MIRAI MR06-03 Leg2 Conductivity-Temperature-Depth Profiler (CTD)

Last Modified: 2017-08-24

ReadMe | Observation Data | Data Format

Cruise ID: MR06-03 Leg2
Conductivity-Temperature-Depth Profiler (CTD): Processed (PI)
Data Policy: JAMSTEC
Observation Items: Pressure, Temperature, Salinity, Dissolved oxygen
Science Keywords:

OCEANS > OCEAN CHEMISTRY > OXYGEN
OCEANS > OCEAN TEMPERATURE > WATER TEMPERATURE
OCEANS > SALINITY/DENSITY > SALINITY

Cruise Report
http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR06-03_leg1-2_all.pdf

For Using Data

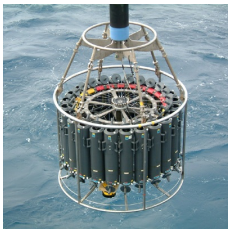
Principal Investigator
Makio Honda (JAMSTEC)

Use Constraints
See Terms and Conditions about constrain of use.

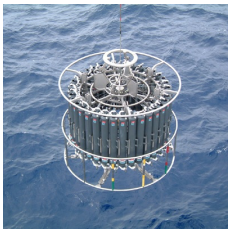
Data Citation
See Terms and Conditions about data citation.

Instrument

Instrument:
Water sampling system with CTD (30 litters * 24 bottles)

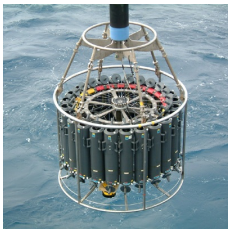


Instrument:
Water sampling system with CTD (12 litters * 36 bottles)



Instrument:
Water sampling system with CTD (12 litters * 12 bottles)

Instrument:
Conductivity temperature depth measurements (CTD)



Overview

CTD(Conductivity-Temperature-Depth profiler) is used to observe the vertical profiles of temperature and conductivity.
Usually, this system is operated with multicylinder water sampler.
Observed signal is transmitted from sensor to the operation room on board using wire cable, and electric power is supplied from vessel to sensor.
Details of sensors attached to CTD system for MR06-03 Leg2 cruise are presented in “System”.
The following software, developed and supplied by the Sea-Bird Electronics, Inc., was used in MR06-03 Leg2.
SEASAVE(ver 5.27b) for data acquisition
SEASOFT(ver 5.27b) for data processing
Data presented on this website is averaged over 1db.

System

• Pressure sensor
Model : SBE9plus, Sea-Bird Electronics,Inc.
Serial number : 79511
Measurement range : up to 10500m
Accuracy : 0.015% F.S.
Resolution : 0.001% F.S.
• Pressure sensor
Model : SBE9plus, Sea-Bird Electronics,Inc.
Serial number : 79492
Measurement range : up to 10500m
Accuracy : 0.015% F.S.
Resolution : 0.001% F.S.
• Temperature sensor
Model : SBE3, Sea-Bird Electronics,Inc.
Serial number : 031525
Measurement range : -5.0 to +35degC
Accuracy : 0.001degC

Resolution : 0.0002degC

• Salinity sensor

Model : SBE4, Sea-Bird Electronics,Inc.

Serial number : 042854

Measurement range : 0.0 to 7 S/m

Accuracy : 0.0003 S/m

Resolution : 0.00004 S/m

• DO sensor

Model : SBE43, Sea-Bird Electronics,Inc.

Serial number : 430394

Measurement range : 120% of surface saturation

Accuracy : 2% of saturation

Note

(1) Sensors used in each cast is as follows.

Cast name	Serial number of sensor			
	Pressure	Temperature	Salinity	Dissolved Oxygen
020M01	79511	031525	042854	430394
020M02	79511	031525	042854	430394
020M03	79511	031525	042854	430394
020M04	79511	031525	042854	430394
020M05	79511	031525	042854	430394
020M06	79511	031525	042854	430394
020M07	79511	031525	042854	430394
020M08	79511	031525	042854	430394
021M01	79511	031525	042854	430394
022M01	79511	031525	042854	430394
023M01	79511	031525	042854	430394
024M02	79511	031525	042854	430394
025M01	79511	031525	042854	430394
026M01	79511	031525	042854	430394
026M02	79511	031525	042854	430394
026M03	79511	031525	042854	430394
026M04	79511	031525	042854	430394
026M05	79511	031525	042854	430394
026M06	79511	031525	042854	430394
026M07	79511	031525	042854	430394
026M08	79511	031525	042854	430394
026M09	79511	031525	042854	430394
031M01	79511	031525	042854	430394
030M01	79511	031525	042854	430394
029M01	79511	031525	042854	430394
028M01	79511	031525	042854	430394
027M01	79511	031525	042854	430394
032M01	79511	031525	042854	430394
032M02	79511	031525	042854	430394
032M03	79511	031525	042854	430394
032M04	79511	031525	042854	430394
032M05	79511	031525	042854	430394
032M06	79511	031525	042854	430394
032M07	79511	031525	042854	430394
032M08	79511	031525	042854	430394
032M09	79511	031525	042854	430394
037M01	79511	031525	042854	430394
036M01	79511	031525	042854	430394
035M01	79511	031525	042854	430394
039M01	79511	031525	042854	430394
039M02	79511	031525	042854	430394
039M03	79511	031525	042854	430394
039M04	79511	031525	042854	430394
039M05	79511	031525	042854	430394
039M06	79511	031525	042854	430394
039M07	79511	031525	042854	430394
039M08	79511	031525	042854	430394
033M01	79511	031525	042854	430394
034M01	79511	031525	042854	430394
034M02	79511	031525	042854	430394
038M01	79492	031525	042854	430394

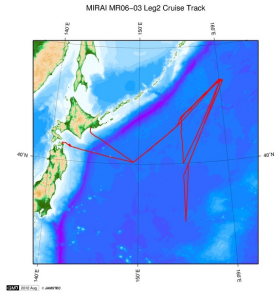
(2) Data processing sequence for SEASOFT is as follows;

command	function
datcnv	Convert raw data to engineering units, and store converted data in file.
alignctd	Align data relative to pressure(typically used for conductivity, temperature, and oxygen).
wildedit	Mark a data value with badflag to eliminate wild points.
celltm	Perform conductivity thermal mass correction.
filter	Low-pass filter columns of data.
wfilter	Median filter removes spikes of fluorometer data.
section	Extract rows of data from file.
loopedit	Mark a scan with badflag if scan fails pressure reversal or minimum velocity tests.

command	function
derive	Calculate oxygen. (with oxygen sensor)
binavg	Average data, basing bins on pressure, depth, scan number, or time range.
derive	Calculate salinity, density, etc..
split	Split data in file into upcast and downcast files.

(3) The time and position presented in the header is at the starting time of cast.
(4) In this cruise, there is extra data (fluorescence intensity, transmittance, distance to bottom) in additional to temperature, salinity, dissolved oxygen that has been opened to the public. Please contact us from "Contact Us" above if necessary.

Related Information



Enlarge Image

MR06-03 Leg2
Ship Name: MIRAI
Period: 2006-06-19 - 2006-07-25
Chief Scientist: Makio Honda (JAMSTEC)
Project Name: [Station K2,Station KNOT]

Update History

2017-08-24	An observation data was registerd.
2014-07-29	An observation data was registerd.
2013-03-27	An observation data was registerd.
2012-11-25	An observation data was registerd.

MIRAI MR06-03 Leg2 Conductivity-Temperature-Depth Profiler (CTD)

Last Modified: 2017-08-24

ReadMe | Observation Data | Data Format

Cruise ID: MR06-03 Leg2

Conductivity-Temperature-Depth Profiler (CTD): Processed (PI)

Data Policy: JAMSTEC

CTD WOCE-type2

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	CTD
3	8 - 22	Cruise ID	a15	MRYY-(K)XX(_legx)
4	24 - 31	Cast name	a8	
5	33 - 40	Date	i8	YYYYMMDD (UTC)
6	42 - 45	Time	i4	hhmm (UTC)
7	47 - 55	Latitude	i2,a1,f5.2,a1	dd-mm.mmN(S)
8	57 - 66	Longitude	i3,a1,f5.2,a1	ddd-mm.mmE(W)
9	68 - 71	Number of data lines	i4	
10	72 - 73	Terminator	-	CR+LF

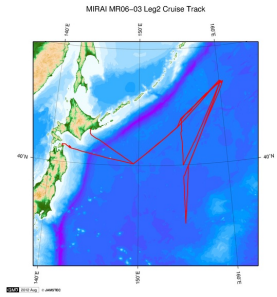
Data part

No.	Column	Content	Unit	Format	Remarks
1	1 - 11	Pressure	dbar	f11.3	
2	12 - 22	Temperature	deg-C	f11.4	ITS-90
3	23 - 33	Salinity	PSU	f11.4	PSS-78
4	34 - 44	Dissolved oxygen	umol/kg	f11.3	
5	45 - 55	Flag	-	i11	1 - 7 : space 8 : flag of pressure 9 : flag of temperature 10 : flag of salinity 11 : flag of dissolved oxygen * reference : 'Definition of Quality Control Flags'
6	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'.

Related Information



Enlarge Image

MR06-03 Leg2
Ship Name: MIRAI
Period: 2006-06-19 - 2006-07-25
Chief Scientist: Makio Honda (JAMSTEC)
Project Name: [Station K2,Station KNOT]

Update History

2017-08-24	An observation data was registerd.
2014-07-29	An observation data was registerd.
2013-03-27	An observation data was registerd.
2012-11-25	An observation data was registerd.

MIRAI MR06-03 Leg2 Conductivity-Temperature-Depth Profiler (CTD)

Last Modified: 2017-08-24

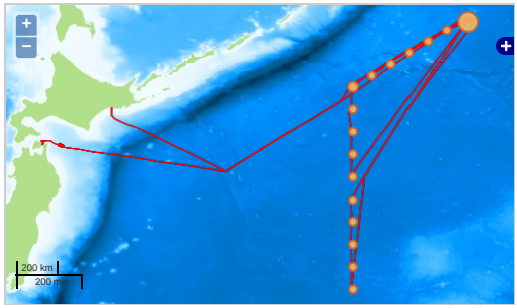
ReadMe | Observation Data | Data Format

Cruise ID: MR06-03 Leg2
Conductivity-Temperature-Depth Profiler (CTD): Processed (PI)
Data Policy: JAMSTEC
Observation Items: Pressure, Temperature, Salinity, Dissolved oxygen
Science Keywords:

OCEANS	> OCEAN CHEMISTRY	> OXYGEN
OCEANS	> OCEAN TEMPERATURE	> WATER TEMPERATURE
OCEANS	> SALINITY/DENSITY	> SALINITY

Observation Map

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

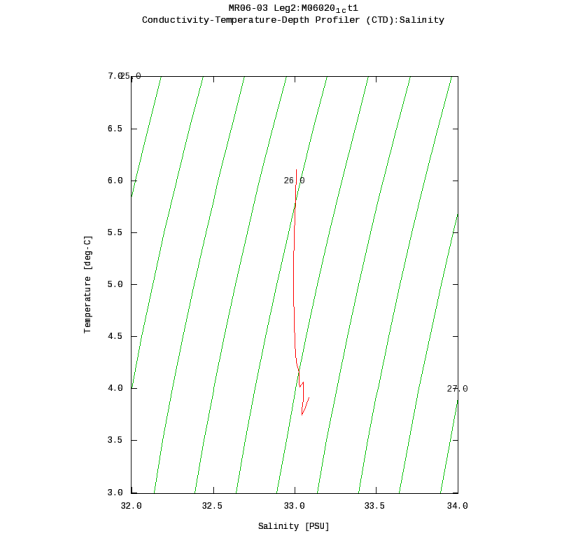


Imagery reproduced from ...

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

Figures

M06020_1_ct1



Data List

Add to Basket

File names
M06020_1_ct1.csv
M06020_2_ct1.csv
M06020_3_ct1.csv
M06020_4_ct1.csv
M06020_5_ct1.csv
M06020_6_ct1.csv
M06020_7_ct1.csv
M06020_8_ct1.csv
M06021_1_ct1.csv
M06022_1_ct1.csv
M06023_1_ct1.csv
M06024_2_ct1.csv
M06025_1_ct1.csv

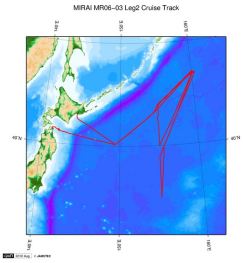
File names
M06026_1_ct1.csv
M06026_2_ct1.csv
M06026_3_ct1.csv
M06026_4_ct1.csv
M06026_5_ct1.csv
M06026_6_ct1.csv
M06026_7_ct1.csv
M06026_8_ct1.csv
M06026_9_ct1.csv
M06027_1_ct1.csv
M06028_1_ct1.csv
M06029_1_ct1.csv
M06030_1_ct1.csv
M06031_1_ct1.csv
M06032_1_ct1.csv
M06032_2_ct1.csv
M06032_3_ct1.csv
M06032_4_ct1.csv
M06032_5_ct1.csv
M06032_6_ct1.csv
M06032_7_ct1.csv
M06032_8_ct1.csv
M06032_9_ct1.csv
M06033_1_ct1.csv
M06034_1_ct1.csv
M06035_1_ct1.csv
M06036_1_ct1.csv
M06037_1_ct1.csv
M06038_1_ct1.csv
M06039_1_ct1.csv
M06039_2_ct1.csv
M06039_3_ct1.csv
M06039_4_ct1.csv
M06039_5_ct1.csv
M06039_6_ct1.csv
M06039_7_ct1.csv
M06039_8_ct1.csv

- Observation List
  The list of observation is shown as follows.

Observation	Time and Date	Lat. [°]	Lon. [°]
M06020_1_ct1	2006-06-21 15:29	46.8710	160.1073
M06020_2_ct1	2006-06-22 18:53	46.9417	160.1218
M06020_3_ct1	2006-06-24 03:25	46.9428	160.1177
M06020_4_ct1	2006-06-24 08:51	46.9410	160.1255
M06020_5_ct1	2006-06-24 10:50	46.9388	160.1200
M06020_6_ct1	2006-06-24 14:52	46.9400	160.1188
M06020_7_ct1	2006-06-24 16:51	46.9393	160.1200
M06020_8_ct1	2006-06-25 03:53	46.9400	160.1222
M06021_1_ct1	2006-06-26 08:50	43.9980	154.9978
M06022_1_ct1	2006-06-26 16:59	42.9990	155.0017
M06023_1_ct1	2006-06-27 01:26	42.0022	155.0012
M06024_2_ct1	2006-06-27 11:06	41.0018	154.9990
M06025_1_ct1	2006-06-27 19:15	40.0045	154.9988
M06026_1_ct1	2006-06-29 15:26	46.8705	160.1067
M06026_2_ct1	2006-06-29 23:25	46.9410	160.1307
M06026_3_ct1	2006-06-30 21:25	46.9385	160.1143
M06026_4_ct1	2006-07-01 09:21	46.9422	160.1258
M06026_5_ct1	2006-07-01 10:50	46.9407	160.1205
M06026_6_ct1	2006-07-01 13:21	46.9448	160.1243
M06026_7_ct1	2006-07-01 14:52	46.9403	160.1215
M06026_8_ct1	2006-07-01 16:51	46.9403	160.1203
M06026_9_ct1	2006-07-01 21:51	46.9402	160.1193
M06027_1_ct1	2006-07-06 05:51	38.9517	154.9970
M06028_1_ct1	2006-07-05 21:29	37.9997	155.0007
M06029_1_ct1	2006-07-05 13:21	36.9892	154.9975
M06030_1_ct1	2006-07-05 05:12	35.9963	155.0002
M06031_1_ct1	2006-07-04 20:56	35.0013	155.0040
M06032_1_ct1	2006-07-07 22:55	46.8952	160.1093
M06032_2_ct1	2006-07-08 08:51	46.9413	160.1200
M06032_3_ct1	2006-07-08 10:55	46.9403	160.1193
M06032_4_ct1	2006-07-08 12:51	46.9397	160.1187
M06032_5_ct1	2006-07-08 14:53	46.9420	160.1197
M06032_6_ct1	2006-07-08 15:30	46.9393	160.1130
M06032_7_ct1	2006-07-08 17:21	46.8810	160.1067
M06032_8_ct1	2006-07-09 20:56	46.9397	160.1185
M06032_9_ct1	2006-07-10 20:57	46.9377	160.1235
M06033_1_ct1	2006-07-17 20:57	46.5022	159.1720
M06034_1_ct1	2006-07-18 03:38	46.0058	158.3418
M06035_1_ct1	2006-07-14 10:40	45.4993	157.4997
M06036_1_ct1	2006-07-14 04:03	44.9992	156.6667
M06037_1_ct1	2006-07-13 20:59	44.5000	155.8340
M06038_1_ct1	2006-07-18 20:05	44.0098	155.0203

Observation	Time and Date	Lat [°]	Lon [°]
M06039_1_ct1	2006-07-15 23:50	46.9438	160.1233
M06039_2_ct1	2006-07-16 00:11	46.8745	160.0358
M06039_3_ct1	2006-07-16 15:23	46.8685	160.1068
M06039_4_ct1	2006-07-17 02:19	46.9350	160.1153
M06039_5_ct1	2006-07-17 09:20	46.9415	160.1178
M06039_6_ct1	2006-07-17 11:14	46.9402	160.1188
M06039_7_ct1	2006-07-17 12:51	46.9415	160.1183
M06039_8_ct1	2006-07-17 14:55	46.9405	160.1217

Related Information



Enlarge Image

MR06-03 Leg2
Ship Name: MIRAI
Period: 2006-06-19 - 2006-07-25
Chief Scientist: Makio Honda (JAMSTEC)
Project Name: [Station K2,Station KNOT]

Update History

2017-08-24	An observation data was registerd.
2014-07-29	An observation data was registerd.
2013-03-27	An observation data was registerd.
2012-11-25	An observation data was registerd.