

A simultaneous observation from seafloor to atmosphere by using “Chikyu” and DONET

*Keisuke Ariyoshi¹, Takeshi Iinuma¹, Shuhei Nishida¹, Yuya Machida¹, Yasumasa Miyazawa¹, Toru Miyama¹, Hiroshi Uchida¹, Akira Nagano¹, Masahide Wakita¹, Mikiko Fujita¹, Tatsu Kuwatani¹, Amane Fujiwara¹, Katsunori Kimoto¹, Yoshiyuki Nakano¹, Yoshimi Kawai¹, Kaoru Ichikawa², Takuya Hasegawa⁵, Akira Kuwano-Yoshida³, Akiko Toh⁴

1. Japan Agency for Marine-Earth Science and Technology, 2. Kyusyu University, 3. Kyoto University, 4. The University of Tokyo, 5. Tohoku University

Slow earthquake [1] including very low-frequency earthquake migrates along strike direction at depth about 30 km, which has been detected from inland seismic observation networks [2]. This migration of slow earthquake is thought to occur in the shallower part near the trench [3], which would be important to monitor the generation process of megathrust earthquakes, in order to classify hydraulic pressure change on the sea bottom into crustal deformation and oceanic oscillation. Toward the monitoring, we have conducted simultaneous observations from seafloor to atmosphere by using DONET and Scientific Deep Sea Drilling Vessel “Chikyu”. In our presentation, we will introduce our observations and collaboration with other related observational campaigns.

References [1] S. Ide et al., *Nature* 447, 76-79 (2007). [2] K. Obara & S. Sekine, *Earth Planets Space* 61, 853-862 (2009). [3] S.Y. Schwartz & J.M. Rokosky, *Rev. Geophys.* 45, RC3004 (2007).

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