



Preliminary catalogue of Australian tsunami

D. Dominey-Howes

Department of Physical Geography, Macquarie University, North Ryde, Sydney, NSW 2109, Australia. Email: ddominey@els.mq.edu.au; Tel: +61 2 9850 9679; Fax: +61 2 9850 8420

The Indian Ocean tsunami (IOT) of 2004 has resulted in significant interest within Australia about the record of tsunami for the continent because an understanding of tsunami hazard begins with catalogue of past events. Here, a preliminary catalogue of tsunami affecting Australia is presented. The catalogue contains entries for 57 tsunami events. The oldest event is dated at 3.47 Ga, the most recent is the July 17th 2006. Forty-four tsunami were recorded on the New South Wales coast although the NW coast of Western Australia records a significant number of events. Forty-seven events have affected Australia since AD1858. Maximum run-up for an historic event is +6 m asl whilst the maximum run-up for a palaeotsunami event is reported at an elevation of at least +100 m asl. Twenty-three percent of historic Australian tsunami were generated by unknown causes and Papua New Guinea, the Solomon Islands and Indonesia collectively represent the most important source area of historic tsunami for Australia. Geological records for palaeo- and historic tsunami are identified and summarised. The geological record of tsunami represents a potentially important source of information for Australian tsunami. However, at the present time, the geological record is both limited and controversial and future research should seek to re-examine proposed geological evidence of tsunami. From an analysis of this preliminary catalogue of Australian tsunami, a series of key research priorities have been identified to guide future research in the region.