TITLE

CAMP_SiberiaTaiga_Molot_20021101_20030331.sfc

CONTACT

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DATE OF THIS DOCUMENT

Updated 5 October 2006

1. 0 DATASET OVERVIEW

1.1 Introduction

Objectives
The purpose of snow depth measurements is to obtain ground truth data for validation of a snow satellite algorithm for the Advanced Microwave Scanning Radiometer (AMSR) and the AMSR for Earth Observation System (AMSR-E).

1.2 Time period covered by the data

Start: 01 November 2002, 01:00
End: 31 March 2003, 23:00

1.3 Temporal characteristics of the data

All parameters are recoded every 2 hours.

1.4 Physical location of the measurement

Latitude : 62.27056 N
Longitude : 129.54694 E
Elevation : 202.000 m a.s.l.
Landscape : Mixed forest

Canopy height : 2m - about 20 m
Density of canopy: About 0.25 number/m^2
Soil Characteristics: Sandy soil

1.5 Data source

Original data provided by the University of Tokyo supported by the Japan Aerospace Exploration Agency (JAXA).

1.6 WWW address references

N/A

2.0 INSTRUMENTATION DESCRIPTION

Parameter	Range	Model	Manufacturer	Platform
Air Temperature	0 - 200cm	107 Temperature Probe	CAMBEL	1.75 m
Snow Depth	-50 - +100deg.C	SR-50	CAMBEL	

2.3 Instrumentation specification

Air Temperature (1.75m) : Air Temperature at the 1.75 m height (deg.C)
Snow Depth (1.75m) : Snow depth at the 1.75 m height (cm)

3.0 DATA COLLECTION AND PROCESSING

Snow depth sensor set has three components:

- Snow depth sensor
- Data logger
- Air temperature sensor

The sensor is based on a 50 kHz (Ultrasonic) electrostatic transducer. The SR50 determines the distance to a target by sending out ultrasonic pulses and listening for the returning echoes that are reflected from the target.

Data logger is CR10X. This data logger is a fully programmable data logger controller with non-volatile memory and a battery backed clock in a small, rugged sealed module.

Air temperature is used to compensate the snow data which is measured by using snow depth sensor. A temperature compensated distance from SR50 to snow surface is obtained by multiplying the SR50 reading by the square root of the air temperature in degree Kelvin divided by 273.15.

DISTANCE = READINGSR50×root(T (K) / 273.15(K))

4.0 QUALITY CONTROL PROCEDURES

For all parameters, the data has been visually checked using the CAMP Quality Control Web Interface. The quality control flags follow the CEOP data flag definition document.

5.0 GAP FILLING PROCEDURES

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

6.0 DATA REMARKS

6.1 PI's assessment of the data

6.1.1 Instruments problems

None.

6.1.2 Quality issues

None.

6.2 Missing data periods

The missing data period are listed in chapter 9.0.

7.0 REFERENCE REQUIREMENTS

Original data was collected and is provided within the framework of the AMSR/AMSR-E verification experiment of the Japan Aerospace Exploration Agency (JAXA), financially supported by JAXA.

8.0 REFERENCES

N/A

9.0 Missing Data Periods

None

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DATE OF THIS DOCUMENT

17 May 2006
(Updated 5 October 2006)

1. 0 DATASET OVERVIEW

1.7 Introduction

Objectives
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1.8 Time period covered by the data

Start: 13 October 2003, 01:00
End: 31 March 2004, 23:00

1.9 Temporal characteristics of the data

All parameters are recoded every 2 hours.

1.10 Physical location of the measurement

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8.0 REFERENCES

N/A

9.0 Missing Data Periods

File Name : CAMP_SiberiaTaiga_Molot_20031013_20040331.sfc
Data Period : 2003/10/13 01:00 - 2004/03/31 23:00

Air Temperature
2003/10/13 01:00 - 2003/10/13 05:00 (3)

Snow Depth
2003/10/13 01:00 - 2003/10/13 05:00 (3)