

## For Using Data

Data Policy	JURCAOS-JAMSTEC
Principal Investigator	Data Management Office
Use Constraints	See Terms and Conditions about constrain of use.
Data Citation	See Terms and Conditions about data citation.

## Quality

Raw

## Instrument

meteorological and oceanographic  
observation system



## Overview

The data provided here is format-converted marine meteorological data observed by R/V SHINSEI MARU. It consists of Atmospheric Pressure, Air Temperature, Relative Humidity, Wind Direction and Speed, Rainfall, Radiation, Sea Surface Temperature, and the ship position data is added. Quality control such as averaging is not performed.

## Measurement System

Sensors	Manufacturer	Type	Location (from sea surface)
Anemometer	ANEOS, Japan	N-363D	Foremast (15m) Mainmast (24m)
Tair	ANEOS, Japan	TS-301C	Foremast (15m)
RH	Vaisala, Finland	HMT333	Foremast (15m)
Thermometer (SST)	ANEOS, Japan	Pt100 N66M	Ship bottom (-4.5m)
Barometer	Vaisala, Finland	PTB330	No.1 Laboratory (9.5m)
Rain gauge	R.M. Young, USA	50202	Compass deck (14m)
Radiometer (shortwave)	Hukseflux, The Netherlands	CHF-LP02	Compass deck (14m)
Radiometer (long-wave)	Hukseflux, The Netherlands	CHF-IR02	Compass deck (14m)
Surface photosynthetically available radiometer (PAR)	Delta OHM, Italy	LP PAR01	Compass deck (19m)

## Calibration Information

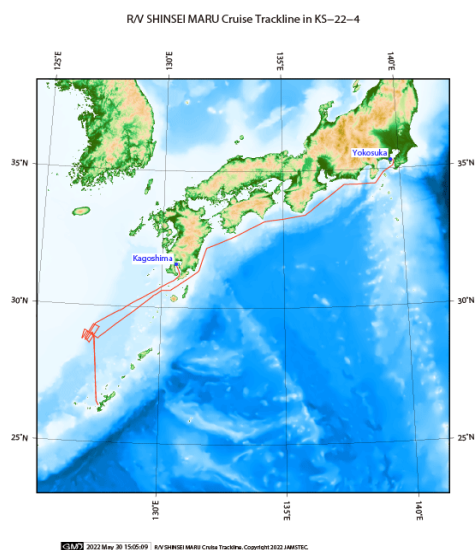
Tair/RH sensor calibration date 2021/1/18

## Note

- 1) About the shortwave radiation, please use both sensor data No.1 and No.2, because shortwave radiometer may be shaded by the hull structure.
- 2) About the atmospheric pressure, the barometer is measured in No.1 laboratory, a pressure difference with the ship outside atmosphere might occur in some situation.
- 3) If you would like the raw data set, please contact DMO at "dmo@jamstec.go.jp".

## Related Information

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### KS-22-4

Ship Name:	SHINSEI MARU
Period:	2022/04/01 - 2022/04/10
Chief Scientist:	Tomohisa Irino (Hokkaido University)
Proposal:	Quantitative reconstruction of the Kuroshio variability in the Okinawa Trough region since the last glacial period

## Format Description for Meteorology Raw (SHINSEI MARU)

Single space separated.

No.	Column	Content	Format (nodata or baddata)	Unit	Remarks
1	1-12	Date and time [YYYYMMDDhhmm]	i12		Every 1 minute
2	14-21	Julian day [DDD.DDDD]	f8.4		Every 1 minute
3	23-29	Longitude [0 to 360]	f7.3 (999.999)	degree	Location at time stamp* East longitude
4	31-37	Latitude [-90 to 90]	f7.3 (999.999)	degree	Location at time stamp* +: North latitude, -: South latitude
5	39-44	Atmospheric pressure	f6.1 (9999.9)	hPa	Every 1 minute
6	46-50	Air temperature	f5.1 (999.9)	deg-C	Every 1 minute
7	52-56	Dewpoint temperature	f5.1 (999.9)	deg-C	Every 1 minute Calculated from 'Air temperature' and 'Relative humidity' using WMO's Formula** for liquid water
8	58-62	Relative humidity	f5.1 (999.9)	%	Every 1 minute
9	64-70	Sea surface temperature (SST)	f7.4 (99.9999)	deg-C	Every 1 minute From Ship bottom thermometer
10	72-76	Wind speed (zonal)	f5.1 (999.9)	m/sec	Every 1 minute No anemometer height adjustment Anemometer at foremast
11	78-82	Wind speed (meridional)	f5.1 (999.9)	m/sec	Every 1 minute No anemometer height adjustment Anemometer at foremast
12	84-89	1-hour moving accumulated precipitation	f6.2 (999.99)	mm/h	Every 1 minute
13	91-96	Short wave radiation (No.1)	f6.1 (9999.9)	W/m2	Every 1 minute
14	98-103	Long wave radiation (No.1)	f6.1 (9999.9)	W/m2	Every 1 minute
15	105-110	Short wave radiation (No.2)	f6.1 (9999.9)	W/m2	Every 1 minute
16	112-117	Long wave radiation (No.2)	f6.1 (9999.9)	W/m2	Every 1 minute
17	119-124	Surface photosynthetically available radiation (PAR)	f6.1 (9999.9)	μ mol/m2s	Every 1 minute
18	126-130	True wind speed (No.1)	f5.1 (999.9)	m/sec	1-minute mean No anemometer height adjustment
19	132-136	True wind direction (No.1)	f5.1 (999.9)	degree	1-minute mean No anemometer height adjustment
20	138-142	Relative wind speed (No.1)	f5.1 (999.9)	m/sec	1-minute mean No anemometer height adjustment
21	144-148	Relative wind direction (No.1)	f5.1 (999.9)	degree	1-minute mean No anemometer height adjustment
22	150-154	True wind speed (No.2)	f5.1 (999.9)	m/sec	1-minute mean No anemometer height adjustment
23	156-160	True wind direction (No.2)	f5.1 (999.9)	degree	1-minute mean No anemometer height adjustment
24	162-166	Relative wind speed (No.2)	f5.1 (999.9)	m/sec	1-minute mean No anemometer height adjustment
25	168-172	Relative wind direction (No.2)	f5.1 (999.9)	degree	1-minute mean No anemometer height adjustment

\* A ship's position data is not included in the raw data of R/V SHINSEI MARU meteorological observation system, the latitude and longitude are added from the "navigation" data.

If there is no "navigation" data for that time stamp, the latitude and longitude of 5 seconds after is used.

\*\* WMO-No.8 (Guide to Meteorological Instruments and Methods of Observation)