

## KAIYO KY13-09 Cloud base height and backscattering

Last Modified: 2015-08-31

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

Cruise ID: [KY13-09](#)

Cloud base height and backscattering: Processed (PI)

Data Policy: [JAMSTEC](#)

Observation Items:

Science Keywords:

### Data Information

We obtained cloud base height and backscattering by measuring laser light reflected by clouds. The cloud base height and the backscattering were measured every 15 seconds, and five-minute mean values calculated from them are available. The backscattering data in five minutes were simply averaged. For cloud base height, we utilized all the heights of three cloud layers that were automatically calculated. We counted the number of the cloud base appearance in each vertical bin with +-50m thickness, and heights in the bin where the frequency was the highest were averaged to be the cloud base height in the five minutes. If the highest frequency was seen in two or more bins at the same time, the bin at the lowest level was used to obtain the cloud base height.

### Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/KY13-09\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/KY13-09_all.pdf)

### For Using Data

#### Principal Investigator

Yoshimi Kawai (JAMSTEC)

#### Use Constraints

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

#### Data Citation

Mention Dr. Yoshimi Kawai (JAMSTEC), Dr. Fumiaki Kobashi and Prof. Toshiyuki Murayama (Tokyo University of Marine Science and Technology) in the acknowledgement.

### Instrument

Instrument:

Ceilometer

Instrument Information:

Model: CL51 Manufacturer: Vaisala

Vertical resolution: 10m Maximum

observation height: 15400m

sampling interval: 15 seconds



### Data Format

1st line: Year, Month, Day, Hour, Minute, 5-min Cloud base height(m)

2nd line: Height(m), 5-min Backscattering coefficient(10-5 srad-1 km-1)

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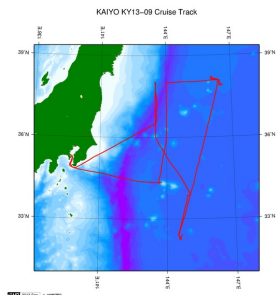
"-99999" means data missing or no clouds

The time in the file shows the beginning time of the average period.

Sample program:

```
open(10,file='./KY13-09_5min.txt',status='old')
do i=1,1000000
  read(10,*,end=150) iyear,imonth,iday,ihour,iminute,cbt
  do k=1,1541
    read(10,*) ih,s
  end do
end do
150 close(10)
stop
end
```

### Related Information



[Enlarge Image](#)

#### KY13-09

Ship Name: KAIYO

Period: 2013-06-28 - 2013-07-12

Chief Scientist: Yoshimi Kawai (JAMSTEC)

Proposal Research on characteristics of clouds and aerosols over the Kuroshio Extension by simultaneous observations with an aircraft

#### Update History

2015-08-31	An observation data was registerd.
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#### Go to a Cruise Information

Cruise ID:

#### Go to a Dive Information

Dive ID:

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**JAMSTEC**

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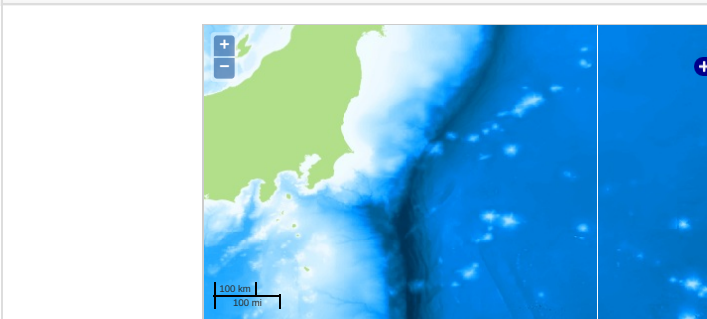
Cloud base height and backscattering Processed (PI)

Data Policy: [JAMSTEC](#)

Observation Items:

Science Keywords:

### Observation Map



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

Imagery reproduced from ...

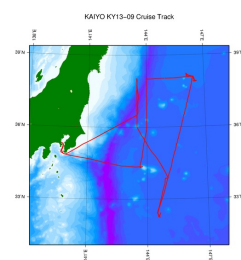
### Data List

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File names

☐ KY13-09\_5min.txt

### Related Information



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