



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



28th April 00:00 - 24:00 JST Japan Standard Time (UTC+9)

1. Location

Position 40° 23.69' N, 144° 25.267' E
IODP-MSP borehole: M0084
Prospectus borehole: JTPN-9A
Water Depth: 7600 m

2. Operations Report

MBES/SBP was continued throughout the night and suspended at 0700 hrs for GPC operations. The 2nd 40 m GPC operation of the expedition was conducted in calm weather and gentle sea conditions using the auto DP mode. The GPC assembly was run into the water at 0900 hrs and the inclinometer and transponder were attached to the winch cable at 20 m and 50 m above GPC weighthead respectively. Winch speed was set 0.5 – 1.0 m/s from 0 to 100 m depth in cable length and increased to 1.2 – 1.5 m/s from 100 to 7750 m depth in cable length. Running down was paused for 3 minutes to stabilize the GPC assembly, and resumed with 0.3 m/s of winch speed. Holes M0084 C and D were spudded in and released at 1144 hrs at 7847 m of cable length. The GPC assembly was then run back with 1.2 – 1.5 m/s and recovered on deck by 1500 hrs. After the Trigger corer had been dismantled to take samples, the deck crew and GPC operation team started withdrawing core liner from the 40 m barrel string. Cutting core into 1 m sections while sampling at each section bottom end started at 1600 hrs, paused from 1700 to 1800 hrs for daily meeting and dinner, and was completed at 1930 hrs. Cores were delivered to No. 3 laboratory, and IW sampling started. MBES/SBP survey was resumed at 2130 hrs after preparation of the next 40 m GPC preparation was completed.

3. Science Report

N/A

4. Core Recovery Details

Hole	C (Trigger core)	D (GPC main)
Barrel length (m)	1.5	40
Cored length (m)	0.46	35.17
Curated length (m)	0.46	35.17
Recovery (%)	100	100
Number of sections	2	37

5. Time Breakdown

00:00 Continue MBES SBP survey around M0084/M0085
#2(N-S): From Lat: 40°19.8523' N, Long: 144°23.3953' E to Lat: 40°27.4580' N, Long: 144°26.4019' E
#4(W-E): From Lat: 40°26.5128' N, Long: 144°25.1656' E to Lat: 40°25.8933' N, Long: 144°27.5400' E
#19(W-E): From Lat: 40°24.9605' N, Long: 144°27.3219' E to Lat: 40°25.7282' N, Long: 144°24.3993' E
#6(W-E): From Lat: 40°25.2665' N, Long: 144°24.4992' E to Lat: 40°24.4840' N, Long: 144°27.3104' E
#20(W-E): From Lat: 40°24.0782' N, Long: 144°27.3124' E to Lat: 40°25.0208' N, Long: 144°23.8732' E
#7(W-E): From Lat: 40°24.6913' N, Long: 144°23.9021' E to Lat: 40°23.6871' N, Long: 144°27.3078' E
#8(W-E): From Lat: 40°22.8776' N, Long: 144°27.0666' E to Lat: 40°23.8824' N Long: 144°23.3980' E
07:00 Prepare running 40 m GPC
08:35 Set Trigger corer to GPC assembly
09:00 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).
11:35 Hold running GPC 3 minutes at 7750 m depth in cable length for stabilization. Resume running GPC down with 0.3 m/s.
11:44 Spud-in and released from Holes M0085 A and B at 7847 m in cable depth (tension before: 5.8 tonf, 6.3 tonf, overpull 11.1 tonf).
11:45 Run GPC back to surface with 1.0 – 1.5 m/s winch speed.
14:10 Recover Trigger corer on deck

14:40 Recover GPC assembly on deck.
 15:00 Dismantle Trigger corer, cut core and collect BW.
 Start withdrawing and cutting core into 5 m segments while preparing GPM assembly.
 16:00 Start cutting core into 1 m sections while collecting sediment samples from each bottom end
 19:30 Complete cutting core into 1 m sections.
 21:30 Complete making up 40 m GPC assembly for the next run.
 Start MBES/SBP survey around Site JTPN-09A/10A.
 #15(N-S): From Lat: 40°25.8097' N, Long: 144°27.2013' E to Lat: 40°21.9020' N, Long: 144°25.5569' E
 #9(W-E): From Lat: 40°22.3182' N, Long: 144°27.0791' E to Lat: 40°23.3586' N, Long: 144°23.0484' E

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

In port	10.0
Transiting	30.4
Operating	166.0
Technical downtime	0.0
Weather downtime	165.9
Other downtime (specify)	0.0

7. Weather

Fine but cloudy and warm (~17 degC) with light southwesterly winds (<3 m/s) throughout the day. The surface current flowed northeast at <1.3 knot, and wave height was <1 m.

8. Planned Activity for the next 24 hours

Continue MBES/SBP. Conduct 40 m GPC at Site M0085

9. Health and Safety and Environmental

Toolbox talk before the GPC operation

10. Photo of the day



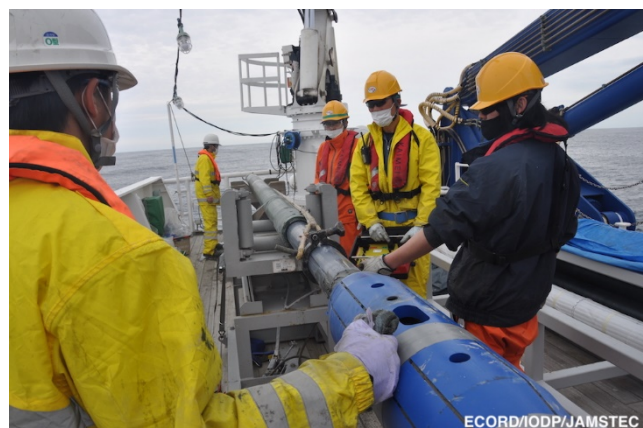
1) Beautiful day for 40 m GPC (photo by LMaeda@ECORD/IODP/JAMSTEC)



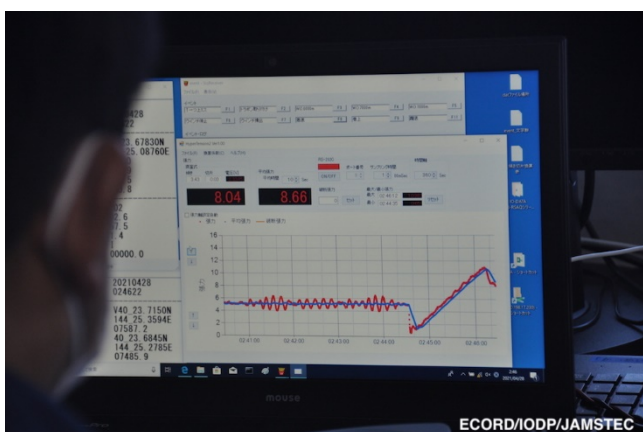
2) Co-Chief Ken Ikehara watching 2nd 40 m GPC deployment (photo by LMaeda@ECORD/IODP/JAMSTEC)



3) Ken Ikehara and Assistant Offshore EPM Nori Sakurai: monitoring 2nd 40 m GPC shooting (photo by LMaeda@ECORD/IODP/JAMSTEC)



6) Deck crew and GPC operation team withdrawing the core (photo by LMaeda@ECORD/IODP/JAMSTEC)



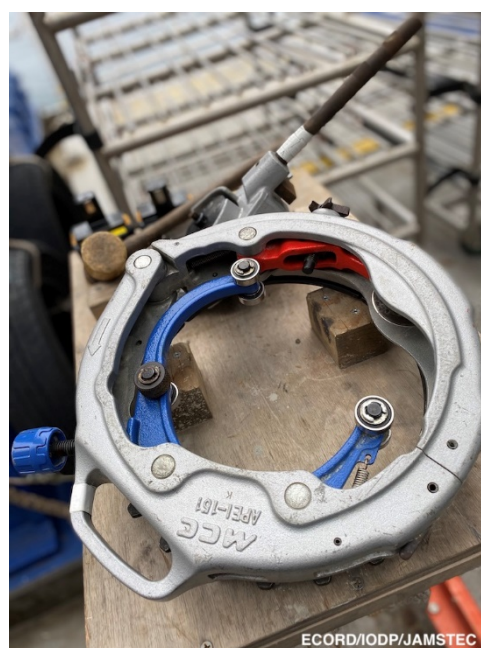
4) Digital tension profile display for the 2nd 40 m GPC shooting (photo by LMaeda@ECORD/IODP/JAMSTEC)



7) Deck crew and GPC operation team transport a 5 m segment (photo by LMaeda@ECORD/IODP/JAMSTEC)



5) Trigger corer on deck (photo by LMaeda@ECORD/IODP/JAMSTEC)



8) Auto core liner cutter (photo by NOKUTSU@ECORD/IODP/JAMSTEC)