

MIRAI MR04-01 Total Sky Imager

Last Modified: 2016-04-07

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

Cruise ID: [MR04-01](#)

Total Sky Imager: Raw

Data Policy: [JAMSTEC](#)

Observation Items: Cloud conditions

Science Keywords:

ATMOSPHERE > CLOUDS

For Using Data

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.

Overview

The Total Sky Imager (TSI) is a full-color digital imaging and software system designed to automatically monitor cloud conditions at any site. The TSI uses an charge-coupled device (CCD) to take pictures of the sky at user-defined intervals during daytime conditions.

The TSI Manager software, a JAVA application running on a host computer, captures and analyzes the images, providing fractional cloud cover data in nearly real time. TSI images are in 24-bit color with higher spatial resolution.

System

The TSI's basic components include an imager, an automatically rotating hemispherical mirror, and a strip of tape on the mirror to prevent reflected sunlight from damaging the imager optics. The tape is referred to as a sun-blocking shadowband. The TSI imager looks downward onto the hemispherical mirror.

The shadowband on the mirror is positioned by an ephemeris calculation that tracks the sun for any time and any location on the earth, and prevents direct sunlight from saturating the imager and damaging the CCD.

An Ethernet port on the TSI connects to a local PC or network computer running the TSI image capture and processing software. The capture tool samples the TSI output images at user-defined intervals and stores them in JPEG format on the host computer.

Manufacturer: Yankee Environmental Systems, Inc.
Type: TSI Model 440
Serial number: 01376
Image Resolution: 352*288 dots, 24bit color
Sampling rate: Variable, with maximum of one image every 10 seconds
Data storage: Disk on local computer or remote computer over full time TCP/IP connection

Note

Others

Data Files

Date	JPEG file	PNG file
22 Feb., 2004	20040222_jpg.zip	20040222_png.zip
23 Feb., 2004	20040223_jpg.zip	20040223_png.zip
24 Feb., 2004	20040224_jpg.zip	20040224_png.zip
25 Feb., 2004	20040225_jpg.zip	20040225_png.zip
29 Feb., 2004	20040229_jpg.zip	20040229_png.zip
01 Mar., 2004	20040301_jpg.zip	20040301_png.zip
02 Mar., 2004	20040302_jpg.zip	20040302_png.zip
03 Mar., 2004	20040303_jpg.zip	20040303_png.zip
04 Mar., 2004	20040304_jpg.zip	20040304_png.zip
05 Mar., 2004	20040305_jpg.zip	20040305_png.zip
06 Mar., 2004	20040306_jpg.zip	20040306_png.zip
07 Mar., 2004	20040307_jpg.zip	20040307_png.zip
08 Mar., 2004	20040308_jpg.zip	20040308_png.zip
09 Mar., 2004	20040309_jpg.zip	20040309_png.zip
10 Mar., 2004	20040310_jpg.zip	20040310_png.zip
11 Mar., 2004	20040311_jpg.zip	20040311_png.zip
12 Mar., 2004	20040312_jpg.zip	20040312_png.zip
13 Mar., 2004	20040313_jpg.zip	20040313_png.zip
14 Mar., 2004	20040314_jpg.zip	20040314_png.zip
15 Mar., 2004	20040315_jpg.zip	20040315_png.zip

Related Information



Ship Name: MIRAI
Period: 2004-02-22 - 2004-03-22
Chief Scientist: Kunio Yoneyama (JAMSTEC)
Project Name: [MJO Research]

2016-04-07	An observation data was registerd.
2012-11-25	An observation data was registerd.

What's New

- Data
- Map Search
- Data Tree
- Detailed Search

NATSUSHIMA
KAIYO
YOKOSUKA
MIRAI
KAIREI
CHIKYU
KAIMEI
SHINSEI MARU
HAKUHO MARU

KAIKO
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

Cruise ID: Go

Dive ID:

 **JAMSTEC** 国立研究開発法人
海洋研究開発機構
JAPAN AGENCY FOR MARINE EARTH SCIENCE AND TECHNOLOGY

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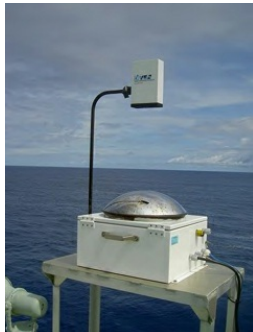
[ReadMe](#) [Observation Data](#) [Data Format](#)

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TSI



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The following table shows data format of Total Sky Imager on R/V MIRAI of JAMSTEC.

JPEG image files



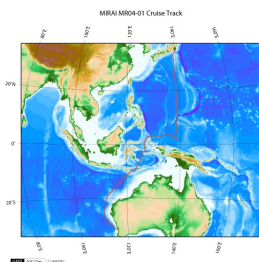
Color number : fullcolor
Picture size : 288 * 352 pixel
File name : YYYYMMDDhhmmss.jpg
File size : 20 - 40 kbytes

PNG image files



Color number : 256 colors
Picture size : 288 * 352 pixel
File name : YYYYMMDDhhmmss.png
File size : 1 - 5 kbytes

Related Information



[Enlarge Image](#)

MR04-01

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Project Name: [MJO Research]

Update History

2016-04-07	An observation data was registerd.
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JAMSTEC

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[Privacy Policy](#)
[Application for Data and Samples](#)
[Data Policy](#)

What's New

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Lists

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Data

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[Data Tree](#)
[Detailed Search](#)

Information of the Ships

[NATSUSHIMA](#)
[KAIYO](#)
[YOKOSUKA](#)
[MIRAI](#)
[KAIREI](#)
[CHIKYU](#)
[KAIMEI](#)
[SHINSEI MARU](#)
[HAKUHO MARU](#)

Information of the Submersibles

[KAIKO](#)
[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 Cruise Information

Cruise ID:

Go to a Dive Information

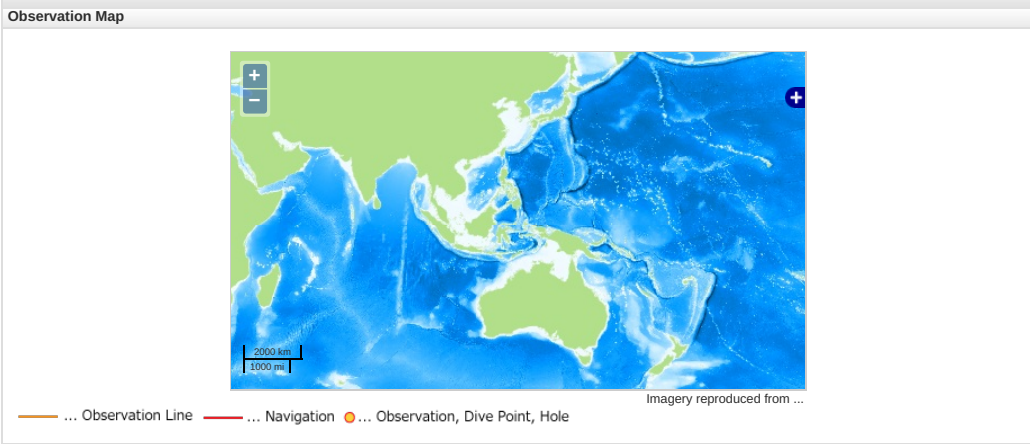
Dive ID:

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Data List

[Add to Basket](#)

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<input type="checkbox"/>	20040224_jpg.zip
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