



CEOP CAMP Eastern Siberian Tundra Reference Site

1. IDENTIFICATION INFORMATION

Name	CEOP CAMP Eastern Siberian Tundra Reference Site
Metadata Identifier	CEOP_CAMP_Eastern_Siberian_Tundra20200901165152-DIAS20200901154929-en

2. CONTACT

2.1 CONTACT on DATASET

Name	Hironori Yabuki
Organization	Independent Administrative Institution Japan Agency for Marine-Earth Science and Technology, Institute of Observational Research for Global Change
Address	3173-25 Showa-machi , Yokohama-City, Kanagawa, 236-0001, Japan
TEL	+81-45-778-5645
FAX	+81-45-778-5706
E-mail	yabuki@jamstec.go.jp

Name	Tetsuo Ohata
Organization	Independent Administrative Institution Japan Agency for Marine-Earth Science and Technology, Institute of Observational Research for Global Change
Address	2-15 Natsushima-cho, Yokosuka, Kanagawa, 237-0061, Japan
TEL	+81-46-867-9250
FAX	+81-46-867-9250
E-mail	ohatat@jamstec.go.jp

2.2 CONTACT on PROJECT

2.2.1 Data Integration and Analysis System

Name	DIAS Office
Organization	Remote Sensing Technology Center of Japan
Address	TOKYU REIT Toranomon Building 2F 3-17-1 Toranomon, Minato-ku, Tokyo, 105-0001, Japan
E-mail	dias-office@diasjp.net

3. DOCUMENT AUTHOR

Name	Hironori Yabuki
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Organization	Independent Administrative Institution Japan Agency for Marine–Earth Science and Technology, Institute of Observational Research for Global Change
E-mail	yabuki@jamstec.go.jp

Name	Tetsuo Ohata
Organization	Independent Administrative Institution Japan Agency for Marine–Earth Science and Technology, Institute of Observational Research for Global Change
E-mail	ohatat@jamstec.go.jp

4. DATASET CREATOR

Name	Hironori Yabuki
Organization	Independent Administrative Institution Japan Agency for Marine–Earth Science and Technology, Institute of Observational Research for Global Change
E-mail	yabuki@jamstec.go.jp

Name	Tetsuo Ohata
Organization	Independent Administrative Institution Japan Agency for Marine–Earth Science and Technology, Institute of Observational Research for Global Change
E-mail	ohatat@jamstec.go.jp

5. DATE OF THIS DOCUMENT

2020-09-01

6. DATE OF DATASET

creation : 2010-05-06

7. DATASET OVERVIEW

7.1 Abstract

Objectives

The goal of the GAME–Siberia project is to clarify the characteristics and processes of water accumulation and transfer and their relation with the energy cycle, in the atmosphere–land surface interface of cold environments from the seasonal to the inter–annual time scale. This study will contribute to one of the primary GAME objectives;

To understand multi–scale interactions in the energy and hydrologic cycles in the Asian Monsoon Region

and one scientific objective;

To assess the impact of monsoon variability on the regional hydrologic cycle.

The objectives of Taiga study subgroup include:

1. Develop seasonal and inter–annual variation of one–dimensional energy and water vapor fluxes over tundra.

2.Characterize the water balance components in these Taiga watersheds.

3.Determine the areal distribution of ground surface properties.

7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

7.3 Temporal Extent

Begin Date	2002-10-01 00:00:00
End Date	2004-12-31 23:59:59
Temporal Characteristics	Hourly

7.4 Geographic Bounding Box

North latitude bound	71.620000
West longitude bound	128.750000
Eastbound longitude	128.750000
South latitude bound	71.620000

7.5 Grid

7.6 Geographic Description

7.7 Keywords

7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	Climate, Water	GEOSS

7.7.2 Keywords on Project

7.7.2.1 Data Integration and Analysis System

Keyword Type	Keyword	Keyword thesaurus Name
theme	DIAS > Data Integration and Analysis System	No_Dictionary

7.8 Online Resource

: http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/ceop_ap/Siberia_Tundra/Tiksi/

file download : <https://data.diasjp.net/dl/storages/filelist/dataset:131>

7.9 Data Environmental Information

7.10 Distribution Information

name	version	specification
PRN	no information	CEOP Unified Format

8. DATA PROCESSING

8.1 General Explanation of the data producer's knowledge about the lineage of a dataset

Temperature, relative humidity and radiation are instantaneous values. Precipitation is accumulated on the previous hour. Atmospheric pressure is averaged over the previous hour. Wind speed and direction are the resulting average speed and direction over the previous hour (calculated by the datalogger by means of data recorded every 5 seconds): this to minimize data unreliability due to sudden gusts. Both of them are calculated weighting the frequency distribution of both variables within each hour. Snow depth is averaged over the previous hour.

And the four parameters indicated below were computed by using "CEOP Derived Parameter Equations : http://www.joss.ucar.edu/ghp/ceopdm/refdata_report/eqns.html" . also put the data flag "1" ,

Dew Point Temperature (10m) were computed by using (Bolton 1980):

$$e_s = 6.112 * \exp((17.67 * T)/(T + 243.5));$$

$$e = e_s * (RH/100.0);$$

$$T_d = \log(e/6.112)*243.5/(17.67-\log(e/6.112));$$

where:

T = temperature in deg C;

e_s = saturation vapor pressure in mb;

e = vapor pressure in mb;

RH = Relative Humidity in percent;

T_d = dew point in deg C

Specific Humidity (10m) were computed by using (Bolton 1980):

$$e = 6.112 * \exp((17.67 * T_d)/(T_d + 243.5));$$

$$q = (0.622 * e)/(p - (0.378 * e));$$

where:

e = vapor pressure in mb;

Td = dew point in deg C;
p = surface pressure in mb;
q = specific humidity in kg/kg.

U,V Components (10m) were computed by using (GEMPAK):

U = $-\sin(\text{direction}) * \text{wind_speed}$;
V = $-\cos(\text{direction}) * \text{wind_speed}$;

Outgoing Short wave radiation(1.5m) were computed by using (GEMPAK):

Up(Out)short radiation = down(in)short + down(in)long - up(out)long - NET_radiation;

8.2 Data Processing

Data Source Citation Name	Description of derived parameters and processing techniques used
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9. DATA REMARKS

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.

"D" is put as a questionable or dubious flag for the Longwave downword Radiation, the Shortwave downward Radiation, and the Net Radiation data.

We assume that these Radiation data were caused by snow or frost coverage on the sensor in winter season.

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.

10. LICENSE

10.1 Data Policy by the Data Provider

10.2 Data Policy by the Project

10.2.1 Data Integration and Analysis System

If data provider does not have data policy, DIAS Terms of Service (<https://diasjp.net/en/policy/>) and DIAS Privacy Policy (<https://diasjp.net/en/privacypolicy/>) apply.

If there is a conflict between DIAS Terms of Service and data provider's policy, the data provider's policy shall prevail.

11. DATA SOURCE ACKNOWLEDGEMENT

11.1 Acknowledge the Data Provider

11.2 Acknowledge the Project

11.2.1 Data Integration and Analysis System

If you plan to use this dataset for a conference presentation, paper, journal article, or report etc., please include acknowledgments referred to following examples. If the data provider describes examples of acknowledgments, include them as well.

"We used the [name of dataset] provided by [name of data provider] in this study. This dataset was collected and provided under the Data Integration and Analysis System (DIAS, Project No. JPMXD0716808999), which has been developed and operated by the Ministry of Education, Culture, Sports, Science and Technology (MEXT)."

12. DISCLAIMER

12.1 Disclaimer of Project

12.1.1 Data Integration and Analysis System

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13. REFERENCES

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