

MIRAI MR14-06 Leg3 Doppler Radar

Last Modified: 2017-02-25

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Cruise ID: [MR14-06 Leg3](#)

Doppler Radar: Raw

Data Policy: [JAMSTEC](#)

Observation Items: Reflectivity, Doppler velocity

Science Keywords:

ATMOSPHERE > PRECIPITATION
ATMOSPHERE > CLOUDS
ATMOSPHERE > ATMOSPHERIC WINDS
SPECTRAL/ENGINEERING > RADAR > DOPPLER VELOCITY
SPECTRAL/ENGINEERING > RADAR > RADAR REFLECTIVITY

Cruise Report

http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR14-06_leg3_all.pdf

For Using Data

Principal Investigator

Data Management Office

Use Constraints

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

Data Citation

See [Terms and Conditions](#) about data citation.

Instrument

Instrument:

Doppler radar (MR14-04 Leg1 -)



Specifications

Doppler radar

Manufacturer/model: Toshiba Co., Japan/ TW4419A
Frequency: 5370MHz (C-band)
Transmitter: Solid-state transmitter
Pulse configuration : Using pulse-compression
Polarimetry: Horizontal and vertical
Peak power: 6kW(H) + 6kW(V)
Antenna diameter: 4m
Beam angle: 1.0degree
Location (from sea surface): 24m (center position of antenna)

Inertial navigation system

Manufacturer/model: iXBlue SAS, France / PHINS
Location (from sea surface): 21m

Parameter

Surveillance Scan

| | |
|----------------------------------|-----------|
| Scan Interval [min] : | 30 |
| Elevations[deg] : | 0.5 |
| Pulse width (short/long) [μs] : | 2 / 200 |
| Scan speed [deg/sec] : | 36 |
| PRF*1 [Hz] : | 400 |
| Sweep integration (Pulse /Ray) : | 8 samples |
| Ray spacing [deg] : | 0.7 |
| Bin spacing [m] : | 150 |
| Max. range [km] : | 300 |

Volume Scan

| | | | | | | |
|---------------------------------|------------------------------|---|------------------------------|------------|------------|------------|
| Scan interval [min] : | 6 | | | | | |
| Elevations[deg] : | 0.5 | 1.0, 1.7, 2.4, 3.1, 3.8, 4.6, 5.6, 6.7, 8.2, 10.3, 12.8, 15.8 | 19.4, 23.6, 28.4, 33.7, 40.0 | | | |
| Pulse width (short/long) [μs] : | 1 / 64 | 1 / 32 | 1 / 32 | | | |
| Scan speed [deg/sec] : | 18 | 24 | 36 | | | |
| PRF*1[Hz] | dual PRF (ray alternative)*2 | | | | | |
| | 667 | 833 | 938 | 1250 | 1333 | 2000 |
| Sweep integration (Pulse /Ray) | 26 samples | 33 samples | 27 samples | 34 samples | 37 samples | 55 samples |
| Ray spacing [deg] : | 0.7 | 0.7 | | | 1.0 | |

| | | | |
|-------------------|-----|-----|----|
| Bin spacing [m] : | 150 | | |
| Max. range [km] : | 150 | 100 | 60 |

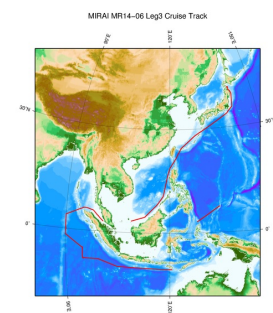
*1 Pulse Repetition Frequency

*2 During this cruise, the data were measured with the dual-PRF mode. Therefore, unfolding of Doppler velocity was applied automatically.

Need raw data?

If you would like the raw data set, please contact us from "Contact Us" above.

Related Information



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MR14-06 Leg3

Ship Name: MIRAI

Period: 2015-01-22 - 2015-02-25

Chief Scientist: Iwao Ueki (JAMSTEC)

Proposal ▶ Study of structure and formation process of the Ontong Java Plateau

Title:

Update History

| | |
|------------|-------------------------------------|
| 2017-02-25 | An observation data was registered. |
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For Using Data

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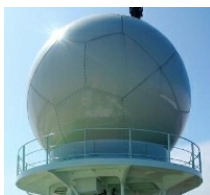
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Instrument:

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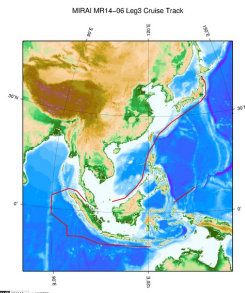
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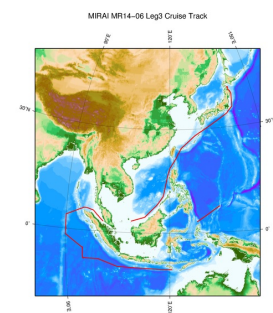
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