# Tectonic Features of the Sagami Bay and Off Boso Peninsula

# Uko Suzuki[1]

[1] CDEX/JAMSTEC

http://www.jamstec.go.jp

The region around Sagami Bay and the Boso peninsula have four tectonic plates, the North American (Okhotsk) plate (NA/OK), the Eurasian (Amurian) plate (EU/AM), the Pacific plate (PA) and the Philippine Sea plate (PHS), all of which converge in the study area (the Kanto Region), which is a region of complicated inter-plate earthquakes, particularly along the Sagami Trough, where the PHP and EU/AM plates converge, subjecting the region to repeated great earthquakes over the past several thousand years.

Analysis of the geometry and architecture of this multi-plate convergent boundary reveal marked changes in the geophysical and seismotectonic character across the Tokyo Bay and Kanto region. New evidence from studying the geological/geophysical interpretations recorded in large databases (including new data collected by JAMSTEC) have helped clarify the geophysics and tectonic charachteristis of the Sagami Bay, Sagami Trough and Boso peninsula, and is placed here in the context of modern seismological theory.

In this report, the following new tectonic features are discussed:

1. The area may be divided into the following geological provinces which southwardly are the accretionary terrains along present subduction zone in the Sagami trough, a truncated area along the 15 Ma subduction zone, the Shimanto Belt, the Chichibu Belt and the northeast Japan forearc Basin;
2. Sagami Bay and the region off the east coast of the Boso peninsula have structurally similar geology;
3. Structure of the accretionary terrains is a right lateral super oblique. The sand box experiment suggests the pop-up structure with hanging wall Riedel and antithetic Riedel shears cross the uplift and relay systems.
4. A truncated area is thought to be the product of the subduction since the uplifts occurring approximately between 15 Ma and 3 Ma.
5. Seismic activity in the region is marked by the geological movements in each geological province in response to the Philippine Sea plate subduction; and,
6. Accretionary terrain and truncated areas may be located above the 1923 and 1703 earthquake asperities.