S14 global meteorological forcing dataset

1. IDENTIFICATION INFORMATION

Name	S14 global meteorological forcing dataset
Edition	version 1
Abbreviation	S14FD
DOI	doi:10.20783/DIAS.523 [https://doi.org/10.20783/DIAS.523]
Metadata Identifier	S14FD20250514151859-DIAS20221121113753-en

2. CONTACT

2.1 CONTACT on DATASET

Name	Toshichika Iizumi
Organization	Institute for Agro-Environmental Sciences, National Agriculture and Food Research Organization
Address	3-1-3 Kannondai, Tsukuba, Ibaraki, 305-8604, Japan
TEL	029-838-8201
E-mail	iizumi.toshichika765@naro.go.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	Toshichika Iizumi
Organization	Institute for Agro-Environmental Sciences, National Agriculture and Food Research Organization
E-mail	iizumi.toshichika765@naro.go.jp

4. DATASET CREATOR

Name	Toshichika Iizumi

Organization	Institute for Agro-Environmental Sciences, National Agriculture and Food Research Organization
E-mail	iizumi.toshichika765@naro.go.jp

5. DATE OF THIS DOCUMENT

2025-05-14

6. DATE OF DATASET

creation : 2017-08-08

7. DATASET OVERVIEW

7.1 Abstract

The S14 retrospecitive meteorological forcing dataset (S14FD) offers daily data of 11 climatic variables over the globe from 1958 to 2013. The data over the sea and Antarctica are not bias-corrected (i.e., the raw data of the JRA-55 reanalysis were used), whereas those over the land are bias-corrected. Variables include daily mean 2m air temperature (tave2m, ° C), daily maximum 2m air temperature (tmax2m, ° C), daily minimum 2m air temperature (tmin2m, ° C), daily total precipitation (precsfc, mm d-1), daily mean downward shortwave radiation flux (dswrfsfc, W m-2), daily mean downward longwave radiation flux (dlwrfsfc, W m-2), daily mean 2m relative humidity (rh2m, %), daily mean 2m specific humidity (spfh2m, kg kg-1), daily mean 2m vapor pressure (vap2m, hPa), daily mean 10m wind speed (wind10m, m s-1) and daily mean surface pressure (pressfc, hPa).

7.2 Topic Category(ISO19139)

climatologyMeteorologyAtmosphere

7.3 Temporal Extent

Begin Date	1958-01-01
End Date	2013-12-31
Temporal Characteristics	Daily

7.4 Geographic Bounding Box

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

7.5 Grid

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

column	720	0.5 (deg)
row	360	0.5 (deg)
vertical	1	1 (level)

7.6 Geographic Description

7.7 Keywords

7.7.1 Keywords on Dataset

Keyword Type	Keyword	Keyword thesaurus Name
theme	Atmosphere > Atmospheric Temperature > Surface Air Temperature, Atmosphere > Precipitation > Precipitation Rate, Atmosphere > Atmospheric Radiation > Shortwave Radiation, Atmosphere > Atmospheric Water Vapor > Humidity, Atmosphere > Atmospheric Winds > Surface Winds, Atmosphere > Atmospheric Pressure > Surface Pressure, Atmosphere > Atmospheric Radiation > Longwave Radiation	GCMD_science

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 from DIAS : https://data.diasjp.net/dl/storages/filelist/dataset:523

7.9 Data Environmental Information

7.10 Distribution Information

name	version	specification
NetCDF	4	

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

S14FD retrospective meteorological forcing dataset is based based on JRA-55 reanalysis data.

8.1.2 Data Source

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

9. DATA REMARKS

10. DATA POLICY

10.1 Data Policy by the Data Provider

If data are used, the relevant reference(s) or dataset DOI should be cited. For the reference(s), see the References section.

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

No acknowledgement is required.

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

Iizumi, T., Takikawa, H., Hirabayashi, Y., Hanasaki, N., Nishimori, M. (2017) Contributions of different bias-correction methods and reference meteorological forcing data sets to uncertainty in projected temperature and precipitation extremes. Journal of Geophysical Research-Atmospheres. 122, 7800 7819. https://doi.org/10.1002/2017JD026613