

MIRAI MR07-07 Leg1 Radiosonde

Last Modified: 2016-04-07

ReadMe Observation Data Data Format

Cruise ID: [MR07-07 Leg1](#)

Radiosonde: Processed (DMO)-Corrected

Data Policy: [JAMSTEC](#)

Observation Items: Atmospheric pressure, Air temperature, Dew point temperature, Relative humidity, Wind speed (zonal, meridional), Height

Science Keywords:

ATMOSPHERE > ATMOSPHERIC WATER VAPOR > DEW POINT TEMPERATURE
ATMOSPHERE > ATMOSPHERIC WATER VAPOR > HUMIDITY
ATMOSPHERE > ATMOSPHERIC TEMPERATURE > TEMPERATURE PROFILES
ATMOSPHERE > ATMOSPHERIC WINDS > UPPER LEVEL WINDS
ATMOSPHERE > ATMOSPHERIC WINDS > WIND PROFILES

Cruise Report

http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR07-07_leg1_all.pdf

For Using Data

Principal Investigator

Data Management Office

JAMSTEC / BPPT joint cruise in the Indonesian waters.

Use Constraints

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

Data Citation

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

Instrument

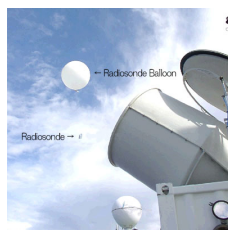
Instrument:

Radiosonde (MR11-03 - MR15-E01
Leg3)



Instrument:

Radiosonde (MR04-03 Leg1 - MR11-02)



Instrument:

Radiosonde (- MR04-02)



Correction method

- Data observed by RS80 sensors
- Correction of ship body warming

Temperature and dew point temperature data near the surface (4.5 hPa from ship deck) were corrected by linear extrapolation using upper layer data, since these data were affected by ship body warming (cooling) at daytime (nighttime). Details for data processing and correction can be found in [Yoneyama et al. \(2002\)](#).

- Data observed by RS92 sensors
- Correction of ship body warming

Same as above

- Correction of Dry Bias

Humidity data observed by RS92 sensors contain dry bias mainly due to solar radiation error in daytime. We have corrected the humidity data observed by RS92 sensors using [Yoneyama et al.\(2008\)](#). method. RS92 sensors have been used since MR04-03 cruise.

Note

Information about each radiosonde data are listed in the following table. It contains corrected sounding data, launch time, position, sensor information and calibration results for atmospheric pressure, air temperature and relative humidity. Calibration is conducted for every sensor prior to launch. Therefore, even raw data take in this calibration result. If the calibration result shows the positive value, it means that the calibrator showed the higher value than that of the sonde sensor. Filename of corrected data shows a sounding time (YYMMDDHH.***, where YY=year, MM=month, DD=day, and HH=hour) in UTC.

| Data file | Launch time (UTC) | | Launch station | | Sensor information | | Calibration result | | | | Note |
|--------------|-------------------|-------|----------------|-----------|--------------------|-----|---------------------------|------------------------|-----------------------|-----------------------|------|
| | Date | Time | Latitude | Longitude | Serial No. | Age | Atmospheric pressure[hPa] | Air temperature[deg-C] | Relative humidity1[%] | Relative humidity2[%] | |
| 08010606.dat | 2008/01/06 | 05:30 | 0.19S | 138.58E | C3636462 | 122 | 0.95 | -0.58 | -0.69 | -0.83 | |
| 08010612.dat | 2008/01/06 | 11:30 | 0.03N | 137.89E | C3627790 | 124 | 1.17 | -0.30 | -0.69 | -0.79 | |
| 08010618.dat | 2008/01/06 | 17:30 | 0.03N | 137.84E | C3627781 | 124 | 1.27 | -0.35 | -0.70 | -0.74 | |
| 08010700.dat | 2008/01/06 | 23:30 | 0.03N | 137.93E | C3636460 | 123 | 1.38 | -0.48 | -0.77 | -0.62 | |
| 08010706.dat | 2008/01/07 | 05:30 | 0.50N | 138.00E | C3627786 | 124 | 1.22 | -0.36 | -0.62 | -0.75 | |
| 08010712.dat | 2008/01/07 | 11:30 | 0.80N | 138.01E | C3627784 | 124 | 1.59 | -0.95 | -0.48 | -0.47 | |
| 08010718.dat | 2008/01/07 | 17:30 | 0.26N | 138.01E | C3637483 | 124 | 0.85 | -0.93 | -0.46 | -0.48 | |
| 08010800.dat | 2008/01/07 | 23:30 | 0.07N | 138.07E | C3627792 | 125 | 1.19 | -0.40 | -0.62 | -0.55 | |
| 08010806.dat | 2008/01/08 | 05:30 | 0.63N | 138.12E | C3636463 | 124 | 1.41 | -0.68 | -0.52 | -0.66 | |
| 08010812.dat | 2008/01/08 | 11:30 | 1.56N | 138.02E | C3636461 | 124 | 0.92 | -0.47 | -0.84 | -0.69 | |
| 08010818.dat | 2008/01/08 | 17:30 | 1.83N | 138.07E | C3637480 | 125 | 1.06 | -0.91 | -0.60 | -0.66 | |

| File Name | Launch time | Launch station | Sensor information | Atmospheric pressure[hPa] | Air temperature[deg-C] | Relative humidity1[%] | Relative humidity2[%] | Note |
|--------------|------------------|----------------|--------------------|---------------------------|------------------------|-----------------------|-----------------------|------|
| 08010900.dat | 2008/01/08 23:30 | 2.03N 138.12E | C3637476 125 | 0.95 | -0.69 | -0.61 | -0.68 | |
| 08010906.dat | 2008/01/09 05:30 | 1.98N 138.10E | C3637701 126 | 1.14 | -0.29 | -0.54 | -0.58 | |
| 08010918.dat | 2008/01/09 11:30 | 2.50N 137.82E | C3637474 126 | 1.10 | -0.67 | -0.54 | -0.46 | |
| 08010918.dat | 2008/01/09 11:30 | 2.50N 137.82E | C3637474 126 | 1.10 | -0.67 | -0.54 | -0.46 | |
| 08011000.dat | 2008/01/10 23:30 | 3.00N 137.66E | C3637473 126 | 0.83 | -0.62 | -0.69 | -0.55 | |
| 08011006.dat | 2008/01/10 05:30 | 4.00N 137.33E | C3627788 127 | 0.98 | -0.28 | -0.62 | -0.64 | |
| 08011012.dat | 2008/01/10 11:30 | 4.58N 137.19E | C3627782 128 | 1.14 | -0.39 | -0.84 | -0.82 | |
| 08011018.dat | 2008/01/10 17:30 | 4.75N 137.24E | C3636457 127 | 0.61 | -0.33 | -0.36 | -0.55 | |
| 08011100.dat | 2008/01/10 23:30 | 4.92N 137.36E | C3636459 127 | 1.14 | -0.73 | -0.39 | -0.54 | |
| 08011106.dat | 2008/01/11 05:30 | 5.11N 137.22E | C3636452 127 | 1.51 | -0.35 | -0.58 | -0.98 | |
| 08011112.dat | 2008/01/11 11:30 | 5.37N 137.07E | C3636477 128 | 1.22 | -0.38 | -0.62 | -0.71 | |
| 08011118.dat | 2008/01/11 17:30 | 5.04N 137.19E | C3636464 128 | 0.93 | -0.52 | -0.60 | -0.77 | |
| 08011200.dat | 2008/01/11 23:30 | 4.85N 137.28E | C3636456 128 | 1.32 | -0.25 | -0.61 | -0.70 | |
| 08011206.dat | 2008/01/12 05:30 | 5.25N 137.16E | C3636492 128 | 0.83 | -0.42 | -0.47 | -0.68 | |
| 08011212.dat | 2008/01/12 11:30 | 6.26N 137.01E | C3636469 128 | 1.05 | -0.54 | -0.48 | -0.69 | Rain |
| 08011218.dat | 2008/01/12 17:30 | 7.33N 136.81E | C3636455 129 | 1.56 | -0.45 | -0.48 | -0.58 | |
| 08011300.dat | 2008/01/12 23:30 | 7.63N 136.66E | C3627787 130 | 1.07 | -0.64 | -0.66 | -0.65 | |
| 08011306.dat | 2008/01/13 05:30 | 7.86N 136.47E | C3627779 130 | 1.20 | -0.45 | -0.75 | -0.66 | |
| 08011312.dat | 2008/01/13 11:30 | 7.27N 135.81E | C3627785 130 | 1.29 | -0.39 | -0.72 | -0.78 | |
| 08011318.dat | 2008/01/13 17:30 | 6.31N 134.72E | C3627789 131 | 1.27 | -0.67 | -0.83 | -0.76 | |
| 08011400.dat | 2008/01/13 23:30 | 5.40N 133.75E | C3636450 130 | 0.99 | -0.27 | -0.49 | -0.85 | |
| 08011406.dat | 2008/01/14 05:30 | 4.42N 132.70E | C3637477 130 | 0.80 | -0.62 | -0.58 | -0.55 | |
| 08011412.dat | 2008/01/14 11:30 | 3.40N 131.53E | C3636465 130 | 0.81 | -0.63 | -0.85 | -0.92 | Rain |
| 08011418.dat | 2008/01/14 17:30 | 2.79N 130.71E | C3636476 131 | 0.81 | -0.38 | -0.47 | -0.72 | |
| 08011500.dat | 2008/01/14 23:30 | 1.95N 130.22E | C3637475 131 | 1.11 | -0.30 | -0.62 | -0.53 | |
| 08011506.dat | 2008/01/15 05:30 | 2.42N 130.13E | C3637518 131 | 1.03 | -0.51 | -0.45 | -0.61 | |
| 08011512.dat | 2008/01/15 11:30 | 3.66N 130.00E | C3636458 132 | 0.99 | -0.33 | -0.63 | -0.67 | Rain |
| 08011518.dat | 2008/01/15 17:30 | 4.96N 130.00E | C3456226 144 | 1.54 | 0.09 | -0.47 | -0.52 | |
| 08011600.dat | 2008/01/15 23:30 | 6.20N 130.00E | C3456229 144 | 1.57 | -0.16 | -0.63 | -0.49 | |
| 08011606.dat | 2008/01/16 05:30 | 7.00N 129.93E | C3456228 144 | 1.53 | -0.02 | -0.48 | -0.39 | |
| 08011612.dat | 2008/01/16 11:30 | 7.00N 128.73E | C3456199 144 | 1.43 | -0.09 | -2.19 | -0.95 | |
| 08011618.dat | 2008/01/16 17:30 | 7.00N 127.54E | C3456210 145 | 1.54 | 0.22 | -0.37 | -0.40 | |
| 08011712.dat | 2008/01/17 11:30 | 8.00N 127.74E | C3456197 146 | 1.47 | 0.08 | -0.73 | -0.72 | Rain |
| 08011718.dat | 2008/01/17 17:30 | 8.00N 129.08E | C3456204 146 | 1.53 | 0.11 | -0.47 | -0.46 | Rain |
| 08011800.dat | 2008/01/17 23:30 | 7.94N 130.00E | C3456194 146 | 1.28 | -0.31 | -0.53 | -0.71 | |
| 08011812.dat | 2008/01/18 11:30 | 8.13N 129.99E | C3456195 146 | 1.61 | -0.31 | -0.43 | -0.42 | |
| 08011818.dat | 2008/01/18 17:30 | 8.04N 129.87E | C3456207 147 | 1.62 | -0.33 | -0.72 | -0.80 | Rain |
| 08011900.dat | 2008/01/18 23:30 | 7.99N 130.00E | C3456236 147 | 1.62 | -0.08 | -0.32 | -0.34 | |
| 08011906.dat | 2008/01/19 05:30 | 8.62N 129.98E | C3456214 147 | 1.59 | 0.00 | -0.64 | -0.62 | |
| 08011912.dat | 2008/01/19 11:30 | 9.81N 130.00E | C3456209 148 | 1.67 | -0.05 | -0.30 | -0.45 | |
| 08011918.dat | 2008/01/19 17:30 | 11.21N 130.00E | C3456212 148 | 1.97 | -0.08 | -0.34 | -0.85 | |
| 08012000.dat | 2008/01/19 23:30 | 12.64N 130.00E | C3456203 148 | 1.64 | -0.31 | -0.72 | -0.82 | Rain |
| 08012006.dat | 2008/01/20 05:30 | 13.80N 130.02E | C3456202 148 | 1.61 | -0.30 | -0.45 | -1.41 | |
| 08012012.dat | 2008/01/20 11:30 | 15.08N 130.00E | C3456208 148 | 0.48 | 0.02 | -0.44 | -0.45 | |
| 08012018.dat | 2008/01/20 17:30 | 16.49N 130.00E | C3456196 149 | 1.72 | -0.29 | -0.68 | -0.53 | |

Reference

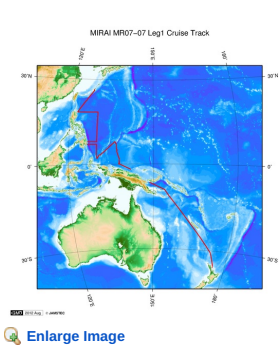
- K. Yoneyama, M.Hanyu, S.Sueyoshi, F.Yoshiura, and M.Katsumata, 2002:Radiosonde observation from the ship in the tropical region.[PDF:400kbyte]
JAMSTECR, Vol.45, 31-39.
- K. Yoneyama, M.fujita, N.Sato, M.Fujiwara, Y.Inai, and F.Hasebe, 2008:Correction for Radiation Dry Bias Found in RS92 Radiosonde Data during the MISMO Field Experiment.[PDF:400kbyte] SOLA, Vol.4, 13-16.

Others

- ・ Main processor: DigiCORAll. MW21(from 2004 Jul. to 2011 Mar.) [VAISALA, Finland]
- ・ Radiosonde Sensor: RS92-SGP, RS80-15GH, RS80-15G [VAISALA, Finland]
 - * The observations which using the RS80 sensors were mentioned in the "Note" of data page (other observations were performed using the RS92 sensors).
- ・ Launcher Location: 22m (from base line)

Note

Related Information



MR07-07 Leg1
 Ship Name: MIRAI
 Period: 2007-12-27 - 2008-01-25
 Chief Scientist: Yuji Kashino (JAMSTEC)
 Project Name: [Tropical Ocean Climate Study (TOCS)]

| Update History | |
|----------------|------------------------------------|
| 2016-04-07 | An observation data was registerd. |
| 2014-07-11 | An observation data was registerd. |
| 2014-06-13 | An observation data was registerd. |
| 2012-10-26 | An observation data was registerd. |

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Dive ID:

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MIRAI MR07-07 Leg1 Radiosonde

Last Modified: 2016-04-07

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Cruise ID: [MR07-07 Leg1](#)

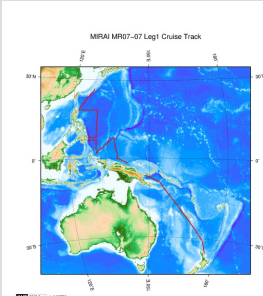
Radiosonde: Processed (DMO)-Corrected

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Radiosonde Corrected

| No. | Column | Description | Format | Unit | Remarks |
|-----|---------|-------------------------|--------|-------|----------------------------|
| 1 | 3 - 8 | Atmospheric pressure | f6.1 | hPa | |
| 2 | 10 - 15 | Air temperature | f6.1 | deg-C | '9999.0' is missing value. |
| 3 | 17 - 22 | Dew point temperature | f6.1 | deg-C | '9999.0' is missing value. |
| 4 | 24 - 27 | Relative humidity | i4 | % | '9999' is missing value. |
| 5 | 29 - 34 | Wind speed (zonal) | f6.1 | m/sec | '9999.0' is missing value. |
| 6 | 36 - 41 | Wind speed (meridional) | f6.1 | m/sec | '9999.0' is missing value. |
| 7 | 44 - 48 | Height (from sea level) | i5 | m | '99999' is missing value. |
| 8 | 49 - 50 | Terminator | a2 | | CR+LF |

Related Information



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MR07-07 Leg1

Ship Name: MIRAI

Period: 2007-12-27 - 2008-01-25

Chief Scientist: Yuji Kashino (JAMSTEC)

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

Update History

| | |
|------------|-------------------------------------|
| 2016-04-07 | An observation data was registered. |
| 2014-07-11 | An observation data was registered. |
| 2014-06-13 | An observation data was registered. |
| 2012-10-26 | An observation data was registered. |

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MIRAI MR07-07 Leg1 Radiosonde

Last Modified: 2016-04-07

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Cruise ID: [MR07-07 Leg1](#)

Radiosonde: Processed (DMO)-Corrected

Data Policy: [JAMSTEC](#)

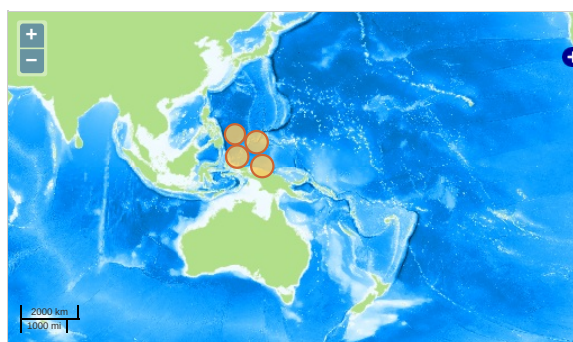
Observation Items: Atmospheric pressure, Air temperature, Dew point temperature, Relative humidity, Wind speed (zonal, meridional), Height

Science Keywords:

ATMOSPHERE > ATMOSPHERIC WATER VAPOR > DEW POINT TEMPERATURE
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ATMOSPHERE > ATMOSPHERIC TEMPERATURE > TEMPERATURE PROFILES
ATMOSPHERE > ATMOSPHERIC WINDS > UPPER LEVEL WINDS
ATMOSPHERE > ATMOSPHERIC WINDS > WIND PROFILES

Observation Map

- Clicking the icon displays a balloon with observation information.
- Then click the observation name, figures will be displayed.

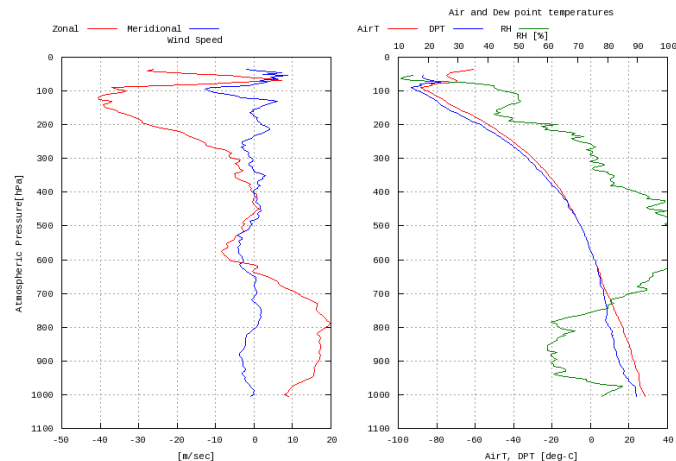


— ... Observation Line — ... Navigation ● ... Observation, Dive Point, Hole

Figures

08010606

MR07-07 Leg1: 08010606
Radiosonde



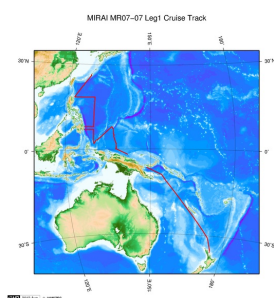
Data List

☐ File names

- ☐ 08010606.dat
- ☐ 08010612.dat
- ☐ 08010618.dat
- ☐ 08010700.dat
- ☐ 08010706.dat
- ☐ 08010712.dat
- ☐ 08010718.dat
- ☐ 08010800.dat
- ☐ 08010806.dat
- ☐ 08010812.dat
- ☐ 08010818.dat
- ☐ 08010900.dat
- ☐ 08010906.dat
- ☐ 08010912.dat

| | |
|--------------------------|--------------|
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| <input type="checkbox"/> | 08011000.dat |
| <input type="checkbox"/> | 08011006.dat |
| <input type="checkbox"/> | 08011012.dat |
| <input type="checkbox"/> | 08011018.dat |
| <input type="checkbox"/> | 08011100.dat |
| <input type="checkbox"/> | 08011106.dat |
| <input type="checkbox"/> | 08011112.dat |
| <input type="checkbox"/> | 08011118.dat |
| <input type="checkbox"/> | 08011200.dat |
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| <input type="checkbox"/> | 08011212.dat |
| <input type="checkbox"/> | 08011218.dat |
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| <input type="checkbox"/> | 08011800.dat |
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| <input type="checkbox"/> | 08011918.dat |
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| <input type="checkbox"/> | 08012006.dat |
| <input type="checkbox"/> | 08012012.dat |
| <input type="checkbox"/> | 08012018.dat |

Related Information



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MR07-07 Leg1
 Ship Name: MIRAI
 Period: 2007-12-27 - 2008-01-25
 Chief Scientist: Yuji Kashino (JAMSTEC)
 Project Name: [Tropical Ocean Climate Study (TOCS)]

Update History

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| 2016-04-07 | An observation data was registerd. |
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