The 25 March 1998 Antarctic earthquake: Source process obtained from teleseismic body waves

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We investigated the rupture characteristics using the teleseismic body waves. Two subevent-clusters were then derived: the one consists of a few subevents propagating 60 km to the west; the other is located at about 120 km west of the epicenter. The focal mechanism is nearly pure strike-slip with NW-SE tension.

The main source parameters are:

(strike, dip, rake) = (288, 87, -2)
seismic moment=2.1e21 [Nm] (Mw=8.1)
average dislocation=5.6 [m]
stress drop=12 [MPa].