

Geomorphological map of the Itoigawa-Shizuoka Tectonic Line Active Fault System, Part 1: Overview

Katsuyoshi Miyakoshi[1]; Daisuke Miura[1]; Akiko Miyawaki[2]; Daiei Inoue[1]

[1] CRIEPI; [2] Hanshin Consultants co.,Ltd

<http://criepi.denken.or.jp/jp/>

1. Introduction

We have produced the detailed geomorphological map of Itoigawa-Shizuoka Tectonic Line active fault system (ISTL). In 1998, our team in CRIEPI had started a five years project for investigating the fault system in detail. Purpose of the project is to reveal an adequate segmentation model of the ISTL, where the potential hazard of inland earthquake is the largest in Japan. Our project consisted of the following surveys: the geomorphologic and the geologic surveys, the drilling, the trench excavation and the seismic reflection. The surveys had continued from 1998 to 2002. As result, we obtained new and many relevant data of the ISTL.

The geomorphological map can allow us to view all of meaningful data from the project, and the relevant data of previous major studies. The details of paleoseismic data, however, should be referred to the original paper published in several Journals or others (e.g., Toda et al., 2000; Miura et al., 2002; 2004a; 2004b).

2. Geomorphological map

Structure: The geomorphological map covers the central and southern areas of ISTL. It is composed of three continuous maps distinct in each local area; the Matsumoto, the Suwa-Fujimi and the Hakushu-Kushigata areas. The base map is 1/25,000 topographic map reproduced under the written permission of GSI.

Description: Each map contains the following information; the terraces and fault scarps (including lineaments) obtained by air-photograph interpretations, the fault exposure, the trench excavation, the paleoseismic data at each, and the measurement line of seismic reflection survey. The air-photo interpretation is based on the modified standard lineament rank of JSCE (Inoue et al., 2002). Location of the trench with no fault information was given for possible further use.

The important contribution of map is the following.

- (1) Ranked certainty of lineament by the modified JSCE standard rank.
- (2) Examined trench excavation in each ranked lineament. User can confirm each relevant result in each rank.
- (3) User can view at once all of results in the fault traces, the geomorphology, the geology, and the summarized paleoseismic data at an arbitrary location.

Details and an example of map are introduced in another poster presentation (Miura et al., this meeting).