

MIRAI MR00-K03 Underway Thermosalinograph

Last Modified: 2017-06-29

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

Cruise ID: [MR00-K03](#)

Underway Thermosalinograph: Processed (DMO)-QCed

Data Policy: [JAMSTEC](#)

Observation Items: Temperature, Salinity, Dissolved oxygen

Science Keywords:

OCEANS > OCEAN CHEMISTRY > OXYGEN
OCEANS > SALINITY/DENSITY > SALINITY
OCEANS > OCEAN > SEA SURFACE
OCEANS TEMPERATURE TEMPERATURE

Cruise Report

http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR00-K03_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:

Continuous sea surface water
monitoring system (- MR10-03 Leg2)



Overview

Thermosalinograph measures the following surface parameters continuously.

- temperature
- salinity
- dissolved oxygen

Sea surface water is continuously pumped up at 4.5 meters depth to the sea surface monitoring laboratory and then flowed into each analysis equipment through a steel pipe and a vinyl-chloride pipe.

The flow rate of this system is controlled by some valves. Data are recorded in the personal computer.

System

- Temperature sensor
Model : SBE 3S, Sea-Bird Electronics, Inc.
Serial number : 2607
Measurement range : -5 to 35 deg-C (ITS-90)
Sensor location : Bow thruster room
- Salinity sensor
SEACAT THERMOSALINOGRAPH
Model : Model : SBE-21, Sea-Bird Electronics, Inc.
Serial number : 2088
Measurement range : [temperature] -5 to +35 deg-C (ITS-90), [conductivity] 0 to 6.5 S/m
Sensor location : Sea surface monitoring laboratory
- DO sensor
Model : 2127A, Orbisphere Laboratories Japan Inc.
Serial number : 31757
Measurement range : 0 to 14 ppm
Sensor location : Sea surface monitoring laboratory

Data acquisition

| Date/Time (UTC) | Start/Stop | Remarks |
|-------------------|------------|-----------------------|
| 2000/05/09, 05:12 | start | 41-32.96N, 141-24.72E |
| 2000/05/16, 03:53 | stop | 46-08.13N, 150-51.83E |
| 2000/05/16, 07:22 | start | 46-55.89N, 150-36.95E |
| 2000/05/28, 23:41 | stop | 47-19.07N, 152-55.38E |
| 2000/05/29, 01:33 | start | 47-34.63N, 152-24.14E |
| 2000/05/30, 22:43 | stop | 49-21.97N, 153-00.79E |
| 2000/05/30, 23:02 | start | 49-21.97N, 153-00.83E |
| 2000/05/31, 13:29 | stop | 48-26.97N, 153-28.96E |
| 2000/05/31, 14:11 | start | 48-17.30N, 153-33.98E |
| 2000/06/01, 18:32 | stop | 49-05.04N, 157-55.06E |
| 2000/06/01, 18:40 | start | 49-05.03N, 157-55.09E |
| 2000/06/09, 00:02 | stop | 41-38.70N, 143-50.78E |

Calibration Information

Calibration Information is as follows.

Calibration Information

Data processing

(1) Quality control

QCed data were added flag according to the NODC (National Oceanographic Data Center) quality control procedure.

1) The gradient check of adjacent depth data

Please see the site of NODC of the following link for quality control procedure in detail.

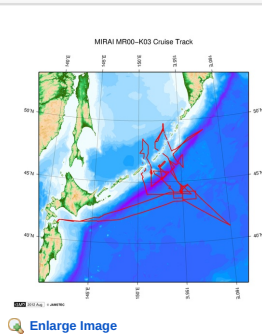
QUALITY CONTROL AND PROCESSING OF HISTORICAL OCEANOGRAPHIC TEMPERATURE, SALINITY, AND OXYGEN DATA

In addition, an abnormal value is identified by a visual check, and the data after visual QC is released.

Note

(1) In this cruise, there is extra data (fluorescence intensity) in addition to temperature, salinity, dissolved oxygen that has been opened to the public. Please contact us from "Contact Us" above if necessary.

Related Information



MR00-K03

Ship Name: MIRAI

Period: 2000-05-09 - 2000-06-09

Chief Scientist: Masashi Kusakabe (JAMSTEC)

Project Name: [Station KNOT]

Update History

| | |
|------------|-------------------------------------|
| 2017-06-29 | An observation data was registered. |
| 2014-07-12 | An observation data was registered. |
| 2014-03-08 | An observation data was registered. |
| 2012-12-25 | 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

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:

Copyright 2011 Japan Agency for Marine-Earth Science and Technology



JAMSTEC
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

国立研究開発法人
海洋研究開発機構

MIRAI MR00-K03 Underway Thermosalinograph

Last Modified: 2017-06-29

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

Cruise ID: [MR00-K03](#)

Underway Thermosalinograph: Processed (DMO)-QCed

Data Policy: [JAMSTEC](#)

TSG DMO (MR98-K01 - MR10-03)

Format Description for the Corrected Data

Please see the site of each cruise.

Format Description for the QCed Data (MR98-K01 - MR10-03)

Each data file contains one line header (meta data) followed by data lines for one day.

The number of data lines are recorded in the header.

Header part

| No. | Column | Content | Format | Remarks |
|-----|---------|----------------------|--------|-------------------|
| 1 | 1 | Header ID | a1 | fixed as '#' |
| 2 | 3 - 6 | Data ID | a4 | TSG |
| 3 | 8 - 22 | Cruise ID | a15 | MYYY-(K)XX(_legx) |
| 4 | 68 - 71 | Number of data lines | i4 | |
| 5 | 72 - 73 | Terminator | - | CR+LF |

Data part

| No. | Column | Content | Unit | Format | Remarks |
|-----|---------|------------------|-------|---------------|--|
| 1 | 1 - 8 | Date | - | i8 | YYYYMMDD (UTC) |
| 2 | 10 - 13 | Time | - | i4 | hhmm (UTC) |
| 3 | 15 - 23 | Latitude | - | i2,a1,f5.2,a1 | dd-mm.mmN(S) |
| 4 | 25 - 34 | Longitude | - | i3,a1,f5.2,a1 | ddd-mm.mmE(W) |
| 5 | 35 - 45 | Temperature | deg-C | f11.4 | ITS-90 |
| 6 | 46 - 56 | Salinity | PSU | f11.4 | PSS-78 |
| 7 | 57 - 67 | Dissolved oxygen | mg/l | f11.4 | |
| 8 | 68 - 78 | Flag | - | i11 | 1 - 6 : space 7 : flag of date/time 8 : flag of latitude/longitude 9 : flag of temperature 10 : flag of salinity 11 : flag of dissolved oxygen * reference : Definition of Quality Control Flags |
| 9 | 79 - 80 | Terminator | - | - | CR+LF |

Definition of Quality Control Flags

1. Depth Flags

- 0 - accepted value
- 1 - error in recorded depth (same or less than previous depth)
- 2 - density inversion

2. Observed Level Flags

- N - missing value
- 0 - accepted value
- 1 - range outlier (outside of broad range check)
- 2 - failed inversion check
- 3 - failed gradient check
- 4 - zero anomaly
- 5 - failed combined gradient and inversion checks
- 6 - failed range and inversion checks
- 7 - failed range and gradient checks
- 8 - failed range and zero anomaly checks
- 9 - failed range and combined gradient and inversion checks
- A - failed visual check

* The check only about range check for Thermosalinograph data.

3. Date and time flag (Thermosalinograph only)

- 0 - accepted data and time
- 1 - failed duplicate/missing/incorrect date and time

4. Position flag (Thermosalinograph only)

- 0 - accepted position
- 1 - failed estimated ship speed check including missing/incorrect position

QCed data were added flag according to the NODC (National Oceanographic Data Center) quality control procedure, additionally visually checked. Please see the site of NODC of the following link for quality control procedure.

[QUALITY CONTROL AND PROCESSING OF HISTORICAL OCEANOGRAPHIC TEMPERATURE, SALINITY, AND OXYGEN DATA](#)

Sample Program

[ex_read.f](#)

Related Information

MIRAI MR00-K03 Underway Thermosalinograph

Last Modified: 2017-06-29

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

Cruise ID: [MR00-K03](#)

Underway Thermosalinograph: Processed (DMO)-QCed

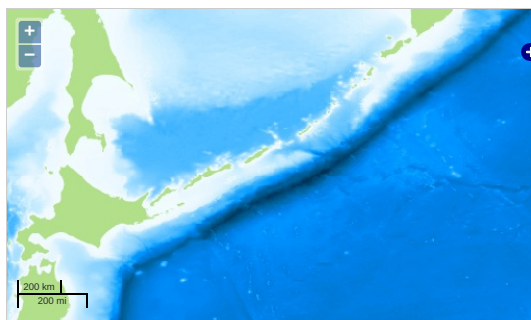
Data Policy: [JAMSTEC](#)

Observation Items: Temperature, Salinity, Dissolved oxygen

Science Keywords:

OCEANS > OCEAN CHEMISTRY > OXYGEN
OCEANS > SALINITY/DENSITY > SALINITY
OCEANS > OCEAN > SEA SURFACE
OCEANS TEMPERATURE TEMPERATURE

Observation Map

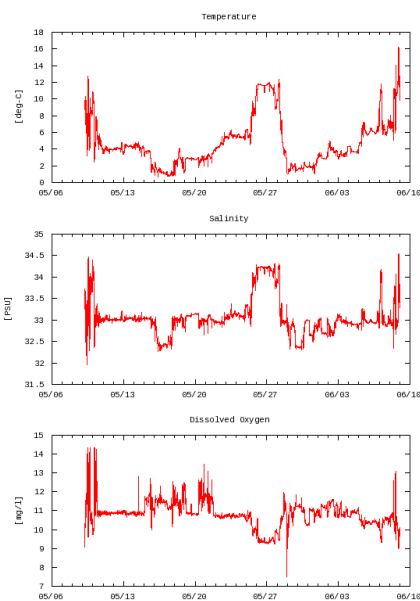


— ... Observation Line — ... Navigation ● ... Observation, Dive Point, Hole

Imagery reproduced from ...

Figures

MR00-K03: Underway Thermosalino Graph



Data List

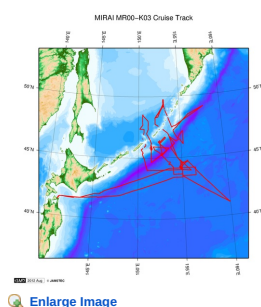
[Add to Basket](#)

☐ File names

- ☐ 20000509.dat
- ☐ 20000510.dat
- ☐ 20000511.dat
- ☐ 20000512.dat
- ☐ 20000513.dat
- ☐ 20000514.dat
- ☐ 20000515.dat
- ☐ 20000516.dat
- ☐ 20000517.dat
- ☐ 20000518.dat
- ☐ 20000519.dat
- ☐ 20000520.dat
- ☐ 20000521.dat
- ☐ 20000522.dat
- ☐ 20000523.dat
- ☐ 20000524.dat

| File names |
|---|
| <input type="checkbox"/> 20000525.dat |
| <input type="checkbox"/> 20000526.dat |
| <input type="checkbox"/> 20000527.dat |
| <input type="checkbox"/> 20000528.dat |
| <input type="checkbox"/> 20000529.dat |
| <input type="checkbox"/> 20000530.dat |
| <input type="checkbox"/> 20000531.dat |
| <input type="checkbox"/> 20000601.dat |
| <input type="checkbox"/> 20000602.dat |
| <input type="checkbox"/> 20000603.dat |
| <input type="checkbox"/> 20000604.dat |
| <input type="checkbox"/> 20000605.dat |
| <input type="checkbox"/> 20000606.dat |
| <input type="checkbox"/> 20000607.dat |
| <input type="checkbox"/> 20000608.dat |
| <input type="checkbox"/> 20000609.dat |
| <input type="checkbox"/> ex_read.f (Sample Program) |

Related Information



MR00-K03

Ship Name: MIRAI
 Period: 2000-05-09 - 2000-06-09
 Chief Scientist: Masashi Kusakabe (JAMSTEC)
 Project Name: [Station KNOT]

Update History

| | |
|------------|-------------------------------------|
| 2017-06-29 | An observation data was registered. |
| 2014-07-12 | An observation data was registered. |
| 2014-03-08 | An observation data was registered. |
| 2012-12-25 | 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

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: