

## MIRAI MR09-01 Leg2 Expendable Conductivity-Temperature-Depth Profiler (XCTD)

Last Modified: 2017-04-13

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

Cruise ID: [MR09-01 Leg2](#)

Expendable Conductivity-Temperature-Depth Profiler (XCTD): Processed (PI)

Data Policy: [JAMSTEC](#)

Observation Items: Depth, Temperature, Salinity

Science Keywords:

OCEANS > OCEAN TEMPERATURE > WATER TEMPERATURE

OCEANS > SALINITY/DENSITY > SALINITY

Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR09-01\\_leg1-3\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR09-01_leg1-3_all.pdf)

### For Using Data

#### Principal Investigator

Hiroshi Uchida (JAMSTEC)

#### Use Constraints

See [Terms and Conditions](#) about constrain of use.

#### Data Citation

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

### Instrument

Instrument:

Expendable conductivity temperature

depth measurements (XCTD) ( -

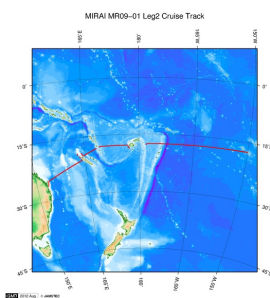
MR11-E02)



### Overview

Please see the [Data book](#) for details of data.

### Related Information



[Enlarge Image](#)

#### MR09-01 Leg2

Ship Name: MIRAI

Period: 2009-05-21 - 2009-06-19

Chief Scientist: Hiroshi Uchida (JAMSTEC)

Project Name: [POST-WOCE Hydrography, South Pacific Ocean Research Activity 2009]

### Update History

2017-04-13	An observation data was registerd.
2012-09-28	An observation data was registerd.

#### JAMSTEC

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#### Information of the Ships

NATSUSHIMA  
KAIYO  
YOKOSUKA  
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#### Information of the Submersibles

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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)  
BMS

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### XCTD DMO

#### Format Description for the Corrected Data

Provided in the Exchange Format of CCHDO (CLIVAR and Carbon Hydrographic Data Office). Please see the following link for details of Exchange Format.

[CCHDO | CLIVAR & Carbon Hydrographic Data Office](#)

Data in following cruise is not expressed with Exchange Format. Please see the site of each cruise for format.

MR02-K05 Leg1

MR04-05

#### Format Description for the QCed Data

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

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	XCTD
3	8 - 22	Cruise ID	a15	
4	33 - 40	Date	i8	YYYYMMDD (UTC)
5	42 - 45	Time	i4	hhmm (UTC)
6	47 - 55	Latitude	i2,a1,f5.2,a1	dd-mm.mmN(S)
7	57 - 66	Longitude	i3,a1,f5.2,a1	ddd-mm.mmE(W)
8	68 - 71	Number of data lines	i4	
9	72 - 73	Terminator	-	CR+LF

Data part

No.	Column	Content	Unit	Format	Remarks
1	1 - 11	Depth	m	f11.1	
2	12 - 22	Temperature	deg-C	f11.2	ITS-90
3	23 - 33	Salinity	PSU	f11.3	PSS-78
4	45 - 55	Flag	-	i11	1 - 7 : space 8 : flag of depth 9 : flag of temperature 10 : flag of salinity 11 : space * reference : <a href="#">Definition of Quality Control Flags</a>
5	56 - 57	Terminator	-	-	CR+LF

Each contents of the data part is stored in 11 bytes.

Missing value is presented by '-5', and error value is presented by '-9'.

#### 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

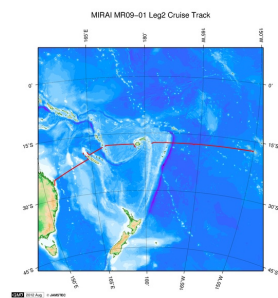
QCed data were added flag according to the NODC (National Oceanographic Data Center) quality control procedure, additionally visually checked. Please see the site of NODC of the following link for quality control procedure.

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

#### Sample Program

[ex\\_read2.f](#)

#### Related Information



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Chief Scientist: Hiroshi Uchida (JAMSTEC)

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国立研究開発法人  
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JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

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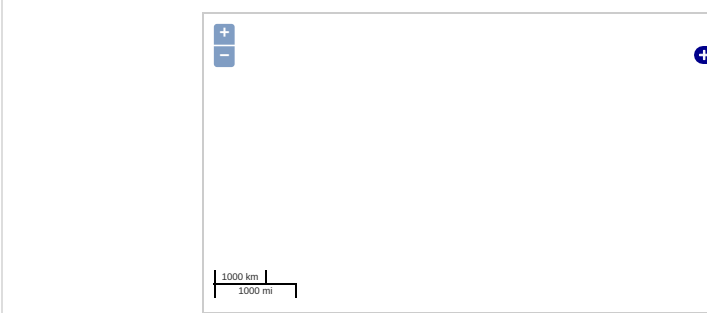
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Observation Items: Depth, Temperature, Salinity

Science Keywords:

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TEMPERATURE  
OCEANS > SALINITY/DENSITY > SALINITY

### Observation Map



Imagery reproduced from ...

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

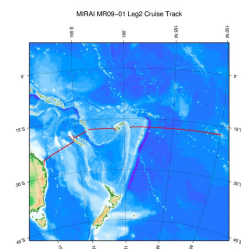
### Data List

[Add to Basket](#)

#### File names

- ☐ P21\_205\_1\_xc1.csv
- ☐ P21\_206\_1\_xc1.csv
- ☐ P21\_209\_1\_xc1.csv
- ☐ P21\_213\_1\_xc1.csv
- ☐ P21\_221\_1\_xc1.csv
- ☐ P21\_250\_1\_xc1.csv
- ☐ P21\_266\_1\_xc1.csv
- ☐ P21\_268\_1\_xc1.csv
- ☐ ex\_read2.f (Sample Program)

### Related Information



[Enlarge Image](#)

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