



Public Radio Engineering Conference 2007 “Digital Radio—The Transition”

MGM Grand Las Vegas
Studio B Ballroom
3799 Las Vegas Blvd South
Las Vegas NV 89109

CONFERENCE AGENDA

Thursday, 12 April 2007

0715 – **Continental Breakfast and Badge Pickup**
0800 MGM Grand Studio B Ballroom

underwritten by Intelsat
<http://www.intelsat.com/>



0800 – **Conference Welcome (01)**
0815 Ralph Hogan, President, Association of Public Radio Engineers

0815 – **Case Studies in New Facilities (03)**
1000 *In the ever-popular session, station personnel offer details of a recent facility upgrade or construction project.*

Presenters:

Roger Karwoski, KBIA, Columbia MO
Jim Paluzzi, Colorado Public Radio, Denver CO
John Bigwood, Colorado Public Radio, Denver CO
Michael Hendrickson, Minnesota Public Radio, Saint Paul MN

Moderator:

Dan Mansergh, KQED Radio, San Francisco CA

1000 – **Morning Break**
1015

1015 – **Mapping the Boundaries of Public Radio Service and HD Radio Coverage (04)**
1115 *NPR Labs has recently received grants to fund to distinct but interrelated coverage studies. The current state of public radio service in the United States will be determined through a complex mapping project, and the real-world limits of HD Radio coverage with available receivers will be examined.*

Presenter:

John Kean, NPR Labs, Washington DC

Moderator:

Jan Andrews, NPR Labs, Washington DC

1115 – **HD Radio Technology Update (05)**
1215 *The developer of HD Radio technology will offer details of forthcoming software upgrades, expanded capabilities, and the growth in receiver availability. The results of a recent on-air conditional access test will be presented.*

Presenters:

Jeff Detweiler, iBiquity Digital Corporation, Columbia MD

Hal Kneller, International Association of Audio Information Services

Tom Dollenmayer, WUSF-FM, Tampa FL

Moderator:

Ralph Hogan, Northwest Public Radio and Television, Washington State University

1215 – **Lunch**
1315 underwritten by Broadcast Electronics
<http://www.bdcast.com/>



1315 – **“Show Me the Money”—CPB Funding Update (06)**
1330 *CPB funding has made HD conversions possible for nearly three hundred public radio stations. Is further funding in sight? Can stations re-apply for additional resources, such as Multicast upgrades. CPB attempts to answer these questions.*

Presenter:

Donald Lockett, Corporation for Public Broadcasting, Washington DC

Moderator:

Doug Vernier, Corporation for Public Broadcasting, Washington DC

1330 – **PRSS Update (07)**
1430 *Representatives from PRSS will be on hand to take your ContentDepot and other PRSS questions comments and suggestions. They will share the most recent update on ContentDepot status, near-term activities, and longer-term plans .*

Presenters:

Scott Hanley, WQED, Pittsburgh PA, and NPR Distribution Committee Chairperson

Marty Bloss, NPR Distribution, Washington DC

Moderator:

Jan Andrews, NPR Labs, Washington DC

1430 – **Audio Performance, Specifications and Testing for HD Radio (08)**
1530 *Familiar audio tests, such as levels, frequency response, and harmonic and intermodulation distortion, continue to be useful in the “HD Radio era,” but digital audio presents its own pitfalls and measurement requirements. What measurements matter and how they should be done are discussed.*

Presenters:

Graham Boswell, Prism Sound USA, Rockaway NJ

Ray Holdren, Sencore, Sioux Falls SD

Jim Williams, Audio Precision, Beaverton OR

Moderator:

Dan Mansergh, KQED Radio, San Francisco CA

1530 – **Afternoon Break**
1545

1545 –
1745

HD Radio Transmitter Setup Workshop (09)

Does your HD transmitter really meet the emissions mask? If it doesn't, what are your first steps in correcting this? An expert in the measurement of HD Radio transmission systems shares his experiences with real world problems.

Presenters:

David Maxson, Broadcast Signal Lab, Medfield MA

Grady Moates, WUMB Radio, Boston MA

Moderator:

John Kean, NPR Labs, Washington DC

1800 –
1900

Public Broadcasting Service Reception

Pre-function Foyer, Third Floor, MGM Grand Convention Center

1900 –
2130

NightOwl: Digital Audio Workshop (10)

The ever popular Ken Pohlmann will present background and demonstrations on psychoacoustics, codec theory, codec enhancements and some issues of concern, including trans- and tandem coding.

Presenter:

Ken Pohlmann, University of Miami School of Music, Coral Gables FL

Moderator:

Jan Andrews, NPR Labs, Washington DC

NightOwl refreshments underwritten by



<http://www.broadcast.harris.com/>

Daily Wi-Fi costs underwritten by



<http://www.davidsystems.us/>

Friday, 13 April 2007

0700 – **Continental Breakfast with the Public Broadcasting Service**
0800 MGM Grand Conference Center Rooms 309 and 310

0800 – PBS/NPR Joint Session
0900 **Safe Broadcasting: Security in the Face of Convergence (11)**
Integrating ingest, edit, archive, and automation into corporate IP networks can be a challenge for IT and Broadcast Engineering departments as well as the vendors who provide the applications. The same is true for HD Radio Broadcast Systems like Program Associated Data (PAD), and Multicast Audio. Solutions require security awareness, compromise, and creativity to handle threats that did not exist prior to convergence and the implementation of digital and HD broadcast technologies.
Presenters:
Matthew Burrough, Rochester Institute of Technology and NPR Labs
Ken Walters, Public Broadcasting Service, Washington DC
Scott Gebhardt, Manager Enterprise Networking, Public Broadcasting Service
Moderator:
Lew Zager, Public Broadcasting Service, Washington DC

0900 – PBS/NPR Joint Session
0945 **Disaster Preparedness (12)**
The lessons from Katrina are many, and many broadcasters had to learn them the hard way. Hear how Louisiana stations coped. One key lesson is that it is better to plan ahead. Learn how PBS is doing just that as it prepares the Disaster Recovery Site.
Presenters:
Karl Fontenot, Chief Engineer, KRVS, Lafayette LA
Jerry Butler, Public Broadcasting Service, Washington DC
Moderator:
Lew Zager, Public Broadcasting Service, Washington DC

0945 – Morning Break
1015

1015 – PBS/NPR Joint Session
1100 **Tower Safety for Smarties (13)**
Whether you are climbing or hiring a crew, safety and rescue should be your concern. Increasing your awareness of tower safety can prevent accidents. Don't be caught unaware!
Presenter:
Tom Silliman, Electronics Research Inc., Chandler IN
Moderator:
Lew Zager, Public Broadcasting Service, Washington DC

1100 – **(Time reserved for transition from the MGM Conference Center to the Studio B Ballroom)**
1115

1115 – **NPR Labs Activities Update** (14)
1215 *NPR Labs has, in its short lifetime, become a very busy place. Hear about the projects we've undertaken, and how we hope to improve the radio listening experience.*

Presenters:

John Kean, NPR Labs, Washington DC

Ellyn Sheffield, NPR Labs and Salisbury University, Salisbury MD

Jan Andrews, NPR Labs, Washington DC

Kyle Evans, NPR Labs, Washington DC

Moderator:

Roger Karwoski , KBIA, Columbia MO

1215 – **Lunch**
1315 underwritten by Broadcast Electronics

<http://www.bdcast.com/>



1315 – **PAD/PSD Production and Transmission** (15)
1415 *Public Radio International and NPR Labs have both been engaged in CPB-funded PAD (PSD) studies. These two organizations will report their to-date findings.*

Presenters:

Jan Andrews, NPR Labs, Washington DC

Richard Ruotolo, Public Radio International, Minneapolis MN

Moderator:

Dan Mansergh, KQED Radio, San Francisco CA

1415 – **Transmitting Antennas for HD Radio** (16)
1515 *The performance of your good-enough-for-analog FM antenna may not be giving you the best possible HD Radio coverage. Find out why and how you should evaluate the condition of your current antenna, hear suggestions for making best use of what you've got, and consider what's important in the selection of a replacement antenna.*

Presenters:

Tom Silliman, Electronics Research Inc., Chandler IN

Bob Surette, Shivley Labs, Bridgeton ME

Matt Leland, Dielectric Communications, Raymond ME

Moderator:

Ralph Hogan, Northwest Public Radio and Television, Washington State University

1515 – **Afternoon Break**
1530 underwritten by Nautel
<http://www.nautel.com/>



1530 –
1630

HD Radio Translator Implementation (17)

Will HD translators work? Will they play a role in providing wider HD Radio coverage? Two translator makers discuss their HD translators systems and offer recommendations on how they can best be implemented.

Presenters:

Peter Bacon, LARCAN USA, Lafayette CO

Paul Phillips, LARCAN USA, Lafayette CO

Don Pettifor, Crown Broadcast, Elkhart IN

Marv Southcott, Fanfare Electronics Ltd., Lancaster NY

Moderator:

Dan Mansergh, KQED Radio, San Francisco CA

1630 –
1730

Equipment Replacement in the Digital Era (18)

Computer-based digital production and transmission systems will likely not match the longevity of their analog predecessors. This session aims to help station engineers and manager understand the life cycle of new generations of broadcaster hardware, and will offer suggestions on how stations may develop appropriate equipment replacement schedules and capital budget proposals.

Presenters:

Hal Kneller, Harris Corporation, Mason OH

Robert Holstein, National Public Radio, Washington DC

Moderator:

Roger Karwoski , KBIA, Columbia MO

1900 –

Annual Engineering Dinner

Maggiano's Little Italy Restaurant

Las Vegas Fashion Show

3200 Las Vegas Blvd South

702.732.2550

<http://www.maggianos.com/>

(prepaid, confirmed guests only)

Dinner underwritten by



<http://www.broadcast.harris.com/>

Saturday, 14 April 2007

NAB/SBE Ennes Workshop: “Everything Audio—Radio and TV”

Las Vegas Convention Center Room S219

(accessible to all paid PREC registrants)

- 0800 – **Tutorial: Audio 101—A brush up for Broadcast Engineers**
0900 Presenter:
Fred Baumgartner, Director Broadcast Engineering, MediaFLO USA
- 0900 – **Opening Remarks**
0910 John Poray, Executive Director, Society of Broadcast Engineers
- 0910 – **One-Hundred Things You Should Know About Audio Wiring**
1010 Presenter:
Steven Lampen, Technology Specialist, Belden Cable
- 1010 – **Morning Break:**
1025 **The State of Broadcast Audio 2007...A quick tour of the Second City**
Presenter:
Gordon S. Carter CPBE, CBNT, Chief Engineer, WFMT, Chicago IL
- 1025 – **Dolby Broadcast Technologies**
1125 Presenter:
Rocky Graham, Director Broadcast Products, Dolby Laboratories, San Francisco CA
- 1125 – **Building Broadcast Audio On IP**
1230 Presenter:
Steve Church, President, Telos Systems and Axia Audio, Cleveland OH
- 1230 – **Lunch Break**
1325
- 1330 – **Audio for High Definition TV**
1430 Presenter:
Tim Carroll, Founder and President, Linear Acoustics
- 1430 – **Audio Metadata Demystified**
1545 Presenter:
Mike Babbitt, Customer Support Manager, Dolby Laboratories
- 1545 – **The Trials and Tribulations of Managing Multi-Channel Audio in a DTV Facility**
1630 Presenters:
Birney Dayton, Chairman and CTO, NVISION Inc.
Jay Kuca, Director of Product Management, NVISION Inc.
- 1630 – **Committing to 5.1: Finding Clarity in Planning for Multi-Channel Audio**
1715 Presenter:
Roger Charlesworth, Technology Consultant, Charlesworth Media