

MIRAI MR06-04 Leg1 Radiosonde

Last Modified: 2014-07-11

ReadMe Observation Data Data Format

Cruise ID: **MR06-04 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/MR06-04_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

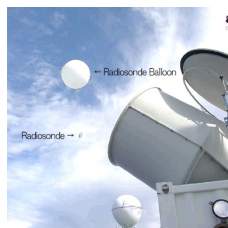
Instrument:

Radiosonde (MR11-03 - MR15-E01 Leg3)



Instrument:

Radiosonde (MR04-03 Leg1 - MR11-02)



Instrument:

Radiosonde (- MR04-02)



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[%]	
06080200.dat	2006/08/01	23:33	42.07N	144.07E	A4210829	295	-0.28	-0.41	-0.21	-0.27	
06080203.dat	2006/08/02	02:32	42.47N	144.29E	A4210830	295	0.15	-0.21	-0.30	-0.33	
06080206.dat	2006/08/02	05:32	42.49N	144.30E	A4210824	295	0.21	-0.25	-0.28	-0.30	
06080212.dat	2006/08/02	11:33	42.52N	144.33E	A4210828	296	0.29	-0.20	-0.30	-0.32	
06080218.dat	2006/08/02	17:37	42.54N	144.31E	A4210827	296	0.53	-0.34	-0.39	-0.38	
06080300.dat	2006/08/02	23:31	42.51N	144.33E	A4210833	296	0.01	-0.50	-0.39	-0.39	
06080306.dat	2006/08/03	05:33	42.51N	144.33E	A4210823	296	0.25	-0.37	-0.51	-0.52	
06080312.dat	2006/08/03	11:52	42.04N	144.07E	A4160197	298	0.22	-0.30	-0.22	-0.28	
06080318.dat	2006/08/03	17:32	41.86N	143.95E	A4160122	299	0.22	-0.43	-0.22	-0.25	
06080400.dat	2006/08/03	23:32	41.87N	143.95E	A4160124	299	-0.08	-0.35	-0.30	-0.31	
06080406.dat	2006/08/04	05:34	41.85N	143.95E	A4160201	299	0.55	-0.35	-0.24	-0.29	
06080412.dat	2006/08/04	11:34	41.80N	143.60E	A4160217	300	0.73	-0.34	-0.16	-0.14	

	Launch time (UTC)	Launch date	Latitude	Longitude	Sensor information	Age	Calibration result	Result	
06080418.dat	2006/08/04 17:34	41.33N	140.16E	B2345440	64	0.57	-0.24	-0.37	
06080500.dat	2006/08/04 23:35	41.33N	140.16E	A4210799	298	0.05	-0.59	-0.41	Note
Data file	Time	Latitude	Longitude	Serial No.	Age	Atmospheric pressure[hPa]	Air temperature[deg- C]	Relative humidity1[%]	
06080506.dat	2006/08/05 05:32	44.11N	139.55E	A4210831	298	-0.17	-0.42	-0.33	
06080512.dat	2006/08/05 11:32	44.11N	139.55E	A4210831	298	0.56	-0.44	-0.32	
06080518.dat	2006/08/05 17:58	45.58N	140.71E	A4210825	299	-1.66	-0.31	-0.45	
06080600.dat	2006/08/05 23:33	45.76N	140.78E	B2345441	65	0.47	-0.18	-0.65	
06080606.dat	2006/08/06 05:33	45.76N	140.78E	A4210797	299	0.93	-0.38	-0.34	
06080612.dat	2006/08/06 11:32	45.75N	140.89E	A4651029	268	0.41	-0.36	-0.28	
06080618.dat	2006/08/06 17:33	45.60N	140.81E	A4650110	268	0.63	-0.13	-0.49	
06080700.dat	2006/08/06 23:39	45.76N	140.78E	A4651028	268	0.21	-0.20	-0.37	
06080706.dat	2006/08/07 05:52	45.60N	142.02E	A4210810	300	-0.67	-0.32	-0.60	
06080712.dat	2006/08/07 11:32	44.98N	143.77E	A4210801	300	0.54	-0.42	-0.41	
06080718.dat	2006/08/07 17:34	44.48N	144.93E	B2214941	77	0.24	-0.28	-0.97	
06080800.dat	2006/08/07 23:33	44.53N	145.01E	B2254798	73	0.18	-0.19	-0.56	
06080806.dat	2006/08/08 05:33	44.53N	144.99E	B2014282	91	1.09	-0.16	-0.58	
06080812.dat	2006/08/08 11:32	44.58N	145.02E	A4650105	270	0.53	-0.20	-0.47	
06080818.dat	2006/08/08 17:32	44.51N	144.90E	B2124504	84	0.47	-0.17	-0.49	
06080900.dat	2006/08/08 23:33	44.53N	145.01E	B2234742	76	0.44	-0.24	-0.44	
06081718.dat	2006/08/17 17:33	43.74N	154.65E	B2215333	87	0.52	-0.21	-0.50	
06081719.dat	2006/08/17 18:42	43.43N	154.56E	B2234053	85	0.34	-0.20	-0.20	
06081721.dat	2006/08/17 20:29	43.14N	154.32E	B2244349	84	0.35	-0.21	-0.70	
06081800.dat	2006/08/17 23:33	42.76N	153.61E	A4650107	279	1.06	-1.43	-0.15	
06081803.dat	2006/08/18 02:30	42.34N	152.99E	A4650109	279	0.61	-0.43	-0.21	
06081806.dat	2006/08/18 05:30	41.85N	152.15E	B2345432	77	0.60	-0.20	-0.44	
06081809.dat	2006/08/18 08:30	41.43N	151.45E	B2124076	93	0.42	-0.27	-0.49	
06081812.dat	2006/08/18 11:30	41.05N	150.96E	B2234762	86	0.37	-0.19	-0.40	
06081815.dat	2006/08/18 14:30	40.73N	150.37E	B2234741	86	0.45	-0.30	-0.32	
06081818.dat	2006/08/18 17:30	40.39N	149.78E	B2225046	87	0.15	-0.23	-0.33	
06081821.dat	2006/08/18 20:31	40.28N	149.19E	B2234740	86	0.30	-0.30	-0.28	
06081900.dat	2006/08/18 23:32	40.55N	148.53E	B2254981	84	0.22	-0.24	-0.43	
06081903.dat	2006/08/19 02:30	40.86N	147.80E	B2234694	86	0.03	-0.18	-0.22	
06081906.dat	2006/08/19 05:30	41.14N	147.16E	A4650119	280	0.51	-0.17	-0.31	
06081909.dat	2006/08/19 08:35	41.45N	146.44E	B2345430	78	0.72	-0.29	-0.34	Rain
06081912.dat	2006/08/19 11:37	41.72N	145.80E	A4650106	280	0.77	-0.20	0.12	
06081915.dat	2006/08/19 14:31	41.94N	145.27E	B2345438	79	0.72	-0.19	-0.38	Rain

Reference

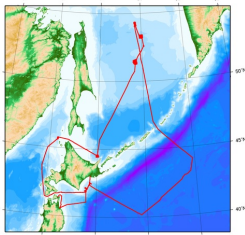
- K. Yoneyama, M.Hanyu, S.Sueyoshi, F.Yoshiura, and M.Katsumata, 2002:Radiosonde observation from the ship in the tropical region.[\[PDF:400kbyte\]](#) JAMSTECR, Vol.45, 31-39.
- K. Yoneyama, M.fujita, N.Sato, M.Fujiwara, Y.Inai, and F.Hasebe, 2008:Correction for Radiation Dry Bias Found in RS92 Radiosonde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

Others

- Main processor: DigiCORAlll. 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



MR06-04 Leg1

Ship Name: MIRAI

Period: 2006-07-31 - 2006-08-19

Chief Scientist: Naomi Harada (JAMSTEC)

Project Name: [Paleoceanography Research]

[Enlarge Image](#)

Update History	
2014-07-11	An observation data was registered.
2014-06-13	An observation data was registered.
2014-03-13	An observation data was registered.
2012-11-25	An observation data was registered.

JAMSTEC
 Site Policy
 Privacy Policy
 Application for Data and Samples
 Data Policy

Lists
 Publication List
 Amount of Public Info.
 Data
 Map Search

Information of the Ships
 NATSUSHIMA
 KAIYO
 YOKOSUKA
 MIRAI
 KAIREI

Information of the Submersibles
 KAIKO
 SHINKAI 2000
 SHINKAI 6500
 DEEP TOW

Go to a Cruise Information

Cruise ID:

Go to a Dive Information

What's New
Update History
Feeds

Data Tree
Detailed Search

CHIKYU
KAIMEI
SHINSEI MARU
HAKUHO MARU

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

Dive ID:

Copyright 2011 Japan Agency for Marine-Earth Science and Technology



JAMSTEC 国立研究開発法人
海洋研究開発機構
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

MIRAI MR06-04 Leg1 Radiosonde

Last Modified: 2014-07-11

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

Cruise ID: **MR06-04 Leg1**

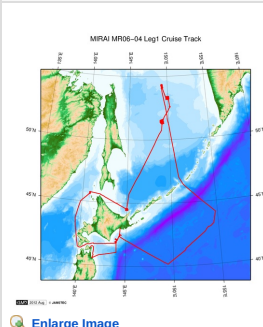
Radiosonde: Processed (DMO)-Corrected

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



[Enlarge Image](#)

MR06-04 Leg1

Ship Name: MIRAI
Period: 2006-07-31 - 2006-08-19
Chief Scientist: Naomi Harada (JAMSTEC)
Project Name: [Paleoceanography Research]

Update History

2014-07-11	An observation data was registerd.
2014-06-13	An observation data was registerd.
2014-03-13	An observation data was registerd.
2012-11-25	An observation data was registerd.

JAMSTEC

[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](#)
[KAIMEI](#)
[SHINSEI MARU](#)
[HAKUHO MARU](#)

Information of the Submersibles

[KAIKO](#)
[SHINKAI 2000](#)
[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](#)

Go to a Cruise Information

Cruise ID:

Go to a Dive Information

Dive ID:

MIRAI MR06-04 Leg1 Radiosonde

Last Modified: 2014-07-11

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

Cruise ID: [MR06-04 Leg1](#)

Radiosonde: Processed (DMO)-Corrected

Data Policy: [JAMSTEC](#)

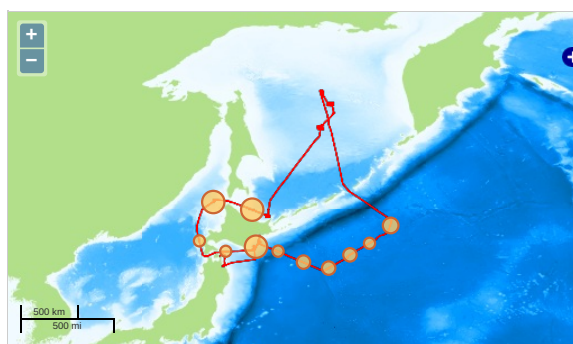
Observation Items: Atmospheric pressure, Air temperature, Dew point temperature, Relative humidity, Wind speed (zonal, meridional), Height

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

Observation Map

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



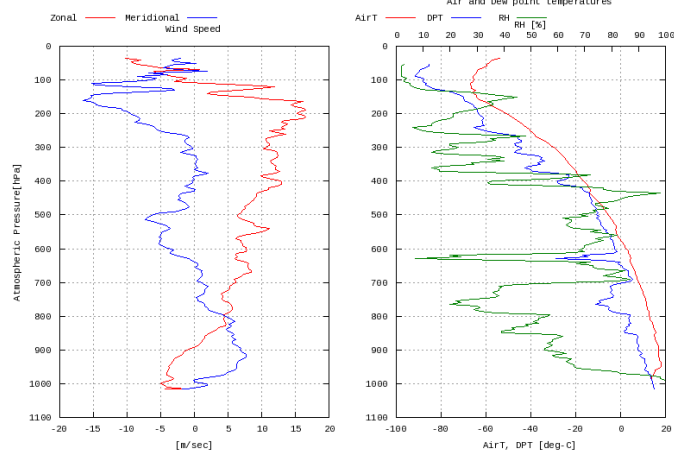
— ... Observation Line — ... Navigation ● ... Observation, Dive Point, Hole

Imagery reproduced from ...

Figures

06080200

MR06-04 Leg1: 06080200
Radiosonde



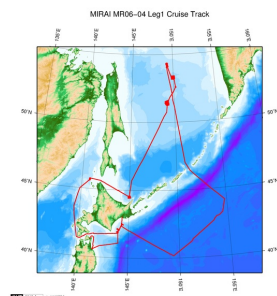
Data List

☐ File names

- ☐ 06080200.dat
- ☐ 06080203.dat
- ☐ 06080206.dat
- ☐ 06080212.dat
- ☐ 06080218.dat
- ☐ 06080300.dat
- ☐ 06080306.dat
- ☐ 06080312.dat
- ☐ 06080318.dat
- ☐ 06080400.dat
- ☐ 06080406.dat
- ☐ 06080412.dat
- ☐ 06080418.dat
- ☐ 06080500.dat

<input type="checkbox"/>	File name
<input type="checkbox"/>	06080512.dat
<input type="checkbox"/>	06080518.dat
<input type="checkbox"/>	06080600.dat
<input type="checkbox"/>	06080606.dat
<input type="checkbox"/>	06080612.dat
<input type="checkbox"/>	06080618.dat
<input type="checkbox"/>	06080700.dat
<input type="checkbox"/>	06080706.dat
<input type="checkbox"/>	06080712.dat
<input type="checkbox"/>	06080718.dat
<input type="checkbox"/>	06080800.dat
<input type="checkbox"/>	06080806.dat
<input type="checkbox"/>	06080812.dat
<input type="checkbox"/>	06080818.dat
<input type="checkbox"/>	06080900.dat
<input type="checkbox"/>	06081718.dat
<input type="checkbox"/>	06081719.dat
<input type="checkbox"/>	06081721.dat
<input type="checkbox"/>	06081800.dat
<input type="checkbox"/>	06081803.dat
<input type="checkbox"/>	06081806.dat
<input type="checkbox"/>	06081809.dat
<input type="checkbox"/>	06081812.dat
<input type="checkbox"/>	06081815.dat
<input type="checkbox"/>	06081818.dat
<input type="checkbox"/>	06081821.dat
<input type="checkbox"/>	06081900.dat
<input type="checkbox"/>	06081903.dat
<input type="checkbox"/>	06081906.dat
<input type="checkbox"/>	06081909.dat
<input type="checkbox"/>	06081912.dat
<input type="checkbox"/>	06081915.dat

Related Information



[Enlarge Image](#)

MR06-04 Leg1

Ship Name: MIRAI
Period: 2006-07-31 - 2006-08-19
Chief Scientist: Naomi Harada (JAMSTEC)
Project Name: [Paleoceanography Research]

Update History

2014-07-11	An observation data was registered.
2014-06-13	An observation data was registered.
2014-03-13	An observation data was registered.
2012-11-25	An observation data was registered.

JAMSTEC

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
KAIMEI
SHINSEI MARU
HAKUHO MARU

Information of the Submersibles

KAICO
SHINKAI 2000
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

Go to a Cruise Information

Cruise ID:

Go to a Dive Information

Dive ID: