

1.2-P13. SEISMIC VELOCITY STRUCTURE OF THE ITEZHI TEZHI REGION IN ZAMBIA DEVELOPED BY APPLICATION OF THE RECEIVER FUNCTION METHOD

Broadband teleseismic P-waveforms recorded on ITZ station have been computed to isolate near-receiver Ps conversions originating from the Moho discontinuity at a depth of approximately 37 km. The strong trough immediately after the apparent direct P-wave on the station seems to indicate that ITZ may be underlain by a low velocity zone. Reasonably large amplitude arrivals exhibiting times and slownesses consistent with the interpretation as Ps conversions from Moho discontinuity were observed at the station. The modeling technique employed involves forward modeling of the radial component of stacked source equalized receiver functions with predicted synthetic seismograms in the time domain. The crust-mantle boundary (Moho) at the station is sharply defined and the resulting velocity structure is presented as P-wave velocity model. The receiver structure at ITZ has been calibrated to have a four layer over a mantle half-space.

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