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

**ECORD**
Science Operator

**22nd May 00:00 – 24:00 JST Japan Standard Time (UTC+9)**

**1. Location at noon**
Position 39° 26.595' N, 144° 13.087' E
IODP-MSP borehole: M0087
Prospectus borehole: JTPN-02A
Water Depth: 7518 m

**3. Operation**
The ship arrived at Site M0087 at 0215 hrs, and began MBES/SBP survey. The two survey lines were completed by 0515 hrs, and the ship stood-by at Site M0087. The 40 m GPC assembly was run into water at 0850 hrs, the inclinometer was attached on a cable winch at 20 m above the GPC weighthead, and lowered with winch speed at 1.0 m/s. Running the GPC assembly was suspended for stabilization at 7600 m depth in cable length at 1110 hrs, and after holding for 3 minutes was resumed with winch speed at 0.3 m/s. The GPC assembly spudded-in and released at 7748 m in cable length at 1123 hrs, and then run back to surface with winch speed at 1.0 m/s. Recovery of the GPC to deck was completed by 1430 hrs, and the deck crew and GPC operation team began withdrawing and cutting core into 5 m sections. After dismantling and sampling from the Trigger corer, the science party started cutting the segments into 1 m sections and sampling from each section bottom end. Cutting and sampling was completed by 1630 hrs, and preparation of the GPC assembly for the next run was completed by 2000 hrs, after which the ship set sail for Site JTPC-01A.

**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)** | 0.835 | 26.345 |
| **Curated length (m)** | 0.835 | 26.345 |
| **Recovery (%)** | 100 | 100 |
| **Number of sections** | 2 | 27 |

**5. Time Breakdown**
00:00     Continue to sail to Site M0087.
02:15     Conduct MBES/SBP around M0087.
   #2(S-N): From Lat: 39°24.4682' N, Long: 144°14.7517' E to Lat: 39°34.5184' N, Long: 144°13.3743' E
   #10(W-E): From Lat: 39°33.9196' N, Long: 144°12.5324' E to Lat: 39°33.9018' N, Long: 144°15.1846' E
05:15     Completed MBES/SBP survey. Stand-by at M0087.
08:25     Set Trigger corer to GPC assembly
08:50     Run GPC into water. Set inclinometer on a winch cable at 20 m above the GPC weighthead, and run down with winch speed at 1.0 m/s.
11:10     Hold running GPC for 3 minutes at 7600 m depth in cable length for stabilization. Resume running GPC assembly with winch speed at 0.3 m/s.
11:23     Spud-in and release from Holes M0087 C and D at 7748 m in cable length (tension before: 5.2 tonf; after: 6.2 tonf; overpull: 10.5 tonf)
11:30     Run GPC assembly back to surface with winch speed at 1.0 m/s.
13:50     Recover Trigger corer on deck.
14:30     Recover GPC assembly on deck.
    Dismantle and sample Trigger corer.
    Start withdrawing and cutting core into 5 m segments while preparing GPC assembly for the next run.
14:45     Start cutting 5 m segments into 1 m section and sampling from each section bottom end.
16:30     Complete cutting core into 1 m sections and sampling from each bottom end.
18:00     Start curation and IW sampling
20:00     Complete making up 40 m GPC for the next run
    Start sailing to Site JTPC-01A

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

| In port | 35.0 |
|---|---|
| Transiting | 132.15 |
| Operating | 472.25 |
| Technical downtime | 0.0 |
| Weather downtime | 310.65 |
| Other downtime (specify) | 0.0 |

## 7. Weather
Overcast with occasional rain and relatively cool (~15 degC). A northerly wind blew <10 m/s and wave heights were ~2 m. The surface current kept a steady flow of ~1.5 knot to the northwest.

## 8. Planned Activity for the next 24 hours
Sail to Sites JTPC-01A/M0090. Conduct 40 m GPC.

## 9. Health and Safety and Environmental
Toolbox talk before the operation

## 10. Photo of the day


*1) Continuous logging of the winch operation
(photo by NOkutsu@ECORD/IODP/JAMSTEC)*


*2) Recovering the barrel string to the deck (photo by KIkehara@ECORD/IODP/JAMSTEC)*

3) Washing the barrel coupler (photo by NOkutsu@ECORD/IODP/JAMSTEC)



5) Cores going downstairs by elevator (photo by LMaeda@ECORD/IODP/JAMSTEC)



4) Offshore EPM Lena Maeda wiping the core clean (photo by NOkutsu@ECORD/IODP/JAMSTEC)