

## MIRAI MR09-01 Leg1 Mie-scattering lidar data

Last Modified: 2012-09-28

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

Cruise ID: [MR09-01 Leg1](#)

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/MR09-01\\_leg1-3\\_all.pdf](http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR09-01_leg1-3_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:

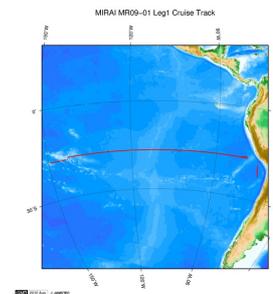
Flash lamp pumped Nd/YAG laser with Q-switching is employed as light source. Pulse repetition is 10 Hz.  
Diameter of telescope is 20 cm with 1mrad field of view. PMT/APD are employed for light detection and the intensities are digitized with 12bit A/D converters in 6m range resolution.  
Data is acquired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



### Data Format

netCDF(self documentation)

### Related Information



[Enlarge Image](#)

#### MR09-01 Leg1

Ship Name: MIRAI

Period: 2009-04-10 - 2009-05-19

Chief Scientist: Akihiko Murata (JAMSTEC)

Project Name: [POST-WOCE Hydrography, South Pacific Ocean Research Activity 2009]

### Update History

2012-09-28 An observation data was registered.

Application for Data and Samples  
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YOKOSUKA  
MIRAI  
KAIREI  
CHIKYU  
KAIMEI  
SHINSEI MARU  
HAKUHO MARU

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 Dive Information

Dive ID:

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JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

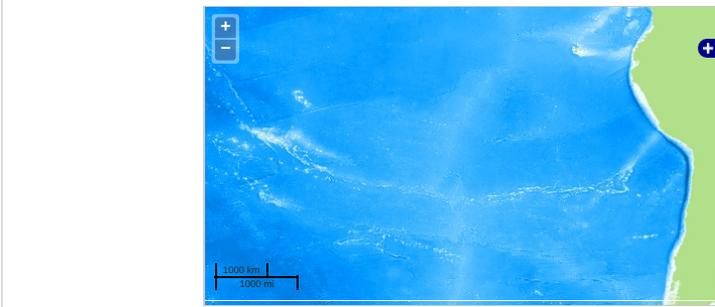
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**Observation Map**



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

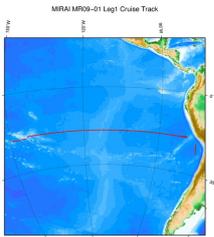
Imagery reproduced from ...

**Data List**

**File names**

MR09-01\_leg1\_lidar.ncdf

**Related Information**



**MR09-01 Leg1**

Ship Name: MIRAI  
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