

MIRAI MR98-K02 Marine Meteorology

Last Modified: 2014-07-12

[ReadMe](#)

[Observation
Data](#)

[Data Format](#)

Cruise ID: [MR98-K02](#)

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/MR98-K02_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)

1998-12-22 03:00 – 1999-01-31 23:30

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 | KE-500 | Koshin Denki, Japan | Foremast (24m) |
| Air temperature | FT | Koshin Denki, Japan | Starboard and port side at compass deck (21m) |
| Dewpoint temperature | DW-1 | Koshin Denki, Japan | Starboard and port side at compass deck (21m) |
| Thermometer (SST) | SBE 3S | Sea-Bird Electronics, USA | Bow thruster room (-4.5m) |
| Barometer | F451 | Yokogawa, Japan | Weather observation room at captain deck (14m) |
| Rain guage | 50202 | R.M. Young, USA | Compass deck (19m) |
| Radiometer (shortwave) | MS-801 | EKO Instruments Trading Co., Ltd., Japan | Radarmast (28m) |
| Radiometer (long-wave) | MS-200 | EKO Instruments Trading Co., Ltd., Japan | Radarmast (28m) |
| Wave height meter | WM-2 | Tsurumi-Seiki, Japan | Bow (10m) |

Sensors information

Air temperature sensor calibration date

Starboard side : 1996/05/15

Port side : 1996/05/15

Dewpoint temperature sensor calibration date

Starboard side : 1996/04/16

Port side : 1996/04/16

Rain guage calibration (Using the revision of rain data)

Minimum value (0 cc) : 0.00 mm

Maximum value (500 cc) : 50.00 mm

Date : ---/---/---

Need raw data?

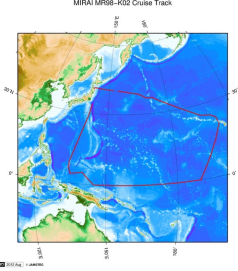
If you would like the raw data set, please contact us from "Contact Us" above.


Note

SOARWind, rain, and radiation data from the SMet system were used because the SOAR meteorological data were not collected during this cruise.

Related Information

MIRAI MR98-K02 Cruise Track



 [Enlarge Image](#)

MR98-K02

Ship Name: MIRAI

Period: 1998-12-22 - 1999-01-31

Chief Scientist: Takeshi Kawano (JAMSTEC)

| Update History | |
|----------------|------------------------------------|
| 2014-07-12 | An observation data was registerd. |
| 2013-01-25 | An observation data was registerd. |

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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

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YOKOSUKA DEEP TOW

6K Camera DEEP TOW

6K Sonar DEEP TOW

KM-ROV

POWER GRAB

SAMPLER (SHELL)

POWER GRAB

SAMPLER (CLOW)

BMS

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JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

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

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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 |

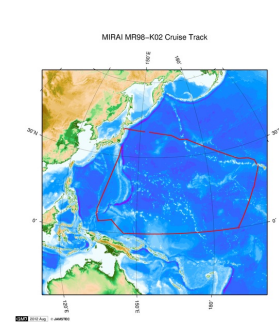
Data Example

```

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](#)

MR98-K02

Ship Name: MIRAI
Period: 1998-12-22 - 1999-01-31
Chief Scientist: Takeshi Kawano (JAMSTEC)

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Privacy Policy
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Update History
Feeds

Lists

Publication List
Amount of Public Info.

Data

Map Search
Data Tree
Detailed Search

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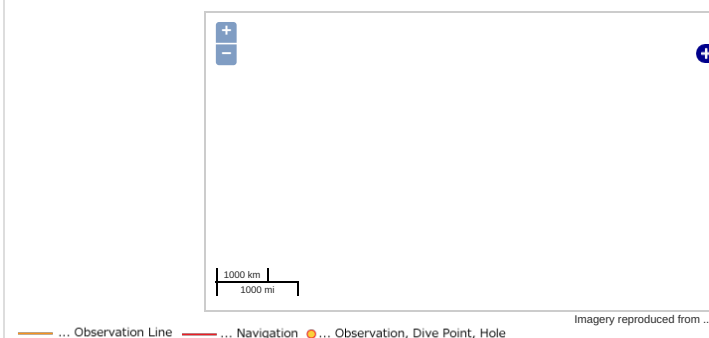
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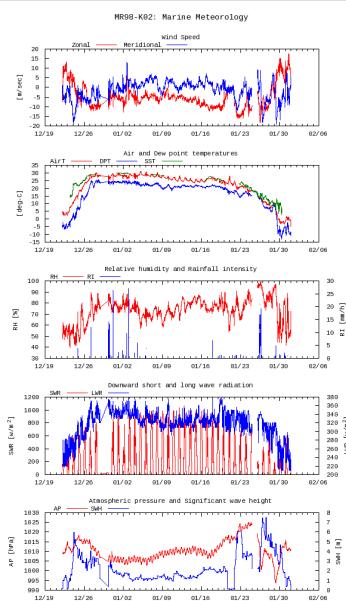
Science Keywords:

| | | |
|------------|---------------------------|---------------------------|
| ATMOSPHERE | > ATMOSPHERIC PRESSURE | > SEA LEVEL PRESSURE |
| ATMOSPHERE | > ATMOSPHERIC RADIATION | > LONGWAVE RADIATION |
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Observation Map



Figures



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File names

☐ MR98-K02.dat

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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


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NATSUSHIMA
KAIYO
YOKOSUKA
MIRAI
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CHIKYU
KAIMEI
SHINSEI MARU
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Cruise ID:

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