Japan Geoscience Union Meeting 2011

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

©2011. Japan Geoscience Union. All Rights Reserved.



SCG010-P10

会場:コンベンションホール

時間:5月25日10:30-13:00

荒砥沢巨大地すべり山塊の地震に誘発された傾斜、上昇・下降運動 Earthquake-triggered tilts, up and down motions of a huge mass in the Aratozawa Landslide Area

松波 孝治 ^{1*}, 森井亙 ¹, 齊藤隆志 ¹ Koji Matsunami^{1*}, Wataru MORII¹, Takashi SAITO¹

The 2008 Iwate-Miyagi Nairiku Earthquake induced a huge landslide at the upper reaches of Aratozawa reservoir. The movement of a huge mass that is 600m*500m in size reached to about 340m in distance. We performed aftershock observations in the Aratozawa area using broad-band strong-motion seismometers. We detected transient long-period horizontal and vertical ground motions in aftershock seismograms. The long-period horizontal and vertical ground motions are due to tilts and up/down motions of the ground triggered by aftershocks, respectively. Site amplification characteristics for the mass show a significant peak at around 1 Hz, suggesting a resonant vibration of the mass due to the incidence of seismic waves. The results obtained in this study indicate instability of the huge mass that has experienced a large landslide.

キーワード: 地すべり, 荒砥沢, 岩手宮城内陸地震, 地震応答, 地盤傾斜, 地盤上昇下降

Keywords: landslide, Aratosawa Resevoir, Iwate-Miyagi Nairiku Earthquake, seismic response, ground tilting, ground rising and descending

¹ 京都大学防災研究所

¹Disast. Prev. Res. Inst. of Kyoto Univ.