

## MIRAI MR08-01 Leg2 Radiosonde

Last Modified: 2016-10-17

ReadMe Observation Data Data Format

Cruise ID: [MR08-01 Leg2](#)

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

### For Using Data

#### Principal Investigator

Data Management Office

#### Use Constraints

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

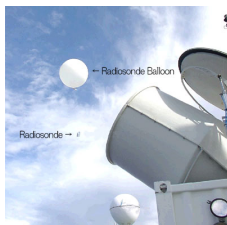
#### Data Citation

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

### Instrument

Instrument:

Radiosonde (MR04-03 Leg1 - MR11-02)



### 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[%] |      |
| 08051523.dat | 2008/05/15        | 22:30 | 33.16N         | 141.21E   | D1073100           | 67  | 1.53                      | -0.18                  | 0.07                  | 0.07                  |      |
| 08051619.dat | 2008/05/16        | 18:30 | 34.50N         | 141.63E   | D1044345           | 71  | 1.35                      | -0.36                  | 0.08                  | 0.08                  |      |
| 08051707.dat | 2008/05/17        | 06:30 | 34.71N         | 141.99E   | D1123360           | 66  | 1.28                      | -0.25                  | -0.07                 | -0.12                 |      |

### 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

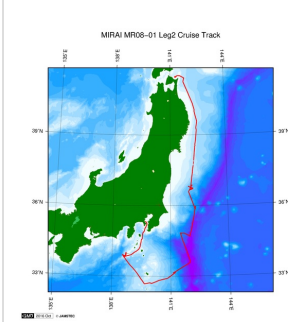
- Main processor: DigiCORAll. MW21(from 2004 Jul. to 2011 Mar.) [VAISALA, Finland]

- 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)

## Related Information



[Enlarge Image](#)

### MR08-01 Leg2

Ship Name: MIRAI  
Period: 2008-05-14 - 2008-05-22  
Chief Scientist: Junya Ishiwata (JAMSTEC)

## Update History

|            |                                    |
|------------|------------------------------------|
| 2016-10-17 | An observation data was registerd. |
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Cruise ID:

### Go to a Dive Information

Dive ID:

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## MIRAI MR08-01 Leg2 Radiosonde

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Cruise ID: [MR08-01 Leg2](#)

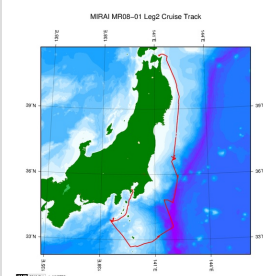
Radiosonde: Processed (DMO)-Corrected

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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



[Enlarge Image](#)

#### MR08-01 Leg2

Ship Name: MIRAI

Period: 2008-05-14 - 2008-05-22

Chief Scientist: Junya Ishiwata (JAMSTEC)

### Update History

2016-10-17 An observation data was registerd.

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Data Policy: [JAMSTEC](#)

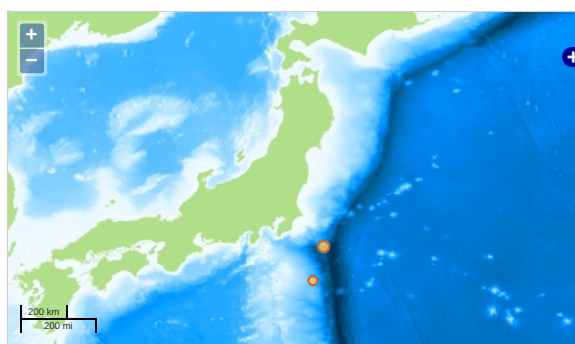
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### Observation Map

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

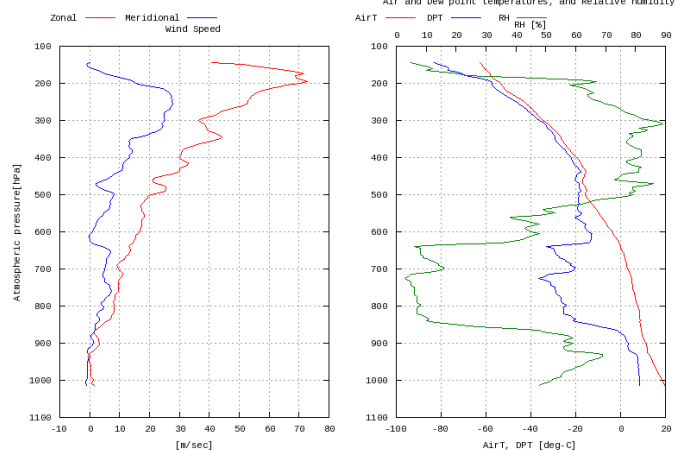


— ... Observation Line — ... Navigation ● ... Observation, Dive Point, Hole

### Figures

08051523

MR08-01 Leg2: 08051523  
Radiosonde



### Data List

☐ File names

☐ 08051523.dat

☐ 08051619.dat

☐ 08051707.dat

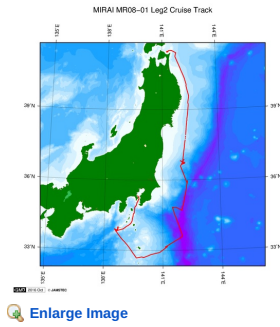
### Related Information

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Ship Name: MIRAI

Period: 2008-05-14 - 2008-05-22

Chief Scientist: Junya Ishiwata (JAMSTEC)



#### Update History

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