

## MIRAI MR00-K03 Cloud Ceiling

Last Modified: 2014-07-12

**ReadMe** Observation Data Data Format

Cruise ID: [MR00-K03](#)

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/MR00-K03\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR00-K03_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) File naming rule for CYMMDDHH.DAT(Ver1.05) and AYMMDDHH.DAT(Ver2.10).

C or A : Fixed as 'C' or 'A'  
Y : Year in 1 digit  
MM : Recording start month (UTC)  
DD : Recording start day (UTC)  
HH : Recording start time (UTC)

(2) Adjustment for the height : No sea surface level adjustment is applied to the raw data.

(3) Invalid data information : Ceilometer data files include the invalid data in this cruise as follows.

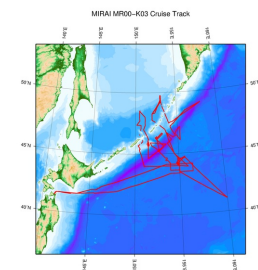
Date/Time : Date,Time data is invalid  
Format : Format error data  
DataLack : Lack of data

Start	Stop			
File name	Date,Time	File name	Date,Time	Remarks

C1060523.DAT20010605,235902-C1060623.DAT20010606,000102	DataLack
C1060623.DAT20010606,235901-C1060723.DAT20010607,000101	DataLack
C1060723.DAT20010607,235900-C1060823.DAT20010608,000101	DataLack
C1060823.DAT20010608,235859-C1060923.DAT20010609,000100	DataLack
C1060923.DAT20010609,235858-C1061023.DAT20010610,000059	DataLack
C1061023.DAT20010610,235856-C1061123.DAT20010611,000057	DataLack
C1061123.DAT20010611,235856-C1061223.DAT20010612,000056	DataLack
C1061223.DAT20010612,235855-C1061323.DAT20010613,000055	DataLack
C1061323.DAT20010613,182053-C1061323.DAT20010613,182253	DataLack
C1061323.DAT20010613,235854-C1061423.DAT20010614,000054	DataLack
C1061423.DAT20010614,235852-C1061523.DAT20010615,000052	DataLack
C1061523.DAT20010615,235851-C1061623.DAT20010616,000052	DataLack
C1061623.DAT20010616,235850-C1061723.DAT20010617,000051	DataLack
C1061723.DAT20010617,235849-C1061823.DAT20010618,235949	DataLack
C1061823.DAT20010618,235949-C1061823.DAT20010618,000049	Date/Time
C1061823.DAT20010618,235847-C1061923.DAT20010619,000047	DataLack
C1061923.DAT20010619,211547-C1061923.DAT20010619,211748	DataLack

C1061923.DAT20010619,235846-C1062023.DAT20010620,000047DataLack  
C1062023.DAT20010620,235846-C1062123.DAT20010621,000046DataLack  
C1062123.DAT20010621,235845-C1062223.DAT20010622,235946DataLack  
C1062223.DAT20010622,235946-C1062223.DAT20010622,000045Date/Time  
C1062223.DAT20010622,235844-C1062323.DAT20010623,235944DataLack  
C1062323.DAT20010623,235944-C1062323.DAT20010623,000044Date/Time  
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C1062523.DAT20010625,235942-C1062523.DAT20010625,000042Date/Time  
C1062523.DAT20010625,235841-C1062623.DAT20010626,235941DataLack  
C1062623.DAT20010626,235941-C1062623.DAT20010626,000041Date/Time  
C1062623.DAT20010626,235840-C1062723.DAT20010627,000041DataLack  
C1062723.DAT20010627,235840-C1062823.DAT20010628,235940DataLack  
C1062823.DAT20010628,235940-C1062823.DAT20010628,000040Date/Time  
C1062823.DAT20010628,235837-C1062923.DAT20010629,235937DataLack  
C1062923.DAT20010629,235937-C1062923.DAT20010629,000037Date/Time  
C1062923.DAT20010629,235837-C1063023.DAT20010630,000037DataLack  
C1063023.DAT20010630,235836-C1070123.DAT20010701,235937DataLack  
C1070123.DAT20010701,235937-C1070123.DAT20010701,000036Date/Time  
C1070123.DAT20010701,031037-C1070123.DAT20010701,031237DataLack  
C1070123.DAT20010701,235835-C1070223.DAT20010702,000035DataLack  
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C1070623.DAT20010706,235833-C1070723.DAT20010707,235934DataLack  
C1070723.DAT20010707,235934-C1070723.DAT20010707,000033Date/Time  
C1070723.DAT20010707,235832-C1070823.DAT20010708,235933DataLack  
C1070823.DAT20010708,235933-C1070823.DAT20010708,000032Date/Time  
C1070823.DAT20010708,235831-C1070923.DAT20010709,235932DataLack  
C1070923.DAT20010709,235932-C1070923.DAT20010709,000031Date/Time  
C1070923.DAT20010709,235830-C1071023.DAT20010710,235930DataLack  
C1071023.DAT20010710,235930-C1071023.DAT20010710,000030Date/Time  
C1071023.DAT20010710,235829-C1071123.DAT20010711,235929DataLack  
C1071123.DAT20010711,235929-C1071123.DAT20010711,000029Date/Time  
C1071123.DAT20010711,235829-C1071223.DAT20010712,235929DataLack  
C1071223.DAT20010712,235929-C1071223.DAT20010712,000029Date/Time  
C1071223.DAT20010712,235827-C1071323.DAT20010713,000027DataLack  
C1071323.DAT20010713,235828-C1071423.DAT20010714,000028DataLack  
C1071423.DAT20010714,235826-C1071523.DAT20010715,000026DataLack  
C1071523.DAT20010715,235826-C1071623.DAT20010716,000027DataLack  
C1071623.DAT20010716,235824-C1071723.DAT20010717,000024DataLack  
C1071723.DAT20010717,235823-C1071823.DAT20010718,000024DataLack

#### Related Information



[Enlarge Image](#)

#### MR00-K03

Ship Name: MIRAI  
Period: 2000-05-09 - 2000-06-09  
Chief Scientist: Masashi Kusakabe (JAMSTEC)  
Project Name: [Station KNOT]

#### Update History

2014-07-12	An observation data was registered.
2012-12-25	An observation data was registered.

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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 MR00-K03 Cloud Ceiling

Last Modified: 2014-07-12

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Cruise ID: [MR00-K03](#)

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

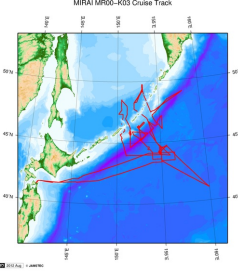
\*1: Observation information


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

MIRAI MR00-K03 Cruise Track



 [Enlarge Image](#)

MR00-K03

Ship Name: MIRAI

Period: 2000-05-09 - 2000-06-09

Chief Scientist: Masashi Kusakabe (JAMSTEC)

Project Name: [Station KNOT]

Update History	
2014-07-12	An observation data was registerd.
2012-12-25	An observation data was registerd.

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Information of the Ships

NATSUSHIMA

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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

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## MIRAI MR00-K03 Cloud Ceiling

Last Modified: 2014-07-12

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

Cruise ID: [MR00-K03](#)

Cloud Ceiling: Raw

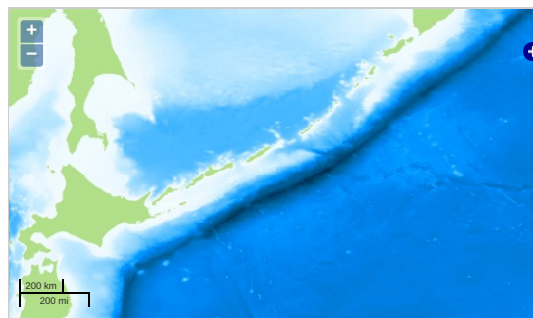
Data Policy: [JAMSTEC](#)

Observation Items: Cloud base height

Science Keywords:

ATMOSPHERE > CLOUDS > CLOUD  
BASE

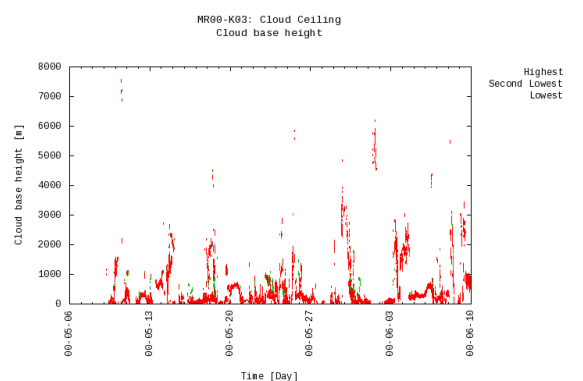
### Observation Map



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

Imagery reproduced from ...

### Figures



### Data List

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☐ File names

☐ C0050903.DAT

☐ C0050909.DAT

☐ C0050915.DAT

☐ C0050921.DAT

☐ C0051003.DAT

☐ C0051009.DAT

☐ C0051015.DAT

☐ C0051021.DAT

☐ C0051103.DAT

☐ C0051109.DAT

☐ C0051115.DAT

☐ C0051121.DAT

☐ C0051203.DAT

☐ C0051206.DAT

☐ C0051212.DAT

☐ C0051218.DAT

☐ C0051300.DAT

☐ C0051306.DAT

☐ C0051312.DAT

☐ C0051318.DAT

☐ C0051400.DAT

☐ C0051406.DAT

☐ C0051412.DAT

☐ C0051418.DAT




















☐ C0051500.DAT

☐ C0051506.DAT

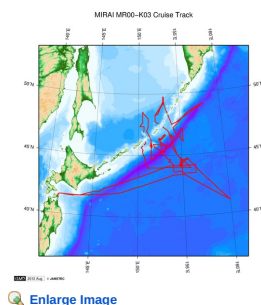
☐ C0051512.DAT

☐ C0051519.DAT

	File names
	C0051600.DAT
	C0051606.DAT
	C0051612.DAT
	C0051618.DAT
	C0051700.DAT
	C0051706.DAT
	C0051712.DAT
	C0051718.DAT
	C0051800.DAT
	C0051806.DAT
	C0051812.DAT
	C0051818.DAT
	C0051900.DAT
	C0051906.DAT
	C0051912.DAT
	C0051918.DAT
	C0052000.DAT
	C0052006.DAT
	C0052012.DAT
	C0052018.DAT
	C0052100.DAT
	C0052106.DAT
	C0052112.DAT
	C0052118.DAT
	C0052200.DAT
	C0052206.DAT
	C0052212.DAT
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	C0052312.DAT
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	C0052400.DAT
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	C0052618.DAT
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	C0052718.DAT
	C0052800.DAT
	C0052806.DAT
	C0052812.DAT
	C0052818.DAT
	C0052900.DAT
	C0052906.DAT
	C0052912.DAT
	C0052918.DAT
	C0053000.DAT
	C0053006.DAT
	C0053012.DAT
	C0053018.DAT
	C0053100.DAT
	C0053106.DAT
	C0053112.DAT
	C0053118.DAT
	C0060100.DAT
	C0060106.DAT
	C0060112.DAT
	C0060118.DAT
	C0060200.DAT
	C0060206.DAT
	C0060212.DAT
	C0060218.DAT
	C0060300.DAT
	C0060306.DAT
	C0060312.DAT
	C0060318.DAT
	C0060400.DAT
	C0060406.DAT
	C0060412.DAT
	C0060418.DAT
	C0060500.DAT

	C0060506.DAT
	C0060512.DAT
	C0060518.DAT
	C0060600.DAT
	C0060606.DAT
	C0060612.DAT
	C0060618.DAT
	C0060700.DAT
	C0060706.DAT
	C0060712.DAT
	C0060718.DAT
	C0060800.DAT
	C0060806.DAT
	C0060812.DAT
	C0060818.DAT
	C0060900.DAT
	C0060906.DAT
	C0060912.DAT
	C0060918.DAT

#### Related Information



#### MR00-K03

Ship Name: MIRAI  
 Period: 2000-05-09 - 2000-06-09  
 Chief Scientist: Masashi Kusakabe (JAMSTEC)  
 Project Name: [Station KNOT]

#### Update History

2014-07-12	An observation data was registered.
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Information of the Ships  
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 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:

