

For Using Data

Data Policy	JAMSTEC
Principal Investigator	Data Management Office
Use Constraints	See Terms and Conditions about constrain of use.
Data Citation	See Terms and Conditions about data citation.

Quality

Raw

Instrument

Ceilometer

**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.

Measurement System

Manufacturer :	Vaisala Inc.
Type :	CL51
Serial No. :	L1220347
Measurement range :	up to 15000 m (Backscatter measurement) up to 13000 m (Cloud detection)
Resolution :	10 [m]
Accuracy :	greater of +/-1% or +/-5 m
Sampling rate :	6 - 120 seconds available (36 seconds as default)
Recording software :	CL-VIEW Ver. 2.00
Location :	Compass deck (17 m high from sea surface)

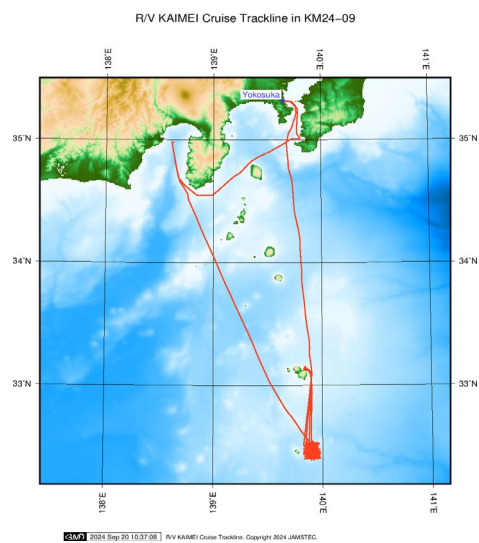
Note

1) File naming rule for AYMMDDHH.DAT(CL-VIEW Ver. 2.00).

A :	Fixed as '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.

Related Information



KM24-09

Ship Name:	KAIMEI
Period:	2024/08/23 - 2024/09/07
Chief Scientist:	Tatsuo Nozaki (JAMSTEC)
Proposal:	BMS drilling Part 1 at Higashi Aogashima Knoll Caldera hydrothermal field to unraveling the gold enrichment mechanism at subseafloor
	In-situ exposure test of the concrete material at deep seafloor

Format Description for Ceiling Row

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	See "*" Observation information"
13	55 - 56	Terminator	a2	[CR][LF]

*** Observation information**

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

[illegible]

[illegible]