

The survey of human perception and reaction in high-rise buildings in 2011 off the Pacific coast of Tohoku Earthquake

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I report seismic response, human perception and reaction and indoor situation of high-rise buildings in Tokyo and Osaka area, Japan, for the 2011 off the Pacific coast of Tohoku Earthquake, using strong motion data, and questionnaire/hearing surveys.

The questionnaire/hearing surveys from 43 buildings in Tokyo and Osaka area showed that their seismic response and damage patterns are different by story and location. In Tokyo area, the 50% of the residents in the high-rise buildings with their own natural period 3 second answered their walking is difficult without holding onto something stable or it is difficult to remain standing. On the other hand, the 20% of the residents in the high-rise buildings with their own natural period 5 second answered their walking is difficult without holding onto something stable or it is difficult to remain standing.

In Osaka area, the residents in the high-rise buildings with their own natural period 6 second answered it is difficult to remain standing, but the residents in their own natural period 4 second answered the need to hold onto something stable.

Even though there was no severe building damage, many residents in the high-rise buildings find it hard to move. In addition, detailed contents are reported on the day.

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