

MIRAI MR05-03 Leg1 Radiosonde

Last Modified: 2016-04-07

ReadMe Observation Data Data Format

Cruise ID: [MR05-03 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/MR05-03_leg1-3_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.

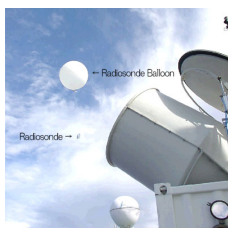
Data Citation

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

Instrument

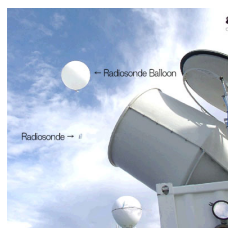
Instrument:

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[%]	
05070512.dat	2005/07/05	11:38	8.02N	137.17E	A1810163	70	0.63	-0.22	-0.20	-0.19	
05070518.dat	2005/07/05	17:35	7.84N	136.50E	A1810151	71	0.28	-0.27	-0.28	-0.27	
05070600.dat	2005/07/05	23:31	7.70N	136.64E	A1810161	71	0.43	-0.23	-0.32	-0.29	
05070606.dat	2005/07/06	05:30	7.87N	136.48E	A1810149	71	0.54	-0.28	-0.33	-0.33	Rain
05070612.dat	2005/07/06	11:31	7.70N	136.65E	A1810155	72	0.70	-0.24	-0.26	-0.26	
05070618.dat	2005/07/06	17:31	7.72N	136.61E	A1810157	72	0.42	-0.24	-0.28	-0.25	
05070700.dat	2005/07/06	23:25	7.66N	136.69E	A1810144	72	0.79	-0.36	-0.27	-0.24	
05070706.dat	2005/07/07	05:30	7.69N	136.61E	A1810154	72	0.59	-0.27	-0.22	-0.19	
05070712.dat	2005/07/07	11:32	6.81N	136.89E	A1810145	72	0.56	-0.53	-0.30	-0.32	
05070718.dat	2005/07/07	17:31	5.40N	137.20E	A1810143	73	0.26	-0.23	-0.29	-0.26	Rain

05070800.dat	2005/07/08	05:30	4.94N	137.33E	Z3837009	297	0.52	-0.23	-0.05	-0.04	Rain
05070806.dat	2005/07/08	05:30	4.91N	137.29E	Z3837009	297	0.55	-0.22	0.01	0.02	
Data file	2005/07/08	11:30	4.91N	137.34E	Z3757199	300	0.6	-0.22	-0.02	-0.02	Note
	Date	Time	Latitude	Longitude	Serial No.	Age	Atmospheric pressure[hPa]	Air temperature[deg. C]	Relative humidity1[%]	Relative humidity2[%]	
05070818.dat	2005/07/08	17:31	4.88N	137.30E	Z3817282	298	0.6	-0.28	-0.05	-0.05	
05070900.dat	2005/07/08	23:33	4.86N	137.28E	Z3837009	296	0.44	-0.15	-0.06	-0.07	
05070906.dat	2005/07/09	05:30	4.87N	137.31E	Z3347193	330	0.24	-0.25	-0.10	-0.08	
05070912.dat	2005/07/09	11:30	3.91N	137.54E	Z3347302	330	0.17	-0.31	-0.07	-0.05	
05070918.dat	2005/07/09	17:31	2.45N	137.97E	Z3844020	296	0.53	-0.26	-0.03	-0.04	Rain
05071000.dat	2005/07/09	23:16	1.92N	138.14E	Z3837093	297	0.30	-0.32	-0.05	-0.04	
05071006.dat	2005/07/10	05:30	2.06N	138.07E	Z3837091	297	0.29	-0.22	0.03	0.03	
05071012.dat	2005/07/10	11:30	2.00N	138.05E	Z3844076	296	0.31	-0.27	0.03	0.03	
05071018.dat	2005/07/10	17:45	2.03N	138.03E	Z3757232	303	0.57	-0.28	-0.05	-0.02	
05071100.dat	2005/07/10	23:21	2.06N	138.07E	Z3727123	306	0.59	0.17	0.01	-0.01	
05071106.dat	2005/07/11	05:36	2.01N	138.09E	Z3757319	303	0.30	-0.29	-0.07	-0.06	
05071112.dat	2005/07/11	11:30	1.09N	138.06E	Z3817303	300	0.49	-0.29	-0.01	-0.02	
05071118.dat	2005/07/11	17:32	0.10N	138.04E	Z3337124	334	0.11	-0.16	-0.14	-0.13	
05071200.dat	2005/07/11	23:17	0.03N	138.12E	Z3347265	333	0.16	-0.30	0.02	0.05	
05071206.dat	2005/07/12	05:30	0.04N	137.92E	Z3347152	333	0.31	-0.21	0.08	0.08	
05071212.dat	2005/07/12	11:30	0.00N	137.92E	Z3837146	300	0.36	-0.36	0.08	0.03	
05071218.dat	2005/07/12	17:30	0.05S	137.89E	Z3337120	335	0.08	-0.17	-0.06	-0.05	
05071300.dat	2005/07/12	23:20	0.04N	137.89E	Z3757278	305	0.41	-0.30	0.10	0.11	
05071306.dat	2005/07/13	05:30	0.01S	138.04E	Z3337180	335	0.06	-0.17	-0.12	-0.13	
05071312.dat	2005/07/13	11:31	0.69N	137.33E	Z3347273	334	0.29	-0.38	0.09	0.06	
05071318.dat	2005/07/13	17:37	1.74N	136.32E	402714704	549	0.83	-0.47	-0.17	0.00	RS80-15GH
05071400.dat	2005/07/13	23:38	2.73N	135.31E	402714406	549	0.68	-0.51	-2.61	0.00	RS80-15GH
05071406.dat	2005/07/14	05:37	3.76N	134.30E	402714401	549	0.42	-0.47	-1.77	0.00	Rain/RS80-15GH
05071412.dat	2005/07/14	11:37	4.64N	133.38E	402714407	550	0.40	-0.41	-1.82	0.00	RS80-15GH
05071418.dat	2005/07/14	17:37	5.54N	132.53E	402714402	550	0.44	-0.46	-2.38	0.00	RS80-15GH
05071500.dat	2005/07/14	23:37	6.38N	131.65E	402714609	550	0.20	-0.57	-4.63	0.00	RS80-15GH
05071506.dat	2005/07/15	05:38	7.33N	130.59E	402714403	550	0.21	-0.53	-1.05	0.00	RS80-15GH
05071512.dat	2005/07/15	11:37	7.99N	130.00E	402714405	550	0.97	-0.38	-0.93	0.00	RS80-15GH

Reference

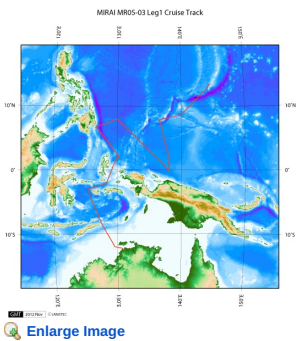
- K. Yoneyama, M.Hanyu, S.Sueyoshi, F.Yoshiura, and M.Katsumata, 2002:Radiosonde observation from the ship in the tropical region.[\[PDF:400kbyte\]](#)
JAMSTECR, Vol.45, 31-39.
- K. Yoneyama, M.fujita, N.Sato, M.Fujiwara, Y.Inai, and F.Hasebe, 2008:Correction for Radiation Dry Bias Found in RS92 Radiosonde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



MRO5-03 Leg1
Ship Name: MIRAI
Period: 2005-07-03 - 2005-07-25
Chief Scientist: Kentaro Ando (JAMSTEC)
Project Name: [Tropical Ocean Climate Study (TOCS)]

Update History

2016-04-07	An observation data was registered.
2014-07-11	An observation data was registered.
2014-06-13	An observation data was registered.
2012-11-25	An observation data was registered.

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6K Sonar DEEP TOW

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Dive ID:

KM-ROV
POWER GRAB SAMPLER
(SHELL)
POWER GRAB SAMPLER
(CLOW)
BMS

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MIRAI MR05-03 Leg1 Radiosonde

Last Modified: 2016-04-07

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Cruise ID: [MR05-03 Leg1](#)

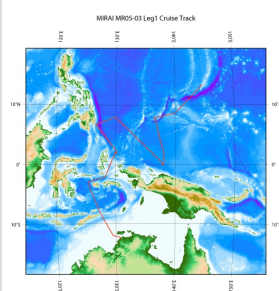
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Radiosonde Corrected

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](#)

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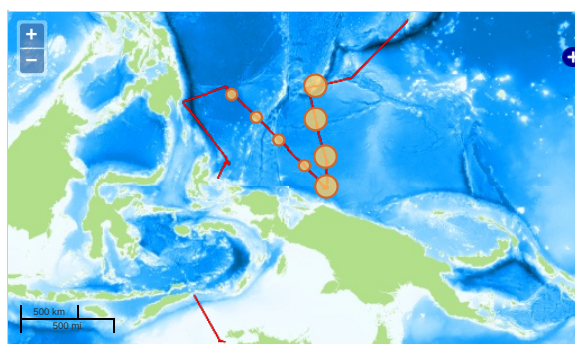
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Observation Map

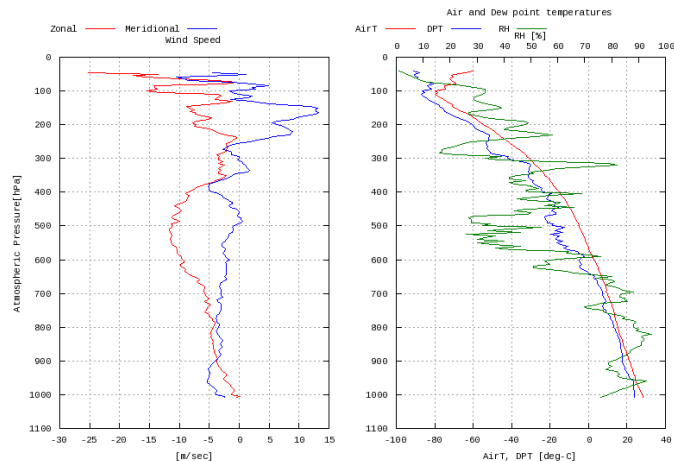
- Clicking the icon displays a balloon with observation information.
- Then click the observation name, figures will be displayed.



Figures

05070512

MR05-03 Leg1: 05070512
Radiosonde



Data List

☐ File names

☐ 05070512.dat

☐ 05070518.dat

☐ 05070600.dat

☐ 05070606.dat

☐ 05070612.dat

☐ 05070618.dat

☐ 05070700.dat

☐ 05070706.dat

☐ 05070712.dat

☐ 05070718.dat

☐ 05070800.dat

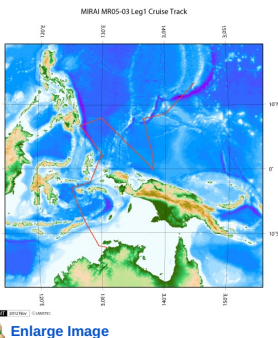
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☐ 05070812.dat

☐ 05070818.dat

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<input type="checkbox"/>	05071500.dat
<input type="checkbox"/>	05071506.dat
<input type="checkbox"/>	05071512.dat

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