

## MIRAI MR10-03 Leg1 Radiosonde

Last Modified: 2014-07-11

ReadMe Observation Data Data Format

Cruise ID: [MR10-03 Leg1](#)

Radiosonde: Processed (DMO)-Corrected

Data Policy: [JAMSTEC](#)

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

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/MR10-03\\_leg1-2\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR10-03_leg1-2_all.pdf)

### For Using Data

Principal Investigator

Data Management Office

Use Constraints

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

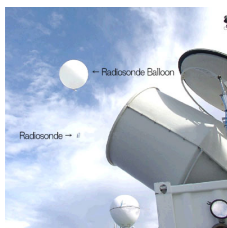
Data Citation

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

### Instrument

Instrument:

Radiosonde (MR04-03 Leg1 - MR11-02)



### Overview

#### 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[%]	
10050606.dat	2010/05/06	05:30	15.60N	141.63E	E5311522	128	0.95	-0.18	-0.21	-0.20	
10050612.dat	2010/05/06	11:30	16.11N	140.88E	E5311024	128	0.65	-0.11	-0.20	-0.12	
10050618.dat	2010/05/06	17:30	16.62N	140.09E	E5310745	129	0.35	-0.16	-0.09	-0.26	
10050700.dat	2010/05/06	23:30	17.00N	139.50E	E5310716	129	0.18	-0.15	-0.13	-0.13	
10050706.dat	2010/05/07	05:30	16.01N	139.51E	E5310429	129	0.94	-0.11	-0.17	-0.18	
10050712.dat	2010/05/07	11:30	14.53N	139.50E	E5311531	130	0.45	-0.13	-0.28	-0.29	
10050718.dat	2010/05/07	17:30	13.05N	139.50E	E5310738	130	0.56	-0.15	-0.24	-0.28	
10050800.dat	2010/05/07	23:30	11.60N	139.50E	E5311931	130	0.22	-0.23	-0.14	-0.15	
10050806.dat	2010/05/08	05:30	10.77N	139.86E	E5311530	130	0.05	-0.15	-0.34	-0.33	
10050812.dat	2010/05/08	11:30	9.82N	140.88E	E5311533	130	0.31	-0.15	-0.23	-0.26	
10050906.dat	2010/05/09	05:30	7.92N	141.01E	E5310753	131	0.47	-0.22	-0.25	-0.25	
10050912.dat	2010/05/09	11:30	7.84N	140.19E	E5311024	13788	0.14	-0.16	-0.20	-0.47	

	Launch time (UTC)	Launch date	Launch time	Launch latitude	Launch longitude	Sensor information	Calibration result	Calibration result	
10050918.dat	2010/05/09 17:30	2010/05/09	17:30	7.00N	139.50E	E5311536 132	0.37	-0.26	-0.34
10051000.dat	2010/05/09 23:30	2010/05/09	23:30	8.00N	139.50E	E5310731 132	0.39	-0.10	-0.25
10051006.dat	2010/05/10 05:30	2010/05/10	05:30	8.11N	137.10E	E5310736 132	0.46	-0.20	-0.28
10051012.dat	2010/05/10 11:30	2010/05/10	11:30	8.11N	137.10E	E5341019 130	0.37	-0.18	-0.32
10051018.dat	2010/05/10 17:30	2010/05/10	17:30	8.50N	135.54E	E5311521 133	0.32	-0.18	-0.33
10051100.dat	2010/05/10 23:30	2010/05/10	23:30	8.38N	134.14E	E5341022 130	0.26	-0.14	-0.09
10051106.dat	2010/05/11 05:30	2010/05/11	05:30	8.00N	133.52E	E5340104 130	0.04	-0.10	-0.07

#### Reference

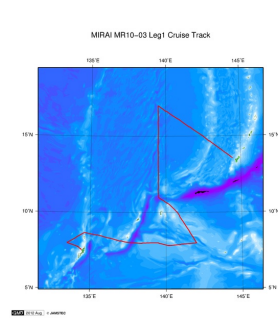
- K. Yoneyama, M.Hanyu, S.Sueyoshi, F.Yoshiura, and M.Katsumata, 2002:Radiosonde observation from the ship in the tropical region.[PDF:400kbyte]  
JAMSTECR, Vol.45, 31-39.
- K. Yoneyama, M.fujita, N.Sato, M.Fujiwara, Y.Inai, and F.Hasebe, 2008:Correction for Radiation Dry Bias Found in RS92 Radiosonde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

#### Others

- Main processor: DigiCORAIII. 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



[Enlarge Image](#)

#### MR10-03 Leg1

Ship Name: MIRAI  
Period: 2010-05-05 - 2010-05-12  
Chief Scientist: Hiroyuki Yamada (JAMSTEC)  
Project Name: [MJO Research]  
Proposal ▶ Observational Study on Air-Sea Interaction in the Tropical Western Pacific Ocean  
Title:

#### Update History

2014-07-11	An observation data was registered.
2014-06-13	An observation data was registered.
2012-09-28	An observation data was registered.

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CHIKYU  
KAIMEI  
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HAKUHO MARU

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KAIKO  
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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

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Dive ID:

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**JAMSTEC**

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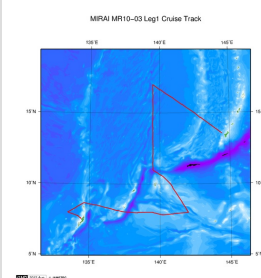
Radiosonde: Processed (DMO)-Corrected

Data Policy: [JAMSTEC](#)

### 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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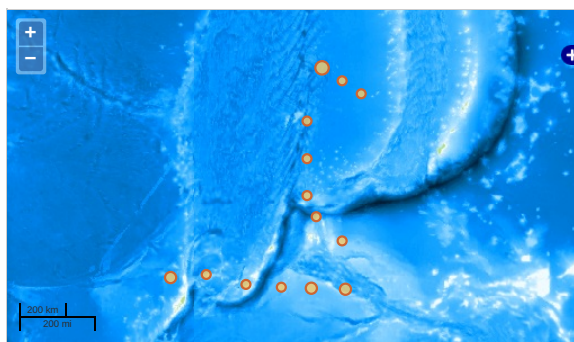
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### Observation Map

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

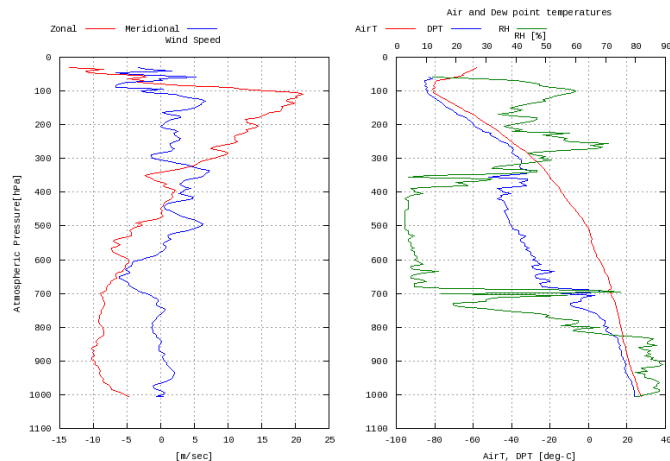


— ... Observation Line — ... Navigation ● ... Observation, Dive Point, Hole

### Figures

10050606

MR10-03 Leg1: 10050606  
Radiosonde



### Data List

☐ File names

☐ 10050606.dat

☐ 10050612.dat

☐ 10050618.dat

☐ 10050700.dat

☐ 10050706.dat

☐ 10050712.dat

☐ 10050718.dat

☐ 10050800.dat

☐ 10050806.dat

☐ 10050812.dat

☐ 10050906.dat

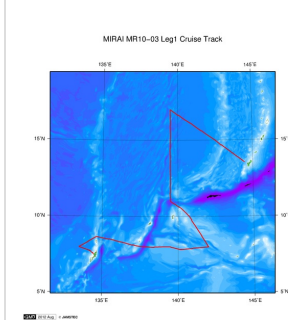
☐ 10050912.dat

☐ 10050918.dat

☐ 10051000.dat

<input type="checkbox"/>	Files
<input type="checkbox"/>	10051008.dat
<input type="checkbox"/>	10051012.dat
<input type="checkbox"/>	10051018.dat
<input type="checkbox"/>	10051100.dat
<input type="checkbox"/>	10051106.dat

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