



Shinsei-maru+ “Cruise Report”
KS-22-J06

Real-time ocean bottom crustal movement observation

Kumano-nada
Off Kii Channel
Off Hatsushima Sagami bay
Sep.7th, 2022 - Sep.27th, 2022

Ocean Floor Observatory Technology Development Group
R&D Center for Earthquake and Tsunami
Research Institute for Marine Geodynamics
Japan Agency for Marine-Earth Science and Technology

Contents

1. Cruise Information	3
2. Research Proposal and Science Party	3
3. Activity and Results.....	4
4. Dive Log.....	5
5. Notice on Using	10

1. Cruise Information

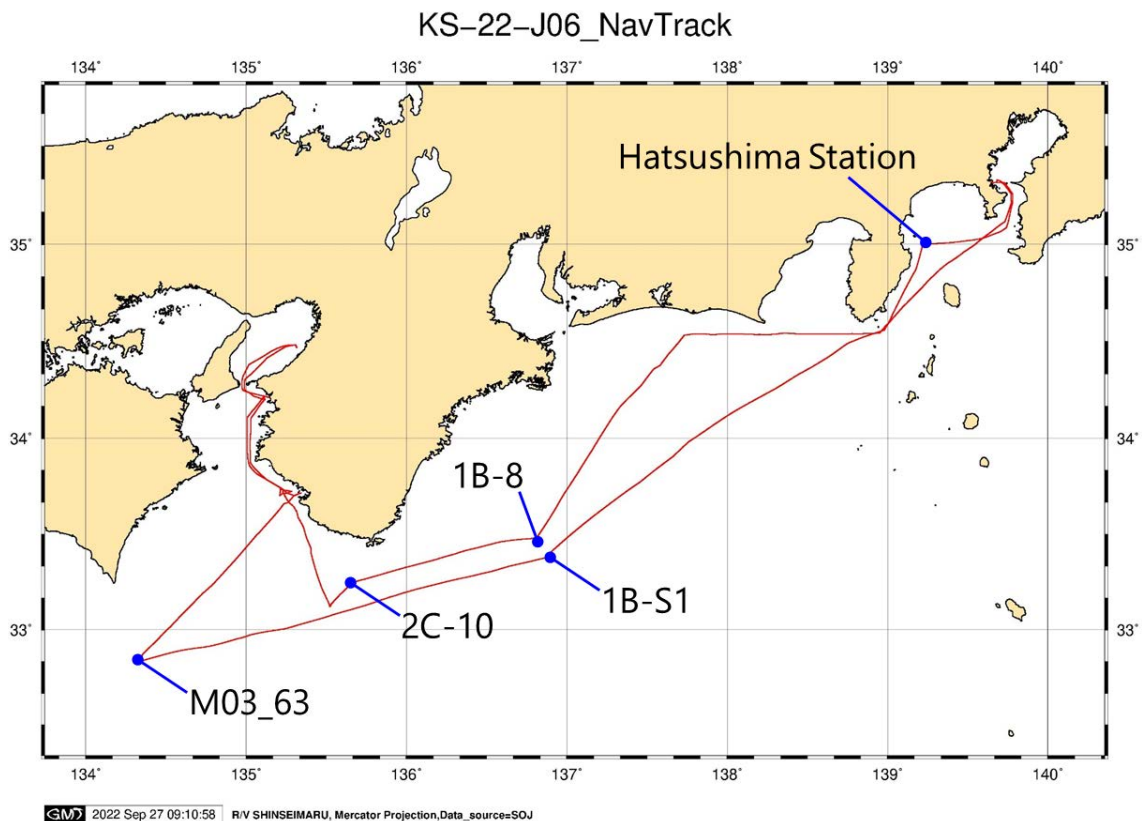
Cruise ID:	KS-22-J06
Name of vessel:	Shinsei-maru
Title of cruise:	Real time ocean bottom crustal movement observation
Chief Scientist [Affiliation]:	Shuhei Nishida [JAMSTEC]
Boarding Scientist [Affiliation]:	Hiroyuki Matsumoto[JAMSTEC] Sep.7 th – Sep.14 th Takashi Yokobiki [JAMSTEC] Sep.15 th – Sep.27 th Shuhei Tsuji [JAMSTEC] Sep.15 th – Sep.27 th Morifumi Takaesu [NME] Sep.7 th – Sep.14 th Wataru Tokunaga [NME] Sep.7 th – Sep.27 th Toshimasa Nasu [NME] Sep.15 th – Sep.27 th Yousuke Kawamura [NME] Sep.15 th – Sep.27 th
Cruise period:	Sep.7th, 2022 - Sep.27th, 2022
Ports of departure / arrival:	JAMSTEC Yokosuka HQ / JAMSTEC Yokosuka HQ
Research area:	Kumano-nada off Kii Channel off Izu-Oshima

2. Research Proposal and Science Party

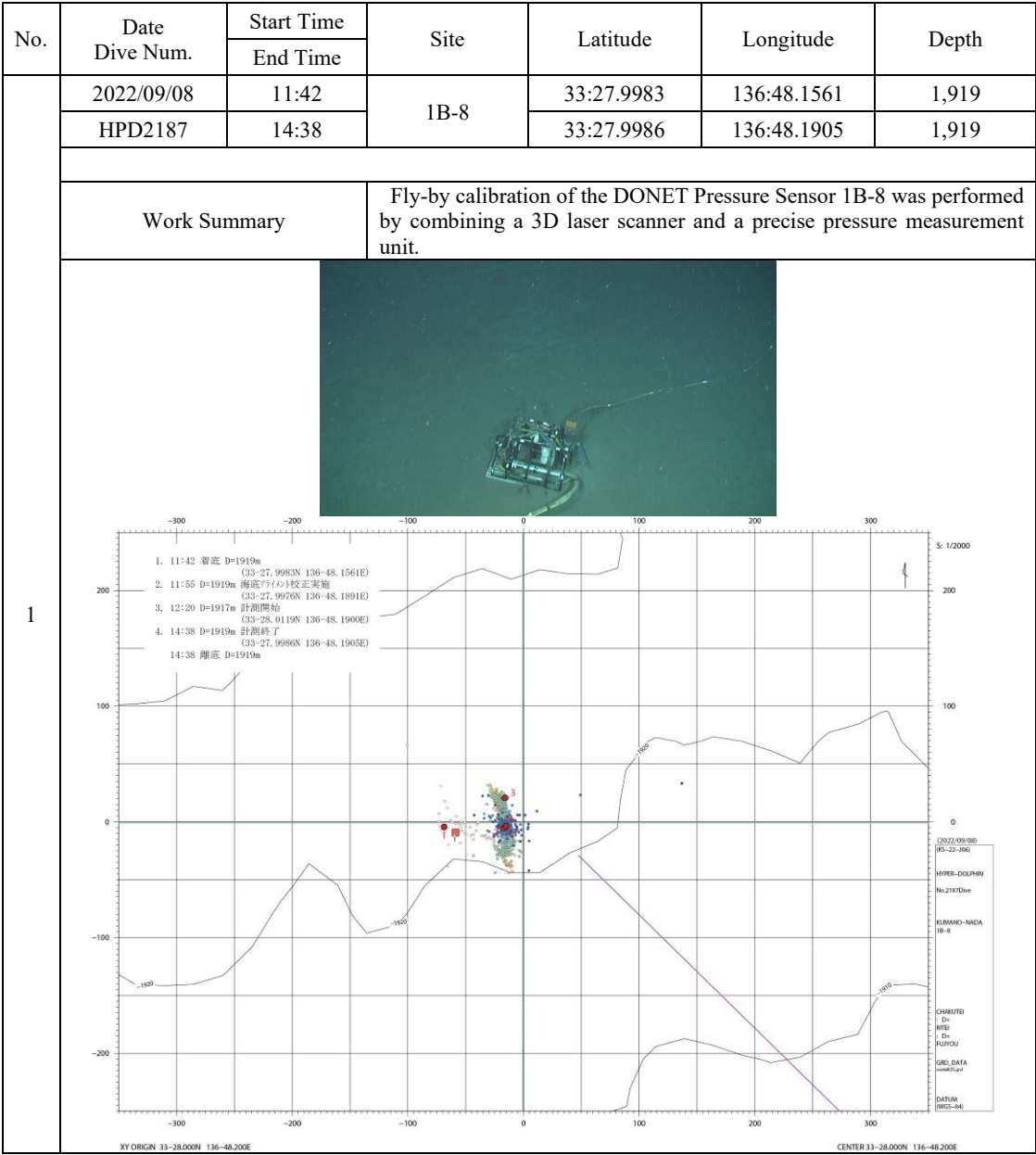
Title of proposal 1:	Real time ocean bottom crustal movement observation	
Science Party List:	Eichiro Araki	JAMSTEC
	Takashi Yokobiki	JAMSTEC
	Hiroyuki Matsumoto	JAMSTEC
	Shuhei Nishida	JAMSTEC
	Yuya Machida	JAMSTEC
	Shuhei Tsuji	JAMSTEC
	Satoru Baba	JAMSTEC
	Takane Hori	JAMSTEC
	Shuichi Kodaira	JAMSTEC
	Shojiro Ishibasi	JAMSTEC

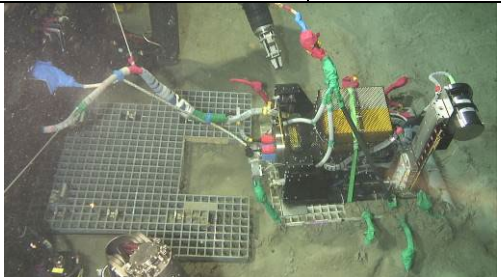
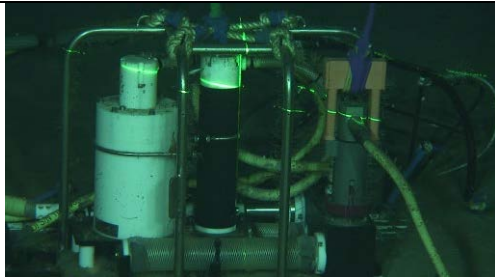
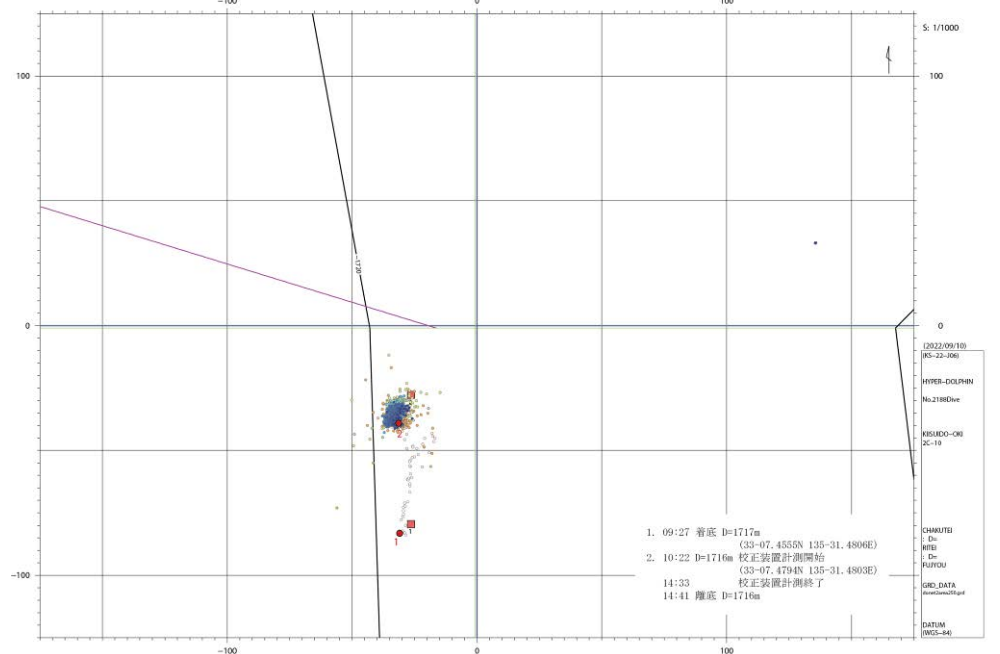
3. Activity and Results

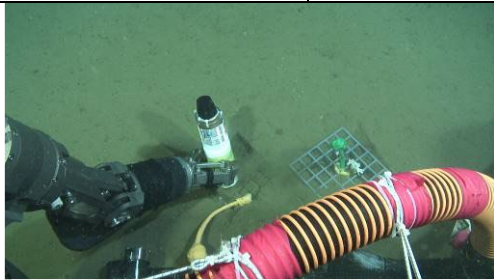
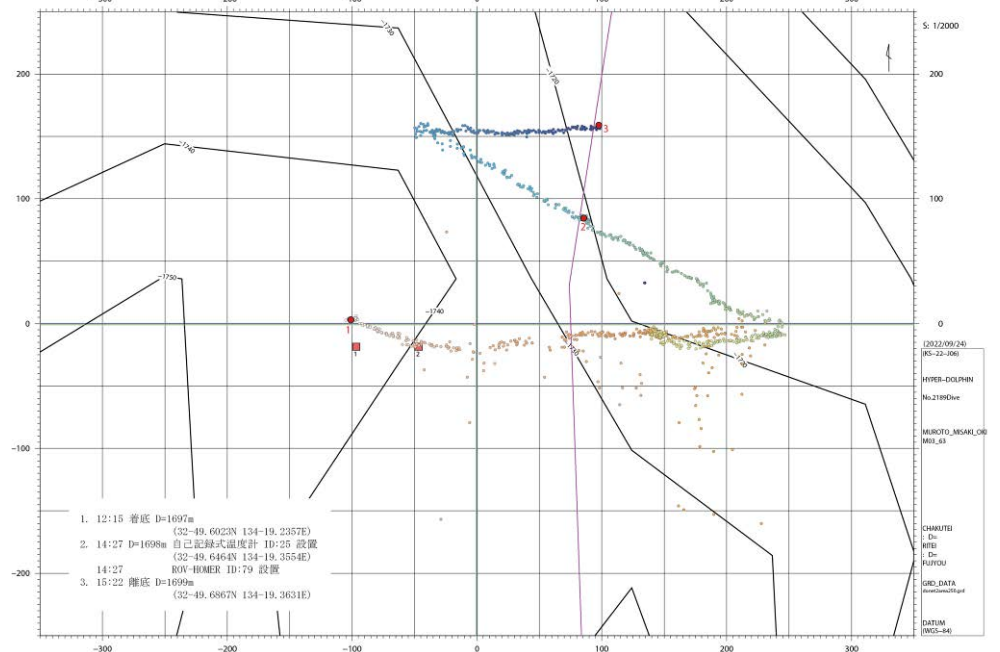
- Fly-by calibration of the DONET Pressure Sensor 1B-8 was performed by combining a 3D laser scanner and a precise pressure measurement unit.
- In-situ calibration of the DONET Pressure Sensor 2C-10 was conducted using the Mobile Pressure Calibrator.
- Underwater thermometer was put near the 63km point of submarine cable earthquake observatory off Muroto
- The response estimation of the tiltmeter installed into 19m borehole and 9m borehole at 1B-S1 was carried out.
- The cable route inspection was carried out at the Ocean Bottom Station off Hatsushima.



4. Dive Log



No.	Date Dive Num.	Start Time	Site	Latitude	Longitude	Depth
		End Time		Latitude	Longitude	Depth
	2022/09/10	09:27	1C-10	33:07.4555	135:31.4806	1,717
	HPD2188	14:41		33-07.4794	135-31.4803	1,717
Work Summary		In-situ calibration of the DONET Pressure Sensor 2C-10 was conducted using the Mobile Pressure Calibrator.				
						
						

No.	Date Dive Num.	Start Time	Site	Latitude	Longitude	Depth
		End Time		Latitude	Longitude	Depth
	2022/09/24	12:15	M02	32:49.6023	134:19.2357	1,697
	HPD2189	15:22		32:49.6867	134:19.3631	1,699
Work Summary			Underwater thermometer was put near the 63km point of submarine cable earthquake observatory off Muroto			
  						

No.	Date Dive Num.	Start Time	Site	Latitude	Longitude	Depth
		End Time		Latitude	Longitude	Depth
	2022/09/25	09:25	1B-S1	33:23.3438	136:53.6787	1,882
	HPD2190	13:24		33:23.3058	136:53.6903	1,892

Work Summary	The response estimation of the tiltmeter installed into 19m borehole and 9m borehole at 1B-S1 was carried out.
--------------	--

4

1. 09:25 着底 D=1882m
(33-23.3438N 136-53.6787E)

2. 09:59 D=1883m 傾斜計応答推定作業開始
(33-23.3406N 136-53.7058E)

鐘(1個目)設置

鐘(2,3個目)設置

鐘(3個目)回収

3. 10:54 D=1884m 傾斜計応答推定作業開始
(33-23.3366N 136-53.7086E)

鐘(3個目)設置

鐘(3個目)回収

4. 11:33 D=1891m 展張「ア」45°確認
(33-23.3316N 136-53.6823E)

傾斜計応答推定作業開始

(33-23.3081 136-53.6946)

鐘(3個目)設置

鐘(3個目)回収

鐘(3個目)設置

傾斜計応答推定作業開始

鐘(3個目)回収

鐘(3個目)設置

傾斜計応答推定作業開始

鐘(3個目)回収

鐘(3個目)設置

傾斜計応答推定作業終了

6. 13:24 D=1892m 鐘(3個目)設置
(33-23.3058N 136-53.6903E)

13:24 離底 D=1892m

S: 1/2000

(2022/09/25)

05-23-306

HYPER-DOLPHIN

No.2190Dive

KUMANO-NKDA

1B-S1

CHARUTEI

D=

WRT

D=

PUPPOU

CHC DATA

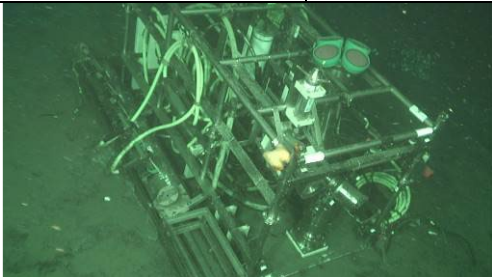
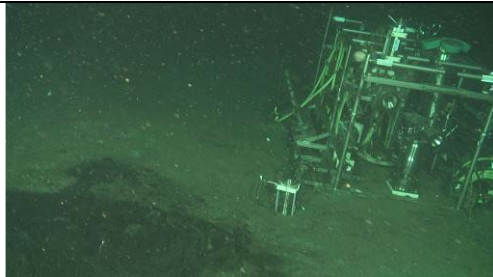
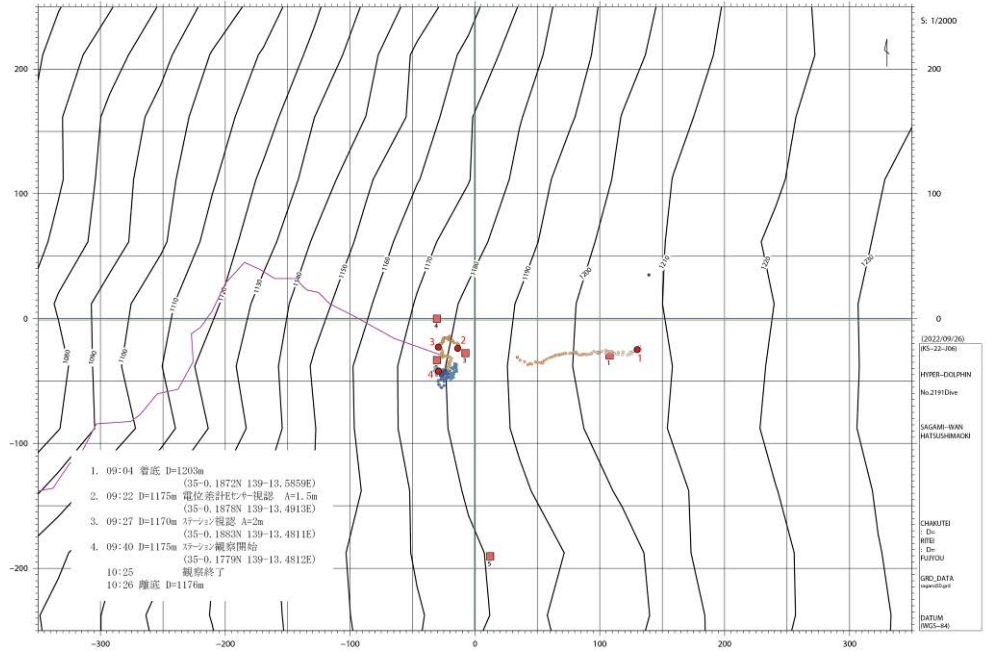
0505-046

DATUM

WGS-84

XY ORIGIN 33-23.300N 136-53.700E

CENTER 33-23.300N 136-53.700E

No.	Date Dive Num.	Start Time	Site	Latitude	Longitude	Depth
		End Time		Latitude	Longitude	Depth
	2022/09/26	09:04	Sagami bay	35-0.1872	139-13.5859	1,203
	HPD2191	10:26		35-0.1779	139-13.4812	1,176
Work Summary			The cable route inspection was carried out at the Ocean Bottom Station off Hatsushima.			
  						

5. Notice on Using

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

This report is not necessarily corrected even if there is any inaccurate description (i.e. taxonomic classifications). This report is subject to be revised without notice. Some data on this report may be raw or unprocessed. If you are going to use or refer the data on this report, it is recommended to ask the Chief Scientist for latest status.

Users of information on this report are requested to submit Publication Report to JAMSTEC.

<http://www.godac.jamstec.go.jp/darwin/explain/1/e#report>

E-mail: submit-rv-cruise@jamstec.go.jp