



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



11th May 00:00 – 24:00 JST Japan Standard Time (UTC+9)

1. Location

Position 38° 45.538' N, 144° 7.769' E
IODP-MSP borehole: M0083
Prospectus borehole: JTPC-05A
Water Depth: 7614 m

The last 3 of the total 28 MBES/SBP survey lines around Sites M0083 and M0089 were completed by 0145 hrs, and the ship stood-by at Site M0083 for the 2nd 40 m GPC operation. After the inclinometer and transponder were set on the winch cable at 20 m and 50 m above the GPC weighthead, the 40 m GPC assembly was deployed into the water at 0855 hrs and run down with at 1.0 m/s winch speed to 7750 m depth in cable length. Running down was held for stabilization at 7750 m depth in cable length and resumed after 3 minutes. The GPC assembly spudded-in at 7858 m cable length at 1121 hrs, and was run back to surface at 1.2 m/s of winch speed, and was recovered to deck at 1415 hrs. Soon after recovery, the Trigger corer was dismantled, and BW and sediment at the bottom were sampled, while the deck crew and GPC operation team began withdrawing and cutting the core into 5 m sections. At 1430 hrs the science party began cutting the 5 m segments into 1 m sections while sampling from each section bottom end. Cutting into 1 m sections was completed by 1700 hrs and sampling was completed by 1900 hrs. Curation and IW sampling was conducted while attaching extended liners at each expanding section. Making up the 40 m GPC assembly for the next run was completed by 2045 hrs, and the ship began the transit to Site M0084.

3. Science Report

N/A

4. Core Recovery Details

Hole	C (Trigger corer)	D (GPC main)
Barrel length (m)	1.5	40
Cored length (m)	0.92	36.605
Curated length (m)	0.92	36.605
Recovery (%)	100	100
Number of sections	2	36

5. Time Breakdown

00:00 Continue MBES/SBP survey around Sites M0083 and M0089

#19(N-S): From Lat: 38°48.9321' N, Long: 144°08.4604' E to Lat: 38°47.0540' N, Long: 144°07.7748' E

#29(S-N): From Lat: 38°47.0732' N, Long: 144°08.0525' E to Lat: 38°48.9517' N, Long: 144°08.6001' E

#18(N-S): From Lat: 38°48.9068' N, Long: 144°08.8940' E to Lat: 38°47.0359' N, Long: 144°08.5200' E

01:45 Completed MBES/SBP survey. Stand-by at Site M0083.

08:00 Prepare for running the 40 m GPC assembly

08:30 Set Trigger to GPC assembly.

08:55 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 at 1.0 m/s.

11:10 Hold running GPC assembly for 3 minutes at 7750 m depth in cable length for stabilization. Resume running GPC assembly down at 0.3 m/s.

11:21 Spud-in and release from Holes M0083 E and F at 7858 m in cable length (tension before: 5.2 tonf; after: 6.1 tonf; overpull: 10.6 tonf)

11:30 Run GPC assembly back to surface with 1.2 m/s of winch speed.

13:40 Recover Trigger corer to deck

14:15 Recover GPC to deck.

Dismantle Trigger corer and sampling.

Begin withdrawing and cutting core into 5 m segments while preparing the next run.

14:30 Begin cutting 5 m segment into 1 m sections and sampling from each section bottom end.

17:00 Complete cutting core into 1 m sections

19:00 Complete sampling from each bottom end

20:45 Complete making up 40 m GPC assembly.

Begin transit to Site M0084

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

In port	35.0
Transiting	71.4
Operating	331.0
Technical downtime	0.0
Weather downtime	226.9
Other downtime (specify)	0.0

7. Weather

Cloudy and cool (<13 degC) with light north northwesterly winds (~9 m/s). No strong current or wave height were observed all day (<0.9 knot to east northeast; 0.5 m).

8. Planned Activity for the next 24 hours

Sail to Site M0084

9. Health and Safety and Environmental

Toolbox talk before the operation

10. Photo of the day



1) Sampling team carefully confirming the Hole E/F sampling plan (photo by LMaeda@ECORD/IODP/JAMSTEC)



2) Deck crew checking GPC just after recovery (photo by LMaeda@ECORD/IODP/JAMSTEC)



3) Co-Chief Ken Ikehara taking urgent action for rapidly expanding core (photo by NOkutsu@ECORD/IODP/JAMSTEC)



4) Scientists Toshiya Kanamatsu and Kan-Hsi Hsiung checking HS samples (photo by NOKutsu@ECORD/IODP/JAMSTEC)



7) Curatorial staff measuring the section length (photo by NOKutsu@ECORD/IODP/JAMSTEC)



5) Scientist Toshiya Kanamatsu removing mud and separating plastic waste (photo by LMaeda@ECORD/IODP/JAMSTEC)



8) Midnight meal (photo by TKanamatsu@ECORD/IODP/JAMSTEC)



6) Lab technician setting a core on the MSCL (photo by LMaeda@ECORD/IODP/JAMSTEC)