

SOCIETY OF ACTUARIES

Article from:

## International Section News

July 2006 - Issue No. 39

## New Zealand's Ambassador Report - January 2006

by Richard Geisler

ew Zealand sits astride the Australian and Pacific tectonic plates, which produced our spectacular mountain ranges. As the plates continue to grind together we can offer visitors a walk through fascinating areas of visible geothermal activity (geysers and bubbling mud) as well as the occasional rumble when you least expect it. As this is an actuarial report, I'll discuss a bit about how this risk is mitigated for New Zealanders, and then see if I can entice you to visit the "Shaky Isles."



New Zealand is known as the "Shaky Isles."

Off the east coast of the North Island, the Pacific plate is being forced under the Australian plate. Under the South Island, the two plates push past each other. Further south, the Australian plate is pushed under the Pacific plate.

With all that pushing and shoving, no wonder the Institute of Geological & Nuclear Sciences (*http://www.gns.cri.nz/*) record about 19,000 earthquakes a year. Of course we only feel the bigger ones; the public reporting 390 through the GEONET Web site. As far as earthquakes go, 2005 was an average year with two quakes bigger than 6.0 and 24 between 5.0 and 5.9.

There have been some disastrous quakes in New Zealand's short history. The most tragic was the Hawkes Bay quake in 1931 that levelled the town of Napier causing 256 deaths and 500 injuries. Napier was rebuilt in the styles of the 1930s and is now a beautiful stop on any tour as the art deco capital of the world.

Add volcanoes and tsunamis to the earthquake risk, and occasionally there are some front-page stories of particular interest to insurers. Due to the risk of extensive property loss from natural disaster, the New Zealand government created the Earthquake Commission. The EQC (*http://www.eqc. govt.nz/*) provides insurance to residential property owners to cover damage caused by earthquake, natural landslip, volcanic eruption, hydrothermal activity and tsunami.



Mt. Ruapehu, 1995.

My employer, the Accident Compensation Corporation (*http://www.acc.co.nz/*), a special government corporation, is the sole provider of 24-hour, no-fault accident cover (work and nonwork related) to everyone in New Zealand. Yes, you are covered if you come for a visit. A seriously injured person could receive not only acute care, but also physical and vocational rehabilitation, home help and modifications, prosthesis and weekly compensation if employed here. Given that serious injuries could be lifelong disabilities, the total cost to ACC can run to \$10 million or more.

Assessing the risk of an earthquake is a familiar exercise for the EQC and general (P&C) insurers. For ACC, we take the propertydamage models and overlay casualty scenarios, which are functions of building type, location and occupancy (which varies by time of day). The casualty estimates are categorized by severity to match existing injury lifetime cost estimates. There is a need to adjust for psychological trauma associated with such events.

The model is used to assess ACC's probable maximum loss. Given ACC's unique status as a special corporation by legislation, we currently self-insure this risk while at other times have purchased reinsurance. Price and capacity vary



Kevin Heights Golf Course, Queenstown, New Zealand.

and in our case have made a difference in whether to reinsure.

In spite of being a seismically active land mass, this is a very safe country in which to live and work. Although Wellington lies on a major fault line, a 7.5 earthquake is still only a 1 in 300- to 500-year event. Offsetting that, the country is a nuclear-free zone, and firearms are strictly controlled. So why not come down for a visit? Remember you are covered for any injury, even if your timing is really bad and you are here during the 1-in-500-year event.

One of the greatest challenges for the New Zealand Society of Actuaries is providing CPD opportunities for members. Although New Zealand is a long way from anywhere, it is important for us to encourage outside speakers/presenters to make the trip. If you are planning a trip to New Zealand, why not take a couple hours to present your area of expertise to actuaries in Wellington or Auckland? I'll personally help arrange the forum.

My two-year stint as President of the New Zealand Society of Actuaries has just come to an end. However, I am on the committee to promote our conference in November this year in Queenstown, a great place for "adventure touring." If you are really keen, why not submit a paper for the conference? Please contact me, and I'll make sure you are on our list.  $\Box$ 



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## **International Accounting Corner**

Upcoming U.S. GAAP Seminars coming to a country near you!

The SOA's International and Financial Reporting Sections have joined forces to present seminars outside of North America for actuaries involved in financial reporting under U.S. GAAP.

The first seminar will be held in Hong Kong late October 2006, and it includes a day of basic GAAP, a day of more advanced GAAP and a workshop on applying U.S. GAAP to foreign products. The entire seminar focuses not only on GAAP accounting, but also on the application of GAAP accounting to foreign products and practices. The faculty is comprised of actuaries with many years of experience in financial reporting.

We plan to roll out the seminar to other regions as well, such as Latin America and Central Europe. Please contact Mike Leung of the Financial Reporting Section or Frank Buck of the International Section for further information. We hope to see you there.  $\Box$