


d4PDF explosive cyclone track dataset

1. IDENTIFICATION INFORMATION

Name	d4PDF explosive cyclone track dataset
DOI	doi:10.20783/DIAS.641 [https://doi.org/10.20783/DIAS.641]
Metadata Identifier	d4PDF_explosive_cyclone20230727103430-DIAS20221121113753-en

2. CONTACT

2.1 CONTACT on DATASET

Name	Tomoya Shimura
Organization	Disaster Prevention Research Institute, Kyoto University
E-mail	dias@oceanwave.jp

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	Tomoya Shimura
Organization	Integrated Climate Model Advanced Research Program (TOUGOU Program)

4. DATASET CREATOR

Name	Junichi Ninomiya
Organization	Integrated Climate Model Advanced Research Program (TOUGOU Program)

5. DATE OF THIS DOCUMENT

2023-07-27

6. DATE OF DATASET

publication : 2022-02-01

7. DATASET OVERVIEW

7.1 Abstract

1) Explosive cyclone dataset around Japan created from "database for Policy Decision making for Future climate change (d4PDF)" using the objective cyclone tracking algorithm. The 3000 years amount data for historical climate and 5400 years amount data for 4 degree warming future, were used.

2) Source dataset (d4PDF dataset) of this dataset can be obtained from http://search.diasjp.net/en/dataset/d4PDF_RCM .

3) This dataset can be useful for meteorological disaster risk assessment under climate change due to explosive cyclones.

7.2 Topic Category(IS019139)

climatologyMeteorologyAtmosphere

7.3 Temporal Extent

Begin Date	1951-01-01
End Date	2110-12-31

7.4 Geographic Bounding Box

North latitude bound	50
West longitude bound	110
Eastbound longitude	160
South latitude bound	20

7.5 Grid

7.6 Geographic Description

7.7 Keywords

7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	Atmosphere > Atmospheric Pressure > Anticyclones/Cyclones, Climate Indicators > Atmospheric/Ocean Indicators > Extreme	GCMD_science

	Weather > Tropical Or Extratropical Cyclone Frequency/ Intensity	
theme	GLOBAL CHANGE > Impacts of global change	AGU

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:641>

7.9 Data Environmental Information

The file naming is as follows. Historical climate : d4pdf_HP_B_m{number}.nc · {number} is the number of ensemble member. Future climate : d4pdf_HFB_4K_{SST}_m{number}.nc · {SST} is the future SST condition from CC, GF, HA, MI, MP, and MR. · {number} is the number of ensemble member.

7.10 Distribution Information

name	version	specification

8. DATA PROCESSING

9. DATA REMARKS

10. DATA POLICY

10.1 Data Policy by the Data Provider

Data Policy:

1. Individual users should not redistribute the data to any third party.
2. The source of the database should be acknowledged in scientific and technical papers, publications, press releases and other communications in case of using the data.
3. This dataset can be used for non-commercial purposes. For commercial use of this dataset, the prior explicit permission of the data provider must be obtained.

Disclaimer:

The intellectual property rights of the dataset belong exclusively to Disaster Prevention Research Institute, Kyoto university. Disaster Prevention Research Institute, Kyoto university is not responsible for any damage that may result from the use of this 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

Please cite following two references

Mizuta, R., A. Murata, M. Ishii, H. Shiogama, K. Hibino, N. Mori, O. Arakawa, Y. Imada, K. Yoshida, T. Aoyagi, H. Kawase, M. Mori, Y. Okada, T. Shimura, T. Nagatomo, M. Ikeda, H. Endo, M. Nosaka, M. Arai, C. Takahashi, K. Tanaka, T. Takemi, Y. Tachikawa, K. Temur, Y. Kamae, M. Watanabe, H. Sasaki, A. Kitoh, I. Takayabu, E. Nakakita, M. Kimoto (2017) Over 5000 years of ensemble future climate simulations by 60 km global and 20 km regional atmospheric models, *The Bulletin of the American Meteorological Society (BAMS)*, July, pp.1383-1398.

Ninomiya, J, Y. Taka and N. Mori (2021) Projecting changes in explosive cyclones and high waves around Japan using a mega-ensemble projection, *Ocean Engineering*, Volume 237, 1 October 2021, 109634.

<https://doi.org/10.1016/j.oceaneng.2021.109634>

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

Ninomiya, J, Y. Taka and N. Mori (2021) Projecting changes in explosive cyclones and high waves around Japan using a mega-ensemble projection, *Ocean Engineering*, 237, 109634. <https://doi.org/10.1016/j.oceaneng.2021.109634>

Mizuta, R., A. Murata, M. Ishii, H. Shiogama, K. Hibino, N. Mori, O. Arakawa, Y. Imada, K. Yoshida, T. Aoyagi, H. Kawase, M. Mori, Y. Okada, T. Shimura, T. Nagatomo, M. Ikeda, H. Endo, M. Nosaka, M.

Arai, C. Takahashi, K. Tanaka, T. Takemi, Y. Tachikawa, K. Temur, Y. Kamae, M. Watanabe, H. Sasaki, A. Kitoh, I. Takayabu, E. Nakakita, M. Kimoto (2017) Over 5000 years of ensemble future climate simulations by 60 km global and 20 km regional atmospheric models, *The Bulletin of the American Meteorological Society (BAMS)*, July, pp.1383-1398. <https://doi.org/10.1175/BAMS-D-16-0099.1>