

Japan-led seafloor seismological and geodetic efforts

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OBS, OBPR, GPS/A & OBEM along Drilling transect
(U. Tokyo, Tohoku U., Kyoto U., & JAMSTEC)

2012 : 4 OBS & 2 OBPR

2013: 4 OBPR

2014(HOBBITSS): 7 OBPR, 5 OBS & 3 OBEM

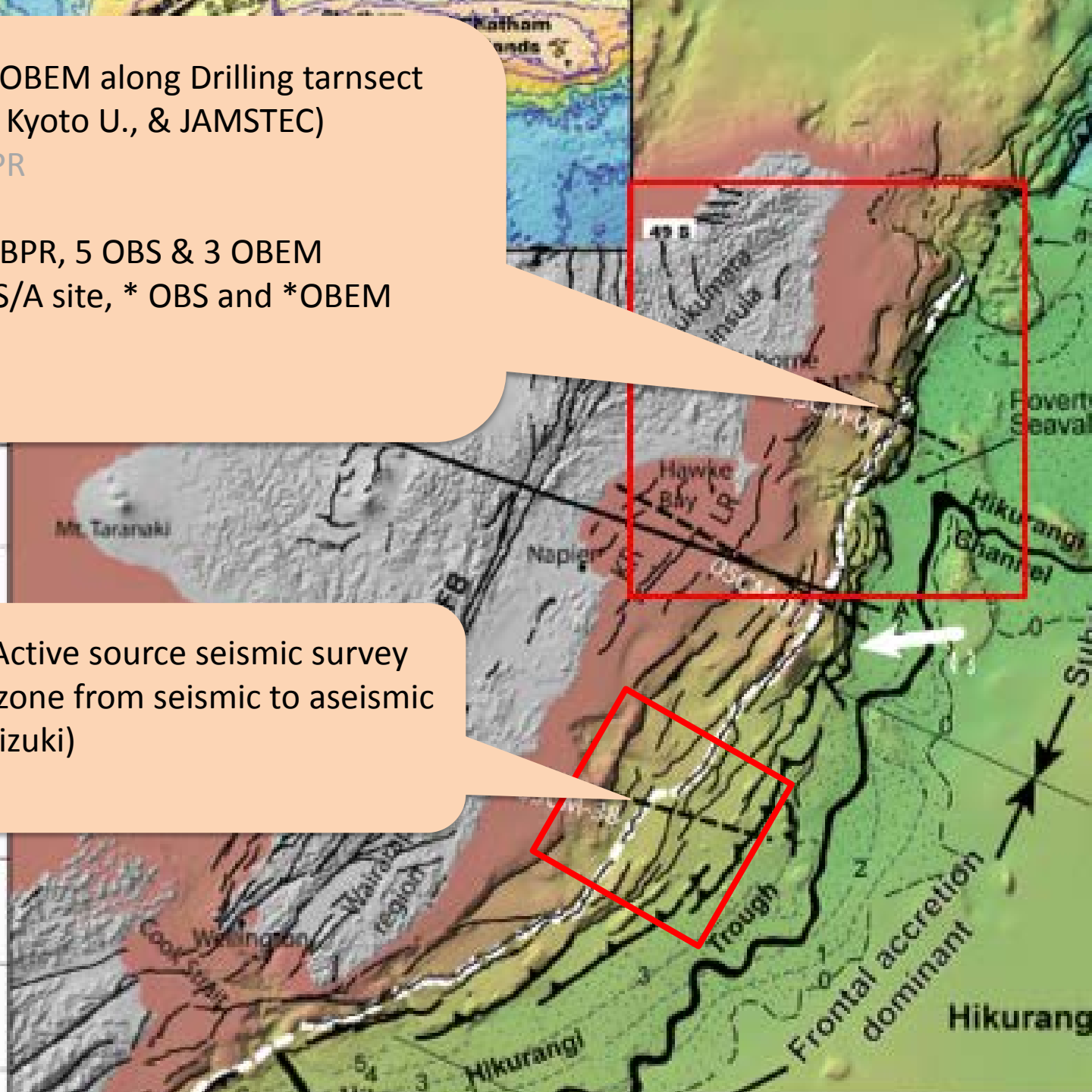
2015: 5 OBPR+, 1 GPS/A site, * OBS and *OBEM

2016: 5 OBPR

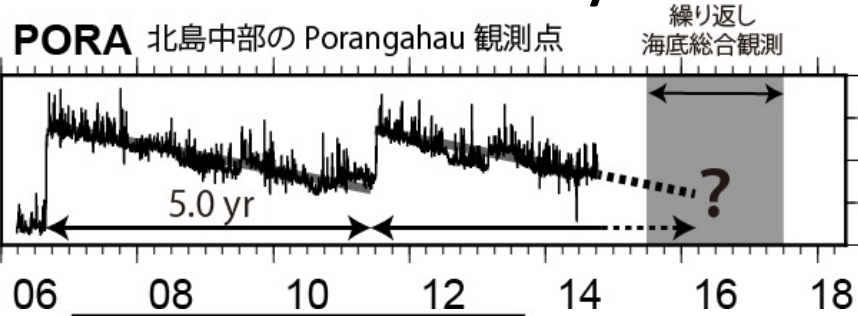
2018: 5 OBPR

OBS, OBPR, OBEM & Active source seismic survey
across the transition zone from seismic to aseismic
(U. Tokyo: Kimi Mochizuki)

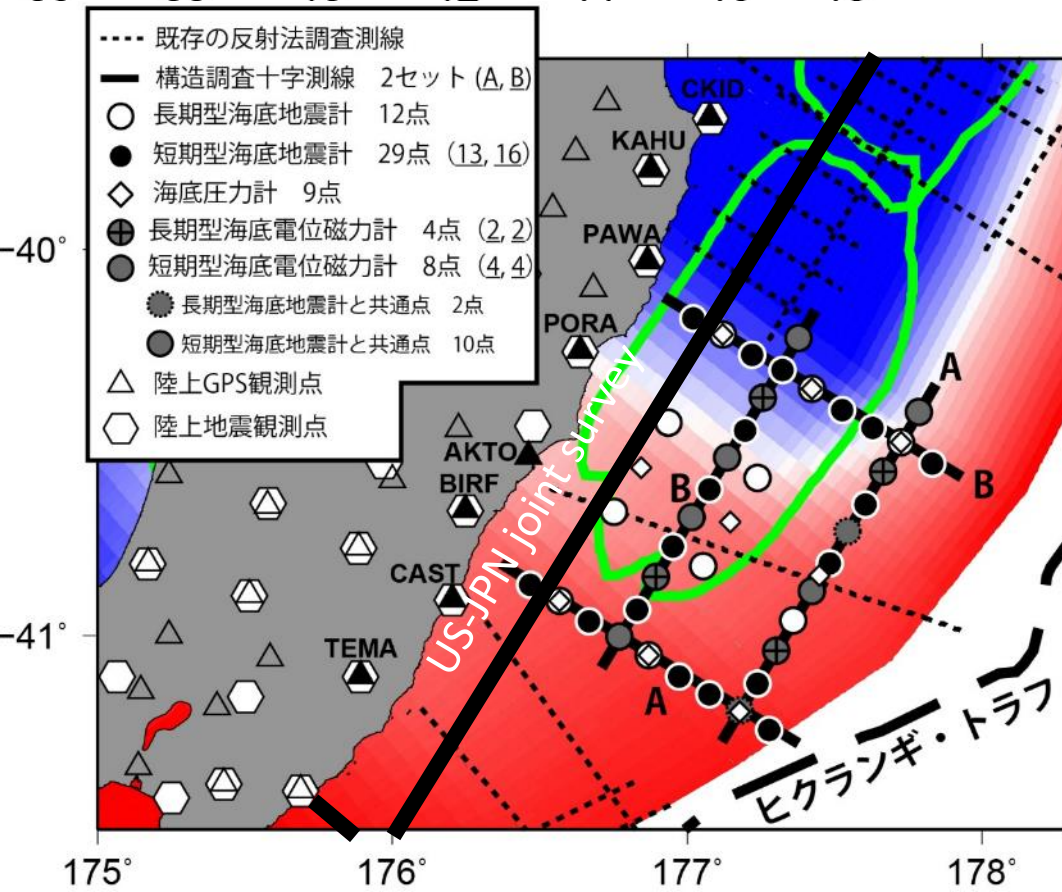
2016 and 2017



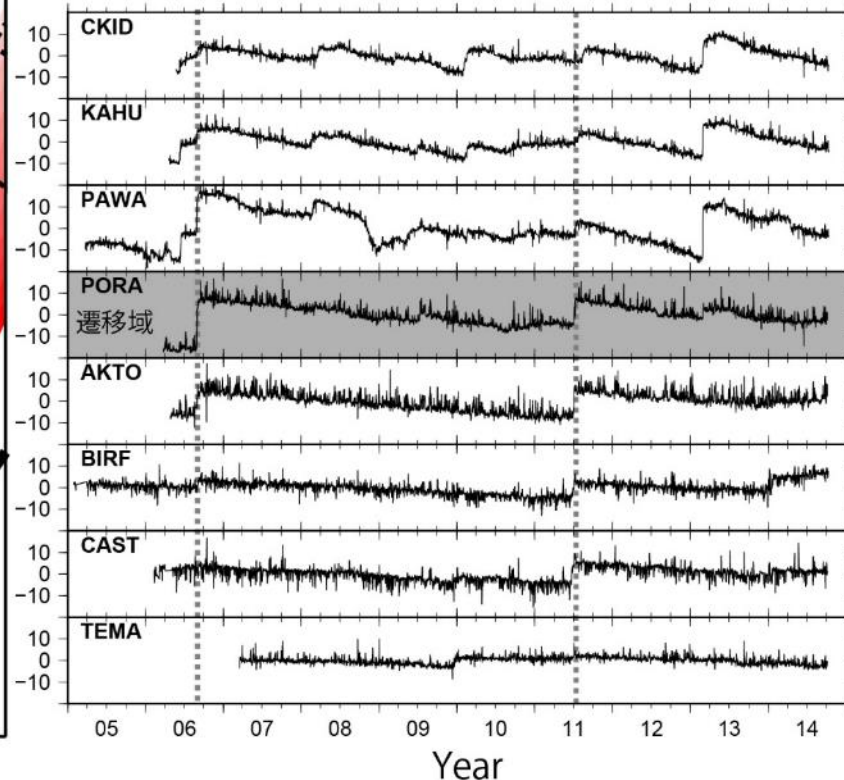
Offshore multidisciplinary geophysical observation and active source seismic survey across the transition area



PI: Kimi Mochizuki (ERI, U. Tokyo)
R/V HAKUHO-MARU



陸上GPS観測データの東西成分
(東向きが正 mm)



JAMSTEC Workshop on Large-Scale cruises at YES, JAMSTEC, on Nov. 6-7, 2014

- Purpose: To explore co-funding/international collaboration and investigate synergies in science projects and project locations for the JAMSTEC R/V.
- Many preproposal in south west Pacific were submitted
 - Hikurangi : SSE
 - Northern Lau: Rift and metal
 - Kermadec – Genesis of continental crust formation
 - Hikurangi – piece of the largest Oceanic Plateau puzzle?
- One fullproposal including other area, such as western Pacific and southern ocean will be submitted to JAMTEC
- If accepted, JAMSTEC R/V KAIREI or KAIKO will voyage after 2017

R/V KAIREI



 **JAMSTEC**
<http://www.jamstec.go.jp/>

Pre-proposal was submitted to
JAMSTEC Large-scale cruise Workshop.

Full proposal will be submitted

PI: Laura Wallace

(After 2017)

Length	106.0 m
Beam	16.0 m
Depth	7.3 m
Draft	4.7 m
Gross tonnage	4,517 tons
Cruising speed	16 knots
Range	9,600 nautical miles
Accommodation	60 (38 crew, 22 research personnel)

R/V HAKUHO-MARU



Cruise proposal was submitted to
AORI, U. Tokyo.

PI: Kimi Mochizuki
2016 and 2017)

Length	100.0 m
Beam	16.2 m
Depth	8.9 m
Draft	6.3 m
Gross tonnage	3,991 tons
Cruising speed	16 knots
Range	12,000 nautical miles
Accommodation	89 (54 crew, 35 research personnel)

Shall we submit new APL proposal ?

- Drilling just after SSE in Hikurangi
- Investigation of SSE zone before and after SSE.
 - Where is the last SSE zone, especially depth and thickness ?
 - Frictional property is changed or not, before and after.
 - Heat signal?
 - Micro structure ?
- Side track in a main riser hole by Chikyu ?
- New hole near a JR hole near the toe ?