

MIRAI MR01-K05 Leg1 Total Sky Imager

Last Modified: 2016-10-11

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

Cruise ID: [MR01-K05 Leg1](#)

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_leg1_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.

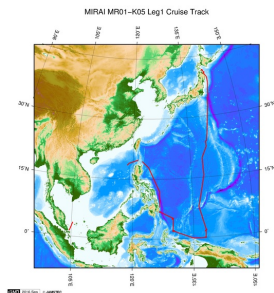
An Ethernet port on the TSI connects to a local PC or network computer running the TSI image capture and processing software. The capture tool samples the TSI output images at user-defined intervals and stores them in JPEG format on the host computer.

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
20 Sep., 2001	20010920_jpg.zip	20010920_png.zip
21 Sep., 2001	20010921_jpg.zip	20010921_png.zip
22 Sep., 2001	20010922_jpg.zip	20010922_png.zip
23 Sep., 2001	20010923_jpg.zip	20010923_png.zip
24 Sep., 2001	20010924_jpg.zip	20010924_png.zip
25 Sep., 2001	20010925_jpg.zip	20010925_png.zip
26 Sep., 2001	20010926_jpg.zip	20010926_png.zip
27 Sep., 2001	20010927_jpg.zip	20010927_png.zip
28 Sep., 2001	20010928_jpg.zip	20010928_png.zip
29 Sep., 2001	20010929_jpg.zip	20010929_png.zip
30 Sep., 2001	20010930_jpg.zip	20010930_png.zip
01 Oct., 2001	20011001_jpg.zip	20011001_png.zip
02 Oct., 2001	20011002_jpg.zip	20011002_png.zip
03 Oct., 2001	20011003_jpg.zip	20011003_png.zip
04 Oct., 2001	20011004_jpg.zip	20011004_png.zip
05 Oct., 2001	20011005_jpg.zip	20011005_png.zip
06 Oct., 2001	20011006_jpg.zip	20011006_png.zip
07 Oct., 2001	20011007_jpg.zip	20011007_png.zip
08 Oct., 2001	20011008_jpg.zip	20011008_png.zip
09 Oct., 2001	20011009_jpg.zip	20011009_png.zip

Related Information



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MR01-K05 Leg1

Ship Name: MIRAI

Period: 2001-09-20 - 2001-10-16

Chief Scientist: Yoshifumi Kuroda (JAMSTEC)

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

Update History

2016-10-11	An observation data was registerd.
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KAIREI
CHIKYU
KAIMEI
SHINSEI MARU
HAKUHO MARU

Information of the Submersibles

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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:

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Dive ID:

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JAPAN AGENCY FOR MARINE EARTH SCIENCE AND TECHNOLOGY

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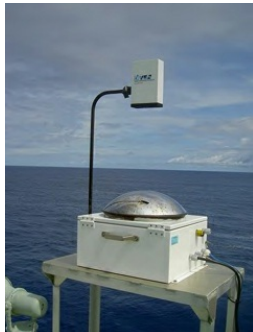
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TSI



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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



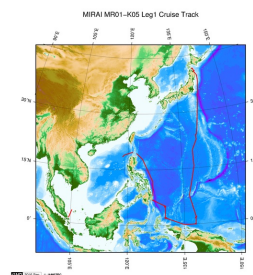
Color number : fullcolor
Picture size : 288 * 352 pixel
File name : YYYYMMDDhhmmss.jpg
File size : 20 - 40 kbytes

PNG image files



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

Related Information



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MR01-K05 Leg1

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Period: 2001-09-20 - 2001-10-16
Chief Scientist: Yoshifumi Kuroda (JAMSTEC)
Project Name: [Tropical Ocean Climate Study (TOCS)]

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6K Sonar DEEP TOW
KM-ROV
POWER GRAB
SAMPLER (SHELL)
POWER GRAB
SAMPLER (CLOW)
BMS

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Go to a Dive Information

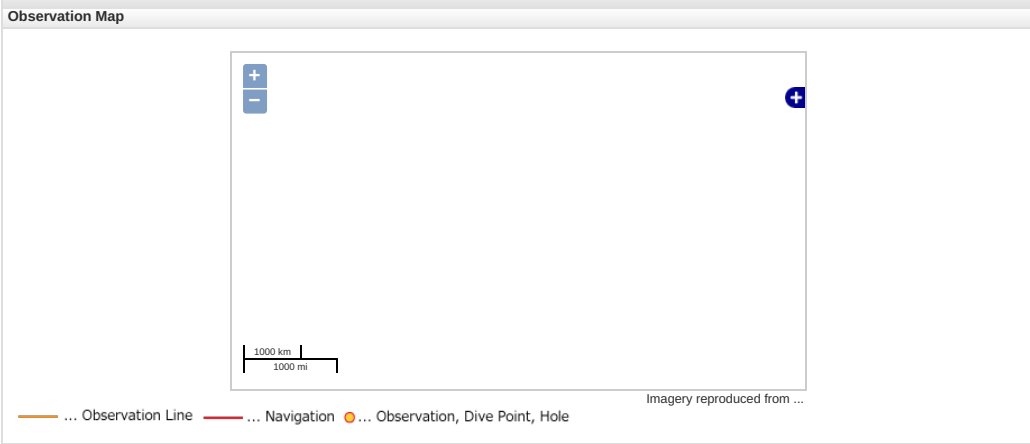
Dive ID:

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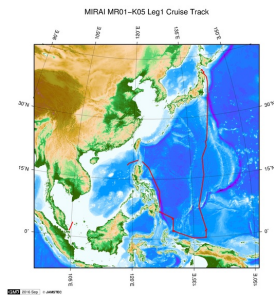
Data List

[Add to Basket](#)

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<input type="checkbox"/>	20010921_jpg.zip
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Related Information

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