

Elongated fault escarpments on the outer slope of the central Mariana Trench

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Elongated fault escarpments on the outer slopes of the central Mariana Trench have been investigated based on detailed swath bathymetric mapping by R/V Yokosuka from January 4th to 16th, 2001. Numerous horsts and grabens formed by these escarpments were identified. In the northern area, most of the escarpments are parallel to the trench axis and quite oblique to the magnetic lineations. Linear alignment of the escarpments with a strike of N45E, parallel to the magnetic anomaly lineations, was revealed in the southern area. Distinct N20E-N30E elongated faults escarpments are dominant in the southern area. The strike is not parallel to the nearby trench axis, but the trench axis south of the survey area.