

For Using Data

Data Policy	JAMSTEC
Principal Investigator	Hiroshi UCHIDA (JAMSTEC)
Use Constraints	See Terms and Conditions about constrain of use.
Data Citation	See Terms and Conditions about data citation.

Quality level

PI-Processed

Instrument

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



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 analyzer.

The flow rate of this system is controlled.

Measurement System

1) Temperature

Manufacturer :	Sea-Bird Scientific
Type :	SBE38
Serial No.	3852788-0540
Calibration date	2021/5/28
Measurement range :	-5 ~ 35 deg-C (ITS-90)
Accuracy :	+/-0.001 deg-C
Resolution :	0.00025 deg-C
Location :	Bow thruster room

2) Salinity (temperature/conductivity)

Manufacturer :	Sea-Bird Scientific
Type :	SBE45
Serial No.	4552788-0264
Calibration date	2023/1/12
Measurement range :	[temperature] -5 ~ 35 deg-C (ITS-90)
	[conductivity] 0 ~ 7 S/m
Accuracy :	[temperature] +/- 0.002 deg-C
	[conductivity] +/- 0.0003 S/m
Resolution :	[temperature] 0.0001deg-C
	[conductivity] 0.00001 S/m
Location :	Sea surface monitoring laboratory

3) Dissolved oxygen

Manufacturer :	JFE Advantech Co., Ltd.
Type :	RINKO II ARO-CAR
Serial No.	0035
Measurement range :	0 ~ 200%
Accuracy :	+/- 2% F.S. (non-linear)
Resolution :	0.001mgL ⁻¹ to 0.004mg L ⁻¹
Location :	Sea surface monitoring laboratory

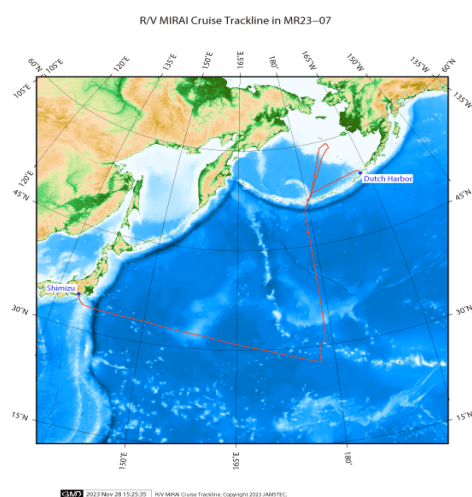
4) Fluorescence and Turbidity

Manufacturer :	Turner Designs	
Type :	C3	
Serial No.	2300707	
Measurement range :	[chlorophyll in vivo]	0 ~ 500 $\mu\text{g L}^{-1}$
	[turbidity]	0 ~ 1500 NTU
Minimum detection limit :	[chlorophyll in vivo]	0.03 $\mu\text{g L}^{-1}$
	[turbidity]	0.05NTU
Location :	Sea surface monitoring laboratory	

About this data

For details about observation, please refer to the Data book "WHP P14N Revisit in 2023 Data Book".

Related Information



MR23-07

Ship Name:	MIRAI
Period:	2023/10/06 - 2023/11/08
Chief Scientist:	Katsuro Katsumata (JAMSTEC)
Proposal:	Quantitative observation experiment in the North Pacific subarctic gyre — GO-SHIP Observation P14
	Organic alkalinity
	Float Deployments with GO-BGC
	Biology Observation with GO-SHIP
	Distribution of Iodine and Iodites in the North Pacific Ocean
	Biogeography of Plankton in the North Pacific Ocean
	Vertical mixing and transport of heat and material in the North Pacific Ocean and Bering Sea
	Float Deployments to Capture Environmental Changes in the North Pacific Ocean
	Polycyclic Aromatic Hydrocarbons, Radium, Cesium
	Multifaceted Observation of Cloud and Rain System in the North Pacific
	Speciation of Iodine, Ammonia, Nitrite in the North Pacific Ocean
	Deployment of EM-APEX floats as part of US Partnership Project
	Experiment on DFMC SBASS from QZSS

Format Description for TSG

Header part

No.	Column	Unit
1	EXPCODE	
2	DATE	
3	TIME	UTC
4	LATITUDE	DEG
5	LONGITUDE	DEG
6	SPEED	KNOT
7	FLOW	L/MIN
8	INTAKE-TEMPERATURE	ITS-90
9	INTAKE-TEMPERATURE_FLAG	
10	TSG-TEMPERATURE	ITS-90
11	TSG-TEMPERATURE_FLAG	
12	TSG-SALINITY	PSS-78
13	TSG-SALINITY_FLAG	
14	SALINITY	PSS-78
15	SALINITY_FLAG	
16	TSG-OXYGEN	UMOL/KG
17	TSG-OXYGEN_FLAG	
18	OXYGEN	UMOL/KG
19	OXYGEN_FLAG	
20	FLUORESCENCE	RFU
21	FLUORESCENCE_FLAG	
22	TSG-CHLOROPHYLL-A	MG/CUM
23	TSG-CHLOROPHYLL-A_FLAG	
24	CHLOROPHYLL-A	MG/CUM
25	CHLOROPHYLL-A_FLAG	
26	TURBIDITY	NTU
27	TURBIDITY_FLAG	