2012 IEEE BROADCAST SYMPOSIUM TECHNICAL PROGAM

WEDNESDAY, 17 OCTOBER

9:00 AM - Tutorial – IP in Broadcasting
Session Chairs:
Rich Chernock – Triveni Digital, USA
Bob Surette – Shively Labs, USA

1) *IP's Acronym Soup & Network Architecture: Things You Need to Know*
Pat Waddell, Joel Wilhite – Harmonic, USA
2) *Overview of SMPTE 2022 Family of Standards*
John Mailhot – Harris, USA
3) *Audio Distribution in an IP-based Multiplatform Broadcast Plant*
Guy Bouchard – CBC, CANADA

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4) *IP Control in the Broadcast Facility*
Troy English – Ross Video, CANADA
5) *Media Streaming to Small Screen Devices*
Pat Waddell, Joel Wilhite – Harmonic, USA

Video presentation – "Cell Tower Deaths"
Frontline and ProPublica (aired 5/22/12)

12:45 PM - Box Lunch
Tutorial – Broadcast Towers and Protecting Your Station in an Era of Broadband Expansion
Moderator: Bill Hayes (Iowa Public TV)
Presenters: Tom Silliman and Kathy Stiler (ERI)

2:00 PM - Tutorial – Computer Simulation Tools for Broadcast Engineering
Session Chair: Eric Wandel – Wavepoint Research, USA

1) *Overview of Computer Simulation Tools Used in Broadcasting*
Eric Wandel – Wavepoint Research, USA
2) *Allocation Analysis*
Bill Meintel –Meintel, Sgrignoli & Wallace, USA
3) *Propagation Analysis*
Sid Shumate – Givens & Bell, Inc., USA

4) *Antenna and RF Component Modeling / Optimization*
Eric Wandel – Wavepoint Research, USA

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5) *Medium Frequency Simulation Methods*
Ben Dawson – Hatfield & Dawson Consulting Engineers, USA
6) *Intermodulation and Other Interference Studies*
Greg Best – Greg Best Consulting, USA
7) *RF Exposure Simulation and Compliance*
Martin Doczkat – FCC OET, USA

6-9:00 PM Welcome Reception
Sponsored by SAS

THURSDAY, 18 OCTOBER

BREAKFAST SPONSOR – RICHLAND TOWER

8:30 AM - Welcome and Opening Remarks
Symposium Co-Chairs: David Layer – NAB, USA
Paul Shulins – Greater Media, USA

8:45 AM - RF Issues and Technology
Session Chair: Greg Best – Greg Best Consulting, USA

1) *Facilitating Live TV in Different Scenarios Using Cellular Bonding Technology*
Ariel Galinsky – LiveU, USA
2) *Efficient Codec Design, Internet Anomaly Correction and Embedded Cellular Technology Make Single Modem ENG Practical*
Joe Giardina & William Stack– DSI/RF Systems, USA
3) *An Update to the All-pass Diplexer: Imperfect Conditions and How to Account For Them*
Nick Paulin – ERI, USA

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4) *FM Transmitter Considerations for Improved FM Analog/Digital Combining Systems*
Kerry Cozad – Continental Electronics, USA
5) *Interference from Passive Intermodulation (PIM) – Keeping the Red Flag Flying*
S. Merrill Weiss – Merrill Weiss Group, USA

6) *Incentive Auction Update*
Bob Weller – FCC, USA

Noon - Joint BTS/AFCCE Luncheon
Speaker – Kevin Gage, EVP & CTO, NAB

2:00 PM - Mobile DTV
Session Chair: Lynn Claudy – NAB, USA

1) *Field Evaluation of Mobile Receiver for Legacy ATSC*
Tomoaki Iwai – Pioneer America, USA
2) *Mobile Emergency Alert System: A New Means of Alerting the Public*
Wayne Luplow – Zenith, USA
James Kutzner – PBS, USA
3) *Conditional Access in Mobile DTV*
Jay Adrick – Harris Broadcast Comm., USA

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4) *The Consumer Launch of Dyle Mobile TV*
Rajan Mehta – NBC Universal, USA
5) *New Audio Considerations for Mobile DTV*
Tim Carroll – Linear Acoustic, USA

6-9:00 PM Manufacturers Reception
Sponsored by DSI, ERI, Harris, Jampro, Myat Nautel, RFS, Shively Labs, SPX, Stainless

FRIDAY, 19 OCTOBER

8:30 AM - Audio for Radio and TV
Session Chair: James O'Neal – NewBay Media, USA

1) *FM Stereo Transmission Using Single Sideband Suppressed Carrier (SSBSC) Modulation*
Frank Foti – Telos/Omnia, USA
2) *Introducing IEEE 802.1 AVB for Professional Audio and Video over IP Networks*
Al Salci – Sierra, USA
3) *Network Considerations When Implementing an Audio over IP Console/Routing System*
Kelly Parker – Wheatstone, USA

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4) *Using the ITU BS.1770-2 and CBS Loudness Meters to Measure Loudness Controller Performance*
Bob Orban – Orban, USA
5) *Audio Compression Codecs: Are We Squeezing the Life Out of Radio?*
Mary Ann Seidler & Herb Squire – Elenos, USA
6) *Audio Panel*
Moderated by Paul Shulins – Greater Media, USA
Panelists: Bob Orban, Frank Foti, Tim Carroll, Al Salci, Kelly Parker, Mary Ann Seidler

Noon - IEEE/BTS Awards Luncheon
Speaker – Sam Matheny, VP Policy & Innovation, Capitol Broadcasting
Sponsored by NewTek

2:00 PM - Future of Broadcasting
Session Chair: S. Merrill Weiss – MWG, USA

1) *Technologies for the Next Generation of Digital Terrestrial Television Broadcasting*
Shingo Asakura – NHK, JAPAN

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2) *FoBTV Overview*
Mark Richer – ATSC, USA
3) *FoBTV Scenario/Use Cases*
Skip Pizzi – NAB, USA
4) *Progress in "ATSC 3.0" the Next Generation Broadcast Television*
Jim Kutzner – PBS, USA

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LUNCHEONS & RECEPTIONS

WEDNESDAY, 17 OCTOBER

Box lunch

6-9PM
Welcome Reception
Sponsored by:

SAS

Entertainment provided by Da Vinci Strings

THURSDAY, 18 OCTOBER

Joint luncheon with the Association of Federal Communications Consulting Engineers (AFCCE)

Thursday 6-9 pm
Manufacturers Reception
Sponsored by
DSI, ERI, Harris, Jampro, Myat, Nautel, RFS, Shively Labs, SPX, Stainless

FRIDAY, 19 OCTOBER

IEEE BTS Awards Luncheon
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BROADCAST SYMPOSIUM

The 2012 IEEE Broadcast Symposium, presented by the IEEE Broadcast Technology Society (BTS), features technical presentations of significant, recent, and important technical topics of interest to engineers, scientists, consultants, educators, regulators, and others in the field of radio and television broadcast technology. In addition to the high quality technical papers, the Broadcast Symposium provides an excellent opportunity for attendees to discuss broadcast technology ideas, issues, and problems, with their peers, manufacturers, broadcasters, and standards group representatives.

REGISTRATION

Registration is required for admission to all sessions and is open to IEEE members and non-members. Those registered in advance may pick up their registration packets at the registration desk located in the lobby outside the Edison Ballroom. Paid conference registrants will receive a USB flash drive containing the conference record.

> **ARCHIVED SESSION AVAILABLE**
>
> **Please visit the registration desk for information on how to purchase recordings of the sessions at this year's Broadcast Symposium online.**

IEEE

IEEE Broadcast Technology Society

445 Hoes Lane
Piscataway, NJ 08854 USA
Tel: +1 732 562 3906
http://bts.ieee.org

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2012 IEEE BROADCAST SYMPOSIUM

Technical Program

17-19 October 2012

The Westin Alexandria Hotel Alexandria, Virginia USA

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