



SLIDING ANALYSIS OF THE ARATOSAWA LANDSLIDE GENERATED IN THE IWATE-MIYAGI NAIRIKU EARTHQUAKE IN 2008

KAZAMA Motoki¹, MORI Tomohiro², KABUKI Hiroaki³ and MATSUI Tetsushi⁴

¹ Professor, Graduate School of Eng., Dept. Civil and Environmental Eng., Tohoku University, Dr. Eng.

² Research Associate, ditto, Dr. Eng.,

³ Technical Engineer, ditto

⁴ Master Course student, Dept. of Civil Engineering, the University of Tokyo

ABSTRACT: A huge landslide was generated in the Aratosawa dam at an upstream site during the 2008 earthquake. It was about 1.3 km in length; about 900 m in width, and the amount of movement mass totaled approximately 67 million m³ slipped about 320 m. In this paper, the soil properties of the sliding portion are reported, and the time series of the slide and the cause of the slide are discussed by the strong motion data at the dam site and the results of sliding block analysis. It was found that the effective stress reduction during the earthquake is the key issue of the earthquake induced land slide.

Key Words: *2008 Iwate-Miyagi Inland Earthquake, Aratosawa Landslide, Sliding Analysis, Residual displacement.*