

## MIRAI MR04-03 Leg2 Radiosonde

Last Modified: 2016-04-07

ReadMe Observation Data Data Format

Cruise ID: [MR04-03 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

### Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR04-03\\_leg1-2\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR04-03_leg1-2_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.

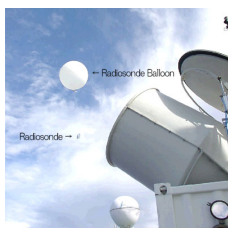
#### Data Citation

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

### Instrument

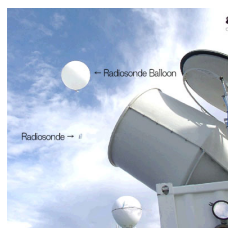
Instrument:

Radiosonde (MR11-03 - MR15-E01  
Leg3)



Instrument:

Radiosonde (MR04-03 Leg1 - MR11-02)



Instrument:

Radiosonde ( - MR04-02)



### 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[%]	
04070800.dat	2004/07/07	23:30	8.08S	101.03E	Z1637121	84	0.54	-0.15	-0.09	-0.07	
04070803.dat	2004/07/08	02:30	7.72S	100.31E	Z1637156	84	0.64	-0.22	-0.03	-0.03	
04070806.dat	2004/07/08	05:30	7.36S	99.61E	Z1637154	84	0.76	-0.26	-0.06	-0.04	
04070809.dat	2004/07/08	08:30	6.99S	98.89E	Z1627269	85	0.64	-0.11	0.05	0.04	
04070812.dat	2004/07/08	11:30	6.64S	98.18E	Z1637142	84	0.31	-0.11	0.02	-0.04	
04070815.dat	2004/07/08	14:30	6.28S	97.50E	Z1637066	85	0.28	-0.21	-0.07	-0.08	Rain
04070818.dat	2004/07/08	17:30	5.97S	96.82E	Z1637157	85	0.48	-0.14	-0.15	-0.14	
04070821.dat	2004/07/08	20:30	5.60S	96.12E	Z1637102	85	0.88	-0.16	-0.02	-0.06	
04070900.dat	2004/07/08	23:30	5.25S	95.42E	Z1757036	76	0.96	-0.13	-0.09	-0.13	
04070903.dat	2004/07/09	02:30	5.11S	95.00E	Z1757014	76	1.06	-0.18	-0.30	-0.18	

04070906.dat	2004/07/09	08:30	5.03S	94.97E	Z1757281	76	0.71	-0.16	-0.18	-0.15	
04070909.dat	2004/07/09	08:30	4.95S	94.85E	Z1757282	77	0.50	-0.19	-0.19	-0.35	
04070912.dat	2004/07/09	11:30	4.51S	94.22E	Z1757281	76	0.44	-0.16	-0.20	-0.20	Note
04070915.dat	2004/07/09	14:30	4.08S	93.55E	Z1757282	77	0.69	-0.16	-0.10	-0.12	
04070918.dat	2004/07/09	17:30	3.63S	92.91E	Z1757286	77	0.75	-0.15	-0.08	-0.08	
04070921.dat	2004/07/09	20:30	3.17S	92.23E	Z1757283	77	0.49	-0.18	-0.15	-0.14	
04071000.dat	2004/07/09	23:30	2.72S	91.57E	Z1637143	86	0.81	0.01	-0.17	-0.15	Rain/Data acquisition:3,700m
04071001.dat	2004/07/10	00:30	2.59S	91.37E	Z1817039	74	0.70	-0.13	-0.25	-0.14	Retry
04071003.dat	2004/07/10	02:30	2.29S	90.93E	Z1757017	77	0.62	-0.09	-0.41	-0.24	Rain
04071006.dat	2004/07/10	05:30	1.81S	90.22E	Z1637080	86	0.40	-0.11	-0.42	-0.47	
04071009.dat	2004/07/10	08:30	1.67S	89.98E	Z1637146	86	0.80	-0.15	-0.03	-0.03	
04071012.dat	2004/07/10	11:30	1.65S	90.00E	Z1757037	78	0.68	-0.18	-0.02	0.01	
04071015.dat	2004/07/10	14:30	1.67S	89.95E	Z1757050	78	0.65	-0.17	-0.13	-0.04	
04071018.dat	2004/07/10	17:30	1.66S	89.96E	Z1757268	78	0.53	-0.20	0.17	0.16	
04071021.dat	2004/07/10	20:30	1.68S	89.95E	Z1757027	78	0.68	-0.27	0.03	-0.12	
04071100.dat	2004/07/10	23:30	1.67S	89.96E	Z1757269	78	0.40	-0.22	0.13	0.14	
04071103.dat	2004/07/11	02:30	1.65S	89.99E	Z1757285	78	0.54	-0.17	0.17	0.16	
04071106.dat	2004/07/11	05:30	1.60S	90.07E	Z1817060	75	0.52	-0.08	-0.17	-0.14	
04071109.dat	2004/07/11	08:30	1.59S	90.05E	Z1757280	78	0.56	-0.24	0.09	0.12	
04071112.dat	2004/07/11	11:30	1.60S	90.07E	Z1757021	78	0.88	-0.17	0.08	0.01	
04071115.dat	2004/07/11	14:30	1.60S	90.07E	Z1757279	79	0.58	-0.26	0.23	0.18	
04071118.dat	2004/07/11	17:30	1.60S	90.07E	Z1757272	79	0.52	-0.26	0.11	0.07	
04071121.dat	2004/07/11	20:30	1.60S	90.10E	Z1757276	79	0.55	-0.19	0.14	0.07	
04071200.dat	2004/07/11	23:30	1.60S	90.06E	Z1757278	79	0.53	-0.19	0.16	0.16	
04071203.dat	2004/07/12	02:30	1.61S	90.02E	Z1757267	79	0.39	-0.23	0.05	0.05	
04071206.dat	2004/07/12	05:30	1.60S	90.05E	Z1757277	79	0.64	-0.11	0.19	0.17	
04071209.dat	2004/07/12	08:30	1.17S	90.02E	Z1757270	79	0.62	-0.21	0.09	0.09	
04071212.dat	2004/07/12	11:30	0.37S	90.05E	Z1757264	80	0.54	-0.17	0.21	0.24	
04071215.dat	2004/07/12	14:30	0.01N	90.07E	Z1757274	80	0.58	-0.24	-0.04	-0.05	
04071218.dat	2004/07/12	17:30	0.01N	90.08E	Z1757271	80	0.09	-0.28	0.18	0.20	
04071221.dat	2004/07/12	20:30	0.00N	90.07E	Z1757275	80	0.43	-0.21	0.16	0.18	
04071300.dat	2004/07/12	23:30	0.00N	90.08E	Z1757194	80	0.46	-0.20	0.18	0.16	
04071303.dat	2004/07/13	02:30	0.01S	90.05E	Z1757273	80	0.69	-0.21	0.16	0.26	
04071306.dat	2004/07/13	05:30	0.01N	90.07E	Z1757181	80	0.68	-0.09	0.01	0.00	
04071309.dat	2004/07/13	08:30	0.07S	90.17E	Z1757177	80	0.62	-0.16	0.07	0.03	Rain/Data acquisition:1,700m
04071310.dat	2004/07/13	09:30	0.16S	90.35E	Z1757162	80	0.59	-0.16	0.10	0.08	Retry
04071312.dat	2004/07/13	11:30	0.52S	90.83E	Z1817032	78	0.46	0.23	-0.23	-0.25	
04071315.dat	2004/07/13	14:30	1.00S	91.56E	Z1757186	81	0.70	-0.17	-0.01	0.01	
04071318.dat	2004/07/13	17:30	1.36S	92.10E	Z1757196	81	0.74	-0.18	0.06	0.04	
04071321.dat	2004/07/13	20:30	1.78S	92.73E	Z1817043	78	0.43	-0.05	-0.29	-0.26	
04071400.dat	2004/07/13	23:30	2.23S	93.38E	Z1757222	81	0.66	-0.14	-0.03	-0.04	
04071403.dat	2004/07/14	02:30	2.71S	94.08E	Z1817010	78	0.61	-0.15	-0.12	-0.15	
04071406.dat	2004/07/14	05:30	3.05S	94.59E	Z1757233	81	0.58	-0.15	0.00	-0.01	
04071409.dat	2004/07/14	08:30	3.46S	95.21E	Z1627133	91	0.65	-0.19	-0.04	-0.06	Rain
04071412.dat	2004/07/14	11:30	3.87S	95.83E	Z1627053	92	0.76	-0.17	-0.03	-0.05	
04071415.dat	2004/07/14	14:30	4.29S	96.45E	Z1627050	92	0.49	-0.21	0.03	0.02	
04071418.dat	2004/07/14	17:30	4.68S	97.04E	Z1817190	79	0.79	-0.13	-0.42	-0.42	
04071421.dat	2004/07/14	20:30	5.10S	97.66E	Z1817191	79	0.44	-0.09	-0.40	-0.41	
04071500.dat	2004/07/14	23:30	5.53S	98.29E	Z1627102	92	0.55	-0.09	-0.03	-0.04	
04071503.dat	2004/07/15	02:30	5.95S	98.92E	Z1627113	92	0.71	-0.09	-0.04	-0.05	Rain
04071506.dat	2004/07/15	05:30	6.34S	99.50E	Z1627130	92	0.57	-0.14	0.02	0.02	Rain
04071509.dat	2004/07/15	08:30	6.72S	100.07E	Z1627034	92	0.67	-0.14	0.10	0.10	
04071512.dat	2004/07/15	11:30	7.13S	100.68E	Z1757312	82	0.81	-0.29	0.20	0.20	
04071515.dat	2004/07/15	14:30	7.53S	101.29E	Z1627095	93	0.73	-0.19	-0.41	0.47	
04071518.dat	2004/07/15	17:30	7.89S	101.87E	Z1817187	80	0.59	-0.11	-0.21	-0.19	
04071521.dat	2004/07/15	20:30	8.31S	102.45E	Z1817189	80	0.52	-0.12	-0.19	-0.03	
04072303.dat	2004/07/23	02:30	7.94N	130.08E	Z1757158	90	0.79	-0.09	0.21	0.15	
04072305.dat	2004/07/23	04:30	7.98N	130.01E	234505703	699	3.27	-0.85	3.55	-	RS80-G
04072306.dat	2004/07/23	05:30	7.99N	130.01E	Z1757238	90	1.11	-0.18	0.28	0.29	
04072309.dat	2004/07/23	08:30	8.01N	130.00E	Z1627046	100	0.61	-0.16	0.08	0.10	
04072312.dat	2004/07/23	11:30	7.98N	130.00E	Z1627191	100	0.72	-0.17	0.02	0.02	
04072315.dat	2004/07/23	14:30	7.99N	129.97E	Z1757120	91	0.68	-0.13	0.36	0.32	
04072318.dat	2004/07/23	17:30	7.99N	130.02E	Z1757296	91	0.77	-0.13	0.28	0.30	
04072321.dat	2004/07/23	20:30	8.01N	129.98E	Z1817064	88	0.61	-0.14	0.21	0.22	
04072400.dat	2004/07/23	23:30	7.99N	129.95E	Z1757107	91	0.65	-0.14	0.26	0.27	
04072402.dat	2004/07/24	01:30	7.98N	130.03E	304370226	548	0.12	-0.83	-0.07	-	RS80-15GH
04072403.dat	2004/07/24	02:30	7.98N	130.04E	Z1757265	91	0.93	-0.18	0.34	0.35	
04072406.dat	2004/07/24	05:30	7.35N	130.03E	Z1627002	101	0.61	-0.13	0.24	0.21	
04072409.dat	2004/07/24	08:30	6.55N	130.07E	304370233	548	0.14	-0.62	-1.83	-	RS80-15GH
04072503.dat	2004/07/25	02:30	2.07N	130.21E	304370241	549	0.39	-0.15	-1.28	-	RS80-15GH
04072506.dat	2004/07/25	05:30	2.04N	130.17E	304370246	549	-0.11	-0.20	-1.12	-	RS80-15GH

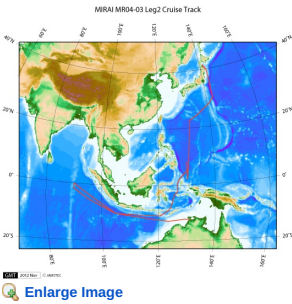
Reference	Launch time (UTC)	Launch station	Sensor information	Calibration result				Note
K. Yoneyama, M. Hanyu, S. Sueyoshi, F. Yoshiura, and M. Katsumata, 2002: Radiosonde observation from the ship in the tropical region. JAMSTECR, Vol.45, 31-39. K. Yoneyama, M. Fujita, N. Sato, M. Fujiwara, Y. Inai, and F. Hasebe, 2006: Correction for Radiation Dry Bias Found in RS02 Radiosonde Data during the MISMO Field Experiment. [PDF:400kbyte] SOLA, Vol.4, 13-16.	Date	Time Latitude Longitude	Serial No. Age	Atmospheric pressure[hPa]	Air temperature[deg-C]	Relative humidity(10%)	Relative humidity(20%)	

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



**MR04-03 Leg2**  
 Ship Name: MIRAI  
 Period: 2004-07-03 - 2004-08-03  
 Chief Scientist: Hideaki Hase (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.
2012-11-25	An observation data was registerd.

- JAMSTEC
- Site Policy
  - Privacy Policy
  - Application for Data and Samples
  - Data Policy
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  - Update History
  - Feeds

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  - 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 MR04-03 Leg2 Radiosonde

Last Modified: 2016-04-07

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Cruise ID: [MR04-03 Leg2](#)

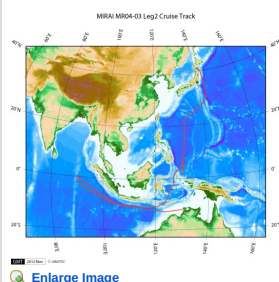
Radiosonde: Processed (DMO)-Corrected

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



#### MR04-03 Leg2

Ship Name: MIRAI

Period: 2004-07-03 - 2004-08-03

Chief Scientist: Hideaki Hase (JAMSTEC)

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

### Update History

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2014-07-11	An observation data was registered.
2014-06-13	An observation data was registered.
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#### JAMSTEC

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#### Lists

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#### 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 MR04-03 Leg2 Radiosonde

Last Modified: 2016-04-07

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Cruise ID: [MR04-03 Leg2](#)

Radiosonde: Processed (DMO)-Corrected

Data Policy: [JAMSTEC](#)

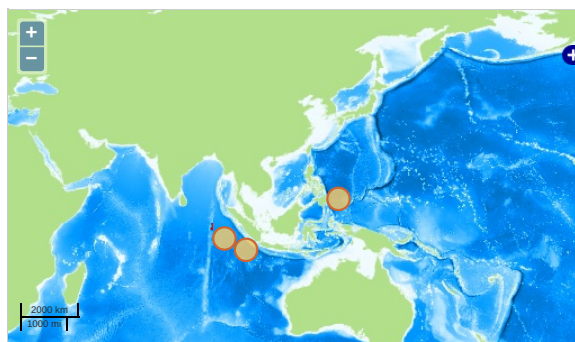
Observation Items: Atmospheric pressure, Air temperature, Dew point temperature, Relative humidity, Wind speed (zonal, meridional), Height

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

### Observation Map

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



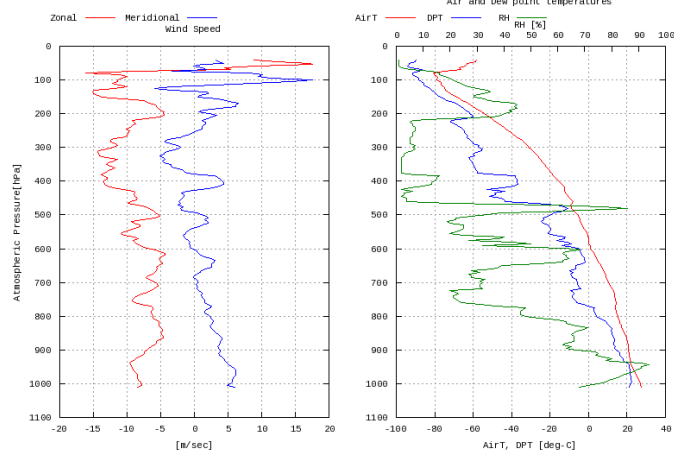
Imagery reproduced from ...

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

### Figures

04070800

MR04-03 Leg2: 04070800  
Radiosonde



### Data List

☐ File names

☐ 04070800.dat

☐ 04070803.dat

☐ 04070806.dat

☐ 04070809.dat

☐ 04070812.dat

☐ 04070815.dat

☐ 04070818.dat

☐ 04070821.dat

☐ 04070900.dat

☐ 04070903.dat

☐ 04070906.dat

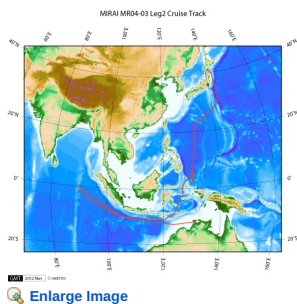
☐ 04070909.dat

☐ 04070912.dat

☐ 04070915.dat

	File names
	04070921.dat
	04071000.dat
	04071001.dat
	04071003.dat
	04071006.dat
	04071009.dat
	04071012.dat
	04071015.dat
	04071018.dat
	04071021.dat
	04071100.dat
	04071103.dat
	04071106.dat
	04071109.dat
	04071112.dat
	04071115.dat
	04071118.dat
	04071121.dat
	04071200.dat
	04071203.dat
	04071206.dat
	04071209.dat
	04071212.dat
	04071215.dat
	04071218.dat
	04071221.dat
	04071300.dat
	04071303.dat
	04071306.dat
	04071309.dat
	04071310.dat
	04071312.dat
	04071315.dat
	04071318.dat
	04071321.dat
	04071400.dat
	04071403.dat
	04071406.dat
	04071409.dat
	04071412.dat
	04071415.dat
	04071418.dat
	04071421.dat
	04071500.dat
	04071503.dat
	04071506.dat
	04071509.dat
	04071512.dat
	04071515.dat
	04071518.dat
	04071521.dat
	04072303.dat
	04072305.dat
	04072306.dat
	04072309.dat
	04072312.dat
	04072315.dat
	04072318.dat
	04072321.dat
	04072400.dat
	04072402.dat
	04072403.dat
	04072406.dat
	04072409.dat
	04072503.dat
	04072506.dat

Related Information



#### MR04-03 Leg2

Ship Name: MIRAI

Period: 2004-07-03 - 2004-08-03

Chief Scientist: Hideaki Hase (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.
2012-11-25	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:

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JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY