

## For Using Data

Data Policy	JAMSTEC
Principal Investigator	Data Management Office JAMSTEC / BPPT joint cruise in the Indonesian waters.
Use Constraints	See Terms and Conditions about constrain of use.
Data Citation	See Terms and Conditions about data citation.

## Quality

Raw

## Instrument

Three component magnetometer



## Overview

The data provided is for corrected three component geomagnetic field anomalies. Three-axes flux-gate sensors with ring-cored coils were fixed on the roof of the foremast. They measure the following items :

h-component : along track line component, positive for the bow direction pitch.

s-component : across track line component, positive for the starboard side roll.

v-component : vertical component, positive for the downward direction.

The effect of ship motion was eliminated by roll and pitch data which was provided by a tilt sensor.

The apparent magnetic influence can be detected through a "Figure of 8 turn" (a pair of clockwise and anti-clockwise turns) on each cruise. If no Figure of 8 turn on the cruise was completed, the latest Figure of 8 turn from the previous cruise was applied. As a quality control, data of low reliability was removed (see Data processing for quality control criteria). Synthetic geomagnetic field values were calculated from IGRF models.

## Measurement System

## 1) Magnetometer

Manufacturer :	Tierra Technica Ltd.
Type :	SFG1214
Measurement range :	$\pm 100,000$ nT
Accuracy :	less than 100 nT
Resolution :	1 nT
Location :	Dry Laboratory

## 2) Magnetic Sensor

Manufacturer :	Tierra Technica Ltd.
Form :	flux-gate sensors with ring-cored coils
Location :	Foremast

## 3) Attitude sensor and Gyro compass

Manufacturer :	Honeywell
Type :	DRUH
Accuracy :	Roll, Pitch : less than $\pm 0.03$ degree Gyro : less than $\pm 0.06$ degree
Location :	In the doppler radar dome

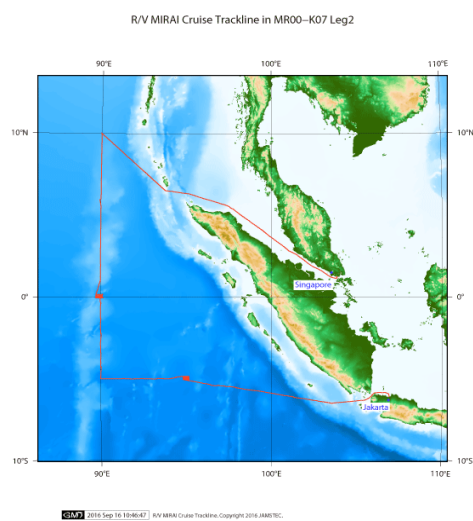
## About this data

We have no plan to process the data as there is no suitable "figure eight turn" data and it is not possible to remove the effects of the ship's magnetic field.

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

## Related Information

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### MR00-K07 Leg2

Ship Name:	MIRAI
Period:	2000/11/09 - 2000/11/20
Chief Scientist:	Keisuke Mizuno (JAMSTEC)
Proposal:	[Tropical Ocean Climate Study (TOCS)]

## Format Description for STCM 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 -43	X component of geomagnetic field anomaly	f6.0	nT	Positive on the north
6	45 -50	Y component of geomagnetic field anomaly	f6.0	nT	Positive on the east
7	52 -57	Z component of geomagnetic field anomaly	f6.0	nT	Positive for downward
8	59 -64	Absolute value of geomagnetic field anomaly	f6.0	nT	