

## MIRAI MR10-02 Mie-scattering lidar data

Last Modified: 2016-04-07

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

Cruise ID: [MR10-02](#)

Mie-scattering lidar data: Processed (PI)

Data Policy: [JAMSTEC](#)

Observation Items:

Science Keywords:

### Data Information

Time-height sections of attenuated backscatter coefficients at 532/1064nm, and volume depolarization ratio at 532 nm. Attenuated backscatter coefficient is estimated using results of inversion with Fernald's method( $S_1=50\text{sr}$ ). Definition of depolarization ratio is S/P. Resolutions are 10 min (before 0430UTC, April 13)/15 min(after that) and 30 m.

### Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR10-02\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR10-02_all.pdf)

### For Using Data

#### Principal Investigator

Nobuo Sugimoto (NIES)  
Ichiro Matsui (NIES)  
Atsushi Shimizu (NIES)  
Tomoaki Nishizawa (NIES)  
JAMSTEC / BPPT joint cruise in the Indonesian waters.

#### Use Constraints

Attenuated backscatter coefficients include both of backscatter from molecules and aerosols. They are attenuated by two-way transmittance between the lidar and the target air volume. There is no special treatment above clouds etc.

#### Data Citation

When lidar data is published, include at least one of scientists in NIES lidar team.

### Instrument

Instrument:

NIES dual wavelength polarization  
lidar

Instrument Information:

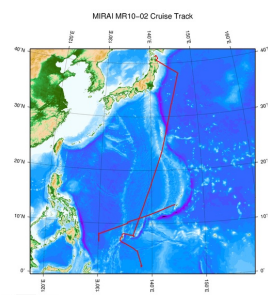
Flash lamp pumped Nd/YAG laser with  
Q-switching is employed as light  
source. Pulse repetition is 10 Hz.  
Diameter of telescope is 20 cm with  
1mrad field of view. PMT/APD are  
employed for light detection and the  
intensities are digitized with 12bit A/D  
converters in 6 m range resolution.  
Data is acquired in every 10 minutes.



### Data Format

netCDF(self documentation)

### Related Information



 [Enlarge Image](#)

#### MR10-02

Ship Name: MIRAI  
Period: 2010-04-06 - 2010-05-02  
Chief Scientist: Kentaro Ando (JAMSTEC)  
Project Name: [Tropical Ocean Climate Study (TOCS), Station KEO]  
Proposal ▶ Tropical Ocean Climate Study/Operation of TRITON Buoy  
Title:

### Update History

2016-04-07	An observation data was registered.
2012-09-28	An observation data was registered.

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Site Policy  
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Application for Data and Samples  
Data Policy

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Data

Map Search  
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Detailed Search

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:

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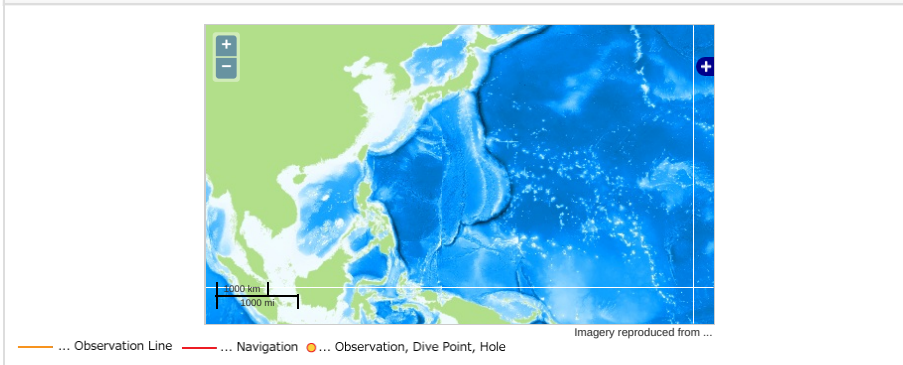
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Data Policy: [JAMSTEC](#)

Observation Items:

Science Keywords:

### Observation Map

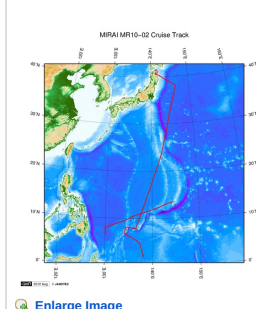


### Data List

#### File names

☐ MR10-02\_lidar.ncdf

### Related Information



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