

# Chairperson's Report

## 2012 - 2013

This report is presented for consideration at the NSW Division Annual General Meeting - 28<sup>th</sup> October 2013.

### 1. Division Committee

There are currently 10 members of the committee, which means that the committee is at its 10 person maximum. If, however, you are interested in being part of the committee and feel that you have something to offer, please make yourself know one of the Committee members. We might just be able to find a place for you!

At present the committee is structured as follows:

- Matthew Harrison                      Chairman
- Tracy Gowen                              Vice-Chairman, Federal Councillor
- Angus Leslie                             Secretary, Minutes Secretary, Membership Grading  
(co-opted to replace Laura)
- Neil Gross                                 Technical Subcommittee, Federal Councillor
- Rodney Stevens                         Treasurer
- Nicole Kessissoglou                     Acoustics Australia Rep, Technical Convenor
- Jeff Parnell                                Technical Convenor
- John Wasserman                         Technical Subcommittee
- Najah Ishac                                Technical Subcommittee
- Warwick Williams                        Technical Subcommittee
- *Laura Allison                             (temporarily relocated interstate)*

The major work of the committee during this year has been:

- Organising and running the technical program, thanks mainly to Tracy Gowen, Nicole Kessissoglou and Jeff (with assistance from Angus) for an excellent program over the last 12 months.
- **A key improvement that has been instigated this year is the videoing of the technical talks and making them available on-line.** To access the videos you must log into the AAS website as a member. To do this go to the AAS Home Page (<http://www.acoustics.asn.au/joomla/>) and log in. Once you have logged in you should be able to go directly to the videos using the links below provided on the website. The talks that are currently available for viewing are:
  - NSW Tech Talk October 2012: Panel Discussion on Non Tonal Reversing Alarms  
[\[https://vimeo.com/53657617\]](https://vimeo.com/53657617)
  - NSW Tech Talk May 2013: Blasting in the urban environment  
[\[http://vimeo.com/67790279\]](http://vimeo.com/67790279)
  - NSW Tech Talk June 2013: Rail Infrastructure Noise Guideline  
[\[http://vimeo.com/72588750\]](http://vimeo.com/72588750)
  - NSW Tech Talk August 2013: Community noise management and control: discussion on some successes and challenges [\[https://vimeo.com/77684106\]](https://vimeo.com/77684106)

As in the past, the links should only be accessible to members. The vimeo password is AAS.

- Regular membership/administration issues.
- AAS NSW travel awards on offer to assist **research students** and **early career researchers (ECRs)** to attend the Conference of the Australian Acoustical Society, Acoustics 2013 'Science, Technology and Amenity', to be held at the McCracken Country Club and Conference Centre in Victor Harbour, 17-20 November, 2013. The successful applicants:
  - Zhi Zhang
  - Manuj Yadav

Note: Weicong Li was also selected for a travel award but withdrew after discovering that the results of his work would not be available for inclusion in a paper for the AAS Conference.

- **NSW Division Member Travel Award** to attend the Conference of the Australian Acoustical Society (The award is open to all current AAS NSW Division members who have held membership for 12 months or more). This prize was awarded to:
  - Marshall Hall – Topic to be presented “Disparities in estimating critical sound pressure levels that correspond to maximum legal disturbance of seals and turtles”
  - Jeffrey Parnell – Topic to be presented “Development of the Draft NSW Planning Guidelines: Wind Farms”
- Award of the **AAS NSW Acoustics Prize** to the best undergraduate student in an acoustics course at UNSW, USyd, UWS and Macquarie Uni (the prize for UWS is new this year).

## 2. Technical / Social Activities

Including tonight's talk, there have been six technical meetings held in Sydney over the last 12 months. A short description of these talks is given below.

### 30th October 2012 **Panel Discussion on Non Tonal Reversing Alarms**

**Marion Burgess** - UNSW, Canberra

**Chris Schulten** - Railcorp

**Barry Murray** - Wilkinson Murray Consulting

Traditional tonal or 'beeper' type reversing alarms are intended to provide a warning for the person in the hazard zone of the backing vehicle, typically on sites for construction, mining, factory, warehouse etc. The tones, that are meant to provide the alert at the site, can frequently be clearly heard well outside the hazard area. Thus their use leads to disturbance for residents surrounding the site.

Reversing alarms that are based on a pulsed broadband signal have been developed with the intention of providing the alert in the area of the hazard and reducing annoyance in the surrounding areas. While the use of these alarms (sometimes referred to as 'quackers') may reduce the environmental noise problem there is still the need to ensure that the occupational safety requirements are met.

This panel discussion will commence with short presentations on particular aspects of broadband reversing alarms and then open for general discussion.

7<sup>th</sup> March 2013

### **Is infrasound from wind turbines significant?**

**Matthew Stead** - Director, Resonate Acoustics

There has been much debate about the level of infrasound from wind turbines. Are they able to create dangerous levels of infrasound, or sound too low for humans to hear, that can be harmful to people who live near wind turbines?

A recent report commissioned by the SA Environment Protection Authority (EPA) and jointly authored by Resonate Acoustics, 'Infrasound levels near windfarms and in other environments' found that the level of infrasound from wind turbines is insignificant and no different to any other source of noise. It also found that the worst contributors to household infrasound are air-conditioners, traffic and noise generated by people.

Matthew Stead is the Director and founder of Resonate Acoustics. Matthew has been working in acoustics for over 20 years and staff in his firm have been working in the area of wind turbine noise for the last 8 years. He has extensive experience in the acoustic design, engineering and assessment. Matthew will present the findings of the report on behalf of the authors.

16<sup>th</sup> May 2013

### **Blasting in the urban environment**

**Kim Henley** - Specialist Tech Services Eng. Orica Mining Services

Drilling and blasting for civil construction is a process that is sometimes unnecessarily excluded from consideration in tenders and project specifications. However modern blasting technology has made breaking rock with explosives safer, more secure, and more productive than ever before.

This talk will cover some of the practicalities of blasting in built up areas. The talk will cover the management of the risk associated with this type of blasting, in particular vibration, airblast and flyrock, and the environmental monitoring regime that is used to measure compliance. Kim Henley has over 20 years' experience in blast engineering. After graduating from RMIT, Kim worked in open cut mines in the Pilbara and Hunter Valley before joining ICI in 1984 as a Blasting Engineer. After briefly specializing in packaged explosives technology, he moved to WA to support explosive users in the Kalgoorlie goldfields and Kambalda districts. Over a period of 10 years he worked with mines in all parts of WA from the South West to the Kimberley. He moved to Newcastle in 1993 to provide support to the development of Safe and Efficient Blasting Courses, shot firing procedures, vibration/airblast analysis and computer blast modelling. He left Orica in 2001 and re-joined in 2007 as Technical Services Manager of the Quarrying division, and moved into his current role in 2009. Kim has broad expertise in blast design and the use of explosives, which encompasses ore dilution, wall control, fragmentation optimisation, heave measurement and modelling, fume management, vibration/airblast control, and flyrock assessment.

26<sup>th</sup> June 2013

### **Rail Infrastructure Noise Guideline**

**Paul Maddock** - Senior Noise Officer, NSW EPA

The EPA's Rail Infrastructure Noise Guideline (RING) was published in May and replaces the Interim guideline for the assessment of noise from rail infrastructure projects (IGANRIP, 2007).

RING aims to streamline the approval processes for rail infrastructure projects while ensuring that potential noise and vibration impacts are assessed in a consistent way and minimised as far as possible.

The Guideline reflects advice received from transport, planning, infrastructure construction, rail agencies, acousticians and the broader community during the consultation period on the draft guideline in early 2012.

Paul will give an overview of the guideline and discuss the key changes and objectives.

The Guideline is available on the EPA website:

[www.environment.nsw.gov.au/noise/railnoise.htm](http://www.environment.nsw.gov.au/noise/railnoise.htm)

19<sup>th</sup> August 2013

### **Community noise management and control: discussion on some successes and challenges**

**Marion Burgess** - School of Engineering and Information Technology, UNSW Canberra

Over recent decades there have been some clear achievements in the acknowledgement of the importance of addressing noise the community. The focus has been on the major noise sources associated with transportation and industry that globally affect the larger number of people.

The publication of guidelines for noise level limits and for establishing noise control policies and approaches to noise management provides a good basis for further applications. This talk discusses some of the successes and also some of the remaining challenges in developing and adopting the most appropriate noise management and control policies. Marion Burgess is a Research Officer at UNSW, Canberra, and has been working in the area of community noise management and control for many decades. This presentation will be similar to the plenary paper to be presented at Internoise 2013, Innsbruck, Austria, 15-18 September 2013.

28<sup>th</sup> October 2013

### **Childcare Centre Noise: Where did we get to?**

**Stephen Gauld** - Day Design (largely responsible for the preparation of the AAAC guideline)

**Suri Mora** - Environment Assessment Officer with Wollongong City Council

**Michael Gange** - consultant with Renzo Tonin & Associates  
Six years ago we held a discussion panel on 'Are we assessing childcare centre noise fairly?' Since that time there have been some key additions and changes to the planning and assessment guidelines in relation to childcare centre noise. Many Council DCPs include

guidelines for childcare centres. The Australian Association of Acoustical Consultants (AAAC) has published a guideline recommending a method of assessing noise impact in relation to childcare centres. The revised Noise Guideline for Local Government provides references to assist Councils in formulating a position on childcare centre noise.

So, are we assessing childcare centre noise more fairly than we were six years ago?

We have assembled a panel of three people to present a different perspective on assessing noise from childcare centres based on their own experiences in recent years.

The committee is always looking for presenters and topics for the technical talks. If you have any feedback on the technical talks, or any ideas for new topics and more importantly presenters, please let the committee know.

### 3. Membership

The NSW Division Membership numbers for September 2013, 2012 and 2011 are given in the following table, and show that member numbers are up almost 20% from 2011. As in previous years, the growth in membership has been largely as a result of Student members gaining full Membership status. This trend over the last few years shows the importance of encouraging Student Membership through initiatives such as the AAS NSW Acoustics Prize to the best undergraduate student in acoustics course at UNSW, USyd, Macquarie Uni and **UWS (new for this year)** and the AAS NSW Young Scientist Awards (conference Travel Award).

|             | September 2013 | September 2012 | September 2011 |
|-------------|----------------|----------------|----------------|
| Fellows     | 12             | 10             | 10             |
| Members     | 198            | 196            | 177            |
| Graduates   | 9              | 7              | 4              |
| Associates  | 11             | 12             | 13             |
| Subscribers | 13             | 8              | 8              |
| Students    | 17             | 13             | 7              |
| TOTAL       | 260            | 249            | 219            |

### 4. Acoustics Australia

Nicole Kessissoglou (editor) and Tracy Gowen (treasurer) – with some assistance from Marion Burgess as news editor – continue to put out a fantastic journal. In recent years the journal has become a square bound publication with simultaneous release of a low res emailed version. Please let us know if you would prefer to ONLY receive the e-version as this saves the Society significant cost in postage.

Acoustics Australia continues to request articles and technical notes to be submitted by the membership for inclusion in the journal. If members have worked on an interesting project, please consider writing it up for publication as a technical note. The projects you

work on may appear routine to you, but to others working in difference areas they could be very interesting! In addition, the presenters of the technical talks are encouraged to write up their presentation as a technical note for publication in the journal.

## 5. Awards and Grants

In 2013, the NSW Division awarded the AAS NSW Early Career Researchers (ECRs) Travel Award to 2 students to attend the AAS 2013 conference in Victor Harbour. The amount of each award is \$1000 and is to be spent towards the conference registration fee, travel to and from the conference venue, and accommodation. The successful awardees will provide a short report (200 to 500 words) on their experiences at the Conference for the December 2013 issue of the Acoustics Australia journal.

The NSW Division of the AAS has also introduced a new travel award this year for existing AAS NSW Division members to attend the Acoustics 2013 Conference of the Australian Acoustical Society. The award is open to all current AAS NSW Division members who have held membership for 12 months or more. The amount of the award is up to \$1000 and is to be spent towards the conference registration fee, travel to and from the conference venue, and accommodation. Successful awardees will be required to provide a short report (up to 300 words) on their experiences at the Conference for the December 2013 issue of the Acoustics Australia journal. The purpose of this award was to encourage those who would like to present a paper at the conference but find it difficult to obtain employer support.

The AAS NSW Division Acoustics Prize was awarded to the best undergraduate student in the following three courses in 2013:

- MECH9325 Fundamentals of Noise course, University of New South Wales
- DESC9133 Architectural Acoustics Practice course, University of Sydney
- CAUD803 Theoretical Bases of Audiology course, Macquarie University
- Dynamics of Mechanical Systems 300480. Bachelor of Engineering, University of Western Sydney (first prize will be awarded in 2014 based on the results for the 2013 academic year)

Each award consists of a cash prize of \$250 and one year's subscription to the Australian Acoustical Society. The objectives of this education prize are to encourage undergraduate students into the field of acoustics and provide exposure for the Society at the university prize giving ceremonies.

## 6. ACT Division Activities 2012-2013

### Meetings

After four meetings in 2011-2012 there were only two held during 2012-2013. A third meeting was cancelled when the attendance advice was assessed as non viable.

**The 87<sup>th</sup> meeting** was held on 15 April 2013 as a joint meeting between the Canberra groups of the AAS and the AIP. It was attended by 16 and an equal split between the two societies.

The topic was "Digital Fabrication of Acoustic Sonification" and presented by A/Prof. Stephen Barrass, University of Canberra. The presentation was well suited to the mixed

audience and covered the applications of acoustic sonification with a particular emphasis on physics and acoustics. Stephen pioneered interactive sonifications for oil and gas exploration and automobile engineering in the Cyberstage Virtual Reality Theatre. He intrigued the audience with his 3D metal printed acoustic transform of the left ear and the right ear using the data from an artificial head. The head is symmetric and so the sonification in the sound of the 'bells' produced by this process should be the same but this was audibly not the case.

**The 88<sup>th</sup> meeting** was held on 13 May 2013, attended by 12.

The topic was "Discussion on Environmental Noise Issues" Rodney Dix from Environment Protection was present to discuss the view of the regulatory authority and to hear the experiences of those present on the following :

- Interpreting the National Capital Plan for the boundaries of the noise zone standards for town, group and neighborhood centers
- Dealing with very short duration noise events
- Dealing with low frequency components

There was an excellent attendance for the ACT Group with representatives from all the consultancies with ACT Offices. Attached is the receipt for the catering

A casual meeting is proposed for late Spring 2013 and the technical program will commence again in early 2014. In view of the small membership in the ACT, joint meetings with other groups is preferred. But other societies like the Audiological Society are similarly small and its difficult to arrange a topic of common interest.

The ACT group is very keen to utilise the video of the Sydney based meetings. We planned to have a gathering to see one, that maybe particularly relevant to our region, on a wide screen and then discuss locally. But the delay in availability and time limit of that availability makes it difficult to arrange this. The quality of the video and audio is really excellent (eg the Blasting talk that is still available from the webpage is excellent quality) and it would be good if once produced these could be more readably available even if this was to a limited group and not all the membership.

As a special note, I would like to congratulate Marion Burgess on being elected as President of the ICA, effective from 1 October 2013. As far as we know, this is the first time the President has been from Asia and also the first time a female has been elected President. **WELL DONE MARION!!**

Finally, I would like to take this opportunity to provide a special thank you to the members of the NSW Committee who continue to offer their valuable personal time in running the NSW Division of the Society. Tracy has been particularly generous with her time in organising the Technical Presentations (and making sure we have enough food and drink). Finally I would like to propose a round of applause for Angus, who stepped up into the high heeled shoes of Laura to take on much of the administrative workload of the Committee (with very little support or instruction from his disorganised Chairman). Well done mate – we could not have done it without you!

As in the past, a special thank you also needs to go out to the presenters of the technical meetings. We are keenly aware of the benefit you provide our members.

I'm looking forward to seeing you all at the AGM on 28<sup>th</sup> October 2013.

Best regards,

A handwritten signature in black ink, appearing to read 'M. Harrison', with a large, stylized initial 'M'.

Matthew Harrison  
Chairman  
NSW Division - Australian Acoustical Society