27 01:30 - 2004/03/27 06:30 (11)
2004/03/31 16:00 - 2004/03/31 23:30 (16)

Soil Temperature (-0.50m)
2004/03/27 01:30 - 2004/03/27 06:30 (11)
2004/03/31 16:00 - 2004/03/31 23:30 (16)

Soil Temperature (-0.05m)
2004/03/27 01:30 - 2004/03/27 06:30 (11)
2004/03/31 16:00 - 2004/03/31 23:30 (16)

Soil Temperature (-0.20m)
2004/03/27 01:30 - 2004/03/27 06:30 (11)
2004/03/31 16:00 - 2004/03/31 23:30 (16)

Soil Temperature (-0.02m)
2004/03/27 01:30 - 2004/03/27 06:30 (11)
2004/03/31 16:00 - 2004/03/31 23:30 (16)

Soil Moisture (-0.80m)
2003/10/01 00:00 - 2004/03/31 23:30 (ALL)

Soil Moisture (-0.50m)
2003/10/01 00:00 - 2004/03/31 23:30 (ALL)

Soil Moisture (-0.20m)
2003/10/01 00:00 - 2004/03/31 23:30 (ALL)

Soil Moisture (-0.10m)
2003/10/01 00:00 - 2004/03/31 23:30 (ALL)

Soil Moisture (-0.05m)
2004/03/27 01:30 - 2004/03/27 06:30 (11)
2004/03/31 16:00 - 2004/03/31 23:30 (16)

Soil Moisture (-0.02m)
2003/10/01 00:00 - 2004/03/31 23:30 (ALL)

TITLE

CAMP_Tongyu_Grassland_20040401_20041231.stm

CONTACT

Liu Huizhi
Institute of Atmospheric Physics, Chinese Academy of Sciences
Beijing 100029, China
Phone: +86-10-82083809
Fax : +86-10-62041393
Email: huizhil@mail.iap.ac.cn

DATE OF THIS DOCUMENT

29 Jun. 2006

1. 0 DATASET OVERVIEW

1.19 Introduction

The field experiment of energy and mass exchange process between the land and atmosphere in semi-arid area, northeast china.

Objectives

Based on the observation data to analysis the facts and mechanisms of the water and heat flux transfer in the ecosystem in semiarid areas.

By comparing the different transfer process over different land surface, we study the effects of the land use on the aridification in the north of China.

1.20 Time period covered by the data

Start: 1 April 2004, 00:00

End: 31 December 2004, 23:30

1.21 Temporal characteristics of the data

All parameters are recoded every 30 minutes.

1.22 Physical location of the measurement

Latitude : 44.416 N

Longitude : 122.867 E

Elevation : 184.0m a.s.l.

Landscape : The degraded grassland

Canopy height : Less than 10 cm (in the winter period less than 5 cm)

Soil Characteristics: salina soil, meadow soil, light chernozem

1.23 Data source

Original data was provided by the Chinese Academy of Sciences (CAS).

1.24 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 Temperature	STP01_L50	HUKSEFLUX
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Soil Temp_10cm : Soil Temperature at the 10cm depth (deg.C)
Soil Temp_20cm : Soil Temperature at the 20m depth (deg.C)
Soil Temp_50cm : Soil Temperature at the 50cm depth (deg.C)
Soil Temp_80cm : Soil Temperature at the 80cm depth (deg.C)
Soil Moist_5cm : Soil Moisture at the 5cm depth (%)
Soil Moist_10cm : Soil Moisture at the 10cm depth (%)
Soil Moist_20cm : Soil Moisture at the 20cm depth (%)
Soil Moist_80cm : Soil Moisture at the 80cm depth (%)

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

Data are downloaded from the Tower once each month. Then, data are sent to Beijing, where they are processed.

3.2 Description of derived parameters and processing techniques used

Soil temperature and moisture data are instantaneous values.

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

The missing data period are listed in chapter 9.0.

7.0 REFERENCE REQUIREMENTS

These data was collected and is provided "Aridification in Northern China in association with human being's adpatation" projects funded by National Key Basic Research Development Program G2006CB400501.

8.0 REFERENCES

None.

9.0 Missing Data Periods

File Name : CAMP_Tongyu_Grassland_20040401_20041231.stm
Data Period : 2004/04/01 00:00 - 2004/12/31 23:30

Soil Temperature (-0.80m)
2004/04/11 02:30
2004/05/24 03:00 - 2004/05/24 04:00 (3)

Soil Temperature (-0.50m)
2004/04/11 02:30
2004/05/24 03:00 - 2004/05/24 04:00 (3)

Soil Temperature (-0.20m)
2004/04/11 02:30
2004/05/24 03:00 - 2004/05/24 04:00 (3)

Soil Temperature (-0.10m)
2004/04/11 02:30
2004/05/24 03:00 - 2004/05/24 04:00 (3)

Soil Temperature (-0.05m)
2004/04/11 02:30
2004/05/24 03:00 - 2004/05/24 04:00 (3)

Soil Temperature (-0.02m)
2004/04/11 02:30
2004/05/24 03:00 - 2004/05/24 04:00 (3)

Soil Moisture (-0.80m)
2004/04/01 00:00 - 2004/12/31 23:30 (ALL)

Soil Moisture (-0.50m)
2004/04/01 00:00 - 2004/12/31 23:30 (ALL)

Soil Moisture (-0.20m)
2004/04/01 00:00 - 2004/12/31 23:30 (ALL)

Soil Moisture (-0.10m)
2004/04/01 00:00 - 2004/12/31 23:30 (ALL)

Soil Moisture (-0.05m)
2004/04/11 02:30
2004/05/24 03:00 - 2004/05/24 04:00 (3)

Soil Moisture (-0.02m)
2004/04/01 00:00 - 2004/12/31 23:30 (ALL)