Yokosuka Cruise Report

YK09-11

Production of the TV program with 'SHINKAI6500' dive

Japan Trench off Miyako

August 19, 2009 – August 27, 2009

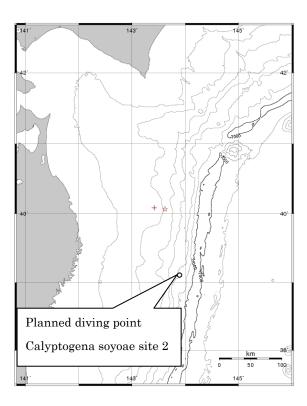
Japan Agency for Marine-Earth Science and Technology (JAMSTEC)

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1. Cruise information

<u>Cruise number</u> :	YK09-11
<u>Ship name</u> :	Yokosuka
<u>Title of the cruise</u> :	Production of the TV program with
	'SHINKAI6500' dive
Chief Scientist:	Shozo Tashiro
Affiliation:	JAMSTEC
Cruise period:	Aug 19, 2009 – Aug 27, 2009
Port call:	Yokosuka-Hachinohe-Ohfunato
<u>Dive area</u> :	Japan Trench off Miyako



Diving point: Calyptogena soyoae site 2(5,200m depth) Inside the circle of 20miles in radius that centers on 39° 6.5'N and 143° 53.5' E

2. Purpose

Recently nation wide interest to the ocean environment or sources has been raised.

The requests for our cooperation to the science programs have been increased from TV companies and mass media such as program production companies.

Under this situation, Public Relations division collected the program plans publicly from TV broadcasters in Tokyo at the end of last fiscal year. The adopted TBS program of 'Jump and go Mr. Science' produced the science program using 'Shinkai6500' dive. The purpose of the program was conducted to advertize and diffuse of JAMSTEC's activities and enlightenment activities to the public.

3. Duration

Aug 19, 2009 (Sun) –	Aug 27, 2009 (Thurs.)
Port call:	Hachinohe port (Aug 21-24, 2009),
	Ohfunato port (Aug 27, 2009)

As a part of Hachinohe-city's 80th anniversary event and Hachinohe opening port 70th anniversary event, both Yokosuka and Shinkai6500 were on show to the public at the Hachinohe port on Aug 22 and 23.

4. Implementation detail

The navigation was executed to produce for the 'Production of the TV program with SHINKAI6500 dive', which was proposed by Public Relations division to apply for the internal use of JAMSTEC's vessels in 2009 and was adopted.

The proposals of this navigation were collected from TV companies and were examined by the review committee in which nonfiction writer, Mr. Kazuma Yamane, participated as an external specialist then 'Jump and go Mr. Science' broadcasted by TBS was adopted from nine proposals. TBS and JAMSTEC took Shinkai6500 dive on a film for the program production collectively.

The reporter, Shoko Nakagawa whom TBS had arranged embarked Shinkai6500 and dived for taking a film of the sea floor and inside of the submersible and for collecting the samples.

Taking a film on the vessel, Mr. Matsumoto whom TBS had arranged as a reporter, Mr. Hiei, Producer, Mr. Miyashita, Director and the shooting staffs embarked on the mother vessel 'Yokosuka'.

Before leaving Hachinohe port, it was worried about the effect of the season's 10^{th} typhoon just passed the offshore. To the contrary, it was calm welter so that Shinkai6500 could dive on Aug 25 on schedule.

Two fixed camera and one handheld camera were taken in the cockpit for shooting the reporter and inside the cockpit. It was taken a film without break. Outside of the cockpit, small camera owned by the operation team was fixed at the starboard side manipulator for filming the reporter who observed the deep sea through the view port.

To see the pressure change visibly while Shinkai 6500 was descending, a bust made from form polystyrene, water flask made from aluminum, balls of rubber-ball baseball and softball, golf ball etc were mounted as pay load and took a filming continuously. The water flask was crashed in the depth of 15m and the bust was shrunk to one third but there was no pressure change to the balls.

Shinkai6500 dived with the sample box in which the multiple canister's slurp gun to capture the creatures living on the sea floor, the sample basket for bringing back the creatures such as calyptogena soyoae etc (TBS made two boxes), the program flag, the four kinds of feed, and liquid that emitted light when two liquids named cyalume were mixed were put.

It dived and reached at the point in the depth of 5350m and set the program flag there. After each kind of bait was set at intervals of 10m, conducted the observation of the creatures gathered to the bait and recovered the flag. It spent a lot of time for setting up and recovering in order to observe and capture the creatures, Shinkai6500 couldn't go to the calyptogena soyoae colony regrettably.

At the bait, 11 macrouridae (Coryphaenoides yaquinae, spectrunculus grandis etc) or less gathered.

Many kinds of creatures such as holothurian including Enypniastes eximia, ophiuroid, prawn could be observed and confirmed that biofacies of this sea area was rich.

All planned experiments during the dive were performed except going to calyptogena soyoae colony

Before the diving, it took time for setting up the fixed cameras inside the cockpit. Because of this, starting time delayed 20 min later than scheduled so that the time returned to the sea surface extended by 20 min. It was eight hours dive from sea surface to sea surface.

Next day on Aug 26, it stayed the same sea area in order to take a filming inside the 'Yokosuka'.

It was better hydrographic conditions than yesterday so all filming including the scenes on shipboard originally scheduled could be taken. The TV crews could take a film of a big troop of Physeter Macrocephalus in the morning on Aug. 26.

5. Consideration

In the past, 'Planet earth' broadcasted by NHK or 'Japan sinking' produced by TOHO etc, JAMSTEC cooperated with other organizations based on their request but it was the first trial for JAMSTEC to make a jointly produced program with the TV stations by recruiting the plans from them. Taking a film on the sea was performed smoothly and successfully because of TBS's careful preparation and the reporter, Shoko Nakagawa's deep knowledge to the deep sea creatures.

6. Acknowledgement

I got wonderful correspondence from Mr. Umino, Captain and crews of 'Yokosuka', Mr. Sakurai, Operation manager and team members of 'Shinkai 6500' in setting a complex payload and consideration to a delicate entertainers.

Especially, several times of 'Shinkai6500' team's correspondence to TV crews'

preliminary examinations and experiments before leaving from Yokosuka port led to this success.

 ${\rm I}$ wish sincerely to express my gratitude for the effort of everybody.