

## MIRAI MR00-K07 Leg1 Cloud Ceiling

Last Modified: 2016-10-11

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Cruise ID: [MR00-K07 Leg1](#)

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-K07\\_leg1-2\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR00-K07_leg1-2_all.pdf)

### For Using Data

#### Principal Investigator

Data Management Office

JAMSTEC / BPPT joint cruise in the Indonesian waters.

#### Use Constraints

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

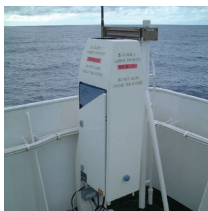
#### Data Citation

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

### Instrument

Instrument:

Ceiliometer (- MR12-05Leg3)



### Overview

Ceiliometer 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:  $\pm 2\%$  or  $\pm 1/2 \times$  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 : Ceiliometer data files include the invalid data in this cruise as follows.

Date/Time : Date,Time data is invalid

Format : Format error data

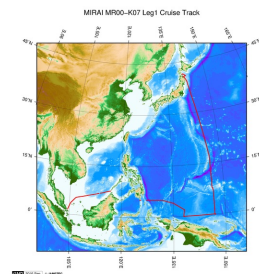
DataLack : Lack of data

Start Stop

File name	Date,Time	File name	Date,Time	Remarks
C0101907.DAT20001019,072403-C0101907.DAT20001019,072603	DataLack			
C0101907.DAT20001019,103403-C0101907.DAT20001019,103803	DataLack			
C0101919.DAT20001019,204504-C0101919.DAT20001019,204704	DataLack			
C0102001.DAT20001020,050804	Format			
C0102019.DAT20001020,193504-C0102019.DAT20001020,193705	DataLack			
C0102207.DAT20001022,074005-C0102407.DAT20001024,101306	DataLack			
C0102413.DAT20001024,172506-C0102413.DAT20001024,172807	DataLack			
C0102419.DAT20001024,224306	Format			
C0102501.DAT20001025,025506-C0102501.DAT20001025,025906	DataLack			
C0102519.DAT20001025,221806-C0102913.DAT20001029,132009	DataLack			
C0102919.DAT20001029,222009-C0102919.DAT20001029,222209	DataLack			
C0103001.DAT20001030,013008-C0103001.DAT20001030,013209	DataLack			
C0103007.DAT20001030,080908	Format			
C0103101.DAT20001031,040010-C0103101.DAT20001031,040310	DataLack			
C0110113.DAT20001101,133110-C0110113.DAT20001101,133410	DataLack			

C0110113.DAT20001101,134410-C0110113.DAT20001101,134610DataLack  
C0110119.DAT20001102,000510-C0110200.DAT20001102,000810DataLack  
C0110212.DAT20001102,143511-C0110212.DAT20001102,143711DataLack  
C0110306.DAT20001103,093310-C0110312.DAT20001103,150712DataLack  
C0110318.DAT20001103,213811-C0110318.DAT20001103,214011DataLack  
C0110318.DAT20001103,221411-C0110612.DAT20001106,125311DataLack  
C0110618.DAT20001106,193113  
Format  
C0110618.DAT20001106,231312-C0110618.DAT20001106,231512DataLack  
C0110700.DAT20001107,010013-C0110700.DAT20001107,010213DataLack

#### Related Information



[Enlarge Image](#)

#### MR00-K07 Leg1

Ship Name: MIRAI  
Period: 2000-10-18 - 2000-11-08  
Chief Scientist: Keisuke Mizuno (JAMSTEC)  
Project Name: [Tropical Ocean Climate Study (TOCS)]

#### Update History

2016-10-11	An observation data was registerd.
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## MIRAI MR00-K07 Leg1 Cloud Ceiling

Last Modified: 2016-10-11

ReadMe Observation Data **Data Format**

Cruise ID: [MR00-K07 Leg1](#)

Cloud Ceiling: Raw

Data Policy: [JAMSTEC](#)

### Ceiling Raw

The record length of the data file is 56 bytes.

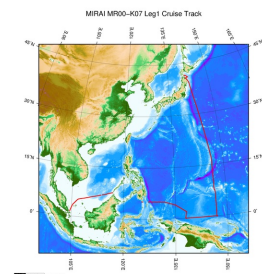
No.	Column	Content	Format	Remarks
1	1 - 8	Date	i4,i2,i2	YYYYMMDD (UTC)
2	10 - 15	Time	i2,i2,i2	hhmmss (UTC)
3	17 - 19	Operating software	a3	'CT0' : CT-VIEW 'CL0' : CL-VIEW
4	20 - 21	Software version	i2	Version of operating software
5	22	Data status	i1	1: Cloud base height/vertical visibility data 2: 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	0	Laser temperature shut-off(A)
	-	-	-	0	0	0	0	-	-	-	0	0	0	0	0	0	Laser failure(A)
	-	0	0	-	0	0	0	-	0	0	-	0	0	-	0	0	Receiver failure(A)
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	0	Voltage failure(A)
2	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	Spare(A)
	-	-	-	0	0	0	0	-	-	0	0	0	0	0	0	0	Spare(A)
	-	0	0	-	0	0	0	-	0	0	-	0	0	-	0	0	Spare(A)
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	0	Spare(A)
3	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	Windows contaminated(W)
	-	-	-	0	0	0	0	-	-	-	0	0	0	0	0	0	Battery low(W)
	-	0	0	-	0	0	0	-	0	0	-	0	0	-	0	0	Laser power low(W)
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	0	Laser temperature high or low(W)
4	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	Internal temperature high or low(W)
	-	-	-	0	0	0	0	-	-	-	0	0	0	0	0	0	Voltage high or low(W)
	-	0	0	-	0	0	0	-	0	0	-	0	0	-	0	0	Relative Humidity is > 85%(W)
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	0	Receiver cross-talk compensation poor(W)
5	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	Blower suspect(W)
	-	-	-	0	0	0	0	-	-	0	0	0	0	0	0	0	Spare(W)
	-	0	0	-	0	0	0	-	0	0	-	0	0	-	0	0	Spare(W)
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	0	Spare(W)
6	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	Blower is ON
	-	-	-	0	0	0	0	-	-	-	0	0	0	0	0	0	Blower heater is ON
	-	0	0	-	0	0	0	-	0	0	-	0	0	-	0	0	Internal heater is ON
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	0	Units are METERS if ON , else FEET
7	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	Polling mode is ON
	-	-	-	0	0	0	0	-	-	0	0	0	0	0	0	0	Working from battery
	-	0	0	-	0	0	0	-	0	0	-	0	0	-	0	0	Single sequence mode is ON
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	0	Manual settings are effective
8	-	-	-	-	-	-	-	0	0	0	0	0	0	0	0	0	Tilt angle is > 45 degrees
	-	-	-	0	0	0	0	-	-	-	0	0	0	0	0	0	High background radiance
	-	0	0	-	0	0	0	-	0	0	-	0	0	-	0	0	Manual blower control
	0	-	0	-	0	-	0	-	0	-	0	-	0	-	0	0	Spare

### Related Information



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#### MR00-K07 Leg1

Ship Name: MIRAI

Period: 2000-10-18 - 2000-11-08

Chief Scientist: Keisuke Mizuno (JAMSTEC)

Project Name: [Tropical Ocean Climate Study (TOCS)]

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Cloud Ceiling: Raw

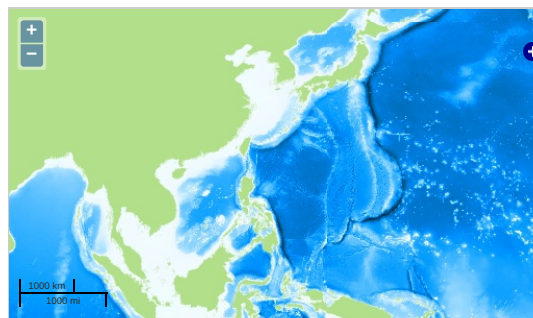
Data Policy: [JAMSTEC](#)

Observation Items: Cloud base height

Science Keywords:

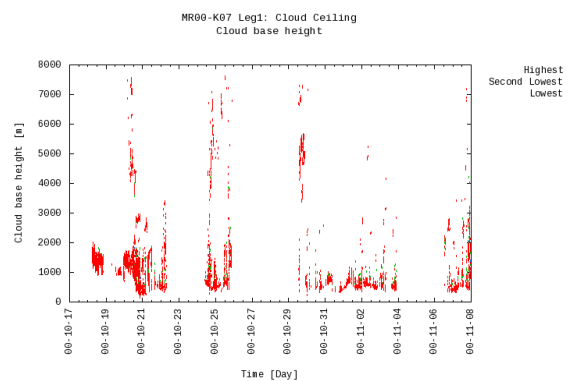
ATMOSPHERE > CLOUDS > CLOUD  
BASE

### Observation Map



Imagery reproduced from ...

### Figures



### Data List

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☐ File names

☐ C0101801.DAT

☐ C0101807.DAT

☐ C0101813.DAT

☐ C0101819.DAT

☐ C0101901.DAT

☐ C0101907.DAT

☐ C0101913.DAT

☐ C0101919.DAT

☐ C0102001.DAT

☐ C0102007.DAT

☐ C0102013.DAT

☐ C0102019.DAT

☐ C0102101.DAT

☐ C0102107.DAT

☐ C0102113.DAT

☐ C0102119.DAT

☐ C0102201.DAT

☐ C0102207.DAT

☐ C0102407.DAT

☐ C0102413.DAT

☐ C0102419.DAT

☐ C0102501.DAT

☐ C0102507.DAT

☐ C0102513.DAT

☐ C0102519.DAT

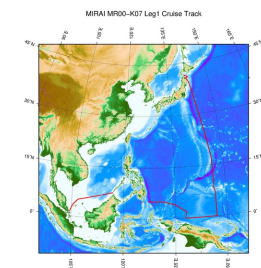
☐ C0102913.DAT

☐ C0102919.DAT

☐ C0102901.DAT

File names
 C0103007.DAT
 C0103013.DAT
 C0103019.DAT
 C0103101.DAT
 C0103107.DAT
 C0103113.DAT
 C0103119.DAT
 C0110101.DAT
 C0110107.DAT
 C0110113.DAT
 C0110119.DAT
 C0110200.DAT
 C0110206.DAT
 C0110212.DAT
 C0110218.DAT
 C0110300.DAT
 C0110306.DAT
 C0110312.DAT
 C0110318.DAT
 C0110612.DAT
 C0110618.DAT
 C0110700.DAT
 C0110706.DAT
 C0110712.DAT
 C0110718.DAT

#### Related Information



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Period: 2000-10-18 - 2000-11-08

Chief Scientist: Keisuke Mizuno (JAMSTEC)

Project Name: [Tropical Ocean Climate Study (TOCS)]

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