

## MIRAI MR10-01 Leg2 Mie-scattering lidar data

Last Modified: 2014-03-06

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

Cruise ID: [MR10-01 Leg2](#)

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(S1=50sr). Definition of depolarization ratio is S/P. Resolutions are 15 min and 30 m.

### Cruise Report

[http://www.godac.jamstec.go.jp/catalog/data/doc\\_catalog/media/MR10-01\\_leg1-2\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR10-01_leg1-2_all.pdf)

### For Using Data

#### Principal Investigator

Nobuo Sugimoto (NIES)  
Ichiro Matsui (NIES)  
Atsushi Shimizu (NIES)  
Tomoaki Nishizawa (NIES)

#### 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:

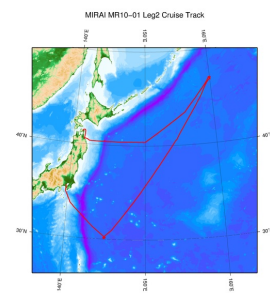
Flash lamp pumped Nd/YAG laser with  
Q-switching is employed as light  
source. Pulse repetition is 10 Hz.  
Diameter of telescope is 20 cm with  
1mrad field of view. PMT/APD are  
employed for light detection and the  
intensities are digitized with 12bit A/D  
converters in 6 m range resolution.  
Data is acquired in every 15 minutes.



### Data Format

netCDF(self documentation)

### Related Information



 [Enlarge Image](#)

#### MR10-01 Leg2

Ship Name: MIRAI

Period: 2010-02-07 - 2010-02-24

Chief Scientist: Kazuhiko Matsumoto (JAMSTEC)

Project Name: [Station K2, Station S1]

Proposal ▶ Change in material cycles and ecosystem by the climate change and its feed back

Title:

### Update History

2014-03-06	An observation data was registered.
2012-09-28	An observation data was registered.

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Cruise ID:

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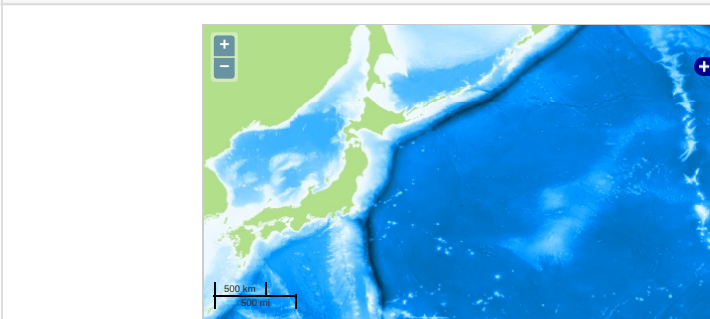
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### Observation Map



Imagery reproduced from ...

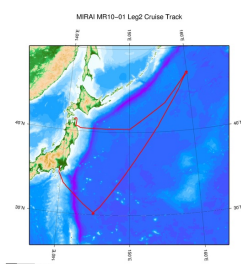
... Observation Line    ... Navigation    ... Observation, Dive Point, Hole

### Data List

#### File names

☐ MR10-01\_lidar.ncdf

### Related Information



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Chief Scientist: Kazuhiko Matsumoto (JAMSTEC)  
Project Name: [Station K2.Station S1]  
Proposal: ▶ Change in material cycles and ecosystem by the climate change and its feed back  
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#### JAMSTEC

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#### Data

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#### Information of the Ships

NATSUSHIMA  
KAIYO  
YOKOSUKA  
MIRAI  
KAIREI  
CHIKYU  
KAIMEI  
SHINSEI MARU  
HAKUHO MARU

#### Information of the Submersibles

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SHINKAI 6500  
DEEP TOW  
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URASHIMA  
YOKOSUKA DEEP TOW  
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6K Sonar DEEP TOW  
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