

14. Third World Conference on Earthquake Engineering N.Z. 1965  
"General Report - Earthquake Resistant Design, Construction  
and Regulations".
15. "Civil Engineering" (U.S.) August 1939 "Earthquake Studies for  
Pitt River Bridge" by J. L. Savage.
16. California Department of Public Works - Bridge Across Eel River  
at North Scotia Humboldt County, Bridge No. 4-15. Drawings  
C-111-101 and 102.

A LETTER TO THE EDITOR,

Dunedin  
5th Sept. 1968

TSUNAMI RISK

Sir, there has been much discussion as to the risk of structural damage from seismic motions in New Zealand, but I have heard little mention of tsunami risk. I have not heard of any planning to reduce this risk nor of any consideration given to the insurance risks for low-lying coastal areas.

It would be of interest to have published in your Bulletin, records of tsunami that have affected New Zealand, and I offer the following extracts.

OTAGO DAILY TIMES. 29th August 1868

"The schooner Rifleman arrived at Port Chalmers this morning, from the Chatham Islands, with a cargo of cattle and horses and a tale of great loss of property and rampaging seas. She left the Islands last Friday and has had a good return run to port.

Mr Hood, the owner of the cattle, supplies the tale - On the morning of the 15th inst. the Chathams were visited by three tidal waves, which, although not so large as those other parts have been visited by, were attended with loss of life and property.

The settlement of Tupunga, situated on the northernmost side of the island, felt the greatest force of it. The settlement was entirely destroyed; not a mark is left to tell where it stood."

MACKAY'S OTAGO AND WEST COAST GOLDFIELDS ALMANAC 1869.  
AUGUST, 1868.

"On the 15th inst., a great marine disturbance occurred all along the east coast of New Zealand. At Oamaru the tide rose and fell 20 ft in a few minutes and this was repeated five times within the space of twenty minutes. At Otago Heads a similar rise and fall was observed, and inside the inner Harbour the tide rose seven knots an hour, swinging the vessels and carrying away several buoys. For a distance of over ten miles up the Taieri river, a great rise and sudden reflux of the water was also observed."

R.J. PATERSON GARDEN  
M.I.C.E. F.N.Z.I.E.