Cruise Summary

1. Cruise Information

(1) **Cruise ID:** KS-23-14

(2) **Vessel:** R/V SHINSEI MARU

(3) **Cruise Title**

Seismic Tectonics of Shallow Region at Plate Boundary Challenged by Advanced Combined Oceanographic Observations

(4) **Chief Scientist**

Fumiaki Tomita (IRIDeS, Tohoku University)

(5) **Representative of the Science Party**

S23-26 Ryota Hino　(Graduate School of Science, Tohoku University)

(6) **Research Titles**

S23-26 Seismic Tectonics of Shallow Region at Plate Boundary Challenged by Advanced Combined Oceanographic Observations

(7) **Cruise Period**

2023/08/22 - 2023/08/26

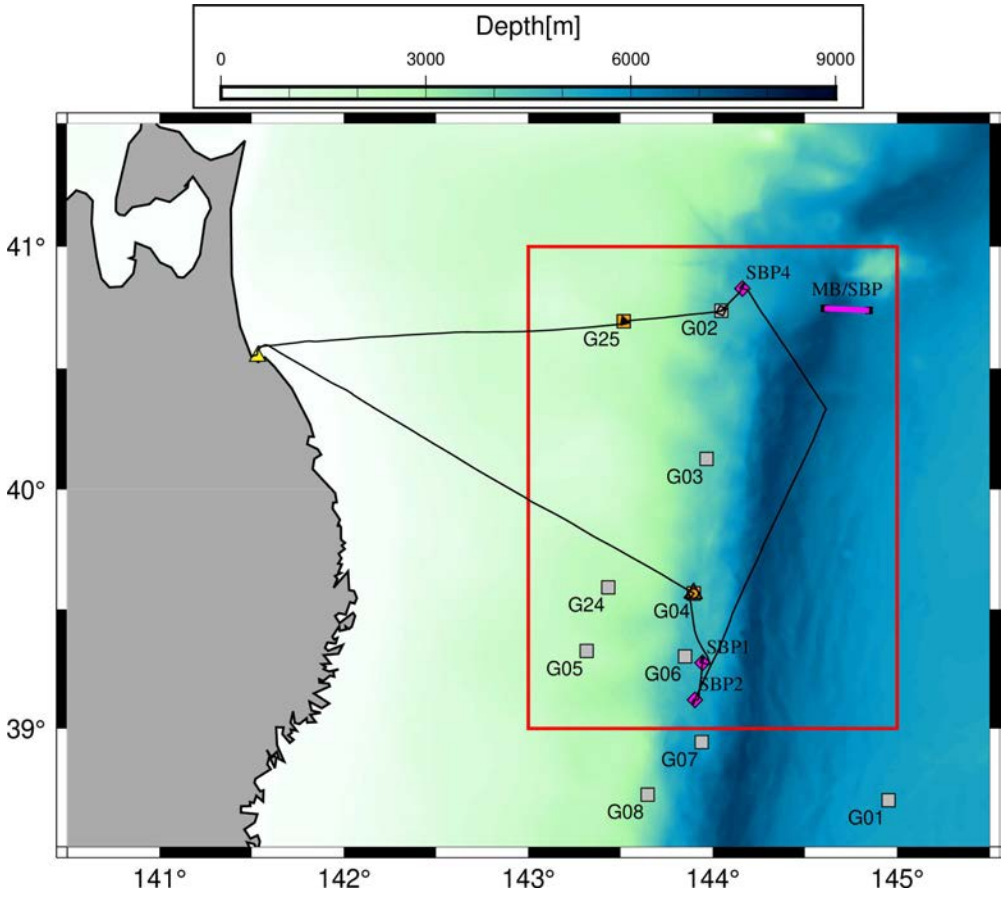
(8) **Ports of departure/call/arrival**

Hachinohe - Hachinohe

(9) **Research Area**

South of Hokkaido

(10) **Cruise Track**



2. Overview of the Observation

To reveal mechanical characteristics of the shallow plate interface along the southern Kuril and the northern Japan trenches, we conducted GNSS-Acoustic seafloor crustal deformation observations (GNSS-A observation), submarine topography surveys using the multibeam sonar (MBES), and sub-bottom structural surveys using the sub-bottom profiler (SBP). GNSS-A observations were conducted at G02, G04 and G25 sites. Moreover, we deployed a Wave Glider for GNSS-A observations, and conduted simultaneous GNSS-A observations using R/V Shinsei-maru and the Wave Glider. SBP was conducted along SBP1, SBP2, and SBP4 survey lines. MBES was conducted out of the MBES survey line by August 24 in the morning; however, we canceled the MBES survey along the MBES survey line due to out of order of the MBES instrument.