

## MIRAI MR15-05 Leg2 Underway Thermosalinograph

Last Modified: 2018-05-31

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

Cruise ID: [MR15-05 Leg2](#)

Underway Thermosalinograph: Processed (PI)

Data Policy: [JAMSTEC](#)

Observation Items: Temperature, Salinity, Dissolved oxygen, Fluorescence, Chlorophyll, Turbidity

Science Keywords:

OCEANS > OCEAN CHEMISTRY > OXYGEN  
OCEANS > OCEAN CHEMISTRY > SALINITY  
OCEANS > OCEAN CHEMISTRY > CHLOROPHYLL  
OCEANS > SALINITY/DENSITY > SALINITY  
OCEANS > OCEAN > SEA SURFACE  
OCEANS TEMPERATURE TEMPERATURE  
OCEANS > OCEAN OPTICS > FLUORESCENCE

Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR15-05\\_leg2\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR15-05_leg2_all.pdf)

### For Using Data

Principal Investigator

Hiroshi Uchida (JAMSTEC)

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:

Continuous sea surface water monitoring system (MR14-03 -)



### Data Citation

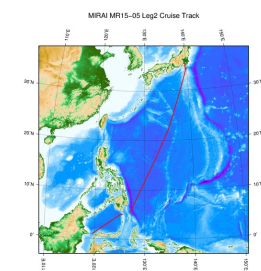
Refer [WHP I10 Revisit in 2015 Data Book](#) (doi: 10.17596/0000002) .

### Overview

Sea surface water at 4.5 meters depth is continuously pumped up to the sea surface monitoring laboratory through a steel pipe and a vinyl-chloride pipe, controlling its flow rate, and then measured its temperature, salinity, and dissolved oxygen.

Please refer to the Data book "[WHP I10 Revisit in 2015 Data Book](#)" (doi: 10.17596/0000002) for details of data.

### Related Information



[Enlarge Image](#)

#### MR15-05 Leg2

Ship Name: MIRAI

Period: 2016-01-13 - 2016-01-24

Chief Scientist: Akihiko Murata (JAMSTEC)

Proposal ▶ Research cruise on ocean decadal variability -- Indian Ocean GO-SHIP (Global Ocean Ship-based Hydrographic Investigation Program)

### Update History

2018-05-31	An observation data was registered.
2018-02-23	An observation data was registered.
2018-02-24	An observation data was registered.
2017-06-29	An observation data was registered.
2017-05-24	An observation data was registered.
2016-07-24	An observation data was registered.

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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

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Go to a Dive Information

Dive ID:



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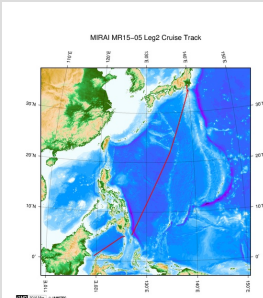
### DATA Format

Column No.	Column Heading Mnemonic	Units Mnemonic	Reporting Precision FORTRAN Format	Comments
1	EXPCODE		A12	Expedition code
2	DATE		I8	Date (YYYYMMDD)
3	TIME	UTC	I4	Time (HHMM)
4	LATITUDE	DEG	F10.5	Latitude
5	LONGITUDE	DEG	F10.5	Longitude
6	SPEED	KNOT	F6.1	Ship speed
7	FLOW	L/MIN	F6.1	Flow rate
8	INTAKE-TEMPERATURE	ITS-90	F9.4	Temperature of bottom of the ship (SBE 38)
9	INTAKE-TEMPERATURE_FLAG		I1	see flag definition below
10	TSG-TEMPERATURE	ITS-90	F9.4	Thermosalinograph temperature (SBE 45)
11	TSG-TEMPERATURE_FLAG		I1	see flag definition below
12	TSG-SALINITY	PSS-78	F9.4	Thermosalinograph salinity (SBE 45)
13	TSG-SALINITY_FLAG		I1	see flag definition below
14	SALINITY	PSS-78	F9.4	Sampled salinity
15	SALINITY_FLAG		I1	see flag definition below
16	TSG-OXYGEN	UMOL/KG	F9.2	Oxygen sensor
17	TSG-OXYGEN_FLAG		I1	see flag definition below
18	OXYGEN	UMOL/KG	F9.2	Sampled oxygen
19	OXYGEN_FLAG		I1	see flag definition below
20	FLUORESCENCE	RFU	F9.2	Fluorometer C3
21	FLUORESCENCE_FLAG		I1	see flag definition below
22	TSG-CHLOROPHYLL-A	MG/CUM	F9.3	Chlorophyll-a estimated from the fluorometer
23	TSG-CHLOROPHYLL-A_FLAG		I1	see flag definition below
24	CHLOROPHYLL-A	MG/CUM	F9.2	Sampled chlorophyll-a
25	CHLOROPHYLL-A_FLAG		I1	see flag definition below
26	TURBIDITY	NTU	F9.2	Turbidity
27	TURBIDITY_FLAG		I1	see flag definition below

### Flag definition

- 1: not calibrated (post-cruise calibration)
- 2: acceptable measurement
- 3: questionable measurement
- 4: bad measurement
- 5: not reported
- 6: interpolated
- 7: despiked
- 8: low-pass filtered
- 9: not sampled (missing value is -999)

### Related Information



[Enlarge Image](#)

#### MR15-05 Leg2

Ship Name: MIRAI

Period: 2016-01-13 - 2016-01-24

Chief Scientist: Akihiko Murata (JAMSTEC)

Proposal ▶ Research cruise on ocean decadal variability -- Indian Ocean GO-SHIP (Global Ocean Ship-based Hydrographic Investigation Program)

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Cruise ID:

Dive ID:

Feeds

KAIMEI  
SHINSEI MARU  
HAKUHO MARU

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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**JAMSTEC**

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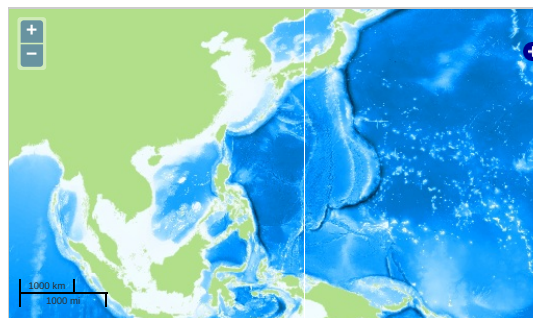
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### Observation Map



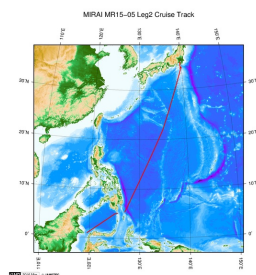
Imagery reproduced from ...

### Data List

File names

☐ 49NZ20160113\_tsg.csv

### Related Information



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