

## MIRAI MR08-03 Cloud Ceiling

Last Modified: 2014-07-31

**ReadMe** Observation Data Data Format

Cruise ID: **MR08-03**

Cloud Ceiling: Raw

Data Policy: **JAMSTEC**

Observation Items: Cloud base height

Science Keywords:

ATMOSPHERE > CLOUDS > CLOUD  
BASE

Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR08-03\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR08-03_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:

Ceilometer (- MR12-05Leg3)



### Overview

Ceilometer is the system that measures cloud base height by laser pulse emitted vertically.

Up to three levels of cloud base can be detected by measuring the change of strength of backscatter signal.

And the cloud base height is calculated from the elapsed time from laser pulse emission to backscatter detection.

In case the cloud base is obscured, it measures the vertical visibility.

### System

Manufacturer: Vaisala Inc.  
Type: CT25K Ver2.01  
Serial number: T18102  
Measurement range: up to 7500m  
Resolution: 15m  
Sampling rate: 15-120 seconds available (60sec as default)  
Accuracy: +2% or +1/2 \* Resolution  
Location: Compass deck bow side (18 meters high from sea surface)  
Recording software: CT-VIEW Ver1.05 (before MR01-K04)  
CT-VIEW Ver2.10 (MR01-K05 or later)

### Note

(1) CYMMDDHH.DAT(Ver1.05)およびAYMMDDHH.DAT(Ver2.10)のファイル命名規約は次のとおりです。

C or A : AおよびCに固定  
Y : 西暦年の1の位  
MM : 収録開始月(UTC)  
DD : 収録開始日(UTC)  
HH : 収録開始時刻(UTC)

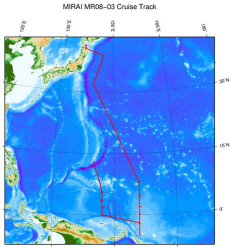
(2) 設置高度補正は、行っておりません。

(3) 本クルーズでは、取得されたデータに下記に示すエラーがあります。

Date/Time : 収録データの日付時刻が正常に記録されていないデータ  
Format : Format Descriptionと異なるフォーマットで記録されたデータ  
DataLack : 収録間隔が119秒以上離れた場合

Start	Stop			
File name	Date,Time	File name	Date,Time	Remarks
A8071100.DAT	20080711,200529	A8071100.DAT	20080711,200729	DataLack


### Related Information



MIRAI MR08-03 Cruise Track

**MR08-03**

Ship Name: MIRAI  
Period: 2008-07-02 - 2008-08-06  
Chief Scientist: Yuji Kashino (JAMSTEC)  
Project Name: [Tropical Ocean Climate Study (TOCS), Station KEO]  
Proposal Tropical Ocean Climate Study  
Title:

 [Enlarge Image](#)

Update History	
2014-07-31	An observation data was registerd.
2012-10-26	An observation data was registerd.

**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:



**JAMSTEC** 国立研究開発法人  
海洋研究開発機構  
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

Copyright 2011 Japan Agency for Marine-Earth Science and Technology

## MIRAI MR08-03 Cloud Ceiling

Last Modified: 2014-07-31

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

Cruise ID: **MR08-03**

Cloud Ceiling: Raw

Data Policy: [JAMSTEC](#)

### Ceiling Raw

The record length of the data file is 56 bytes.

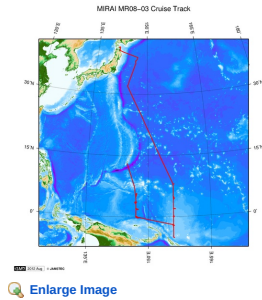
No.	Column	Content	Format	Remarks
1	1 - 8	Date	i4,i2,i2	YYYYMMDD (UTC)
2	10 - 15	Time	i2,i2,i2	hhmmss (UTC)
3	17 - 19	Operating software	a3	'CT0' : CT-VIEW 'CL0' : CL-VIEW
4	20 - 21	Software version	i2	Version of operating software
5	22	Data status	i1	1: Cloud base height/vertical visibility data 2: Cloud base height/vertical visibility, backscatter signal 6: Cloud base height/vertical visibility, cloud amount/height of cloud layer 7: Cloud base height/vertical visibility, backscatter signal, cloud amount/height of cloud layer
6	23	Spare character	a1	
7	25	Detection status	i1	0: Clear 1: One cloud base detected 2: Two cloud bases detected 3: Three cloud bases detected 4: Full obscuration determined but no cloud base detected 5: Some obscuration detected but determined to transparent
8	26	Warning and alarm information	a1	0: Self-check OK W: At least one warning active, no alarms A: At least one alarm active See No.12:observation information
9	28 - 32	Lowest cloud base height or vertical visibility	i5	In the case of detection status is 1,2 or 3: Lowest cloud base height In the case of detection status is 4: Calculation of vertical visibility In the case of detection status is 0 or 5: ///// Unit: See No.12:observation information
10	34 - 38	Second lowest cloud base height or highest signal detected	i5	In the case of detection status is 2 or 3: Second lowest cloud base height In the case of detection status is 4: Maximum height that a signal was detected In the case of detection status is 0,1 or 5: ///// Unit: See No.12:observation information
11	40 - 44	Highest cloud base height	i5	In the case of detection status is 3: Highest cloud base height In the case of detection status is 0,1,2,4,5: ///// Unit: See No.12:observation information
12	46 - 53	Observation information	a8	*1
13	55 - 56	Terminator	a2	CR+LF

\*1: Observation information

The information is presented using 8 bytes characters. Each character, indicated in hexadecimal character, shows the following meanings;

Byte	Hexadecimal character (0:on, -:off)																Message(A:alarm, W:warning)
	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F	
1	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	Laser temperature shut-off(A)
	-	-	-	-	0	0	0	0	-	-	-	-	0	0	0	0	Laser failure(A)
	-	-	0	0	-	-	0	0	-	-	0	0	-	-	0	0	Receiver failure(A)
	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	Voltage failure(A)
2	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	Spare(A)
	-	-	-	-	0	0	0	0	-	-	-	-	0	0	0	0	Spare(A)
	-	-	0	0	-	-	0	0	-	-	0	0	-	-	0	0	Spare(A)
	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	Spare(A)
3	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	Windows contaminated(W)
	-	-	-	-	0	0	0	0	-	-	-	-	0	0	0	0	Battery low(W)
	-	-	0	0	-	-	0	0	-	-	0	0	-	-	0	0	Laser power low(W)
	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	Laser temperature high or low(W)
4	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	Internal temperature high or low(W)
	-	-	-	-	0	0	0	0	-	-	-	-	0	0	0	0	Voltage high or low(W)
	-	-	0	0	-	-	0	0	-	-	0	0	-	-	0	0	Relative Humidity is > 85%(W)
	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	Receiver cross-talk compensation poor(W)
5	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	Blower suspect(W)
	-	-	-	-	0	0	0	0	-	-	-	-	0	0	0	0	Spare(W)
	-	-	0	0	-	-	0	0	-	-	0	0	-	-	0	0	Spare(W)
	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	Spare(W)
6	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	Blower is ON
	-	-	-	-	0	0	0	0	-	-	-	-	0	0	0	0	Blower heater is ON
	-	-	0	0	-	-	0	0	-	-	0	0	-	-	0	0	Internal heater is ON
	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	Units are METERS if ON , else FEET
7	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	Polling mode is ON
	-	-	-	-	0	0	0	0	-	-	-	-	0	0	0	0	Working from battery
	-	-	0	0	-	-	0	0	-	-	0	0	-	-	0	0	Single sequence mode is ON
	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	Manual settings are effective
8	-	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	Tilt angle is > 45 degrees
	-	-	-	-	0	0	0	0	-	-	-	-	0	0	0	0	High background radiance
	-	-	0	0	-	-	0	0	-	-	0	0	-	-	0	0	Manual blower control
	-	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	Spare

### Related Information



**MR08-03**  
Ship Name: MIRAI  
Period: 2008-07-02 - 2008-08-06  
Chief Scientist: Yuji Kashino (JAMSTEC)  
Project Name: [Tropical Ocean Climate Study (TOCS), Station KEO]  
Proposal Tropical Ocean Climate Study  
Title:

#### Update History

2014-07-31	An observation data was registerd.
2012-10-26	An observation data was registerd.

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:

## MIRAI MR08-03 Cloud Ceiling

Last Modified: 2014-07-31

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

Cruise ID: **MR08-03**

Cloud Ceiling: Raw

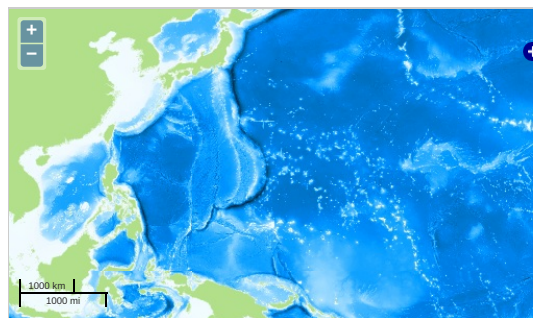
Data Policy: **JAMSTEC**

Observation Items: Cloud base height

Science Keywords:

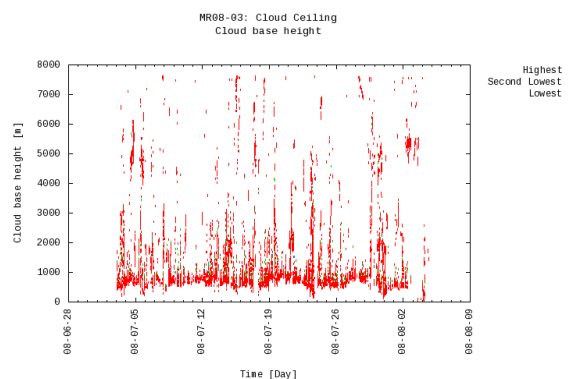
ATMOSPHERE > CLOUDS > CLOUD  
BASE

### Observation Map



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

### Figures



### Data List

[Add to Basket](#)

☐ File names

☐ A8070300.DAT

☐ A8070400.DAT

☐ A8070500.DAT

☐ A8070600.DAT

☐ A8070700.DAT

☐ A8070800.DAT

☐ A8070900.DAT

☐ A8071000.DAT

☐ A8071100.DAT

☐ A8071200.DAT

☐ A8071300.DAT

☐ A8071400.DAT

☐ A8071500.DAT

☐ A8071600.DAT

☐ A8071700.DAT

☐ A8071800.DAT

☐ A8071900.DAT

☐ A8072000.DAT

☐ A8072100.DAT

☐ A8072200.DAT

☐ A8072300.DAT

☐ A8072400.DAT

☐ A8072500.DAT

☐ A8072600.DAT

☐ A8072700.DAT

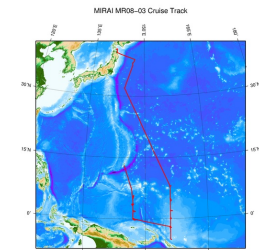
☐ A8072800.DAT

☐ A8072900.DAT

☐ A8072900.DAT

AGU/3000.DAT	
<input type="checkbox"/>	File names
<input type="checkbox"/>	A8073100.DAT
<input type="checkbox"/>	A8080100.DAT
<input type="checkbox"/>	A8080200.DAT
<input type="checkbox"/>	A8080300.DAT
<input type="checkbox"/>	A8080400.DAT
<input type="checkbox"/>	A8080500.DAT

#### Related Information



[Enlarge Image](#)

#### MR08-03

Ship Name: MIRAI  
 Period: 2008-07-02 - 2008-08-06  
 Chief Scientist: Yuji Kashino (JAMSTEC)  
 Project Name: [Tropical Ocean Climate Study (TOCS), Station KEO]  
 Proposal Tropical Ocean Climate Study  
 Title:

#### Update History

2014-07-31	An observation data was registered.
2012-10-26	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  
 KAIIMEI  
 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

