

A study on 3D underground structure model in Fukuoka area for ground motion simulation

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The 2005 off west of Fukuoka Prefecture Earthquake damaged around Fukuoka city. Some ground motion records of the aftershocks were observed (e.g. Yamanaka et al.,2005). This report pointed out the 2D and 3D effects of the shallower part of subsurface structure around damaged area. We carried out 3D ground motion simulation for an evaluation of the 3D model performance and a construction of the 3D subsurface structure model around the Fukuoka plain. The FD simulation of the period range from 0.8s to 2.0s result indicates a reasonable reproduction of the observed records on the rock site and basin site. Although, this report shows only the result of shortest period range of 0.8s simulation, we think that we need the range of 0.5s one and an exploration underground structure in sedimentary basin around Fukuoka for reexamination.