

Deep Fault Drilling Project -Alpine Fault

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The Alpine Fault (South Island, New Zealand) is one of the largest active fault zones on earth. It ruptures every 200-400 years in a magnitude ~7.9 earthquake, and is thought to have last ruptured in AD 1717, which implies a significant geohazard potential. For understanding the seismogenesis and the habitat of earthquakes, ductile and brittle deformation mechanisms and their interaction, and evolution of a transpressive orogenic system, the "Deep Fault Drilling Project - Alpine Fault (DFDP-AF) was started from January 2011. The first, phase (DFDP-1), which targeted to drill to 150 m, has completed on February 2011, and the samples have already been provided to international scientific community. DFDP-2 is planed to drill to 1500 m through the Alpine Fault as one of the International Continental Scientific Drilling Program (ICDP), and is now working. In this presentation, we outline this drilling project.