

Distribution of surface cracks caused by the 2016 Kumamoto Earthquake interpreted from aerial photos

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The 2016 Kumamoto Earthquake on 14 and 16 April 2016 caused serious damage such as house collapse and slope collapse in Kumamoto Prefecture. Surface earthquake faults were emerged along Futagawa active faults and Hinagu active faults by the earthquake of M7.3 on 16 April, and unknown active faults were emerged around Kawayo area, Minamiaso Village.

Geospatial Information Authority (GSI) of Japan have conducted on aerial photographing for disaster area since 15 April 2016. A lot of surface cracks were identified from Aso City to Mifune Town on the aerial photos after 16 April 2016. Therefore, we interpreted and mapped those cracks. Some of those cracks were already announced on the homepage of GSI of Japan. In this presentation, we will display the wider distribution of surface cracks interpreted from aerial photos from 16 April to 20 April 2016. These surface cracks were caused by surface earthquake fault, gravity deformation of slope, land liquefaction and ground motion etc. All detail cracks on the road and around slope collapse were not extracted. This interpretation work was carry out by the presenters and Geographic Department members of GSI of Japan.

Keywords: the 2016 Kumamoto Earthquake, crack, surface earthquake fault, active fault, gravity deformation