

Comparison of Mb (IDC) to Mb (ISC) for the East Africa Region Using the Empirical Regression Equations

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Data collected from IRIS Reviewed Bulletin for East Africa is used to generate empirical regression equations using orthogonal least square regression (OLSR). The regression best-fit line yields a regression equation $y=0.517x+ 2.1787$ with R^2 0.6208 for 972 events with a cut-off magnitude of 2.5. While the R^2 error is relatively high the result compare published regression equations. The slight variations may be due to the IDC body wave calculation method. The equation bridges the data gap where no other magnitude type is provided and allows for the extension of the seismic catalogue by 22 events not reported by any other network. Further, it helps increase our understanding of the seismicity of the region and contributes to more representative hazard mapping.

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Promotional text

CTBTO data is used to extend catalogue for seismicity and hazard monitoring in the East Africa region.

Oral preference format

in-person

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