

## 1:500,000 Compiled geological map of the Fujigawa-kako Fault Zone and its surroundings

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This geological map was created for seamless integration of land and sea geoinformation, based on the existing geology and active fault research results, in addition to the research results of Iriyamase fault that was carried out in "Geology and Active Fault Study of the Coastal Area" as the project of Geological Survey of Japan, AIST. The map is intended to be basic information diagram to be utilized for future research and disaster prevention. Therefore, it will be revised based on the research achievements of the future.

The older Fuji mudflows and lava flows of the Fuji Volcano (e.g., Tsuya, 1978) have been good reference surfaces to study the activities of the fault zone. However, based on the latest research results of new stratigraphy of the products of Fuji Volcano at the southwestern foot (e.g., Yamamoto, 2014), the older Fuji mudflows is divided into the volcanic fan IV deposits and III volcanic fan deposits, whose abandonments occurred at MIS 4 and MIS 2, respectively. Furthermore, stratigraphy and ages of some lava flows deformed by active faults, has been corrected. Below, it shows the outline. As a result of review of existing studies based on these, some of the setting of the reference plane and the average displacement velocity were found to be necessary to be reconsidered.

(1) It became clear that continuity and configuration of the Iriyamase Fault in coastal area, based on results of onshore shallow seismic reflection survey (Ito and Yamaguchi, 2016), boring surveys (Ishihara and Mizuno, 2016) and offshore seismic reflection survey (Sato and Arai, 2016) of the GSJ project. In addition, there is a large possibility that two parallel or en echelon faults has been developed on both sides of the Kanbara Jishinyama (earthquake mound) (Omori, 1920).

(2) The average activity rate of the Iriyamase Fault estimated to be 7 m/1000 years is based on the altitude difference between the Suijin Lava Flow on the hanging wall side and the Obuchi Lava Flow distributed under the Fujikawa-kako Alluvial Fan on the footwall side (Yamazaki, 1979). However, the former has an age of 17 ka and was flowed from along the Fuji River to the southeast, the latter have an age of 10 ka and was flowed from the south-southwestern foot of the Fuji Volcano to the southwest (Yamamoto, 2014). In addition, Yamazaki (1979) was estimated the displacement of the Iriyamase Fault from elevation distribution map of lava flows under the alluvial fan by Murashita (1977), which shows the shape of the foot of Mt. Fuji to be reduced to the southwest direction at about 10 ka. However, there is almost no data on footwall side zone of width 2 km (from Matsuoka to Gokanjima districts) along the Iriyamase Fault in order to lacking lava flows are in boring core data, it is not possible to accurately estimate about depth of the lava flows in footwall side from the map. The lava flow as a reference is considered to be hardly deposited in the zone due to the downward erosion at the last glacial period and valley-filling sedimentation at the post-glacial period by the Paleo-Fuji River stream in addition to the subsidence by the Iriyamase Fault. And furthermore, effect of sea level between 10 ka and 17 ka to reach 60 to 70 meters (e.g., Siddall et al., 2003) must be also taken into account. In the present situation, by combining the various conditions of the above, the amount of displacement of the Iriyamase fault, can be large, or small than the existing estimates. Therefore, in order to estimate the exact average displacement rate of the Iriyamase Fault, it is necessary to carry out a new investigation.

(3) The Shibakawa and Iriyama Faults are distributed continuously as a geological fault, but unlikely as an active fault. Several N-S trending faults in length from 0.5 to 1.5 km are well

developed in the areas where both of faults are connected while bending. Among these, the Gendai Fault (Otsuka,1938) is considered to be an active fault.

Keywords: Fujikawa-kako Fault Zone, Iriyamase Fault, geological map, 1:500000