CEOP CAMP Eastern Siberia Taiga Reference Site

1. IDENTIFICATION INFORMATION

Name	CEOP CAMP Eastern Siberia Taiga Reference Site
Metadata Identifier	CEOP_CAMP_Eastern_Siberia_Taiga20230727061253-DIAS20221121113753-en

2. CONTACT

2.1 CONTACT on DATASET

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2.2 CONTACT on PROJECT

2.2.1 Data Integration and Analysis System

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5. DATE OF THIS DOCUMENT

2023-07-27

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	2004-12-17 23:59:59
Temporal Characteristics	30minute

7.4 Geographic Bounding Box

North bound latitude	62.255
West bound longitude	129.618
Eastbound longitude	129.618
South bound latitude	62.255

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_Taiga/Larch_Forest/

: http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/ceop_ap/Siberia_Taiga/Kenkeme/

: http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/ceop_ap/Siberia_Taiga/Molot/

: http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/ceop_ap/Siberia_Taiga/Khatassy/

: http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/ceop_ap/Siberia_Taiga/Pine_Forest/

: http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/ceop_ap/Siberia_Taiga/Tulagino/

: http://www.eol.ucar.edu/projects/ceop/dm/insitu/sites/ceop_ap/Siberia_Taiga/Viluy/

file download : https://data.diasjp.net/dl/storages/filelist/dataset:130

7.9 Data Environmental Information

7.10 Distribution Information

name	version	specification
PRN	no information	CEOP Unified Format

8. DATA PROCESSING

8.1 Data Processing (1)

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

Temperature, relative humidity and radiation are instantaneous values. Atmospheric pressure is averaged over the previous 30 minutes. Wind speed and direction are the resulting average speed and direction over the previous 30 minutes (calculated by the data logger by means of data recorded every 5 seconds): this to minimize data unreliability due to sudden gusts. Snow depth is instantaneous values of each 2 hours. The snow 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. 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))

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 “I”, In the case of calculated by using dubious value fagged “D”, the data flag was put “D”.

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

es = 6.112 * exp((17.67 * T)/(T + 243.5));

e = es * (RH/100.0);

Td = log(e/6.112)*243.5/(17.67-log(e/6.112));

where:

T = temperature in deg C;

es = saturation vapor pressure in mb;

e = vapor pressure in mb;

RH = Relative Humidity in percent;

Td = dew point in deg C

Specific Humidity were computed by using (Bolton 1980):

e = 6.112*exp((17.67*Td)/(Td + 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 were computed by using (GEMPAK):

U = -sin(direction) * wind_speed;

V = -cos(direction) * wind_speed;

Net radiation were computed by using (GEMPAK):

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

8.1.2 Data Source

Data Source Citation Name	Description of derived parameters and processing techniques used

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.

10. DATA POLICY

10.1 Data Policy by the Data Provider

1. No financial implications are involved for the CEOP reference site data exchange.

2. Commercial use and exploitation of CEOP reference site data is prohibited.

3. Any re-export or transfer of the original data received from the CDA archive to a third party is prohibited.

4. The origin of CEOP reference site data being used for publication of scientific results must be acknowledged and referenced in the publication.

5. CEOP reference site data users are strongly encouraged to establish direct contact with data providers for complete interpretation and analysis of data for publication purposes.

6. Co-authorship of data users and CEOP reference site Principle Investigators on papers making extensive use of CEOP data is justifiable and highly recommended.

see http://www.eol.ucar.edu/projects/ceop/dm/documents/ceop_policy.html

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/terms/) and DIAS Privacy Policy (https://diasjp.net/en/privacy/) apply.

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

11. LICENSE

12. DATA SOURCE ACKNOWLEDGEMENT

12.1 Acknowledge the Data Provider

A minimum requirement is to reference CEOP as:

The in-situ data is provided under the framework of the "Coordinated Energy and Water Cycle Observations Project (CEOP)."

for the Coordinated Energy and Water Cycle Observations Project data (2005), and as:

The satellite data is provided under the framework of the "Coordinated Enhanced Observing Period (CEOP)."

for the Coordinated Enhanced Observing Period data (2001 - 2004).

12.2 Acknowledge the Project

12.2.1 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.

" In this study, [Name of Dataset] provided by [Name of Data Provider] was utilized. This dataset was also collected and provided under the Data Integration and Analysis System (DIAS), which was developed and operated by a project supported by the Ministry of Education, Culture, Sports, Science and Technology. "

13. REFERENCES

Ohta, T., T. Hiyama, H. Tanaka, T. Kuwada, T. C. Maximov, T. Ohata and Y. Fukushima (2001) Seasonal variation in the energy and water exchanges above and below a larch forest in Eastern Siberia. HYDROLOGICAL PROCESSES. 15, 1459-1476.

Original data was collected and is provided within the framework of the Institute of Observational Research for Global Chang (IORGC), Independent Administrative Institution Japan Agency for Marine-Earth Science and Technology (JAMSTEC), financially supported by the Japanese Ministry of Education, Culture, Sports, Science and Technology (MEXT).