



CEOP Model Output : 3D Gridded MSC data

1. IDENTIFICATION INFORMATION

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|---------------------|--|
| Name | CEOP Model Output : 3D Gridded MSC data |
| Abbreviation | Coordinated Energy and Water-Cycle Observation Project Model Output 3D Gridded MSC: Meteorological Service Canada data |
| Metadata Identifier | CEOP_Model_Grid_MSC20220301145734-DIAS20220214155649-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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| Name | DIAS Office |
| Organization | Japan Agency for Marine-Earth Science and Technology |
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3. DOCUMENT AUTHOR

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| Name | Stephane Belair |
| Organization | Meteorological Service Canada |

4. DATASET CREATOR

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| Name | Stephane Belair |
| Organization | Meteorological Service Canada |

5. DATE OF THIS DOCUMENT

2022-03-01

6. DATE OF DATASET

publication : 2010-04-11

7. DATASET OVERVIEW

7.1 Abstract

Ten operational Numerical Weather Prediction (NWP) and two data assimilation centers are currently contributing analysis/assimilation and forecast model products from global and regional NWP suites, including both operational and reanalysis systems to this component of CEOP. The contributing centers include:

BoM: Bureau of Meteorology

CPTEC: Centro de Previsao de Tempo e Estudos Climaticos

ECMWF: European Centre for Medium-Range Weather Forecasts

ECPC: Experimental Climate Prediction Center

EMC: EPSON Meteo Center (Centro EPSON Meteo)

GLDAS: Global Land Data Assimilation System

GMAO: NASA Global Modeling and Assimilation Office

JMA: Japan Meteorological Agency

MSC: Meteorological Service Canada

NCEP: National Centers for Environmental Prediction

NCMRWF: National Center for Medium Range Weather Forecasting

UKMO: UK Met Office

The Max-Planck Institute for Meteorology (MPIM) in coordination with the ICSU World Data Center for Climate (WDCC) in Hamburg, Germany was designated as the CEOP model output archive center. The WDCC is administered by the Model and Data Group (M&D) at MPIM and the German Climate Computing Center (DKRZ).

To assist with the organization of this activity during the Coordinated Enhanced Observing Period ('CEOP'), a Model Output Management Document was drafted as a guide for the participating centers to use in setting up their processes for meeting their commitments to 'CEOP'. The Guidance Document addressed the two issues of (1) the model output variables requested by 'CEOP' and (2) the two types of requested model output, namely global gridded (in GRIB format) and site-specific Model Output Location Time Series (MOLTS) at each of the 'CEOP' Reference Sites.

A new version of the Guidance Document will be compiled that clarifies what model output data will be generated by the NWP Centers and Groups contributing to the model output component of Coordinated Energy and Water Cycle Observations Project (CEOP) and how they will interface/transfer the data that will be handled and retained at the WDCC. The issues covered in the document will include: (1) global versus regional products; (2) desired assimilation output; Interval and length of free-running forecasts; (3) Operational versus reanalysis data; (4) the CEOP schedule/archive periods;

(5) the number and locations of MOLTS sites; and (6) the homogenizing of the model output and metadata formats (i.e. standard parameters).

Results up to this point in the CEOP model output generation effort make it clear that the transfer aspect of the data handling effort has been progressing well. Data from all twelve Centers participating in CEOP have been received at the data archive center and has either been placed into the database at the Hamburg facility, or is in the process of being entered into the database. The current data holdings in the MPIM archive can be viewed http://www.mad.zmaw.de/fileadmin/extern/wdc/ceop/Data_timeline_L_12.pdf.

7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

7.3 Temporal Extent

| | |
|------------|-------------|
| Begin Date | 01-OCT-2002 |
| End Date | 31-DEC-2004 |

7.4 Geographic Bounding Box

| | |
|----------------------|------|
| North latitude bound | 90 |
| West longitude bound | -180 |
| Eastbound longitude | 180 |
| South latitude bound | -90 |

7.5 Grid

7.6 Geographic Description

7.7 Keywords

7.7.1 Keywords on Dataset

| Keyword Type | Keyword | Keyword thesaurus Name |
|--------------|---------|------------------------|
| theme | Climate | 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

CEOP Centralized Data Integration System : http://monsoon.t.u-tokyo.ac.jp/ceop-dc/ceop-dc_top.htm

GCMD CEOP Portal : <http://gcmd.gsfc.nasa.gov/KeywordSearch/Home.do?Portal=ceop&MetadataType=0>

CEOP Model Data Gateway : <http://www.mad.zmaw.de/projects-at-md/ceop/>

file download : <https://data.diasjp.net/dl/storages/filelist/dataset:15>

7.9 Data Environmental Information

7.10 Distribution Information

| name | version | specification |
|------|----------------|---------------|
| Grib | no information | |

8. DATA PROCESSING

9. DATA REMARKS

For the atmospheric model GEM that was used for CEOP

C t J., S. Gravel, A. M thot, A. Patoine, M. Roch, and A. Staniforth, 1998a: The operational CMC-MRB global environmental multiscale (GEM) model. Part I: Design considerations and formulation. *Mon. Wea. Rev.*, 126, 1373–1393.

For the particular configuration of the global system that was used for CEOP:

B lair, S., J. Mailhot, C. Girard, and P. Vaillancourt, 2005: Boundary layer and shallow cumulus clouds in a medium-range forecast of large-scale weather system. *Mon. Wea. Rev.*, 133, 1938–1960.

B lair, S., M. Roch, A.-M. Leduc, P.A. Vaillancourt, S. Laroche, and J. Mailhot, 2008: Medium-range quantitative precipitation forecasts from Canada’s new 33-km deterministic global operational system. *Wea. Forecasting* (conditionally accepted, but the revisions required are small).

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.

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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/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. 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

For the atmospheric model GEM that was used for CEOP

Côté J., S. Gravel, A. Mailhot, A. Patoine, M. Roch, and A. Staniforth, 1998a: The operational CMC-MRB global environmental multiscale (GEM) model. Part I: Design considerations and formulation. *Mon. Wea. Rev.*, 126, 1373–1393.

For the particular configuration of the global system that was used for CEOP:

Blaizot, S., J. Mailhot, C. Girard, and P. Vaillancourt, 2005: Boundary layer and shallow cumulus clouds in a medium-range forecast of large-scale weather system. *Mon. Wea. Rev.*, 133, 1938–1960.

Blaizot, S., M. Roch, A.-M. Leduc, P.A. Vaillancourt, S. Laroche, and J. Mailhot, 2008: Medium-range quantitative precipitation forecasts from Canada's new 33-km deterministic global operational system. *Wea. Forecasting* (conditionally accepted, but the revisions required are small).

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