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. Probably 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...

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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.

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
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 and training consulting 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 registration. For more information contact SBE Education Director Cathy Orosz at 317-846-9000 or corosz@sbe.org.

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 committees have been formed. 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 Ornelas
Social Networking ................ Kevin Trueblood
Sustaining Membership ......... Greg Dahl
Technologies ..................... Shane Toven

CQ Certification Question

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!

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.

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 way 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 Hutten 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!
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-needed 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 ensure 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 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.
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

grading your certification.

rience. The same goes for up-

ther does the SBE.

Just as your station wouldn't

SBE maintain consistent brand-

online at sbe.org/logo. Help the

You can find the current version

using the most current version.

take a moment to verify you are

logo for more than a few years,

on page 7. If you have used this

Certified logo. You can see it

by SMPTE.

Remember, you can jump into

any certification as long as you

have the prerequisite of expe-

rience. The same goes for up-

grading your certification.

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.

ENTRY LEVEL

FIVE YEARS

CTO CRO

CBT CBRE

CBT CEV

CSTE CBNE

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

TEN YEARS

must hold 10 yr before 20 yr

TWENTY+ YEARS

CPBE

CERTIFICATIONS IN PRINT

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

LISTING CERTIFICATIONS

Broadcast engineers who have maintained certification continuously for 20 years and are current members of the SBE upon application.

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

CERTIFIED BY

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)
SBE Certification Achievements

CONGRATULATIONS

LIFE CERTIFICATION

Certified Professional Broadcast Engineer (CPBE)
Joseph Glynn, Old Forge, PA - Chapter 2
Certified Audio Engineer (CEA)
Daniel Nevels, Tampa, FL - Chapter 39

Applications 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.

CERTIFIED PROFESSIONAL BROADCAST ENGINEER (CPBE)

Kenny Elcock, Watertown, MA - Chapter 11

AUGUST EXAMS

Certified Senior Television Engineer (CSTE)
Brett Hancock, Holland Landing, ON
Certified Senior Radio Engineer (CSRE)
Joseph Niffen, St. Paul, MN - Chapter 17
Nathaniel Steele, Cookeville, TN - Chapter 103

Certified Broadcast Networking Engineer (CBNE)
David May, Lexington, KY - Chapter 35
Aaron McCauchern, Burton, MI - Chapter 91
Christopher McKinley, Winchester, CA - Chapter 131
Nathaniel Steele, Cookeville, TN - Chapter 103

Certified Broadcast Radio Engineer (CBRE)
Timothy Meinig, Seattle, WA - Chapter 16
Certified Television Operator (CTO)
Gary Butterworth, Washington, DC - Chapter 37

SPECIAL PROCTORED EXAMS

Certified Broadcast Technologist (CBT)
Steven Nedde, South Hero, VT
Wiley Norris, Preston, GA
Frank Olmstead, Carson, IA

Certified Broadcast Technologist (CBT) (cont.)
Shaun Savoy, Hastings, ON
John Sokol, Kankakee, IL

Certified Broadcast Networking Engineer (CBNE)
Craig Fincher, Fort Worth, TX - Chapter 67
Certified Television Operator (CTO)
Gregory Tomlin, Asheville, NC
Certified Radio Operator (CRO)
Brandi Bernow, Olmsted Township, OH

Certified Broadcast Technologist (CBT)
Jason Brown, FPQ, AP

Certified Broadcast Technologist (CBT)
Joseph Fiorini, Punta Gorda, FL - Chapter 90
Raymond Wilke, Arbutus, MD - Chapter 46

CERTIFIED BY LICENSE

Joāquin Arriola, Eugene, OR
Iris Berkeley, Boulder, CO
Alex Fregger, York, PA

CERTIFIED RADIO OPERATOR (CRO)

Jillian DePriest, Jacksonville, FL

CERTIFIED TELEVISION OPERATOR (CTO)

Certified Broadcast Networking Engineer (CBNE)
Craig Fincher, Fort Worth, TX - Chapter 67
Certified Television Operator (CTO)
Gregory Tomlin, Asheville, NC
Certified Radio Operator (CRO)
Brandi Bernow, Olmsted Township, OH

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.

SBE CERTIFIED SCHOOL COURSE COMPLETION

Certified Broadcast Technologist (CBT)
DINFOS
Jason Brown, FPQ, AP

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

National Awards Dinner
Dielectric

JAMPRO antennas inc.

Markertek

latakoo
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 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.

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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 stream 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.

Sunsetting 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.
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 Apprenticehip 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 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 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 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.
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 software-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.
Member Spotlight: Peter Burkett

Member Stats
SBE Membership 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 Ziemienisks, 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 Ziemienisks 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.

Q. Who was your mentor or who in the industry do you admire?
A. Bruce Ziemienisks. 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...
A. I 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 SBE Fellow membership. 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 tpennington@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. Bahrou - 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 Hnatuk - Cleveland, OH
Jacob W. Kennedy - Los Angeles, CA
Nino Kobierzie - 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’Byran - 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. Buntenbah - Dallas, TX

NEW ASSOCIATE MEMBERS
Isabella M. Da Silva - Jacksonville, FL
Graham Elliott - 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. Finnegann - Elmhurst, IL
Thomas A. Fisher - Henrico, VA
Andrew G. Johnson - Panama City, FL
Henry A. McKeelvey - 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 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.

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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**

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**SBE WEBxtra online**

- Dec. 19, 2022: Chapter Meeting Reports Due
- Jan. 15, 2023: SBE Certification Exams
- Feb. 3-13, 2023: Application deadline Jan. 6, 2023
- Feb. 20, 2023: SBE Membership Drive Begins
- March 1, 2023: SBE Compensation Survey Opens
- April 1, 2023: SBE Dues Renewal Deadline
- April 16-19, 2023: 2023 NAB Show
- April 17, 2023: SBE Membership Meeting
- April 17, 2023: SBE WEBxtra
- May 15, 2023: SBE WEBxtra
- May 31, 2023: SBE Membership Drive Ends
- June 2-12, 2023: SBE Certification Exams
- June 15, 2023: SBE Awards Nominations Deadline

**SBE Dues Renewal Deadline**

- April 1, 2023: sbe.org/renew

**2023 NAB Show**

- Las Vegas: nabshow.com

**SBE Membership Meeting**

- April 17, 2023: NAB Show

**SBE WEBxtra online**

- April 17, 2023: sbe.org/webxtra

**SBE Certification Exams Local Chapters**

- Application deadline April 1, 2023

**SBE Membership Drive Ends**

- May 31, 2023: sbe.org

**SBE Certification Exams Local Chapters**

- Application deadline April 1, 2023

**SBE Awards Nominations Deadline**

- June 15, 2023: sbe.org/awards

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