Daily Drilling and Scientific Report for IODP Expedition 386
Japan Trench Paleoseismology, 2021

1st May 00:00 – 24:00 JST Japan Standard Time (UTC+9)

1. Location

Position 38° 45.510' N, 144° 07.719' E
IODP-MSP borehole: M0083
Prospectus borehole: JTPC-05A
Water Depth: 7627 m

2. Operations Report

The ship arrived at Site M0083 (Site JTPC-05A) at 0800 hrs, and soon after arrival preparations for 40 m GPC operations were started. The 40 m GPC assembly was run into water at 0930 hrs, the inclinometer and transponder were attached to a winch cable at 20 m and 50 m above the GPC weighthead respectively, and the GPC was run down to 7700 m depth in cable length with winch speed at 0.5 – 1.0 m/s (0 – 100 m depth in cable length) and 1.2 – 1.5 m/s (100 – 7700 m depth in cable length). Running the GPC was suspended for 3 minutes at 1155 hrs to stabilize the assembly, and resumed with winch speed at 0.3 m/s. The GPC spudded-in and released at 7849 m in cable length at 1208 hrs, and then run back to surface with winch speed at 1.0 – 1.5 m/s. Recovery of the GPC to deck was completed by 1515 hrs, and deck crew and GPC operation team started withdrawing and cutting core into 5 m sections. Withdrawing and cutting core was slowed due to severe gas expansion. The science party began cutting the segments into 1 m sections 1600 hrs and completed by 1910 hrs. Sampling at the section bottoms was conducted in No.3 laboratory because rough weather was forecast after 2100 hrs. Removal of the core catcher sample was postponed due to ship motion. Preparation of the 20 m GPC assembly was completed by 2030 hrs, and then the ship left the site to avoid a low pressure system.

3. Science Report

N/A

4. Core Recovery Details

Hole	M0083 C (Trigger core)	M0083 D (GPC main)
Barrel length (m)	1.5	40
Cored length (m)	1.4	36.89
Curated length (m)	1.4	36.89
Recovery (%)	100	100
Number of sections	3	37

5. Time Breakdown

08:00 Continue to move to Site M0083 (Site JTPC-05A)
08:55 Set Trigger to GPC assembly.
09:30 Run GPC into water. Set inclinometer and transponder on a winch cable at 20 m and 50 m above the weighthead of GPC respectively. Set winch speed 0.5 – 1.0 m/s (to 100 m depth in cable length) and 1.2 -1.5 m/s (7700 m depth in cable length).
11:55 Hold running GPC 3 minutes at 7700 m depth in cable length for stabilization. Resume running GPC down with 0.3 m/s.
12:08 Spud-in and released from Holes M0083 C and D at 7849 m in cable length (tension before: 5.8 tonf, 6.3 tonf, overpull 10.5 tonf).
12:15 Run GPC back to surface with 1.0 – 1.5 m/s winch speed.
14:20 Recover Trigger corer on deck
15:15 Recover GPC assembly on deck.
Dismantle Trigger corer, cut core and collect BW.
Start withdrawing and cutting core into 5 m segments
16:00 Start cutting 5 m segment into 1 m sections while transferring core to No.3 laboratory.
16:30 Start sampling at each bottom end in No.3 laboratory.
18:45 Complete withdrawing and cutting core into 5 m sections. Start making up 20 m GPC assembly.
19:10 Complete cutting 5 m segment into 1 m sections.
20:30 Complete making up 20 m GPC assembly for the next run.
Start moving to Site JTPN-05A.

21:00 Complete sampling from each bottom end and start IW sampling.

6. Hours (inc. cumulative total) – no contractual implications can be made from these figures

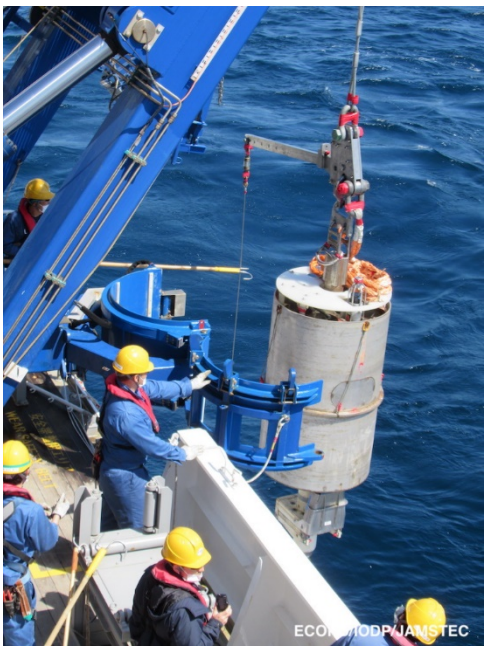
In port	10.0
Transiting	30.4
Operating	196.0
Technical downtime	0.0
Weather downtime	207.9
Other downtime (specify)	0.0

7. Weather
Fine but cloudy all day with relatively cool temperature (<14 degC). Northwesterly wind (~10 m/s), and slow surface current (<1 knot) flowing to the southwest with wave heights of <1.5 m.

8. Planned Activity for the next 24 hours
Conduct 20 m GPC at Site JTPN-05A.

9. Health and Safety and Environmental
N/A

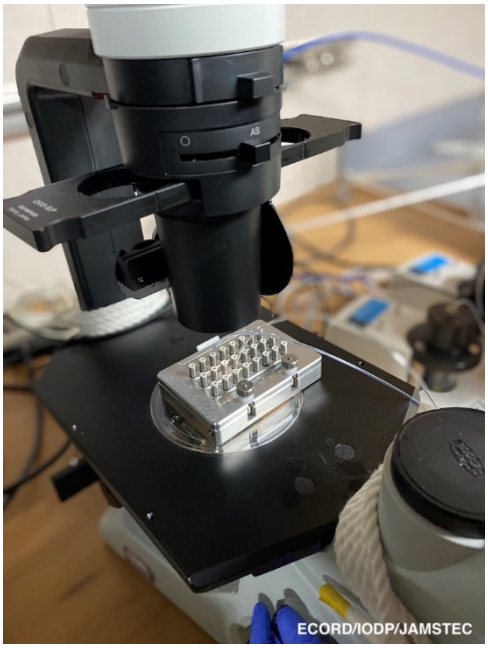
10. Photo of the day



1) Open the cradle! (photo by NSakura@ECORD/IODP/JAMSTEC)

2) Lab tech supporting core liner at the top of Trigger core (photo by LMaeda@ECORD/IODP/JAMSTEC)

3) Scientist Toshiya Kanamatsu collecting samples from Trigger core (photo by NOkutsu@ECORD/IODP/JAMSTEC)



5) Microscope observation for single celled organisms collected from BW (photo by NOkutsu@ECORD/IODP/JAMSTEC)

4) Mud snake coming out from the core (photo by LMaeda@ECORD/IODP/JAMSTEC)