



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



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

### 1. Location

Position 39° 46.756' N, 144° 16.524' E

IODP-MSP borehole: M0086

Prospectus borehole: JTPN-05A

Water Depth: 7502 m

### 2. Operations Report

The ship arrived at Site M0086 (JTPN-05A) by 0030 hrs and stood-by to allow a low pressure to pass. At 0715 hrs, XBT was deployed and MBES/SBP survey was conducted at the coring site. The 20 m GPC assembly was run into water at 0950 hrs, inclinometer and transponder were set on a winch cable at 20 m and 50 m respectively above the GPC weighthead, and lowered to 7600 m depth in cable length with winch speed set to 0.5 – 1.0 m/s (0 – 100 m depth in cable length) and 1.2 – 1.5 m/s (100 – 7600 m depth in cable length), and then held for 3 minutes to stabilize the GPC assembly. Running GPC down was resumed with winch speed at 0.3 m/s and the GPC assembly spudded-in and released Holes M0086 A and B at 1227 hrs at 7729 m of cable length.

The GPC was run back with 1.0 – 1.5 m/s and recovered on deck by 1530 hrs. Withdrawing and cutting core was completed by 1600 hrs. The scientists started cutting 5 m core segments into 1 m sections while sampling from each section bottom end and after completing sampling from Trigger corer. All sediment sampling and cutting was complete by 1715 hrs.

Deck crew and GPC operation team completed making up 20 m GPC assembly by 1900 hrs. The ship moved to Site JTPN-02A and began MBES/SBP survey at 2030 hrs.

In the laboratory, lab tech continued MSCL logging and completed up to M0083 C and top 10 m of M0083D (Site JTPC-05A), while IW measurements were continued for M0085 C and D cores (Site JTPN-10A).

### 3. Science Report

N/A

### 4. Core Recovery Details

| Hole               | M0086 A (Trigger) | M0086 B (GPC main) |
|--------------------|-------------------|--------------------|
| Barrel length (m)  | 1.5               | 20                 |
| Cored length (m)   | 1.4               | 18.24              |
| Curated length (m) | 1.4               | 18.24              |
| Recovery (%)       | 100               | 100                |
| Number of sections | 3                 | 19                 |

### 5. Time Breakdown

00:30 Arrive at Site JTPN-05A

07:15 Deploy XBT

07:39 Conduct MBES/SBP

From Lat: 39°48.1380' N, Long: 144°17.2616' E To Lat: 39°44.8663' N, Long: 144°15.5266' E

09:30 Set Trigger to GPC assembly.

09:50 Run GPC into water. Inclinometer and transponder were set on a winch cable at 20 m and 50 m respectively above the GPC. Set winch speed 0.5 – 1.0 m/s (to 100 m depth in cable length) and 1.2 – 1.5 m/s (7600 m depth in cable length).

12:15 Hold running GPC 3 minutes at 7600 m depth in cable length for stabilization. Resume running GPC down with 0.3 m/s.

12:27 Spud-in and released from Holes M0086 A and B at 7729 m in cable length (tension before: 3.9 tonf, 4.3 tonf, overpull 6.4 tonf).

12:30 Run GPC back to surface with 1.0 – 1.5 m/s winch speed.

14:50 Recover Trigger corer on deck

15:30 Recover GPC assembly on deck.

Dismantle Trigger corer, cut core and collect BW.

Start withdrawing and cutting core into 5 m segments  
 16:00 Start cutting 5 m segment into 1 m sections while collecting samples from each bottom end.  
 Start making up 20 m GPC assembly for the next run.  
 17:15 Complete cutting 5 m segment into 1 m sections, sampling and transferring sections to No. 3 laboratory.  
 19:00 Complete making up 20 m GPC assembly for the next run.  
 20:00 Deploy XBT  
 20:30 Start MBES/SBP survey  
 #1(N-S): From Lat: 39°34.6188' N, Long: 144°14.3223' E To Lat: 39°24.6029' N, Long: 144°12.5865' E

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

|                          |       |
|--------------------------|-------|
| In port                  | 10.0  |
| Transiting               | 30.4  |
| Operating                | 220.0 |
| Technical downtime       | 0.0   |
| Weather downtime         | 207.9 |
| Other downtime (specify) | 0.0   |

#### 7. Weather

Cloudy with relatively cool temperature (~13 degC), with a few showers in the morning and calm sea conditions. Winds blew <8 m/s from north northwest; current <0.6 knot to north northwest with ~1 m wave height).

#### 8. Planned Activity for the next 24 hours

Conduct 20 m GPC at Site JTPN-02A.

#### 9. Health and Safety and Environmental

Toolbox talk before the operation

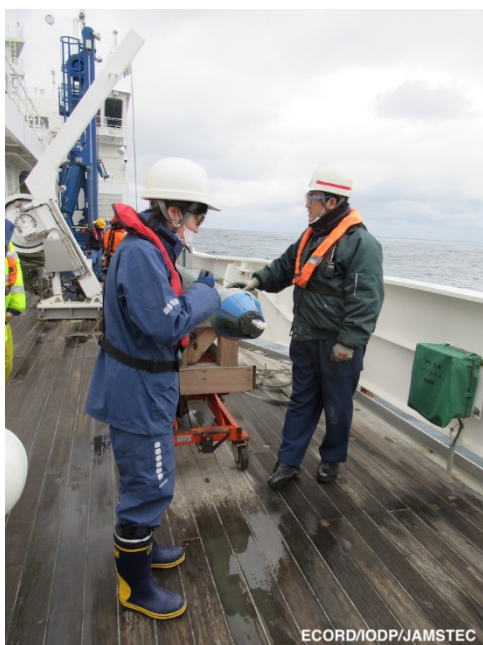
#### 10. Photo of the day



1) A whale passing by our ship (photo by NOKutsu@ECORD/IODP/JAMSTEC)



2) Close the cradle! The rope and bamboo pole technique (photo by LMaeda@ECORD/IODP/JAMSTEC)



3) Assistant Offshore EPM Natsumi Okutsu measuring temperature at the bottom of the GPC (photo by NSakurai@ECORD/IODP/JAMSTEC)



4) Scientist Kana Jitsuno transferring filtered bottom water (photo by LMaeda@ECORD/IODP/JAMSTEC)