

MIRAI MR04-07 Marine Meteorology

Last Modified: 2014-07-25

ReadMe Observation Data Data Format

Cruise ID: [MR04-07](#)

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/MR04-07_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)

2004-11-17 06:10 – 2004-12-09 18:50

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 | F451 | Yokogawa, Japan | Weather observation room at captain deck (14m) |
| 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 : 2004/08/26

Port side : 2004/04/12

Rain guage calibration (Using the revision of rain data)

Minimum value (0.0 cc) : 0.57 mm

Maximum value (509.0 cc) : 51.31 mm

Date : 2004/11/15

Need raw data?

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

Note

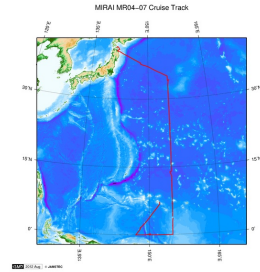
Related Information

MR04-07

Ship Name: MIRAI

Period: 2004-11-17 - 2004-12-09

Chief Scientist: Shuichi Watanabe (JAMSTEC)



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Update History

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| 2014-07-25 | An observation data was registerd. |
| 2012-11-25 | An observation data was registerd. |

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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 |

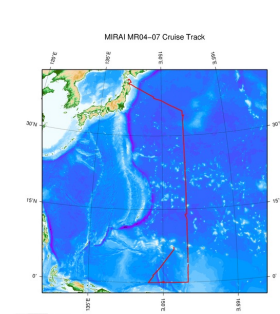
Data Example

```

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](#)

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Chief Scientist: Shuichi Watanabe (JAMSTEC)

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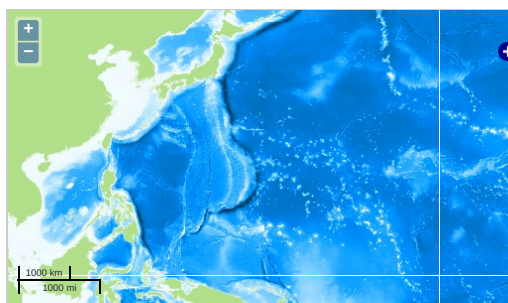
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Science Keywords:

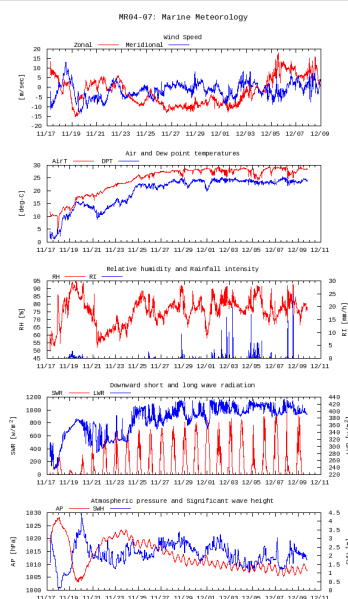
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Observation Map



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

Figures



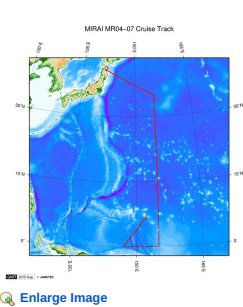
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File names

☐ MR04-07.dat

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