



# The Society of Broadcast Engineers

**Fox Valley Wisconsin SBE Chapter 80 PO Box 1519  
Appleton, WI 54912-1519**

**May 2016**

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Our next SBE Chapter 80 meeting will be at the Camera Corner Expo on Tuesday May 10<sup>th</sup> **one week earlier than usual**

Newsletter Editors Corner

Chapter 80 members,

Greetings

Our April meeting was our annual NAB convention recap

Our May meeting will be the Camera Corner Expo at the KI Convention Center in Green Bay on Tuesday May 10<sup>th</sup> one week earlier than usual. Be sure to register in advance. The link is below. Parking is available in the ramp across the street or on the ramp down the block

Don't forget to sign up for the 2016 SUMMER CONFERENCE MTI & ENGINEERING DAY held in LaCrosse this year coming in June

Looking forward to seeing you Camera Corner Expo next week

Dave

## **Upcoming meetings and events:**

**JUNE 22 ENGINEERING DAY - Wisconsin Broadcasters Association 2016 SUMMER CONFERENCE MTI & ENGINEERING DAY The Radisson, La Crosse WI**

## **SBE Certification**

<b>2016 EXAM SESSION</b>	<b>APPLICATION DEADLINE</b>
June 3-13	April, 19, 2016
August 5-15	June 3, 2016
November 4-20	September 30, 2016

If you have any questions contact the Certification Director, [Megan Clappe](#).

## CHAPTER 80 ELECTED AND APPOINTED OFFICERS

Chairman	Mark Hoenecke	WPT	715-845-1319	Mark.Hoenecke@ecb.org
Vice Chairma	Stu Muck	Muck Broadcast Services	920-960-0045	mbsfdl@yahoo.com
Past Chairman	Steve Konopka	WPNE TV/FM	920-336-3541	skonopka@ecb.org
Treasurer	Steve Brown	WHBY WAPL WKSZ WZOR	920-733-6639	sbrown@wcinet.com
Secretary	Keith Kintner	UWO	920-424-7357	kintner@uwosh.edu
Program Chairman	John Pfankuch	Heartland Video Systems	920-893-0204	jpfankuch@hvs-inc.com
Membership Chairman	Mark Friedman	WPNE TV/FM	920-336-3541	mfriedman@ecb.org
Sustaining Membership	Stu Muck	Muck Broadcast services	920-960-0045	MBSFDL@yahoo.com
Frequency Coord. < 1 GHz	Tim Laes	WGEE WIXX WNCY WROE	920-435-3771	tlaes@new.rr.com
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Certification Chairman	Jim Sams	Retired	920-822-5951	jsams@netnet.net
Chapter 80 Webmaster	Mike Steele	WHBY	920-831-5605	msteele@wcinet.com
EAS Coordinator	Steve Konopka	WPNE TV/FM	920-336-3541	skonopka@ecb.org
Board of Dirs/SBE Liaison	Keith Kintner	UWO	920-424-7357	kintner@uwosh.edu

# MISSION: POSSIBLE

## CAMERA CORNER

## CONNECTING POINT



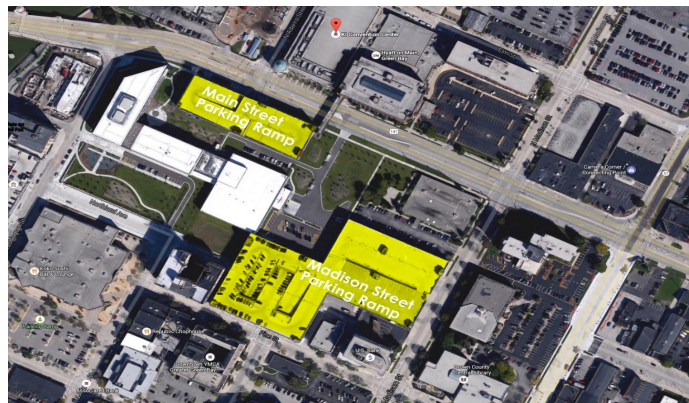
**ANNUAL TECH EXPO | TUESDAY, MAY 10, 2016**

**EXPO UPDATES AT [www.cccp.com/tech-expo-2016](http://www.cccp.com/tech-expo-2016)**

### Register for the Expo

Preregistration is required, so be sure to **register now**.

**Expo Parking** There are two parking ramps that are very close to the KI Convention Center. One is located on Main Street directly across the street from the KI. There is a walkway on the second level that connects the ramp with the Convention Center. If that parking ramp is full, we suggest the Madison Street Ramp as an alternate. Entrance to this ramp can be found on Madison or Pine and a sidewalk on the north side of the ramp will take you through the green space to Main Street and to the KI Center.



## SBE RF Safety Webinar is May 12

The SBE [RF Safety webinar](#) will be presented live on Thursday, May 12 from 1 - 4:30 p.m. ET by RF safety expert Richard Strickland of RF Safety Solutions. The course provides an overview of RF radiation issues and practices for broadcasters. Course content is updated regularly.

The SBE RF Safety Course is designed for chief and assistant chief engineers, transmitter site engineers, ENG and SNG maintenance personnel and management that need to have an understanding of RF safety issues and regulations. A certificate of completion is available to participants who complete the webinar, providing evidence of RF safety awareness training.

Strickland founded [RF Safety Solutions](#) in 2001 after ten years as Director of Business Development for Narda Safety Test Solutions, the world's leading supplier of RF safety measurement and monitoring products. As director of the RF safety business at Narda, Strickland determined which products were developed and their performance characteristics. He initiated the development of RF radiation training courses at Narda and has conducted courses ranging from basic employee awareness seminars to in-depth application specific courses. Strickland holds an MBA from the University of Massachusetts and a B.A. in physics from Bridgewater College. He has had more than 50 articles published on RF safety, high-power amplifiers and radomes and has conducted more than 500 public and in-house training courses on RF safety and measurement.



Completion of this webinar from Webinars by SBE qualifies for one credit, identified under Category I of the Recertification Schedule for SBE Certifications. Fee for SBE Members is \$95. Fee for non-members is \$150. [Register online](#) at the SBE website.

More >

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## AM Ground Systems Webinar May 19

[AM transmission systems](#) require the use of a specific ground system that is designed as part of the antenna. These systems are often a source of mystery to the uninitiated. In this webinar we will focus on understanding AM antenna systems and the need for ground systems. We will discuss theory, design standards, FCC requirements, good engineering practice, installation process, maintenance and troubleshooting.

Instructing is Stephen Lockwood, P.E., PMP, senior engineer and partner with Hatfield & Dawson Consulting Engineers. Lockwood has more than 30 years experience in the field of broadcast and telecommunications engineering. He is a Registered Professional Electrical Engineer in Washington, Alaska and Wyoming and holds B.S. degrees in Electrical Engineering and Engineering Physics from Oklahoma Christian University. He is a member of the Society of Broadcast Engineers and holds the Certified Professional Broadcast Engineer and AM Directional Specialist SBE certifications. He is also a Senior Member of IEEE, member and past president of the Association of Federal Communications Consulting Engineers (AFCCE) and is a member of the Project Management Institute where he is certified as a Project Management Professional. Lockwood also holds Amateur Radio Operator License K7SSL.

Completion of this webinar qualifies for 1 credit, identified under Category I of the Recertification Schedule for SBE Certifications. This one-hour webinar begins at 2 p.m. ET. Cost for members of the SBE is \$55. The non-member fee is \$85. [Register](#) at the SBE website.

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## HD Radio Diversity Delay Field Observations Webinar is June 1

The hybrid digital and analog broadcasting solution deployed in the United States, FM and AM IBOC, more commonly known as HD Radio (a trademark of DTS), allows simultaneous transmission of broadcast radio signals in both the analog and digital domain. A key component is that receivers can immediately acquire the analog signal and then transition (or blend) into the digital signal after it has acquired and buffered.

Audible blending artifacts are the top HD Radio complaint from auto manufacturers and consumers. The majority of the problems can be traced back to individual broadcast stations. The industry has long relied on manual

management of diversity delay and time alignment. However, the results in the field often have shown us that stations set manually have been known to drift over time.

This presentation will cover some of the causes of drift and how they can be resolved. However, we have learned there are a myriad of potential problems that can cause drift that are out of the control of any individual device that has been traditionally installed in the broadcast chain. What is needed is a systems approach to the problem. This presentation will discuss implementing various combinations of hardware and/or software to provide continuous monitoring and adjustment of diversity delay in real-time to reduce or eliminate the objectionable blending artifacts impacting listeners.

The [HD Radio Diversity Delay Field Observations](#) webinar will be held on Wednesday, June 1 beginning at 2 p.m. ET and will last for 90 minutes. It is available **FREE to SBE members** thanks to the sponsorship of HD Radio. Non-member fee is \$55. Everyone must [register in advance](#).

Instructing is Alan Jurison, CSRE, AMD, DRB, CBNE, senior operations engineer for the Engineering and Systems Integration group of iHeartMedia. Much of his focus has been on deploying and advancing iHeartMedia's digital HD Radio data services.

Jurison holds a B.S. in Information Management and Technology from Syracuse University. He is a member of the Society of Broadcast Engineers and holds the Certified Professional Broadcast Engineer, AM Directional Specialist, Digital Radio Broadcast and Certified Broadcast Networking Engineer certifications from the SBE.

Completion of this webinar qualifies for one credit, identified under Category I of the Recertification Schedule for SBE Certifications.

## Recruit a new SBE Member by May 31

The annual SBE member drive, this year themed as [The Road to Success](#), ends May 31. New members are welcome throughout the year, but by recruiting even just one new member during the drive, you'll be eligible to win some great prizes. For more information on how to find and recruit a new member and the full list of prizes available, visit the [member drive](#) webpage.

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## New Video Available to Help Recruit, Prepare Chapter Leaders

The SBE has produced an 11-minute video that explains the basics of SBE chapter operation. The video is ideal for new or even experienced chapter chairs and other officers, as well as a tool to use when recruiting prospective chapter leaders. The video is available for viewing at the SBE [Chapters/Administration](#) page, under the Chapter Leadership Training heading, and also on the SBE's [YouTube channel](#).

**Wisconsin Broadcasters Association  
2016 SUMMER CONFERENCE  
MTI & ENGINEERING DAY  
The Radisson, La Crosse WI  
ENGINEERING DAY - JUNE 22**



8:45 AM: Risk Management in a Broadcast Enterprise

Mike Epstein, Sr. Director of Risk Management, Scripps

What are the risks in a broadcast complex and how to address them will be discussed in this session. Mike will also cover business continuity and physical security including active shooter situations.

9:30 AM: Tower Site Security and FAA Lighting Changes

Rich Wood, President, Resonant Results

Out of sight doesn't have to mean less secure. Rich will talk about ways your tower site is threatened and what you can do to make it more secure. Rich will also describe the latest FAA circular and what it means for your tower.

10:15AM: BREAK

10:30 AM:

Information Security: What Are the Hackers Up to Now?

Dave Kieper, Interim Chief Information Officer, UW Green Bay

David will describe the current motivation and methods used by the internet hacker community and discuss defense strategies to mitigate their attacks.

11:15 AM:

An Amber Alert Incident Debrief

Jennifer Price, Director, Special Operations Bureau, CART Commander, WI DOJ-DCI

Michelle DuBois, Coordinator, Wisconsin Clearinghouse for Missing & Exploited Children & Adults

We will dissect an actual child abduction incident that resulted in an Amber Alert in Wisconsin. What were the steps that lead up to the Alert and what process was used to determine an Alert was needed.

12:00 PM: LUNCH

1:30 PM: The Growing Impact of Ambient Noise on Broadcasting

Steve Johnston, Director of Engineering and Operations, Wisconsin Public Radio

Growing levels of unintended "noise" are interfering with reception of RF signals from radio and television stations. This presentation will discuss the problems we face, pinpoint common sources of the noise, and propose possible resolution.

2:15 PM:

Ask the Manager

In this session the audience will have a chance to ask non engineering managers questions about anything.

On the panel will be: HR Manager: Jeff VerVoort, Morgan Murphy Media Radio Manager: Nancy Douglas, CTJ Communications Finance Manager: Paul Rahmlow, Midwest Communications, Inc. TV Manager:

Steve Lavin, WBAY TV

3:15 PM: BREAK

3:30 PM: The Round Tables

Everyone's voice is heard in this session. We will split the audience into four subgroups and talk about four timely topics. Then we'll hear a report of each discussion. These are the topics:

Table 1: The Broadcast Sales Tax Exemption, Kevin Ruppert, Chair

Table 2: The FM Translator Buildout, Greg Dahl & Jason Mielke, Co-Chairs

Table 3: X-OIP, Clif Groth & Matt Sperling, Co-Chairs

Table 4: Working with Millennials, Kent Aschenbrenner & Bill Hubbard, Co-Chairs

4:30 PM: Exhibits and Reception

## **WBA Media Technology Institute Scholarships**

How would you like to offer an opportunity to a Student to attend the WBA Media Technology Institute June 20-23 at the Radisson in La Crosse? The WBA is offering two scholarships to attend this year's Institute. Scholarships include Hotel and Registration. The WBA provides most meals as well. To apply, contact Linda Baun at [lbaun@wibroadcasters.org](mailto:lbaun@wibroadcasters.org). Keep in mind that only two scholarships to this program will be awarded. More about the Institute.... Media Technology Institute (MTI) (see next page) offers practical, instructional courses suitable for prospective, beginning, intermediate, and senior broadcast/media engineers. This four day program is presented by experienced broadcasting professionals. The program consists of three days of instructional content, one additional day of technical seminars and a broadcast equipment exposition as part of the WBA Summer Broadcast Engineering Conference, and concludes with an opportunity to tour a radio/TV technical facility near La Crosse. Underwriting for MTI is provided by the Wisconsin Broadcasters Association and Midwest Communications.

### **Media Technology Institute June 20-23, 2016 Radisson Hotel & Convention Center La Crosse, Wisconsin**

Media Technology Institute (MTI) offers practical, instructional courses suitable for prospective, beginning, intermediate, and senior broadcast/media engineers, in a four day program presented by experienced broadcasting professionals. The program consists of three days of instructional content and one additional day of technical seminars and a broadcast equipment exposition as part of the WBA Summer Broadcast Engineering Conference.

Location: Illinois Room

10:00 am: Welcome by Michelle Vetterkind, WBA President/CEO, followed by a discussion of the schedule by Terry Baun

10:15 am: "A brief Introduction to the history and challenges of Broadcast/Media Technology" with Terry Baun

10:30 am - 12:00 pm: "Big iron-Antennas, towers, and transmission lines" with Richard Wood

12:00 pm: Lunch

1:30 pm: "Engineering Your Career in a Broadcast Station" with Bill Hubbard

3:30 pm - 5:00 pm: Welcome Reception

Location: Illinois Room

9:00 am: "RF Fundamentals" with Terry Baun

12:00 pm: Lunch

1:30 pm: "Facility Design" with Bill Hubbard

3:30 pm: "Understanding Audio levels and Measurement Standards" with Jim Klas

5:00 pm: Dismiss

Location: Zielke Suite 1, La Crosse Center

8:45 am: WBA Engineering Day Sessions

12:00 pm: Engineers Luncheon at the WBA Summer Conference

1:30 pm: WBA Engineering Day Sessions Continued

5:00 pm: WBA Equipment Exhibits, Reception and Dinner

Location: Illinois Room

9:00 am: "Engineering on a (no) budget and Site Grounding/Safety issues" with Jeff Welton

11:00 am: "Business Basics for Broadcast Engineers" with Jim Klas

12:00 pm: Lunch

1:30 pm: "The Continuing Confluence of IT and RF Technologies" with Terry Baun

2:00 pm: Field trip to WHLA FM/TV site in Minnesota

The WBA is offering two scholarships to attend this year's Institute. Contact Linda at [lbaun@wibroadcasters.org](mailto:lbaun@wibroadcasters.org).

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