

MIRAI MR01-K05 Leg2 Total Sky Imager

Last Modified: 2016-10-11

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

Cruise ID: [MR01-K05 Leg2](#)

Total Sky Imager: Raw

Data Policy: [JAMSTEC](#)

Observation Items: Cloud conditions

Science Keywords:

ATMOSPHERE > CLOUDS

Cruise Report

http://www.godac.jamstec.go.jp/catalog/data/doc_catalog/media/MR01-K05_leg2_all.pdf

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.

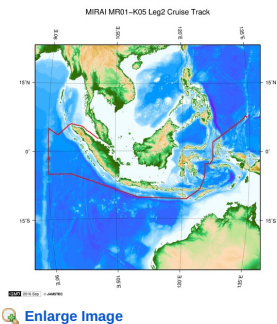
An Ethernet port on the TSI connects to a local PC or network computer running the TSI image capture and processing software. The capture tool samples the TSI output images at user-defined intervals and stores them in JPEG format on the host computer.

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

Others

Date	JPEG file	PNG file
18 Oct., 2001	20011018_jpg.zip	20011018_png.zip
19 Oct., 2001	20011019_jpg.zip	20011019_png.zip
20 Oct., 2001	20011020_jpg.zip	20011020_png.zip
21 Oct., 2001	20011021_jpg.zip	20011021_png.zip
22 Oct., 2001	20011022_jpg.zip	20011022_png.zip
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26 Oct., 2001	20011026_jpg.zip	20011026_png.zip
27 Oct., 2001	20011027_jpg.zip	20011027_png.zip
28 Oct., 2001	20011028_jpg.zip	20011028_png.zip
29 Oct., 2001	20011029_jpg.zip	20011029_png.zip
30 Oct., 2001	20011030_jpg.zip	20011030_png.zip
31 Oct., 2001	20011031_jpg.zip	20011031_png.zip
01 Nov., 2001	20011101_jpg.zip	20011101_png.zip
02 Nov., 2001	20011102_jpg.zip	20011102_png.zip
03 Nov., 2001	20011103_jpg.zip	20011103_png.zip
04 Nov., 2001	20011104_jpg.zip	20011104_png.zip
05 Nov., 2001	20011105_jpg.zip	20011105_png.zip

Related Information



MR01-K05 Leg2

Ship Name: MIRAI

Period: 2001-10-18 - 2001-11-05

Chief Scientist: Keisuke Mizuno (JAMSTEC)

Project Name: [Tropical Ocean Climate Study (TOCS)]

Update History

2016-10-11	An observation data was registerd.
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YOKOSUKA

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KAIREI

CHIKYU

KAIMEI

SHINSEI MARU

HAKUHO MARU

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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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JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

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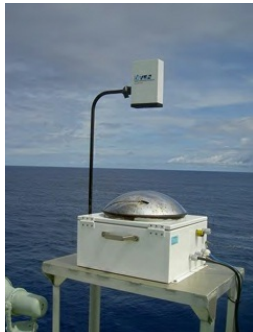
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TSI



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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.

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

JPEG image files



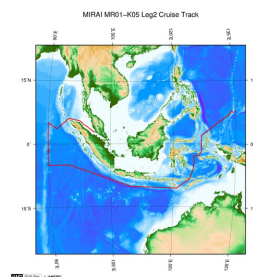
Color number : fullcolor
Picture size : 288 * 352 pixel
File name : YYYYMMDDhhmmss.jpg
File size : 20 - 40 kbytes

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](#)

MR01-K05 Leg2

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Project Name: [Tropical Ocean Climate Study (TOCS)]

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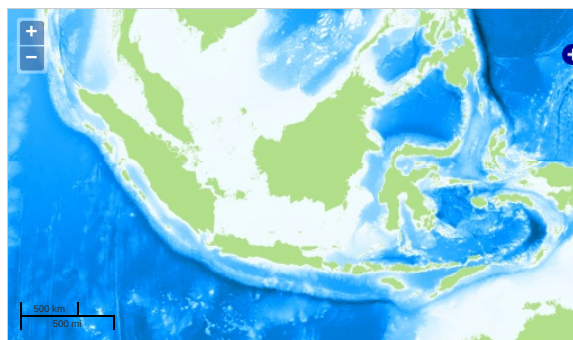
Data Policy: [JAMSTEC](#)

Observation Items: Cloud conditions

Science Keywords:

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Observation Map



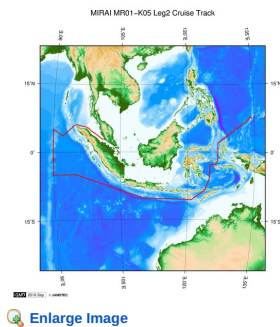
— ... Observation Line — ... Navigation ● ... Observation, Dive Point, Hole

Data List

[Add to Basket](#)

File names

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<input type="checkbox"/>	20011018_png.zip
<input type="checkbox"/>	20011019_jpg.zip
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