PUSH Radio is a term that we’ve coined to describe the advances in technology that we have experienced over the past several years and how they push the boundaries of the traditional time-based studio to transmitter radio content delivery concept and permit a more flexible, free-form methodology for content delivery – it could be used to empower listener interactivity, link to web content, decentralize the studio and put more employees out in the street interacting with the listeners, among other things. It also permits more flexibility of engineering, so that an engineer can be at one site troubleshooting a transmitter at another site and interacting with tech support via phone – with both sides of the conversation seeing the same data in real time. Join me as we look into PUSH Radio.

Broadcasters may now increase their digital signal power in most cases, to average levels as high as 10 percent of the analog power. Transmitting more digital power will certainly increase the digital coverage area and reduce digital dropouts. However, there may be some unintended consequences which every broadcaster will have to evaluate before increasing digital power. Most broadcast revenue derives from the analog signal – for that reason, analog should be protected. Self-interference which adds noise to the analog signal is one such effect. Another effect is negative envelope modulation caused by the linear addition of digital sidebands. If peak to average ratio reduction systems do not control negative envelope modulation peaks, the result can be transient capture of the FM demodulator by the digital signal.

It seems so long ago that Audio Over IP (AOIP) was “the dream”. Think of it, the highest quality digital audio flowing around the station just like the internet just waiting for us to tap into or to source. No more custom audio cabling running upwards of several dollars a foot to pull, attempting to manage pair counts in and out of studios and so on. That was the dream, but this time the dream came true and now its reality and it really works. Learn about the migration!

This paper will express, in detail, a method utilizing single sideband suppressed carrier (SSBSC) modulation of the stereophonic subcarrier in the FM multiplex baseband that is compatible with existing radio receivers. Additionally, there are multiple overall benefits to the broadcast signal, which are perceivable to the listener. They reduce multipath induced distortion, and offer additional protection to the spectrum used for RDS, SCA signals, and HD-Radio content - thereby improving data robustness in the receiver.

With the revision in the permissible service for FM translators, much new interest has been generated in this secondary service. In this presentation we...
6:00 PM - 10:00 PM - SBE Board of Directors Meeting
Location: Greenway
7:30 PM - Nuts & Bolts Session “War Stories and Your Stories”
Location: Superior
Sponsored By: Resonant Results

WEDNESDAY, OCTOBER 27

7:00 AM - Registration & Continental Breakfast
Location: Lobby
Sponsored By: Wisconsin Broadcasters Association

8:00 AM - Fellows Breakfast (By Invitation Only)
Location: Salon C

8:30 AM - Broadcast Tower Failures: Causes and Cures
Location: Superior
Speaker: David Davies, ERI
Moderator: Gordon Carter
The presentation will discuss the top five reasons towers fail. An in-depth compilation of data, including a large collection of graphics combined with mathematical explanations of these failures, demonstrates without a doubt, how the previous design standards have proven inadequate. A portion of this presentation addresses several successful methods of risk detection and reduction. Upon conclusion, it will be an undeniable fact: Had preventative measures discussed in this presentation been implemented, over 75% of tower failures could have been prevented.

9:15 AM - Coax Versus Coax
Location: Superior
Speaker: Steve Lampen, Belden
Moderator: Gary Mach
There are hundreds of different coaxial cables to choose from. Even when we concentrate on just 75 ohm versions, there is still a dizzying selection. Why are there so many? How are they different? What are their advantages and disadvantages in performance, ruggedness, life, cost? Even shielding options, and shield effectiveness (transfer impedance), is a major issue. This presentation covers all of this and more including low and high-frequency applications, and the performance of connectors.

2:00 PM - National Certification Committee Meeting
Location: Madison Board Room

2:30 PM - Break
Sponsored By: Nautel

2:45 PM - IP Audio Untethered: Harnessing IP Microwave Links for STL
Location: Superior
Speaker: Mark Hile, CommConnect LLC
Moderator: Jason Mielke, WCLO/WJVL
Computer IP networks continue to merge with traditional studio facilities and the recent popularity of IP-based consoles and routers seems poised to supplant analog and AES digital-based facilities for some time to come. As IP-audio becomes the norm in the studio, it makes sense to continue that IP transport over the Studio To Transmitter (STL) links to the transmitter site. Mark will bring his years of experience with various microwave link manufacturers to this presentation on the evolution of private microwave links over IP. He’ll expose the wireless carrier market and how to plan and commission microwave links.

3:30 PM - Who Moved My Battleground?
Location: Superior
Speaker: Brian Foster, NextMedia360
Moderator: Greg Dahl, Second Opinion Communications
While Radio spent the last few years gearing up for the interactive war, end users changed the battleground. The new frontiers no longer the computer, it was the smart phone. Join Brian Foster, Vice President of NextMedia360 as we look at the affect mobile devices are having on our audiences. We will discuss new technologies, cover the barriers of entry, and forecast how the next 6 months will play out. Brian has a well rounded knowledge of the industry and can help arm you with the tools to justify investment in this space with all departments back home.

4:15 PM - 7:30 PM - Broadcasters Clinic Exhibits Open/Exhibitors Reception
Location: Wisconsin, Michigan
Sponsored By: Wisconsin Broadcasters Association

5:00 PM - 6:00 PM - SBE Board of Directors Dinner
Location: Green Bay
1:30 PM - Keeping an Eye on Your Tower and RF System
Location: Superior
Speaker: Richard Wood, Resonant Results
Moderator: Bill Hubbard, UW-Green Bay
This presentation will include tips on what to look and listen for during a site visit, how to find RF noise sources on a tower, proper VSWR monitoring methods, rigging guidelines, and changes in the EIA/TIA tower codes, along with great shots from the top down.

2:15 PM - Discover How SBE Can Help Take Your Career to the Next Level
Location: Superior
(From left to right)
Jim Bernier, CPBE, CBNT, Chair, SBE Certification Committee, Turner Entertainment Networks, TBS, Inc.
Vinny Lopez, CEV, CBNT, SBE President, WSYT/WNYS TV
David Priester, CPBE, Chair, SBE Education Committee, Ithaca College
Megan Clappe, SBE Certification Director
Kimberly Kissel, SBE Education Director
John Poray, CAE, SBE Executive Director
Moderator: Leonard Charles, Television Wisconsin Inc.
The SBE has a host of programs designed to help members advance their careers through professional development. This session will explore the SBE Program of Certification and SBE Education Program. The presentation, delivered by national committee leadership and staff, will cover the SBE University series of on-line, on-demand courses; live and recorded webinars; traditional in-person seminars and certification and recertification eligibility and procedures. Other career services, such as the recently improved SBE JobsOnline, SBE ResumeBank and SBE Bookstore, will also be discussed. SBE members have access to all of these services which, when used together, can help advance your career.

3:00 PM - Break
Sponsored By: Nautel

3:15 PM - The Receive Side of the Digital Television Equation
Location: Superior
Speaker: Kevin Kukowski, Milwaukee Public Television
Speaker: Brad Eckwielen, Digitenna
Moderator: Kent Aschenbrenner, Milwaukee Public Television
An open forum discussion of what we are learning about digital television reception. Topics will include signal measurement, outdoor and indoor antennas, VHF and UHF, signal amplification, antenna location, and long distance reception.

4:00 PM - 5:00 PM - SBE Membership Meeting
Location: Salon E

5:00 PM - SBE Awards Reception
Location: Atrium
To register for the SBE National Awards Dinner, please go online to www.sbe.org/cal_conv.php then scroll down to SBE National Meeting in conjunction with Wisconsin Broadcasters Association Clinic.

6:00 PM - SBE National Annual Awards
Location: Salon D

THURSDAY, OCTOBER 28
7:45 AM - Registration & Continental Breakfast
Location: Lobby
Sponsored By: Wisconsin Broadcasters Association
8:30 AM - Optimizing TV Transmitting Antennas for ATSC-M/H Mobile DTV
Location: Superior
Speaker: Bill Ammons, Micronetixx, Communications
Moderator: Kevin Ruppert, WISC-TV
Mobile TV is coming. This presentation is an under the radome look at how to design TV broadcast antennas to provide the best coverage for mobile TV. We will look at some of the design rules for antennas and explore a few mobile TV projects.
9:15 AM - The State of the Art of Displays
Location: Superior
Speaker: Bob Manes, Sony
Moderator: Mark Burg, Grant Media LLC

The presentation will provide an overview of the latest display technology developments. It will cover topics such as LCD technology, Plasma, and OLED. It will review the latest product offerings from most manufacturers and discuss what is on the horizon included in the presentation will be detailed discussion on how these work as well as state of the art.

10:00 AM - Break
Sponsored By: Nautel

10:15 AM - The State of the State of Mobile TV
Location: Superior
Speaker: Sterling Davis, Cox Media Group
Moderator: Leonard Charles, Television Wisconsin Inc.

Results of OMVC’s Washington Consumer Showcase will be presented along with how the event was conducted. In addition there will be an overview of the current status of the various mobile TV initiatives.

11:00 AM - New Directions for Digital TV
Location: Superior
Speaker: Wayne Luplow, Chair of the ATSC, Zenith Electronics
Moderator: Gary Mach

With the transition to digital television rapidly becoming a distant memory, the ATSC DTV system for transmitting high-definition and/or multiple program streams is well established. The new frontier for ATSC is mobile services. This presentation will review the status of ATSC Mobile DTV and related technologies currently under development. In addition, work on ATSC 2.0 - the umbrella term for next-generation services to fixed receivers - and advanced delivery of non-real-time services will be outlined.

12:00 PM - Lunch
Location: Monona
Sponsored By: RCS

1:15 PM - The Broadband Plan
Location: Superior
Speaker: David Donovan, MSTV
Moderator: Leonard Charles, Television Wisconsin Inc.

This slide presentation will summarize the FCC’s national Broadband Plan. Donovan will outline the Notices of Proposed rulemakings that are scheduled to be published in the 3rd quarter of this year. The presentation will also assess the impact of reallocating up to 120 MHz of spectrum from the TV broadcast industry.

2:00 PM - Impacts of 3D Television on Video Distribution and Broadcasting
Location: Superior
Speaker: Dan Holden, Comcast
Moderator: Kent Aschenbrenner, Milwaukee Public Television

New display technologies that are being deployed in the home are now capable of delivering a stereoscopic, three-dimensional illusion of depth TV experience. This presentation will explore the end-to-end requirements from production to display technology for delivering frame compatible and full resolution 3D television. Comparison of anaglyph, stereoscopic, and auto-stereoscopic technologies will be presented. Encoding technologies, including MVC, and transport requirements for broadcast will be covered in depth.

2:45 PM - 3D From Science Projects to Business Models
Location: Superior
Speaker: Mike Bergeron, Panasonic Solutions
Moderator: Bill Hubbard, UW-Green Bay

This session will be a discussion of historical and modern techniques for 3D image acquisition and presentation; including engineering hurdles to overcome; and how existing technologies can be applied to create a viable 3D acquisition system capable of delivering high quality 3D with minimal modifications to 2D production techniques and business practices.

Join us next year for the 2011 Broadcasters Clinic
October 11-13
Madison Marriott West Hotel
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Clinic Committee and WBA Staff
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(List is inconclusive. See Exhibitors Map in your Attendee Packet for complete listing.)
DATES
Tuesday through Thursday, October 26-28, 2010

LOCATION & ACCOMMODATIONS:
All sessions of the Broadcasters Clinic 2010 are held at the Madison Marriott West, located at 1313 John Q. Hammons Drive, Middleton. Please make your own room reservations with the Marriott West. The hotel telephone number is 608-831-2000. We suggest that you make your reservations before Friday, October 8, 2010, while discounted rooms are being held for the clinic. The discount rate is $109. Please specify that you are attending the 2010 Broadcasters Clinic.

FEE
$130 - Any two days  $150 - All three days
Fee covers program materials, continental breakfasts and luncheons as indicated, refreshment breaks, and an evening reception with hot hors d’oeuvres (cash bar). Vegetarian meals can be requested by calling the WBA office at 1-800-236-1922, by October 1, 2010.

The above fees do not include the SBE Awards Dinner. Please see below for more information.

PLEASE FILL OUT COMPLETELY

Name: ____________________________________________
Organization/Station:_________________________________________________________
Business Address:_____________________________________________________________

Phone: ____________________________ Email: ____________________________

Amount enclosed: $ _______________
Mail this form and your check by October 1, 2010 made payable to Broadcasters Clinic:

To pay by credit card please complete the following:

Name on Card: ____________________________________________ Daytime Phone: ____________________________
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Signature Required: ____________________________________________

Linda Baun
WBA
44 E. Mifflin Street, Suite 900
Madison, WI 53703

To Register By:
Phone: 1-800-236-1922
Fax: 608-256-3986
Online: www.wi-broadcasters.org

GENERAL INFORMATION

DATES
Tuesday through Thursday, October 26-28, 2010

LOCATION & ACCOMMODATIONS:
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The WBA will need to guarantee meal counts with the hotel, therefore the WBA will NOT refund any cancellations made after Monday, October 11, 2010. The WBA will also invoice for all “no-shows.”

SBE AWARDS DINNER
To register for the SBE National Awards Dinner, please go online to www.sbe.org/cal_conv.php then scroll down to SBE National Meeting in conjunction with Wisconsin Broadcasters Association Clinic.

INFORMATION
For further conference or exhibitor information, contact: Linda Baun, 800-236-1922, lbaun@wi-broadcasters.org

REGISTRATION
To register by phone, please call: 1-800-236-1922
Fax to: 608-256-3986
Register Online at: www.wi-broadcasters.org

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