



The Society of Broadcast Engineers

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

April 2013

The next meeting of SBE chapter 80 will be Tuesday April 16th at the Out of Town club at noon. Our program will be a review of this years National Association of Broadcasters convention by chapter members.

Chairman's Corner

Greetings Everyone,

Members and guests are welcome at our upcoming Chapter 80 meeting and program to be held on Tuesday, April 16th, 2013 at the Out O' Town Club in Kaukauna.

As we see the snow melting and the creeks beginning to flow, it's that time of year again for our NAB Convention Review. Several of our Chapter 80 members and guests who will have freshly returned from this April 6-11, 2013 event in Las Vegas have offered to contribute to our program in sharing what they've learned regarding new broadcast products and industry trends.

I wish to take this opportunity to recognize new Chapter 80 member, Gary Trendera. Welcome Gary, we look forward to seeing you!

Our last meeting was Tuesday, March 19th, 2013 at the Out O' Town Club where we enjoyed a presentation by Megan Wagoner of Digital Broadcast about video archiving. We thank Megan for buying our meal!



A reminder that our Newsletter, Chapter 80 items of interest and a host of other SBE information are posted on our website <http://www.sbe80.org>.

Future Events:

Statewide Test Of Tornado Warning EAS Code On April 18

Tuesday May 21, 2013 Camera Corner annual tech show

We look forward to seeing you at noon on Tuesday, April 16th.

Regards,
Steve Konopka

Certification

Exam Dates	Location	Application Deadline
April 9, 2013	NAB Convention	March 22, 2013
June 7-17, 2013	Local Chapters	April 12, 2013
August 9-19, 2013	Local Chapters	June 1, 2013
November 1-11, 2013	Local Chapters	September 13, 2013

CHAPTER 80 ELECTED AND APPOINTED OFFICERS 2011-2012

Chairman	Steve Konopka	WPNE TV/FM	920-336-3541	skonopka@ecb.org
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Board of Dirs/SBE Liaison	Keith Kintner	UWO	920-424-7357	kintner@uwosh.edu

Reinstate lapsed certification through the Jubilee Project

The SBE Certification Committee has announced a special opportunity for individuals who have allowed their SBE certification to lapse, to regain it with no exam required. The Jubilee Project, named for the SBE 50th anniversary that takes place in 2014, is for those who previously held an SBE certification that expired from January 1999 through January 2012.

All SBE certifications are included in the re-instatement program. For details, see the article on page six in the April issue of The Signal.

SBE Frequency Coordinators to meet during NAB Show

For those who will be attending the NAB Show next week, SBE will hold its annual meeting of Frequency Coordinators on Tuesday, April 9 from 10 am to 12 noon. The meeting will be held in Conference Rooms 13-14 of the LVH (formerly the Las Vegas Hilton Hotel). Chairman, Joe Snelson will lead the meeting. The agenda will include a discussion of current spectrum and coordination issues. SBE General Counsel, Chris Imlay will also take part. Show registration is not required to attend.

IP Multicast webinar April 25

IP Networking, part 6, an Introduction to IP Multicast is the next webinar from the IP Networking series. It will be conducted live on Thursday, April 25 from 2 to 3:30 pm ET.

IP Multicast is a unique aspect of IP Networking technology that provides "one - to - many" communications between a source IP host and numerous subscriber IP hosts. The use of IP Multicast for delivery of real-time media content often finds widespread use in the broadcast facility.

The webinar will focus upon understanding Multicast terminology, the addressing utilized, and the basics of switching and routing in a multicast IP network. Practical implementation examples to deliver AoIP and IPTV content will be utilized to illustrate the theoretical concepts presented. The webinar will also help participants prepare for the SBE CBNET™ certification exam.

Instructing is Wayne Pecena, CPBE, 8-VSB, AMD, DRB, CBNE, Assistant Director of Educational Broadcast Services in the Office of Information Technology at Texas A&M University. In this position, Pecena serves as the Director of Engineering of TTVN: The Enterprise Videoconference and Data Network serving the Texas A&M University System and Public Broadcast stations KAMU-TV and KAMU-FM serving the Brazos Valley area. (sbe.org)



Take an SBE certification exam at the NAB Show

Have you been thinking about taking an SBE certification exam soon? Will you be attending the 2013 NAB Show in Las Vegas, April 6-11? If the answer to both of these questions is yes, consider taking the exam while attending the show. The SBE will be providing the opportunity to take an exam during the show on Tuesday, April 9 from 9 am to 12 pm, PT. Any SBE certification exam, regardless of level, may be taken during this session. Pre-registration is required.



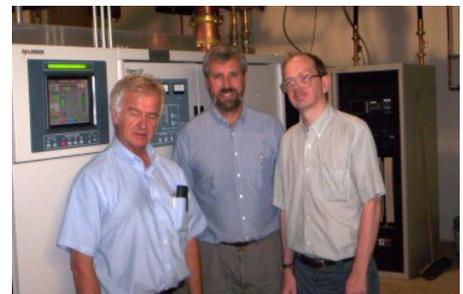
To register to take an exam, complete the [application form](#) for the certification you wish to test for, and email, mail or fax your form and payment to the SBE national office by March 22. Once registered, you will be provided information on the location of the exam room. ([sbe.org](#))

SBE message to FCC: Reject CTIA band proposal

Earlier this week, SBE President, Ralph Hogan sent a letter to each FCC Commissioner, urging them to reject the unsupported and reckless suggestion made by CTIA last week that the band 2095-2110 MHz, or any portion of the critically important and heavily occupied Broadcast Auxiliary Service (BAS) allocation at 2025-2110 MHz, should be considered for reallocation.

CTIA's proposal would preclude all local news coverage of events in television markets, the reporting of which is critical to the safety of the public and critical to localism in video delivery to viewers. It would deprive television viewers, regardless of their chosen delivery method (over-the-air broadcast television, cable, fiber or satellite) of the ability to view events as they happen and to respond to them appropriately. It would also preclude virtually all televised sports and major events, which cannot be aired without access to the entire 2025-2110 MHz band in all markets. [Copy of SBE letter to FCC Commissioners](#). ([sbe.org](#))

Area TV engineer **Bruce Musial**, 70, passed away recently. Bruce worked at WLUK, WBAY and most recently as WGBA. Pictured is Bruce (on the left) when we installed our digital transmitter. You are missed Bruce. *dd*



SBE Schedule of Events at NAB

Saturday, April 6

Ennes Workshop 8 a.m.-5 p.m. Conference registration required

LVCC South Hall, S225

Certification Committee Meeting 6:30-11 p.m. Las Vegas Hotel and Casino, Conference Room 9

Sunday, April 7

SBE Board of Directors Meeting 8:30 a.m.-12 p.m.

Las Vegas Hotel and Casino, Conference Rooms 8 & 9

Education Committee Meeting 3-4:30 p.m.

Las Vegas Hotel and Casino, Conference Room 10

Tuesday, April 9

SBE Certification Exams 9 a.m.-12 p.m.

Las Vegas Hotel and Casino, Conference Rooms 9 & 10

Frequency Coordinators Meeting 10 a.m.-12 p.m. Las Vegas Hotel and Casino, Conference Rooms 13 & 14

SBE Spring Membership Meeting 5:30-6:30 p.m.

LVCC South Hall, S227

SBE Booth Hours

Sunday · 2-4 p.m.

Monday · 9 a.m.-6 p.m.

Tuesday · 9 a.m.-5:30 p.m.

Wednesday · 9 a.m.-6 p.m.

Thursday · 9 a.m.-2 p.m.



NAB Discount available to SBE Members

The Society of Broadcast Engineers has arranged a discount for members of the SBE on registration for the 2013 NAB Show in Las Vegas, April 6-11. If you or your employer is not a member of the NAB, you can register for the conference Smart Pass or Flex Pass at \$100 off the non-NAB member rate. Members of the SBE can also register for a free Exhibits-Only pass.

[Register on-line](#) at the 2013 NAB Show. Near the end of the registration process, there is the opportunity to enter a discount code.

For the \$100 discount on the Smart Pass or Flex Pass packages, use code EP38. For the free Exhibits-Only pass, use code EP08. (sbe.org)

WBA-SBE Summer Engineering Workshop Wednesday June 19th

This year's Workshop will be held in conjunction with the WBA Summer Conference at the Osthoff Resort in Elkhart Lake, WI. While Managers golf, Engineers will be in session having just as much fun. The day starts at 8:45am and ends at 4:30pm followed by the Exhibit Reception, Dinner, and the infamous S'mores campfire by the lake, all covered by your low-cost, single-day registration.

The program committee has established the topics for the day and is working on booking speakers. A full agenda will be released soon. This one-day Workshop always includes lively audience discussions of timely subjects, so you'll want to save the date and make plans to attend. Rumor is it will actually be warm in Wisconsin by then. We'll see (sbe24.org)



2013 SUMMER CONFERENCE ENGINEERING SESSION AGENDA WEDNESDAY, JUNE 19TH

At the Osthoff Resort in Elkhart Lake, WI

7:00 AM - 6:30 PM: Registration

8:40 AM: Opening Remarks, Michelle Vetterkind, WBA President & CEO

8:45 AM Session: Computer Network Security

9:30 AM Session: Physical Plant Security

10:15 AM: Break

10:30 AM Session: Emergency Information Dissemination

11:15 AM Session: Single Point of Failure (in Studio)

12:00 PM: Lunch

1:15 PM Session: The Engineers Software Toolbox

2:00 PM Session: Wireless IP Transmission

2:45 PM: Break

3:00 PM Session: Fiber Networks in Wisconsin

3:45 PM Session: IP Theory and Configuration

4:30 PM: Exhibits and Reception Open

Statewide Test Of Tornado Warning EAS Code On April 18 Please Respond To WBA Office If You Have Not Already

In cooperation with Wisconsin Emergency Management, the National Weather Service will conduct a test of the real Tornado Warning EAS Code on April 18, 2013 as part of Tornado Awareness Week. *The State of Wisconsin has received a waiver from the FCC to use the actual EAS Tornado Warning Code for this statewide test.* If there is a threat of severe weather, the test will be postponed until April 19, 2013. If there is severe weather on April 19, the test will be cancelled. While the audio of this test will repeat several times in the script "This is a Test", because the real EAS Tornado Warning Code is being sent the crawl on TV stations and cable systems will read "A Tornado Warning has been issued for...". Thus we ask that TV broadcasters and cable operators making the decision to air the test should display a "This is a Test" graphic behind the crawl. The test will be originated on NOAA Weather Radio (NWR), and will be relayed via the State Relay (SR) and Local Primary (LP) stations. The EAS "TOR" Code will be sent independently by all five NWS offices serving Wisconsin, following the schedule below. Broadcasters and cable operators that monitor SR or LP stations from multiple EAS Operational Areas or directly monitor NWR from another EAS Operational Area may receive more than one Tornado Warning alert; since these alerts are sent independently from each NWS office they will not be recognized by EAS units as duplicates if alerts are received from two different EAS Operational Areas. It is also possible that some NWR stations may broadcast more than one TOR Code as some NWR stations serve counties from more than one NWS office.



This will be the schedule for April 18, 2013

(or if there is severe weather on April 18, test will be conducted on April 19, 2013)

1:00PM – Tornado Watch "TOA" EAS Code issued

1:45PM – Tornado Warning "TOR" EAS Code issued by all NWS offices serving Wisconsin

Originator Code: WXR

EAS Code: TOR

EAS Duration: 15 minutes

*This test is being coordinated with the State of Minnesota. Stations in the border area will receive both Wisconsin and Minnesota counties in the same coordinated TOR Tornado Warning EAS message at 1:45PM.



If you have not already, please respond by e-mail to Vice President Linda Baun at lbaun@wi-broadcasters.org to indicate you have received this message, have passed this information along to all relevant staff (including station meteorologists), and will participate in the test and the public notice prior to the test.

NOTE: Public Notice on your end will begin one week prior to the test (PSA's, mention in your news stories, weather reports, etc). (wba.org)

New NIST Time Code to Boost Reception for Radio-Controlled Clocks

From NIST Tech Beat: March 5, 2013. New changes to the NIST WWVB time signal, broadcast at 60 KHz., are visible on this oscilloscope. Changes in the overall height of the wave are amplitude modulations, the method WWVB has always used to encode time information. The flipping of the wave upside down and back again are phase modulations, the new encoding system designed to give the signal greater penetration strength.



The National Institute of Standards and Technology (NIST) is changing the way it broadcasts time signals that synchronize radio-controlled "atomic" clocks and watches to official U.S. time in ways that will enable new radio-controlled timepieces to be significantly more robust and reliable.

This new time broadcast protocol will not only improve the performance of new radio-controlled clocks and watches, but will encourage the development of new timekeeping products that were not practical with the

old broadcast system because of local interference or other limitations. For example, appliances such as refrigerators, microwave ovens and thermostats, as well as traffic light timers and sprinkler systems will be able to take advantage of this new phase modulation broadcast.

Popular radio-controlled timekeepers, which range from wristwatches to wall clocks, are not really atomic clocks—though that's often in their name—but they do set themselves by listening to low-frequency AM time broadcasts from the NIST radio station WWVB in Fort Collins, Colo. Those broadcasts are synchronized to the NIST atomic clock ensemble in nearby Boulder, Colo.

However, sometimes the radio-controlled clocks have difficulty accurately picking up the WWVB time signal because of the clock's location, local radio interference, effects of buildings, and other problems. Moreover, a time broadcast from England on the same frequency also interferes with devices on the east coast of the United States that rely on the NIST broadcast, according to John Lowe, station manager for WWVB.

To solve these problems, Lowe says, NIST has developed, tested and is now beginning to implement the new phase-modulation WWVB signal. Like a traditional AM radio station, time information is encoded in the WWVB broadcast by changes in the strength or amplitude of the radio signal. Phase modulation adds an additional layer of information encoded by shifting the phase of the carrier wave. (The crests of two waves that are "in phase" pass a point at the same time. If one is phase-shifted, the crest will arrive a little before or after the other.) (NIST)

[New NIST modulation](#)

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