

## New Zealand

**Country Representative : Stephen Bannister**

Specific **Goals and Accomplishments** for New Zealand :

*Overall, increase SEG student membership in New Zealand, working towards encouraging new student sections at the New Zealand universities.*

Specifically :

- (1) Re-visit geophysics students at Victoria University, and continue to encourage them to set up a student section
- (2) Recognise a geophysicist in my country that should receive an SEG honours award, and send their name into the committee.
- (3) Distribute SEG membership information at the annual NZGS (New Zealand Geophysical Society) symposium, (November 2007)
- (4) Contact the student sections at Otago and Auckland University to find out their activities, and how SEG can assist them further.

List **potential universities** in your region/country to be added to **SEG Scholarship** mailing list or for potential student sections.

Victoria University of Wellington (for a potential student section; possible faculty advisors are Dr Tim Stern ([tim.stern@vuw.ac.nz](mailto:tim.stern@vuw.ac.nz)) and/or Dr John Townend, Research School of Earth Sciences ([john.townend@vuw.ac.nz](mailto:john.townend@vuw.ac.nz)))

I would also suggest placing Auckland University on the SEG scholarship mailing list (advisor : Dr John Cassidy, [j.cassidy@auckland.ac.nz](mailto:j.cassidy@auckland.ac.nz))

List geophysical **conferences/meetings/symposiums** that have taken place in your Region/Country this year and plan to take place next year.

The annual New Zealand Geophysical Society ([www.nzgs.rsnz.org](http://www.nzgs.rsnz.org)) symposium took place in Massey University (December 2006) with more than 120 attendees. A workshop on "Active fluid flow and deformation" was held at GNS Science, Avalon, 27-30 November 2006, with about 50 attendees. This years (2007) annual conference will be held in Tauranga, 27-29 November, 2007.

### **Membership:**

Briefly describe your opinion on what **current SEG members** in your Region/Country "**value**" about their membership in the SEG? (Annual Meeting, Publications, Web Site, International Conferences, Continuing Education Programs, etc.).

The on-line access to Geophysics and TLE back-volumes is very highly valued, as is all content on the web site.

New Zealand members appreciate the SEG-co-sponsored ASEG meetings in Australia, which are easier for us to attend than SEG. For that reason we continue to encourage co-sponsorship by SEG of ASEG meetings.

How can SEG **better serve geophysicists** in your Region/Country and **gain new members**? Please list **projects or ideas** you may want to pursue (based on discussions with colleagues, section and student section leaders).

On-line services which SEG offer for remote members are critical for New Zealand members (e.g. online access to Geophysics/TLE archives). Any further improvement in on-line services would help New Zealand members.

We would value any SEG Distinguished visitors, following the talks given here by Dr Heloise Lynn here in 2004.

Student members would value sponsorship of travel/accommodation costs to SEG-sponsored conferences (e.g. ASEG), e.g. by SEG Foundation.

### **Oil and Gas Industry:**

Briefly describe the **general status of the oil and gas industry** in your Region/Country (i.e., major players, major fields, politics and the government's role, geophysics as a career).

The level of exploration activity in 2006 was low, with only 18 or so wells drilled by the end of the year, in comparison to the more than 30 drilled in each of the preceding two years. Activity levels are expected to rebound in 2007 as companies expand their exploration efforts beyond conventional Taranaki targets. TAG Oil for example has said it will participate in 17 or more onshore New Zealand wells over the next 18 months. Most of these will be conventional projects in onshore Taranaki, but six to eight of these wells will be in the Taranaki Deep Gas Consortium project.

There are approximately 30 E&P geophysicists working and living in New Zealand, with 2-3 geophysicists on average in each company. There are however 189 geophysicists in total in New Zealand, (based on the last government census in 2006) of which 93% were employed full-time, and 16% were female. Salaries are predominantly between NZ\$35,000 and NZ\$80,000 per year (corresponding to about US\$21,000 to US\$48,000). Many of the "non-E&P" geophysicists work on solid-earth research (in earthquake seismology, volcanology, earth deformation) because of the presence of the active Australia-Pacific plate boundary, and the associated high levels of earthquake and volcanic activity. These geophysicists are predominantly employed by the Crown owned earth science research institute GNS Science, (which is similar to the United States Geological Survey), or by one of the six New Zealand universities. Most graduates leave New Zealand to either carry out further graduate studies overseas, or to work for exploration-service companies in Australia and the Middle-East.

### **COUNTRY/REGION STATISTICS:**

Number of SEG members (active, associate, student, etc.) :

2006: 59 total : 11 active; 15 associate; 2 emeritus; 31 students

2007 (February) : 54 total : 12 active; 19 associate; 1 emeritus; 22 students

SEG membership in New Zealand is static : from 20 (2003), to 51 (July 2005), 59 (August 2006), and now 54 (February, 2007). Most of the increase between 2003 and the present came from student memberships. Currently 22 of the 54 SEG members in New Zealand are student members, although numbers fluctuate as some leave New Zealand for overseas employment.

Name(s) of SEG members holding office (chairman of committee, executive committee) in the last five years: *N/A*

Name(s) of SEG members receiving an SEG award in the last 10 years : *N/A*

Student Sections:

University of Otago student section (2005- )

University of Auckland student section (1977- )

Top 15 Oil and service companies doing business in this country (headquartered in what city):

Austral Pacific Energy (NZ) Ltd (Wellington)  
Swift Energy New Zealand Ltd (Wellington)  
Tap (NZ) Ltd (West Perth, Australia)  
STOS (New Plymouth)  
ROC Oil (Sydney, Australia)  
Bridge Petroleum (Auckland)  
DiscoveryGeo (Dallas, Texas)  
TAG Oil (New Plymouth)  
Greymouth Petroleum (Auckland)  
Bounty Oil & Gas Ltd (Perth, Australia)  
New Zealand Oil & Gas (Wellington)  
OMV New Zealand Ltd (Wellington)  
Origin Energy Resources (Brisbane, Australia)  
Pacrim Energy Ltd (Australia)  
Shell Exploration NZ Ltd (Perth, Australia)

Other geophysical societies and number of members (list name and city):

New Zealand geophysical society (national organization), 150 members  
([www.nzgs.rsnz.org](http://www.nzgs.rsnz.org))

Names (and cities) of major universities with geoscience programs (address and name of faculty advisor if known):

Otago University (Dr Andrew Gorman)  
Canterbury University (Dr Jarg Pettinga)  
Victoria University of Wellington ( Prof. Tim Stern )  
University of Auckland ( Dr John Cassidy )

Percentage of oil production (compared to rest of world) and/or other geophysical activity :

2004 oil production ca 8 mmbbls/annum  
2004 gas production ca 140 Bcf ( 400 mmscf/day )

(Estimated) Number of geophysicists graduating per year countrywide:

Estimated number ~15

(Estimated) Number of geophysicists working in the country:

Estimated number ~150

Is Web Access readily available for students and/or working geophysicists: Yes

Salary range of Geophysicists – 10 years in the field: ca US\$35,000 to US\$80,000, depending on whether they are employed by the industry or in government research.

*SEG continuing education programming (in the last five years)*

*Dr Heloise Lynn presented 2 talks in New Zealand (on anisotropy) in August 2004. We would highly value talks by any other Distinguished Lecturers or other visitors in the future.*

*Accepted authors for SEG annual meeting (last three years)*

*No accepted authors in last 3 years*

*Conferences sponsored by SEG held in this country (in the last five years) : N/A*