The New Ireland earthquakes of November 16, 2000, and the tsunami generated by the earthquake

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A great earthquake (Ms 8.0) occurred near New Ireland Island, Papua New Guinea on November 16, 2000. It was followed by the large aftershock (Ms 7.7) about 3 hours later. We analyze the teleseismic body-waves and compute the delta CFF due to the mainshock. We also analyze the tsunami. The result indicates that the mainshock occurred along the transform boundary between North and South Bismark plates. The mainshock trigger the large aftershock which was an underthrust event and occurred along the subduction boundary between Solomon Sea and South Bismark plates. The tsunami waveform observed at the tide gauge in Manus Island was well explained by the computed waveform using the fault model of the mainshock. The tsunami amplitude was increased by the effect of the inner sea behind the reef.