

## High-resolution Multi-Channel Sonic survey on the seaward extension of the Kokura-Higashi Faults

KAGOHARA, Kyoko<sup>1\*</sup> ; YOSHIOKA, Toshikazu<sup>2</sup> ; KATO, Isamu<sup>3</sup> ; HAMBACH, Yasuhiro<sup>3</sup>

<sup>1</sup>Yamaguchi Univ., <sup>2</sup>IEVG, AIST, <sup>3</sup>Kawasaki Geological Engineering Co. Ltd.

The Kokura-Higashi Faults are NNE-SSW trending left lateral strike-slip fault. It is recognized obviously the Kokura-Higashi Faults are distributing from Kokura-Kita to Kokura-Minami ward, Fukuoka Prefecture. However, the Headquarters for Earthquake Research Promotion (2013) pointed that the northern extent of the faults could reach to off Hikoshima, Hibiki-nada, based on the distribution of steep gravity gradient zone in the northern Kyushu. We have conducted a high-resolution multi-channel sonic survey using Boomer source and 12-channel, 2.5-m-channel-interval streamer to clarify the precise fault distribution and structure in Hibiki-nada. The acoustic profiles imaged several faults that deform shallow strata.

Keywords: Kokura-Higashi Faults, multi-channel sonic survey, strike-slip fault, Hibiki-nada