



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



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

1. Location

Position 38° 43.202' N, 144° 7.538' E
IODP-MSP borehole: M0089
Prospectus borehole: JTPC-04B
Water Depth: 7598 m

2. Operations Report

The ship arrived at Site JTPC-04B at 0400 hrs and the sea condition was checked. The 20 m GPC assembly was deployed at 0845 hrs, the inclinometer and transponder were set on the winch cable at 20 m and 50 m above the GPC weighthead respectively, run down to 7750 m depth in cable length with winch speed set to 0.5 – 1.0 m/s (from 0 to 100 m depth in cable length) and 1.2 – 1.5 m/s (from 100 to 7750 m depth in cable length), and then held 3 minutes for stabilization. Running GPC assembly down resumed with winch speed at 0.3 m/s and the GPC assembly spudded-in and released from Holes M0089 A and B at 1112 hrs at 7858 m cable length. The GPC assembly was run back to surface at 1.2 – 1.5 m/s and recovered to deck by 1415 hrs. Soon after the recovery, the Trigger corer was dismantled, and then BW and sediment at the bottom were sampled. Meanwhile deck crew and the GPC operation team started withdrawing and cutting core into 5 m sections. The science party began cutting 5 m segments into 1 m sections while sampling from each section bottom end at 1445 hrs and were completed by 1615 hrs. Curation and IW sampling began at 1630 hrs. Deck crew and GPC operation team made up the 40 m GPC assembly for the next run, finishing preparations by 2000 hrs. MBES/SBP survey began at 2015 hrs.

3. Science Report

N/A

4. Core Recovery Details

Hole	A (Trigger corer)	B (GPC main)
Barrel length (m)	1.5	20
Cored length (m)	1.43	18.1
Curated length (m)	1.43	18.1
Recovery (%)	100	100
Number of sections	3	19

5. Time Breakdown

00:00 Continue to sail to Site JTPC-04B
04:00 Check sea condition and stand-by for 20 m GPC at JTPC-04B
08:00 Prepare for running 20 m GPC assembly
08:30 Set Trigger to GPC assembly.
08:45 Run GPC assembly into water. Set inclinometer and transponder on a winch cable at 20 m and 50 m above the GPC weighthead respectively. Set winch speed 0.5 – 1.0 m/s (to 100 m depth in cable length) and 1.2 – 1.5 m/s (from 100 to 7750 m depth in cable length)
11:05 Hold running GPC assembly for 3 minutes at 7750 m depth in cable length for stabilization. Resume running GPC assembly down with 0.3 m/s.
11:12 Spud-in and release from Holes M0089 A and B at 7858 m in cable length (tension before: 3.7 tonf; after: 4.2 tonf; overpull: 6.6 tonf)
11:15 Run GPC assembly back to surface with winch speed at 1.0 – 1.5 m/s.
13:45 Recover Trigger corer to deck
14:15 Recover GPC to deck.
Dismantle Trigger corer and take samples.
14:45 Withdraw and cut core into 1 m sections and sample from each section bottom end.
Make up 40 m GPC assembly
16:15 Complete cutting and sampling.
20:00 Complete making up 40 m GPC assembly.
20:15 Start MBES/SBP survey around Site M0089

#16(N-S): From Lat: 38°42.8825' N, Long: 144°07.3754' E to Lat: 38°41.6948' N, Long: 144°07.0823' E

#17(S-N): From Lat: 38°41.6973' N, Long: 144°06.8346' E to Lat: 38°42.8922' N, Long: 144°07.0721' E
 #28(W-E): From Lat: 38°42.2554' N, Long: 144°06.4981' E to Lat: 38°41.8223' N, Long: 144°08.7656' E
 #27(E-W): From Lat: 38°42.2346' N, Long: 144°08.7531' E to Lat: 38°42.6105' N, Long: 144°06.6559' E
 #26(W-E): From Lat: 38°42.9433' N, Long: 144°06.6703' E to Lat: 38°42.5267' N, Long: 144°09.1238' E
 #25(E-W): From Lat: 38°43.2601' N, Long: 144°09.0050' E to Lat: 38°43.6335' N, Long: 144°06.8709' E

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

In port	35.0
Transiting	68.15
Operating	286.25
Technical downtime	0.0
Weather downtime	226.9
Other downtime (specify)	0.0

7. Weather

Overcast and warm (~18 degC), with light southwesterly winds (<10 m/s) and wave heights of 0.5 m. Surface current was <0.3 knot.

8. Planned Activity for the next 24 hours

40 m GPC at M0089

9. Health and Safety and Environmental

Toolbox talk before the operation

10. Photo of the day



1) Recommencing GPC operations (photo by TYokoyama@ECORD/IODP/JAMSTEC)



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



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



4) Scientist Kana Jitsuno checking progress of filtration (photo by LMaeda@ECORD/IODP/JAMSTEC)