

MIRAI MR01-K05 Leg4 Total Sky Imager

Last Modified: 2016-10-11

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

Cruise ID: [MR01-K05 Leg4](#)

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_leg3-4_all.pdf

For Using Data

Principal Investigator

Data Management Office

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.

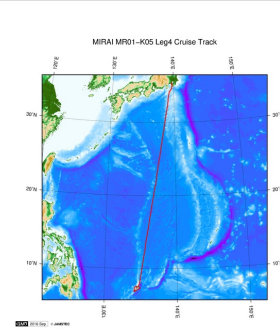
An Ethernet port on the TSI connects to a local PC or network computer running the TSI image capture and processing software. The capture tool samples the TSI output images at user-defined intervals and stores them in JPEG format on the host computer.

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
12 Dec., 2001	20011212_jpg.zip	20011212_png.zip
13 Dec., 2001	20011213_jpg.zip	20011213_png.zip
14 Dec., 2001	20011214_jpg.zip	20011214_png.zip
15 Dec., 2001	20011215_jpg.zip	20011215_png.zip
16 Dec., 2001	20011216_jpg.zip	20011216_png.zip
17 Dec., 2001	20011217_jpg.zip	20011217_png.zip
18 Dec., 2001	20011218_jpg.zip	20011218_png.zip
19 Dec., 2001	20011219_jpg.zip	20011219_png.zip

Related Information



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MR01-K05 Leg4

Ship Name: MIRAI
Period: 2001-12-13 - 2001-12-19
Chief Scientist: Kunio Yoneyama (JAMSTEC)

Update History

2016-10-11 An observation data was registerd.

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

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Cruise ID:

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Dive ID:

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JAMSTEC
JAPAN AGENCY FOR MARINE-EARTH SCIENCE AND TECHNOLOGY

国立研究開発法人
海洋研究開発機構

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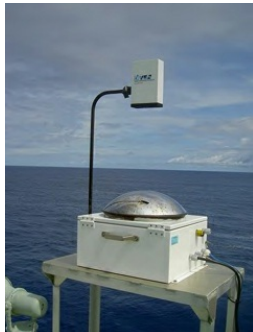
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TSI



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

JPEG image files



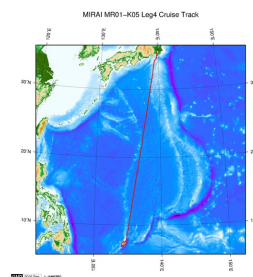
Color number : fullcolor
Picture size : 288 * 352 pixel
File name : YYYYMMDDhhmmss.jpg
File size : 20 - 40 kbytes

PNG image files



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

Related Information



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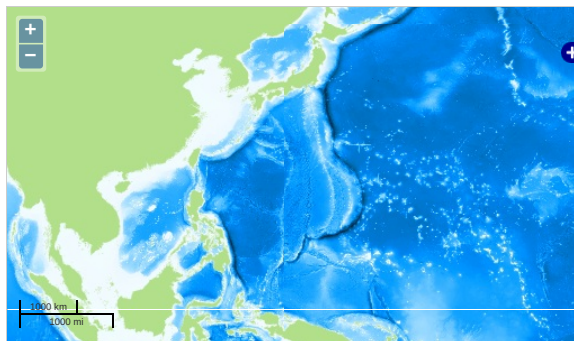
Data Policy: [JAMSTEC](#)

Observation Items: Cloud conditions

Science Keywords:

ATMOSPHERE > CLOUDS

Observation Map



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

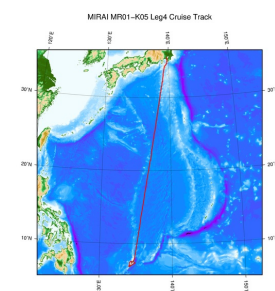
Data List

[Add to Basket](#)

File names

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<input type="checkbox"/>	20011218_png.zip
<input type="checkbox"/>	20011219_jpg.zip
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Related Information



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