



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



27th April 00:00 – 24:00 JST Japan Standard Time (UTC+9)

1. Location

Position 40° 26.244' N, 144° 26.231' E
IODP-MSP borehole: M0085
Prospectus borehole: JTPN-10A
Water Depth: 7581 m

2. Operations Report

Today was cold but with favourable sea conditions for GPC operations. Preparations for deployment of 20 m GPC at Site JTPN-10A began at 0600 hrs. The GPC assembly was deployed into the water at 0850 hrs, the inclinometer and transponder were attached to the winch cable at 20 m and 50 m above the weighthead respectively, and run down with winch speed at 0.5 – 1.0 m/s from 0 to 100 m depth in cable, and 1.2 – 1.5 m/s from 100 to 7750 m in cable depth. At 1120 hrs, running down was paused for 3 minutes for stabilization of GPC assembly, and then running down resumed with winch speed at 0.3 m/s. Holes M0085 A and B were spudded-in at 1130 hrs with cable length at 7859 m. The GPC assembly was recovered on deck at 1500 hrs. Soon after GPC recovery, the deck crew and GPC operation team began withdrawing and cutting core into 5 m segment, while the science team collected BW from Trigger corer and cut it into sections. Cutting 5 m segments into 1 m sections was completed by 1610 hrs. Sampling from each section bottom end was carried out in No. 3 laboratory similar to 26/04/21. Deck crew and GPC operation team completed making up 40 m GPC assembly by 2115 hrs. MBES/SBP around Sites M0084 and M0085 was started from 2115 hrs.

3. Science Report

N/A

4. Core Recovery Details

Hole	A (Trigger core)	B (GPC main)
Barrel length (m)	1.5	20
Cored length (m)	0.72	18.31
Curated length (m)	0.72	18.31
Recovery (%)	100	100
Number of sections	2	19

5. Time Breakdown

00:00 Drift to Site JTPN-10A
02:00 Stand-by at Site JTPN-10A
06:00 Prepare running 20 m GPC
08:30 Set Trigger corer to GPC assembly
08:50 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 (7750 m depth in cable length).
11:20 Hold running GPC 3 minutes at 7750 m depth in cable length for stabilization. Resume running GPC down with 0.3 m/s.
11:30 Spud-in and released from Holes M0085 A and B at 7859 m in cable depth (tension before: 3.9 tonf, 4.3 tonf, overpull 6.1tonf).
11:45 Run GPC back to surface with 1.0 – 1.5 m/s winch speed.
14:05 Recover Trigger corer on deck
15:00 Recover GPC assembly on deck. Dismantle Trigger corer, cut core and collect BW.
Withdraw and cut core into sections while preparing 20 m GPC assembly for the next run.
16:10 Complete cutting core into 1 m sections. Start sediment and IW sampling at No. 3 Laboratory
21:15 Complete making up 20 m GPC for the next run.
Start MBES/SBP survey around Site JTPN-09A/10A.

#1(N-S): From Lat: 40°27.5448' N, Long: 144°27.2732' E to Lat: 40°19.1483' N, Long: 144°23.9296' E

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

In port	10.0
Transiting	30.4
Operating	142.0
Technical downtime	0.0
Weather downtime	165.9
Other downtime (specify)	0.0

7. Weather

Fine but cloudy and chilly at ~7 degC, with northerly winds (~8 m/s) all day. The surface current flowed east-northeast at <1.5 knot, and wave height was ~1 m.

8. Planned Activity for the next 24 hours

Continue MBES/SBP survey. Conduct 40 m GPC at JTPN-10A

9. Health and Safety and Environmental

Toolbox talk before the operation

10. Photo of the day



1) A deck crew operating GPC davits (photo by LMaeda@ECORD/IODP/JAMSTEC)



3) A 5 m segment laid on cutting stands (photo by NOKutsu@ECORD/IODP/JAMSTEC)



2) Scientist Kana Jitsuno collecting BW (photo by LMaeda@ECORD/IODP/JAMSTEC)