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Some rapid and long traveled landslides triggered by the May 12, 2008 Sichuan earthquake

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On May 12, 2008, a 7.9M earthquake struck Sichuan province of China, causing a huge number of death and injuries, and great loss of properties, becoming the most damaging earthquake since the 1976 Tangshan earthquake, in China. The collapse of buildings during the earthquake is the main reason for the casualties. There are a huge number of landslides that had been triggered by this earthquake. Almost all the roads to the mountainous areas had been blocked and many dams were formed by the displaced landslide materials, resulting in great difficulties for the aftershock rescue activities. Also a big portion of the casualties was directly caused by the landslides. The authors had reconnaissance field trips of the landslides, and performed preliminary investigation on some of the catastrophic ones. In this report, four landslides, i.e., Xiejiadian landslide in Pengzhou city, Donghekou landslide and Magongxiang landslide in Qingchuan County, and Niujuangou landslide on the epicenter area of Yingxiu Town, are introduced. The characteristics of deposited landslide masses in Donghekou landslide were investigated by means of a multichannel surface wave technique. Two earthquake recorders were installed at the upper part and deposit area of Donghekou landslide. The seismic responses of different parts of the landslides were monitored, and recorded successfully during the aftershocks that occurred in Qingchuan County on July 24, 2008. Also the drained and undrained dynamic shear behaviors of samples from the landslide areas were examined. Some preliminary analyzing results will be presented in this report.