GENERAL INFORMATION

AMALGAMATION OF THE NATIONAL COMMITTEE ON EARTHQUAKE ENGINEERING AND THE NEW ZEALAND SOCIETY FOR EARTHQUAKE ENGINEERING

Report by A. G. Stirrat

On 12th March 1973 it was my good fortune to chair a meeting, the outcome of which I am sure will benefit earthquake engineering in New Zealand. The meeting was attended by the National Committee on Earthquake Engineering and the Management Committee of the N.Z. Society for Earthquake Engineering. Its objective was to consider the principle of amalgamating the two bodies into one. While this principle has been under consideration by the two, independently of one another over the past three years or more it was not until this latest meeting that both came together to discuss the issue.

The result was unanimous agreement to abolish the present establishment and to form a single body having the proposed name, N.Z. National Society for Earthquake Engineering. It was the wish of the meeting that this Society become a technical group of the N.Z. Institution of Engineers, thereby continuing to enjoy the administrative assistance which the present Society has had. It will of course be necessary to obtain the formal approval to this change from the Royal Society of N.Z., the N.Z. Institute of Architects, the Earthquake and War Damage Commission and the N.Z. Institution of Engineers. Those members present at the meeting who represent these organisations believed that such approval would not be difficult to obtain.

It has always been my belief that amalgamation of the two bodies was essential to gain the full support and understanding of those interested in earthquake engineering. Claims that confusion existed in the minds of many over the separate responsibilities of each could not continue to be ignored. In addition, the numbers involved in this country could not, to my mind, justify the two separate entities.

The way is now clear to combine the strengths of the two into the new National Society. While an immediate start has been made on the amalgamation by having a small working party representing the two separate bodies consider a draft constitution, it is recognised that some time will elapse before the formalities are complete. There will be an opportunity for members of the present Society to consider the amalgamation at their Annual General Meeting. I am confident that few problems will arise, and the new National Society will flourish with everyone's support.

PRINCIPAL NEW ZEALAND EARTHQUAKES DURING THE YEAR 1972

by R. Adams

Earthquake activity was comparatively quiet in New Zealand during 1972. The largest shock recorded was that of 24 March 1972, which had a magnitude of 5.8 (Richter Scale). This earthquake was centred off the Fiordland coast near Doubtful Sound, and was felt throughout Fiordland and Southland, but no damage was reported.

The earthquake that attracted most attention in the course of the year occurred near Te Aroha on 9 January, and was felt as far afield as Auckland, Mangakino and Whakatane. The magnitude of this shock was only moderate (5.1), but its shallowness and its closeness to Te Aroha resulted in high intensities being recorded there. Many chimneys in the area were broken, and stores suffered much loss of goods from shelves. Internal partitions collapsed in the grandstand of the Te Aroha Jockey Club, and there was damage to gravestones in the Te Aroha Cemetery. Insurance claims for damage total about $150,000. The earthquake was followed by numerous aftershocks, and by the end of January, 16 had been recorded with magnitudes of 3½ or greater. Further activity occurred on 20 and 21 June. The largest of these later shocks had a magnitude of 4.5 and was felt strongly throughout the Coromandel Peninsula and western Bay of Plenty.

Several shallow shocks were felt widely in the central parts of the country, and caused minor damage. The first, on 14 March, had a magnitude of 5.2 and was centred at the north of D'Urville Island in Cook Strait; it was felt in Wellington and elsewhere between southern Taranaki and Nelson. A shock of magnitude 5.1 occurred on 31 July about 30 km to the east of Masterton, and was felt in the Wairarapa and Wellington regions. On 21 December a further shock of magnitude 5.1 originated 20 km off Cape Turnagain in southern Hawke's Bay. This shock was felt throughout the southern part of the North Island.

Three deep earthquakes were also felt extensively in the central and southern parts of the North Island. These shocks occurred on 1 May at a depth of 100 km near Palmerston North, on 12 October about 270 km beneath the Ohakune region, and on 10 December at a depth of 200 km beneath northern Taranaki. All these earthquakes had magnitudes of about 5.2.

A shallow earthquake in an area of less

common activity occurred near Sheffield, 40 km west of Christchurch, on 29 February. It had a magnitude of 4.4 and was felt at Lake Coleridge and Lyttelton.

A series of shallow earthquakes occurred about 10 km south of Rotorua on 4 and 5 April. The three largest occurred within an interval of 40 minutes and had magnitudes ranging from 4.4 to 4.6. The earthquakes were felt in the Rotorua region, but caused no damage, and were not accompanied by any apparent volcanic or geothermal manifestations.

SCIENCE AND MAN IN THE AMERICAS

"Science and Man in the Americas," an inter-American meeting jointly planned by the Consejo Nacional de Ciencia y Technologia (CONACYT) and the American Association for the Advancement of Science (AAAS), will be held in Mexico City from June 20 to July 4, 1973. Included among the nine Central Themes of the meeting is that of EARTHQUAKES AND EARTHQUAKE ENGINEERING. The program for this Central Theme will include four 1/2 - day sessions - Wednesday afternoon, June 20 through Friday morning, June 22.

Dates for this Central Theme were selected at the beginning of "Science and Man in the Americas" to make it possible to attend the sessions in Mexico City and then continue to Rome for the opening session of the Fifth World Conference on Earthquake Engineering on Monday, June 25.

Additional details on the technical programs for EARTHQUAKES AND EARTHQUAKE ENGINEERING are given in the March 16, 1973 issue of SCIENCE. Registration information and details regarding the other Central Themes and Technical Symposia to be held during "Science and Man in the Americas" will be found in recent numbers of SCIENCE or by writing to :

Mexico Meeting Office,
American Association for the Advancement of Science,
1515 Massachusetts Avenue, NW,
Washington, D.C. 20005.

(A reprint of the details from the March 16, 1973 issue of SCIENCE is available from the Secretary of N.Z.S.E.E.)

LETTER TO THE EDITOR

In your editorial of September 1972 you refer to the "vigorous response" of a tall building in Adelaide to excitation from a Timor earthquake which occurred on November 4, 1963.

There were of course many people in several of the tall buildings of Adelaide who experienced the long period effects of this earthquake. The Assistant Manager of the Electricity Trust of South Australia has some very clear recollections of the motion of the ten storey E.T.S.A. building on that morning ten years ago. Almost every person who was on the fifth floor and above was aware of a swaying sensation. The building creaked, particularly in the north wall which consists mainly of glass panels in aluminium frames. He was aware of detectable movement for a period of between five and ten minutes and his original statement to the press, viz. "It was quite noticeable for several minutes on the upper floors" seems to to be an adequate and fair description of what happened.

Substituting "vigorous response" for "noticeable effect" could conjure up in the minds of your readers an exaggerated idea of the response of Adelaide's tall buildings to this Earthquake.

D. J. Sutton
Chairman, Sub-Committee on Seismicity
National Committee on Earthquake Engineering.

COMMENT

We are happy to have our correspondent's confirmation that significant low frequency energy was transmitted from Timor to Adelaide, a distance on the order of twenty times that which separates any New Zealand urban area from its nearest centre of recently recorded energy release.

Our information source was not the press statement he quotes, so we did not, in fact, substitute "vigorous response" for "noticeable effect". But the effect must have been very noticeable to have so impressed the responsible observer quoted, that it is recalled in clarity of detail ten years later! Perhaps our correspondent will agree that it is not exceptional to have two qualitative accounts differing as these do, especially when the people who made them would almost certainly have been differently placed and so have had differing experiences of the event.

However, our intention was not to suggest that Adelaide was on the verge of catastrophe in the Timor earthquake, and we associate ourselves unreservedly with our correspondent's reassurance to Adelaide residents.

SYMPOSIUM

International Association for Bridge and Structural Engineering - "Resistance and Ultimate Deformability of Structures Acted on by Well Defined Repeated Loads", to be held on 13th and 14th September 1973 at Lisbon, Portugal. The Symposium is open to I.A.B.S.E. Members only. Contact address :

Symposium 1973, Lisbon,
Secretariat of I.A.B.S.E.,
Swiss Federal Institute of Technology,
Haldeneggsteig 4,
CH-8006 Zurich,
Switzerland.

Programme:-

Theme i: "Theorization of Structural Behaviour with a view to Defining Resistance and Ultimate Deformability" - Professor R. Park, New Zealand.

ii: "Studies on Damping and Energy Absorption of Structures" - Professor M. Wakabayashi, Japan.

iii: "Experimental Studies Concerning Steel Structures, their elements and their connections" - Professor M. Fujimoto, Professor T. Naka, Japan.

iv: "Experimental Studies Concerning Reinforced, Prestressed, and Partially Prestressed Concrete Structures and