FORP-NP10 version2

1. IDENTIFICATION INFORMATION

Name	FORP-NP10 version2
Metadata Identifier	SICAT_FORP_NP10_v220230727100439-DIAS20221121113753-en

2. CONTACT

2.1 CONTACT on DATASET

Name	JAMSTEC/IEP
Address	3173-25 Showa-machi, Kanazawa-ku, Yokohama, Kanagawa, 236-0001, Japan

2.2 CONTACT on PROJECT

2.2.1 Data Integration and Analysis System

Name	DIAS Office
Organization	Japan Agency for Marine-Earth Science and Technology
Address	3173-25, Showa-Cho, Kanazawa-ku, Yokohama-shi, Kanagawa, 236-0001, Japan
E-mail	dias-office@diasjp.net

3. DOCUMENT AUTHOR

Name	JAMSTEC/IEP

4. DATASET CREATOR

Name	JAMSTEC/IEP

5. DATE OF THIS DOCUMENT

2023-07-27

6. DATE OF DATASET

creation : 2019-12-23

7. DATASET OVERVIEW

7.1 Abstract

Future Ocean Regional Projection (FORP) datasets were produced by high-resolution regional ocean model simulations with ensemble atmospheric forcings from Coupled Model Intercomparison Project Phase 5 (CMIP5) models and scenarios. These were developed by the Japan Agency for Marine-Earth Science and Technology (JAMSTEC) under Social Implementation Program on Climate Change Adaptation Technology (SI-CAT, grant no.: JPMXD0715667163) supported by the Ministry of Education, Culture, Sports, Science and Technology (MEXT). Meteorological Research Institute Community Ocean Model version 4 (MRI.COMv4; Tsujino et al. 2017) was used for the regional ocean models.

FORP-NP10 is a historical and future ocean projection dataset in the North Pacific Ocean with an approximately 10 km horizontal resolution, produced by continuous simulation from 1981 to 2100. In the version 2 dataset (FORP-NP10 version2), the atmospheric forcings for the FORP simulations were from four climate models from CMIP5, i.e., MIROC5, MRI-CGCM3, GFDL-ESM2M, and IPSL-CM5A-MR, with historical (1981-2005), RCP2.6 (2006-2100), and RCP8.5 (2006-2100) scenarios.

The dataset includes the following variables (monthly mean) in netCDF:

potential temperature (t), salinity (s), sea surface height (ssh), eastward velocity (u), northward velocity (v), surface heat and fresh water fluxes (flx), atmospheric elements for the surface forcing in the ocean model grid (atm, wind)

Please the header information of each netCDF file for the details of the variables.

7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

oceans

environment

7.3 Temporal Extent

Begin Date	1981-01-01
End Date	2100-12-31
Temporal Characteristics	Monthly

7.4 Geographic Bounding Box

North bound latitude	70
West bound longitude	285
Eastbound longitude	100
South bound latitude	-15

7.5 Grid

Dimension Name	Dimension Size (slice number of the dimension)	Resolution Unit

row	1852	0.1 (deg)
column	852	0.1 (deg)
vertical	54	1, 1.75, 2.75, ..., 600 (m)

7.6 Geographic Description

7.7 Keywords

7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	Oceans > Ocean Temperature, Oceans > Ocean Circulation > Ocean Currents, Oceans > Ocean Heat Budget	GCMD_science
theme	Models > GCM	GCMD_platform
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

file download : https://data.diasjp.net/dl/storages/filelist/dataset:594

7.9 Data Environmental Information

7.10 Distribution Information

name	version	specification
NetCDF	3	

8. DATA PROCESSING

9. DATA REMARKS

10. DATA POLICY

10.1 Data Policy by the Data Provider

1. The dataset is available for free for scientific and educational purposes. If you wish to use the dataset for non-scientific or non-educational purposes, please inform us in advance and follow our instructions.

2. The source of the dataset should be accordingly acknowledged, and the article below should also be referred in scientific or technical papers, publications, press releases or other communications regarding the dataset.

Nishikawa et al. 2021, Development of high-resolution future ocean regional projection datasets for coastal applications in Japan. Progress in Earth and Planetary Science, 8:7, https://doi.org/10.1186/s40645-020-00399-z

3. Users should provide JAMSTEC/IEP a copy or URI of their scientific or technical papers, publications, press releases or other communications regarding the dataset.

4. Users are not permitted to redistribute, deliver, or sell the dataset to public.

[Constraints and Disclaimer]

1. The copyright and intellectual property right of the dataset belong to JAMSTEC. Please note that although JAMSTEC has paid the close attention to produce the dataset, JAMSTEC assumes no responsibility regarding the reliability of the dataset.

2. JAMSTEC is not responsible to users for any damage that may be caused by the use of the dataset.

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

This study utilized the dataset 'Future Ocean Regional Projection' (FORP), which was produced by the Japan Agency for Marine-Science and Technology (JAMSTEC) under the 'SI-CAT' project (Grant Number: JPMXD0715667163) of the Ministry of Education, Culture, Sports, Science and Technology, Japan.

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

Nishikawa et al. 2021, Development of high-resolution future ocean regional projection datasets for coastal applications in Japan. Progress in Earth and Planetary Science, 8:7, https://doi.org/10.1186/s40645-020-00399-z

Nishikawa et al. 2020, Detection of the Oyashio and Kuroshio fronts under the projected climate change in the 21st century. Progress in Earth and Planetary Science, 7:29, https://doi.org/10.1186/s40645-020-00342-2

Tsujino et al. 2017, Reference manual for the Meteorological Research Institute Community Ocean Model version 4 (MRI.COMv4). Technical Reports of the MRI 80.