

## MIRAI MR12-03 Marine Meteorology

Last Modified: 2014-08-12

[ReadMe](#) [Observation Data](#) [Data Format](#)

Cruise ID: **MR12-03**

Marine Meteorology: Processed (DMO)-Corrected

Data Policy: **JAMSTEC**

**Observation Items:** Atmospheric pressure, Air temperature, Dew point temperature, Relative humidity, Sea surface temperature, Zonal and meridional wind component, Precipitation, Shortwave radiation, Longwave radiation

**Science Keywords:**

ATMOSPHERE > ATMOSPHERIC PRESSURE > SEA LEVEL PRESSURE  
ATMOSPHERE > ATMOSPHERIC RADIATION > LONGWAVE RADIATION  
ATMOSPHERE > ATMOSPHERIC RADIATION > SHORTWAVE RADIATION  
ATMOSPHERE > ATMOSPHERIC TEMPERATURE > AIR TEMPERATURE  
ATMOSPHERE > ATMOSPHERIC WATER VAPOR > DEW POINT TEMPERATURE  
ATMOSPHERE > ATMOSPHERIC WATER VAPOR > HUMIDITY  
ATMOSPHERE > PRECIPITATION  
OCEANS > OCEAN TEMPERATURE > SEA SURFACE TEMPERATURE  
OCEANS > OCEAN WAVES > SIGNIFICANT WAVE HEIGHT  
OCEANS > OCEAN WINDS > SURFACE WINDS

**Cruise Report**

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR12-03\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR12-03_all.pdf)

### For Using Data

**Principal Investigator**

Data Management Office

**Use Constraints**

See [Terms and Conditions](#) about constrain of use.

**Data Citation**

See [Terms and Conditions](#) about data citation.

**Period (UTC)**

2012-07-16 23:50 – 2012-08-29 00:10

**Instrument**

Instrument:

General maritime meteorological observation system

Instrument:

SOAR (Shipboard Oceanographic and Atmospheric Radiation) ( - MR20-01)



**Overview**

"MIRAI meteorological integrated dataset" is a set of "suitably composed data" which consists of 10-minute-average corrected Atmospheric Pressure, Air Temperature, Relative Humidity, Wind Direction and Speed, Precipitation, Radiation, Sea Surface Temperature, and Wave Height observed by R/V MIRAI.

The correction and processing method was produced by Dr. K. Yoneyama (IORGC/JAMSTEC) in cooperation with DMO. The actual data processing was conducted by DMO. See [here](#) for detailed correction and processing method.

**Specifications**

Sensors	Type	Manufacturer	Location (from sea surface)
Anemometer	05106	R.M. Young, USA	Foremast (25m)
Tair/RH	HMP45A	Vaisala, Finland with 43408 Gill aspirated radiation shield R.M. Young, USA	Starboard and port side at compass deck (21m)
Thermometer (SST)	SBE 3S	Sea-Bird Electronics, USA	Bow thruster room (-4.5m)
Barometer	Model-370	Setra System, USA	Weather observation room at captain deck (13m)
Rain guage	50202	R.M. Young, USA	Foremast (24m)
Radiometer (shortwave)	PSP	Eppley, USA	Foremast (25m)
Radiometer (long-wave)	PIR	Eppley, USA	Foremast (25m)
Wave height meter	WM-2	Tsurumi-Seiki, Japan	Bow (10m)

**Sensors information**

Tair/RH sensor calibration date

Starboard side : 2011/12/19

Port side : 2012/02/28

Rain guage calibration (Using the revision of rain data)

Minimum value (0.0 cc) : 0.43 mm

Maximum value (504.5 cc) : 49.81 mm

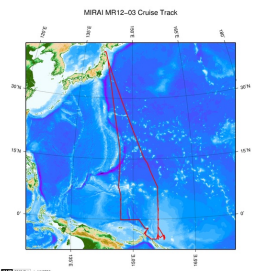
Date : 2012/07/13

**Need raw data?**

If you would like the raw data set, please contact us from "Contact Us" above.

**Note**

**Related Information**



MIRAI MR12-03 Cruise Track

[Enlarge Image](#)

**MR12-03**

Ship Name: MIRAI

Period: 2012-07-16 - 2012-08-29

Chief Scientist: Yuji Kashino (JAMSTEC)

Project Name: [Tropical Ocean Climate Study (TOCS)]

Update History	
2014-08-12	An observation data was registerd.
2013-10-30	An observation data was registerd.

**JAMSTEC**

Site Policy

Privacy Policy

Application for Data and Samples

Data Policy

**What's New**

Update History

Feeds

**Lists**

Publication List

Amount of Public Info.

**Data**

Map Search

Data Tree

Detailed Search

**Information of the Ships**

NATSUSHIMA

KAIYO

YOKOSUKA

MIRAI

KAIREI

CHIKYU

KAIIMEI

SHINSEI MARU

HAKUHO MARU

**Information of the Submersibles**

KAIKO

SHINKAI 2000

SHINKAI 6500

DEEP TOW

HYPER-DOLPHIN

URASHIMA

YOKOSUKA DEEP TOW

6K Camera DEEP TOW

6K Sonar DEEP TOW

KM-ROV

POWER GRAB

SAMPLER (SHELL)

POWER GRAB

SAMPLER (CLOW)

BMS

**Go to a Cruise Information**

Cruise ID:

**Go to a Dive Information**

Dive ID:

 **JAMSTEC** 国立研究開発法人 海洋研究開発機構

JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

Copyright 2011 Japan Agency for Marine-Earth Science and Technology

## MIRAI MR12-03 Marine Meteorology

Last Modified: 2014-08-12

[ReadMe](#) [Observation Data](#) [Data Format](#)

Cruise ID: [MR12-03](#)

Marine Meteorology: Processed (DMO)-Corrected

Data Policy: [JAMSTEC](#)

### Meteorology Corrected

Single space separated.

No.	Column	Content	Unit	format (nodata or baddata)	Remarks
1	1-12	Date and time [YYYYMMDDhhmm]		i12	Every 10 minutes* * Time stamp is set at the end of average
2	14-21	Julian day [DDD.DDDD]		f8.4	Every 10 minutes*
3	23-29	Longitude [0 to 360]	degree	f7.3 (999.999)	Location at time stamp East longitude
4	31-37	Latitude [-90 to 90]	degree	f7.3 (999.999)	Location at time stamp +: North latitude -: South latitude
5	39-44	Atmospheric pressure	hPa	f6.1 (9999.9)	10-minute mean*
6	46-50	Air temperature	deg-C	f5.1 (999.9)	10-minute mean* Data is selected on the windward side
7	52-56	Dewpoint temperature	deg-C	f5.1 (999.9)	10-minute mean* Calculated from 'Air temperature' and 'Relative humidity' using WMO's Formula(**) for liquid water ** WMO-No.8 (Guide to Meteorological Instruments and Methods of Observation)
8	58-62	Relative humidity	%	f5.1 (999.9)	10-minute mean* Data is selected on the windward side
9	64-70	Sea surface temperature (SST)	deg-C	f7.4 (99.9999)	10-minute mean* From EPCS/TSG
10	72-76	Wind speed (zonal)	m/sec	f5.1 (999.9)	10-minute mean* No anemometer height adjustment
11	78-82	Wind speed (meridional)	m/sec	f5.1 (999.9)	10-minute mean* No anemometer height adjustment
12	84-89	Rainfall intensity	mm/hr	f6.2 (999.99)	10-minute mean*
13	91-96	Short wave radiation	W/m2	f6.1 (9999.9)	10-minute mean*
14	98-102	Long wave radiation	W/m2	f5.1 (999.9)	10-minute mean*
15	104-108	Significant wave height	m	f5.2 (99.99)	Calculated every an hour Calculated every 3 hours, before March 2003
16	110-114	Wave period	second	f5.2 (99.99)	Calculated every an hour Calculated every 3 hours, before March 2003

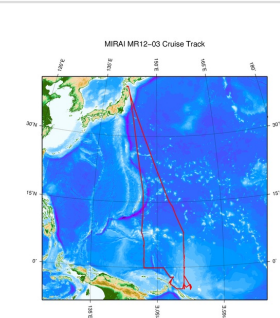
### Data Example

```

YYYYMMDDhhmm DDD.DDDD Lon Lat Press AT DT RH SST WindU WindV Rain SWR LWR WH WP
200611290000 333.0000 77.314 2.715 1009.2 27.6 23.7 79.2 28.8732 -2.5 -1.6 0.00 0.0 388.1 0.94 7.69
200611290010 333.0070 77.346 2.703 1009.3 27.6 23.7 79.3 28.8931 -2.3 -1.1 0.00 0.0 388.3 0.96 7.92
200611290020 333.0139 77.378 2.692 1009.5 27.6 23.8 79.8 28.8957 -2.0 -0.5 0.00 0.0 387.7 0.96 7.92
200611290030 333.0208 77.410 2.681 1009.6 27.6 23.7 79.1 28.9206 -2.3 -1.0 0.00 0.0 388.0 0.96 7.92
200611290040 333.0278 77.442 2.670 1009.7 27.7 23.6 78.6 28.9477 -2.4 -0.7 0.00 0.0 386.7 0.96 7.92
200611290050 333.0347 77.474 2.658 1009.9 27.7 23.8 79.3 28.9166 -2.7 -1.2 0.00 2.4 390.7 0.96 7.92
200611290100 333.0417 77.506 2.647 1010.1 27.7 23.7 79.1 28.8948 -3.0 -1.5 0.00 12.6 390.8 0.96 7.92

```

### Related Information



[Enlarge Image](#)

#### MR12-03

Ship Name: MIRAI

Period: 2012-07-16 - 2012-08-29

Chief Scientist: Yuji Kashino (JAMSTEC)

Project Name: [Tropical Ocean Climate Study (TOCS)]

### Update History

2014-08-12	An observation data was registerd.
2013-10-30	An observation data was registerd.

# JAMSTEC

Site Policy  
Privacy Policy  
Application for Data and Samples  
Data Policy  
**What's New**  
Update History  
Feeds

## Lists

Publication List  
Amount of Public Info.  
**Data**  
Map Search  
Data Tree  
Detailed Search

## Information of the Ships

NATSUSHIMA  
KAIYO  
YOKOSUKA  
MIRAI  
KAIREI  
CHIKYU  
KAIMEI  
SHINSEI MARU  
HAKUHO MARU

## Information of the Submersibles

KAIKO  
SHINKAI 2000  
SHINKAI 6500  
DEEP TOW  
HYPER-DOLPHIN  
URASHIMA  
YOKOSUKA DEEP TOW  
6K Camera DEEP TOW  
6K Sonar DEEP TOW  
KM-ROV  
POWER GRAB SAMPLER (SHELL)  
POWER GRAB SAMPLER (CLOW)  
BMS

## Go to a Cruise Information

Cruise ID:

## Go to a Dive Information

Dive ID:

Copyright 2011 Japan Agency for Marine-Earth Science and Technology



**JAMSTEC** 国立研究開発法人  
海洋研究開発機構  
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

## MIRAI MR12-03 Marine Meteorology

Last Modified: 2014-08-12

[ReadMe](#) [Observation Data](#) [Data Format](#)

Cruise ID: [MR12-03](#)

Marine Meteorology: Processed (DMO)-Corrected

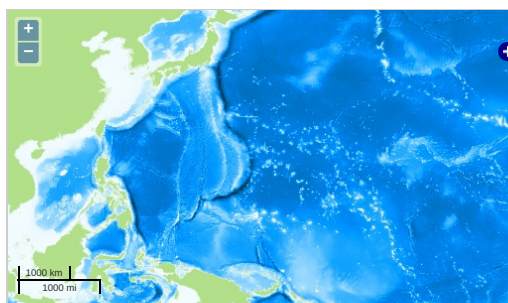
Data Policy: [JAMSTEC](#)

**Observation Items:** Atmospheric pressure, Air temperature, Dew point temperature, Relative humidity, Sea surface temperature, Zonal and meridional wind component, Precipitation, Shortwave radiation, Longwave radiation

**Science Keywords:**

ATMOSPHERE	> ATMOSPHERIC PRESSURE	> SEA LEVEL PRESSURE
ATMOSPHERE	> ATMOSPHERIC RADIATION	> LONGWAVE RADIATION
ATMOSPHERE	> ATMOSPHERIC RADIATION	> SHORTWAVE RADIATION
ATMOSPHERE	> ATMOSPHERIC TEMPERATURE	> AIR TEMPERATURE
ATMOSPHERE	> ATMOSPHERIC WATER VAPOR	> DEW POINT TEMPERATURE
ATMOSPHERE	> ATMOSPHERIC WATER VAPOR	> HUMIDITY
ATMOSPHERE	> PRECIPITATION	
OCEANS	> OCEAN TEMPERATURE	> SEA SURFACE TEMPERATURE
OCEANS	> OCEAN WAVES	> SIGNIFICANT WAVE HEIGHT
OCEANS	> OCEAN WINDS	> SURFACE WINDS

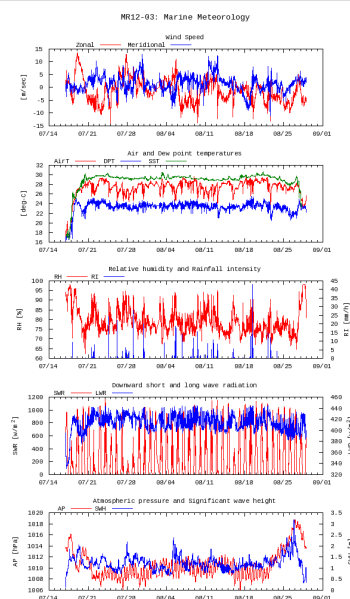
### Observation Map



— ... Observation Line — ... Navigation ● ... Observation, Dive Point, Hole

Imagery reproduced from ...

### Figures



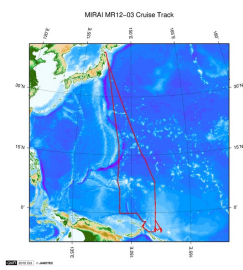
### Data List

[Add to Basket](#)

File names

☐ MR12-03.dat

### Related Information



[Enlarge Image](#)

#### MR12-03

Ship Name: MIRAI

Period: 2012-07-16 - 2012-08-29

Chief Scientist: Yuji Kashino (JAMSTEC)

Project Name: [Tropical Ocean Climate Study (TOCS)]

#### Update History

2014-08-12	An observation data was registered.
2013-10-30	An observation data was registered.

#### JAMSTEC

[Site Policy](#)  
[Privacy Policy](#)

[Application for Data and Samples](#)  
[Data Policy](#)

#### What's New

[Update History](#)  
[Feeds](#)

#### Lists

[Publication List](#)  
[Amount of Public Info.](#)

#### Data

[Map Search](#)  
[Data Tree](#)  
[Detailed Search](#)

#### Information of the Ships

[NATSUSHIMA](#)  
[KAIYO](#)  
[YOKOSUKA](#)  
[MIRAI](#)  
[KAIREI](#)  
[CHIKYU](#)  
[KAIMEI](#)  
[SHINSEI MARU](#)  
[HAKUHO MARU](#)

#### Information of the Submersibles

[KAICO](#)  
[SHINKAI 2000](#)  
[SHINKAI 6500](#)  
[DEEP TOW](#)  
[HYPER-DOLPHIN](#)  
[URASHIMA](#)  
[YOKOSUKA DEEP TOW](#)  
[6K Camera DEEP TOW](#)  
[6K Sonar DEEP TOW](#)  
[KM-ROV](#)  
[POWER GRAB SAMPLER \(SHELL\)](#)  
[POWER GRAB SAMPLER \(CLOW\)](#)  
[BMS](#)

#### Go to a Cruise Information

Cruise ID:

#### Go to a Dive Information

Dive ID:

Copyright 2011 Japan Agency for Marine-Earth Science and Technology



**JAMSTEC** 国立研究開発法人  
海洋研究開発機構  
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY