

THE Signal

Bimonthly Publication of the
Society of Broadcast Engineers



The Association for
Broadcast and
Multimedia Professionals

www.sbe.org

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SBE Launches Annual Membership Drive

Each year, the Society of Broadcast Engineers conducts a member recruitment drive. The drive calls on current SBE members to encourage their non-member colleagues to join the association. In 2024, 80 individual members were recruited.

The SBE Membership Drive runs from March 1 until May 31. As a recruiting incentive to members, the SBE asks for prize donations from SBE sustaining member companies. In addition, the recruiter will earn \$5 per new member (up to \$25) off his or her 2026 membership dues. Several SBE Sustaining Member companies plus the SBE are providing prizes this year, ranging from shirts and hats to broadcast equipment. The SBE donates logo items, a copy of Cert-Preview, and a free Webinars by SBE registration. The theme for the 2025 drive is *Expand Your Professional Horizon*.

The SBE Sustaining Member companies donating prizes include Comrex, Dielectric, Heartland Video Systems, LBA Group, Nema

Electronics, Orban, Telos and Time Base Consoles.

All recruiters are eligible for the Membership Drive Grand Prize: A trip to the SBE National Meeting in September, held during the Midwest Broadcast and Multimedia Technology Conference in Columbus, OH.



Include the SBE in Your NAB Show Plans

You probably think the same thing every year: Is it time for the NAB Show? Again? It certainly is. The annual convention is packed with exhibits, sessions and plenty of opportunities to meet with manufacturers, vendors and colleagues. As you plan to make the best use of your time at the convention, include the many SBE events on your convention calendar. While the SBE Ennes Workshop highlights the SBE's educational offering on Friday and Saturday, the main event for SBE members is the annual Membership Meeting, which will be followed

by the Member Reception.

The SBE exhibit booth returns to the lobby of the North Hall. Officially NL2, the SBE is in sight of Starbucks and Lucky's Café. It's a convenient place to meet colleagues as you travel between halls. Stop in the booth to say hello, meet some of the elected SBE leaders and SBE staff, and get more information on SBE programs and services.

All the SBE events will be in the West Hall this year. The SBE Ennes Workshops will be held in W219 and W224/225.

The Membership Meeting will be held on Monday, April 7, at 5:00 p.m. in LVCC room W220/221. The Membership Meeting brings you up-to-date on all the SBE activities and programs, and it includes a milestone-service recognition of SBE chapter certification chairs, and updates on the society's plans, programs and government relations efforts. Everyone attending will be eligible to win prizes, including two Blackmagic Design Micro Camera 4K G2 to two winners, cour-

tesy of Membership Meeting sponsor Blackmagic Design. In addition, a \$100 Amazon gift card, restaurant gift cards and SBE-logoed items will be awarded. You'll want to get to the meeting early as well, because the first 100 people in attendance will receive an SBE-logoed giveaway.

The Membership Reception starts after the Membership Meeting at 6 p.m. in room W216. Light snacks and drinks are made possible because of the generous support of several SBE Sustaining Member sponsors. Lots of prizes will also be awarded, includ-

see NAB SHOW, p. 14



Photo: NAB Show

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Back in BLACK



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New Station Self-Inspection Guides Cover LPFM

The Society of Broadcast Engineers has released the latest addition to the Broadcast Station Self-Inspection Guides. The new document covers low-power FM (LPFM) stations. The SBE released the AM, FM and TV Guides in 2024. The SBE partnered with the National Association of Broadcasters (NAB) to produce the Guides. These Guides are designed to aid stations and Alternative Broadcast Inspection Program (ABIP) inspectors in evaluating a broadcast station's compliance with FCC rules and regulations.

The Guides are being developed to replace the FCC Self-Inspection Checklists that were first released in the 1990s, but had not been updated for nearly 15 years. While the previous Checklists only provided references to rules, the new SBE Guides include recommended practices for stations to establish policies and procedures to ensure overall regulatory compliance.

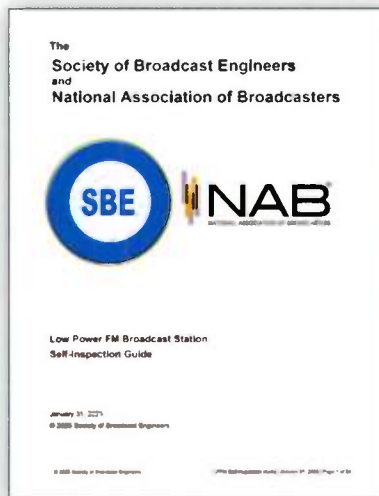
The project was announced at the SBE National Meeting held in September 2023,

and received widespread support from state broadcaster associations, many of which are actively involved in their own ABIP programs.

The SBE Government Relations Committee, chaired by Charles "Ched" Keiler, CPBE, 8-VSB, ATSC3, CBNE, formed a working group of SBE members in April 2022 to begin reviewing and updating the Guides. Additional Guides for other broadcast services are under review and will be released later.

SBE President Ted Hand, CPBE, 8-VSB, AMD, ATSC3, DRB, said, "The committee has worked hard on this fourth installment in the Station Self-Inspection Guides series. The interest in them continues, as does the work of the committee to develop additional editions."

The Guides are available for download from the SBE website under the Legislative/Regulatory and Resources tabs. They are free to SBE members.



Participate in the 2025 SBE Compensation Survey

The SBE is conducting its annual compensation survey. Launched to provide practical information to SBE members about individual compensation (salary and benefits) based on facilities, market size and years of experience, SBE members will have access to the full report.

While each annual survey has seen a successful response rate,

your participation is important to provide the large sample pool for the most reliable results. It only takes a few minutes.

All survey responses are anonymous. Find the survey link in email communications and on the SBE website. With your help we can provide a useful and practical resource to SBE members.

Highlights of the survey will be reported in *The Signal*. The full report will be available for download to members from the SBE website. Take the survey today: Go to sbe.org/survey.



Certification Question

An IP router controls or limits:

- A. the reach of a broadcast domain.
- B. the number of MAC addresses following through a network.
- C. the impact of a collision domain.
- D. application data flowing through the network.

Answer on page 6





LETTER FROM THE PRESIDENT

By Ted Hand, CPBE, 8-VSB, AMD, ATSC3, DRB
SBE President
president@sbe.org

It's Show Time... Again

It's that time for some of us to head to Las Vegas for the NAB Show. This will be my 41st show, and my 39th in Las Vegas. (Remember the snow in Dallas and the crowding in Atlanta?) The week will kick off with the SBE Ennes Workshop. The SBE, along with the NAB, will host the two-day, two-track SBE Ennes Workshop programs. As with last year we have RF 101 Bootcamp and Media Over IP. While the topics are familiar, these are new presentations. Up-to-date details are available on the SBE website. The programs run Friday, April 4 and Saturday, April 5.

I extend a huge thanks to the following for pulling this all together: SBE Director Fred Willard, CPBE, 8-VSB, ATSC3, CBNT; SBE Director Jeff Welton, CBRE; and David Bialik, CBT; for getting the programs and speakers set. Also, SBE Treasurer Geary Morrill, CPBE, AMD, DRB, CBNE; SBE Director Greg Dahl, CPBE; Executive Director Mike Downs, CAE, CMP; Certification Director Megan Clappe; Education Director Cathy Orosz; Member Communications Director Chriss Scherer, CPBE, CBNT; and Sustaining Member Manager

Debbie Hennessey. Truly a team effort.

I'm a little late on the news, but I failed to mention in the February issue that the SBE has a new Certification level: Certified Production Technologist. Technology is changing constantly and the SBE Program of Certification continues its upgrades and additions to stay with those changes. A big thank you to Certification Committee Chair Ralph Hogan, CPBE, ATSC3, DRB, CBNE, along with his committee and Certification Director Megan Clappe for bringing forth this level. The goal with this new level is to have a certification level for those who work in audio/video production and without RF or FCC regulations, such as churches, education facilities and streaming groups. Contact Megan Clappe (mclappe@sbe.org) or go to sbe.org/certification for more details.

For those at or just passed retirement age, please consider applying for SBE Life Membership. I applied this year in January when I renewed my membership. Any Member or Fellow in good standing who has retired from broadcast engineering, is at least 65 years of age, and who has been a member in good standing for 15 or more consecutive years immediately preceding application, may, at their request, be placed on the Life Membership list. There is a one-time application fee of \$105, which must be included with the application. It's \$215 if you want to add the SBE MemberPlus upgrade.

Nominations for the upcoming SBE election were due to the Nominating Committee by April 1. Floor nominations from the membership are due by June 27. Any voting member in good standing, by letter to the SBE Secretary, may propose and nominate a candidate with the endorsement of ten SBE or more members in good standing.

Congratulations to the people who took advantage of the SBE 60th Anniversary Diamond Project and reobtained 143 certifications. It's good to have these people back on the active certification roll.

I want to give a shout to one of my favorite projects, The VOA Museum in West Chester, OH. After a massive redesign of the building and exhibits, it is now open again. The museum is open Saturday and Sunday, noon to 4 p.m. If you love RF tubes and old transmitters, this is a must-see. (voamuseum.org).

Remember the SBE HAM Net, Chapter of the Air meets the second Sunday of the month at 2400Z, 14.205 kHz, ± 5 kHz.

In closing, I hope everyone who attends this year's NAB Show has a great convention. It's tougher and more expensive to get to these shows each year. Some are lucky to have their employer pay the freight. Others like me, a retiree, must put pennies in the jar or feel under the cushions in the sofa for loose change. Next year at this time, I will be the immediate past president of the SBE. I do not know if I will make the trip or not. I am arriving in Las Vegas this year knowing it may be my last time there; only the future will tell. If it is, it has been a great and fun adventure, from the early years back in the 1980s and 1990s, staying up to 4 a.m. at the blackjack table, knowing you had to make that 7 a.m. NBC Television breakfast and then standing for those one-hour booth tours. Now, at my age, I settle for a beer and watching a baseball game in the sports book. Most importantly, I enjoy it.

If you make it there, stop by the SBE booth and say hey. I'm always glad to shake a hand and thank you for being a member of the SBE.

If you need anything, please contact the SBE staff at 317-846-9000 or via email. Addresses available at sbe.org/contact. They are always ready to help you. If you have a comment or just want to say hey, I can be reached at president@sbe.org.

Have You Watched the SBE WEBxtra?



The SBE WEBxtra was created to grow and retain membership, attract new and younger members to the SBE, and increase participation in SBE activities among members. This monthly, virtual program for member engineers, technicians and other broadcast professionals, provides information about the SBE or broadcast technology. It is not intended to replace a local chapter meeting, but SBE members who do not have a chapter near them, or have conflicts that prevent them from attending chapter meetings can view the SBE WEBxtra to stay involved. For those holding SBE certification, viewing the SBE WEBxtra qualifies for 0.5 points in category G (attendance), just like attending a local chapter meeting.

— sbe.org/WEBxtra —

Chapter Check

Hofstra University
New York City

The students at WRHU are learning broadcast skills. The students are also part of New York Chapter 15. Andy Gladding, CBT, chief engineer of the station, leads Tech Thursdays, where students learn from and network with engineering managers from radio and TV stations.





EDUCATION UPDATE

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

In Search of... Engineers (A Sequel)

We've seen some high-profile retirements from our ranks, with Conrad Trautmann of Cumulus, Larry Vancini of Hearst Television, Fred Engel of PBS North Carolina and Jeff Littlejohn of iHeartMedia departing. Outside headlines, retirement announcements of one after another of the folks who have built and maintained broadcast facilities across the country keep coming. And notice of yet another broadcast engineer's demise almost weekly.

According to the 2024 SBE Compensation Survey, a majority of our membership is in a range from 50 to 72. Most retirements typically occur in the 65-72 range, although some are still quite active in their mid-to-late 70s.

Here's a sobering thought: Research of skilled trades (of which broadcast engineering is one) indicates for every five retiring, only two are entering the profession. Given our comparative size, for us a 5:1 (or less) ratio is more likely. Frankly speaking, that's us-unsustainable.

Perhaps you think this is "old news" (pun intended), but aging out departures from our profession will accelerate over the next few years. While the nature of our work has evolved over time, a demand remains for individuals skilled in constructing studio facilities, streaming infrastructure & transmission facilities – as well as maintaining them. Independent and group operators as well as state broadcaster associations share this concern – often acutely. The profession of broadcast engineer requires a unique skill set not readily available for study at most institutions of higher learning or traditional vocational ed programs in 2025. As a result, since few ready-made entry-level candidates will be churned out from such sources, to succeed we need to be prepared for "rolling our own."

If contemplating training an apprentice and/or developing new technical talent, the experience of others may give you a leg up in your quest. I've spoken with many who have had good results locating and recruiting candidates, and learned of successful strategies & guidelines you may wish to consider employing:

- What you're seeking is a helpful, problem-solving attitude coupled with a natural curiosity about technical/mechanical things. You can train these folks for skills.
- Folks naturally gravitate toward technical careers because they like "things" more than they like people. Not that they're anti-social, they just naturally lean toward being an introvert. While not always easy to locate – if you recognize this trait you can find them.
- If there are broadcast stations at nearby schools (high school or college) talk with the instructors. Ask if they have students that gravitate to setting up, operating and troubleshooting things vs "on-air performing." Those are good suspects. Consider helping launch a program like Andy Gladding has at Hofstra University. WRHU Engineering's Tech Thursday involves training workshops teaching basic skills like soldering and cable termination as well as broadcast hardware troubleshooting, systems design and transmission systems construction. It's attractive to many students. (See Chapter Check on page 4.)

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.

- If your state broadcast association hosts career events, these are networking opportunities. Take advantage of these to meet both potential candidates and instructors that may accompany their students there. See point #2 above for a strategy.
- Consider hosting an open house (complete with pizza) for local high school students, to share your seeking of a candidate to train as broadcast engineer. Eric Send of Midwestern Broadcasting in Northern Michigan had success with this exact strategy in finding Jimmy Gurst, and repeated it successfully when a promotion occurred.
- Don't overlook someone(s) already employed at your location in this capacity. Successful candidates have been discovered amongst the ranks of director/editor, programming or even someone on a station's "street team." See point #1 for guidance.



Photo: tonodan on Freepik

• Your station(s) will often recruit marketing talent with on-air ad schedules. That's because on-air recruitment works - not just for those actively "looking" for opportunity. A listener/viewer may know of someone else who is looking and refer. Or, you could pique the curiosity of someone casually interested in a change. They might even be employed in a similar field. Best results will come from well crafted ads, so drop me a note (gmorrill@sbe.org) and I'll share a script I've used to generate positive results.

• Don't neglect internships. You could start by offering a "Job Shadow" opportunity to

gauge a candidate's interest. Some State Broadcaster Associations even offer financial assistance for paid internships at member stations – Michigan Association of Broadcasters (MAB) is one of those – and an SBE Sustaining Member.

- Taking things a step further, SBE Fellow Steve Brown helped SBE Sustaining Member Wisconsin Broadcasters Association (WBA) create a Youth Apprenticeship program for media broadcast technicians through the Wisconsin Department of Workforce Development.

These are just a few ideas to prime your pump. I'll bet there are even more ideas and success stories among our members. I look forward to learning about what you care to share – especially if you give me permission to tell about it here!

Don't forget we have a proven program to help get new recruits up to speed and on their way to being net contributors. SBEs Technical Professional Training Program (TPT, sbe.org/tpt) provides plenty of bang for the buck. Happy Hunting!

Education Almanac

Webinars by SBE

April 17: Disaster Recovery Strategies
May 15: 2025 RF Safety Course

sbe.org/webinars

Leadership Development Course

Aug. 6-8: Washington, DC

sbe.org/lcdc





CERTIFICATION UPDATE

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

Recognizing Certification Service

The SBE thrives because of the dedication of its many volunteers. While there are six staff members at the National Office, the true driving force behind the SBE is the countless individuals who invest their personal time to support the goals and mission of broadcast engineering. This includes the Board of Directors, various SBE committees (including the Certification Committee), and local chapters, along with the chapter certification chairs.

Each year at the annual membership meeting during the NAB Show, the SBE honors the local certification chairs for their volunteer efforts in advancing the Certification Program. These individuals are presented with a plaque or lapel pin on the milestone anniversaries of their first year, and every five years thereafter. On the right is a list of those to be recognized this year.

A heartfelt thank you to all the volunteers who dedicate so much time and effort to the SBE and the certification program!

Basics of SBE Certification

Interested in obtaining an SBE Certification this year? Not sure which one you qualify for or would like to take? Let's go over some basics.

The certifications qualifications are based on your years of broadcast engineering experience. We offer certifications at the entry-level with no experience required. After that there are five, ten and twenty years of experience certifications. We also have four Specialist certifications that you can test for once you've received a five-, ten- or 20-year certification.

You can visit the SBE website for a longer description of the various levels. sbe.org/certification.

It's important to note that if you have ten years of experience but would like to take an entry-level certification, you can do that. Or you can jump right into the certification the requires more experience.

All the exams have 50 multiple-choice questions. Some allow books, notes and internet access. Some have an essay component. All these variations depend on the level of certification being tested for.

Exams are typically given four times a year with local chapters and one time in Las Vegas during the NAB Show.

Once you decide which exam you would like to take and which exam session, you need to submit your application. You can email, mail or fax it to the SBE National Office.

Chapter Certification Chairs

Leon Amstutz, CBRTE; Chapter 30
Mark Fehlig, CPBE, 8-VSB, ATSC3; Chapter 40
Vernon Jackson, CBRE; Chapter 55

1
YEAR

Robert Reite, CBT; Chapter 2
Kenneth Colwell, CSRE, DRB, CBNT, CBT; Chapter 65
Hal Kneller, CPBE, AMD, DRB, CBNE; Chapter 90
Geary Morrill, CPBE, AMD, CBNE; Chapter 91

Gary Hartman, CPBE; Chapter 22
David Halperin, CBRE; Chapter 38
Juan Antonio Gonzalez, CSTE; Chapter 53

15
YEARS

David Priester, CPBE; Chapter 140

Eric Hoehn, CSRE, CBNT; Chapter 37

John Collinson, CPBE, 8-VSB, AMD, ATSC3, CBNE; Chapter 39

Chuck Ingle, CPBE, AMD; Chapter 96

George Werl, Jr., CPBE; Chapter 17

25
YEARS

45
YEARS



Answer from page 3 The answer is A

The reach of a broadcast domain limits an IP router because routers don't forward broadcast traffic between domains. They segment networks by separating broadcast domains, ensuring that broadcast traffic stays within its own subnet, which prevents network congestion and improves efficiency.

Register for the SBE Leadership Development Course

Registration is open for the 2025 SBE Leadership Development Course, August 6-8, 2025, in Washington, DC. Make plans now to take part in this SBE tradition started in 1997.

Dr. Abram Walton, the founder of Ivory Bridge Group, a management consulting and training firm will teach the course again. 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 course is for technically adept people to acquire and develop skills for sound leadership, supervisory and management skills. The 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, a certificate of completion, light breakfast and afternoon snacks.

The cost is \$850 for SBE Members and \$975 for Non-Members. Register at sbe.org/lde. Interested in sending a group of five or more from your company? Contact SBE Education Director Cathy Orosz at 317-846-9000 or corosz@sbe.org.

SBE Certification Achievements

CONGRATULATIONS



LIFE CERTIFICATION

Certified Professional Broadcast Engineer (CPBE)
Christopher H. Scherer, Overland Park, KS - Chapter 59

Certified Professional Broadcast Engineer (CPBE) ATSC 3 Specialist (ATSC3)
Frederick Engel, Apex, NC - Chapter 93

Certified Broadcast Radio Engineer (CBRE)
Richard Barnes, Pasadena, MD - Chapter 46

Certified Broadcast Networking Technologist (CBNT)
Christopher H. Scherer, Overland Park, KS - Chapter 59
Dexter Wilson, Sellersburg, IN - Chapter 35

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.

Got your SBE Certification pin?
sbe.org/pins

CERTIFIED PROFESSIONAL BROADCAST ENGINEER (CPBE)

Certified Professional Broadcast Engineer (CPBE)
Kevin Tubbs, Syracuse, NY - Chapter 22

Applicant must have had 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.

FEBRUARY EXAMS

Certified Broadcast Radio Engineer (CBRE)
Robert Brown, Fairfield, CA - Chapter 40
David Dieter, Denver, CO - Chapter 48

CBRE - cont.
Peter Farrough, South Bend, IN - Chapter 30
Jon Zucco, Denver, CO - Chapter 48

Certified Production Technologist (CPT)
Maximilian Vokoun, Gilbert, AZ - Chapter 9

CERTIFIED RADIO OPERATOR (CRO)

Peyton Johnson, Central City, IN
Josiah Newmaster, Evansville, IN

CERTIFIED TELEVISION OPERATOR (CTO)

Silas Alves Okada, Bedford, TX



DIAMOND PROJECT

The following applicants completed the Diamond Project process completing the application requirements.

Certified Professional Broadcast Engineer (CPBE)
Kevin Plumb, Trumbull, CT - Chapter 14

Certified Senior Radio Engineer (CSRE)
Mark Johnson, Panama City, FL - Chapter 106

Certified Broadcast Networking Technologist (CBNT)
Paul Manning, Grand Blanc, MI - Chapter 91

Certified Broadcast Technologist (CBT)
Milton Campbell, Veneta, OR - Chapter 76

Certified Television Operator (CTO)
Glenn Robinson, Clark, NJ

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.

Certified Professional Broadcast Engineer (CPBE)
Gregory Dahi, Rockford, IL - Chapter 96
Tony Peterle, Delaware, OH - Chapter 52

Certified Professional Broadcast Engineer (CPBE) 8-VSB Specialist (8-VSB)
William Magliocco, Atlanta, GA - Chapter 5

Certified Senior Radio Engineer (CSRE)
Alan Shea, Albion, IN - Chapter 30

Certified Senior Radio Engineer (CSRE) AM Directional Specialist (AMD)
Robert Stroupe, Jr., Missouri City, TX - Chapter 105

Certified Broadcast Television Engineer (CBTE)
Kurt Caruthers, Overland Park, KS - Chapter 59
Brian Kerkan, Deltona, FL - Chapter 42
Richard Miska, Southbury, CT - Chapter 14
Paul Nowakowski, Greensburg, PA - Chapter 20
Chris Thomas, Belfair, WA - Chapter 16

Certified Broadcast Radio Engineer (CBRE)
Marcos O'Rourke, Engelwood, CO - Chapter 47

Certified Broadcast Networking Engineer (CBNE)
Robert Army, Jr., Moreno Valley, CA - Chapter 131

Ryan Krupa, Bristol, CT - Chapter 14
William Magliocco, Atlanta, GA - Chapter 5
Troy Majeska, Winter Springs, FL - Chapter 42
Marcos O'Rourke, Engelwood, CO - Chapter 47

Certified Broadcast Technologist (CBT)
Robert Carlough, Boca Raton, FL - Chapter 53
James Kelly, Vancouver, WA - Chapter 124
Geoffrey Peacock, Mobile, AL
Chris Thomas, Belfair, WA - Chapter 16
David Jones, Largo, FL - Chapter 39

Certified Video Engineer (CEV)
Steven Pingelski, Cohes, NY - Chapter 58

Certified Broadcast Networking Technologist (CBNT)
James Kelly, Vancouver, WA - Chapter 124
Brian Kerkan, Deltona, FL - Chapter 42
Richard Miska, Southbury, CT - Chapter 14
Alan Shea, Albion, IN - Chapter 30
Ben Slater, Laramie, WY - Chapter 48
Robert Stroupe, Jr., Missouri City, TX - Chapter 105
Kevin White, Richland, WA - Chapter 51

Certified Television Operator (CTO)
Anthony Leon, San Dimas, CA

Certified Radio Operator (CRO)
Randy Bohn, Shawano, WI

SBE Awards: Nominate Today

Who will be the next SBE Engineer of the Year award recipient be? It could be you, it could be someone you nominate. This will be the 12th year that the Chapter Engineer of the Year award is nominated by SBE Chapters. The chapter honorees are then entered into consideration for the Robert W. Flanders SBE Engineer of the Year award. Each chapter can establish its own criteria for the chapter award. Individuals can also be nominated directly for the na-

tional award. For the national award, nominations need to be submitted to the National Office by June 15.

There are other honors as well. The James C. Wulliman SBE Educator of the Year; the SBE Technology Award; Facility Innovation of the Year; Best Technical Article, Book or Program by an SBE Member; Best Article, Paper or Program by a Student Member; and the Freedom Award are among the accolades. There are also a series of statistical awards.

Of the 13 awards recognizing chapters that are presented each year, a local chapter or SBE member make nominations for 10 of them. Many SBE members are highly qualified and deserving of recognition. Likewise, many chapters do an excellent job promot-

ing the ideals and goals of the SBE. Please nominate these members and chapters so they can receive the recognition they deserve.

For information about these and any of the SBE National Awards, please visit sbe.org/awards or contact Megan Clappe at mclappe@sbe.org. Recognition by your peers is the highest honor. Honor your colleagues today. 

sbe.org/awards



SBE Seeks Board Candidates

By Jeff Welton, CBRE

The SBE Nominations Committee is concluding its work to assemble a slate of candidates for the upcoming SBE election. I have again been appointed to chair the Nominations Committee.

The SBE Nominations Committee seeks qualified candidates who are voting members (Member, Senior, Fellow or the designated representative of a SBE Sustaining Member) in good standing (dues paid). Candidates must hold an engineering level of SBE certification (CBT or higher, or CBNE) and maintain it the entire duration of service on the Board, if elected. Candidates should have a desire to serve and lead, not only as a member of the board, but through service as a national committee chair or member. Members of the Board are "at large," meaning they represent all members, not any one specific region, state, city or chapter.

Members of the Board are expected to attend two meetings each year; in the spring, held during the annual NAB Show, and in the fall, at the annual SBE National Meeting. Other meetings may be called via conference call during the year.

The national SBE board includes 12 directors, four officers and the immediate past president. Directors serve two-year terms, and officers serve one-year terms. Six director seats will be contested

in 2025 as will all four officer positions. The SBE By-laws limits the number of terms of elected members of the Board. Directors may serve three consecutive terms, the secretary and treasurer may serve up to four consecutive terms, and the president and vice president may serve up to two consecutive terms. The maximum time anyone may serve on the board is ten consecutive years.

Members interested in offering their candidacy and serving on the national Board if elected are encouraged to contact SBE Secretary Shane Toven stoven@sbe.org or via the SBE National Office at 317-846-9000. Qualified members may be nominated by members in good standing no later than June 27 with the support of 10 SBE members.

The election takes place from July 14 through Aug. 13. Those elected will be installed into office during the SBE National Meeting, to be held in Columbus, OH, in September.

Chapter Check

Chapter 57 Rochester Chapter 22 Central New York

In January, Chapters 57 and 22 featured a presenter highlighting the crossover of interests and participation in broadcast and amateur radio.

The topic brought new faces to both meetings. Saied Seghatoleslami, N2VY (third from left, standing), led the presentation.

Chapter 22
photo by
Jim Peck.



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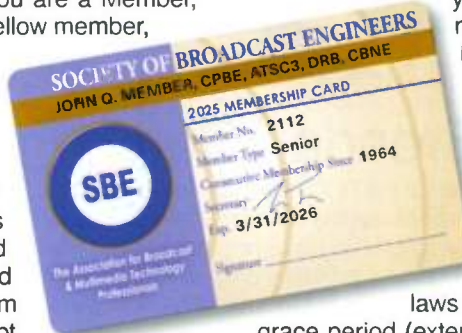


Still Time to Renew Your SBE Membership

It is still not too late to renew your membership in the Society of Broadcast Engineers and retain your membership benefits. If you are a Member, Senior, Student, Associate or Fellow member, you may renew online at sbe.org. Click on "Renew Membership" in the upper right-hand corner of the website home page (or the hamburger drop-down menu on a mobile device). The online system is available 24/7, is secure, and accepts Visa, MasterCard and American Express. The system automatically generates a receipt, sent to your email address. You will need your member number and website password to access the renewal system, but if you don't have them handy, there is an automated retrieval system available to you on the renewal page.

When renewing, consider joining more than 1,000 fellow SBE members who have chosen the SBE MemberPlus option over the past year. For \$215, the SBE MemberPlus option provides all of the benefits of traditional membership, plus access to all archived SBE webinars and all new SBE webinars produced through March 31, 2026. That's more than 100 webinars covering a broad range of broadcast/media technology, regulatory and safety topics.

You may also renew your membership by mail, completing and returning the renewal form and your payment to the SBE national office: Society of Broadcast Engineers; 9102 N. Meridian Street, Suite 150; Indianapolis, IN 46260; or by fax at 317-846-9120.



Traditional and MemberPlus Members

Membership renewal was due April 1. SBE By-laws provides for a three-month grace period (extends through June 30). If you chose the SBE MemberPlus option in 2024 and you did not renew by April 1, be aware that your SBE MemberPlus option benefits ended on April 1, 2025, and your membership was automatically converted to traditional membership for the duration of the grace period. If you renew during the grace period (or after), you can restore your free access to all SBE webinars by taking the SBE MemberPlus option.

sbe.org/renew

While you're renewing your own membership, recruit a new member during the 2025 SBE Membership Drive. See page 1 for details.

sbe.org/drive



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LEGAL PERSPECTIVE

By Coe Ramsey, Patrick Cross and Noah Hock
SBE Regulatory Counsels
cramsey@sbe.org, prcross@sbe.org, nhock@sbe.org

FCC Chair Brendan Carr's Prolific First Weeks in Office

Since taking over as chairman of the FCC in late January, Brendan Carr has been pursuing actions across a wide-ranging swath of areas under the Commission's jurisdiction. For broadcasters in particular, Carr has already taken several actions – and initiated several proceedings – that may, once resolved, directly impact broadcasters' operations.

Below, we catalog some of the most prominent broadcast issues on which Chair Carr has thus far been extremely active, ranging from technical matters such as spectrum allocations and CALM Act compliance to more fundamental issues regarding broadcast programming content and the longstanding "public interest" standard that governs broadcast operations. Although significant developments will almost certainly have occurred between the writing of this article and its publication, we hope the following will provide some insight into the likely broadcast regulatory priorities of the Carr FCC at this time.

Expanded Use of the Upper C-Band

Until recently, broadcasters were allocated the entirety of the C-band (3.7-4.2 GHz) for earth station operations (such as receive-only / downlink dish operations). However, beginning in 2020, broadcast operations were forcibly relocated from the lower, 3.7-3.98 GHz portion of the C band to the upper, 4.0-4.2 GHz portion of the band (or moved to alternative technologies, such as fiber), to make way for the authorization of new wireless overlay licensees in the lower, 3.7-3.98 GHz portion of the C Band.

Now, however, at the behest of Chair Carr, the Commission has released a notice of inquiry (NOI) considering the feasibility of further opening the upper portion of the C-band (3.98-4.2 GHz) for expanded flexible use. The NOI is preliminary, and acknowledges a "wide variety of incumbent operations and users" in the band, but invites commenters to address whether and how the band could be opened, including whether new technologies could provide for more efficient spectrum use, or whether similar mechanisms used in the prior repack could be used again. The upshot for broadcasters is that the NOI could be the first step in removing broadcast interests from the band entirely; indeed, as of this writing the NOI expressly asks: "Are there potential alternatives to Upper C-band spectrum for the provision of broadcast and media services, such as fiber, wireless backhaul, or Ku/Ka-band spectrum?"

CALM Act Compliance

Adopted in 2010 and implemented by the FCC via rulemaking shortly thereafter, the Commercial Advertisement Loudness Mitigation (CALM) Act established a mandatory technical standard to which broadcast commercial advertisements must adhere. The goal of the CALM Act was to respond to consumer complaints regarding the loudness of commercials, particularly when commercial volume surpasses that of its accompanying programming.

Although consumer complaints fell for many years after the adoption and implementation of the CALM Act, both the FCC and Members of the U.S. Congress continue to receive viewer outreach expressing concerns about commercial loudness. This has led the current Commission, under Chair Carr's leadership, to initiate a rulemaking proceeding targeting "remaining issues" with CALM Act compliance. As of this writing, topics up for consideration as part of the proceeding include how the Commission might modify the current consumer complaint process, the prevalence of CALM Act vio-

lations on broadcast, MVPD, and streaming services, and whether (and, if so, how) to recalibrate the FCC's rules to establish a new technical method by which compliance could be determined. Depending on how the foregoing issues develop and/or are resolved, broadcasters may need to meaningfully review (or, possibly, even update) their compliance methods.

Broadcast Programming

Although not technical in nature, perhaps the swiftest and most forceful actions taken thus far by Chair Carr have been within the realms of broadcast programming matters, specifically regarding: (1) broadcast television network complaints; (2) NPR and PBS underwriting content; and (3) radio station news coverage of immigration agency operations. Underlying each of the foregoing areas are Chair Carr's statements near the close of last year that under this leadership the FCC could open a proceeding regarding the contours of the long-standing requirement that broadcasters operate "in the public interest."

As to Chair Carr's actions regarding broadcast television networks, in the past year the FCC received complaints leveled at stations owned by each of the four major networks, ABC, CBS, NBC, and Fox. The substance of each complaint differs, but each involved allegations of wrongdoing related to coverage of political issues. Early in 2025, the FCC – then chaired by Biden-appointee Jessica Rosenworcel – dismissed each of those complaints. At the time, Chair Rosenworcel defended the action, citing the networks' First Amendment free speech rights as grounds for the dismissals.

However, in one of Chair Carr's first acts when he took over as Chairman, the FCC reversed course on three of the dismissals, reinstating the complaints against ABC, CBS, and NBC. The Commission elected not to reinstate the complaint against Fox. Thereafter, the FCC opened a docket to accept public comment regarding the news distortion complaint levelled against CBS in relation to an interview with Vice President Kamala Harris. Through that docket, the FCC also publicly released transcripts and video of the interview, which were provided to the Commission by CBS in connection with the investigation of the complaint.

As for the Public Broadcasting Service (PBS) and National Public Radio (NPR), Chair Carr has also asked the Enforcement Bureau to investigate those organizations for possible violations of FCC underwriting rules – i.e., for impermissibly airing commercial material on non-commercial educational broadcast stations. In a letter to the Presidents of both PBS and NPR, Chair Carr announced his request for the underwriting investigation, and further stated his belief that federal funding for PBS and NPR should cease. In an interview, Chair Carr also intimated that the underwriting investigation could "expand" beyond underwriting issues, depending on the course of the investigation.

Additionally, as to station news coverage, the FCC has reportedly sent a letter of inquiry to a San Francisco AM radio station investigating a claim that the station's news reporting identified undercover immigration officials that were conducting an ongoing operation. The investigation was reported by Fox News, in an article quoting Chair Carr, wherein Carr implied the alleged claims may be a violation of the station's public interest obligations.

Although each of the foregoing are relatively removed from tech-

see [LEGAL](#), p. 14



FOCUS ON THE SBE

By Mike Downs, CAE, CMP
SBE Executive Director
mdowns@sbe.org

New Beginnings

As I continue to settle into my role as the new executive director, I am continuously amazed by the dedication and support that each of you provides the SBE. Transitions are never easy, yet the staff at the SBE National Office and the Board of Directors have worked tirelessly to keep our organization on track and moving forward. One of my main goals in the first quarter has been to listen and to learn. I have enjoyed the conversations that I have had with some of you and welcome continued dialog as we work together to move the SBE forward. Please reach out to me directly with thoughts and ideas that you might have to make the Society the premier place for people in our industry to seek out and become involved.

We all need to promote what we do and why we do it in order to engage both members and non-members. Take time at your job to seek out those that might not know about SBE and invite them to your chapter meeting. Share your SBE story with new employees and see if we might not have op-

portunities that will benefit them. The best way to get a new member involved is by simply asking them to join you.

Dues Renewal

By this time, you should have received your annual renewal notice. You will notice that the fees have been adjusted to bring them in line with inflation over the past years and will offer the SBE the opportunity to continue to provide quality programs and services. If you have not renewed your membership, I encourage you to do so soon to remain active with the SBE and to be able to continue to enjoy the member benefits. Before you renew, make sure that you select the membership option that best meets your needs as a professional. Whether you enjoy the benefits as a regular member or choose the SBE MemberPlus upgrade, there are resources for you at sbe.org. Your dues ensure that we are able to continue to provide educational opportunities, certifications, and other resources at minimal cost.

NAB Show

If your upcoming plans include a trip to Las Vegas for the 2025 NAB Show, you have many opportunities to engage with SBE and others in the industry. The SBE Education Committee has once again partnered with the NAB to provide the SBE Ennes Workshop on Friday, April 4 and Saturday, April 5. There are two tracks running concurrently. The show floor full of exhibits will be the main hub of interaction with others. Please make sure and stop by the SBE booth and say hello. While there, feel free to pick up some literature or merchandise that we will have onsite. Please note that our merchandise will be limited so make sure and stop by early to see what is available. The SBE will also hold its Membership Meeting on Monday, April 7 from 5 to 6 p.m., followed immediately by our Member Reception to allow for further conversations and fellowship. Make sure to introduce yourself and let me know what got you involved and what keeps involved.

These SBE Sustaining Members are Sponsoring Events at the 2025 NAB Show

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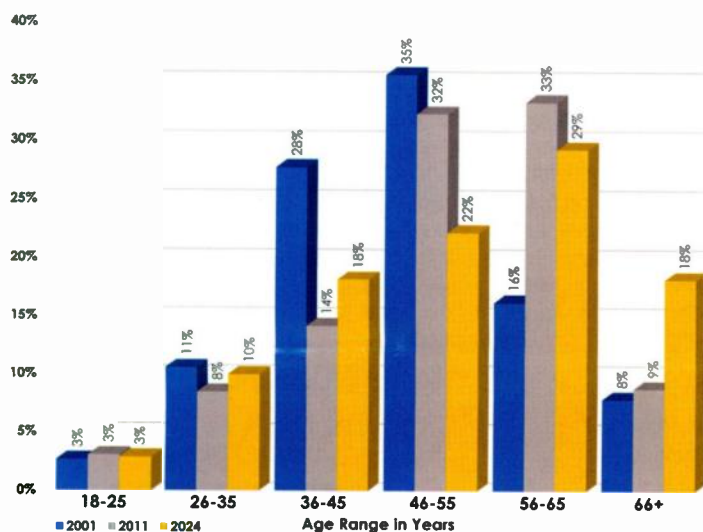
ENGINEERING PERSPECTIVE

by Jeff Welton, CBRE
jwelton@sbe.org
SBE Board of Directors

Age, But Different Experience

At the NAB Show in 2012, John Poray, SBE executive director from 1992 to 2020, presented a paper discussing the looming shortage of broadcast engineers. That paper included a graphic showing average ages of broadcast engineers in 2001 and ten years later, in 2011. That graphic caught my attention and, with John's permission, I started using it in presentations of my own a year later. Fast forward another dozen years and I took the data from the 2024 SBE Compensation Survey to compile a similar graph. See the graph for how things looked in these years.

SBE Membership Age



Average SBE member ages in 2001, 2011 and 2024.

This clearly shows that the trend is continuing, that we are slowly "greying out" the industry. This points to an urgent need for fresh faces and viewpoints. The challenges facing that are multiple – lower salaries than other career paths, long hours, less familiarity with a mature industry than we would have had in our youth, among others. However, there is also a bright spot in the same thing that got most of us into radio or television in the beginning: the magic. That spark still exists, although it may be a little less bright than in years past. Also, a significant portion of the job these days is IT-oriented. If someone had told me 35 years ago when I started that transmitters would come with internal computers and IP addresses, I would have laughed (if for no other reason than I didn't know what an IP address was!). That is a bright spot because today's youth are surrounded by information technology. A lot of what we had to learn – kicking and screaming – they are immersed in while still in elementary and middle school.

However, there is still a challenge – a lot of us old(er) folks got our start by playing with or disassembling radios and building Radio Shack or Heathkit transmitters or electronics kits. Thus, we were immersed in electronics and Ohm's Law from our youth, just as today's generation is immersed in IT. So for a lot of us, the transition into transmitter and studio maintenance was fairly natural, unlike our

transition into IT as it evolved. For our successors, it is the exact opposite. They also have the challenge of coming into an industry that is slimmed down. There are fewer people, lower budgets, but the same amount of work, if not more, so it's harder to find an Elmer, a mentor, somebody to show them the ropes.

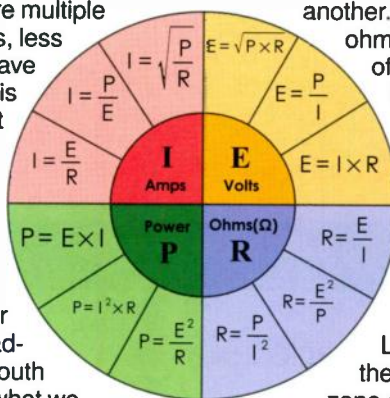
What You Don't Know

That was the thought process that started us on the RF101 path with the SBE Ennes Workshop at the NAB Show, what started me on hosting periodic engineering days in various regions in my day job, and was the reasoning behind the four-part Basic RF for IT webinar series and the four-part Applied RF Basics webinar series in Webinars by SBE in 2023 and 2024. The goal isn't to teach a full electronics course, nor is it even to give a working knowledge. The goal is to show folks what they don't know – because once you know what you don't know, you can at least start to take the steps to learn that thing, whatever it may be.

Around the same time I first encountered John Poray's article on the graying of the industry, I came across another article in a trade publication written by Mark Persons, CPBE, AMD, CBNT, a contract engineer from Minnesota, mentor extraordinaire and Robert W. Flanders SBE Engineer of the Year award winner for 2018. In that article, Mark said, "I have been getting calls from IT people who are struggling with transmitters that are beyond their level of education or understanding. These people often do not have the Ohm's Law basic knowledge to help them think through component level troubleshooting problems. Any upcoming radio broadcast engineer needs to recognize this and train accordingly to be equipped mentally to deal with this when it occurs." Since this article, Mark has retired, but is still very involved with the SBE Mentor Program and sharing his knowledge and experience any way he can.

To this, I respond, "Bingo!" Ohm's Law is the fundamental basic principle of everything we do in broadcast. (The classic Ohm's Law Wheel is shown here.) Whether the transmission medium is copper, air or even glass, it will be involved at both ends to one extent or another. At some point, everything will come down to volts, ohms and amps and it is crucial to have a solid grasp of this. As you play with it, you realize, for example, if you have a stable power reading, but higher than usual output voltage, the only option is that the resistance has decreased. For any given power, if voltage goes up, current must go down. Knowing this and keeping a mental image of this wheel in your head will make troubleshooting anything at the schematic level a whole lot easier!

On that note, the SBE Ennes Workshop RF101 and Media over IP courses are again being held in Las Vegas this year, and we hope to see some of you there. If your background is IT, get outside the comfort zone and get the RF learning – and vice versa if you have solid RF training and less IT experience. No matter what you do, realize that learning never stops! To quote one of my favorite authors, "The idea of education has been so tied to schools, universities, and professors that many assume there is no other way, but education is available to anyone within reach of a library, a post office, or even a newsstand." (Louis L'Amour, *Education of a Wandering Man*, 1989). To that I would add, "Google is your friend" (my wife, every time I ask a question). Always keep learning!



Alabama Broadcasters Association • 2024 Sharon Tinsley 205-982-5001 Alabama Association for Radio & TV Broadcasters	Econco • 1980 Debbie Storz 800-532-6626 530-662-7553 New & Rebuilt Transmitting Tubes	Minnesota Broadcasters Association • 2024 Wendy Paulson 612-926-8123 Minnesota Association for Radio and TV Broadcasters	South Carolina Broadcasters Association • 2024 Dody Yarbrough 803-732-1186 South Carolina Association for Radio and TV Broadcasters
American Amplifier Technology/Shively Labs • 1996 Steve Wilde 916-978-1899 Quality Broadcast Products	ENCO Systems Inc. • 2003 Samantha Bortz 248-827-4440 Payout and Automation Solutions	Missouri Broadcasters Association • 2024 Terry Harper 573-636-6692 Missouri Association for Radio & TV Broadcasters	South Dakota Broadcasters Association • 2024 Steve Willard 605-224-1034 South Dakota Association for Radio & TV Broadcasters
American Tower Corporation • 2000 Tiffany Yu 603-930-9091 Development/Construction/Management	ERI - Electronics Research • 1990 Zachary Bailey 812-925-6000 Broadcast Antennas, Transmission Line, Filters/Combiners, Towers and Services	Montana Broadcasters Association • 2024 Dewey Bruce 406-431-2139 Montana Association for Radio and TV Broadcasters	Staco Energy Products Co. • 2010 Paul Heiligenberg 937-253-1191 x128 Manufacturer of Voltage Regulators, UPS
ANCO Wireless • 2024 Scott Gordon 605-496-3475 Broadcast Tower Construction Maintenance	Floral Systems • 2008 Shawn Maynard 877-774-1058 Television Broadcast Automation	Moseley Associates Inc. • 1977 Bill Gould 805-968-9621 x785 Digital STLs for Radio and Television	Sutro Tower Inc. • 1989 Raul Velez 415-681-8850 Broadcast Tower Leasing
Aqua Broadcast • 2024 Brendan Loft 44-203411 0387 COBALT FM Transmitters	GatesAir • 1977 Mark Goins 513-459-3710 Radio/TV Transmitters, STL Coders	MSWLab • 2024 Michael Wells 806-433-2923 Broadcast IT Consulting Engineer	TBC Consoles • 2023 Steve Struhs 631-293-4068 Technical Furniture for Broadcast/AV
Arkansas Broadcasters Association • 2024 Neal Glander 501-227-7564 Arkansas Association for Radio and TV Broadcasters	Georgia Association of Broadcasters, Inc. • 2024 Allison Fulton 770-395-7200 Georgia Association for Radio & TV Broadcasters	MusicMaster • 2014 Jerry Butler 352-231-8922 Advanced Music Scheduling Solutions	Technical Broadcast Solutions, Inc. • 2018 Robert Russell 302-414-0055 Engineering and Consulting Services
Blackmagic Design • 2012 Terry Frechette 408-954-0500 Production Switchers, Digital Cameras, Routers, Video Editing and Monitoring, Color Correction, Video Converters	Hawaii Association of Broadcasters • 2025 Jamie Hartnett 808-599-1455 Hawaii Association for Radio & TV Broadcasters	National Association of Broadcasters • 1981 Industry Trade Association 202-429-5340	Telestream • 2013 Bryn McFadden 530-470-1300 Video and Workflow Solutions
Bracke Manufacturing LLC • 2012 Patra Largent 949-756-1600 RF & Microwave Components	Heartland Video Systems, Inc. • 2011 Joe Turbolski 920-893-6752 Systems Integrator	National Football League • 1999 Ralph Beaver 813-282-8612 Game Day Coordination Operations	Televue USA, LLC • 2021 Andy Ruffin 937-475-7255 Antennas Transmitters Measurement Distribution
Broadcast Depot • 2018 Tim Jobe 305-281-7540 TV, Satellite, Radio, IP	Indiana Broadcasters Association • 2019 Dave Arland 317-701-0084 Indiana Association for Radio & TV Broadcasters	Nautel Inc. • 2002 Jeff Welton 877-662-8835 Radio Broadcast Transmitter Manufacturer	Telos Systems/Omnia/Axia • 2003 Jon Landman 216-241-7225 Talk-Show Systems
Broadcast Devices, Inc. • 2015 Robert Tarsio 914-737-5032 Audio RF Support Products	Inovonics Inc. • 2012 Gary Luhrman 831-458-0552 Radio Broadcast Equipment	Nebraska Broadcasters Association • 2024 Jim Timm 402-933-5995 Nebraska Association for Radio and TV Broadcasters	Tennessee Association of Broadcasters • 2024 Chris Baker 615-365-1840 Tennessee Association for Radio and TV Broadcasters
Broadcast Electronics Inc. • 1978 Perry Priestley 217-224-9600 Radio Equipment Manufacturer	Iowa Broadcasters Association • 2024 Lisa Reynolds 515-224-7237 Iowa Association for Radio and TV Broadcasters	Nemal Electronics Int'l Inc. • 2011 Benjamin L. Nemser 305-899-0900 Cables, Connectors, Assemblies and Fiber Optic	Teradek • 2011 John Bisset 949-743-5783 Camera-top ENG Solutions
Broadcast Software International • 2016 Marie Summers 541-338-8588 Radio Automation, Audio Logging	Jampro Antennas Inc. • 2011 Alex Perchevitch 916-383-1177 DTV, FM-HD Radio, DVB-T/T2, ISDB-T, DAB	New Mexico Broadcasters Association • 2024 Monica Armenta 505-881-4444 New Mexico Association for Radio and TV Broadcasters	Texas Association of Broadcasters • 2024 Sydney Haisler Herrmann 512-322-9944 Texas Association for Radio & TV Broadcasters
Broadcast Supply Worldwide • 1986 Brian Walker 800-426-6434 Audio Broadcast Equipment Supplier	Kathrein USA Inc. • 1985 Lisa Kufusi 541-879-2312 Antennas for Broadcasting & Communications	North Carolina Association of Broadcasters • 2024 Lisa Reynolds 919-821-7300 North Carolina Association for Radio and TV Broadcasters	Tieline The Codec Company • 2003 Dawn Shewmaker or Jacob L. Linnick 317-845-8000 Audio Codec Manufacturer
Broadcasters General Store • 2004 Karly Kerstin McBride 352-622-7700 Broadcast Audio Video Distributor	Kentucky Broadcasters Association • 2024 Roger Gribbins 502-460-6712 Kentucky Association for Radio & TV Broadcasters	North Dakota Broadcasters Association • 2024 Beth Helfrich 701-471-9147 North Dakota Association for Radio and TV Broadcasters	Unimar Inc. • 2001 US Sales 315-699-4400 Tower Obstruction Lighting Designer, Manufacturer, Distributor
Burk Technology • 2019 Matt Leland 978-486-0086 x703 Transmitter Facility Control Systems	Katakoo • 2021 Paul Adrian 214-683-0791 Media Workflow Automation	Ohio Association of Broadcasters • 2024 Chad Budreau 614-228-4052 Ohio Association for Radio & TV Broadcasters	Virginia Association of Broadcasters • 2024 Douglas Easter 434-326-9819 Virginia Association for Radio and TV Broadcasters
Cavell, Mertz & Associates Inc., a Division of Capitol Airspace Group, LLC • 2011 Gary Cavell 703-392-9090 Consulting Services	LBA Technology Inc. • 2002 Yancy McNair 713-825-6113 AM/MW Antenna Equipment & Systems	Orban Labs, Inc. • 2011 Mike Pappas 480-403-8300 Audio Processing AMFMTV	Washington State Association of Broadcasters • 2024 Keith Shipman 360-705-0774 Washington Association for Radio and TV Broadcasters
Comrex Corporation • 1997 Chris Crump 978-784-1776 Audio & Video Coders & Telephone Interfaces	Leeward Software • 2019 Nigel Brownnett 310-405-0839 Manage, Monitor, Control	Potomac Instruments • 1978 Zachary Babendriener 301-696-5550 RF Measurement Equipment Manufacturer	Wheatstone • 2010 Jay Tyler 252-638-7000 IP Consoles, Routers & Processors
Continental Electronics • 1976 Dale Dalezio 412-979-3253 TV and Radio Transmitters	Linkup Communications Corporation • 2017 Mark Johnson 703-217-8290 Satellite Technology Solutions	ProAudio.com - A Crouse-Kimzey Co. • 2008 Mark Bradford 800-433-2105 x560 Proaudio Broadcast Equipment Distributor	WideOrbit • 2012 Brad Young 415-675-6700 Radio Automation and Payout
Crawford Broadcasting Company • 2021 Cris Alexander 303-481-1800 Media Company	LumenServe • 2023 Bear Poth 512-423-8323 Tower Lighting	Quintech Electronics and Communications Inc. • 2002 James Herbstritt 724-349-1412 State-of-the-art RF Hardware Solutions	Wisconsin Broadcasters Association • 2024 Michelle Vetterkind 608-255-2600 Wisconsin Association for Radio & TV Broadcasters
CueScript • 2014 Michael Accardi 203-763-4030 Teleprompting Software & Hardware	LYNX Technik • 2007 Steve Russell 661-251-8600 Broadcast Terminal Equipment Manufacturer	QVC • 2011 Chris Alexy 484-701-3431 Multimedia Retailer	
Cumulus Media, Inc. • 2021 Chester Paramore 252-757-279 Audio Media Company	Markertek • 2002 Adam June 845-246-2357 Specialized Broadcast & Pro-Audio Supplier	Rohde & Schwarz • 2003 Walt Gumbert 724-693-8171 Transmitters, Test & Measurement, Video	
Davicom, Division of Comlab, Inc. • 2014 Louis-Charles Cuierrier 418-682-3380 x512 Remote Site Monitoring and Control Systems	Maryland/DC/Delaware Broadcasters Association • 2024 Lisa Reynolds 919-714-7400 Maryland/DC/Delaware Association for Radio and TV Broadcasters	Ross Video Ltd. • 2000 Jared Schatz 613-228-0688 Manufacturer, Television Broadcast Equipment	
Dielectric • 1995 Cory Edwards 207-655-8131 Radio & TV Antenna Systems and Monitoring	MASV • 2024 Jon Riis 613-299-4253 Large File Transfer	Sage Alerting Systems Inc. • 2010 Harold Price 914-872-4069 x113 Emergency Alert Systems Products	
Digital Alert Systems, LLC • 2005 Bill Robertson 585-765-1155 Emergency Alert Systems	Michigan Association of Broadcasters • 2024 Dan Kelley 517-484-7449 Michigan Association for Radio and TV Broadcasters	SCMS Inc. • 2000 Bob Cauthen 800-438-6040 Audio and RF Broadcast Equipment Supplier	
Drake Lighting • 2015 Dave Sheppard 270-804-7383 FAA Obstruction Lighting - Medium and High Intensity	Micronet Communications Inc. • 2005 Jeremy Lewis 972-422-7200 Coordination Services/Frequency Planning	Sierra Automated Systems and Eng. Inc. • 2011 Al Salci 818-840-6749 Routers, Mixers, Consoles, Intercoms	

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Member Spotlight: George Werl

Member Stats

SBE Member Since: 1977

SBE Certifications: CPBE

Employer: Commsulting, Inc.
(retired)

Position: President and
Founder

Location: Minneapolis, MN

Chapter: 17 Central Minnesota

I'm Best Known For: Managing site construction projects involving multiple (competitive) broadcast ownerships.

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

A. The SBE provides the ability of engineers from different stations to freely exchange technical information, to work together, sometimes collaborating on repairs to each other's transmission systems.

Q. What got you started in broadcast engineering?

A. It was 1963, I was 14, a "wire nut" that my parents did not know what to do with. My cousin, an engineer at WQED-TV, took me to the TV studio production crew where I worked on "Mister Rogers" (in black and white) among other things. Penn State introduced me to college radio at WDFM. Later I was chief engineer at KQRS in Minneapolis. In 1990 I got an MBA and started my own broadcast engineering consulting business.



George working on a PC board.

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

A. I spent time with John H. Mullaney working on setting up a folded unipole and making field measurements with a Nems-Clarke. Over the years following, he always had time for my questions.

Q. What do you like most about your job?

A. Broadcast engineering is a DC-to-light endeavor. I like the challenge of everything engineering.

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

A. ...enjoy amateur magic, playing pool, 3-D printing, teaching math at Kumon, mentoring in antique radio repairs/restorations and working on my 1980s S-100 computer system.

Q. What's something people don't know about you?

A. I've been to Guatemala several times to work on remote transmitter sites (you need to bring everything you need with you). On one trip we were invited to dinner by a local village elder in a dirt floor thatched roof hut, no electricity, food cooked outside over a stone fireplace. It was an evening of multi-language conversation (with interpreters) I will never forget.

Q. What's your favorite gadget?

A. My hot-air rework station and microscope. I just started getting into PC board fabrication and surface-mount construction.

LEGAL, from p. 10

nical matters, they nonetheless serve as important context regarding the current FCC Chair's monitoring of and approach to regulating broadcasters. Whether and how the foregoing issues will progress, and whether Chair Carr will eventually launch a proceeding to consider the "public interest" standard, remains to be seen.

Although the foregoing list of items is fairly robust and wide-ranging – especially given that as of this writing we are still only a few weeks into Chair Carr's tenure as chairman – there are multiple other broadcast issues on which Carr has already made his views known. Among other things, the new chair has also: (1) indicated support for potential deregulation of broadcast ownership rules; (2) supported the AM for Every Vehicle Act, which would preserve AM radio's place in vehicle dashboards for the foreseeable future; (3) at the behest of Senator Marsha Blackburn, asked the Enforcement Bureau to investigate broadcast practices for potential payola violations; and (4) launched an Enforcement Bureau investigation into the diversity, equity, and inclusion (DEI) programs of Comcast and NBCUniversal.

Fundamentally, thus far Chair Carr has shown that he will not hesitate to utilize the Commission's weight and authority to regulate broadcasters, including by rapidly investigating any actions he believes to be a violation of FCC rules or broadcasters' public interest obligations. The ultimate results and effects of these inquiries and investigations are, of course, not yet known. But it does currently seem likely that under Chair Carr's leadership the FCC will continue to be active in the broadcast regulatory environment, regardless whether it implicates technical issues, programming matters, or others.

NAB SHOW, continued from p. 1

ing gift cards, broadcast equipment and more. Check the list of event sponsors in this issue.

The SBE will administer an SBE Certification exam on Tuesday at the convention. Advance registration is required.

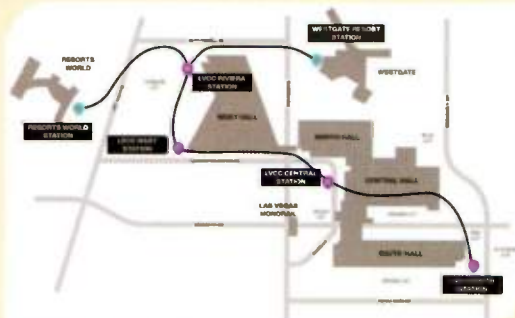
Be sure to check the complete event schedule on the SBE NAB Show events page on our website (sbe.org/nabshow), which is also linked from the home page.

Another helpful resource to plan your convention time is our SBE Sustaining Member Online Resource Guide (sbe.org/guide). All these sources provide details for SBE committee meetings, the board of directors meeting, SBE certification exams, and the daily booth prize drawing.

Looped In

The Las Vegas Loop Adds a Stop at the Westgate

The Las Vegas Loop started operation in 2021. It has expanded service since then. The newest stop in the system is at the Westgate Resort and Casino. A stop at the Encore is planned to be opened later in 2025.



WELCOME TO THE SBE

NEW MEMBERS

Olufemi Ayekomilogbon - Akure, Ondo State, Nigeria
Valerie D. Blue - Jackson, MS
Clayton W. Burnwick - Champaign, IL
Craig Casillas - Montgomery, AL
John A. Charette - Dupont, PA
Jordan E. Christie - Norfolk, VA
Timon E. Covert - Wheat Ridge, CO
Ryan Denham - Normal, IL
Frederick V. Diego - Moreno Valley, CA
Kelleen E. DiVeglia - Blythewood, SC

Casey L. Eakins - St. Paul, MN
John P. Eidemiller - Toledo, OH
Jeff D. Faulkner - Lincoln, NE
Ryan D. Fuller - Kellyton, AL
Anthony Galindo - New York, NY
Harvey S. Galler - St. Louis, MO
Alvaro Game - Washington, DC
Garrett G. Gracey - Riverside, CA
Robert M. Grayson - Brunswick, TN
Kaleb M. Grine - Toledo, OH
Ernesto Jay-Granda - Miami, FL

Amaya D. Korakanto - Bloomington, IL
Maddox M. Murray - Benton, AR
Randy L. Navarrete-solis - Idaho Falls, ID
Sam C. Nishoff - Billings, MT
Victor Ordenez - Houston, TX
Christian I. Perez - Moreno Valley, CA
Glenn R. Robinson - Clark, NJ
Tobias J. Santos - Thousand Oaks, CA
Maynard J. Scales - Norfolk, VA
Charlie Serra - Easton, PA
Jon P. Simpson - Grapevine, TX

Sekou L. Stewart - Chandler, AZ
Shakita M. Thompson - Menifee, CA
Dustin Traina - Centerport, NY
Onwy C. Uzoigwe - Baltimore, MD
Jody L. Vavrek - Seward, PA
Dev J. Welch - Milton, VT
Rusty Welsh - Augusta, GA
Eric D. Werner - Bethlehem, PA
Greyson Wilson - San Francisco, CA
Eric Wotila - Buffalo, NY

RETURNING MEMBERS

Dan Agostino - Austin, TX
Fernando Bartolozzi - Concord, NH
Gregory A. Benson - Monticello, ME
Thomas Bole - Boise, ID
Milton E. Campbell - Veneta, OR
John C. Chrystal - Yucaipa, CA
Scott D. Eiler - Mint Hill, NC

Tiffany Gaines - Glen Allen, VA
Patrick W. Gough - Carrollton, TX
Ma'en Halawani - Honolulu, HI
Michael D. Halleck - Austin, TX
Harold S. Hampton - Beaverton, OR
Paul W. Hughes - Dacula, GA
Mark A. Johnson - Panama City, FL

David Jones - Largo, FL
Damon Maxwell - Stone Mountain, GA
Yancy T. McNair - Milton, FL
Dennis L. Nice - Telford, PA
Donald L. Perkins - Johnson City, NY
Kevin A. Plumb - Trumbull, CT
Alex D. Roman - Verona, NJ

Jay B. Schell - Haskins, OH
Aaron C. Schultz - Bradenton, FL
Rob D. Stilson - College Place, WA
Dana A. Swann - Ellicott City, MD
Rich W. Thomas - Columbus, OH
Michael R. Whitmore - Calgary, AB

NEW STUDENT MEMBERS

Parker Driscoll - Erie, CO
Kymberlea Gonzales - Pasco, WA
Keyara Gonzales - Pasco, WA
Jose A. Ontiveros - Spring, TX
Corey M. Teuton - Streetsboro, OH
Nayab Warach - College Station, TX

NEW ASSOCIATE MEMBERS

Craig B. Day - Chandler, IN
Dwayne D. Sam - Washington, DC
Greg Simon - Plentywood, MT
Chris Vaccaro - Lake Grove, NY

In Memoriam

Michael E. Seaver - Quincy, IL

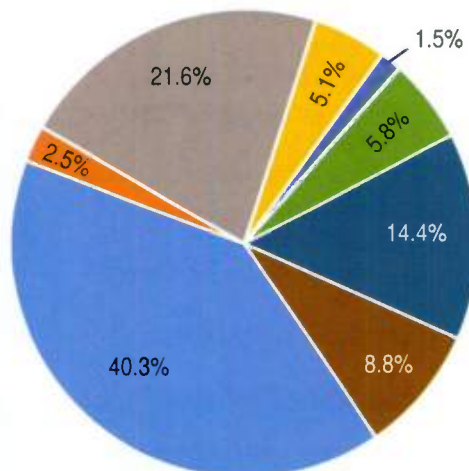
2024 Finances in Review

The Society of Broadcast Engineers, Inc. completed 2024 with net revenue from all operations of \$17,828. Gross income from all sources was \$1,255,987, while expenses were \$1,238,159. The value of SBE savings and investments as of December 31, 2024, were \$1,484,777. Total SBE assets as of December 31, 2024, were \$1,530,812.

Long-term investments gain totaled \$75,330. A percentage breakdown of SBE income from program operations and expenses is depicted in the accompanying charts. A financial statement will be published in the June issue of *The Signal*, following completion of the Society's annual financial audit.

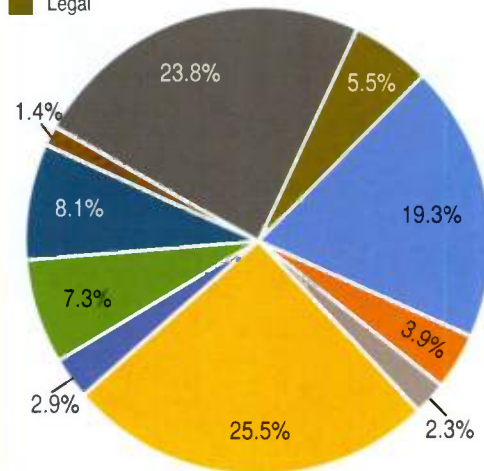
Income

- Frequency Coordination
- Publications/Advertising (non-Cert)
- Membership Dues
- Sustaining Member Dues
- National Meeting
- Certification
- Education
- Other Income



Expenses

- Frequency Coordination
- Communications w/ Members
- Chapter Rebates
- Member Services
- National Meeting
- Certification
- Education
- Depreciation
- Administration
- Legal



SBE Sustaining Members Providing Prizes at the NAB Show

Sunday

SBE Booth Drawing \$200 Amazon Gift Card Give-away, sponsored by **Nemal Electronics**

Monday

SBE Membership Meeting

The first 100 people in attendance receive an SBE-logoed lens cloth and SBE 60th anniversary member pin courtesy of **Blackmagic Design**.
SBE Booth Drawing \$200 Amazon Gift Card Give-away, sponsored by

Linkup Communications

Blackmagic Design Two Micro Camera 4K G2

SBE Member Reception

Three \$100 Amazon gift cards from **American Tower**

Two \$100 Amazon gift cards from the **SBE**

A Rocketbook from **Dielectric**

A backpack from **Heartland Video Systems**

Tuesday

SBE Booth Drawing \$200 Amazon Gift Card Give-away, sponsored by **Blackmagic Design**

SBE Booth and Hours

Booth NL2

Sunday: 10 a.m. - 6 p.m.

Monday: 9 a.m. - 4 p.m.

Tuesday: 9 a.m. - 6 p.m.

Wednesday: 9 a.m. - 2 p.m.

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MEMBERS ON THE MOVE



▶ **Alan Jurison**, CPBE, DRB, AMD, CBNE, joins Quu, leading innovation and special projects,

▶ **Patrick Cross** has been elected to partner at Brooks Pierce, Raleigh, NC.



▶ **Dan Slentz** is director of Blue Streak Media at John Carroll University, Cleveland.



▶ **Shane Toven**, CPBE, DRB, CBNE, is director of technology at Frandsen Media, which includes Sandhill Media, Cache Valley Media, and Canyon Media.



▶ **Yancy McNair** is vice president of technical operations at Cumulus Media, Atlanta.



Send your news to Chriss Scherer at cscherer@sbe.org.

MARK YOUR CALENDAR

S	M	T	W	T	F	S
SBE Compensation Survey Opens April 1, 2025						
SBE Dues Renewal Deadline April 1, 2025 sbe.org/renew						
SBE Ennes Workshop @ the 2025 NAB Show Las Vegas April 4-5, 2025 sbe.org/ennes_workshop						
2025 NAB Show Las Vegas April 5-9, 2025 nabshow.com						
SBE Membership Meeting & Reception NAB Show April 7, 2025						
SBE Certification Exams NAB Show April 8, 2025 sbe.org/certification Application deadline closed						
SBE WEBxtra online April 21, 2025 sbe.org/webxtra						
SBE WEBxtra online May 19, 2025 sbe.org/webxtra						

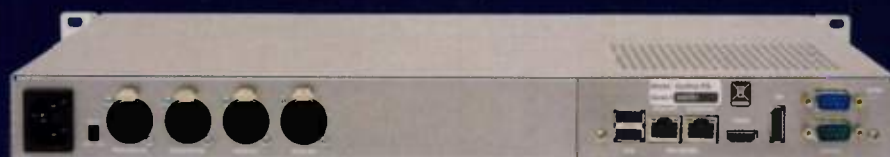
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