REPRODUCED SOUND 2015

PLAYING WITH FIRE
Sound for art, entertainment and emergency purposes

10-12 November 2015, The Fire Service College, Moreton-in-Marsh

Organised by the Institute of Acoustics in collaboration with ISCE, AES, ABTT, APRS
17.00  Registration

18:00  Dinner (optional please see registration details)

18.30  Evening Workshop and discussion: Reproduced Sound (virtual) Sound Check
Mark Bailey, QSC, Robin Dibble, Martin Audio

A good event can depend on a good sound check. Getting the EQ, compression and gates set for the drums and getting the reverbs on the vocals can make things a lot better – if the tools are applied appropriately! Robin and Mark will demonstrate some different approaches to sound-check and will then open the discussion to allow others to comment – and even demonstrate what works for them.

This is an informal meeting and a great chance to come and share your knowledge – or simply to play with some audio gear.

We look forward to seeing you.

TUESDAY 10 NOVEMBER 2015

08.00  Registration

09.15  Welcome from EAG Chairman, Keith Holland

09.30  Peter Barnett Memorial Award: The Magic in 2-Channel Sound Reproduction – Why is it so rarely heard?
Siegfried Linkwitz, Linkwitz Lab, USA

SESSION 1 - SOUND REINFORCEMENT
Chairman: Sam Wise

11.00  Complex loudspeaker setups in the frame of environmental noise predictions on the basis of the ISO 9613-2 and the Nord2000
Matthias Christner, d&b audiotechnik GmbH, Germany, Jochen Schoaier, SoundPLAN International LLC, Germany, Dieter Zolitsch, Braunstein + Berndt GmbH, Germany, Ralf Zuleeg, Elena Shabolina, d&b audiotechnik GmbH, Germany

11.30  Designing PA systems for Live Outdoor Events – the challenges of getting good sound in the audience arena and designing out noise problems off site
Jim Griffiths, Vanguardia Consulting, Miles Hillyard, SSE Audio Group

12.00  Sound localization or speech intelligibility?
Wolfgang Ahnert, ADA Acoustics & Media Consultants GmbH, Germany

12.30  Lunch

14.00  The Anti-Workshop: Cautionary tales in sound reinforcement
Conference workshops typically tell “how to.” The Anti-Workshop tells “how not to.” In many cases, examples of live sound gone wrong can be equally, if not more, instructive than stories of jobs well-done. Here we’ve assembled a panel of live sound practitioners with many decades of experience in the industry. With panel members sharing particularly “interesting” examples of questionable practice, the audience is invited to discuss/debate the central points raised. The session is designed as a light-hearted discussion that still delivers good lessons for current and future live sound professionals.

15.30  Tea

SESSION 2 – THE ANTI-WORKSHOP
Chairman: John Taylor

16.00  Design principles for distributed loudspeaker solutions in PA/VA
Paul Malpas, Engineered Acoustic Designs

16.30  Re-entrant horn loudspeakers used in hazardous areas
Kelvin Griffiths, Giuseppe Di Carlantonio, Electroacoustic Design, John Kendrick, Cooper MEDC

WEDNESDAY 11 NOVEMBER 2015

20:30  Sam’s Jam
A musical core of RS attendees plays from Rap to Rachmaninov in the bar. We welcome others to join us. Bring your music and instruments.
SESSION 4 – PERCEPTION: LIVE SOUND QUALITY
Chairman: Mark Bailey

09.00  The effect of distortion on perceived loudness in live sound reinforcement
Simon Durbridge, University of Derby, John Taylor, d&b audiotechnik, Adam Hill, University of Derby

09.30  The non-auditory, physiological perception of low frequency
John Taylor, d&b audiotechnik GmbH

SESSION 5 – CASE STUDIES & DESIGN PRACTICE
Chairman: Glenn Leembruggen

10.00  New Sound Systems for Gulbenkian Foundation Grande Auditorio, Lisbon, Portugal
Sam Wise, Venue Strategies

10.30  Coffee

11.00  Sustainable design and practice in reproduced sound
Ben Mosley, Leeds Beckett University

SESSION 6 – MEASUREMENT AND MODELLING 1
Chairman: Keith Holland

11.30  Demystifying the effects of loudspeaker cables
Nicolas Bertin, L-ACOUSTICS, France

12.00  Machine learning applied to the classification of musical instrument loudspeakers
Andrew Harper, Celestion

12.30  Lunch

SESSION 7 – MEASUREMENT AND MODELLING 2
Chairman: Bob Walker

14.00  Implementation of head-tracked panning reproduction with correction for head rotation
Dylan Menzies, Filippo Maria Fazi, ISVR, University of Southampton

14.30  That was great, can you play it again?: Making 3D acoustic measurements of instruments under performance conditions.
David Carugo, Khaled Hayatleh, John Lidgey, Oxford Brookes University, David Sharp, Open University

15.00  High frequency room acoustic analysis using fast multipole BEM
Patrick Macey, PAFEC

20.30  The importance of directivity in loudspeakers
John Watkinson FAES
In the light of a modern understanding of the human auditory system and how it interacts with sound sources in reverberant environments, the legacy loudspeaker is now a completely discredited device, requiring for professional purposes heavy acoustic treatment of the listening space because of its own shortcomings, when the ear itself demands no such treatment.
Alternative approaches to directivity in state-of-the-art speaker designs will be discussed and demonstrated, and the reasons behind the resulting dramatic increase in realism and freedom from sweet spots will be explained.
Please book for this optional tour, transport will not be provided but delegates who are willing to car share please indicate when booking. Entrance charge £8.00

### Keith Harding’s World of Mechanical Music Museum

**The Oak House, High Street, Northleach, Glos GL54 3ET**

A superb selection of instruments, all in superb conditions, presented as live entertainments by informative guides. The World of Mechanical Music is a living museum of the extraordinary variety of self-playing instruments and automata which were the pride and joy of our great grandparents, and the only kind of “canned” musical entertainment available in the home before regular broadcasting started up in 1924.

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<tr>
<th>Time</th>
<th>Session Title</th>
<th>Speaker(s)</th>
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<tbody>
<tr>
<td>16.00</td>
<td>Maximising perceived diffuseness in loudspeaker systems with height using optimised relative loudspeaker levels</td>
<td>Michael Cousins, Filippo Maria Fazi, Stefan Bleeck, Frank Melchior, ISVR, Southampton University</td>
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<td>16.30</td>
<td>Multisource monitor mixing</td>
<td>Otto Kroymann, Adlib Audio</td>
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<td>17.00</td>
<td>Why does cinema sound quality mostly fail to realise its potential? &quot;Some interesting results from the SMPTE’s 2014 report on cinema sound systems.&quot;</td>
<td>Glenn Leembruggen, Acoustic Consultants, Australia, Philip Newell, Consultant, Spain</td>
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<td>17.30</td>
<td>The relationship between subjective and objective response differences at different heights above cinema seating</td>
<td>Philip Newell, Consultant, Spain</td>
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<td>18.00</td>
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