

THE Signal

Bimonthly Publication of the
Society of Broadcast Engineers



The Association for
Broadcast and
Multimedia Professionals

www.sbe.org

Volume 35, Issue 6 • December 2022

Education on Agenda on SBE Board of Directors Meeting

The SBE Board of Directors met on Sept. 28 in Liverpool, NY, during the SBE National Meeting. The board typically has two in-person meetings per year, in the spring and fall. Additional meetings, usually virtual, are called as needed. Among the business conducted by the board were reports from the various committees about projects and activities.

Each board member is appointed to be a national committee chair. Those appointments were approved by the board. The list of those committees and their chairs is included in this issue.

The SBE Executive Committee, which is comprised of the elected officers, the immediate past president and two appointed board members also meets in person twice each year. The Executive Committee, which is the core of the SBE Government Relations Committee, can act on behalf of the full board in between its regular meetings. The two board members appointed to serve on the Executive Committee for the coming year are Jeff Juniet, CBTE, and Shane Toven, CPBE, DRB, CBNE.

For many years at the NAB Show, the SBE provided a day-long educational event as an SBE Ennes Workshop. Over time, the NAB



has scaled back the time allotted for the SBE to provide the session. While the SBE will continue to work with the NAB on supplying presenters and working with the Broadcast Engineering and IT Conference Committee, the board voted to hold an educational event in the

see [MEETING](#), p. 7

FCC Issues NPRM on EAS Cybersecurity

In October, the FCC issued a notice of proposed rulemaking that the agency believes will bolster the operational readiness and security of the Emergency Alert System (EAS). Items included in the proposal are:

- Require EAS participants to report incidents of unauthorized access to their Emergency Alert System equipment to the Commission within 72 hours.
- Annually certify that they have a cybersecurity risk management plan and implement sufficient security measures for their alerting systems.
- Requiring participating wireless providers to transmit sufficient authentication information to ensure that only valid alerts are

displayed on consumer devices.

Comments were due at the end of November, and reply comments are due at the end of December.

While the final ruling has yet to be issued, the SBE expects that it will be left to broadcast stations to determine the cybersecurity policy specifics. The SBE will of course review the updated rule and offer suggestions to members.

A general cybersecurity policy should address industry best practices driven by the NIST Cybersecurity Framework. In practical terms this means using accepted principals such as defense in depth, deny by default/zero trust, access control based on packet filtering (ACL and or firewall) and authentication incorporating multi-factor authorization. Perhaps EAS equipment manufacturers could integrate mandatory default password changes that encourage strong passwords into their products, as well as the ability to minimize unnecessary services.

The station policy should require change of the login info at some time interval. Prob-

ably the worst situation to avoid is a broadcast group using the same password on all its EAS units.

Current FCC Rules require every EAS participant to notify the Commission within 24 hours after discovering that it has transmitted or otherwise sent a false alert to the public. The NPRM takes this further by proposing to require that an EAS participant re-

see [EAS](#), p. 9



IN THIS ISSUE

- 4 Letter from the President
- 5 More Member Benefits
- 6 Certification Status
- 8 SBE National Meeting
- 10 ATSC 3.0 Simulcast
- 12 Emergency Preparation
- 14 Member Spotlight



SBE

Society of Broadcast Engineers

Technical Professional Training Program

Training new entrants to the field of broadcast technology.

To address the ongoing concern about new technical talent choosing broadcasting as a career, the SBE created the Technical Professional Training Program (TPTP). As technology and the average age and tenure of technical professionals advances (as shown in the annual SBE Compensation Survey), there is concern to adequately fulfill the technical staffing needs in the long term.

Drawing on existing SBE programs, the society has assembled a valuable service to the broadcast industry going forward. The goal: Training new entrants to the field of broadcast technology. There are **four main elements** that combine to create the new Technical Professional Training Program: Webinars by SBE, the SBE Mentor Program, the SBE Certification Program, and the *SBE Broadcast Engineering Handbook*.



Webinars
by SBE



SBE
MEMBERPLUS



SBE
Mentor
Program



SBE CERTIFIED



SBE
Cert
preview



- The extensive **Webinars by SBE** collection developed and cataloged for on-demand use of SBE members is regularly expanded and updated to reflect the latest developments in the industry. The advent of **SBE MemberPlus** provides access to the library for a fixed annual fee.
- The **SBE Mentor Program** provides new entrants to the technical broadcast field regular access and guidance from a seasoned professional – a personal touch not unlike days of old when the senior staff would take the new person under a wing to show him or her the ropes.
- The **SBE Certification Program** entry-level certification (Certified Broadcast Technologist) demonstrates a comprehension of regulatory and technical requirements of station operation. The **SBE CertPreview** for this certification level can be utilized by a mentor to curate the preparation experience of a mentee utilizing the Webinars by SBE library supplemented with the mentor's knowledge and experience.
- The **SBE Broadcast Engineering Handbook** is a hard-copy reference volume for hands-on use in designing and maintaining technical facilities.

The SBE Technical Professional Training Program is a membership option that combines all these elements in one package. Stations and media outlets can groom young talent to fast track their technical skills with one application and one purchase. The program is designed to be deployable by group broadcasters, independent broadcasters and even state broadcaster associations.

Enroll in the SBE TPTP for \$475.

This includes:

A one-year SBE membership with SBE MemberPlus

A copy of SBE CBT CertPreview

A copy of the *SBE Broadcast Engineering Handbook*

Enrollment in the SBE Mentor Program

SBE CBT certification exam application fee

Groom the next generation of broadcast engineers with SBE membership through the SBE Technical Professional Training Program now.

sbe.org/tpt

PRESIDENT

Andrea Cummis, CBT, CTO
WLVY-TV | Bethlehem, PA
acummis@sbe.org

VICE PRESIDENT

Ted Hand, CPBE, 8-VSB, AMD, ATSC3, DRB
Cox Media Group | Charlotte, NC
thand@sbe.org

SECRETARY

Jason Ornellas, CBRE, CRO
Bonneville International | Sacramento, CA
jornellas@sbe.org

TREASURER

Kevin Trueblood, CBRE, CBNT
WGCN Public Media | Estero, FL
ktrueblood@sbe.org

DIRECTORS

David Antoine, CBRE, CBNT
WBGO/Newark Public Radio | New York, NY
dantoine@sbe.org

Greg Dahl, CPBE
Second Opinion Communications | Rockford, IL
gdahl@sbe.org

Mark Heller, CPBE
WTRW, Metro North Communications | Two Rivers, WI
mheller@sbe.org

Zhulieta Ibisheva, CBTE, CBT
E.W. Scripps Co. | Honolulu, HI
zibisheva@sbe.org

Jeff Juniet, CBTE
Cox Media Group | Orlando, FL
jjuniet@sbe.org

Charles "Ched" Keiler, CPBE, 8-VSB, CBNE
HC2 Broadcasting/E Three Services | Ft. Lauderdale, FL
ckeiler@sbe.org

Thomas McGinley, CPBE, AMD, CBNT
McGinley Enterprises | Missoula, MT
tmcginley@sbe.org

Geary Morrill, CPBE, AMD, CBNE
Alpha Media | Saginaw, MI
gmorrill@sbe.org

David Ratener, CPBE, CBNT
Salem Media | Seattle, WA
dratener@sbe.org

Shane Toven, CPBE, DRB, CBNE
Educational Media Foundation | Antelope, CA
stoven@sbe.org

Dan Whealy, CBTE
Quincy Media | Waterloo, IA
dwhealy@sbe.org

Fred Willard, CPBE, 8-VSB, CBNT
Univision | Washington, DC
fwillard@sbe.org

IMMEDIATE PAST PRESIDENT

Wayne M. Pecena, CPBE, 8-VSB, AMD, ATSC3, DRB, CBNE
Texas A&M University/KAMU | College Station, TX
wpecena@sbe.org

SBE NATIONAL STAFF

James Ragsdale | Executive Director
jragsdale@sbe.org

Megan E. Clappe | Certification Director
mclappe@sbe.org

Cathy Orosz | Education Director
corosz@sbe.org

Chriss Scherer, CPBE, CBNT
Member Communications Director
cscherer@sbe.org

Debbie Hennessey
Sustaining Membership Manager
dhennessey@sbe.org

Scott Jones | Database Manager
kjones@sbe.org

RJ Russell, CPBE, ATSC3
Frequency Coordination Manager
rjussell@sbe.org

The Signal is published bimonthly by the Society of Broadcast Engineers, Inc., 9102 North Meridian Street, Suite 150, Indianapolis, IN 46260.
©2021 Society of Broadcast Engineers, Inc.
Editorial content and design: Chriss Scherer, 317-762-9723, cscherer@sbe.org.
Advertising: Debbie Hennessey, dhennessey@sbe.org, 317-846-9000
SBE is a registered trademark of the Society of Broadcast Engineers.

SBE National Office
317-846-9000 www.sbe.org

Register for the 2023 Leadership Development Course

Registration is now open for the 2023 SBE Leadership Development Course, which will be held Aug. 2-4, 2023, in Atlanta. The specific location is being selected. Make plans now to take part in this SBE tradition started in 1997.

Dr. Abram Walton, founder of Ivory Bridge Group, a management consulting and training firm will teach this course again in 2023. Dr. Walton is also a tenured professor of management at Florida Tech, specializing in management and innovation. He actively researched in the fields of Innovation management, business analytics and product lifecycle management and has authored more than 100 publications.

Specifically designed for broadcast engineers who have or aspire to have management responsibilities, the SBE Leadership Development Course is for technically adept people to acquire and develop skills for sound leadership, supervisory and management skills. The SBE Leadership Development Course is equally beneficial for those who are already in management and for those without prior management or supervisory experience.

The three-day event challenges attendees to refine leadership skills and better understand and improve interaction with others. Broadcast organizations may want to consider sending a group of employees to the course to share the experience of this highly interactive event. Registration includes all course materials, three days of instruction, the Leadership Development Webinar Series of three webinars, a certificate of completion, light breakfast and afternoon snacks. SBE Members receive a discount on registration.

Registration for SBE Members is \$720 and \$775 for non-members. Look for details and register at sbe.org/ldc. For more information contact SBE Education Director Cathy Orosz at 317-846-9000 or corosz@sbe.org.

Comments from the participants from the 2022 class instructed by Dr. Walton:

"Just good stuff. The course helped me learn more about myself and equipped me with good information to make better decisions."

"Dr. Walton is an excellent instructor. Good content and great personality — made the course material interesting."

National Committee Chairs Appointed

The SBE programs and projects are often directed or administered by a national committee. All SBE officers and directors chair at least one national committee. In some cases, a committee is chaired by someone not currently serving on the board. With the installation of the new board members in September, some new committee chairs have been assigned. Following are the committee chair assignments for the coming year.

Awards Jeff Juniet
By-Laws Tom McGinley
Certification Ralph Hogan
Chapter Liaison Mark Heller
EAS Wayne Pecena
Education Geary Morrill
Electronic Communications Dan Whealy
Fellowship Troy Pennington
Finance David Antoine
Frequency Coordination Ted Hand

Government Relations Ched Keiler
International Zhulieta Ibisheva
Membership Fred Willard
Mentoring Anthony Dimsdale
Nominations Wayne Pecena
Publications Jason Ornellas
Social Networking Kevin Trueblood
Sustaining Membership Greg Dahl
Technologies Shane Toven



Certification Question



SBE CERTIFIED

Answer on page 6

In digital television the term SDI stands for:



- A. Serial Digital Interface
- B. Strategic Digital Interface
- C. Status Digital Indicator
- D. Serial Digital Initiative



LETTER FROM THE PRESIDENT

By Andrea Cummis, CBT, CTO
SBE President
acummis@sbe.org

Moving Forward Into 2023

Let me thank all of you who were nice enough to read my columns in *The Signal* for the last year. When I wrote the October column, I had to submit it before the Chapter 22 Expo had taken place because of publishing deadlines. Chapter 22 did a fantastic job with the event and it was great to see so many members at the Expo, Membership Meeting, the Awards Reception and the Awards Dinner. I would like to thank Tom McNicholl, Vinny Lopez, Kevin Tubbs, Gary Hartman and all the other Chapter 22 members who worked hard to put together such a terrific event!



Andrea leading the Membership Meeting during the SBE National Meeting in Syracuse.

I've had many conversations lately about how to continue chapter meetings going forward into next year. Some chapters have returned to in-person meetings, and some are continuing to have virtual meetings. My local chapter, Chapter 15 in New York City, has been successful having the evening monthly meetings continue to be virtual and holding in person get togethers for special events. This has worked well here because many of us are not working in the city, and it's hard to get there in the evening for a meeting, but joining a virtual meeting makes it possible. We continue to have very good turnouts for the virtual meetings. The chapter scheduled an in-person meetup at the NAB Show NY. We had a great turn out, and SBE Executive Director Jim Ragsdale was nice enough to come to the NAB Show NY and join us to meet many of the Chapter 15 members. I can't speak for the other chapters, but the mix of virtual and in-person is working very well here in New York.

SBE Social Networking Committee Chair Kevin Trueblood has some great ideas on how to grow the SBE's social media presence to become more visible to new members and better engage existing members. That would involve creating content on new platforms such as TikTok and Instagram, as well as sharing photos and videos from SBE members to highlight and gain interest in the work that we do.



Andrea and SBE Executive Director Jim Ragsdale attended the NAB Show NY. NAB photo.

Another subject Kevin and I have discussed is to enhance the Chapter of the Web concept. The SBE created the SBE WEBxtra as a virtual monthly meeting for any SBE member to view. With some SBE members not having a local chapter nearby to attend monthly meetings, this gives them a way to be involved with other members. It also provides a ways for all SBE members to earn SBE recertification points. Because virtual meetings are now easy to do, and we have many manufacturers and service providers willing to provide presentations for chapter meetings, Kevin and I are exploring the possibility of making the chapter of the web a real chapter, with officers and regularly scheduled meetings. I would be happy to hear some member feedback on this idea, let me know what you think.

The last subject for the day, we have some folks, led by Cindy Hutter Cavell, who are trying to start a high school outreach program. Many of us started getting experience in radio or television while we were in high school, for me I started doing video production in junior high, and I was in charge of a four-camera studio system in high school. There are many schools that have video production or engineering programs or clubs that offer the opportunity to learn about radio or video production and broadcast engineering. This is a great time in students' lives for the SBE to reach out and introduce our organization and how we can help students get into our industry. I'm sure many of us know about high school programs that we could reach out to. Is this something you would be interested in helping with? Let me know!

Quick reminder to respond to the strategic planning survey if you haven't already.

I hope you all have happy holidays and a fantastic New Year. See you in 2023! 



Take the SBE Strategic Planning survey.
Scan the QR code or go to
surveymonkey.com/r/SBEstrategy



EDUCATION UPDATE

By Geary Morrill, CPBE, AMD, CBNE
Chair, SBE Education Committee
gmorrill@sbe.org

You Can't Say 2022 Hasn't Been Interesting

2022 has been a most interesting year, with the return of in-person events (NAB Show in Las Vegas and the SBE National Meeting in Syracuse), along with a host of state and regional events. There have even been in-person SBE Ennes Workshops and an SBE Leadership Development Course this year.

Looking ahead into 2023, we're exploring ways to increase outreach to both existing SBE membership and potential future members. The former may come in the form of educational sessions (likely under the Ennes banner) delivered in areas not currently served by active SBE chapters. As for future membership, we're intrigued by the Youth Apprenticeship Program of Wisconsin's Department of Workforce Development. It recently added a media broadcast technician career path to offerings provided to its participating school districts. The program targets high school juniors and seniors and involves partnering with media outlets. Given many other states are restoring emphasis on vocational training opportunities, this could serve as a blueprint to developing similar programs to address the anticipated shortage of qualified technical professionals. Bringing SBE Certification into the equation would help to establish a baseline competency already recognized in the industry.

Alongside these new opportunities, the SBE Mentorship and Technical Professional Training programs continue to grow, and recently developed enhancements will enrich these offerings. To expand the available knowledge base, a "subject matter specialist" category allows those individuals who may not have the bandwidth to act as a primary mentor to offer their expertise on an as-desired basis. Whenever a primary mentor is dealing in an unfamiliar area, he or she can reach out to a subject matter specialist to fill in the knowledge being sought for the assigned mentee(s).

Participation benefit

Speaking of Primary Mentors, your SBE Executive Board has approved a benefit for you that takes effect with your next membership renewal cycle. Any SBE member assigned to a mentee as a Primary Mentor will receive a complimentary upgrade to SBE MemberPlus as a thank you for investing their time and effort to assist in the development of the next generation of technical professionals.

The benefit of an SBE MemberPlus membership is also being enhanced in 2023. Along with the ever-expanding library of live and on-demand webinars that are available at no additional charge to SBE MemberPlus members, the SBE Board voted to add the entirety of SBE University classes to this benefit. These courses consist of written text and periodic quizzes to insure the information is comprehended by the participant. Some of the course offerings are noted in the sidebar. The entire SBE University course catalog will be available to MemberPlus members on January 1.

We're always looking to enhance the member experience, and along those lines, I encourage you to participate in



Take the disability survey. Scan the QR code or go to surveymonkey.com/r/SBEDisability

For more information on any SBE education program click the Education tab at sbe.org, or contact Education Director Cathy Orosz at the SBE National Office at 317-846-9000 or corosz@sbe.org.

Some of the courses available through SBE University

- Adaptive Media Systems Engineering
- AM Antenna Computer Modeling
- Introduction to AM Antenna Systems
- Introduction to Matching Networks and Phasing
- Introduction to Broadcast Audio Processing
- Introduction to FM Transmission Systems
- Perspectives I: Broadcast Engineers and Station Management
- Perspectives II: Broadcast Engineers and Program Directors
- Perspectives III: Broadcast Engineers and IT Personnel



two survey opportunities currently underway on the sbe.org website. The SBE Strategic Planning survey and the Disability Survey will provide useful insights to leadership formulating future plans and programs to bring to our membership. The former, which is also mentioned in the Letter from the President on the facing page, includes an invitation to participate in a focus group. I hope you'll favorably consider the opportunity.

As always, your thoughts and suggestions are welcome. Please send them along to me at gmorrill@sbe.org or SBE Education Director Cathy Orosz at corosz@sbe.org. Here's to a great 2023!

ATSC 3.0 Boot Camp in April

On April 14 and 15 in Las Vegas, ATSC and the Society of Broadcast Engineers will address a subject many broadcast engineers want to learn about: NextGen Broadcasting. There is a significant body of knowledge to be presented and it will require a two-day session.

The ATSC and SBE are partnering to provide this significant in-depth tutorial training event. In 2021, the SBE released the ATSC 3.0 specialist certification. The planned course is designed to take students through the information necessary to effectively participate in the transition to NextGen broadcasting and prepare for the certification exam. An exam testing session will follow, so that those students who meet the test qualifications can learn and become certified in one sitting.

Knowledgeable instructors will cover the full range of topics that surround NextGen broadcasting. The course will cover everything from enhanced audio and video processing, content protection, propagation, modulation, datacasting, and more.

The venue will be in Las Vegas at an easily accessible, centrally located site. The registration fee will be announced soon. Sponsorship opportunities are available. Contact the SBE for more information.

Education Almanac

Webinars by SBE

Dec. 20: Cybersecurity 2023

sbe.org/webinars

SBE Ennes Workshops

Dec. 7: Michigan Assoc. of Broadcasters

Contact the SBE to arrange an SBE Ennes Workshop in your area.

sbe.org/ennes_workshop

Leadership Development Course

Aug. 2-4: Atlanta

sbe.org/ldc





CERTIFICATION UPDATE

By Megan E. Clappe
SBE Certification Director
mclappe@sbe.org

Show Your Certification Status

On regular occasions, I like to share the graphic that shows the levels of SBE certification, how to list them and how to use the various abbreviations in regular use. I think it is a good visual for those who are interested in certification or maybe looking to upgrade. Sometimes I get questions about how to list an individual's certifications on business cards or an email signature. The SBE has adopted some standards, and it's appreciated when they are followed. Consistency makes a difference.

The SBE also provides an SBE Certified logo. You can see it on page 7. If you have used this logo for more than a few years, take a moment to verify you are using the most current version. You can find the current version online at sbe.org/logo. Help the SBE maintain consistent branding by using the proper logo. Just as your station wouldn't want you to use an old logo, neither does the SBE.

Remember, you can jump into any certification as long as you have the prerequisite of experience. The same goes for upgrading your certification.

Welcome aboard

The certification committee gained two new members in September: Kenny Elcock, CPBE, with NESN in Boston, MA, and SBE Past President Wayne Pecena, CPBE, 8-VSB, AMD, ATSC3, DRB, CBNE, of College Station, TX.

WHAT YOU NEED TO KNOW ABOUT SBE CERTIFICATIONS

The SBE certification program is the only professional recognition available to broadcast engineers, which provides standards of professional competence. It is the primary method of verifying the attainment of educational standards in the industry.

YEARS OF EXPERIENCE

SBE certifications are based on years of experience in the broadcast engineering field. Broadcast engineers can apply for a certification once they meet the year requirements. An associate degree counts as two years of experience and a bachelor's degree counts as four years of experience. No experience is required for entry level.



SPECIALIST CERTIFICATIONS

Once a five-, 10- or 20-year certification is obtained, you can apply to take a specialist certification exam.

8-VSB AMD ATSC3 DRB

Life certification is available to those who are retired or may also be granted to professional broadcast engineers and senior broadcast engineers who have maintained certification continuously for 20 years and are current members of the SBE upon application.

LISTING CERTIFICATIONS

Broadcast engineers may hold multiple certifications. SBE certifications are listed from highest (most experience required) to lowest. Specialist certifications are listed after their corresponding category certification and in alphabetical order.

EXAMPLES:

Joe Brown, CSRE, AMD, CBNT
Kevin Jones, CBT, CBNT, CRO
Heather Cosby, CSTE, ATSC3, CBRE, DRB
Ray Osmond, CPBE, 8-VSB, AMD, CBNT

Most certifications stand alone however, some certifications supersede and replace existing certifications.

CBTE replace with ➡ CSTE replace with ➡ CPBE
CBRE replace with ➡ CSRE replace with ➡ CPBE
CBNT replace with ➡ CBNE

CERTIFICATIONS IN PRINT

Certifications may be referred to in various ways in text, including levels or general terms. The colors used with the following general terms correspond with the certifications in the below levels.

GENERAL TERM KEY: operator, technologist, audio engineer, video engineer, senior certification, professional certification, networking technologist, broadcast engineer, networking engineer, specialist

OPERATOR LEVEL

Certified Radio Operator (CRO)
Certified Television Operator (CTO)

TECHNOLOGISTS LEVEL

Certified Broadcast Technologist (CBT)

BROADCAST NETWORKING LEVEL

Certified Broadcast Networking Technologist (CBNT)
Certified Broadcast Networking Engineer (CBNE)

SPECIALIST LEVEL

8-VSB Specialist (8-VSB)
AM Directional Specialist (AMD)
ATSC 3.0 Specialist (ATSC3)
Digital Radio Broadcast Specialist (DRB)

ENGINEERING LEVEL

Certified Broadcast Technologist (CBT)
Certified Audio Engineer (CEA)
Certified Video Engineer (CEV)
Certified Broadcast Radio Engineer (CBRE)
Certified Broadcast Television Engineer (CBTE)
Certified Broadcast Networking Engineer (CBNE)
Certified Senior Radio Engineer (CSRE)
Certified Senior Television Engineer (CSTE)
Certified Professional Broadcast Engineer (CPBE)



Answer from page 3

The answer is A

Serial Digital Interface is a family of digital video interfaces first standardized by SMPTE.



Order Your Copy Today

SBE Certification exam sample test software.

sbe.org/certpreview

SBE Certification Achievements

CONGRATULATIONS



LIFE CERTIFICATION	<p>Certified Professional Broadcast Engineer (CPBE) Joseph Glynn, Old Forge, PA - Chapter 2</p> <p>Certified Audio Engineer (CEA) Daniel Nevels, Tampa, FL - Chapter 39</p> <p>Certified Professional Broadcast Engineers and Certified Senior Broadcast Engineers who have maintained SBE certification continuously for 20 years, are at least 59½ years old and are current members of the SBE may be granted Life Certification if so requested. All certified who have retired from regular full-time employment and are at least 59½ years old may be granted Life Certification if they so request. If the request is approved, the person will continue in his/her current level of certification for life.</p>		
CERTIFIED PROFESSIONAL BROADCAST ENGINEER (CPBE)	<p>Kenny Elcock, Watertown, MA - Chapter 11</p> <p>Applicants must have 20 years of professional broadcast engineering or related technologies experience in radio and/or television. The candidate must be currently certified on the Certified Senior Broadcast Engineer level.</p>		
AUGUST EXAMS	<p>Certified Senior Television Engineer (CSTE) Brett Hancock, Holland Landing, ON</p> <p>Certified Senior Radio Engineer (CSRE) Joseph Niffen, St. Paul, MN - Chapter 17</p> <p>Nathaniel Steele, Cookeville, TN - Chapter 103</p>	<p>Certified Broadcast Networking Engineer (CBNE) David May, Lexington, KY - Chapter 35</p> <p>Aaron McEachern, Burton, MI - Chapter 91</p> <p>Christopher McKinley, Winchester, CA - Chapter 131</p> <p>Nathaniel Steele, Cookeville, TN - Chapter 103</p>	<p>Certified Broadcast Radio Engineer (CBRE) Timothy Meinig, Seattle, WA - Chapter 16</p> <p>Certified Television Operator (CTO) Gary Butterworth, Washington, DC - Chapter 37</p>
SPECIAL PROCTORED EXAMS	<p>Certified Broadcast Technologist (CBT) Steven Nedde, South Hero, VT</p> <p>Wiley Norris, Preston, GA</p> <p>Frank Olmstead, Carson, IA</p>	<p>Certified Broadcast Technologist (CBT) (cont.) Shaun Savoy, Hastings, ON</p> <p>John Sokol, Kankakee, IL</p>	<p>Certified Broadcast Radio Engineer (CBRE) William Shrode, Parkersburg, IL</p>
SBE CERTIFIED SCHOOL COURSE COMPLETION	<p>Certified Broadcast Technologist (CBT) <i>DINFOS</i> Jason Brown, FPO, AP</p>		
CERTIFIED BY LICENSE	<p>Certified Broadcast Technologist (CBT) Joseph Fiorini, Punta Gorda, FL - Chapter 90</p> <p>Raymond Wilke, Arbutus, MD - Chapter 46</p>		
CERTIFIED RADIO OPERATOR (CRO)	Joaquin Arriola, Eugene, OR	Iris Berkeley, Boulder, CO	Alex Fregger, York, PA
CERTIFIED TELEVISION OPERATOR (CTO)	Jillian DePriest, Jacksonville, FL		
RECERTIFICATION Applicants completed the recertification process either by re-examination, point verification through the local chapters and national Certification Committee approval and/or met the service requirement.	<p>Certified Broadcast Networking Engineer (CBNE) Craig Fincher, Fort Worth, TX - Chapter 67</p>	<p>Certified Television Operator (CTO) Gregory Tomlin, Asheville, NC</p>	<p>Certified Radio Operator (CRO) Brandi Bernow, Olmsted Township, OH</p>

Got your SBE Certification pin?
sbe.org/pins




MEETING, from p. 1

days before the convention to present an SBE Ennes Workshop. The event will be a one-or two-day event held on the Saturday and also possibly the Friday before the convention begins.

The SBE periodically holds strategic planning sessions to set goals and a course for the society. The Board was updated on the efforts to begin the exercise. To get started on the next phase of the process, the SBE launched an online survey, which was noted in the President's column in the October issue. A link to the survey is on the SBE home page and also in this issue.

In 2018, the SBE introduced the SBE MemberPlus option. This membership enhancement provides unlimited access to all the Webinars by SBE for one fee. Originally offered to regular members, the option is also available to Student and Life members as well. To add further value to SBE MemberPlus, the SBE Education Committee suggested adding the SBE University courses to the member benefit. The board voted to accept the proposal. Beginning January 1, all SBE University courses will be available to SBE MemberPlus members.


The SBE is considering locations for upcoming National Meetings, which are held in late September or October. In addition to the SBE22 Broadcast and Technology Expo, the National Meeting has more recently been held in conjunction with the Wisconsin Broadcasters Clinic and the Ohio Association of Broadcasters Midwest Broadcast and Multimedia Technology Conference. 

Thanks To These SBE Sustaining Member National Meeting Event Sponsors

Fellows Breakfast

KATHREIN

Membership Meeting Streaming

Blackmagicdesign 

National Awards Reception

COMREX

Dielectric

National Awards Dinner


latakoo

JAMPRO
ANTENNAS, INC.
Alan Dick

markertek

SBE 2022 National Meeting



1. SBE Regulatory Counsel Coe Ramsey swears in Andrea Cummis for her second term as president.

2.* Vice President Ted Hand presents the Robert W. Flanders SBE Engineer of the Year to Andrea Cummis.

3.* Andrea Cummis presents the James C. Wulliman SBE Educator of the Year to Marcos O'Rourke.

4.* The SBE Awards Dinner was well attended.

5.* Skip Pizzi provided the keynote address at the Awards Dinner.

6.* Iatakoo Co-founder and CEO Paul Adrian and Co-founder and President Jade Kurian provided and drew the door prize at the Awards Dinner.

7. The SBE Board of Directors met on Sept. 28.

8. The SBE Fellows Breakfast was held on Sept. 29.

9. Vinny Lopez (left) and Chris Baycura providing production for the Membership Meeting live stream.

10.* Several chapter award winners accepted their recognitions at the Awards Dinner.

11. Officers and board for the 2022-2023 term.

12.* Andrea Cummis shows the plaque awarded to Blackmagic Design for the Technology Award.

* Photo by Jim Peck, SBE senior member, sales manager, SCMS, Inc.



port any incident of unauthorized access of its EAS equipment, whether it resulted in a false alert or not, to the FCC within 72 hours. The NPRM also proposes to require reporting any unauthorized access to station operations that could affect the EAS. This could be difficult for some stations to know if their system has been compromised. There is a saying: There are two types of organizations: those who have been hacked and those who don't know they have been hacked. ○



The EAS Cybersecurity NPRM was the topic of the November **SBE WEBxtra**. You can watch the replay of the episode on the SBE YouTube Channel, sbe.org/youtube.

SiriusXM as a Redundant National-Level EAS Alert Monitor Source

The FCC and FEMA have long required all EAS participants to monitor two local sources capable of relaying national level alerts from the White House, plus a requirement to monitor the national Integrated Public Alert Warning System (IPAWS). The local source monitoring is often via a daisy chain relay system. While this works, there are drawbacks to the daisy chain, including deterioration of audio quality and missed alerts.

Several years ago, the Alabama SECC created a satellite network to be a redundant source for state and local alerts. At present, there are 44 downlinks installed at major local primaries around the state. Plans are in place to increase the number of downlinks in 2023. The cost of this system was funded by the Alabama Broadcast Association and various state grants. This allowed the installation of the equipment at no cost to the individual stations. The satellite system was designed especially for the Alabama SECC by Global Security Systems (GSSNet) and includes a secure web portal that allows designated state agencies to issue alerts using the Common Alerting Protocol (CAP) format. The web portal also allows agencies to send the alert via the GSSNet Satellite, IPAWS, and/or WEA.

To monitor the health of its distribution

system, the Alabama SECC maintains an EAS monitor server that monitors 160 EAS units around the state (again at no cost to the stations). A detailed database is kept of successful reception, and, if necessary, relay of all required activations. As a service to the stations, should the database indicate a station is missing required activations, a message is sent to the station engineer. This server serves as a second set of eyes. This service does not replace the FCC requirement of maintaining the station log at a facility.

The Alabama SECC recently submitted and received approval of a new state EAS plan. One of the requirements for the Alabama plan was to develop alternate sources for the reception of a national level alert (EAN). This was required due to the fact Alabama only has one Primary Entry Point (PEP) source. Approved sources for an EAN are National Public Radio squawk box NPR-1 and SiriusXM barker channel 001.

In addition, the Alabama SECC is equipping major local primary relay stations in all nine zones in the state with SiriusXM receivers. The EAS monitoring assignment database has been updated with the NPR and SiriusXM sources, which allows the distribution network to ensure all EAS participants have access to three sources for a national level alert. ○

IP Remotes from Anywhere

Wherever you need to broadcast from, the ViA delivers rock-solid live audio anywhere, anytime.

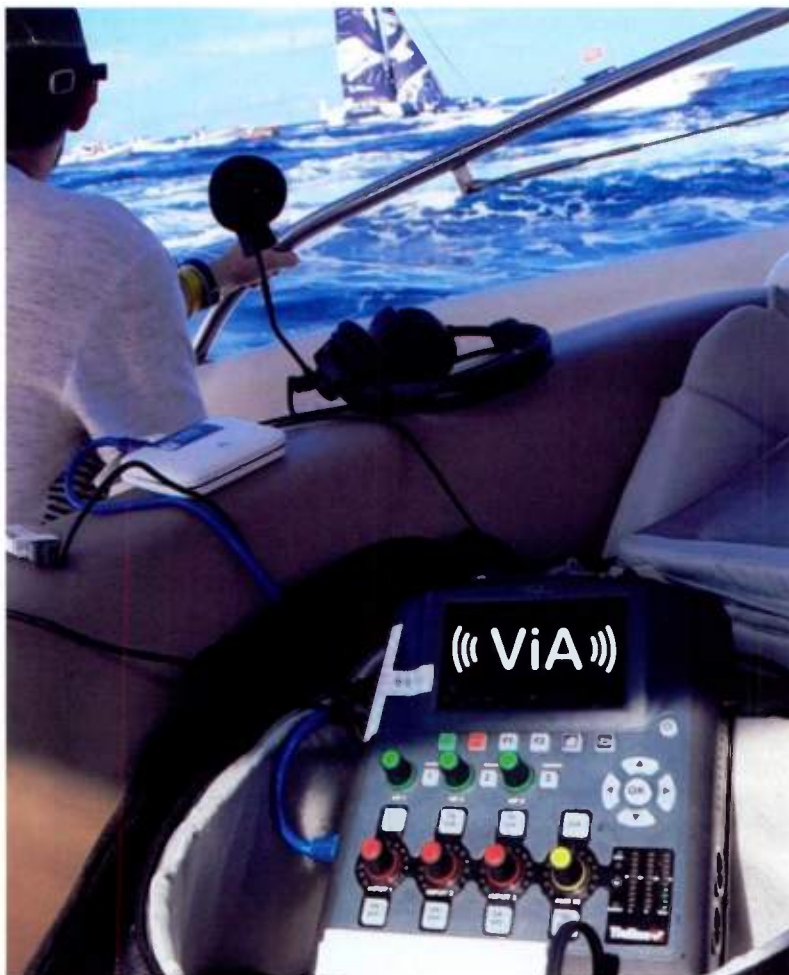
The Tieline ViA has you covered for even the most complex and demanding setups.

- Up to 7 IP interface options and full remote control
- Bidirectional mono, dual mono, triple mono, stereo, or stereo plus mono
- Plus recording, playback, FTP, EQ, compression, AGC

Tieline 
The Codec Company

Americas: +1-317-845-8000
www.tieline.com/contact/

Connect Anywhere, Anytime, Anyhow





LEGAL PERSPECTIVE

By Stephen Hartzell and Coe Ramsey
SBE Regulatory Counsels
shartzell@sbe.org, cramsey@sbe.org

ATSC 3.0 Simulcast Confusion

For close to five years now, broadcast television has been undergoing a transition to the ATSC 3.0 (also called NextGen TV) transmission standard. As you know, NextGen TV offers a number of exciting new capabilities and allows for the development of interesting new content, but the transition has been complex and sometimes slow-going for a number of reasons. Chief among these is the fact that ATSC 3.0 is not a backwards-looking standard; consumers cannot receive the updated transmissions using old equipment. Thus, to avoid viewers losing access to desired programming when their local broadcaster transitions to ATSC 3.0, in a 2017 Report and Order the Commission established a handful of requirements mandating the simulcast of a transitioning station's primary stream in both ATSC 3.0 and ATSC 1.0.

We have it on good authority (i.e. one particularly diligent SBE member brought it to our attention) that there is some confusion in the industry about the requirements and longevity of these rules, so this article will delve more deeply into two specific rules – the so-called simulcast rule, and the substantially similar rule – to provide some explanation of how they are related, how they differ, and how long each may be expected to last.

The Simulcast Rule

This rule is relatively straightforward on paper, but quite complicated to execute in practice. Under the simulcast rule, a transitioning broadcaster transitioning to ATSC 3.0 must continue to air a simulcast of its primary programming stream in ATSC 1.0. The devil is, of course, in the details. Because the FCC has not provided transitioning broadcasters with additional spectrum to use for NextGen TV transmissions (as they did for the analog-to-digital transition), broadcasters have had to partner with their erstwhile competitors to share facilities so that signals may be maintained in both ATSC 3.0 and ATSC 1.0. Generally this is achieved by one station acting as a 3.0 lighthouse, airing the ATSC 3.0 programming for all the participating stations, while the other stations host the lighthouse station's ATSC 1.0 programming using their own technical facilities. Simulcast streams are required to continue to cover the station's community of license, and ATSC 1.0 streams being hosted on another station are strongly encouraged to cover at least 95% of the coverage area served by the originating station (expedited processing of a hosting application is only permitted for stations that meet this 95% threshold).

The Substantially Similar Rule

Related to but separate from the simulcast rule, the substantially similar rule requires that a station's ATSC 3.0 and simulcast ATSC 1.0 streams must be, you guessed it, substantially similar. Notably, this requirement does not extend to "enhanced capabilities that cannot be reasonably provided in ATSC 1.0 format," including "hyper-localized content" (like focused weather, news, and emergency alerts), ancillary ATSC 3.0 services, and enhanced formats (like 4K) that are made possible by ATSC 3.0. Besides these carve-outs, however, a broadcaster's simulcast primary stream must air substantially the same programming at the same time, with the goal of maintaining the viewing experience for consumers who have not yet upgraded their equipment to receive the ATSC 3.0 signal.

Sunset Rules

Because ATSC 3.0 is (presumably) eventually going to replace ATSC 1.0 entirely, you would expect that both the simulcast rule and the substantially similar rule will be set to end at some point down the road, and you would be correct. However, the Commission has chosen to set different procedures and criteria for when each rule will end.

The FCC "intends that the [simulcast rule] will be temporary," but has not yet opened a proceeding to consider an appropriate time for its elimination. Some parties have advocated in parallel proceedings that the time has come to consider removal of the simulcast rule, but for the time being there is no scheduled date when the rule will be expected to end.

Conversely, when it adopted the substantially similar rule, the Commission ordered that the rule would sunset five years from its effective date, which will occur on July 17, 2023, absent further FCC action. In a recent proceeding, the Commission sought comment whether the substantially similar rule should be extended beyond the five-year period. The NAB and broadcast groups argued that the rule should be allowed to sunset to allow increased flexibility for ATSC 3.0 deployment, while the cable lobby and others argued to extend the rule on consumer protection grounds. At the time of this writing, there has been no decision from the FCC.

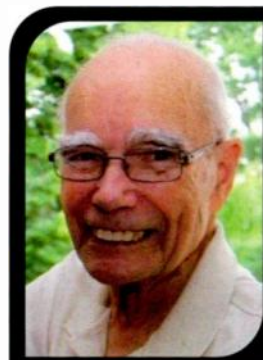
So what's the Confusion?

The misunderstanding here appears to have arisen from conflating the two rules and mixing up the timelines for if/when they may sunset. Some seem to believe there is a five-year cap on the simulcast rule. That is not the case! As stated above, there is currently no scheduled date when the simulcast requirement is set to end. If the substantially similar rule is allowed to sunset in 2023, broadcasters will still be required to simulcast their primary stream in ATSC 1.0. The only difference will be increased flexibility to alter the NextGen TV stream to incorporate more and varied offerings that take advantage of ATSC 3.0 technology.

Wishing you all the best as the chill of fall sets in.

LINK

2017 Report and Order
fcc.gov/ecfs/document/1120274606522/1



In Memoriam

William R. Onn
Member #176

1930 - 2022
Charter Member
Life Member



FOCUS ON THE SBE

By James Ragsdale
SBE Executive Director
jagsdale@sbe.org

Networking With Our Partners

The last couple of months have been really busy with travel and networking! In Sept., SBE Education Director Cathy Orosz hosted our Leadership Development Course in Atlanta, Georgia, with a new instructor, Dr. Abram Walton. Dr. Walton did a fantastic job of leading the course, with 24 participants for three days. Most of the attendees were not SBE members, so this event gave us the opportunity to demonstrate why membership in the SBE is valuable. The class reviews at the end of the course by the participants were extremely positive, with more than one comment that they only wished it could have been longer. If you have never gotten the opportunity to attend this course and have responsibility for a work group, please consider attending in the future.

Then on Sept. 29, SBE Chapter 22 Central New York hosted our fall National Meeting at the SBE22 Broadcast and Technology Expo in Syracuse. The leaders of Chapter 22 did an exceptional job with the Expo, and I heard from many attendees that they were very happy with the exhibition opportunities and activities. I applaud the work of the Expo planning team on this event, including Chair Tom McNicholl, Vice-chair Kevin Tubbs, Secretary Vinny Lopez, and Treasurer Gary Hartman.

On Oct. 11, I was able to attend the Wisconsin Broadcasters Clinic for the first time. This event went exceptionally well. It has been an award-winning educational event for broadcast engineers in the past and I think this year's event lived up to those expectations. I was proud to see many SBE members serving on the Clinic committee and as clinic speakers. Our members' contributions continue to show the relevance of our organization to the broadcast industry and the innovation happening in the industry.

One of the highlights of the WBC was a presentation by Amy Phillips of the Wisconsin Department of Workforce Development. Entitled "Media Broadcast Technician Youth Apprenticeship Program," this presentation introduced their high school internship program that serves the educational needs of young people and introduces them to the broadcast engineering field.

Back to New York

Following on the heels of the Clinic was the NAB Show New York, held on Oct. 19-20. I wanted to make sure the SBE was represented at this event, as not everyone has the opportunity to attend the NAB Show Las

Vegas. Although we did not have a booth at this show, I knew that it would be a great opportunity to establish relationships with peer organizations in the industry. I enjoyed the opportunity to meet representatives of SMPTE and the AES. It also was a great opportunity to meet the local SBE Chapter

a.m. - 2:30 p.m., and you may be reading this article too late to attend. The SBE Ennes Workshop is held in conjunction with the Michigan Association of Broadcasters student educational event, the Great Lakes Broadcast and Sports Media Academy at Ford Field in Detroit. I will attend, and I hope



The SBE National Meeting, held in conjunction with the SBE22 Broadcast and Technology Expo in Liverpool, NY, was among the locations visited during the fall.

15 members, including members of the student chapter at Hofstra University. I want to include a shout out to those student members for the Marconi Award that their station WRHU-FM received from the NAB as the College Station of the Year. I'm proud of Chapter 15's involvement in that student chapter, especially Chief Audio Engineer Andy Gladding.

I had one more stop this fall, attending the Midwest Broadcast & Multimedia Technology Conference (MBMTC), on Oct. 28 in Columbus, Ohio. This conference was planned and executed by the Ohio Association of Broadcasters, the Indiana Broadcasters Association, and the Kentucky Broadcasters Association. Many SBE chapters were involved in this event, publicizing it to members all over the three-state region. The SBE National Office also spread the word through email to inform people of the event. The program was very educational and informative, bringing broadcast engineers up to speed on many technological and regulatory issues. I had the opportunity to connect with vendors who are active supporters of the SBE, as well as meet some who are interested in becoming active. If you know of someone who is in this camp, please reach out to me to talk about how we can partner.

I'm not done networking with strategic partners this year. In December, we have an SBE Ennes Workshop at Ford Field in Detroit. It will be held on Dec. 7, 2022, 9:00

to introduce the SBE to potential new members. I think it is critical that those who are interested in working in broadcasting know who we are and the value that our members bring to their organizations.

Lastly, I want to mention that the Mississippi Association of Broadcasters has begun granting scholarships in the SBE Technical Professional Training Program. The MAB sees the value of SBE membership, especially with the educational, mentoring, and certification programs that we have in place. This is exactly what the TPT Program maximizes. Our members have each other's backs, which encourages them to develop their expertise and value. Keep up the great work and reach out to me if you have ideas of ways that we can add value to your membership.

Technical Professional Training

Know someone who wants to get into broadcast technology? The SBE Technical Professional Training Program is the ideal way to start.



sbe.org/tpt



ENGINEERING PERSPECTIVE

By Roswell (Roz) Clark, CPBE, CBNT
Senior Director of Radio Engineering CMG
rclark@sbe.org

Business Continuity Planning for Emergencies

As hurricane season winds down and the coastal communities begin breathing a sigh of relief, memories of how cities fared through the 2022 season begin to emerge. As most know, the ravages of Hurricane Ian left a path of destruction across Florida and into the Carolinas that will not be soon forgotten. Restoration of communities and facilities directly impacted will take many years to be completed.

As broadcast engineers, the task of considering the “what if?” scenarios for unplanned events that disrupt normal business is somewhat baked into our DNA as we commonly design technical systems with some sort of backup, alternate capacity or whatever description is chosen to fit the business model. These designs vary greatly depending on the risk to the business and tolerance for the specific function to be offline.

When Mother Nature decides to roll through a region with widespread impacts to communities and operations, a broader consideration must be given to what can be done to protect the operations and continue to serve the communities when they need broadcasters the most.

With Hurricane Ian as an example, the scope of enduring an event like that is generally divided into broad categories including preparation, incident response, and recovery. For coastal communities at risk for hurricanes, preparations are typically reviewed yearly before the official start of the season which is June 1 through Nov. 30. Other regions have weather challenges such as ice storms, fires or tornadoes to consider, and review plans prior to when they are expected to occur.

Refreshing plans is important as technology modernization may open new possibilities that were not available in prior years while in other cases, changes in the workforce or workflow such as post COVID work-from-home solutions can either improve or diminish resiliency to the business. To manage through these changes, most organizations insist on yearly tabletop exercises very similar to what government agencies do. This involves assembling all key stakeholders of the business; sometimes referred to as the Crisis Management Team, to be in a meeting and simulate disruptions to the operation from events such as weather, fire, civil or cyber and discuss actions that each part of the business would do as the event unfolds. Activities during a preparation stage (such as a hurricane) are different compared to a relatively quick event such as a building fire or tower collapse. For a hurricane, modern weather forecasting

provides days to begin preparing although the actual landfall and conditions are highly variable right up to impact. This time is spent testing generators, topping off fuel supplies, validating communication capabilities, confirming media partnerships, as well as communications with local area emergency managers. Incident response or engaging alternate capacity is a relatively short period of time

compared to the recovery activities and can range from hours to years depending on the event.

A storm with a swath of destruction as widespread as Ian and with the coastal impact so devastating, a key item that is sometimes glossed over is a clear conversation in advance regarding the personal plans of staff. Although this may seem at first glance to be none of the company's business, it is in fact a critical part of ensuring that employees are equipped to be safe before, during and after a storm comes ashore.

Considerations for how staff are personally prepared to safely get through an event and be able to support operations during recovery is no small feat and can take a while to put into place. If done properly and reviewed frequently, the staff will be safe and able to keep the broadcast facilities operational to serve the communities when it is most needed while managing through their own personal situations.

On the technical side, modernization of pretty much everything in the broadcast facility, ranging from file based content, IP-based transport, solid-state frequency-agile transmitters, and soft-

ware-based infrastructure has opened up a broad menu of possibilities on the technology layer of our business to have options that can be used by the content teams. The key is to design and test these options well in advance so that a tabletop exercise can select what works for the scenario being tested and have some confidence it will be there. A rule of thumb is that if it isn't tested and trusted, it is a wish and not an option.

With large and catastrophic events like Ian, there is a limit to how much can be done locally. As capabilities are exceeded, knowing who you can count on to assist in times of need is vital. In the world of broadcast engineering, it is often shown that there is a very large group of friends to call on as well as equipment manufacturers and service providers who stand ready to provide aid. Maintaining those relationships and knowing the potential options in advance is what enables the quickest recovery to normal operations.

Preparation

- People
 - Are their personal plans in place?
 - Will they be available?
- Communications
 - Technology in place and tested? (GETS/WPS, sat phones, reverse 911 systems)
 - Leadership understands communication policies and messaging internal and external
- Resources
 - Backup power, networking, offsite systems, etc. tested and prepared
 - Vendors notified of potential needs for fuel, equipment or services

Incident Response

- People
 - Who decides what alternate capacity options are engaged?
 - Leaders in each area of the business understand how the alternate options are engaged and how they work differently
- Communications
 - All key stakeholders know the methods of communicating internally and externally
- Resources
 - Health and status of alternate resources understood during use

Recovery

- People
 - Who is required to recover facilities? Could be local, regional, etc.
- Communications
 - Internal and external communications need to be consistent and clear to internal and external
- Resources

The steps to enduring a catastrophic event can generally be divided into broad categories.

AC Video Solutions • 2014 Andrea Cummis 201-303-1303 Consulting, Systems Design/Integration	Davicom, Division of Comlab, Inc. • 2014 Louis-Charles Cuiernier 418-682-3380 x512 Remote Site Monitoring and Control Systems	LBA Technology Inc. • 2002 Jerry Brown 252-757-0279 x228 AM/MW Antenna Equipment & Systems	Sage Alerting Systems Inc. • 2010 Harold Price 914-872-4069 x113 Emergency Alert Systems Products
American Tower Corporation • 2000 Tiffany Yu 603-930-9091 Development/Construction/Management	Dielectric • 1995 Cory Edwards 207-655-8131 Radio & TV Antenna Systems and Monitoring	Linkup Communications Corporation • 2017 Mark Johnson 703-217-8290 Satellite Technology Solutions	SCMS Inc. • 2000 Bob Cauthen 800-438-6040 Audio and RF Broadcast Equipment Supplier
Barnfind-USA, Inc. • 2021 George Gonos 919-748-7373 Fiber Transport Solutions	Digital Alert Systems, LLC • 2005 Bill Robertson 585-765-1155 Emergency Alert Systems	LYNX Technik • 2007 Steve Russell 661-251-8600 Broadcast Terminal Equipment Manufacturer	Shively Labs • 1996 Dale Lidner 888-SHIVELY FM Antennas & Combiners
Belden Electronic Division • 1991 Rose Lockwood 203-600-4743 Fiber and Copper Cabling Infrastructure	DoubleRadius, Inc. • 2012 Jeffrey Holdenrid 704-927-6085 IP Microwave STL	MaestroVision • 2021 Claude Turcotte 888-424-5505 Broadcast Automation Software	Shure Incorporated • 2012 Bill Ostry 847-600-6282 Microphones, Wireless Systems, Headsets
Birns & Sawyer • 2022 Jim Alcantara 323-466-8211 Systems Integration, Sales, Rentals	Drake Lighting • 2015 Dave Sheppard 270-804-7383 FAA Obstruction Lighting - Medium and High Intensity	Markertek • 2002 Adam June 845-246-2357 Specialized Broadcast & Pro-Audio Supplier	Sierra Automated Systems and Eng. Inc. • 2011 Al Salci 818-840-6749 Routers, Mixers, Consoles, Intercoms
Blackmagic Design • 2012 Terry Frechette 408-954-0500 Production Switchers, Digital Cameras, Routers, Video Editing and Monitoring, Color Correction, Video Converters	DTS Inc./HD Radio Technology • 2014 George Cernat 443-539-4334 HD Radio Technology	Micronet Communications Inc. • 2005 Jeremy Vize 972-422-7200 Coordination Services/Frequency Planning	Staco Energy Products Co. • 2010 Paul Heiligenberg 937-253-1191 x128 Manufacturer of Voltage Regulators, UPS
Bracke Manufacturing LLC • 2012 Patra Largent 949-756-1600 RF & Microwave Components	du Treil, Lundin & Rackley, Inc. • 1985 Jeff Reynolds 411-329-6000 Consulting Engineers	Moseley Associates Inc. • 1977 Bill Gould 805-968-9621 x785 Digital STLs for Radio and Television	SuiteLife Systems • 2019 Nigel Brown 310-405-0839 Manage. Monitor. Control
Broadcast Depot • 2018 Tim Jobe 305-281-7540 TV, Satellite, Radio, IP	The Durst Org. - 4 Times Square • 2004 Tom Bow 212-997-5508 TV/FM/Microwave Tower Site	MusicMaster • 2014 Jerry Butler 352-231-8922 Advanced Music Scheduling Solutions	Sutro Tower Inc. • 1989 Raul Velez 415-681-8850 Broadcast Tower Leasing
Broadcast Devices, Inc. • 2015 Robert Tarsio 914-737-5032 Audio/RF Support Products	Econco • 1980 Debbie Storz 800-532-6626, 530-662-7553 New & Rebuilt Transmitting Tubes	Nascar Productions • 2014 Abbey Kielcheski 704-348-7131 Live/Post Production Services	Synthax Inc. • 2020 Brittany Hilton 754-206-4220 Audio Codecs and Converter Solutions
Broadcast Electronics Inc. • 1978 Perry Priestley 217-224-9800 Radio Equipment Manufacturer	ENCO Systems Inc. • 2003 Samantha Bortz 248-827-4440 Playout and Automation Solutions	National Association of Broadcasters • 1981 Industry Trade Association 202-429-5340	Technical Broadcast Solutions, Inc. • 2018 Robert Russell 302-414-0055 Engineering and Consulting Services
Broadcast Software International • 2016 Marie Summers 541-338-8588 Radio Automation, Audio Logging	ERI - Electronics Research • 1990 Zachary Bailey 812-925-6000 Broadcast Antennas, Transmission Line, Filters/Combiners, Towers and Services	National Football League • 1999 Michael Katzenoff 212-450-2368 Game Day Coordination Operations	Televue USA, LLC • 2021 Andy Ruffin 937-475-7255 Antennas Transmitters Measurement Distribution
Broadcast Supply Worldwide • 1988 Shannon Nichols 800-426-8434 Audio Broadcast Equipment Supplier	Floral Systems • 2008 Shawn Maynard 877-774-1058 Television Broadcast Automation	Nautel Inc. • 2002 Jeff Welton 877-662-8835 Radio Broadcast Transmitter Manufacturer	Telos Systems/Omnia/Axia • 2003 John Bisset 216-241-7225 Talk-Show Systems
Broadcasters General Store • 2004 Buck Waters 352-622-7700 Broadcast Audio Video Distributor	Heartland Video Systems, Inc. • 2011 Dennis Klas 920-893-4204 Systems Integrator	Nemal Electronics Int'l Inc. • 2011 Benjamin L. Nemser 305-899-0900 Cables, Connectors, Assemblies and Fiber Optic	Teradek • 2011 Jon Landman 949-743-5783 Camera-top ENG Solutions
Burk Technology • 2019 Matt Leland 978-486-0086 x703 Transmitter Facility Control Systems	Highlights, Inc. • 2016 Timothy Nash 352-564-8830 Obstruction Lighting Maintenance	Neutrix USA, Inc. • 2012 Fred Morgenstern 704-916-0368 Ruggedized Optical Fiber Systems	Tieline The Codec Company • 2003 Dawn Shewmaker or Jacob Daniluck 317-845-8000 Audio Codec Manufacturer
Calrec Audio • 2016 Helen Carr 703-307-1654 Audio Mixing Equipment	Hitachi Kokusai Electric Comark • 2013 Jack McNulty 413-998-1523 Manufacturer Broadcasting Transmission Equipment	Orban Labs, Inc. • 2011 Mike Pappas 480-403-8300 Audio Processing AMFMTV	Unimar Inc. • 2001 Thad Fink 315-699-4400, 813-943-4322 Tower Obstruction Lighting Designer, Manufacturer, Distributor
Cavell, Mertz & Associates Inc. • 2011 Gary Cavell 703-392-9090 Consulting Services	Indiana Broadcasters Association • 2019 Dave Arland 317-701-0084 Indiana Association for Radio & TV Broadcasters	Potomac Instruments • 1978 Zachary Babenderer 301-686-5550 RF Measurement Equipment Manufacturer	Vizrt Group • 2022 Anne Hrubala 917-771-8330 More Stories. Better Told.
Comrex Corporation • 1997 Chris Crump 978-784-1776 Audio & Video Codecs & Telephone Interfaces	Inovonics Inc. • 2012 Gary Luhrman 831-458-0552 Radio Broadcast Equipment	ProAudio.com - A Crouse-Kimzey Co. • 2008 Mark Bradford 800-433-2105 x560 Proaudio Broadcast Equipment Distributor	Wheatstone • 2010 Jay Tyler 252-638-7000 IP Consoles, Routers & Processors
Continental Electronics • 1976 Dana Di Gesio 412-979-3253 TV and Radio Transmitters	Jampro Antennas Inc. • 2011 Alex Perchevitch 916-383-1177 DTV, FM-HD Radio, DVB-T/T2, ISDB-T, DAB	Propagation Systems Inc. - PSI • 2010 Doug Ross 814-472-5540 Quality Broadcast Antenna Systems	WideOrbit • 2012 Brad Young 415-675-6700 Radio Automation and Playout
Crawford Broadcasting Company • 2021 Cris Alexander 303-481-1800 Media Company	Kathrein USA Inc. • 1985 Luis Kutasi 541-879-2312 Antennas for Broadcasting & Communications	Quintech Electronics and Communications Inc. • 2002 James Herbstritt 724-349-1412 State-of-the-art RF Hardware Solutions	Wireless Infrastructure Services • 2006 Travis Donahue 951-371-4900 Repacking Services - West Coast Turnkey Services
CueScript • 2014 Michael Accardi 203-763-4030 Teleprompting Software & Hardware	Kintronc Labs, Inc. • 2015 Brad Holly 423-878-3141 Radio Broadcast Antenna Systems - ISO9001 Registered Company	QVC • 2011 Kevin Wainwright 484-701-3431 Multimedia Retailer	
Cumulus Media, Inc. • 2021 Conrad Traumann 212-419-2940 Audio Media Company	latakoo • 2021 Paul Adrian 214-683-0791 Media Workflow Automation	Rohde & Schwarz • 2003 Walt Gumbert 724-693-8171 Transmitters, Test & Measurement, Video	
		Ross Video Ltd. • 2000 Jared Schatz 613-228-0688 Manufacturer, Television Broadcast Equipment	

Members With 25 or More Years of Membership
New Sustaining Members
Become a sustaining member.
Apply online or call 317-846-9000.

Member Spotlight: Peter Burkett

Member Stats

SBE Member Since: 2000

SBE Certifications: CBTE, CBNT, CTO

Employer: Retired Department of Defense, American Forces Network (AFN)/ Armed Forces Radio & Television Service

Position: Former TV Traffic Manager

Location: Custer, SD

Chapter: 131 Inland Empire

I'm Best Known For: I have been a licensed ham radio operator since 1965. My mentor, Bruce Zieminski, WA6BZ (sk) and I started the K6AFN Amateur Radio Club in 2005.

Q. What do you enjoy or value most about your SBE involvement?

A. At AFN, SBE certification was instrumental in my success at my job and certainly helped with promotions.

Q. What got you started in broadcast engineering?

A. At AFN, Bruce Zieminski devised a plan to get as many of our chapter technicians SBE-certified by getting them an Amateur Extra Class license. While I was in the process of training technicians to pass the amateur radio exams, Bruce motivated me to further my SBE certifications, which I did.



Peter's electronics/two-way radio shop with commercial radios for Custer County emergency services and repaired ham radio equipment for the local community.

Q. Who was your mentor or who in the industry do you admire?

A. Bruce Zieminski. From my start at AFN, Bruce was a fellow ham radio operator, a friend and my mentor.

Q. What did you like most about your job at AFN?

A. Being traffic manager was a daily challenge to get the broadcast logs (six channels) completed while under the gun of live television. When it went well, it went very well; when it went bad it went very bad. Fortunately for me there were very few bad days.

Q. When I'm not working I...

A. ... have a long time passion for trains and steam railroading. I learned about boilers in the Air Force, I always had a desire to work on a live steam locomotive. I worked for the Black Hills Central Railroad (the 1880 Train) in Hill City, SD, for five summer seasons after moving to Custer.

Q. What's your favorite gadget?

A. My handheld ham radio, from which I can monitor and control (using DTMF tones, yes, Fred Flintstone) the repeater systems I have built here in the Black Hills.

SBE Fellow Nominations Open

by Troy Pennington, CSRE, CBNT
Chair, SBE Fellowship Committee

SBE members: Do you know an SBE member who has contributed to the success of an SBE chapter or the broadcast industry? Has this person exhibited a dedication to the advancement of the broadcast engineer, the field of broadcast engineering and the Society of Broadcast Engineers itself? Someone like this deserves to be recognized for his or her efforts. Consider nominating him or her for the SBE Fellow rank of membership. The SBE is accepting nominations for 2023.

Fellow membership is the highest level of SBE membership. It's a form of recognition for someone who has contributed significantly to the society, the field of broadcast engineering or its allied professions, or by disseminating his or her broadcast knowledge and promoting its application in practice. Eighty-seven members have been recognized with the honor in the society's nearly 60 years of existence.

To nominate a member, candidates

Who are SBE Fellow Members?

sbe.org/fellows

must be proposed in writing by a voting member to the Fellowship Committee. The nomination must include a comprehensive professional history of the nominee and an explanation of why the candidate is deserving of this honor. The nomination must also include the written endorsements of at least five other voting SBE members. All nominations are to be kept confidential. No others besides the nominators and the members of the Fellowship Committee should be aware of the nomination. Moreover, the nominee should not be made aware that he or she has been nominated.

Nominations for 2023 must be received no later than March 15, 2023, for consideration. The Fellowship Committee will bring the names of nominees to the Board of Directors for consideration and election at the April 2023 meeting. The SBE secretary will notify those elected. Awards will be presented at the SBE Awards Dinner during the 2023 SBE National Meeting. Submit your nominations to Fellowship Committee Chair Troy Pennington, CSRE, CBNT; 6156 Hampton Hall Way; Hermitage, TN 37076, or to tppennington@sbe.org.

Now Scheduling 2023 Ennes Workshops

While the SBE already has some SBE Ennes Workshops on the 2023 calendar, you can still plan to host an SBE Ennes Workshop in your state. The SBE and the Ennes Educational Foundation Trust present a number of one-day educational programs for broadcast engineers, called SBE Ennes Workshops. These programs feature multiple topics and speakers that provide television and radio engineers with the nuts-and-bolts information they need to do their jobs. An SBE Ennes Workshop can serve as a highlight of your chapter's program year or enhance a regional conference.

The cost to bring an SBE Ennes Workshop to your area is typically shared through participant registration fees, sponsorships and chapter support. Some state broadcaster associations have also supported these programs financially, either as a part of one of their events or as a stand-alone event.

To learn more about hosting an SBE Ennes Workshop for the broadcast engineers in your community, contact Education Director Cathy Orosz, at 317-846-9000 or corosz@sbe.org, or visit sbe.org/ennes_workshop.

WELCOME TO THE SBE

NEW MEMBERS

Scott Arsenault - Renfrew, ON
 Chris L. Bartholomew - Twin Falls, ID
 David D. Clark - Norfolk, VA
 Colin Curtis-Byrnes - Omaha, NE
 Ken Demers - Henderson, NV
 Emily M. Eahrow - Farmington Hills, MI
 Giga Giorgobiani - Tbilisi, Georgia
 Aishwarya C. Godbole - Pune, Maharashtra, India
 Ryan R. Guarino - Long Beach, NY
 Marvin B. Hall, Jr. - Savannah, GA
 Jaime Hernandez - Pomona, CA
 Michael Hnatiak - Cleveland, OH
 Jacob W. Kennedy - Los Angeles, CA
 Nino Koberidze - Tbilisi, Georgia
 Charles E. Leftwich III - Alexandria, VA
 Sean M. McGee - Perry, IA
 Steven K. Nedde - South Hero, VT
 Wiley D. Norris - Preston, GA
 Jonathan Oaxaca - Desert Hot Springs, CA
 Christopher A. O'Bryan - Pinellas Park, FL
 Craig Pilgram - Green Bay, WI
 Jason Price - Pittsburgh, PA
 Shaun G. Savoy - Hastings, ON
 Dustin K. Shannon - Tulsa, OK
 Mark K. Simila - Prineville, OR
 Jarrett C. Sy - Duarte, CA
 Robert K. Thompson - Grand Rapids, MI
 Selina R. Walton - Mount Pritchard, Australia
 Ricky Weston - Burnsville, MN

NEW STUDENT MEMBERS

Jason N. Brown - FPO, AP
 Lauren E. Buntentah - Dallas, TX

NEW ASSOCIATE MEMBERS

Isabella M. Da Silva - Jacksonville, FL
 Graham Elkott - Peterborough, ON Canada
 Frank J. Olmstead, III - Carson, IA
 John M. Sokol - Kankakee, IL

RETURNING MEMBERS

John D. Bolden - Medon, TN
 Mark A. Borchert - Fargo, ND
 Paul E. Burt - Birmingham, AL
 Rodney J. Byers - Thornton, CO
 Eamon M. Coyne - St. Paul, MN
 Stephen E. Etheridge - Columbus, GA
 Joseph C. Ferrara, PE - Titusville, FL
 Thomas J. Finnegan - Elmhurst, IL
 Thomas A. Fisher - Henrico, VA
 Andrew G. Johnson - Panama City, FL
 Henry A. McKelvey - Capitol Heights, MD
 James B. Schoedler - Denver, CO
 Joseph M. Selner - Hales Corners, WI
 Bobby Stevens - Santa Clarita, CA
 Gregory H. Whitehead - Chicago, IL
 John M. Willkie - San Diego, CA

Know someone who could benefit from SBE Membership?

Invite him or her to join.

sbe.org/membership

SBE Certification Dates Set for 2023

SBE Certification exams are administered through local SBE chapters. The SBE Certification Committee has established four exam windows through the year for applicants to take a certification exam. When an exam application is submitted, the applicant notes where he or she will take the exam. The SBE will contact that chapter's certification chair to coordinate the exam date and time with each applicant.

Exam Dates	Application Deadline
Feb. 3-13, 2023	Jan. 6, 2023
June 1-12, 2023	April 21, 2023
Aug. 4-14, 2023	June 16, 2023
Nov. 3-13, 2023	Sept. 8, 2023

If no local chapter is available for the exam applicant, private proctoring can be arranged. Applicants should identify their private proctor (a teacher, librarian, clergy, commanding officer, etc.) on the exam application. Contact SBE Certification Director Megan Clappe at the National Office for more information.

OBSTRUCTION LIGHTING SIMPLIFIED

V2 HIGH INTENSITY SYSTEM

- ▶ GROUND-BASED POWER AND CONTROL COMPONENTS
- ▶ LIGHTWEIGHT FLASH HEADS
 >>> REDUCED TOWER LOADING
- ▶ TOUCH SCREEN INTERFACE
- ▶ IR COMPLIANT

LEARN MORE!

[DRAKELIGHTING.COM](https://drakelighting.com) | 270.804.7383
CONTACT@DRAKELIGHTING.COM

DRAKE LIGHTING

ASK US ABOUT OUR FAA COMPLIANCE SEMINARS! AVAILABLE VIRTUALLY & IN PERSON, AND WE'LL COME TO YOU.

2--18--4--3616*****MIXED AADC 450
 David Gleason
 www.worldradiohistory.com
 80960 Bellerive
 La Quinta CA 92253-5647

PRESORTED
 STANDARD
 U.S. POSTAGE
PAID
 INDIANAPOLIS, IN
 PERMIT #9555

MEMBERS ON THE MOVE

► **Thor Waage**, CBRE, is chief engineer, Western Region, for Oregon Public Broadcasting, Portland, OR.



Lang Sturgeon, CPBE, is director of technical operations at Audacy Baltimore.

Have a new job? Received a promotion? Send your news to Chriss Scherer at cscherer@sbe.org.

MARK YOUR CALENDAR

S M T W T F S

SBE WEBxtra online
 Dec. 19, 2022 sbe.org/webxtra
Chapter Meeting Reports Due
 Jan. 15, 2023 sbe.org/rebate
Meeting reports determine a chapter's rebate
SBE WEBxtra online
 Jan. 16, 2023 sbe.org/webxtra
SBE Certification Exams Local Chapters
 Feb. 3-13, 2023 sbe.org/certification
Application deadline Jan. 6, 2023
SBE WEBxtra online
 Feb. 20, 2023 sbe.org/webxtra
SBE Membership Drive Begins
 March 1, 2023 sbe.org
SBE Compensation Survey Opens
 April 1, 2023

SBE Dues Renewal Deadline
 April 1, 2023 sbe.org/renew
2023 NAB Show Las Vegas
 April 15-19, 2023 nabshow.com
SBE Membership Meeting NAB Show
 April 17, 2023
SBE WEBxtra online
 April 17, 2023 sbe.org/webxtra
SBE WEBxtra online
 May 15, 2023 sbe.org/webxtra
SBE Membership Drive Ends
 May 31, 2023 sbe.org
SBE Certification Exams Local Chapters
 June 2-12, 2023 sbe.org/certification
Application deadline April 21, 2023
SBE Awards Nominations Deadline
 June 15, 2023 sbe.org/awards



\$35 /month

CHOOSE AN ANNUAL SUBSCRIPTION
 AND GET \$70 OFF!

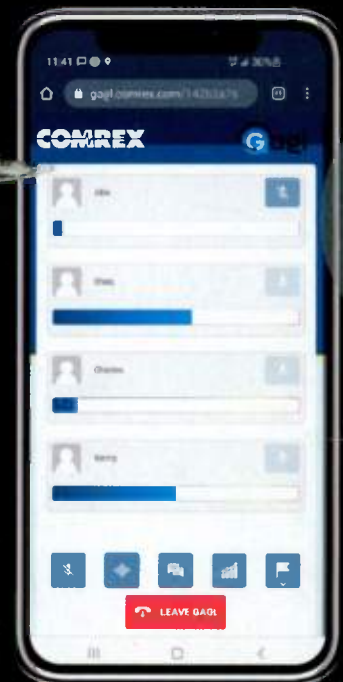
coming soon from **COMREX**

Turn any Comrex IP audio codec into an audio hub for up to 5 participants! Gag! can run an entire show or be used as a portal for one guest to connect.

REMOTE CONTRIBUTION MADE EASY

- ✔ Supports up to five guests
- ✔ High-quality Opus encoder
- ✔ Bidirectional audio between all guests with minimal delay
- ✔ Easy for your guests to use

No special equipment, software/app install, IT degree or department required!



Your listeners will thank you.

Contact us to learn more about Gag! info@comrex.com | +1 (978)784-1776 | www.comrex.com