

## Geological and Tectonic prospect for the Kanto Asperity Project

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This presentation concentrates on the geologic and tectonic aspects in this project. The geologic and tectonic study in the KAP is characterized mainly by three subjects. The first one is the fault rock analysis: this project intends to drill the plate boundary thrust and splay faults. Especially in BOS-2 site, we will penetrate the splay fault at approximately 3 km depth and plate boundary fault (Genroku asperity) at the depth of 6 km. The similar thrust-faults coring are also expected in site BOS-1 and SAG-2. The second one is present-stress state analysis using borehole breakout. The KAP is planning to drill in two different asperity regions (Taisho-Kanto and Genroku), slow-slip region, and reference site located on the Philippine Sea Plate. Characteristic stress state would be shown by this study. The third one is tectonic study especially related to the subduction and collision system in the KAP region using paleomagnetic, geologic, and chronological studies.

About the KAP: The Kanto region of central Japan (Tokyo and surrounding) is one of the most densely populated urban areas in the world. The Kanto region is characterized by dual-plate subduction and related island arc- island arc collision, and has been devastated by repeated great earthquakes. The Kanto Asperity Project (KAP) is a program designed to investigate asperities associated with destructive earthquakes in the Kanto region; it is being submitted as a CDP (Complex Drilling Project) in the Integrated Ocean Drilling Program. This project intends to drill through the asperity and adjacent slow-slip regions; other on-going research involves seismic and geodetic monitoring, paleoseismology, and geologic studies designed to understand this subduction/collision system.