

For Using Data

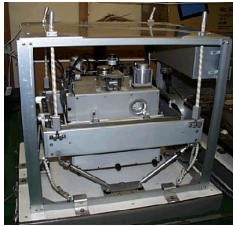
| | |
|------------------------|--|
| Data Policy | JAMSTEC |
| Principal Investigator | Data Management Office |
| Use Constraints | See Terms and Conditions about constrain of use. |
| Data Citation | See Terms and Conditions about data citation. |

Quality

Raw

Instrument

Shipboard gravimeter



Microgravimeter (MR11-06 -)



Measurement System

1) Shipboard gravity meter

The system consists of two main assemblies; the gyro-stabilized platform including the gravity sensor and the data handling & control system.

| | |
|---------------------|--|
| Manufacturer : | LaCoste & Romberg |
| Type : | S-116 |
| Measurement range : | 12,000 mGal |
| Accuracy : | 1.0 mGal |
| Drift rate : | < 3.0 mGal/month |
| Location : | Gravity meter room |
| Reference : | "Model S Air-Sea Dynamic Gravity Meter System II" INSTRUCTION MANUAL LaCoste and Romberg Gravity Meters, Inc. 2004 |

2) Portable gravity meter

The portable gravity meter consists of two modules; the data acquisition/control module and the gravity sensor module. The gravity sensor is enclosed in a thermostatically controlled vacuum chamber. The portable gravity meter is used to calculate the absolute gravity of the port with reference to the gravity station of the Japan Gravity Standardization Net of the Geographical Survey Institute of Japan.

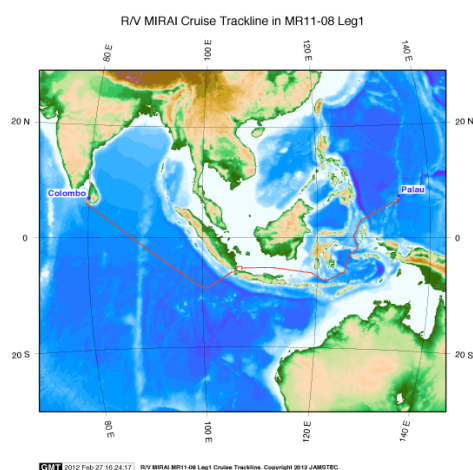
| | |
|----------------------|-----------------------------------|
| Manufacturer : | SCINTREX |
| Model : | CG-5 |
| Measurement range : | 8,000 mGal |
| Standard deviation : | 0.005 mGal |
| Drift rate : | < 0.02 mGal/day |
| Reference : | "CG-5 OPERATION MANUAL", SCINTREX |

About this data

It was appeared that errors in a part of gravity data obtained by using R/V Mirai, associated with converting into absolute gravity. Inappropriate processing was also performed on this cruise, we decided not to process the data due to equipment failure etc., result of data re-analysis in March 2024.

Please contact "dmo@jamstec.go.jp", if you wish to use the raw data.

Related Information



MR11-08 Leg1

| | |
|------------------|-----------------------------|
| Ship Name: | MIRAI |
| Period: | 2011/12/04 - 2011/12/20 |
| Chief Scientist: | Yuichiro Kumamoto (JAMSTEC) |

Format Description for Gravity Corrected

| No. | Column | Content | Format | Unit | Remarks |
|-----|---------|------------------|----------|--------|---|
| 1 | 1 - 8 | Date | i4,i2,i2 | | YYYYMMDD (UTC) |
| 2 | 10 - 15 | Time | i2,i2,i2 | | hhmmss (UTC) |
| 3 | 17 - 25 | Latitude | f9.5 | degree | No sign for the northern hemisphere. Negative for the southern hemisphere. |
| 4 | 27 - 36 | Longitude | f10.5 | degree | No sign for eastern hemisphere. Negative for the western hemisphere. |
| 5 | 38 - 45 | Absolute gravity | f8.1 | mGal | |
| 6 | 48 - 53 | Free-air anomaly | f6.1 | mGal | |