

Japan Geoscience Union Meeting 2011

(May 22-27 2011 at Makuhari, Chiba, Japan)

©2011. Japan Geoscience Union. All Rights Reserved.



MIS036-P169

Room:Convention Hall

Time:May 27 14:15-16:15

Preliminary report on damage to Central Kanagawa, Japan caused by the 2011 off the Pacific coast of Tohoku Earthquake

Hiroo Nemoto^{1*}, Kiyokazu Kawajiri², Nobumitsu Aihara³, Setsuo Fujimoto⁴, Kenichi Shinohara⁵, Mikiko Kashiwagi⁵, HIRATSUKA-BOUSAI-MACHIDUKURI-NO-KAI⁵

¹J.F.Oberlin University, ²Sagamihara City Museum, ³Nippa Upper Secondary School, ⁴Hadano City Kuzuhanoie, ⁵HIRATSUKA-BOUSAI-MACHIDUKURI-NO-KAI

The purpose of this presentation is to provide a preliminary report on the damage caused to Central Kanagawa Prefecture by the 2011 off the Pacific coast of Tohoku Earthquake. Kanagawa Prefecture is located to the south-west of Tokyo and covers an area of about 2,415.85 square kilometers. It has a population of about 9 million people. The topography of the prefecture consists of alluvial lowland, upland, hills, and mountains such as Tanzawa Mountains.

This prefecture is located about 400 km from the epicentre, and about 150km from the southern edge of the source region of the earthquake. The distribution of the JMA (Japan Meteorological Agency) seismic intensity scale in Kanagawa Prefecture owing to the mainshock ranged from 2 and 5 upper. The number of those killed and injured within the prefecture by the mainshock was 4 and about 130 persons, respectively. Moreover, 200 or more houses, buildings, bridges, roads, agricultural facilities, and so forth received major or minor damage caused by the effects of the strong ground motion such as liquefaction, however this damage was largely localized in the middle of the prefecture.

It is necessary to study the reason why the damage caused was so localized. The subsequent results of the study will provide useful information to the prefecture to help prepare for any future earthquake to hit, which may strike with even greater strong ground motion.

In this presentation, we will report the preliminary results in detail, looking at such areas as the relationship among damage, topography and geological setting, as well as clarify remaining problems in future.

Keywords: the 2011 off the Pacific coast of Tohoku Earthquake, Kanagawa Prefecture, Central Kanagawa Prefecture, damage, topography, urban geosciences