

President's piece

ASEG news

President's piece



Andrea Rutley

The ASEG Annual General Meeting, held in Brisbane in April saw the election of new office bearers for 2017 and the departure of others. On taking over the role of President of ASEG, I would like to sincerely thank Katherine McKenna, outgoing President, for her efforts during 2016 and welcome our new Directors of the Federal Executive (FedEx) for 2017. Additionally, my sincere thanks to all members of the Federal Executive for the work that they have tirelessly continued to undertake, some for as many as 25 years.

The 2017 Directors of the ASEG Federal Executive are:

President: Andrea Rutley
 President Elect: Marina Costello
 Secretary: Megan Nightingale
 Treasurer: Danny Burns

The evening recorded the retirement of one of the longest serving members of the Federal Executive, Koya Suto, who has served on the ASEG FedEx for 25 years. During this time, Koya has held almost every position possible and has brought enthusiasm and passion to each and every one of these. I would like to personally thank Koya for his exceptional commitment to the ASEG and wish him well during the course of his retirement. Somehow, I don't think he will ever be far from all things ASEG.

Our technical presentation for the evening was delivered by Koya and was titled 'Near-surface geophysics; geophysics for human life, geophysics in the life of a human'. This was a fascinating insight into Koya's geophysical work in the



Past President, Katherine McKenna presenting Koya Suto with a thank you gift for his 25 years of service on the ASEG FedEx.

vastly different communities in which he has conducted geophysical surveys.

With Koya's presentation on community geophysics and ANZAC Day approaching, I started to think about geophysics and geophysicists in our Services and began to research the role of geophysics in wartime. I was quite surprised to find the number of articles relating to the use of geophysics in war, particularly during World War I and II. What was also interesting was that much of the technology that we are familiar with today evolved out of wartime necessity.



Photo of a German Ju-52/3mg6e from German Federal Archives.

A couple of quick questions to the ASEG History Committee revealed an even greater depth of information. One particularly interesting article (<https://medium.com/war-is-boring/how-britain-beat-germanys-wwii-magnetic-sea-mines-bfec5558704c>) discusses the British and German developments of magnetic and acoustic?? mines and the associated technology that was developed to detect and remotely detonate these mines, to prevent the widespread destruction of naval and merchant shipping. The photograph that I have included in this article is a German Ju-52/3mg6e showing the electromagnetic loop used for this purpose circa 1939. The image is from the German Federal Archives. Whilst both modern hardware and software may have changed, the silhouette below is striking similar to our airborne systems of today, supporting evidence for the proverb that 'Necessity is the Mother of Invention'.

I hope this glimpse into history, may spark some innovative thoughts which we can share in Sydney in 2018 at the inaugural AEGC 2018 (Australasian Exploration Geoscience Conference). It combines ASEG, PESA and AIG and incorporates our 26th ASEG Conference. The theme for the conference is 'Exploration – Innovation – Integration'. I look forward to seeing you there.

Andrea Rutley
 ASEG President
president@aseg.org.au

Welcome to new Members

The ASEG extends a warm welcome to 33 new Members approved by the Federal Executive at its April and May meetings (see table).

First name	Last name	Organisation	State	Country	Membership type
Mohsen	Abdolghafurian	Curtin University	WA	Australia	Student
Douglass	Beck	University of Queensland	QLD	Australia	Student
Andrew	Buchel	Standard Australia	NSW	Australia	Associate
Cam	Coleman		VIC	Australia	Active
Larissa	Collins	Adelaide University	SA	Australia	Student
Mrinal	Deane	Curtin University	WA	Australia	Student
Stephen	Doughty	Macquarie University	NSW	Australia	Student
Omar	Elkhaligi	Macquarie University	NSW	Australia	Student
Daniel	Ellis	Adelaide University	SA	Australia	Student
Maddison	Fairburn	Curtin University	WA	Australia	Student
Anthony	Finn	Macquarie University	NSW	Australia	Student
Zory	Fletcher	Curtin University	WA	Australia	Student
Clifford	Ford	University of Western Australia	WA	Australia	Student
Vincent	Ganivet	CGG	WA	Australia	Active
Lauren	Harrington	University of Sydney	NSW	Australia	Student
James	Hewett	Adelaide University	SA	Australia	Student
Samuel	Jennings	Adelaide University	SA	Australia	Student
Chris	Li	University of Adelaide	SA	Australia	Student
Katelin-Rose	Morrison	Queensland University of Technology	QLD	Australia	Student
Travis	Pavley	Adelaide University	SA	Australia	Student
Snezana	Petrovic	Curtin University	WA	Australia	Student
Davina	Rabadia	Curtin University	WA	Australia	Student
Md.	Reza	Geological Survey of Bangladesh	Dhaka	Bangladesh	Corporate
James	Roughan	Adelaide University	SA	Australia	Student
William	Rowe	Adelaide University	SA	Australia	Student
Hannah	Scott	Macquarie University	NSW	Australia	Student
Bibirabea	Sedaghat	Curtin University	WA	Australia	Student
Grant	Smith	University of Queensland	QLD	Australia	Student
Sean	Standen	University of Western Australia	WA	Australia	Student
Kurt	Steffens	University of Sydney	NSW	Australia	Student
Nhat-Hoa	Truong	Adelaide University	SA	Australia	Student
Kai	Zhao	CGG	WA	Australia	Active
Joe	Zhou	CGG	WA	Australia	Active



ASEG Federal Executive 2017–18

Andrea Rutley: President (Communications and Promotions Committee Chair)
Tel: (07) 3834 1836
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Marina Costelloe: President Elect
Tel: (02) 6249 9347
Email: presidentelect@aseg.org.au

Megan Nightingale: Secretary
Tel: 0438 861 556
Email: fedsec@aseg.org.au

Danny Burns: Treasurer (Finance Committee Chair)
Tel: (08) 8338 2833
Email: treasurer@aseg.org.au

Katherine McKenna: Past President (Membership Committee, International Affairs Committee, ASEG RF)
Tel: (08) 9477 5111
Email: pastpresident@aseg.org.au

Kim Frankcombe (AGC Representative, Conference Advisory Committee and Technical Standards Committee)
Tel: (08) 6201 7719
Email: kfrankcombe@iinet.net.au

Emma Brand (Education Committee Chair)
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Marina Pervukhina (State Branch Representative, Specialist and Working Groups Liaison)
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David Annetts (Web Committee Chair)
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Bob Musgrave (Publications Committee Co-Chair)
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Email: publications@aseg.org.au

Greg Street (Publications Committee Co-Chair, History Committee)
Tel: (08) 9388 2839
Email: publications@aseg.org.au

Standing Committee Chairs

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Email: branch-rep@aseg.org.au

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Research Foundation Chair: Philip Harman
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Email: research-foundation@aseg.org.au

Research Foundation – Donations: Peter Priest
Email: pwppriest@senet.com.au

Specialist Groups

Near Surface Geophysics Specialist Group
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Email: gstreet@iinet.net.au

Young Professionals Network
President: Megan Nightingale
Tel: 0438 861 556
Email: ypadmin@aseg.org

ASEG Branches

Australian Capital Territory

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Email: actpresident@aseg.org.au

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Email: actsecretary@aseg.org.au

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Email: nswpresident@aseg.org.au

Secretary: Sherwyn Lye
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Email: nswsecretary@aseg.org.au

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Tel: 0407 308 277
Email: qldsecretary@aseg.org.au

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President: Joshua Sage
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Secretary: Adam Davey
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The ASEG Secretariat

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Executive brief

ASEG AGM Brisbane April 2017

Overview

Andrea Rutley took over from Katherine McKenna as President, congratulations Andrea! Thank you Katherine McKenna for your hard work and enthusiasm. As Immediate Past President, Katherine will be looking at the strategic direction of the Society in the areas of membership, international relations and the research foundation. Marina Costelloe is President Elect, she will be working on policy development. Megan Nightingale is the new Secretary. Megan will continue updating our valued reading audience with the Exec Brief so if there is anything you would like to hear about please don't hesitate to contact her. We also welcomed Marina Pervukhina (State Branch Representative) and Bob Musgrave (Publications).

Thank you to Danny Burns (Treasurer) Kim Frankcombe (Australian Geoscience Council, Conference and Technical Committees representative), Greg Street (Publications and History Committees) David Annetts (Webmaster) and Emma Brand (Education Committee) for continuing their hard work for the Society. Federal Executive contact details can be found on the ASEG website www.aseg.org.au.

An extra special thanks to the Federal Executive who stood down this year; Lisa Vella (Publications), Tania Dhu (Branch Representative), Phil Schmidt (Immediate Past President) and Koya Suto (Vice President and International Relations).

Koya Suto gave a fantastic overview of his geophysical career with the technical talk at the AGM, the Society is richer for generous technical leaders and humanitarian members like Koya.

Treasurer's report

The audited financial statement for the year ending 31 December 2016 for the ASEG is presented in Table 1. The financial statement refers to the consolidated funds held by the Society as a whole, including the Branches.

In 2016 the Society made a loss of \$268 353 following a profit of \$180 781 in 2015. This is partly due to costs from increased publications in 2015 being paid in 2016.

The Society's funds go towards promoting the science and profession of exploration geophysics throughout Australia, achieved via our publications, *Preview* and *Exploration Geophysics*, via the ASEG Research Foundation, via meetings and events in the State Branches and via our conferences and exhibitions. Income and expenditure for the years 2008–2016 are shown in Figures 1 and 2.

The Federal Committee was very happy with the successful 2016 Adelaide Conference and Exhibition during these difficult times for the industry. However, 2017 is a non-conference year so we do expect to show a loss again this year, but look forward to receiving funds from the AEGC conference in 2018. Like the

industry as a whole, the Society is working on reducing expenditure to live within our means. The Society's audited balance sheet and net assets are shown in Table 2 and Figure 3.

Table 1. Audited income and expenditure

Income	2016	2015
Membership	105 016	115 099
Meetings & Event	54 171	85 871
Education	13 437	22 074
Publication	207 996	197 790
Conference	137 331	430 543
Interest	27 724	15 393
Total Income	545 675	866 770
Expenditure	2016	2015
Membership	5 829	7 604
Meetings	100 123	125 587
Education	46 386	44 754
Publication	358 826	246 934
Conference	3 959	2 629
Financial/Audit/Insur.	11 489	13 129
RF	100 000	100 000
Secretariat	80 993	84 940
Website	44 851	395
Other	61 572	60 015
Total Expenses	814 028	685 989
Profit/Loss	2016	2015
	-268 353	180 781

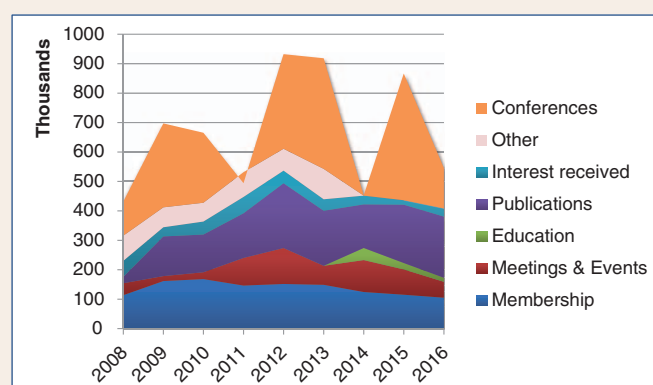


Figure 1. Income 2008–2016.

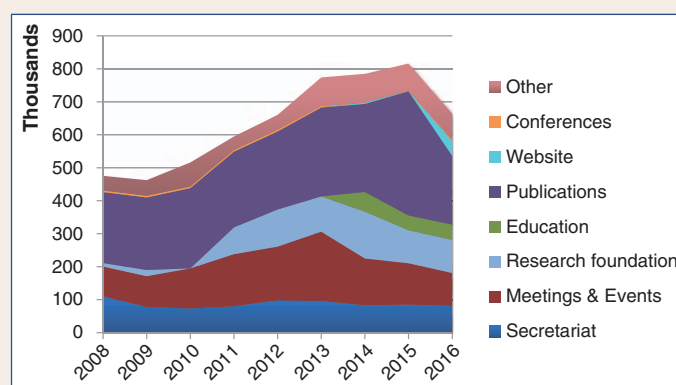


Figure 2. Expenses 2008–2016.

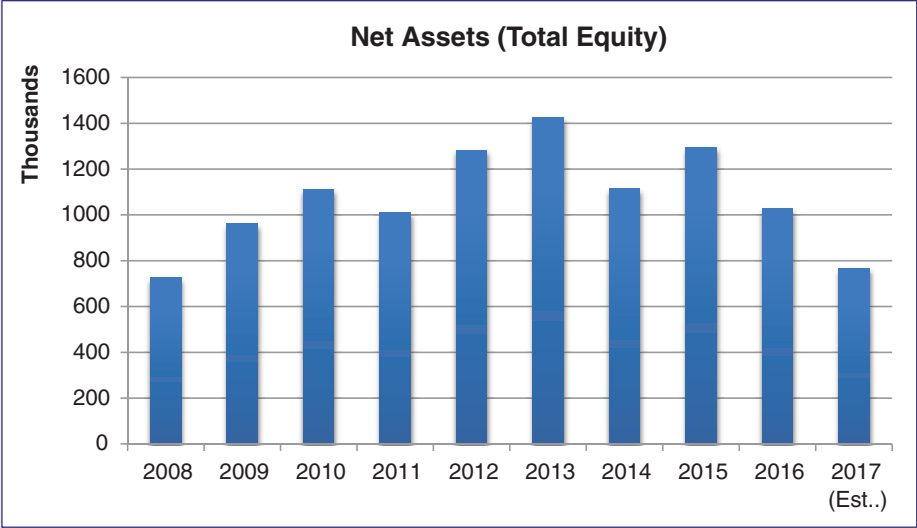


Figure 3. Balance Sheets 2008–2017(est.).

Table 2. Audited balance sheet

Assets	2016	2015
Cash	206 923	788 594
Term Deposits	874 396	512 878
Trade Debtors	38 981	15 572
Inventories	1 536	1 920
Other Assets	22 831	22 138
Intangible Assets	-	27 680
Total Assets	1 144 667	1 368 782
Liabilities	2016	2015
Trade Creditors	61 399	12 112
Income in Advance	56 146	61 195
Total Liabilities	117 545	73 307
Net Assets	2016	2015
	1 027 122	1 295 475

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FedEx planning meeting Brisbane April 2017

The day after the AGM the Federal Executive got together to discuss issues facing the Society in the short and long terms. The meeting was attended by the Federal Executive, the Honorary *Preview* Editor Lisa Worrall, the Queensland Branch President Fiona Duncan and representatives from the Secretariat TAS.

The following statement guides the Federal Executive in making decisions that will affect the future of the Society:

The ASEG is the premier society for mineral geophysics, recognised as strong in petroleum, engineering, and, environmental (near surface) geophysics; we strive to be relevant across all aspects of geophysics but for the short term future we want to consolidate and build global relevance in mineral and mining geophysics.

Aspirational goals for the Federal Executive include:

- a. An enhanced education programme that now includes OzStep, which in turn may become more focussed on

Members' needs by means of a questionnaire being circulated to Members (June 2017);

- b. Consolidation of *Exploration Geophysics* as the "go to" international journal for mining geophysics via collaboration with other societies;
- c. The establishment of Specialist Groups, including groups for near surface geophysicists and for early career geophysicists
- d. Greater access to news and services for Members, particularly through our education programmes and our publications and via our web site.

Key issues discussed during the planning meeting included:

- membership, both individual and corporate,
- the Society's financial position and budget,
- publications and the changes that technology will bring to this arena of Society activities,
- the 2017 membership survey, which you should have as this edition of *Preview* goes to print,

- communication and promotion
- education
- 50th anniversary preparations
- the 2018 Sydney conference
- the Research Foundation
- the updated website

The Federal Executive would like to thank the Queensland Branch for their assistance in organising and hosting the 2017 AGM and specifically we would like to thank Energeo for hosting the planning meeting in their Brisbane office.

On a final note, please help us build an exciting programme of speakers for Branch meetings by letting us know if you have heard an amazing talk or read an innovative new paper. Also please consider filling in the membership survey when it arrives in your inbox.

Thank you for reading,

Marina Costelloe (and Megan Nightingale)
Secretary
fedsec@aseg.org.au

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Meet your new 2017–2018 Federal Executive

Directors

President



Andrea Rutley
president@aseg.org.au

The President of the ASEG is one of the four Directors of the Society as recognised by Australian Securities and Investment Commission (ASIC), and has legal obligations to ASIC under the Corporations Act 2001 for the proper running of the Society. The President oversees the general running of the ASEG Federal Executive (FedEx), chairs FedEx meetings, General meetings and the ASEG Council meeting held at the ASEG conference. In addition, the President represents the Society at the ASEG annual conference and at international meetings. A candidate for President is expected to serve for a minimum of 3 years; the first as President Elect learning the ropes, then a year as President and finally a year as Past President acting as a mentor to the President and President Elect. There is no requirement to resign after 3 years if one still has energy and enthusiasm for the job and the support of the FedEx. The 3 year term allows the President to take on projects and see them through to completion, therefore it is not uncommon for the Past President to be running with projects they started, or which were started during their term as President. Both the President Elect and President are Directors of the Society and responsible to the Members as well as ASIC.

President Elect



Marina Costelloe
presidentelect@aseg.org.au

The President Elect's role is to support the President and act on their behalf when required, and also to work with the standing committees when the opportunity arises. The President Elect has 12 months to become familiar with the issues facing the Society so they will be able to implement plans the following year.

Treasurer



Danny Burns
treasurer@aseg.org.au

The Federal Treasurer is elected at the Annual General Meeting as a Director of the Society. This role requires the Treasurer to be responsible for all of the Society's accounts and finances (federal and state) and to be accountable to the relevant regulations under ASIC. The Treasurer is also the Chair of the Finance Committee, which advises the FedEx on longer term financial matters.

Secretary



Megan Nightingale
fedsec@aseg.org.au

The ASEG has a professional Secretariat that undertakes many of the traditional roles of an Honorary Secretary. This has allowed the ASEG's Secretary to focus on improvement of old policies, and the development of new policies that describe how the Federal Executive puts into practice the Society's Constitution. The Secretary organises FedEx events such as the Annual General Meeting and meetings of Council. They also maintain the Society's Strategic Plan. The Secretary is elected each year and is a Director of the ASEG.

Non-Directors

Immediate Past President



Katherine McKenna
pastpresident@aseg.org.au

The position of Immediate Past President is filled by the President of the previous year. The role of Immediate Past President is to provide continuity in the activities of the ASEG FedEx. The Immediate Past President is expected to advise the current President about the status of standing projects and issues, past resolutions and contacts in foreign societies. Katherine will also chair the Membership and International Committees and represent the ASEG Federal Executive on the ASEG Research Foundation.

Publications Committee Chairs



Greg Street



Bob Musgrave
publications@aseg.org.au

The Publications Committee Chair's role is to coordinate the Publication Committee's efforts to deliver the Society's publications on time and on budget. This requires dealing with the publisher (currently CSIRO Publishing) to address changing Society needs, new technologies and interfacing between the publisher and the Committee. The Publications Committee comprises the Chair, the Publications Officer and the Editors-in-Chief of *Exploration Geophysics* and *Preview*.

Bob Musgrave is a new appointment to the Federal Executive and is being groomed to take over from Greg Street as

Publications Committee Chair. Bob is a Research Geophysicist with the Geological Survey of NSW. Bob's initial interest in palaeomagnetism has broadened over the years into a diverse range of applications, from magnetostratigraphic dating and tectonics, to magnetic petrophysics studies of hydrocarbon migration, gas hydrate accumulation, and the relationship of mineralisation processes to remanence-dominated magnetic anomalies. His work with GSNSW has emphasized applications of magnetic and gravity studies, including novel data filtering and presentation, long-wavelength interpretation and integration with passive seismic datasets, and joint magnetic and gravity inversion of complex tectonic settings.

AGC Representative



Kim Frankcombe (2011 – present)
kfrankcombe@iinet.net.au

The Australian Geoscience Council (AGC) is a body representing the Geoscience Learned Societies. As well as the ASEG it includes the AIG, AusIMM, PESA, GSA, IAH, AGIA and AAG. Representation and voting power is determined by each society's size. Its main role is in lobbying and focusing geoscience agendas for the benefit of its members. Kim represents the ASEG on the Australian Geoscience Council and serves on their Organising Committee for the 2018 AGC Convention – Big Issues and Ideas in Geoscience.

Kim is a past President of the ASEG and acts as the Executive's representative on the Conference Advisory Committee, chaired by Mike Hatch and the Technical Standards Committee, chaired by Tim Keeping. He's waiting for the Grays Online valued customer gold card.

Continuing Education Committee Chair



Emma Brand
continuingeducation@aseg.org.au

The Continuing Education Committee aims to help meet the needs for the ongoing education of Members and to help to promote geophysics as a career. This is achieved by arranging for visiting lecturers from overseas societies to present at State Branch meetings, and by providing 1-day courses e.g. SEG Distinguished Instructor Short Courses, EAEG Education Tours and the ASEG OZSTEP courses. The aim is to deliver one minerals and one petroleum course per year. In the future more educational material will be presented online and the Society is developing a strategy to facilitate this.

State Branch Representative



Marina Pervukhina
branchrep@aseg.org.au

State Branches hold a key role in delivering services to local Members. The State Branch Representative liaises between the Branches and the FedEx, communicating relevant issues between the Federal and Branch levels of the Society.

ASEG news

Marina is also responsible for liaison with Specialist and Working Groups.

Marina is a Petrophysics and Geophysics Team Leader at CSIRO Energy, working on rock physics and petrophysics of sandstones, carbonates as well as unconventional and seal shales. She specialises in stress field analysis, petrophysics, modelling of shale elastic properties. Marina's special interest is an intrinsic VTI anisotropy of shales and effects of different clay mineralogy on shale elastic properties. She is also an Associate Editor of *Exploration Geophysics*.

Web Committee Chair (Webmaster)



David Annetts
webmaster@aseg.org.au

The Web Master chairs the Web Committee and works with them, designers, the Secretariat and other Committees to design, maintain the ASEG's website. The Web Committee works on strategies to allow for continuous improvement to the web site, thereby improving its value to ASEG Members and helping to promote the ASEG and exploration geophysics in the wider community.

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News from the ASEG Research Foundation

2017 ASEG RF grants announced

This year the ASEG Research Foundation received eight excellent applications for grants to support post graduate research. Of these I am pleased to announce that five have been chosen, three PhD projects, one MSc project and one honours project, covering a range of interesting topics.

The total commitment by the Foundation is \$57350 over a total of three years. This is on top of the ongoing projects that the Research Foundation is already supporting. The funds for these projects are made up of a generous donation of \$50000 from the ASEG as well as additional monies donated by companies and individual Members both at the ASEG conference and through the ASEG website.

I would like to congratulate all of the recipients of grants and look forward to hearing of their progress in the future; through *Preview*, *Exploration Geophysics* and at our conference and regular Branch meetings.

Phil Harman

ASEG Research Foundation Chair
research-foundation@aseg.org.au

Institution	Supervisor	Student	Degree	\$	Years	Topic
Monash University	Dr Robin Armit	Mr Khumo Leseane	PhD	\$18600	2	Evolution and mineral systems analysis of the Macquarie Arc constrained from potential-field data
University of Western Australia	Prof Mark Jessell	Mr Jeremie Giraud	PhD	\$5500	1	Geophysical joint inversion for uncertainty reduction and lithological reconstruction through integration of statistical geological modelling and petrophysical measurements
University of Adelaide	Prof Graham Heinson	Mr Ben Kay	BSc	\$4900	1	Testing the UNCOVER paradigm: Imaging crustal fluid pathways in the Curnamona Province
University of Western Australia	Prof Mike Dentith	Mr Sean Standen	MSc	\$5000	1	Geophysical Characterisation of Earthquake Fault Scarps in Southwestern WA
Curtin University	Prof Anton Kopic	Ms Seda Rouxel	PhD	\$24350	3	A framework towards integrated quantitative Earth models

News from the ASEG Young Professionals Network

I am looking for ASEG Members who wish to be in the Young Professionals Network (YPN). The YPN is aimed at, but not restricted to, the under 35s or people relatively new to the industry with less than 5 years' experience. If you'd like to sign up, please register your interest by emailing ypadmin@aseg.org.au with your name and preferred email address.

If you join the YPN you will be added to a mailing list where you can expect to receive updates on the YPN objectives and upcoming events held exclusively for the YPN.

The YPN is also in need of volunteers to assist with the running of the network.

Responsibilities would include providing input into group objectives as well as helping with the organisation of events. Being in the YPN provides a great opportunity to network with peers and experienced industry professionals. Volunteering allows you to have active input into the activities run by the group, which are designed around networking and professional development; making you industry ready or giving you a competitive edge.

Ideally it would be good if each State were represented.

If you'd like to volunteer to assist with the running of the Young Professionals

Network, email ypadmin@aseg.org.au with your name, preferred contact email and State.

Finally, I would like to thank those people who have already responded to me; especially those who have volunteered to assist with mentoring. The greater the contribution from more experienced geophysicists within the ASEG the greater the success of this Young Professionals Network.

Thanks!

Megan Nightingale
ASEG Young Professionals Network
President
ypadmin@aseg.org

News from the ASEG Technical Standards Committee

The ASEG Technical Standards Committee has begun investigating passive seismic file formats. Kim Frankcombe, Mark Duffy and Dave Howard have pointed out the enormous data files being collected in WA recently of up to 120GB per day. Besides posing a new archive storage challenge for public

institutions, several formats are in use according to purpose. An informal working group has formed and is canvassing government, academia, private industry and manufacturers for their products, opinions and expectations. We welcome all input on this exciting technique and strongly encourage you

voice any thoughts or opinions with the Technical Standards Committee.

Thank you.

Tim Keeping
ASEG Technical Standards Committee
Chair
technical-standards@aseg.org.au

ASEG Branch news

South Australia & Northern Territory

Since the last update in *Preview*, the SA/NT Branch has held two events for local Members. Our focus on students, which began with **Dr Graham Heinson**'s excellent wrap up of the inaugural year of the National Exploration Undercover School (NEXUS) initiative, continued in March with our annual Pizza Night. The event was held in conjunction with the Adelaide University Geological Society at the University of Adelaide, where we were fortunate enough to be joined by **Matt Zengerer** and **Selina Wallace**. With all the pizza devoured, and the students with beers in hand, Matt and Selina shared their experiences of university and their geophysical careers. They talked about some of the places they have been to and some of the companies they have worked for. They were both great speakers, and at times they were quite candid, not only emphasising the great aspects of working within our industry and the good times that can be had, but also being realistic about the downs that we will all inevitably encounter at times. Certainly a topic that was rarely, if ever, broached during my time at university – a time when everyone thought the mining and oil and gas booms would never end! Forewarned is forearmed.

April saw the Branch return to our more traditional technical evening format. Amongst the seemingly never ending holidays and four day weeks, we were joined by **Richard Hillis**, CEO of the Deep Exploration Technologies CRC, to hear about the exciting technology that his group have been developing. As usual Richard did not disappoint, spelling out the cost savings, speed, and real time targeting and vectoring benefits of their newly developed coiled tubing rig. Naturally these benefits can only follow on from interpretation and prospect generation resulting from deploying the sharp end of the spear; the exploration geophysicist!

Our technical meetings are made possible by our very generous group of sponsors, including the Department of the Premier and Cabinet, Beach Energy, Minotaur Exploration, and Zonge. If you or your company are not in that list and would like to offer your support, please get in touch at the email below.

As usual, further technical meetings will be held monthly, at the Coopers Alehouse

on Hurtle Square in the early evening. We will also be hosting this year's SEG DISC, **Dr Doug Oldenburg**. His one day course on Electromagnetics Fundamentals and Applications is scheduled for 2 August at the Hotel Richmond. Further details will come so please keep an eye out for pricing and bookings on the SEG website. We invite all Members, both SA/NT and interstate to attend and, of course, any new Members or interested persons are also very welcome to join us. For any further information or event details, please check the ASEG website under SA/NT Branch events and please do not hesitate to get in touch at joshua.sage@beachenergy.com.au or on 8338 2833.

Josh Sage (SA/NT Branch President)
sa-ntpresident@aseg.org.au

Tasmania

Anton Rada continues to be in great demand in south-east Asia, so the presentation on the UAV magnetic survey system that he has developed has been postponed once again – this time indefinitely. Local ASEG Members will be advised by e-mail if Anton's presentation can be scheduled before the next edition of *Preview*, or if any other opportunities for technical presentations arise in the meantime.

The ASEG Tasmania branch would also like to express sympathy to the colleagues, friends and family of **Dr Garry Davidson** following his untimely death from cancer in April. Garry had been, among many other things, for last several years the Chair of ASEG Tasmania's considerably larger sibling, the Tasmania Division of the Geological Society of Australia. During his tenure he was invariably welcoming and supportive of joint activities with ASEG. More broadly he had great respect and understanding for the complementary information that geophysics could bring to bear on his wide range of geological interests. He will be greatly missed by the Tasmanian geoscientific community.

An invitation to attend Tasmanian Branch meetings is extended to all ASEG Members and interested parties. Meetings are usually held in the CODES Conference Room, University of Tasmania, Hobart. Meeting notices, details about venues and relevant contact details can be found on the

Tasmanian Branch page on the ASEG website. Interested Members and other parties should also keep an eye on the seminar program of the University of Tasmania's School of Earth Sciences, which regularly delivers presentations of geophysical as well as general earth science interest. Please contact ASEG Tasmania Branch President **Mark Duffett** with any queries.

Mark Duffett
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Victoria

On 16 March 2017, the Victorian branch of the ASEG held its Annual General Meeting. **Seda Rouxel** will continue as Branch President and **Greg Walker** will continue as Branch Treasurer. **Thong Huynh** was elected to the position of Branch Secretary. **Dorte Macrae** is thanked for her invaluable contributions to the Society as Secretary in the past year.

Our AGM was followed by a presentation from **Warren Gray**, Technical Director of Seisintel. His talk, titled 'Three years in the marine exploration world', gave us an insight into the ways marine seismic acquisition trends have evolved during the depressed oil-price environment the industry has experienced over the past few years.

The Victorian Branch typically pauses during the month of April, when the annual Melbourne International Comedy festival rolls into town and takes precedence at our regular choice of venue. However, May was a new month, and we had the pleasure of welcoming FAR Ltd's Chief Geologist, **Jon Keall** as our presenter on the 24th. Leveraging off FAR's incredible string of successes in the region, Jon presented on 'Petroleum systems of the Mauritania-Senegal-Guinea Bissau-Conakry Basin: why this region has emerged as a global exploration hotspot'.

Things are also starting to move with our classical technical nights! Acting on a suggestion from PESA, the ASEG and SPE societies are currently in the early stages of planning a mentoring program for local young professionals. So, if it is a topic of interest to you either as a potential mentor or as a mentee, then stay tuned! More information will be provided over the coming months.

During the last quarter, the Committee also engaged in talks with a world-leading expert about the possibility of delivering a short course on potential field interpretation methodologies, with specific case studies covering both the minerals and oil and gas industries. Once expressions of interests are received, we anticipate the course will be run in the third quarter of 2017.

Seda Rouxel
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Western Australia

The WA Branch continues to be very active with Tech night presentations. In May the Branch hosted **Andreas Pfaffhuber** from NGI, who presented on 'Geophysics, the disruptive innovation for the geotechnical industry'. Andreas' presentation was very well attended with nearly 60 Members in the audience. It is great to see our attendance numbers growing again after a drop off in 2016.

The WA Branch's Tech nights are sponsored by the following companies: Globe Claritas (Platinum), Resource Potentials, Western Geco, CGG, Atlas Geophysics, First Quantum Minerals Inc, GPX Surveys, Paradigm (Gold), Geosoft, ExploreGeo, and Southern Geoscience (Silver). The Branch could not put together its wide range of technical activities without the support of our Platinum, Gold and Silver sponsors, and we look forward to a long standing partnership with these companies. Sponsorships are due for renewal in May so if you are interested in sponsoring the Branch please contact the Branch President on wapresident@aseg.org.au.



Andreas Pfaffhuber presenting to the WA Branch.

The calendar for 2017 is filling up. Our Tech night program has presenters lined up through to August with the following presenters:

- June – **Darren Hunt** (Teck) presenting on the use of seismic reflection at the Teena deposit;
- July – **Tim Munday** (CSIRO) presenting on the use of airborne EM to target groundwater resources in the Murchison region of WA;
- August – **Sarah Monoury** (SRK) presenting a case study of geophysics at the Mt Magnet gold camp;
- October – **Bill Peters** (SGC) presenting on geophysics for nickel-copper exploration; and
- November – Student presentations from UWA and Curtin University.

The schedule is subject to change due to speaker availability. Please check the website for up-to-date information. We are excited about the program of events planned for 2017 and look forward to catching up with our fellow Members.

Kathlene Oliver
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Australian Capital Territory

Thank you to everyone who attended the 2017 ACT Branch AGM in March. We would like to congratulate the office-bearers who were elected at the AGM. This year we have a new President, **James Goodwin**. **Adam Kroll** returns as co-secretary, this time with **Bill Jones** as his partner in crime and, for the fifth year, **Ross Costelloe** returns as Treasurer. **Marina Costelloe**, **Ned Stolz**, **Phillip Wynne**, **Laurence Davies** and **Leonie**



James Goodwin chairing the 2017 ASEG Branch AGM after being voted in as the new President.

Jones form the ACT Branch's General Committee.

A special thanks to our outgoing committee members; **Ned Stolz**, **Ray Tracey**, **Millicent Crowe** and **Neil Symington**, thank you all for your efforts over many years.

The AGM guest speaker, **Ron Hackney**, presented an awesome talk titled 'From geophysics to deep stratigraphic drilling for tectonics, climate and ancient life in northern Zealandia'. Several Branch awards were also handed out; **Ross Costelloe** for being the Treasurer (again); **Alison Kirkby** in recognition of her ASEG conference Laric Hawkins Award; **Phillip Wynne** for his consistent reliable and practical support of the Branch over many years; and **Ned Stolz**, outgoing



Ron Hackney presenting to the ASEG ACT Branch.

ASEG news

President, for being instrumental in securing a number of important guest speakers and ensuring that the good work of the ACT Branch continued.

Marina Costelloe on behalf of James Goodwin
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New South Wales

In March, **Juan Carlos Afonso** from Macquarie University spoke about multi-observable probabilistic inversion for the physical state of the lithosphere. Juan discussed the new concept of multi-observable probabilistic tomography and how this new kind of joint inversion is particularly designed for studies of the fundamental thermodynamic variables of the Earth's lithosphere, namely temperature, pressure and chemical composition. Juan outlined how he went about utilising multiple datasets to maximise the physical consistency of his Earth models.

In April, **Kate Selway** from Macquarie University spoke about 'Magnetotellurics: What it is, what it can tell us, and what we're doing with it in Australia'. Kate outlined the basics of MT and then discussed a number of examples describing using MT to image zones of metasomatism and past fluid events. Kate outlined how MT can be used in the exploration for giant mineral deposits.

As well Kate introduced the AusLAMP project and how MT data was going to be acquired over all of Australia. Many questions and much discussion followed Kate's presentation.

An invitation to attend NSW Branch meetings is extended to interstate and international visitors who happen to be in town at the time. Meetings are generally held on the third Wednesday of each month from 5:30 pm at the 99 on York Club in the Sydney CBD. Meeting notices, addresses and relevant contact details can be found at the NSW Branch website

Mark Lackie
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Queensland

The Queensland Branch meeting joined with the Federal AGM for April. **Koya Suto** was a fitting speaker at this event. After many years of involvement he was officially resigning from the FedEx. In his presentation Koya shared the more human side of geophysics with entertaining anecdotes.

Our Branch meeting was on 23 May with **Kate Hine** presenting on 'Geophysics maketh the mine!'

The Queensland Branch now has a new Secretary **Mark Kneipp**. We would like to welcome Mark to the position. Mark

began his career in Australia's Cooper Basin and spent several years as a seismic crew manager and bird dog, acquiring seismic across nearly every onshore basin in Australia. Mark has consulted to most Australian petroleum companies and has held leadership roles in Australia and the Middle East. He is a qualified project, program and portfolio manager with over 15 years of experience in onshore oil, gas and mineral seismic exploration and is now Vice President Exploration for Synterra Technologies.

Our outgoing secretary **Megan Nightingale** is now the FedEx Secretary and President of the Young Professionals Network. We would like to thank her for all her hard work, organisation and efficiency. She has held the position since 2012 and has played an integral role in the success of QLD Branch events for the past 5 years.

An invitation to attend Queensland Branch meeting is extended to all ASEG Members and interested parties. Details of all upcoming Queensland events can be found on the Qld Events tab on the ASEG website. We are still looking for speakers for the rest of the year, if you'd like to volunteer a talk please contact qldpresident@aseg.org.au or qldsecretary@aseg.org.au.

Fiona Duncan
qldpresident@aseg.org.au

ASEG national calendar: technical meetings, courses and events

Date	Branch	Event	Presenter	Time	Venue
23 May	QLD	Tech night	Kate Hine	1730–1900	XXXX Brewery, corner of Black Street and Paten Street, Milton
24 May	VIC	Tech night	Jon Keall	1730–1900	The Kelvin Club, 14-30 Melbourne Place, Melbourne
14 Jun	WA	Tech night	Darren Hunt	1730–1900	TBA
21 Jun	NSW	Tech night	TBA	1730–1900	99 on York (99 York Street, Sydney)
Jul	ACT	SEG DISC	Doug Oldenburg	TBA	TBA
12 Jul	WA	Tech night	Tim Munday	1730–1900	TBA
19 Jul	NSW	Tech night	TBA	1730–1900	99 on York (99 York Street, Sydney)
27 Jul	WA	SEG DISC	Doug Oldenburg	TBA	TBA
02 Aug	SA	SEG DISC	Doug Oldenburg	0900–1700	Hotel Richmond, Rundle Mall
07 Aug	QLD	SEG DISC	Doug Oldenburg	TBA	TBA
09 Aug	WA	Tech night	Sarah Monoury	1730–1900	TBA
16 Aug	NSW	Tech night	TBA	1730–1900	99 on York (99 York Street, Sydney)
11 Oct	WA	Tech night	Bill Peters	1730–1900	TBA
08 Nov	WA	Student presentations	Various	TBA	TBA

TBA, to be advised (please contact your state Branch Secretary for more information).

ASEG Gold Medal awarded to Richard Lane, Canberra, ACT, 2017



Richard Lane

ASEG Gold Medal Award citation:

The ASEG Gold Medal is awarded from time to time for exceptional and highly distinguished contributions to the science and practice of geophysics by a Member, resulting in wide recognition within the geoscientific community. The ASEG President and Federal Executive are pleased to announce that the ASEG Gold Medal will be awarded in 2017 to Richard Lane.

Specifically, this award recognises Richard's significant and distinguished contributions to the profession of geophysics in Australia and overseas through his widely recognised practical research and contributions to the understanding and application of geophysical methods in both mining and petroleum, for his frequent contributions at conferences both in Australia and overseas, and through his outstanding professional work in applied geophysics for over 30 years.

Richard Lane obtained a B.Sc. (Honours) in Geology and Geophysics from the University of Melbourne in 1983. He joined CRA Exploration (subsequently Rio Tinto Exploration) as a graduate geophysicist in 1984. Over the following 12 years, he worked for CRAE on Australian and overseas projects, based in Adelaide, Perth, Canberra, Thailand/Laos, Alice Springs, Melbourne, Brisbane and Mount Isa. Richard had several different roles in CRAE and its petroleum exploration subsidiary Pacific Oil and Gas, before deciding to pursue other opportunities in 1996. During his time in CRAE Richard contributed to a variety of exploration activities, including both hard rock minerals and petroleum. He attended and presented at several overseas meetings, including Moscow and Toronto, and gained a broad understanding of geophysical applications for various

commodities and in a wide range of field conditions. His keen analytical mind and deep practical understanding of the geophysical profession and exploration industry impressed all those who worked with him, and he built a wide circle of contacts in both industry and academia.

From 1996 To 2001 Richard worked with World Geoscience Corporation/Fugro Airborne Surveys, based in Perth as Chief Geophysicist Product Development. His primary responsibility was to oversee the development of the TEMPEST Airborne EM system, a role which required him to integrate engineering, geophysical and software development. He was Program Leader of the Airborne EM Systems Program of the Cooperative Research Centre for Australian Mineral Exploration Technologies (CRCAMET) from 1997 to 2000, during which time the TEMPEST AEM system was successfully developed and commercialised. TEMPEST became operational in 1999 as a state of the art AEM system with innovative technology which is still evolving in 2017.

In 2001, Richard joined the Australian Government geoscientific agency, Geoscience Australia (GA), based in Canberra. In the role of Senior Geophysicist in the Onshore Energy & Minerals Division (OEMD), he has made an outstanding contribution to national geophysics. His principal achievements at GA have been establishing 3D potential field inversion methodologies, which now underpin all regional geophysical interpretation projects. He also demonstrated the application of AEM methods to groundwater projects and instigated large regional AEM surveys as part of the 2006 Onshore Energy Security Program.

Richard was instrumental in the development of the Geomodeller 3D geological modelling package since 2005, and has been intimately involved in the work to restructure and expand the GeoModeller geophysical modelling capabilities. Richard's other ongoing activities at GA include leadership of the OEMD efforts to develop a national rock property database, input into the development of the GeoSciML information model and data interchange format (with the goal of facilitating the exchange of geoscience information and processing services), and championing the use of the high performance computing (HPC) facilities (multicore computers, internal distributed and parallel computer networks within GA, external GRID, and

Cloud facilities, etc.) for geophysical processing and modelling.

He received a Geoscience Australia Individual Award for Achieving Results in Geoscience in 2004, and was the recipient of the Sir Harold Raggatt Award for Distinguished Geoscience Australia Lecturer in 2004

In conjunction with his role at GA, Richard has organised numerous pertinent and timely industry seminars for industry geoscientists, as well as mentoring many younger scientists and graduates in the application of numerical methods for geoscientific problems. Richard has played a major role in the conduct of three airborne gravity workshops at ASEG conferences in Sydney (2004), Sydney (2010) and Adelaide (2016). In each case Richard undertook the role of technical editor, resulting in a comprehensive proceedings volume which was, or is being, published by Geoscience Australia. These have become significant international records of the 'state of the art' in airborne gravity, and they are widely recognised around the world. He also undertook a similar role for a 'Natural Fields EM' workshop/forum, held at the ASEG conference in Brisbane in 2012.

He is a member of the Society of Exploration Geophysicists (SEG), Australian Society of Exploration Geophysicists (ASEG), Environmental and Engineering Geophysical Society (EEGS), American Geophysical Union (AGU), and International Association for Mathematical Geology (IAMG). He was recognised by SEG as an 'outstanding reviewer' in 2007 and was nominated as an SEG Honorary Lecturer in 2011. He toured extensively in this role, throughout Australia and the South Pacific.

Richard is an inspiring scientific leader, widely recognised throughout the global geophysical community for his keen intellect and insight into geophysical methods in both mining and petroleum, and for his frequent contributions at conferences both in Australia and overseas. Throughout his career Richard has set a benchmark in terms of technical excellence. His service to the industry has been truly significant and he is widely regarded as a substantial pillar of our discipline. It is fitting that Richard's distinguished career encompassing a broad range of technical achievements, combined with his positive influence on other members of the profession, should now be recognised with the award of the ASEG Gold Medal.