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Damage Investigation of Surroundings of the Seismic Stations in the 2008 Iwate-ken Engan Hokubu Earthquake and Correspondence of Damage to Bulidings with Strong Ground Motions

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ABSTRACT: We carried out damage investigation around the seismic stations where high JMA seismic intensity scales were recorded in the 2008 Iwate-ken Engan Hokubu Earthquake. We found some minor damage such as small cracks in the wall or damaged glass, but heavy damage to buildings was not found around all the seismic stations. We investigated the correspondence of strong ground motions with damage to buildings. Very short period below 0.5 sec. was dominated in most strong ground motions and the 1-2 sec. response which has close relationship with heavy damage to buildings was small, therefore, heavy damage to buildings was not found in spite of high JMA seismic intensity scale.

Key Words: The 2008 Iwate-ken Engan Hokubu Earthquake, earthquake damage investigation, strong ground motion characterictics, JMA seismic intensity scale, seismic station