



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



**10<sup>th</sup> May 00:00 – 24:00 JST Japan Standard Time (UTC+9)**

### 1. Location

Position 38° 43.228' N, 144° 7.508' E  
IODP-MSP borehole: M0089  
Prospectus borehole: JTPC-04B  
Water Depth: 7602 m

### 2. Operations Report

The ship continued MBES/SBP survey through the night until 0345 hrs and then returned to the M0089 shooting point. The inclinometer and transponder were set on a winch cable at 20 m and 50 m above the GPC weighthead respectively, and the 40 m GPC was deployed into water at 0855 hrs and run down with winch speed at 1.0 m/s. Running the GPC assembly was held for 3 minutes at 7700 m depth in cable length for stabilization, and then resumed at 0.3 m/s winch speed. Holes M0089 C and D spudded-in and released at 1122 hrs at 7834 m of cable length. The GPC assembly was run back to the deck by 1415 hrs with 1.3 m/s of winch speed. Soon after the recovery, Trigger corer was dismantled, and then BW and sediment at the core bottom were sampled. Meanwhile the deck crew and GPC operation team began withdrawing and cutting core into 5 m sections. The science party commenced cutting 5 m segments into 1 m sections at 1430 hrs while sampling from each section bottom end, and were finished by 1800 hrs. Gas expansion was observed at many sections, and extended liner patches were attached to almost all sections. After patching was completed, curation and IW sampling was began at 1930 hrs. The deck crew and GPC operation team made up the 40 m GPC assembly for the next run and were finished by 2115 hrs. MBES/SBP survey began at 2130 hrs.

### 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)	0.705	36.9
Curated length (m)	0.705	36.9
Recovery (%)	100	100
Number of sections	2	36

### 5. Time Breakdown

00:00 Continue MBES/SBP survey around Site M0089  
#14(W-E): From Lat: 38°44.2720' N, Long: 144°06.6223' E to Lat: 38°43.9099' N, Long: 144°08.9889' E  
#13(E-W): From Lat: 38°44.5190' N, Long: 144°08.9563' E to Lat: 38°44.8992' N, Long: 144°06.8420' E  
#12(W-E): From Lat: 38°45.4276' N, Long: 144°06.8726' E to Lat: 38°45.0509' N, Long: 144°08.9968' E  
#11(E-W): From Lat: 38°45.4764' N, Long: 144°09.0299' E to Lat: 38°45.8353' N, Long: 144°06.8404' E  
#10(W-E): From Lat: 38°46.3789' N, Long: 144°06.8900' E to Lat: 38°43.0132' N, Long: 144°09.3533' E  
#24(E-W): From Lat: 38°46.6837' N, Long: 144°09.3202' E to Lat: 38°47.0367' N, Long: 144°06.8442' E  
03:45 Suspend MBES/SBP survey to prepare GPC run.  
08:00 Prepare running 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 1.0 m/s.  
11:10 Hold running GPC assembly for 3 minutes at 7700 m depth in cable length for stabilization. Resume running GPC assembly down with 0.3 m/s.  
11:22 Spud-in and release from Holes M0089 C and D at 7834 m in cable length (tension before: 5.2 tonf; after: 6.1 tonf; overpull: 10.3 tonf)  
11:30 Run GPC assembly back to surface with 1.3 m/s of winch speed.  
13:35 Recover Trigger corer on deck  
14:15 Recover GPC on deck.  
Dismantle Trigger corer and sampling.

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

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

17:00 Complete cutting core into 1 m sections

18:00 Complete sampling from each bottom end

21:15 Complete making up 40 m GPC assembly.

21:30 Start MBES/SBP survey around Site M0089

#23(W-E): From Lat: 38°47.4668' N, Long: 144°07.2533' E to Lat: 38°47.1125' N, Long: 144°09.4906' E

#22(E-W): From Lat: 38°47.5830' N, Long: 144°09.4882' E to Lat: 38°47.8972' N, Long: 144°07.5557' E

#21(W-E): From Lat: 38°48.2979' N, Long: 144°07.6842' E to Lat: 38°47.9983' N, Long: 144°09.6121' E

#20(E-W): From Lat: 38°48.3946' N, Long: 144°09.5994' E to Lat: 38°48.7152' N, Long: 144°07.6823' E

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

In port	35.0
Transiting	68.15
Operating	310.25
Technical downtime	0.0
Weather downtime	226.9
Other downtime (specify)	0.0

## 7. Weather

It was fine but cloudy with calm temperature (~15 degC). Winds blew relatively strong (~15 m/s) from southwest in the morning but gradually decreased the speed after 1000 hrs (~12 m/s). No strong current nor wave height were observed all the day (<0.5 knot to east northeast; 2 m).

## 8. Planned Activity for the next 24 hours

40 m GPC at M0084

## 9. Health and Safety and Environmental

Toolbox talk before the operation

## 10. Photo of the day



1) Running down slowly... (photo by NOKUTSU@ECORD/IODP/JAMSTEC)



2) A deck crew member catching the barrel with a bamboo pole (photo by LMaeda@ECORD/IODP/JAMSTEC)



3) The clamp to help withdraw the liner (photo by LMaeda@ECORD/IODP/JAMSTEC)



6) Mud snakes everywhere caused by gas expansion (photo by LMaeda@ECORD/IODP/JAMSTEC)



4) Deck crew removing the bottom barrel using a crane (photo by LMaeda@ECORD/IODP/JAMSTEC)



7) All patched liners (photo by LMaeda@ECORD/IODP/JAMSTEC)



5) Drilling a hole in the liner to release gas pressure (photo by LMaeda@ECORD/IODP/JAMSTEC)