MIRAI MR03-K04 Leg1 Underway Thermosalinograph

Last Modified: 2017-06-29

ReadMe | Observation Data | Data Format

Cruise ID: MR03-K04 Leg1
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 TEMPERATURE	> SEA SURFACE TEMPERATURE

Cruise Report
http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR03-K04_leg1_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 : 2175
Measurement range : -5 to 35 deg-C (ITS-90)
Sensor location : Bow thruster room
• Salinity sensor
SEACAT THERMOSALINOGRAPH
Model : SBE-21, Sea-Bird Electronics,Inc.
Serial number : 2641
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, Hach Ultra Analytics Japan Inc.
Serial number : 44733
Measurement range : 0 to 14 ppm
Sensor location : Sea surface monitoring laboratory

Data acquisition

Date/Time (UTC)	Start/Stop	Remarks
2003/08/03, 10:30	start	27-48.14S, 153-53.20E
2003/09/03, 01:59	stop	31-10.77S, 146-05.17W

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.

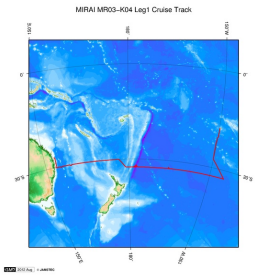
Note

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

About this data

Please see the Data book for details of data.（"WHP P6, A10, I3/I4 REVISIT DATA BOOK" Vol.1, Vol.2, Vol.3）

Related Information



Enlarge Image

MR03-K04 Leg1
Ship Name: MIRAI
Period: 2003-08-03 - 2003-09-05
Chief Scientist: Masao Fukasawa (JAMSTEC)
Project Name: [Blue Earth Global Expedition 2003,POST-WOCE Hydrography]

Update History

2017-06-29	An observation data was registerd.
2017-04-11	An observation data was registerd.
2014-07-24	An observation data was registerd.
2014-03-08	An observation data was registerd.
2012-12-25	An observation data was registerd.

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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	MRYY-(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.

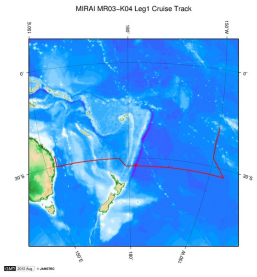
3. Date and time flag (Thermosalinograph only)
0 - accepted data and time
1 - failed duplicate/missing/incorrect date and time

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



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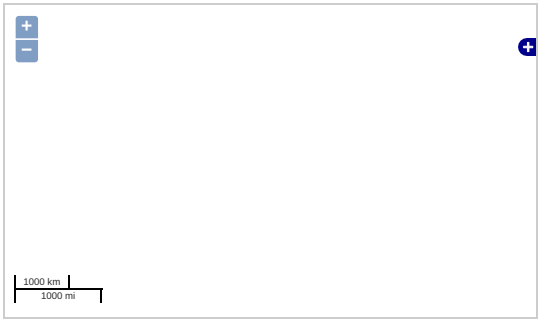
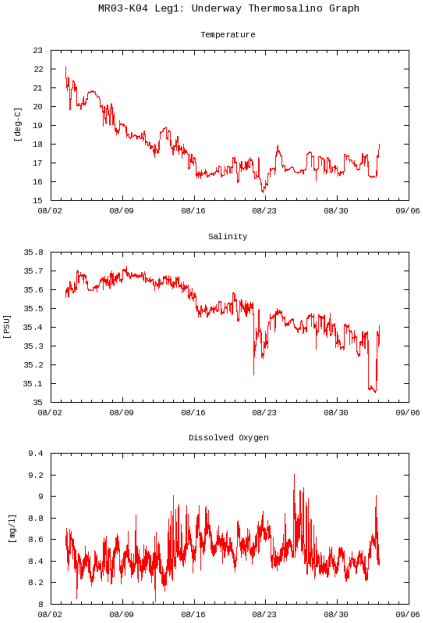
Observation Map



Imagery reproduced from ...

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

Figures



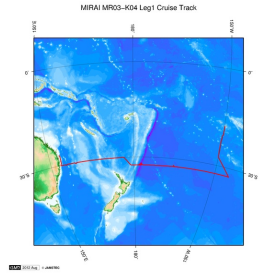
Data List

Add to Basket

File names
20030803.dat
20030804.dat
20030805.dat
20030806.dat
20030807.dat
20030808.dat
20030809.dat
20030810.dat
20030811.dat
20030812.dat
20030813.dat
20030814.dat
20030815.dat
20030816.dat
20030817.dat
20030818.dat

File names
20030819.dat
20030820.dat
20030821.dat
20030822.dat
20030823.dat
20030824.dat
20030825.dat
20030826.dat
20030827.dat
20030828.dat
20030829.dat
20030830.dat
20030831.dat
20030901.dat
20030902.dat
20030903.dat
ex_read.f (Sample Program)

Related Information



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