

Ultra-deep riser drilling into the Nankai accretionary prism: Preliminary results of IODP Expedition 348

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The Nankai Trough Seismogenic Zone Experiment (NanTroSEIZE) is a multi-disciplinary scientific project designed to investigate fault mechanics and seismogenesis along subduction megathrusts through seismic imaging, direct sampling, in situ measurements, and long-term monitoring in conjunction with laboratory and numerical modeling studies. As part of the NanTroSEIZE program, International Ocean Discovery Program (IODP) Expedition 348 started on 13 September 2013 and was completed on 29 January 2014. During Expedition 348, the drilling vessel *Chikyu* advanced the ultra-deep riser hole at Site C0002, located 80 km offshore from the Kii Peninsula, from a depth of 860 meters below sea floor (mbsf) to 3058.5 mbsf, the world record for the deepest scientific ocean drilling, and cased it for future access. The drilling operation successfully obtained data on formation physical properties from logging while drilling (LWD) tools, as well as from lithological analyses of cuttings and core from the interior of the active accretionary prism at the Nankai Trough. IODP Site C0002 is the currently only borehole to access the deep interior of an active convergent margin. We will present preliminary scientific results as well as key aspects of riser-drilling operations, including two sidetrack borehole drilling operations conducted in this never-before accessed tectonic environment.

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