

MIRAI MR01-K01 Cloud Ceiling

Last Modified: 2014-07-16

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

Cruise ID: [MR01-K01](#)

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/MR01-K01_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.

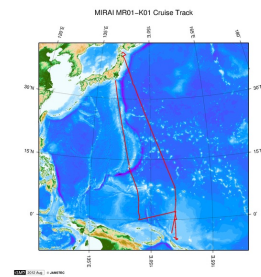
(3) Invalid data information : Ceilometer data files include the invalid data in this cruise as follows.

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

Start	Stop	
File name	Date,Time	File name
C1021418.DAT20010214,193607		Format
C1021418.DAT20010214,195307		C1021418.DAT20010214,195707DataLack
C1021506.DAT20010215,085108		C1021506.DAT20010215,085308DataLack
C1021512.DAT20010215,162208		C1021512.DAT20010215,162408DataLack
C1021612.DAT20010216,175306		C1021612.DAT20010216,175506DataLack
C1021700.DAT20010217,043507		C1021700.DAT20010217,043707DataLack
C1021718.DAT20010217,192607		C1021718.DAT20010217,192807DataLack
C1021800.DAT20010218,025307		C1021800.DAT20010218,025507DataLack
C1021812.DAT20010218,121007		C1021812.DAT20010218,121208DataLack
C1021912.DAT20010219,144608		Format
C1022006.DAT20010220,090108		C1022006.DAT20010220,090308DataLack
C1022306.DAT20010223,065609		C1022306.DAT20010223,065809DataLack
C1022406.DAT20010224,084710		Format
C1022512.DAT20010225,125710		C1022512.DAT20010225,130110DataLack
C1022600.DAT20010226,050211		C1022600.DAT20010226,050511DataLack
C1022618.DAT20010226,220111		C1022618.DAT20010226,220311DataLack
C1022618.DAT20010226,235510		Format

C1030112.DAT20010301,151212-C1030112.DAT20010301,151412DataLack
C1030318.DAT20010303,203714-C1030318.DAT20010303,203915DataLack
C1030506.DAT20010305,075314-C1030506.DAT20010305,075514DataLack
C1030812.DAT20010308,150216 Format
C1031006.DAT20010310,065017-C1031006.DAT20010310,065217DataLack
C1031306.DAT20010313,103419-C1031306.DAT20010313,103619DataLack
C1031506.DAT20010315,084019-C1031506.DAT20010315,084219DataLack
C1031518.DAT20010315,233119 Format
C1031600.DAT20010316,053819 Format
C1031618.DAT20010316,183520-C1031800.DAT20010318,002020DataLack
C1031812.DAT20010318,124420 Format
C1031918.DAT20010319,234121 Format
C1032012.DAT20010320,122620-C1032012.DAT20010320,122821DataLack

Related Information



[Enlarge Image](#)

MR01-K01

Ship Name: MIRAI
Period: 2001-02-14 - 2001-03-22
Chief Scientist: Kentaro Ando (JAMSTEC)
Project Name: [Tropical Ocean Climate Study (TOCS)]

Update History

2014-07-16	An observation data was registered.
2012-12-25	An observation data was registered.

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Go to a Cruise Information

Cruise ID:

Go to a Dive Information

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MIRAI MR01-K01 Cloud Ceiling

Last Modified: 2014-07-16

ReadMe Observation Data **Data Format**

Cruise ID: [MR01-K01](#)

Cloud Ceiling: Raw

Data Policy: [JAMSTEC](#)

Ceiling Raw

The record length of the data file is 56 bytes.

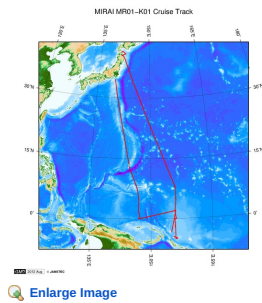
No.	Column	Content	Format	Remarks
1	1 - 8	Date	i4,i2,i2	YYYYMMDD (UTC)
2	10 - 15	Time	i2,i2,i2	hhmmss (UTC)
3	17 - 19	Operating software	a3	'CT0' : CT-VIEW 'CL0' : CL-VIEW
4	20 - 21	Software version	i2	Version of operating software
5	22	Data status	i1	1: Cloud base height/vertical visibility data 2: 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	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	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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6K Sonar DEEP TOW
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BMS

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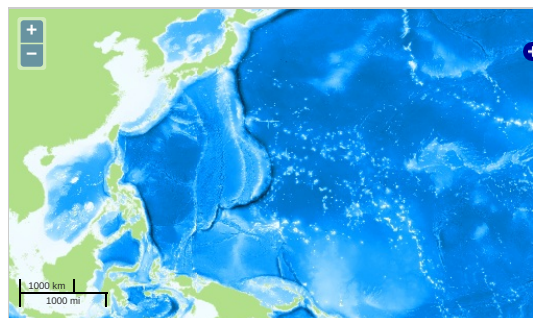
Data Policy: [JAMSTEC](#)

Observation Items: Cloud base height

Science Keywords:

ATMOSPHERE > CLOUDS > CLOUD
BASE

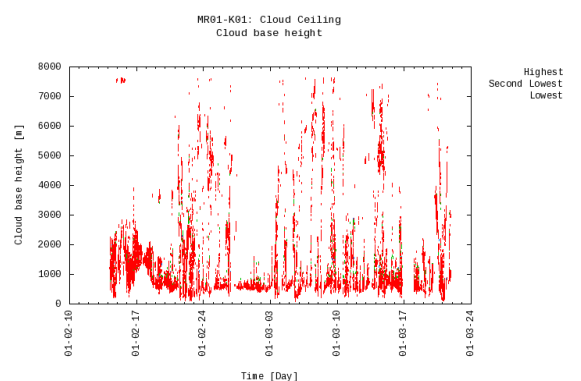
Observation Map



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

Imagery reproduced from ...

Figures



Data List

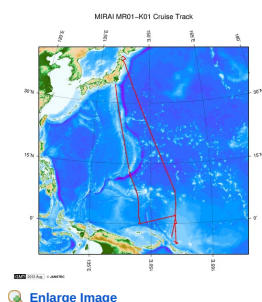
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C1031012.DAT
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File names
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<input type="checkbox"/> C1032118.DAT

Related Information



[Enlarge Image](#)

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