TITLE

CEOP_Tsukuba_NIED_20080701_20081231.stm

CONTACT

Ryohei Misumi
Storm, Flood and Landslide Research Department
National Research Institute for Earth Science and Disaster Prevention
3-1 Tennodai Tsukuba Ibaraki 305-0006 Japan
E-mail: misumi@bosai.go.jp

DATE OF THIS DOCUMENT

31 January 2008

1. 0 DATASET OVERVIEW

1.1 Introduction

Hydrometeorological observations at NIED, Tsukuba have been intermittently conducted since the late 90's to verify the monitoring systems which were installed in the Asian monsoon region in Southeast Asia. Nowadays, NIED has an ongoing research project to establish a multi-parameter radar network and associated ground observations (precipitation, temperature, wind velocity, soil moisture, etc.) in the Kanto plain for the short-term prediction of severe storms, floods and landslides. To verify the monitoring system of the ground observation and to compare with the additional hydrometeorological parameters which are not included in the ground observation in the project, the monitoring has been conducted in the NIED experimental field.

1.2 Time period covered by the data

Start: 1 July 2008, 00:00 UTC
End: 31 December 2008, 23:30 UTC

1.3 Temporal characteristics of the data

Data are recorded every 1 hour. The sampling period will be changed to 30 minutes from 00:00UTC on 1 October 2007.

1.4 Physical location of the measurement

Latitude: 36° 07' 33.0" N
Longitude: 140° 05' 23.9" E
Elevation: 24 m a.s.l.

1.5 Data source

Original data provided by the NIED ground observation team.

1.6 WWW address references

2.0 INSTRUMENTATION DESCRIPTION

2.1 Platform

Soil type of the observation site is Kanto loam, which is Quarternary volcanic ash consisting of allophane clay mineral. The soil moisture sensor (ADR profile probe) is vertically stuck into the soil.

2.2 Description of the instrumentation

Parameter	Model	Manifacturer
Soil moisture	PR2/6	Delta-T Devices Ltd

2.3 Instrumentation specification

Parameter	Sensor Type	Height of sensor (m)	Accuracy	Resolution
Soil moisture	ADR profile probe	0.1m,0.2m,0.3m,0.4m, 0.6m and 1.0m in depth from the ground level	0.03 m^3m^{-3}	0.001 m^3m^{-3}

3.0 DATA COLLECTION AND PROCESSING

3.1 Description of data collection

Data are downloaded from the sensor every month.

3.2 Description of derived parameters and processing techniques used

Data are calibrated using a calibration curve derived from soil moisture measurement by an oven dry method.

4.0 QUALITY CONTROL PROCEDURES

The data are visually checked and sampling errors are treated as NODATA (-999.9).

5.0 GAP FILLING PROCEDURES

No gap filling procedure was applied.

6.0 DATA REMARKS

6.1 PI's assessment of the data

A sensor at -1.00 m level may possibly measures the soil moisture condition in clay layer with low permeability.

6.1.1 Instruments problems

6.1.2 Quality issues

To be investigated.

6.2 Missing data periods

Missing at only 0.3 m layer.
2008/7/1 0:00 - 2008/12/11 11:00

Missing at 0.3 and 1 m layers.
2008/8/25 21:00 - 2008/8/27 4:00
2008/7/24 18:00 - 2008/7/25 8:30

All missing
2008/11/18 2:30 - 2008/11/26 12:00

7.0 REFERENCE REQUIREMENTS

Original data were collected and are provided under funding support of the National Research Project of National research Institute for Earth Science and Disaster Prevention.

8.0 REFERENCES