

Reinterpretation on geometry of the major active fault zones for their segmentation

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Location and fault geometry of the Major Active Fault Zones are most basic data for a long-term risk evaluation of earthquakes that occur from active faults, because their length becomes most basic essential for estimation of the maximum scale of future earthquakes. If an active fault zone (system) is composed of several active faults with some length, it is important to specify which segment of the zone moves at a time when we presume future earthquake size. Thus, uncertain unreliable information regarding location and geometry of active fault zone causes serious mistake in their long-term risk evaluation.

With such background, the authors carried out careful interpretation of large scale air photographs for more detailed mapping of active fault traces based on observation of minute tectonic landforms. Newly mapped fault traces in active fault zones along the eastern margin of Yokote basin and the western margin of Kitakami Lowlands, enable us to draw different picture from the previously known ones for fault segmentation, suggesting that reconsideration of segmentation of the Major Active Fault Zones is inevitable for more reliable risk evaluation.

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