



Yokosuka Cruise Report

YK15-05

The Live Broadcast of the Dive of the SHINKAI6500 in
Memory of the 25th Anniversary

Central Part of the Okinawa Trough

April 17, 2015 – April 19, 2015

Japan Agency for Marine-Earth Science and Technology
(JAMSTEC)

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1. Cruise Information

1.1 Cruise ID

YK15-05

1.2 Name of vessel

Yokosuka

1.3 Title of the cruise

The Live Broadcast of the Dive of the SHINKAI6500 in Memory of the 25th Anniversary

1.4 Chief scientist

Shigeyuki Hirose [JAMSTEC, Public Relations Division (PRD)]

1.5 Representative of the Science Party

Shigeyuki Hirose [JAMSTEC, Public Relations Division (PRD)]

1.6 Title of proposal

The Live Broadcast of the Dive of the SHINKAI6500 in Memory of the 25th Anniversary

1.7 Cruise period

2015/04/17~2015/04/19

1.8 Ports of departure / call / arrival

Naha(Okinawa)~Naha(Okinawa)

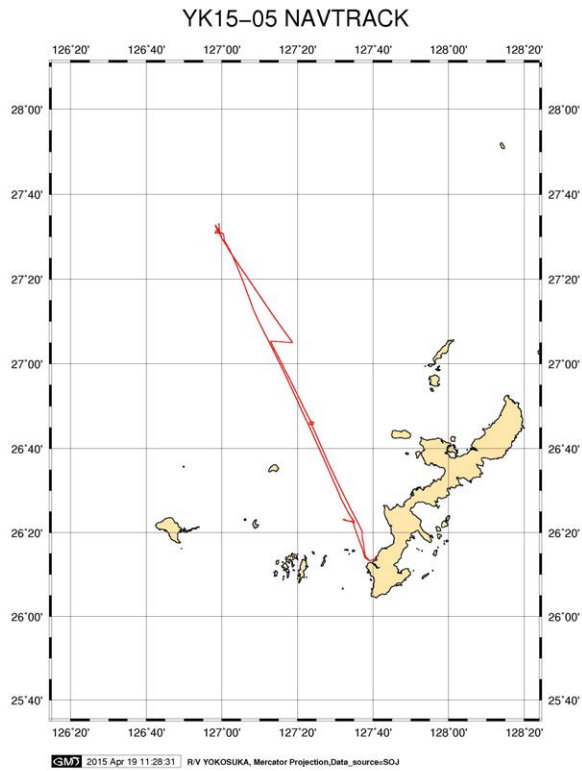
1.9 Research area

Central part of the Okinawa trough (Sakai Field)

1.10 Research map

1.10.1 Cruise Track

2015/04/17 13:00 leave Naha Port ~ 2015/04/19 08:45enter Naha Port



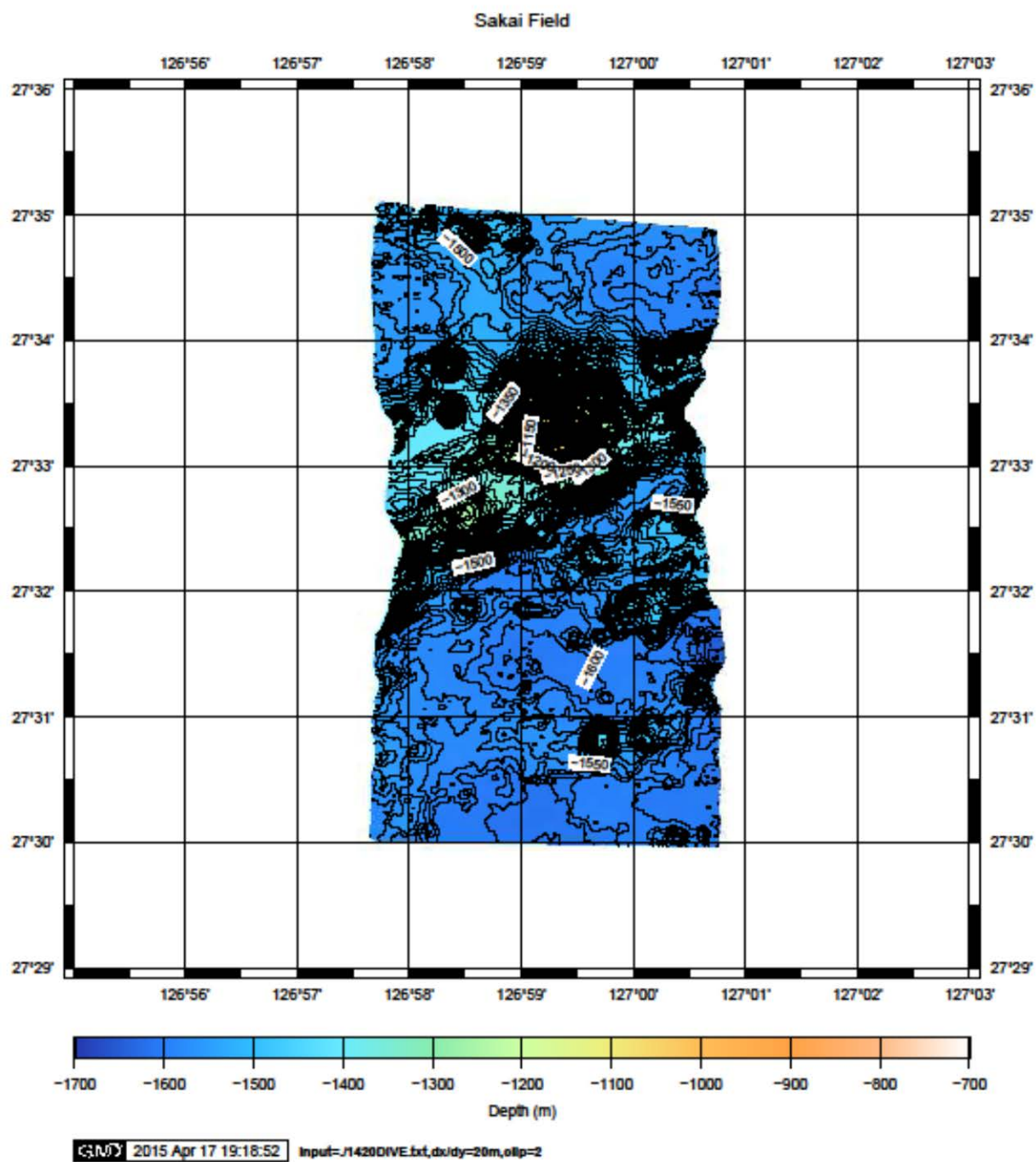
1.10.2 Survey areas

The range that is surrounded with a parallel, a line of longitude

27° 29.0' N, 27° 36.0' N 126° 55.0' E, 127° 03.0' E

Depth 1,000meters ~ 1,700meters

1.10.3 Topographical map of the sea bottom



1.10.4 Dive points,

27° -31.1'N, 126° -59.0'E, Depth 1,596meters

2. archers

Chief scientist

Shigeyuki Hirose [JAMSTEC, Public Relations Division (PRD)]

Representative of the science party

Shigeyuki Hirose [JAMSTEC, Public Relations Division (PRD)]

Science party (List)

Tadashi Yoshizawa [JAMSTEC, Public Relations Division (PRD)]

Kihati Hasebe [JAMSTEC, Public Relations Division (PRD)]

Ken Takai [JAMSTEC, Department of Subsurface Geobiological Analysis and Research (D-SUGAR)]

Junichi Miyazaki [JAMSTEC, Department of Subsurface Geobiological Analysis and Research (D-SUGAR)]

Tomoo Watsuji [JAMSTEC, Department of Subsurface Geobiological Analysis and Research (D-SUGAR)]

Atsuya Asano [DREAMAX TELEVISION]

Takeyoshi Yamamoto [DREAMAX TELEVISION]

Morishita Toshiyuki [DREAMAX TELEVISION]

Kato Judai [DREAMAX TELEVISION]

Sakakibara Naoki [DREAMAX TELEVISION]

Ohuchi Yasushi [DREAMAX TELEVISION]

Takahashi Toshimitsu [K Company]

Fukuda Yasumi [Fs-GAME]

Hattori Mitsuaki [Fs-GAME]

Satoshi Ogura [JAMSTEC, Marine Technology and Engineering Center (MARITEC)]

3. Observation

3.1 Cruise summary

In commemoration of the 25th anniversary of the Manned Research Submersible SHINKAI 6500, We carried out the following research cruise for the purpose of promoting scientific research activities through the live broadcast of the dive to the deep sea hydrothermal vents at the central part of the Okinawa trough (Sakai Field).

- (1) Observed a creature, the geological feature by the underwater video camera, water still camera photography.
- (2) Collected of the sediment core sample and measured temperature.
- (3) Measured the methane density with water intake by pressure keeping water sampler (WHATS) and the real-time methane sensor.
- (4) Performed creature collection by suction sampler (slurp-gun).
- (5) Filmed the cruise activities for the TV drama program to be aired on WOWOW channel.

The result of footages are going to be used for the future outreach activities of the marine and earth science.

In addition, the live broadcasting was carried out on Saturday, April 18 and aired on JAMSTEC Channel on YouTube and the live program on niconico using a communications satellite (VSAT), interactive lecture also was carried out with the people at the Yokohama Institute of JAMSTEC.

3.2 Dive information

3.2.1 Dive number/Date/Site

Dive #1422

Date: April 18, 2015 (JST)

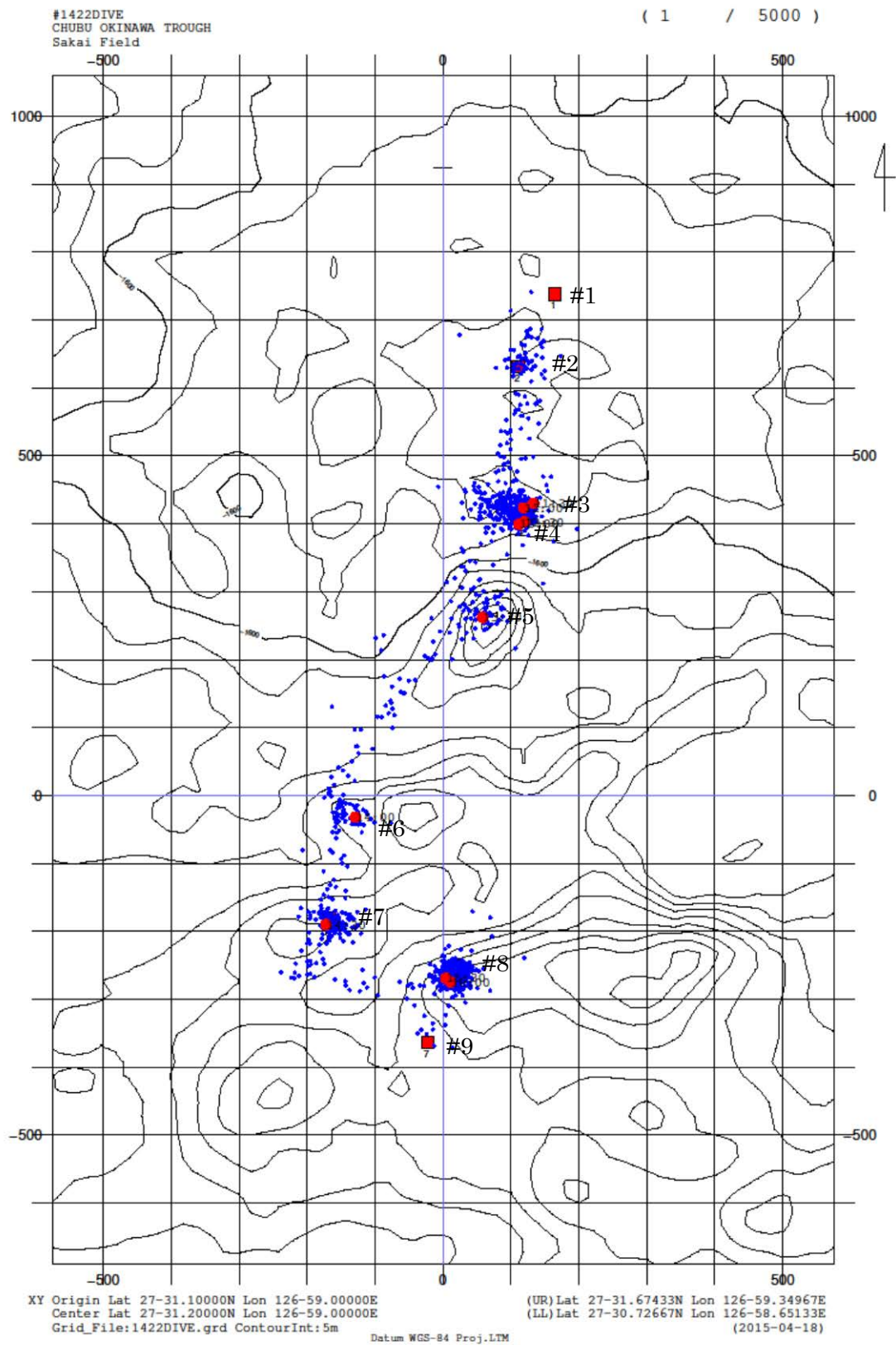
Site: Central part Okinawa trough (Sakai Field) (27° - 31.1° N, 126° - 59.0° E, Depth 1,596m)

Observer: Takeyoshi Yamamoto



Fig 1 pay-load set (Sample basket)

3.2.2 Dive tracks.



3.2.3 Dive point information and Sampling/Information of research stations

#1 11:03

27-31.5000N,126-59.1000E,1600m

Landing Target

#2 11:10

27-31.4419N,126-59.0679E,1590m

Landing

Bottom sediment: Mud, Visibility: 6m Water temperature: 3.8 degrees Celsius

Current speed: 4cm/sec to 270 degrees direction



#3 11:33

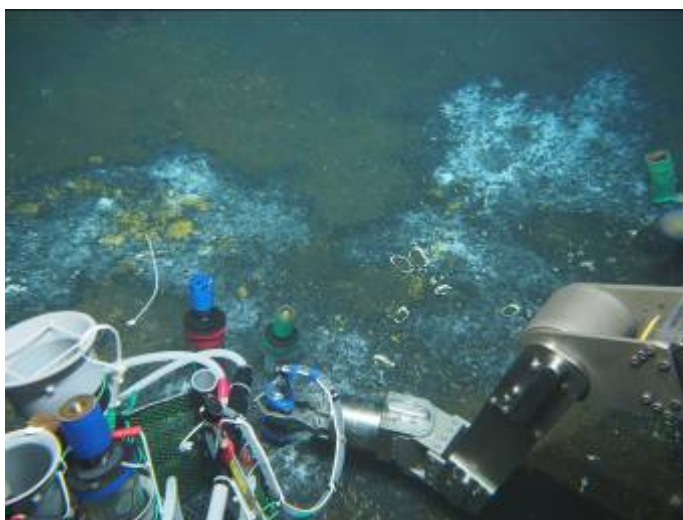
27-31.3278N,126-59.0734E,1596m

Color-change area

Measurement Temperature: Max 9.3 degrees Celsius (Bottom of the sea bottom -35cm)

Conducted Sampling H core (blue red) MBARI(green red)





#4 12:32

27-31.3197N,126-59.0707E,1594m

Measurement Temperature: Max 8.0 degrees Celsius (Bottom of the sea bottom -35cm)

Conducted sampling MBARI (blue yellow)



#5 13:33

27-31.24.058N,126-59.050E,1535m

Found the Marker H1771-1





#6 14:03

27-31.078N, 126-58.904E, 1543m

Finding Chimney





#7 14:19

27-31.0020N,126-58.8982E,1543m

Found the Chimney

Set #188Marker





#8 15:08

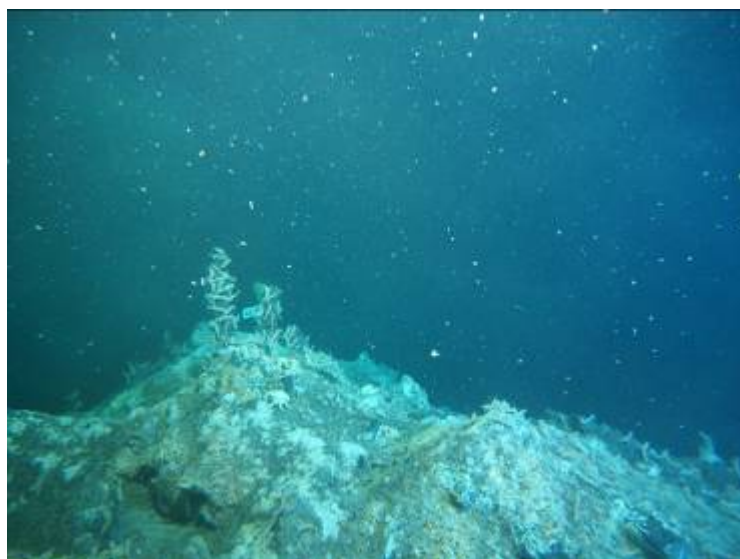
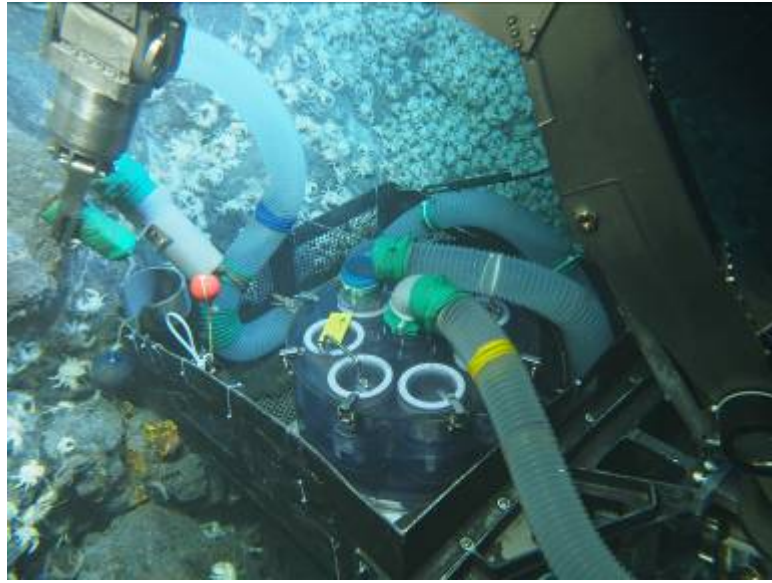
27-30.9596N,126-59.0133E,1515m

Arrived at the Sakasagoemon Mound

Conducted Sampling Water(4), Animals







#9 16:25

27-30.9029N,126-58.9856E,1553m,

Left Bottom



3.3 Broadcast live via the Internet

The series of investigations during the dive was live broadcasted through the JAMSTEC Channel on YouTube (1410 views) and the live program on niconico (144,203views) using the communication satellite (VSAT). In addition, interactive public lecture between the *Yokosuka* and the Yokohama institute of JAMSTEC was carried out. (Participants: 60 people in the morning and 45 people in the afternoon session).



3.4 About data

TV crew went on board and photographed the video document which recorded investigations at the dive.

4. Notice on Using

Notice on using: Insert the following notice to users regarding the data and samples obtained.

This cruise report is a preliminary documentation as of the end of the cruise.

This report may not be corrected even if changes on contents (i.e. taxonomic classifications) may be found after its publication. This report may also be changed without notice. Data on this cruise report may be raw or unprocessed. If you are going to use or refer to the data written on this report, please ask the Chief Scientist for latest information.

Users of data or results on this cruise report are requested to submit their results to the Data Management Group of JAMSTEC.