

# Week 1 Drilling and Scientific Report for IODP Expedition 386 Japan Trench Paleoseismology, 2021



# 4th May 00:00 - 10rd May 24:00 JST Japan Standard Time (UTC+9)

#### 1. Operations

- May 4<sup>th</sup>: The 20 m GPC operation at JTPC-09A was planned but postponed because strong winds continued to blow at 1300 hrs. MBES/SBP survey was conducted at the GPC shooting site at 1530 hrs, then the ship moved to Site JTPN-07A by 2030 hrs. After deployment of XBT at 2045 hrs, MBES/SBP survey was conducted around JTPN-07A.
- May 5<sup>th</sup>: MBES/SBP survey around JTPN-07A continued and was completed by 0500 hrs. The 12<sup>th</sup> GPC operation was conducted with 20 m barrel string at Site JTPN-07A. The GPC assembly was deployed at 0640 hrs, and spudded-in and released from Hole M0088 A and B at 0915 hrs, and recovered to deck by 1215 hrs. Cutting into 1 m sections was completed by 1430 hrs. Sampling at each bottom end was conducted in No. 3 laboratory due to rough weather forecast. Making up the 40 m GPC assembly for the next run was completed by 1700 hrs, and ship was stood-by for rough weather at the site.
- May 6<sup>th</sup>: The 13<sup>th</sup> GPC operation was a 40 m core at Site M0088. The GPC assembly was run into water at 0720 hrs, spudded-in and released from Holes M0088 C and D at 0954 hrs, and recovered to deck by 1315 hrs. The Trigger corer was dismantled and sampled soon after GPC arrived on deck, while withdrawing core and cutting into 5 m segments. Sectioning the 5 m segments into 1 m sections began at 1400 hrs, while sampling from each section bottom end, and was completed by 1615 hrs. The GPC assembly was laid out and washed by 1700 hrs. The ship left the site for Hachinohe for the mid-expedition port call at 1715 hrs.
- May 7<sup>th</sup>: The ship arrived at Hachinohe port at 0900 hrs. Loading/offloading core containers, loading lab consumables, core liners, provisions/water continued from 1000 hrs to 1400 hrs. After that, fifteen members of the ship's crew, GPC operation team and lab technicians disembarked.
- May 8<sup>th</sup>: Fifteen new ship's crew, GPC operation team and lab technicians were embarked by 0800 hrs. The ship left the quayside and moved to a stand-by point off Hachinohe port at 1000 hrs. The 20 m GPC assembly was made up by 1400 hrs, and then the ship began sailing to Site JTPC-04B at 1430 hrs.
- May 9<sup>th</sup>: The ship arrived at Site JTPC-04B at 0400 hrs. The 14<sup>th</sup> GPC operation was began at 0800 hrs using a 20 m barrel string. Holes M0089 A and B were spudded-in at 1112 hrs, and then the GPC assembly was recovered to deck by 1415 hrs. Cutting core into 1 m sections while sampling at each section bottom was completed by 1615 hrs, while the deck crew and GPC operation team made up the 20 m GPC assembly for the next run. MBES/SBP began at 2015
- May 10<sup>th</sup>: MBES/SBP survey continued until 0345 hrs. The 15<sup>th</sup> GPC operation was conducted with 40 m barrel string at the same site M0089. The 40 m GPC assembly was run into water at 0855 hrs, spudded-in and released from Holes M0089 C and D at 1122 hrs and recovered to deck by 1415 hrs. Cutting core into 1 m sections while sampling at each section bottom was completed by 1800 hrs, while the deck crew and GPC operation team prepared the 40 m GPC assembly for the next run, finishing at 2115 hrs. MBES/SBP survey resumed at 2130 hrs.

#### 2. Hole summary

Site	M0088		M0088		M0089		M0089	
Latitude	40° 5.48	7' N	40° 5.586' N		38° 202'	N	38° 43.228' N	
Longitude	144° 19.	650' E	144° 19.541' E		144° 7.5	38' E	144° 7.508' E	
Water depth (m)	7550		7525		7607		7602	
Date	May 5		May 6		May 9		May 10	
Spud-in time	09:15		09:54		11:12		11:22	
Hole	Α	В	С	D	Α	В	С	D
On deck time	11:20	12:15	12:10	13:15	13:45	14:15	13:35	14:15
Barrel length (m)	1.5	20	1.5	40	1.5	20	1.5	40
Cored length (m)	1.09	17.69	0.96	36.48	1.43	18.11	0.705	36.9
Number of section	2	19	2	37	3	19	2	36

#### 3. Science

N/A

#### 4. HSE Activity

Toolbox meeting before each GPC operation General safety meeting on May 4 Ship safety induction for new onboard personnel on May 8

### 5. Outreach Activity

07/05/21 Live broadcast for undergraduate students of four universities in Shikoku in Japan.

08/05/21 Live broadcast for students of Kana Jitsuno's former high school.

10/05/21 Blog post 4-10/05/21 6 Tweets

## 6. Figures

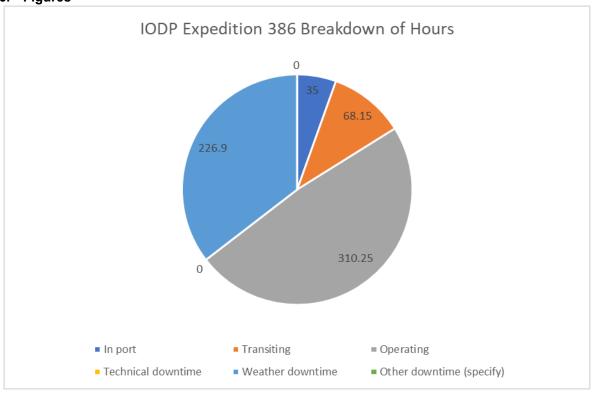


Figure 1: Breakdown of hours from 00:00 4<sup>th</sup> May to 10<sup>th</sup> May 2021.

		20 m GPC		1st 40 m GPC			2nd 40 m GPC				
Proposal Site	Site	Trigger core (Hole A)	GPC main (Hole B)	Date collected	Trigger core (Hole C)	GPC main (Hole D)	Date collected	Trigger core (Hole E)	GPC main (Hole F)	Date collected	% Recovered vs planned
JTPS-01A	M0081	1.21	19.89	20/04/2021	1.07	35.57	22/04/2021				55.5
JTPS-02A	M0082	1.455	18.71	21/04/2021							31.2
JTPS-05B											0.0
JTPS-06B											0.0
JTPS-07A											0.0
JTPS-09A											0.0
JTPS-10A											0.0
JTPC-01A											0.0
JTPC-02A											0.0
JTPC-03B											0.0
JTPC-04B	M0089	1.43	18.1	09/05/2021	0.705	36.9	10/05/2021				91.7
JTPC-05A	M0083	1.615	19.52	24/04/2021	1.4	36.89	01/05/2021				56.4
JTPC-08A											0.0
JTPC-09A											0.0
JTPN-02A	M0087	1.475	18.975	03/05/2021							31.6
JTPN-05A	M0086	1.4	18.24	02/05/2021							30.4
JTPN-07A	M0088	1.09	17.69	05/05/2021	0.96	36.465	06/05/2021				90.3
JTPN-09A	M0084	0.95	19.94	26/04/2021	0.46	35.17	28/04/2021				55.1
JTPN-10A	M0085	0.72	18.31	27/04/2021	0.33	33.69	29/04/2021				86.7

PLANNED	UNDERWAY	COMPLETE	SOUTHERN
PLANNED	UNDERWAY	COMPLETE	CENTRAL
PLANNED	UNDERWAY	COMPLETE	NORTHERN
N	OT PLANNED		

15	TOTAL CORES RECOVERED
36.6	% OF EXP.386 PLANNED CORES
384.06	TOTAL LENGTH RECOVERED (m)
30.5	TOTAL % REC LENGTH vs PLANNED

Figure 2: Cores recovered for Week 4 (4<sup>th</sup> May to 10<sup>th</sup> May 2021).

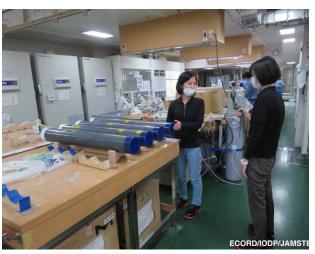
# 7. Photographs



1) Co-Chief Ken Ikehara checking a drilled hole for gas expansion in the core, tapping the base to encourage release (photo by LMaeda@ECORD/IODP/JAMSTEC)



2) Bon Voyage! (photo by HMuraki@ECORD/IODP/JAMSTEC)



3) Scientist Kana Jitsuno showing a core to a live camera operated by Assistant Offshore EPM Natsumi Okutsu (photo by KIkehara@ECORD/IODP/JAMSTEC)



4) Deck crew supporting Trigger corer while putting cover on the bit (photo by LMaeda@ECORD/IODP/JAMSTEC)