

MIRAI MR07-01 Radiosonde

Last Modified: 2014-07-11

ReadMe Observation Data Data Format

Cruise ID: **MR07-01**

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/MR07-01_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)



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[%]	
07021809.dat	2007/02/18	08:30	37.92N	146.57E	B4611425	103	1.38	0.04	-0.19	-0.22	Rain
07021913.dat	2007/02/19	12:30	32.48N	144.67E	B4611424	105	1.87	0.48	-0.19	-0.16	
07031420.dat	2007/03/14	19:30	29.99N	155.05E	B4421493	141	0.17	-0.23	-0.43	-0.43	
07031502.dat	2007/03/15	01:30	30.00N	155.06E	B4421495	141	0.20	-0.35	-0.24	-0.22	
07031507.dat	2007/03/15	06:30	30.95N	155.00E	B4410977	142	-1.02	-0.33	-0.41	-0.27	
07031511.dat	2007/03/15	10:30	30.98N	154.99E	B4421498	141	0.18	-0.28	-0.39	-0.32	
07031516.dat	2007/03/15	15:30	31.91N	154.99E	B4421497	142	0.10	-0.24	-0.37	-0.36	
07031520.dat	2007/03/15	19:30	32.97N	155.00E	B4421499	142	0.25	-0.25	-0.38	-0.59	Rain
07031602.dat	2007/03/16	01:30	33.00N	155.00E	B4611422	129	1.20	-0.30	-0.19	-0.18	
07031607.dat	2007/03/16	06:30	33.93N	155.00E	B4611421	129	1.38	-0.33	-0.17	-0.19	Rain
07031611.dat	2007/03/16	10:30	33.96N	155.03E	B4611423	129	1.64	-0.31	-0.16	-0.18	Rain
07031616.dat	2007/03/16	15:30	34.94N	154.99E	B4611431	130	1.54	-0.19	-0.13	-0.16	
07031620.dat	2007/03/16	19:30	35.99N	154.99E	B4611429	130	1.25	0.41	-0.28	-0.28	

File Name	Observation Date (UTC)	Time	Latitude	Longitude	Serial No.	Age	Pressure	Temperature	Calibration result	Relative humidity	Note
							[hPa]	[deg-C]		1[%]	2[%]
07031701.dat	2007/03/17	04:30	35.98N	154.98E	B4602282	130	1.25	0.41	-0.28	-0.28	
07031705.dat	2007/03/17	04:30	35.06N	154.99E	B4602282	171	0.39	-0.13	-0.09	-0.03	
07031714.dat	2007/03/17	13:30	35.89N	155.00E	B4040270	170	0.11	-0.20	-0.14	-0.14	
07031720.dat	2007/03/17	19:30	36.96N	154.99E	B4040262	170	-0.13	-0.18	-0.09	-0.09	
07031803.dat	2007/03/18	02:30	36.94N	154.95E	B4040282	170	-0.01	0.00	-0.24	-0.22	
07031807.dat	2007/03/18	06:30	37.92N	154.98E	B4040981	170	0.10	-0.45	-0.20	-0.20	
07031909.dat	2007/03/19	08:30	39.75N	154.93E	B4040989	171	0.21	-0.43	-0.12	-0.10	
07031920.dat	2007/03/19	19:30	40.97N	155.00E	B4040311	172	-0.39	-0.22	-0.29	-0.26	
07032006.dat	2007/03/20	05:30	41.97N	154.99E	B4040312	172	0.07	-0.18	-0.22	-0.18	
07032010.dat	2007/03/20	09:30	41.98N	154.99E	B4022296	174	0.01	-0.19	-0.16	-0.12	
07032021.dat	2007/03/20	20:30	43.96N	154.99E	B4040263	173	-0.22	-0.21	-0.19	-0.22	
07032108.dat	2007/03/21	07:30	44.01N	155.02E	B4040281	173	0.63	-0.10	-0.18	-0.25	
07032112.dat	2007/03/21	11:30	43.05N	155.00E	B4040315	174	-0.03	-0.16	-0.28	-0.25	
07032116.dat	2007/03/21	15:30	43.00N	154.97E	B4040277	174	0.15	-0.43	-0.24	-0.28	
07032201.dat	2007/03/22	00:30	41.15N	154.99E	B3610769	205	-0.21	-0.29	-0.31	-0.35	
07032205.dat	2007/03/22	04:30	40.98N	154.99E	B4040267	174	0.09	-0.12	-0.15	-0.22	
07032213.dat	2007/03/22	12:30	39.09N	155.00E	B4040307	175	0.10	-0.17	-0.17	-0.22	Snow
07032217.dat	2007/03/22	16:30	38.99N	154.99E	B4611427	136	0.97	-0.14	-0.20	-0.20	Snow
07032220.dat	2007/03/22	19:30	38.10N	155.00E	B4040284	175	0.14	-0.09	-0.19	-0.18	

Reference

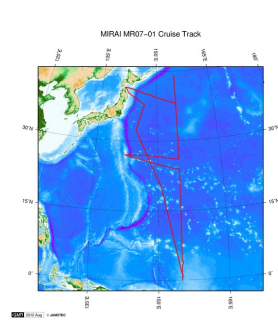
- K. Yoneyama, M.Hanyu, S.Sueyoshi, F.Yoshiura, and M.Katsumata, 2002:Radiosonde observation from the ship in the tropical region.[PDF:400kbyte]
JAMSTECR, Vol.45, 31-39.
- K. Yoneyama, M.fujita, N.Sato, M.Fujiwara, Y.Inai, and F.Hasebe, 2008:Correction for Radiation Dry Bias Found in RS92 Radiosonde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



MR07-01
Ship Name: MIRAI
Period: 2007-02-16 - 2007-03-26
Chief Scientist: Kazuhiko Matsumoto (JAMSTEC)
Project Name: [Station KNOT]

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Update History

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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Application for Data and Samples

Data Policy

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Update History

Feeds

Lists

Publication List

Amount of Public Info.

Data

Map Search

Data Tree

Detailed Search

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URASHIMA

YOKOSUKA DEEP TOW

6K Camera DEEP TOW

6K Sonar DEEP TOW

KM-ROV

POWER GRAB SAMPLER (SHELL)

POWER GRAB SAMPLER (CLOW)

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Dive ID:

国立研究開発法人

海洋研究開発機構

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MIRAI MR07-01 Radiosonde

Last Modified: 2014-07-11

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Cruise ID: [MR07-01](#)

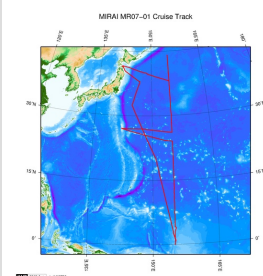
Radiosonde: Processed (DMO)-Corrected

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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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MR07-01

Ship Name: MIRAI
Period: 2007-02-16 - 2007-03-26
Chief Scientist: Kazuhiko Matsumoto (JAMSTEC)
Project Name: [Station KNOT]

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2014-07-11	An observation data was registerd.
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2012-10-26	An observation data was registerd.

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[Data Policy](#)
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[Update History](#)
[Feeds](#)

Lists
[Publication List](#)
[Amount of Public Info.](#)

Data
[Map Search](#)
[Data Tree](#)
[Detailed Search](#)

Information of the Ships
[NATSUSHIMA](#)
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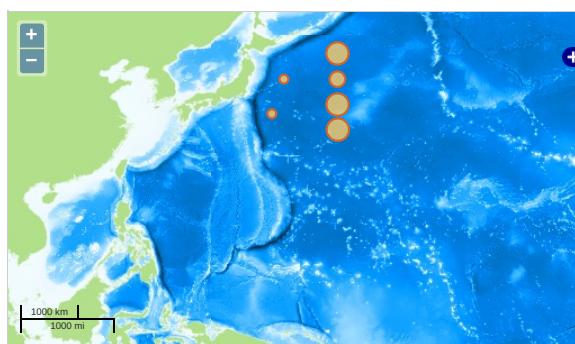
Observation Items: Atmospheric pressure, Air temperature, Dew point temperature, Relative humidity, Wind speed (zonal, meridional), Height

Science Keywords:

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

Observation Map

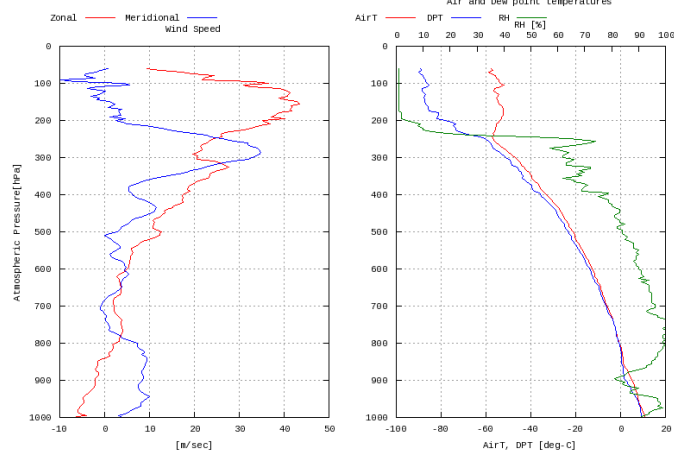
- Clicking the icon displays a balloon with observation information.
- Then click the observation name, figures will be displayed.



Figures

07021809

MR07-01: 07021809
Radiosonde



Data List

Add to Basket

☐ File names

☐ 07021809.dat

☐ 07021913.dat

☐ 07031420.dat

☐ 07031502.dat

☐ 07031507.dat

☐ 07031511.dat

☐ 07031516.dat

☐ 07031520.dat

☐ 07031602.dat

☐ 07031607.dat

☐ 07031611.dat

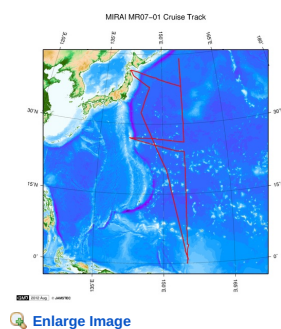
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☐ 07031620.dat

☐ 07031701.dat

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<input type="checkbox"/>	07032010.dat
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<input type="checkbox"/>	07032116.dat
<input type="checkbox"/>	07032201.dat
<input type="checkbox"/>	07032205.dat
<input type="checkbox"/>	07032213.dat
<input type="checkbox"/>	07032217.dat
<input type="checkbox"/>	07032220.dat

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[Privacy Policy](#)
[Application for Data and Samples](#)
[Data Policy](#)

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[Update History](#)
[Feeds](#)

Lists

[Publication List](#)
[Amount of Public Info.](#)

Data

[Map Search](#)
[Data Tree](#)
[Detailed Search](#)

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